

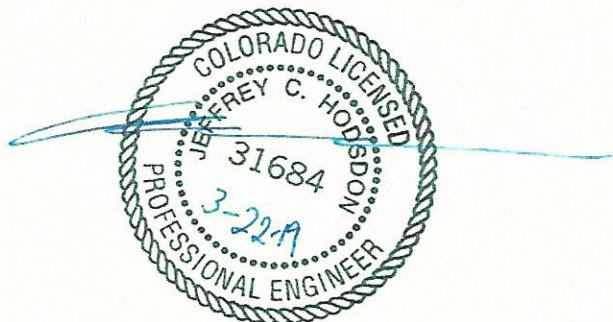


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## Townhomes at Bradley Crossroads Traffic Impact Study (LSC #194210) March 22, 2019

### Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



### Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

A handwritten signature in blue ink, consisting of a stylized 'A' followed by a horizontal line.

3/25/19  
Date

Add PCD File No. PPR1846

Engineering Documents  
Reviewed By:  
Daniel Torres  
[danieltorres@elpasoco.com](mailto:danieltorres@elpasoco.com)  
EPC Planning & Community  
Development Department



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March 22, 2019

David R. Gorman, P.E.  
M.V.E., Inc.  
1903 Lelaray Street, Suite 200  
Colorado Springs, CO 80909

RE: Townhomes at Bradley Crossroads  
El Paso County, CO  
Traffic Impact Study  
LSC #194210

Dear Mr. Gorman,

LSC Transportation Consultants, Inc. has prepared this traffic impact study for the proposed Townhomes at Bradley Crossroads residential development with 78 townhome units in El Paso County, Colorado. Located at El Paso County parcel ID 6502407102, the currently-vacant 5.24-acre site is situated south of Bradley Road, north of Gladiator Drive, east of Lincoln Plaza Drive, and west of Hancock Expressway.

Four access points are proposed for the property (all existing):

- Bradley Road/Lincoln Plaza Drive
- Three-quarter access on Bradley Road
- Right-in/right-out (RIRO) access on Main Street
- Main Street/Gladiator Drive

The previous report by LSC for this site was dated May 10, 2006. This report has been prepared for submittal to El Paso County.

## REPORT CONTENTS

The preparation of this report included the following:

- An inventory of existing roadway and traffic conditions on Bradley Road, Main Street, Gladiator Drive, and Lincoln Plaza Drive adjacent to the site, including surface conditions, functional classification, widths, pavement markings, traffic control signs, posted speed limits, intersection and access spacing, roadway and intersection alignments, roadway grades, and auxiliary turn lanes.

- Weekday peak-hour turning movement traffic counts at the intersection of Bradley Road/Lincoln Plaza Drive and Hancock Expressway/Bradley Road.
- Estimated average weekday traffic (AWT) volumes for all access points adjacent to the proposed residential development on Bradley Road and Main Street.
- Projections of 20-year background traffic volumes on Bradley Road, Main Street, Gladiator Drive, and Lincoln Plaza Drive adjacent to the site.
- The proposed site land use and access plan.
- Estimates of average weekday and weekday peak-hour trip generation for the proposed Townhomes at Bradley Crossroads development and the estimated directional distribution of site-generated vehicle-trips on the streets and intersections adjacent to the site.
- Projected site-generated and resulting total peak-hour intersection traffic volumes at the site access points on Bradley Road and Main Street.
- Projected total daily and peak-hour traffic volumes on Bradley Road and Main Street adjacent to the site.
- Intersection level of service analysis at all access points adjacent to the proposed residential development on Bradley Road and Main Street.
- Evaluation of existing and long-term projected intersection volumes to determine the short-term requirements for auxiliary right-/left-turn lanes on Bradley Road and Main Street adjacent to the site based on the criteria in El Paso County's *Engineering Criteria Manual* (ECM). Also included are potential long-term lane requirements.
- Findings and recommendations.

## **LAND USE AND ACCESS**

Figure 1 shows the site location relative to the adjacent and nearby streets. The proposed Townhomes at Bradley Crossroads residential development is proposed to contain approximately 78 multi-family dwelling units. Located at El Paso County parcel ID 6502407102, the site is southwest of the intersection of Hancock Expressway/Bradley Road.

Figure 1 shows the area circulation and access points to the public streets and Figure 2 contain the proposed site plan showing the individual residential units, on-site circulation, and the development entry points.

Should this be 2006? I couldn't find a 2016 study for the Lincoln Commons townhomes

Please verify this date. Per the records I found the original study for the entire Lincoln Plaza site was in 2004 with an update in 2005.

Four existing access points to the arterial streets will be used by the property, with two on Bradley Road and two on Main Street. All are currently two-way stop-sign-controlled (TWSC):

- Bradley Road/Lincoln Plaza Drive intersection
- Three-quarter access on Bradley Road (800 feet west of Hancock Expressway/Bradley Road)
- RIRO access on Main Street (410 feet south of Hancock Expressway/Bradley Road)
- Main Street/Gladiator Drive intersection.

Note that there are also reports in 2008 and 2010 for the Bradley Crossroads site which includes this lot.

### PREVIOUS AREA TRAFFIC REPORTS

The previous report by LSC for this site was dated May 10, 2006. This 2006 study was for the entire Lincoln Plaza development, which included this site plus all other adjacent parcels (some of which have since been developed). LSC prepared a report for the adjacent townhome development (dated May 10, 2016) and the Bradley Storage Time development (dated June 1, 2017) for the site located on the north side of the intersection of Lincoln Plaza Drive/Bradley Road. The LSC study for the Proby/Hancock Commercial center (dated January 26, 2015) was also utilized, in part, to estimate the background traffic volumes at the Bradley/Hancock/Main Street intersection.

Please include descriptions of Gladiator Drive and Service Road.

### ROAD AND TRAFFIC CONDITIONS

Figure 1 shows the streets adjacent to and in the vicinity of the site. Adjacent streets serving the site are identified below followed by a brief description of each:

four-lane Principal Arterial

**Bradley Road** extends from just west of Academy Boulevard to Goldfield Drive. Bradley Road is classified as a Principal Arterial on the El Paso County *Major Transportation Corridors Plan (MTCP)*. Adjacent to the site, Bradley Road is a two-lane roadway with left-turn lanes and right-turn lanes at Lincoln Plaza Drive and a posted speed limit of 40 miles per hour (mph). The 2016 updated to the MTCP shows expansion of Bradley Road to a four-lane roadway by 2040.

**Hancock Expressway** is a Principal Arterial that extends north from Bradley Road and west to Fountain Boulevard, where it becomes Union Boulevard. South of Bradley Road, Hancock Expressway becomes Main Street. The intersection of Hancock/Main/Bradley is signalized with raised medians and left-turn lanes. Adjacent to the site, Hancock Expressway is a four-lane street with a raised median and a posted speed limit of 40 mph.

**Lincoln Plaza Drive** is a 40-foot-wide, two-lane Urban Local street that extends south from Bradley Road to Witches Hollow Lane.

### Existing Traffic Volumes

Vehicular turning movement counts were conducted at the following intersections:

- Hancock Expressway/Bradley Road
  - Wednesday, March 6, 2019 from 6:30-8:30 a.m.
  - Wednesday, March 6, 2019 from 4:00-6:00 p.m.
- Bradley Road/Lincoln Plaza Drive
  - Tuesday, March 12, 2019 from 6:30-8:30 a.m.
  - **Monday, March 18, 2019 from 4:00-6:00 p.m.**
- Main Street/right-in/right-out (RIRO) access
  - Tuesday, March 12, 2019 from 6:30-8:30 a.m.
  - **Monday, March 18, 2019 from 4:00-6:00 p.m.**

Per ECM Section B.3.1.A counts shall be obtained on Tuesday, Wednesday or Thursday.

Provide counts for Gladiator/Main St.

Figure 3 shows these turning movement volumes, as well as the average weekday traffic volumes (estimated based on factored peak-hour count data) on the study area streets. Raw count data are attached.

**TRIP GENERATION**

Estimates of the vehicle-trips projected to be generated by the Townhomes at Bradley Crossroads residential development have been made using the nationally published trip generation rates from *Trip Generation, 10<sup>th</sup> Edition, 2017* by the Institute of Transportation Engineers (ITE). ITE Land Use Category 220 – “Multi-Family Housing (Low-Rise),” along with corresponding trip generation rates, have been used to develop the trip generation estimates for site buildout. The site plan, shown in Figure 2, shows 78 dwelling units within the proposed residential development.

Table 1 below presents a summary of the estimated site trip generation. A detailed trip generation estimate for the development, including ITE rates for the proposed land uses, is presented in Table 7 (attached).

The proposed Townhomes at Bradley Crossroads residential development is projected to generate about 549 vehicle-trips on the average weekday during a 24-hour period, with approximately half entering and half exiting the site. During the morning peak hour, approximately 9 entering vehicles and 29 exiting vehicles would be generated. Approximately 30 entering and 18 exiting vehicles would be generated by the site during the evening peak hour.

**Table 1: Estimated Site Vehicle-Trip Generation**

Analysis Period	Weekday		
	In	Out	Total
Morning Peak Hour	9	29	38
Evening Peak Hour	30	18	48
Daily/24-hour	275	275	549

## TRIP DISTRIBUTION AND ASSIGNMENT

### Trip Directional Distribution

Estimating the directional distribution of site-generated vehicle-trips to the study area roads and intersections is a necessary component in determining the site's traffic impacts. Figure 4 shows the percentages of the site-generated vehicle-trips projected to be oriented to and from the site's major approaches. Estimates have been based on the following factors: the proposed new land use, the area street and road system serving the site, and the site's geographic location relative to unincorporated El Paso County and the City of Colorado Springs.

### Site-Generated Traffic

Please include Gladiator Drive in all your traffic volume analysis.

Site-generated traffic volumes at the proposed site access points on Bradley Road and Main Street have been calculated by applying the directional distribution percentages estimated by LSC (from Figure 4) to the trip generation estimates (from Table 7). Figure 5 shows the projected site-generated traffic volumes for the weekday morning and evening peak hours.

### Existing-Plus-Site-Generated Traffic Volumes

Figure 6 shows the sum of the existing traffic volumes (from Figure 3) and site-generated peak-hour traffic volumes (shown in Figure 5). These volumes represent the projected short-term total traffic following site buildout.

### Estimated Future 2040 Background Traffic Volumes

Figure 7 shows the projected 20-year background traffic volumes for the year 2040. Background volumes include increases in through traffic and trips generated by other area future development, but do **not** include projected traffic to be generated by the proposed Townhomes at Bradley Crossroads residential development. Estimated 2040 background traffic volumes on Bradley Road and Main Street have been based in-part on estimates from the Bradley Storage Time report (which were based on projected 2040 volumes in the MTCP) with adjustments given the current traffic data. Background traffic volumes include estimates of additional trips to be generated by the remaining adjacent commercial parcels (which are currently vacant).

### Future 2040 Total Traffic Volumes

Figure 8 shows the projected 2040 total traffic volumes, which are the sum of 2040 background traffic volumes (from Figure 7) plus the site-generated traffic volumes (from Figure 5).

Include Gladiator Drive/Main St. analysis.

**LEVEL OF SERVICE ANALYSIS**

The following intersections have been analyzed to determine the projected intersection levels of service for short- and long-term traffic scenarios for the morning and evening peak-hour time periods:

- Bradley Road/Lincoln Plaza Drive
- Three-quarter access on Bradley Road
- RIRO access on Main Street
- Bradley Road/Main Street

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from “A” to “F.” LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 2 shows the level of service delay ranges for signalized and unsignalized intersections.

**Table 2: Intersection Levels of Service Delay Ranges**

Level of Service	Signalized Intersections		Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	V/C <sup>(1)</sup>	Average Control Delay (seconds per vehicle) <sup>(2)</sup>
A	10.0 sec or less	Less than 0.60	10.0 sec or less
B	10.1-20.0 sec	0.60-0.69	10.1-15.0 sec
C	20.1-35.0 sec	0.70-0.79	15.1-25.0 sec
D	35.1-55.0 sec	0.80-0.89	25.1-35.0 sec
E	55.1-80.0 sec	0.90-0.99	35.1-50.0 sec
F	80.1 sec or more	1.00 and greater	50.1 sec or more

(1) Source: Transportation Research Circular 212  
 (2) For unsignalized intersections if V/C ratio is greater than 1.0 the level of service is LOS F regardless of the projected average control delay per vehicle.

**Unsignalized Intersections**

A summary of LOS during the weekday morning and evening peak hours for the following unsignalized intersections is shown in Table 3. Detailed Synchro and SimTraffic reports are attached.

- Bradley Road/Lincoln Plaza Drive
- Bradley Road/three-quarter access
- Main Street/RIRO access

Please separate the turn movement results, specifically the left turn movements. Per the provided calculations there are LOS of E and F indicated. Please address this in the text and discuss what steps can be taken to bring them to a satisfactory level.

**Table 3: Intersection Level of Service Analysis Results (Unsignalized)**

Scenario	Bradley Rd/Lincoln Plaza Dr**				RI/RO Access		Bradley + 3/4 Access			
	Traffic Control	EBL	WBL	NB	SB	Traffic Control	NBL	Traffic Control	NBL	WBL
<b>A.M. Peak Hour</b>										
2019 Existing	TWSC	-	A	C	-	TWSC	B	TWSC	A	A
2019 Existing + Site		A	A	C	B		C		A	A
2040 Background		B			C				B	
2040 Background + Site										
<b>P.M. Peak Hour</b>										
2019 Existing	TWSC	-	A	C	-	TWSC	B	TWSC	A	A
2019 Existing + Site		A	A	D	C		B		B	B
2040 Background		B			B				B	
2040 Background + Site										
<p>* SimTraffic analysis results shown in place of Synchro output for this intersection only. SimTraffic simulations indicated sufficient gaps would be created due to signalized intersection of Main St/Bradley Rd. This would allow several NBL turning vehicles to exit at a time.</p> <p>TWSC = two-way stop sign control EBL = eastbound left, WBL = westbound left, NBL = northbound left, SBL = southbound left</p>										

As shown in Table 3, all turning movements/intersection approaches at all proposed site access intersections with Bradley Road and Main Street are projected to operate at LOS D or better during both peak periods through the 20-year horizon if they are to remain two-way stop-sign-controlled (TWSC).





**Signalized Intersection**

A summary of LOS for all short- and long-term traffic scenarios during the weekday morning and evening peak hours is shown in Table 3. Detailed Synchro reports are attached.

Table 4 shows the signalized LOS results.



**Table 4: Intersection Level of Service Analysis Results (Signalized)**

Scenario	Main St/Bradley Road					
	Traffic Control	Overall	EBL	WBL	NBL	SBL
						
<b>A.M. Peak Hour</b>						
2019 Existing	Signal	B	B	C	B	B
2019 Existing + Site				D		
2040 Background		C	C	C	C	B
2040 Background + Site						
<b>P.M. Peak Hour</b>						
2019 Existing	Signal	B	B	B	B	C
2019 Existing + Site						
2040 Background		C	C	D	B	C
2040 Background + Site						
EBL = eastbound left, WBL = westbound left, NBL = northbound left, SBL = southbound left						

For all individual turning movements and overall, the signalized intersection of Bradley Road/Main Street are projected to operate at LOS D or better during both peak hours through the 2040 horizon year.

**TRAFFIC SIGNAL WARRANT ANALYSIS**

Please discuss whether or not any of the other traffic signal warrant analysis would apply such as the crash experience warrant.

The intersection of Bradley Road/Lincoln Plaza Drive has the potential to meet a warrant(s) for a traffic control signal in the future. The combination of major street approach volumes (includes the sum of northbound and southbound approach volumes) and minor street left-turn volumes (eastbound approach) were analyzed to determine if the combination would exceed the threshold criteria for Four-Hour Vehicular Volume Traffic Signal Warrants in the *2009 Manual on Uniform Traffic Control Devices (MUTCD)*.

Four separate one-hour periods within the following morning and late afternoon/evening periods have been analyzed:

- 6:30 a.m. – 8:30 a.m.
- 4:00 p.m. – 6:30 p.m.

**Warrant No. 2 - Four-Hour Vehicular Warrant**

The MUTCD Warrant 2 (Four-Hour Vehicular Volume) contains a graph with threshold curves based on major and minor street traffic volumes, the number of intersection approach lanes on

the major and minor streets, and the speed of the major street. This graph is shown in MUTCD Figure 4C-1.

Based on the figure below it does not appear that any fell above the threshold. Please revise statement.

### 2019 Existing Plus Site-Generated Traffic

Results from the four-hour traffic signal warrant analysis for the short-term background plus site-generated traffic scenario are shown in the Warrant 2, Four-Hour Vehicular Volume (MUTCD Figure 4C-1) signal warrant chart in Figure 9. Fewer than four separate major/minor street volumes fell above the minimum threshold curve for an intersection with one lane for the major approach and one lane for the minor (northbound) approach. As a result, the Four-Hour Vehicular Volume Traffic Signal Warrant threshold at the intersection of Bradley Road/Lincoln Plaza Drive is **not** projected to be exceeded during the morning or evening peak periods based on the 2019 existing plus site-generated traffic scenario.

Note: Northbound right turns have not been included in the side-street volumes.

Figure 9: MUTCD Warrant 2, Four-Hour Vehicular Volume (2019 Existing + Site)



Major and minor street volumes shown in Figure 9 above are summarized in Table 5 below.

**Table 5: Major/Minor Volumes for 4-Hour Signal Warrants (Short-Term Background + Site)**

Start	End	Major Street Volume	Minor Street Volume	8-Hour Warrant Threshold Met?
6:30	7:30	1034	73	No
7:30	8:30	731	77	No
4:00	5:00	1030	47	No
5:00	6:00	1027	42	No

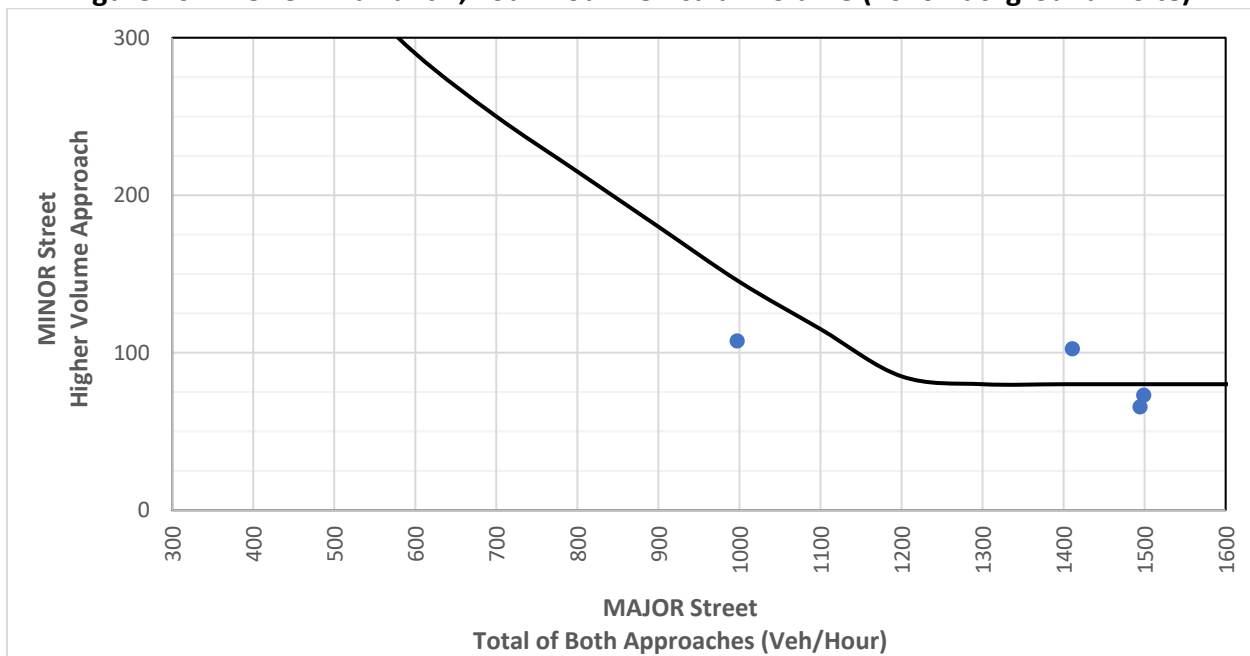
**2040 Total Traffic**

Note: The 2016 update to the MTCF shows expansion of Bradley Road to a four-lane roadway by 2040. As such, the MUTCD curve for an intersection with two lanes for the major approach and one lane for the minor (northbound) approach was used for the 2040 total traffic scenario.

Results from the four-hour traffic signal warrant analysis for the 2040 background-plus-site-generated traffic scenario are shown in the Warrant 2, Four-Hour Vehicular Volume (MUTCD Figure 4C-1) signal warrant chart in Figure 10. Fewer than four separate major/minor street volumes fall above the minimum threshold curve to meet a signal warrant. As a result, the Four-Hour Vehicular Volume Traffic Signal Warrant is **not** projected to be met at the intersection of Bradley Road/Lincoln Plaza Drive for the 2040 background plus site-generated traffic scenario.

Note: Northbound right turns have not been included in the side-street volumes.

**Figure 10: MUTCD Warrant 2, Four-Hour Vehicular Volume (2040 Background + Site)**



Please address in the text.

Major and minor street volumes shown in Figure 10 above are summarized in Table 6 below.

**Table 6: Major/Minor Volumes for 4-Hour Volume Signal Warrants (2040 Background + Site)**

Start	End	Major Street Volume	Minor Street Volume	8-Hour Warrant Threshold Met?
6:30	7:30	1411	102	Yes
7:30	8:30	997	107	Yes
4:00	5:00	1499	73	No
5:00	6:00	1495	66	No

### AUXILIARY TURN LANE ANALYSIS

Auxiliary left- and right-turn lanes already have been constructed on Bradley Road between the intersections of Bradley Road/Lincoln Plaza Drive and Bradley Road/Hancock/Main Street in anticipation of future buildout of all these undeveloped parcels. These lane improvements were approved and constructed as part of the overall/greater Lincoln Plaza development

### CONCLUSIONS

- The site is projected to generate about 549 new driveway vehicle-trips on the average weekday.
- During the weekday morning peak hour of adjacent street traffic, 9 vehicles would enter the site while 30 vehicles would exit.
- During the weekday evening peak hour of adjacent street traffic, 30 vehicles would enter the site while 18 vehicles would exit.
- All individual turning movements and approaches at all studied intersections are projected to operate at LOS D or better during both peak hours through the 2040 horizon year.
- As this project is part of a larger previously approved and partially completed development, the offsite and onsite roadway infrastructure is already in-place.
- Projected future volumes at the currently unsignalized intersection of Bradley Road/Lincoln Plaza Drive would not exceed the MUTCD threshold criteria for Four-Hour Vehicular Volume Traffic Signal Warrants.

-State what the current applicable Transportation Impact Fees are and what option the developer will be selecting for payment

The previous report (June 10, 2008) for the site indicated that this area was to be a mini-warehouse. The current proposal has a greater traffic impact than the mini-warehouse. Is the infrastructure (auxiliary turn lanes, lengths, taper, storage, etc.) that was previously completed still adequate? Are the roads (Gladiator, Service rd, Lincoln plaza, etc.) still adequate due to the impact of this development? Please address this in your report.

Please contact me if you have any questions regarding this report.

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By: Jeffrey C. Hodsdon, P.E., PTOE  
Principal

JCH:JAB

Enclosures: Table 7  
Figure 1 - Figure 8  
Traffic Count Reports  
Synchro LOS Reports  
SimTraffic LOS Reports

**Table 7: Detailed Trip Generation Estimate**

ITE		Value Units		Trip Generation Rates <sup>(1)</sup>				Total Trips Generated					
				Average	A.M.		P.M.		Average	A.M.		P.M.	
Code	Description			Weekday	In	Out	In	Out	Weekday	In	Out	In	Out
220	Multi-Family Housing (Low-Rise)	78	DU	7.04	0.11	0.37	0.38	0.22	549	9	29	30	18
(1) DU = dwelling units (2) Source: Trip Generation, 10th Edition, 2017, by the Institute of Transportation Engineers (ITE)													



Not to scale



Figure 1

# Vicinity Map

Townhomes at Bradley Crossroads (LSC# 194210)





Not to scale

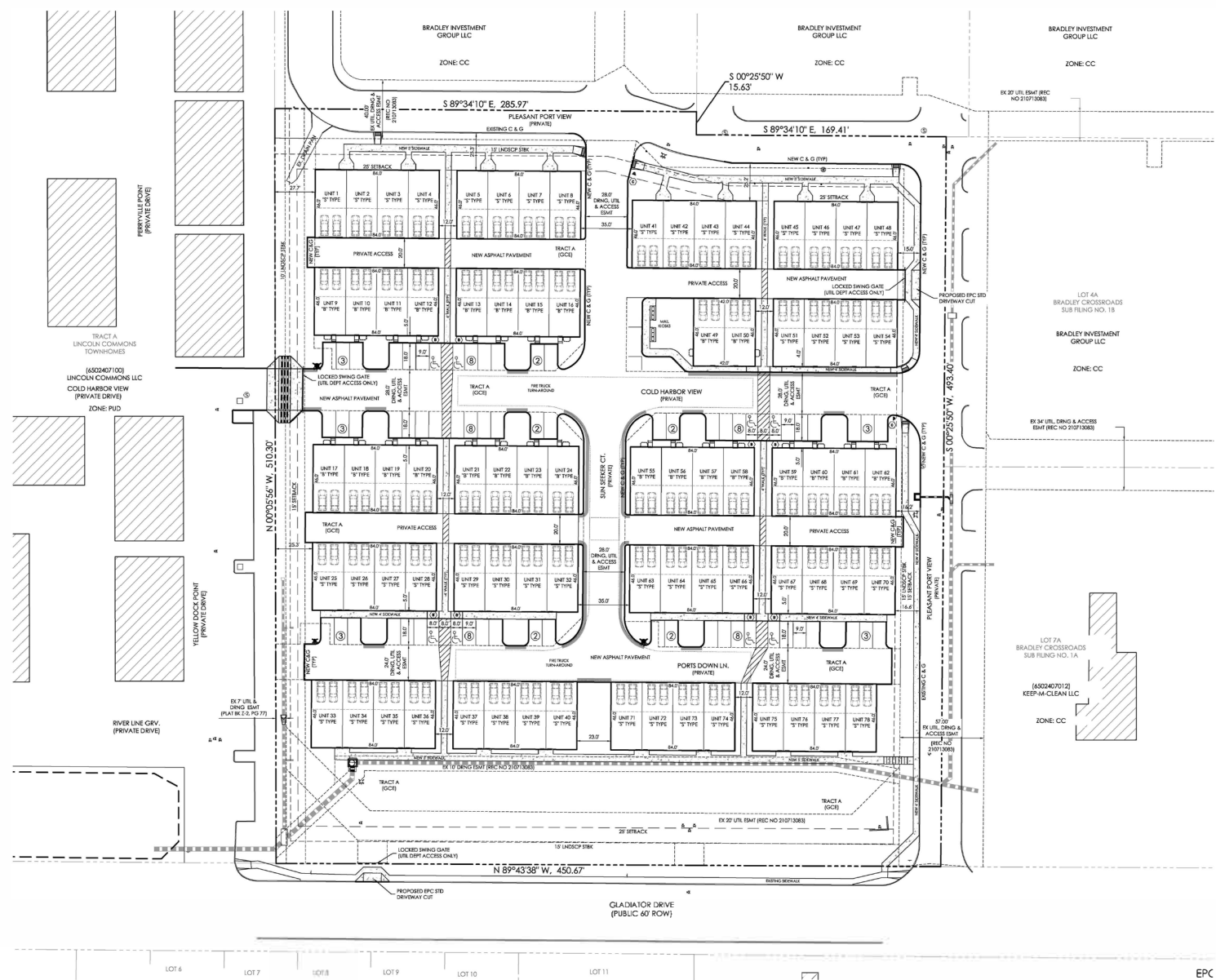
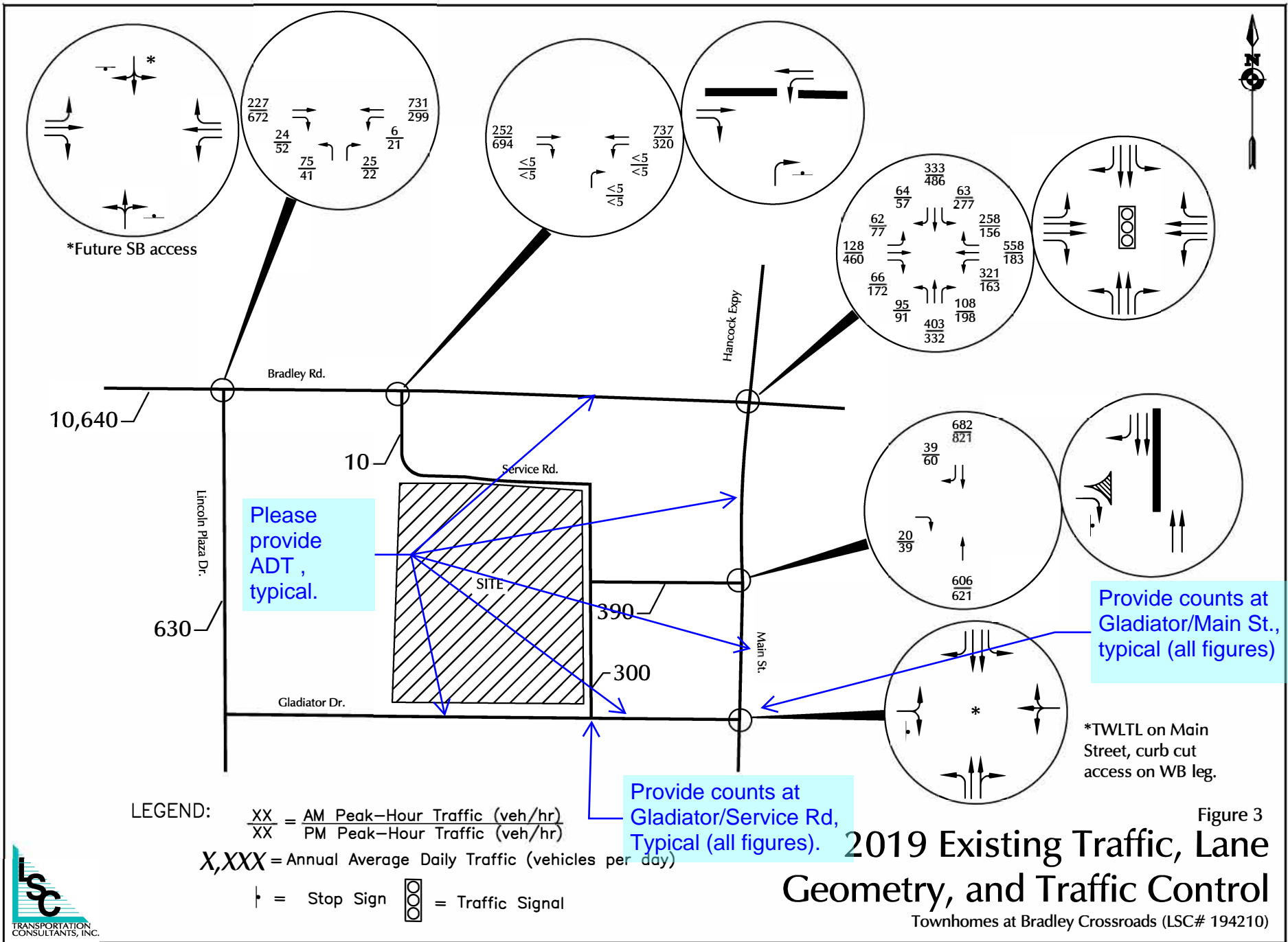
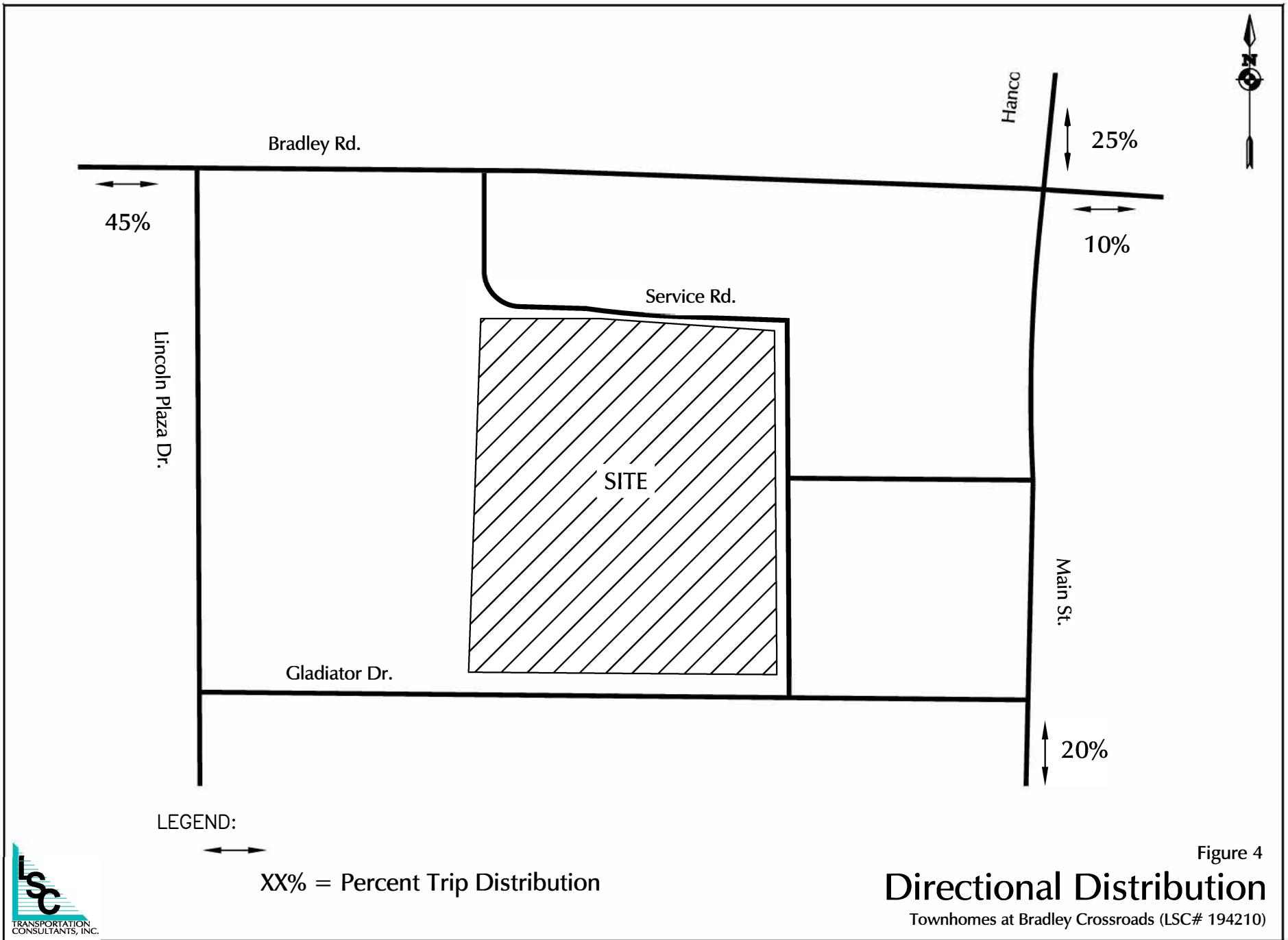


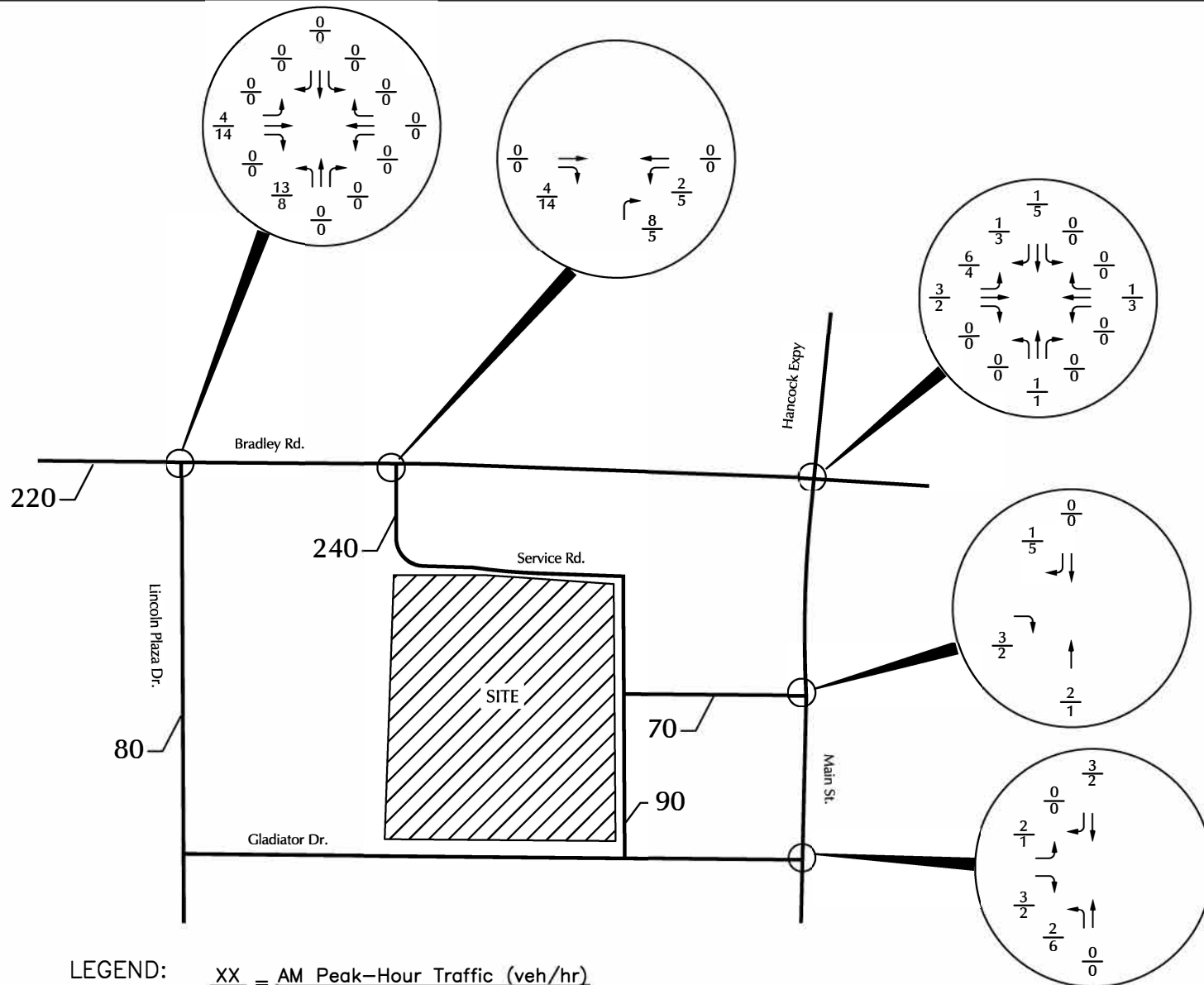
Figure 2  
Site Plan

Townhomes at Bradley Crossroads (LSC# 194210)





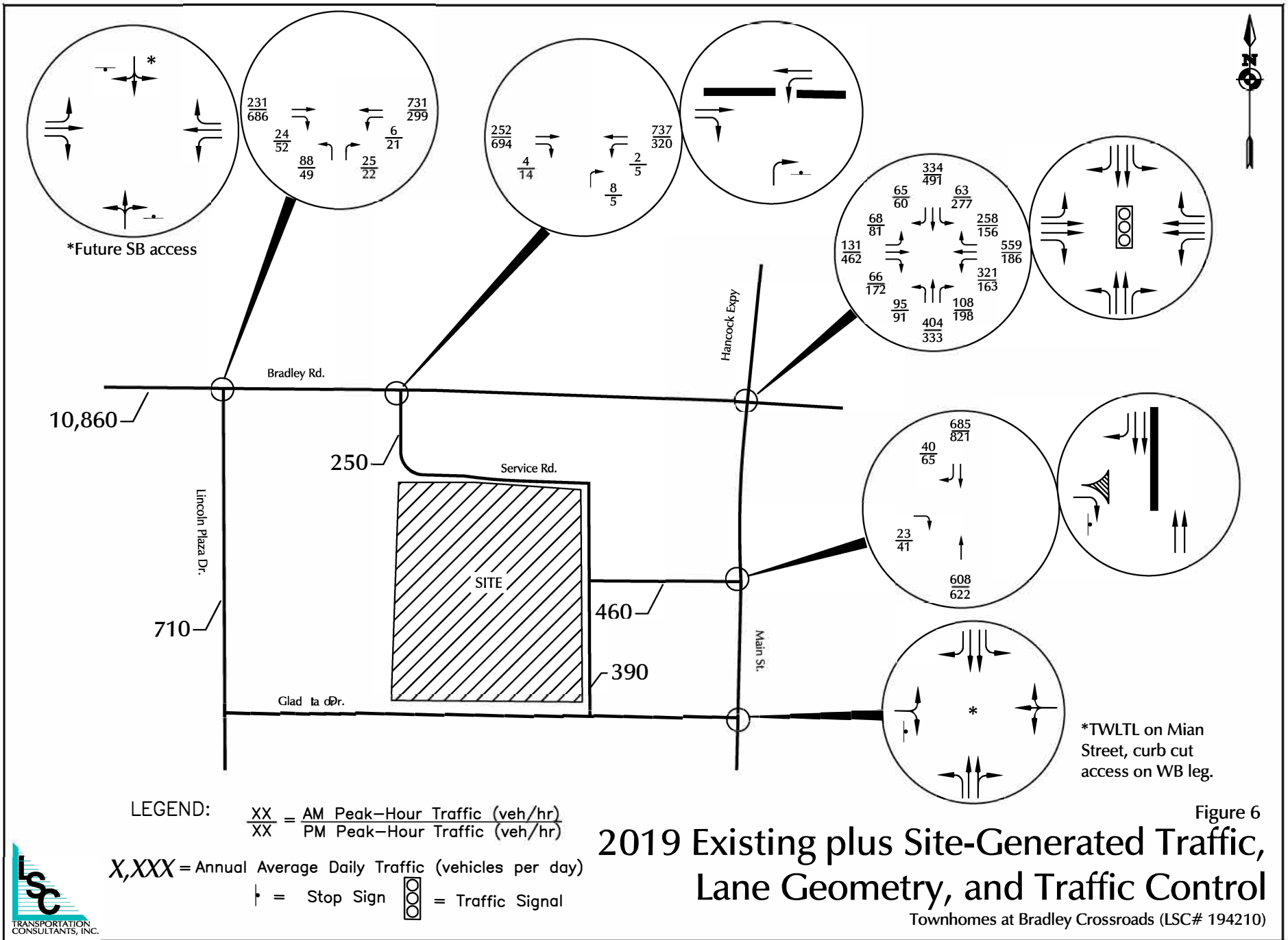


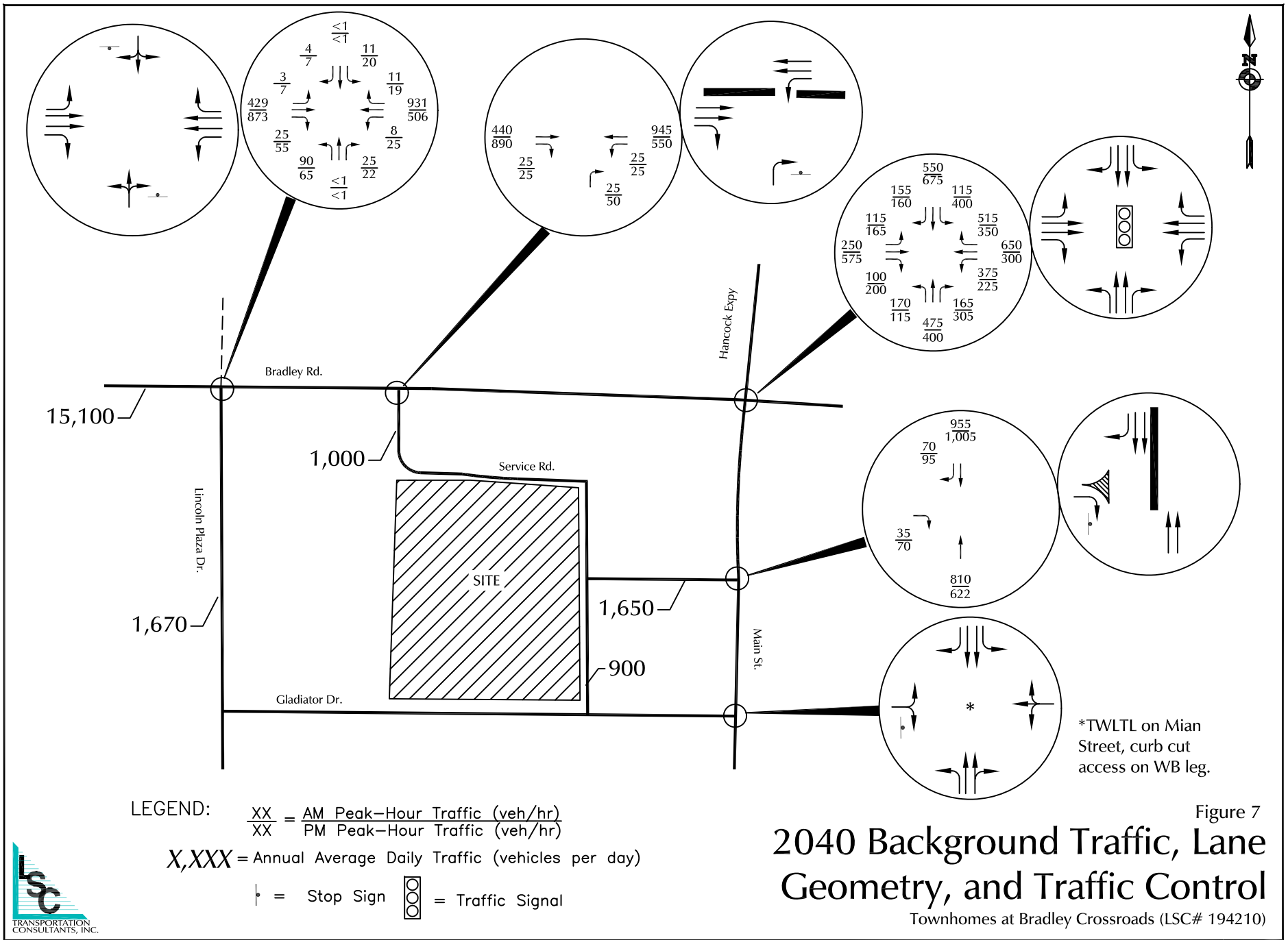


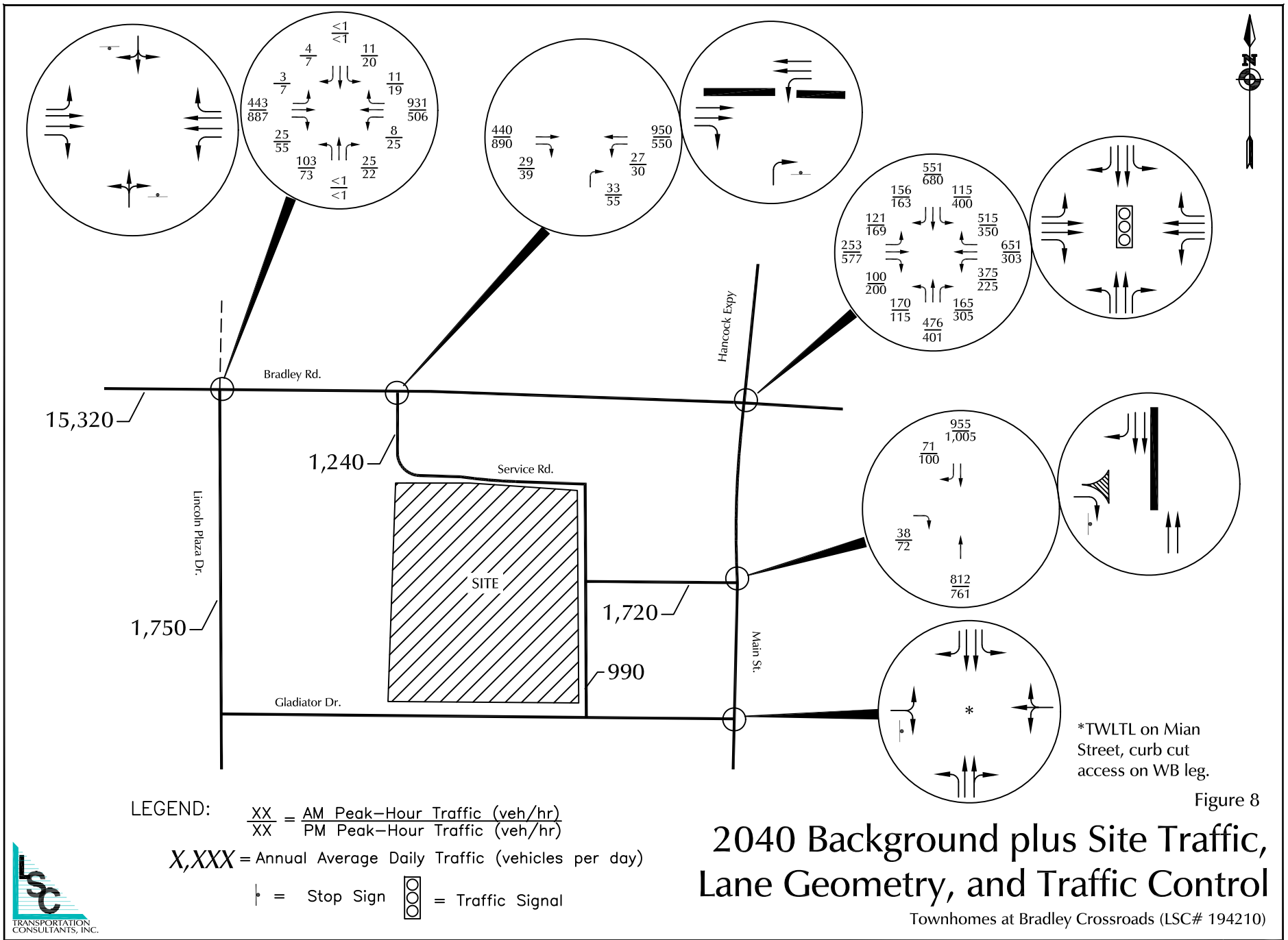
LEGEND:  $\frac{XX}{XX} = \frac{\text{AM Peak-Hour Traffic (veh/hr)}}{\text{PM Peak-Hour Traffic (veh/hr)}}$

X,XXX = Annual Average Daily Traffic (vehicles per day)

Figure 5  
**Site-Generated Traffic**  
 Townhomes at Bradley Crossroads (LSC# 194210)







# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

File Name : Lincoln Plaza Dr-Bradley Rd AM

Site Code : 194210

Start Date : 3/6/2019

Page No : 1

### Groups Printed- Unshifted

Start Time	Southbound				Bradley Rd Westbound				Lincoln Plaza Dr Northbound				Bradley Rd Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
06:45	0	0	0	0	0	158	0	0	16	0	8	0	0	55	4	0	241
Total	0	0	0	0	0	158	0	0	16	0	8	0	0	56	4	0	242
07:00	0	0	0	0	3	195	0	0	15	0	9	0	0	59	9	0	290
07:15	0	0	0	0	0	225	0	0	24	0	4	0	0	57	6	0	316
07:30	0	0	0	0	3	153	0	0	21	0	4	0	0	56	5	0	242
07:45	0	0	0	0	3	100	0	0	17	0	6	0	0	60	5	0	191
Total	0	0	0	0	9	673	0	0	77	0	23	0	0	232	25	0	1039
08:00	0	0	0	0	1	110	0	0	8	0	8	0	0	65	3	0	195
08:15	0	0	0	0	3	114	0	0	18	0	3	0	0	43	4	0	185
Grand Total	0	0	0	0	13	1055	0	0	119	0	42	0	0	396	36	0	1661
Apprch %	0	0	0	0	1.2	98.8	0	0	73.9	0	26.1	0	0	91.7	8.3	0	
Total %	0	0	0	0	0.8	63.5	0	0	7.2	0	2.5	0	0	23.8	2.2	0	

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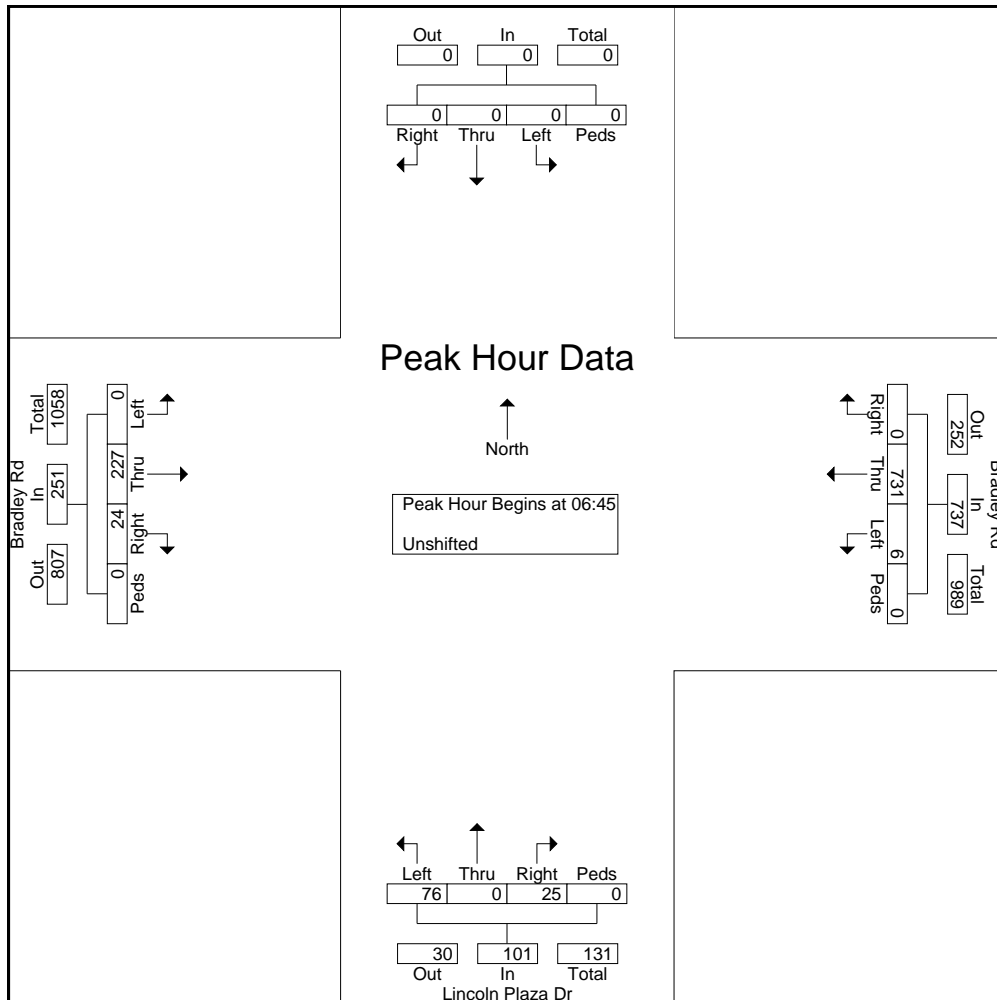
File Name : Lincoln Plaza Dr-Bradley Rd AM

Site Code : 194210

Start Date : 3/6/2019

Page No : 2

Start Time	Southbound					Bradley Rd Westbound					Lincoln Plaza Dr Northbound					Bradley Rd Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 06:30 to 08:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45																					
06:45	0	0	0	0	0	0	158	0	0	158	16	0	8	0	24	0	55	4	0	59	241
07:00	0	0	0	0	0	3	195	0	0	198	15	0	9	0	24	0	59	9	0	68	290
07:15	0	0	0	0	0	0	225	0	0	225	24	0	4	0	28	0	57	6	0	63	316
07:30	0	0	0	0	0	3	153	0	0	156	21	0	4	0	25	0	56	5	0	61	242
Total Volume	0	0	0	0	0	6	731	0	0	737	76	0	25	0	101	0	227	24	0	251	1089
% App. Total	0	0	0	0	0	0.8	99.2	0	0		75.2	0	24.8	0		0	90.4	9.6	0		
PHF	.000	.000	.000	.000	.000	.500	.812	.000	.000	.819	.792	.000	.694	.000	.902	.000	.962	.667	.000	.923	.862





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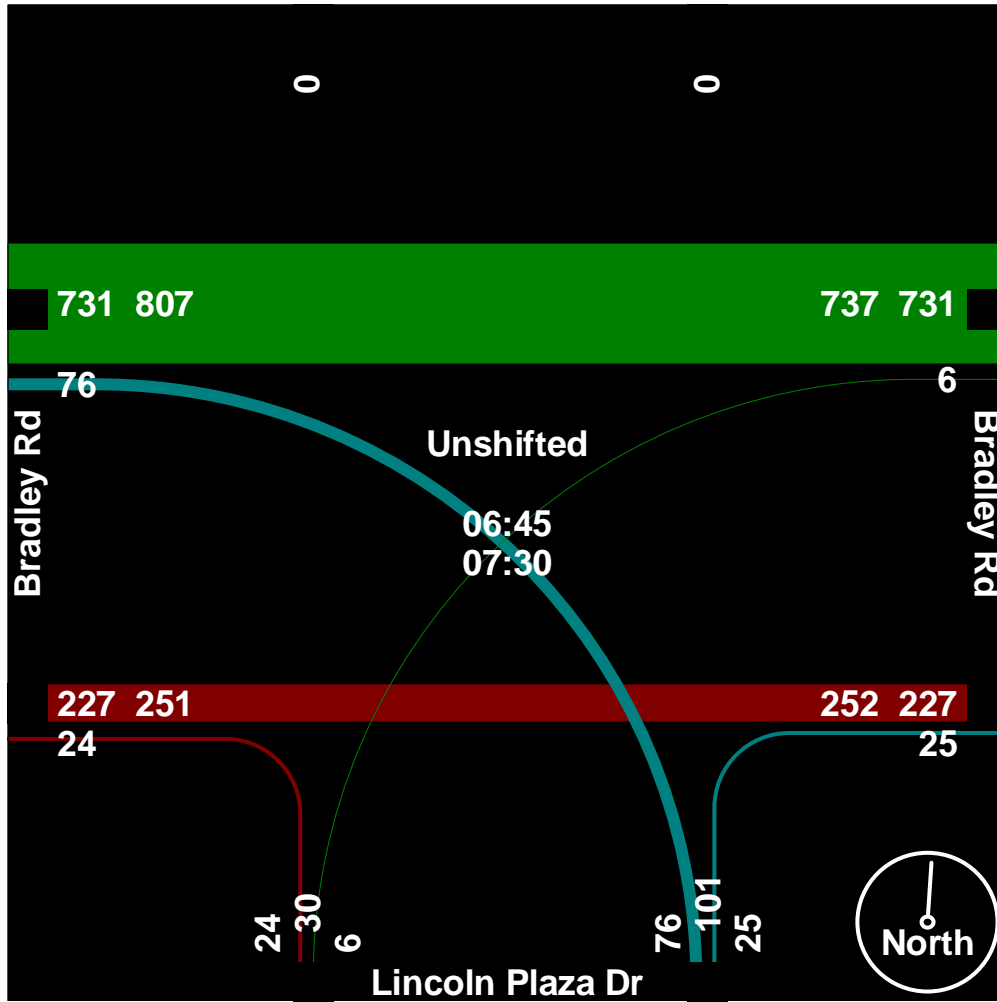
719-633-2868

File Name : Lincoln Plaza Dr-Bradley Rd AM

Site Code : 194210

Start Date : 3/6/2019

Page No : 3



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719-633-2868

File Name : Lincoln Plaza Dr-Bradley Rd PM

Site Code : 194210

Start Date : 3/6/2019

Page No : 1

### Groups Printed- Unshifted

Start Time	Southbound				Bradley Rd Westbound				Lincoln Plaza Dr Northbound				Bradley Rd Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
16:00	0	0	0	0	7	88	0	0	7	0	6	0	0	155	14	0	277
16:15	0	0	0	0	6	72	0	0	10	0	6	0	0	143	5	0	242
16:30	0	0	0	0	3	78	0	0	10	0	10	0	0	163	11	0	275
16:45	0	0	0	0	6	80	0	0	12	0	7	0	0	171	14	0	290
Total	0	0	0	0	22	318	0	0	39	0	29	0	0	632	44	0	1084
17:00	0	0	0	0	5	62	0	0	10	0	7	0	0	172	13	0	269
17:15	0	0	0	0	5	67	0	0	8	0	2	0	0	174	15	0	271
17:30	0	0	0	0	5	90	0	0	11	0	6	0	0	155	10	0	277
17:45	0	0	0	0	6	87	0	0	6	0	2	0	0	126	21	0	248
Total	0	0	0	0	21	306	0	0	35	0	17	0	0	627	59	0	1065
Grand Total	0	0	0	0	43	624	0	0	74	0	46	0	0	1259	103	0	2149
Apprch %	0	0	0	0	6.4	93.6	0	0	61.7	0	38.3	0	0	92.4	7.6	0	
Total %	0	0	0	0	2	29	0	0	3.4	0	2.1	0	0	58.6	4.8	0	

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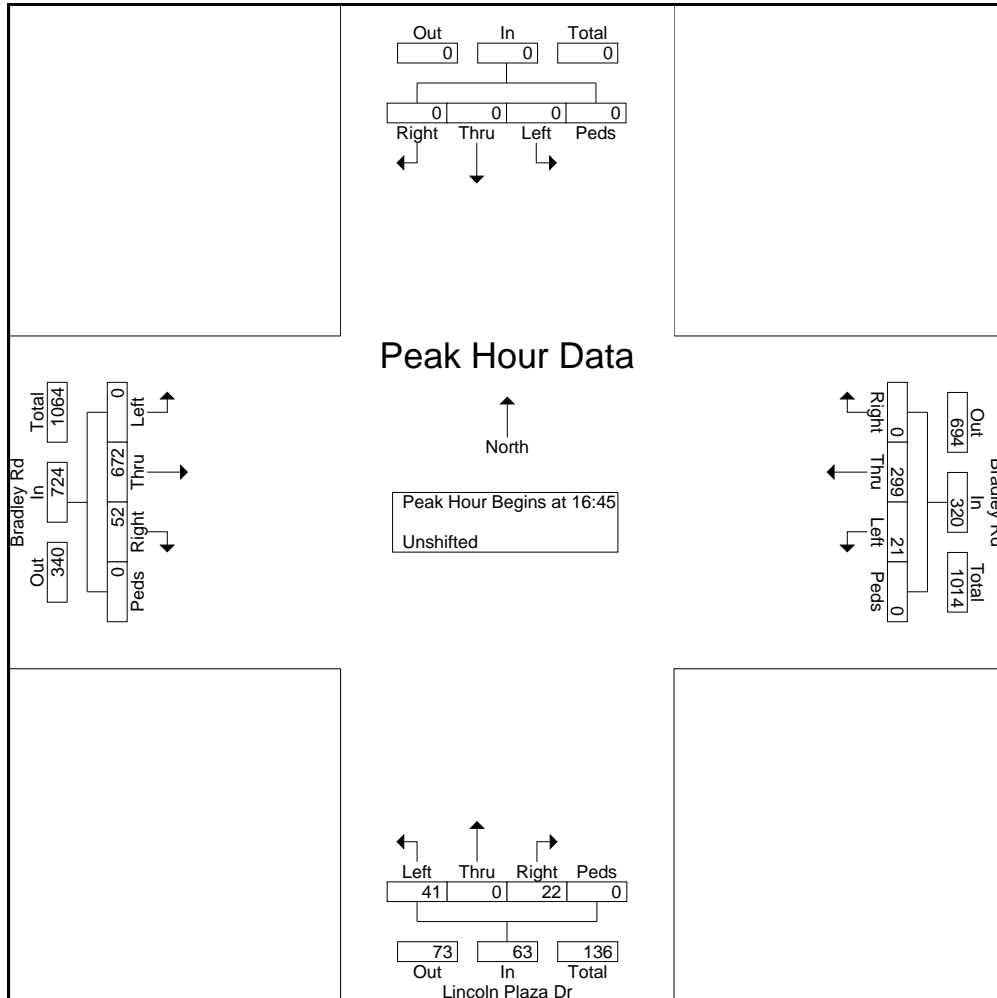
File Name : Lincoln Plaza Dr-Bradley Rd PM

Site Code : 194210

Start Date : 3/6/2019

Page No : 2

Start Time	Southbound					Bradley Rd Westbound					Lincoln Plaza Dr Northbound					Bradley Rd Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	0	0	0	0	0	6	80	0	0	86	12	0	7	0	19	0	171	14	0	185	290
17:00	0	0	0	0	0	5	62	0	0	67	10	0	7	0	17	0	172	13	0	185	269
17:15	0	0	0	0	0	5	67	0	0	72	8	0	2	0	10	0	174	15	0	189	271
17:30	0	0	0	0	0	5	90	0	0	95	11	0	6	0	17	0	155	10	0	165	277
Total Volume	0	0	0	0	0	21	299	0	0	320	41	0	22	0	63	0	672	52	0	724	1107
% App. Total	0	0	0	0	0	6.6	93.4	0	0		65.1	0	34.9	0		0	92.8	7.2	0		
PHF	.000	.000	.000	.000	.000	.875	.831	.000	.000	.842	.854	.000	.786	.000	.829	.000	.966	.867	.000	.958	.954



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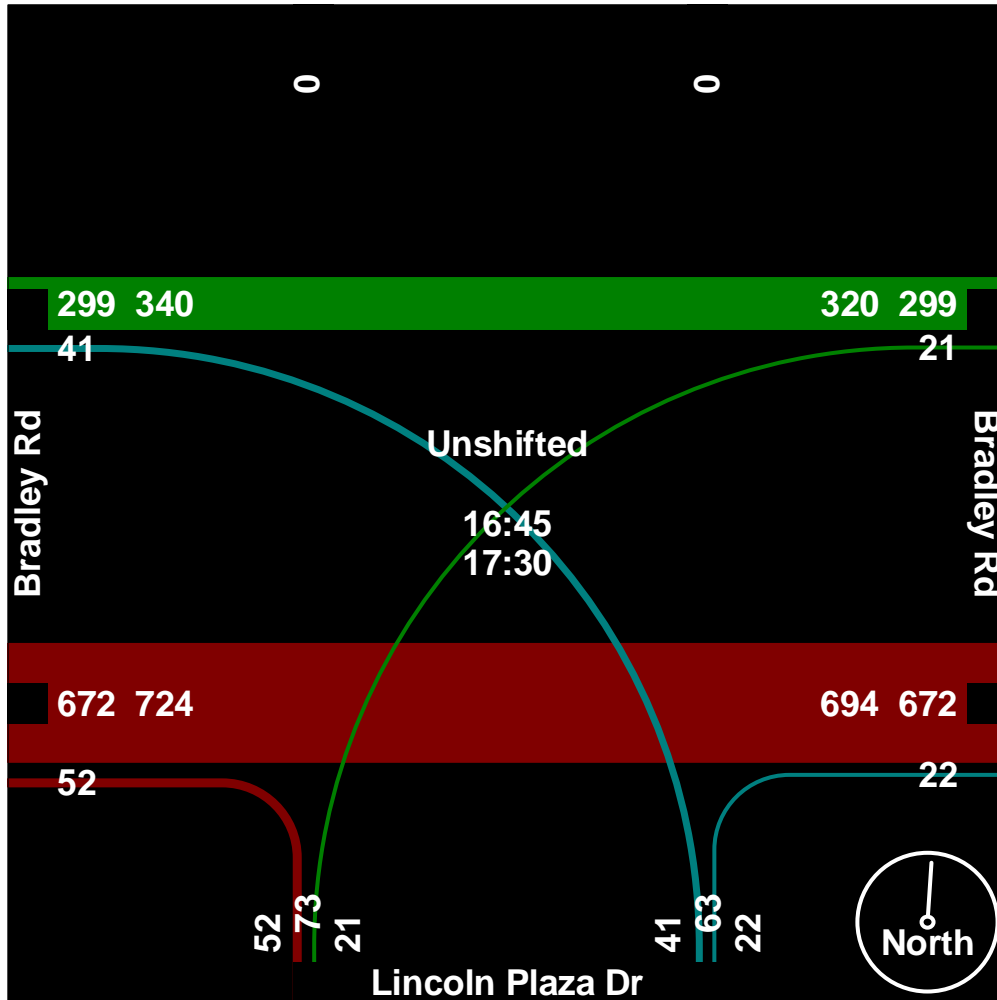
719-633-2868

File Name : Lincoln Plaza Dr-Bradley Rd PM

Site Code : 194210

Start Date : 3/6/2019

Page No : 3



# LSC Transportation Consultants, Inc.

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719-633-2868

File Name : Main St -Bradley Rd AM

Site Code : 00194210

Start Date : 3/12/2019

Page No : 1

## Groups Printed- Unshifted

Start Time	Main St Southbound				Bradley Rd Westbound				Main St Northbound				Bradley Rd Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
06:30	14	44	13	0	46	103	47	0	16	83	15	0	12	30	7	0	430
06:45	8	91	16	0	92	131	41	0	21	64	15	0	20	31	14	0	544
Total	22	135	29	0	138	234	88	0	37	147	30	0	32	61	21	0	974
07:00	19	123	25	0	133	154	51	0	24	101	27	1	15	29	25	0	727
07:15	21	59	13	0	57	153	74	0	29	141	42	0	7	30	16	0	642
07:30	15	60	10	0	39	120	92	0	21	97	24	0	20	38	11	0	547
07:45	16	78	12	0	46	100	55	0	17	70	20	0	14	42	12	0	482
Total	71	320	60	0	275	527	272	0	91	409	113	1	56	139	64	0	2398
08:00	21	56	13	0	35	69	60	0	15	61	23	0	13	44	16	0	426
08:15	33	63	10	0	77	81	50	0	11	67	26	0	11	21	12	0	462
Grand Total	147	574	112	0	525	911	470	0	154	684	192	1	112	265	113	0	4260
Apprch %	17.6	68.9	13.4	0	27.5	47.8	24.7	0	14.9	66.3	18.6	0.1	22.9	54.1	23.1	0	
Total %	3.5	13.5	2.6	0	12.3	21.4	11	0	3.6	16.1	4.5	0	2.6	6.2	2.7	0	

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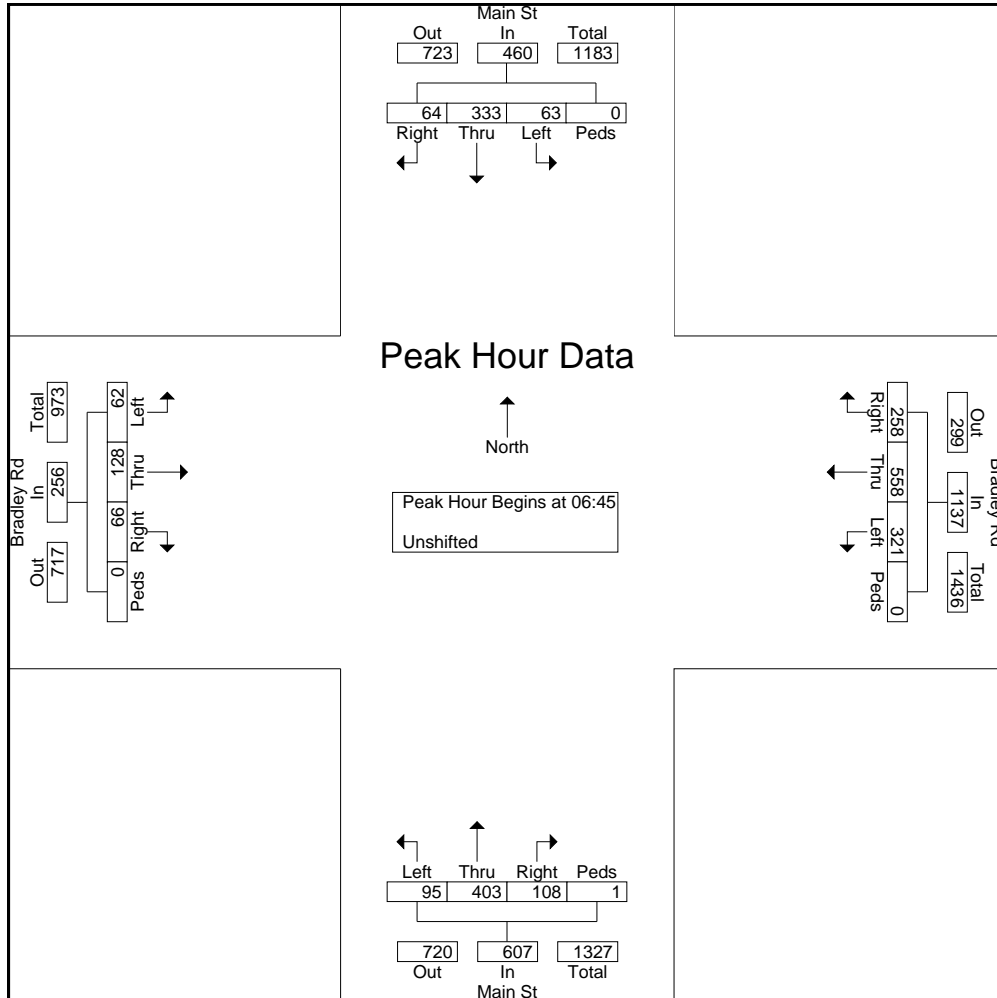
File Name : Main St -Bradley Rd AM

Site Code : 00194210

Start Date : 3/12/2019

Page No : 2

Start Time	Main St Southbound					Bradley Rd Westbound					Main St Northbound					Bradley Rd Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 06:30 to 08:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:45																					
06:45	8	91	16	0	115	92	131	41	0	264	21	64	15	0	100	20	31	14	0	65	544
07:00	19	123	25	0	167	133	154	51	0	338	24	101	27	1	153	15	29	25	0	69	727
07:15	21	59	13	0	93	57	153	74	0	284	29	141	42	0	212	7	30	16	0	53	642
07:30	15	60	10	0	85	39	120	92	0	251	21	97	24	0	142	20	38	11	0	69	547
Total Volume	63	333	64	0	460	321	558	258	0	1137	95	403	108	1	607	62	128	66	0	256	2460
% App. Total	13.7	72.4	13.9	0		28.2	49.1	22.7	0		15.7	66.4	17.8	0.2		24.2	50	25.8	0		
PHF	.750	.677	.640	.000	.689	.603	.906	.701	.000	.841	.819	.715	.643	.250	.716	.775	.842	.660	.000	.928	.846



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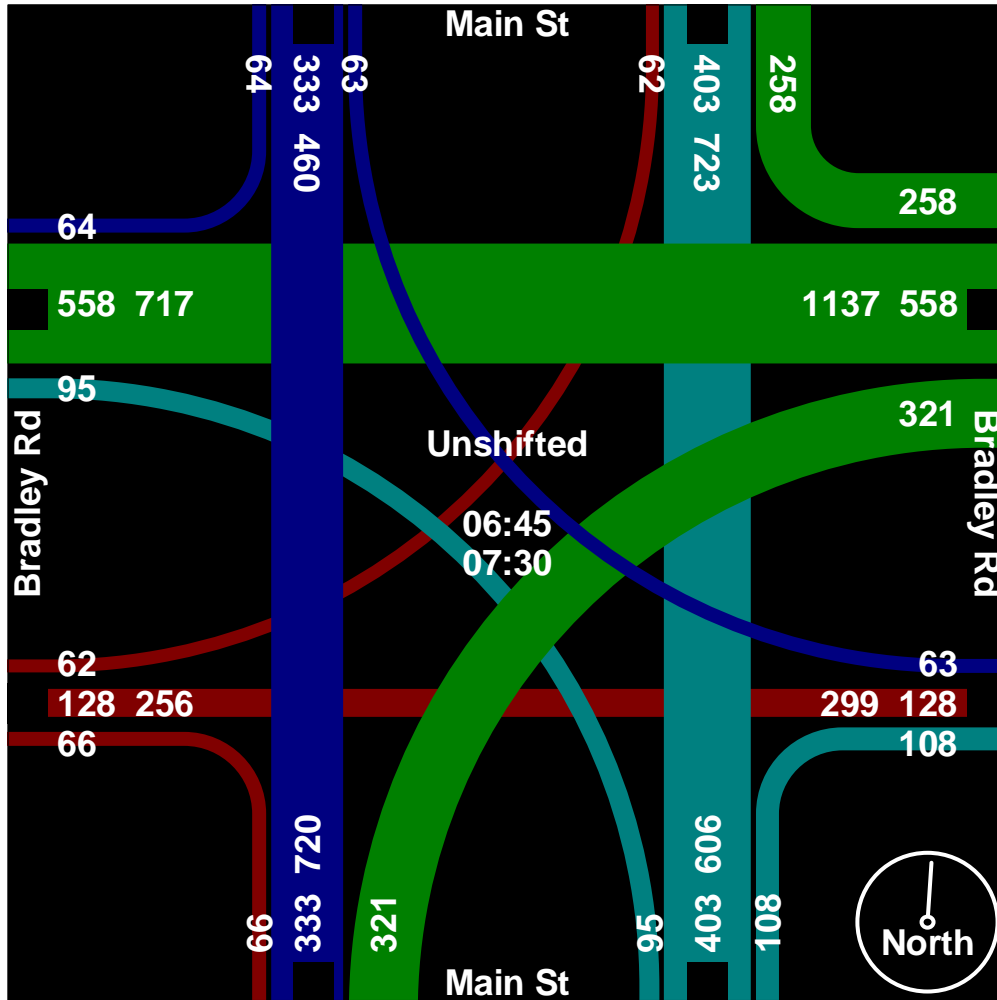
719-633-2868

File Name : Main St -Bradley Rd AM

Site Code : 00194210

Start Date : 3/12/2019

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719-633-2868

File Name : Hancock Expres - Bradley Rd PM

Site Code : 00194210

Start Date : 3/18/2019

Page No : 1

### Groups Printed- Unshifted

Start Time	Hancock Exp Southbound				Bradley Rd Westbound				Main St Northbound				Bradley Rd Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
16:00	56	120	26	0	31	64	34	1	24	76	33	0	13	107	40	0	625
16:15	78	93	20	0	41	60	43	0	26	70	39	1	15	114	40	0	640
16:30	75	109	12	0	43	58	35	0	23	84	47	0	20	98	37	2	643
16:45	67	117	19	0	39	36	40	0	22	79	58	1	17	108	50	1	654
Total	276	439	77	0	154	218	152	1	95	309	177	2	65	427	167	3	2562
17:00	81	115	12	0	45	49	44	0	19	79	38	0	21	119	40	0	662
17:15	69	115	13	0	38	46	37	1	26	77	46	1	23	136	48	1	677
17:30	60	139	13	0	41	52	35	0	24	97	56	1	16	97	34	0	665
17:45	70	90	6	0	36	41	30	0	12	81	54	0	14	106	31	0	571
Total	280	459	44	0	160	188	146	1	81	334	194	2	74	458	153	1	2575
Grand Total	556	898	121	0	314	406	298	2	176	643	371	4	139	885	320	4	5137
Apprch %	35.3	57	7.7	0	30.8	39.8	29.2	0.2	14.7	53.9	31.1	0.3	10.3	65.7	23.7	0.3	
Total %	10.8	17.5	2.4	0	6.1	7.9	5.8	0	3.4	12.5	7.2	0.1	2.7	17.2	6.2	0.1	



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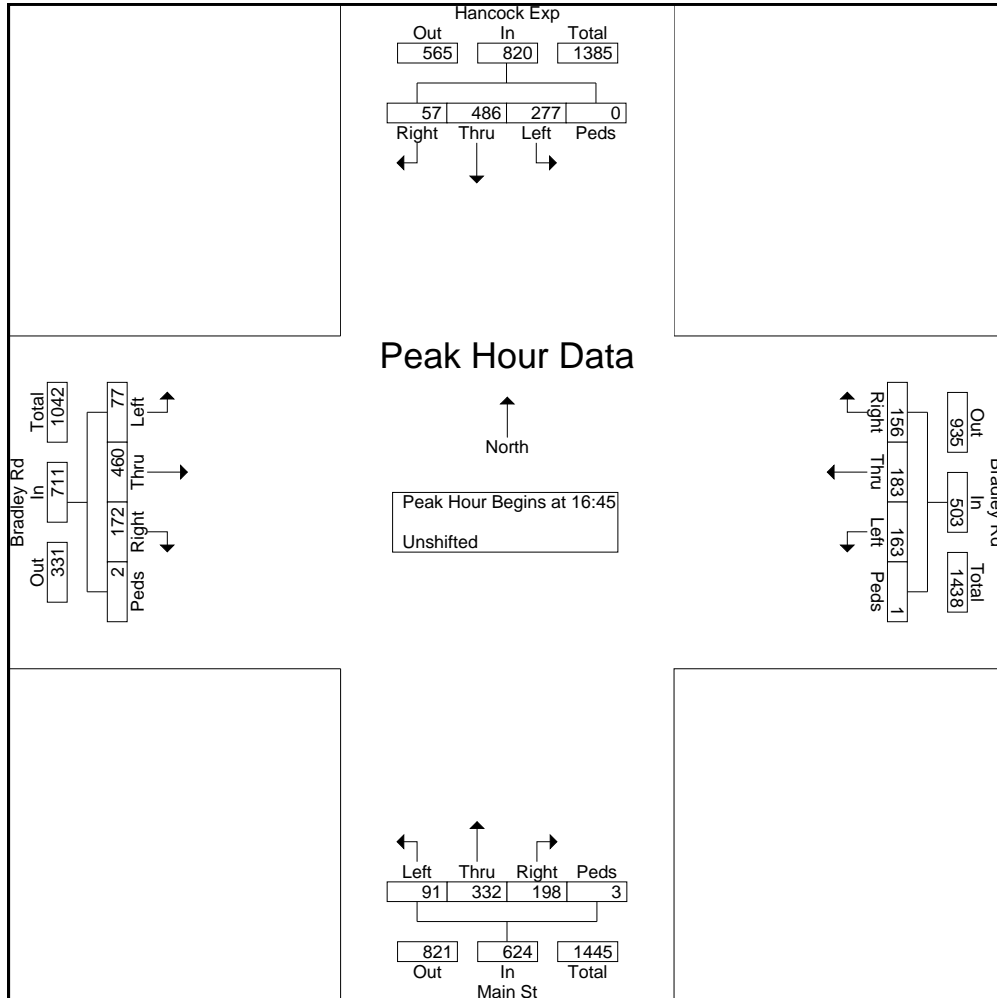
File Name : Hancock Expres - Bradley Rd PM

Site Code : 00194210

Start Date : 3/18/2019

Page No : 2

Start Time	Hancock Exp Southbound					Bradley Rd Westbound					Main St Northbound					Bradley Rd Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 15:00 to 16:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 15:45																					
16:45	67	117	19	0	203	39	36	40	0	115	22	79	58	1	160	17	108	50	1	176	654
17:00	81	115	12	0	208	45	49	44	0	138	19	79	38	0	136	21	119	40	0	180	662
17:15	69	115	13	0	197	38	46	37	1	122	26	77	46	1	150	23	136	48	1	208	677
17:30	60	139	13	0	212	41	52	35	0	128	24	97	56	1	178	16	97	34	0	147	665
Total Volume	277	486	57	0	820	163	183	156	1	503	91	332	198	3	624	77	460	172	2	711	2658
% App. Total	33.8	59.3	7	0		32.4	36.4	31	0.2		14.6	53.2	31.7	0.5		10.8	64.7	24.2	0.3		
PHF	.855	.874	.750	.000	.967	.906	.880	.886	.250	.911	.875	.856	.853	.750	.876	.837	.846	.860	.500	.855	.982



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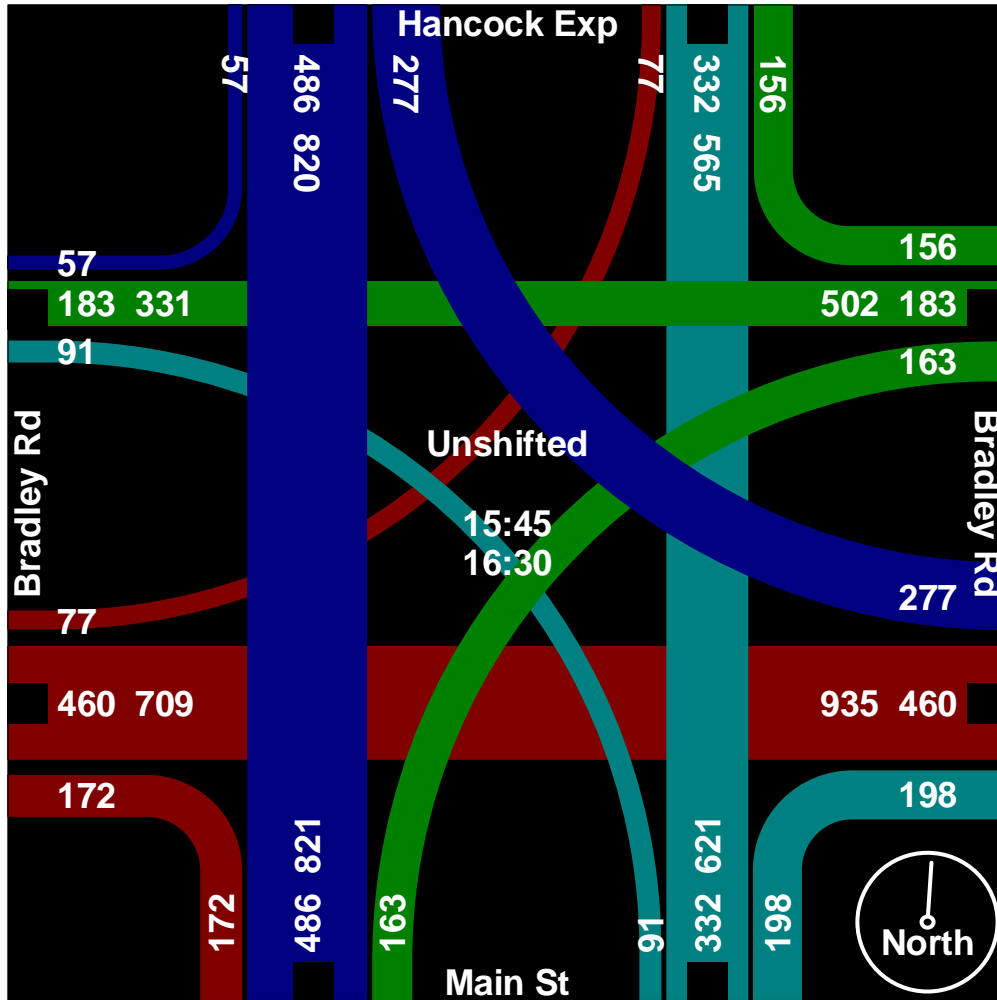
719-633-2868

File Name : Hancock Expres - Bradley Rd PM

Site Code : 00194210

Start Date : 3/18/2019

Page No : 3



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719-633-2868

File Name : Main St - RIRO SO. Bradley Rd AM

Site Code : 00194210

Start Date : 3/12/2019

Page No : 1

### Groups Printed- Bank 1

Start Time	Main St Southbound				Westbound				Main St Northbound				RIRO SO. Bradley Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
06:30	0	0	12	0	0	0	0	0	0	0	0	0	0	0	2	0	14
06:45	0	0	7	0	0	0	0	0	0	0	0	0	0	0	4	0	11
Total	0	0	19	0	0	0	0	0	0	0	0	0	0	0	6	0	25
07:00	0	0	10	0	0	0	0	0	0	0	0	0	0	0	4	0	14
07:15	0	0	14	0	0	0	0	0	0	0	0	0	0	0	3	0	17
07:30	0	0	9	0	0	0	0	0	0	0	0	0	0	0	7	0	16
07:45	0	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0	12
Total	0	0	39	0	0	0	0	0	0	0	0	0	0	0	20	0	59
08:00	0	0	8	0	0	0	0	0	0	0	0	0	0	0	3	0	11
08:15	0	0	9	0	0	0	0	0	0	0	0	0	0	0	9	0	18
Grand Total	0	0	75	0	0	0	0	0	0	0	0	0	0	0	38	0	113
Apprch %	0	0	100	0	0	0	0	0	0	0	0	0	0	0	100	0	
Total %	0	0	66.4	0	0	0	0	0	0	0	0	0	0	0	33.6	0	

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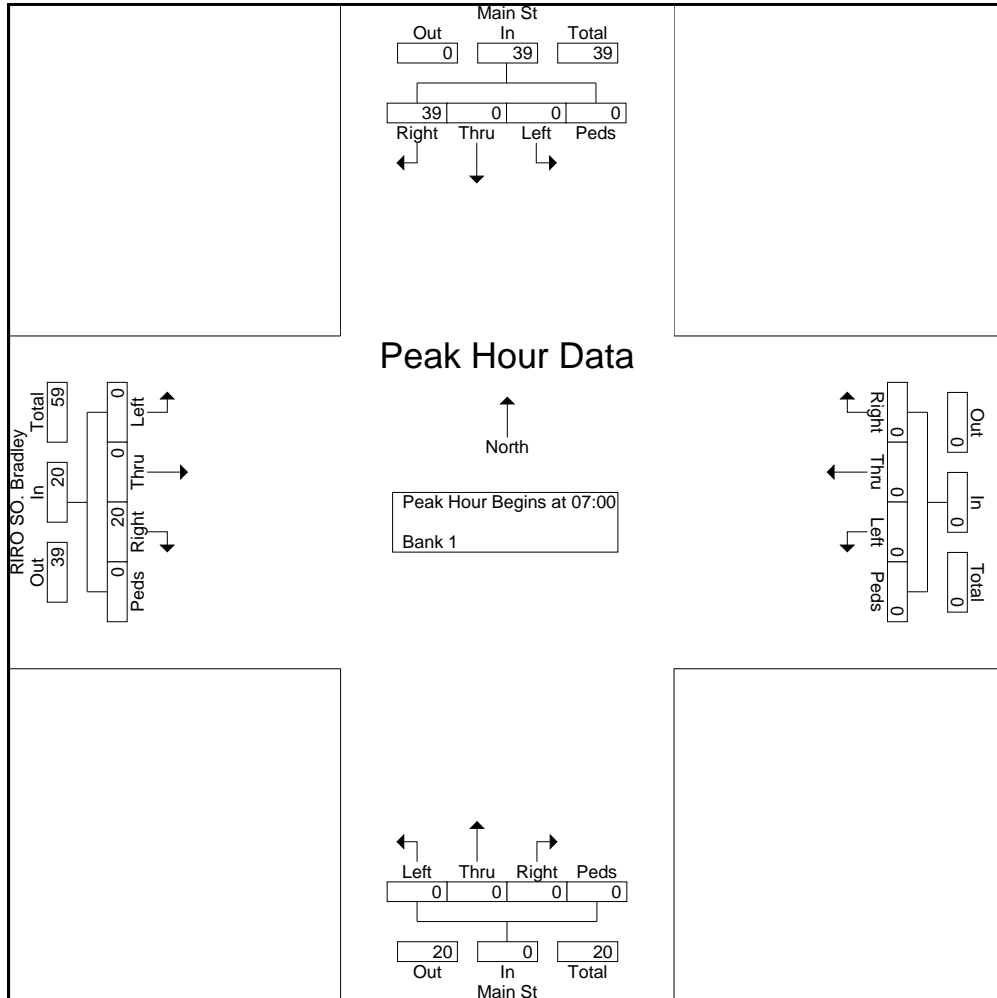
File Name : Main St - RIRO SO. Bradley Rd AM

Site Code : 00194210

Start Date : 3/12/2019

Page No : 2

Start Time	Main St Southbound					Westbound					Main St Northbound					RIRO SO. Bradley Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 06:30 to 08:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00																					
07:00	0	0	10	0	10	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	14
07:15	0	0	14	0	14	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	17
07:30	0	0	9	0	9	0	0	0	0	0	0	0	0	0	0	0	0	7	0	7	16
07:45	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6	0	6	12
Total Volume	0	0	39	0	39	0	0	0	0	0	0	0	0	0	0	0	0	20	0	20	59
% App. Total	0	0	100	0		0	0	0	0		0	0	0	0		0	0	100	0		
PHF	.000	.000	.696	.000	.696	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.714	.000	.714	.868



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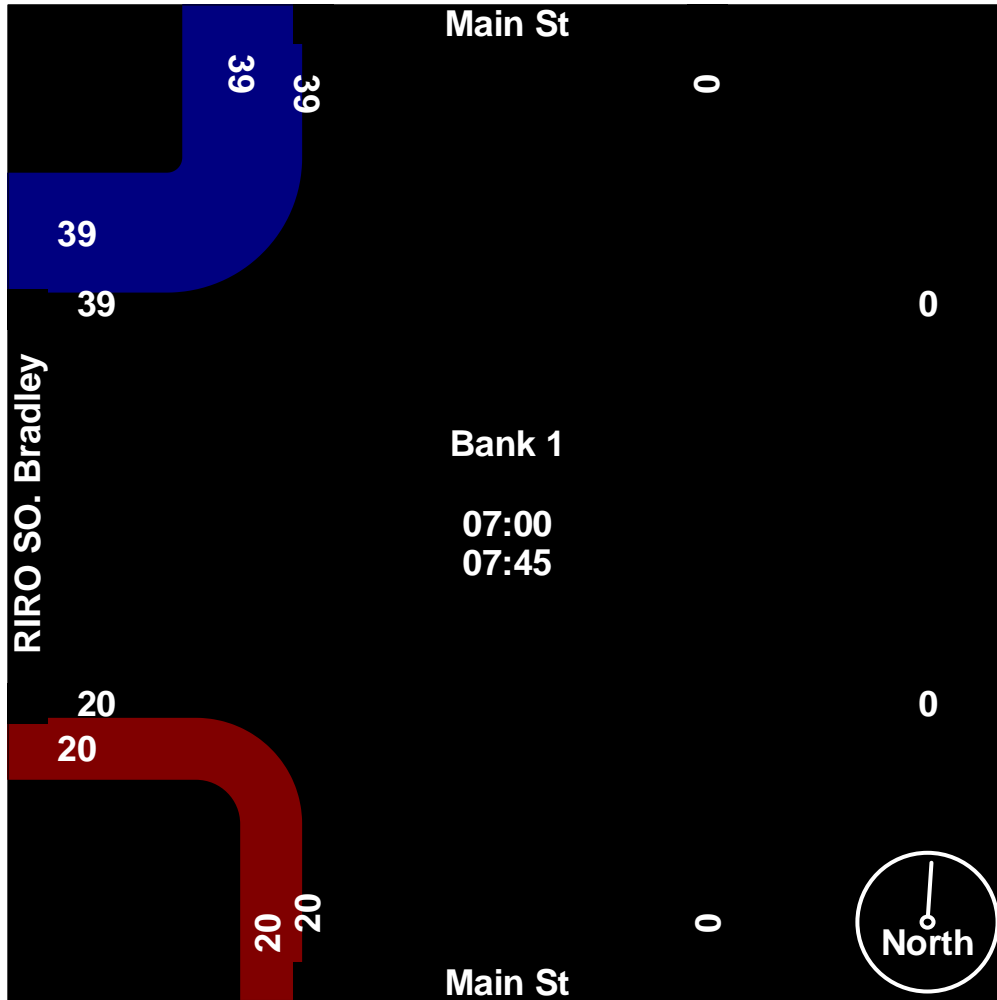
719-633-2868

File Name : Main St - RIRO SO. Bradley Rd AM

Site Code : 00194210

Start Date : 3/12/2019

Page No : 3



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719-633-2868

File Name : Main St - RIRO SO. Bradley Rd PM

Site Code : 00194210

Start Date : 3/18/2019

Page No : 1

### Groups Printed- Bank 1

Start Time	Hancock Exp Southbound				Westbound				Hancock Exp Northbound				RIRO SO Bradley Rd Eastbound				Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
15:00	0	0	10	0	0	0	0	0	0	0	0	0	0	0	9	0	19
15:15	0	0	16	0	0	0	0	0	0	0	0	0	0	0	9	0	25
15:30	0	0	18	0	0	0	0	0	0	0	0	0	0	0	10	0	28
15:45	0	0	14	0	0	0	0	0	0	0	0	0	0	0	9	0	23
Total	0	0	58	0	0	0	0	0	0	0	0	0	0	0	37	0	95
16:00	0	0	13	0	0	0	0	0	0	0	0	0	0	0	8	0	21
16:15	0	0	16	0	0	0	0	0	0	0	0	0	0	0	8	0	24
16:30	0	0	17	0	0	0	0	0	0	0	0	0	0	0	14	0	31
16:45	0	0	9	0	0	0	0	0	0	0	0	0	0	0	9	0	18
Total	0	0	55	0	0	0	0	0	0	0	0	0	0	0	39	0	94
Grand Total	0	0	113	0	0	0	0	0	0	0	0	0	0	0	76	0	189
Apprch %	0	0	100	0	0	0	0	0	0	0	0	0	0	0	100	0	
Total %	0	0	59.8	0	0	0	0	0	0	0	0	0	0	0	40.2	0	

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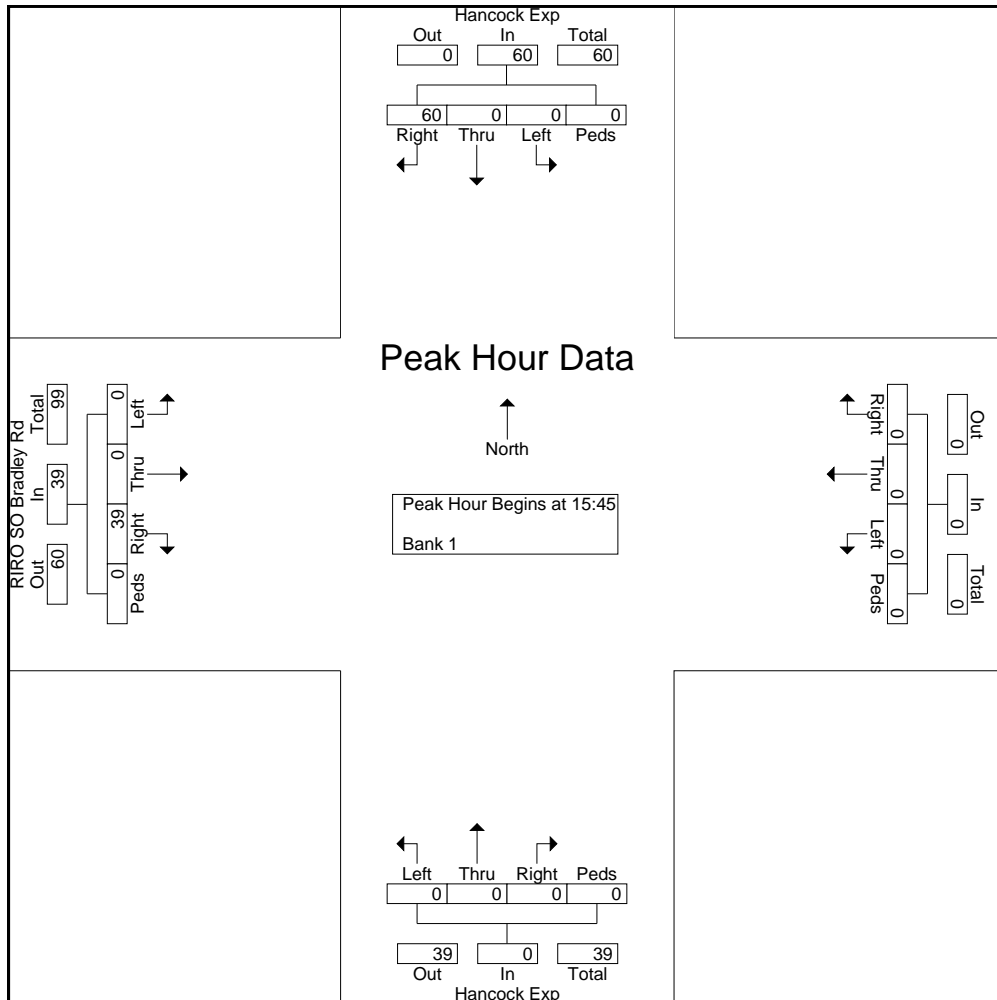
File Name : Main St - RIRO SO. Bradley Rd PM

Site Code : 00194210

Start Date : 3/18/2019

Page No : 2

Start Time	Hancock Exp Southbound					Westbound					Hancock Exp Northbound					RIRO SO Bradley Rd Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 15:00 to 16:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 15:45																					
15:45	0	0	14	0	14	0	0	0	0	0	0	0	0	0	0	0	0	9	0	9	23
16:00	0	0	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8	21
16:15	0	0	16	0	16	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8	24
16:30	0	0	17	0	17	0	0	0	0	0	0	0	0	0	0	0	0	14	0	14	31
Total Volume	0	0	60	0	60	0	0	0	0	0	0	0	0	0	0	0	0	39	0	39	99
% App. Total	0	0	100	0		0	0	0	0		0	0	0	0		0	0	100	0		
PHF	.000	.000	.882	.000	.882	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.696	.000	.696	.798



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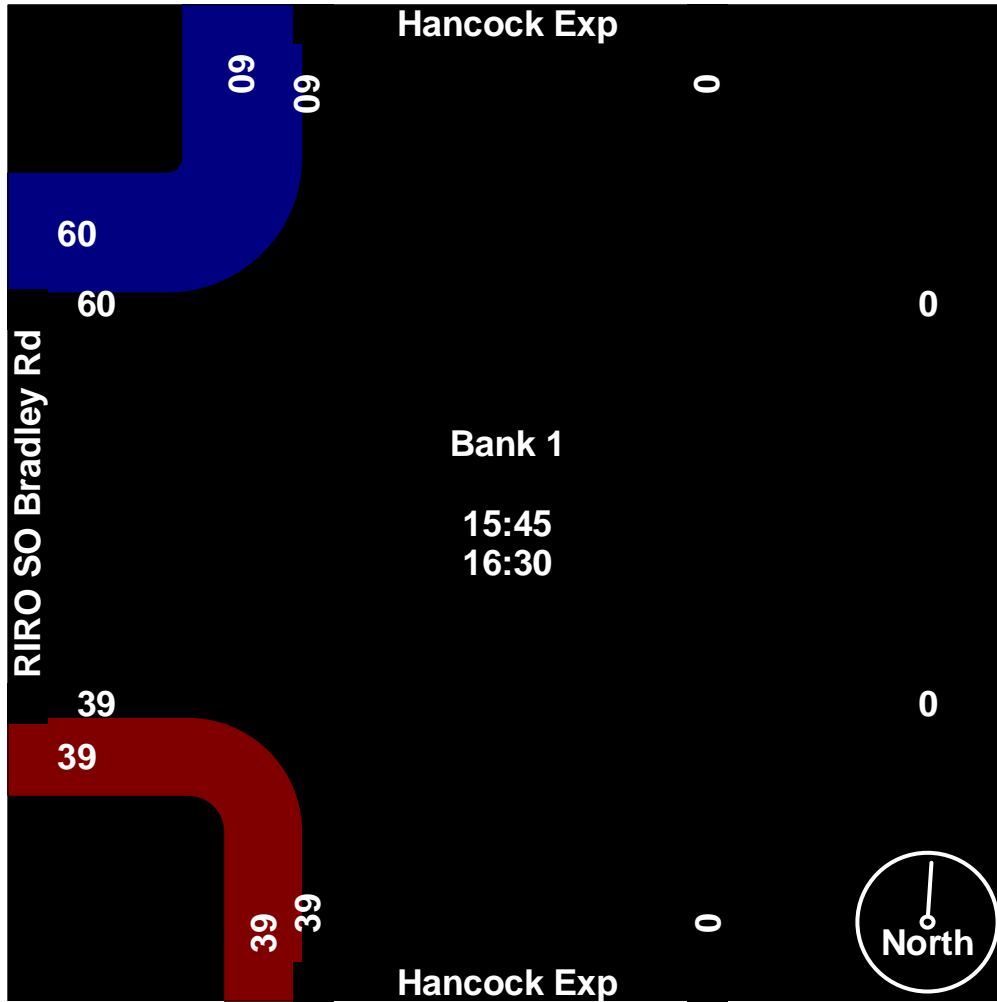
719-633-2868

File Name : Main St - RIRO SO. Bradley Rd PM

Site Code : 00194210

Start Date : 3/18/2019

Page No : 3





Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

2019 Existing  
AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	128	66	321	558	258	95	403	108	63	333	64
Future Volume (vph)	62	128	66	321	558	258	95	403	108	63	333	64
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	370		480	335		185	155		105	295		240
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	95			240			135			230		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.426			0.449			0.373			0.369		
Satd. Flow (perm)	794	3539	1583	836	3539	1583	695	3539	1583	687	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			307			205			205
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		793			845			428			866	
Travel Time (s)		15.4			16.5			7.3			14.8	
Peak Hour Factor	0.93	0.93	0.93	0.84	0.84	0.84	0.72	0.72	0.72	0.69	0.69	0.69
Adj. Flow (vph)	67	138	71	382	664	307	132	560	150	91	483	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	138	71	382	664	307	132	560	150	91	483	93
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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

2019 Existing  
AM

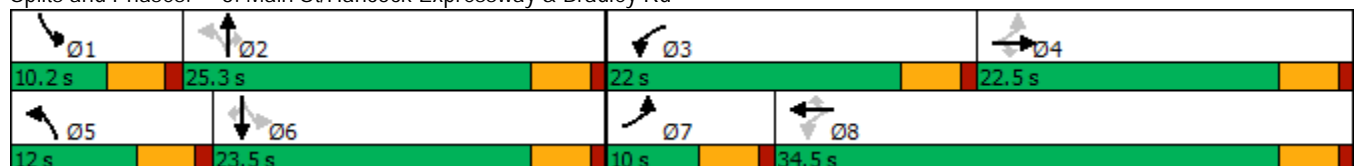


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	10.0	22.5	22.5	22.0	34.5	34.5	12.0	25.3	25.3	10.2	23.5	23.5
Total Split (%)	12.5%	28.1%	28.1%	27.5%	43.1%	43.1%	15.0%	31.6%	31.6%	12.8%	29.4%	29.4%
Maximum Green (s)	5.5	18.0	18.0	17.5	30.0	30.0	7.5	20.8	20.8	5.7	19.0	19.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	14.3	10.4	10.4	27.4	22.0	22.0	27.5	22.0	22.0	24.9	20.7	20.7
Actuated g/C Ratio	0.22	0.16	0.16	0.41	0.33	0.33	0.41	0.33	0.33	0.38	0.31	0.31
v/c Ratio	0.26	0.25	0.17	0.68	0.57	0.42	0.32	0.48	0.23	0.26	0.44	0.15
Control Delay	15.7	27.7	0.9	20.7	21.0	4.4	16.4	22.8	2.4	16.0	23.7	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	27.7	0.9	20.7	21.0	4.4	16.4	22.8	2.4	16.0	23.7	0.5
LOS	B	C	A	C	C	A	B	C	A	B	C	A
Approach Delay		17.9			17.2			18.2			19.4	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	66.4
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.68
Intersection Signal Delay:	18.0
Intersection LOS:	B
Intersection Capacity Utilization:	52.3%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 3: Main St/Hancock Expressway & Bradley Rd



Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	227	24	6	731	6	75	0	25	0	0	0
Future Vol, veh/h	0	227	24	6	731	6	75	0	25	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	335	215	-	215	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	82	82	82	90	90	90	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	247	26	7	891	7	83	0	28	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	898	0	0	273	0	0	1156	1159	247	1179	1178	891
Stage 1	-	-	-	-	-	-	247	247	-	905	905	-
Stage 2	-	-	-	-	-	-	909	912	-	274	273	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	756	-	-	1290	-	-	174	196	792	167	191	341
Stage 1	-	-	-	-	-	-	757	702	-	331	355	-
Stage 2	-	-	-	-	-	-	329	353	-	732	684	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	756	-	-	1290	-	-	173	195	792	160	190	341
Mov Cap-2 Maneuver	-	-	-	-	-	-	173	195	-	160	190	-
Stage 1	-	-	-	-	-	-	757	702	-	331	353	-
Stage 2	-	-	-	-	-	-	327	351	-	706	684	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			38.4			0		
HCM LOS							E			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	215	756	-	-	1290	-	-	-
HCM Lane V/C Ratio	0.517	-	-	-	0.006	-	-	-
HCM Control Delay (s)	38.4	0	-	-	7.8	-	-	0
HCM Lane LOS	E	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	2.7	0	-	-	0	-	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑		↗
Traffic Vol, veh/h	252	0	0	737	0	0
Future Vol, veh/h	252	0	0	737	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	220	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	82	82	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	274	0	0	899	0	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	274	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-
Pot Cap-1 Maneuver	-	-	1289	-	0
Stage 1	-	-	-	-	0
Stage 2	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1289	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1289	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↕↕	↕↕	↗
Traffic Vol, veh/h	0	20	0	606	682	39
Future Vol, veh/h	0	20	0	606	682	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	72	72	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	0	842	974	56

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	487	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	526	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	526	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	-	526	-
HCM Lane V/C Ratio	-	0.054	-
HCM Control Delay (s)	-	12.2	-
HCM Lane LOS	-	B	-
HCM 95th %tile Q(veh)	-	0.2	-

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

2019 Existing  
PM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	460	172	163	183	156	91	332	198	277	486	57
Future Volume (vph)	77	460	172	163	183	156	91	332	198	277	486	57
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	370		480	335		185	155		105	295		240
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	95			240			135			230		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.626			0.234			0.379			0.486		
Satd. Flow (perm)	1166	3539	1583	436	3539	1583	706	3539	1583	905	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			171			225			205
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		793			845			428			866	
Travel Time (s)		15.4			16.5			7.3			14.8	
Peak Hour Factor	0.86	0.86	0.86	0.91	0.91	0.91	0.88	0.88	0.88	0.97	0.97	0.97
Adj. Flow (vph)	90	535	200	179	201	171	103	377	225	286	501	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	90	535	200	179	201	171	103	377	225	286	501	59
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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

2019 Existing  
PM

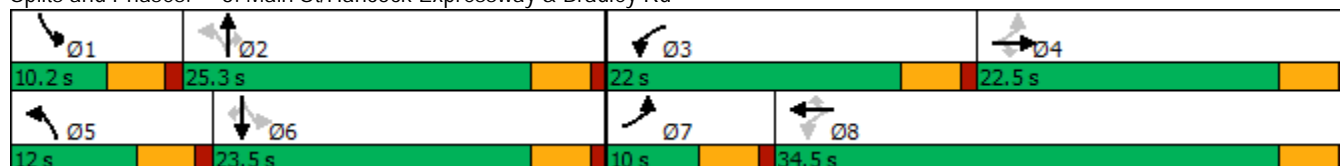


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	10.0	22.5	22.5	22.0	34.5	34.5	12.0	25.3	25.3	10.2	23.5	23.5
Total Split (%)	12.5%	28.1%	28.1%	27.5%	43.1%	43.1%	15.0%	31.6%	31.6%	12.8%	29.4%	29.4%
Maximum Green (s)	5.5	18.0	18.0	17.5	30.0	30.0	7.5	20.8	20.8	5.7	19.0	19.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	21.3	15.7	15.7	30.0	22.4	22.4	27.9	20.9	20.9	26.3	21.9	21.9
Actuated g/C Ratio	0.30	0.22	0.22	0.43	0.32	0.32	0.40	0.30	0.30	0.37	0.31	0.31
v/c Ratio	0.23	0.68	0.39	0.48	0.18	0.28	0.27	0.36	0.36	0.70	0.46	0.09
Control Delay	13.9	30.0	6.2	16.9	18.4	4.6	15.1	21.6	5.2	29.0	23.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.9	30.0	6.2	16.9	18.4	4.6	15.1	21.6	5.2	29.0	23.4	0.3
LOS	B	C	A	B	B	A	B	C	A	C	C	A
Approach Delay		22.5			13.6			15.4			23.7	
Approach LOS		C			B			B			C	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	70.4
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.70
Intersection Signal Delay:	19.5
Intersection LOS:	B
Intersection Capacity Utilization:	61.3%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 3: Main St/Hancock Expressway & Bradley Rd



Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	672	52	21	299	0	41	0	22	0	0	0
Future Vol, veh/h	0	672	52	21	299	0	41	0	22	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	335	215	-	215	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	84	84	84	83	83	83	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	700	54	25	356	0	49	0	27	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	356	0	0	754	0	0	1106	1106	700	1147	1160	356
Stage 1	-	-	-	-	-	-	700	700	-	406	406	-
Stage 2	-	-	-	-	-	-	406	406	-	741	754	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1203	-	-	856	-	-	188	210	439	176	195	688
Stage 1	-	-	-	-	-	-	430	441	-	622	598	-
Stage 2	-	-	-	-	-	-	622	598	-	408	417	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1203	-	-	856	-	-	184	204	439	162	189	688
Mov Cap-2 Maneuver	-	-	-	-	-	-	184	204	-	162	189	-
Stage 1	-	-	-	-	-	-	430	441	-	622	581	-
Stage 2	-	-	-	-	-	-	604	581	-	383	417	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.6			28			0		
HCM LOS							D			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	231	1203	-	-	856	-	-	-
HCM Lane V/C Ratio	0.329	-	-	-	0.029	-	-	-
HCM Control Delay (s)	28	0	-	-	9.3	-	-	0
HCM Lane LOS	D	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	1.4	0	-	-	0.1	-	-	-



Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑		↗
Traffic Vol, veh/h	694	0	0	320	0	0
Future Vol, veh/h	694	0	0	320	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	220	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	84	84	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	723	0	0	381	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	723	0	- 723
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	- 6.22
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	- 3.318
Pot Cap-1 Maneuver	-	-	879	-	0 426
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	879	-	- 426
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	879	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↕↕	↕↕	↗
Traffic Vol, veh/h	0	39	0	621	821	60
Future Vol, veh/h	0	39	0	621	821	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	49	0	706	933	68

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	467	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	542	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	542	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	542	-	-
HCM Lane V/C Ratio	-	0.09	-	-
HCM Control Delay (s)	-	12.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

2019 Existing + Site  
AM



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	131	66	321	559	258	95	404	108	63	333	66
Future Volume (vph)	68	131	66	321	559	258	95	404	108	63	333	66
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	370		480	335		185	155		105	295		240
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	95			240			135			230		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.354			0.480			0.422			0.361		
Satd. Flow (perm)	659	3539	1583	894	3539	1583	786	3539	1583	672	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			176			307			176			176
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		793			845			428			866	
Travel Time (s)		15.4			16.5			7.3			14.8	
Peak Hour Factor	0.93	0.93	0.93	0.84	0.84	0.84	0.72	0.72	0.72	0.69	0.69	0.69
Adj. Flow (vph)	73	141	71	382	665	307	132	561	150	91	483	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	141	71	382	665	307	132	561	150	91	483	96
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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

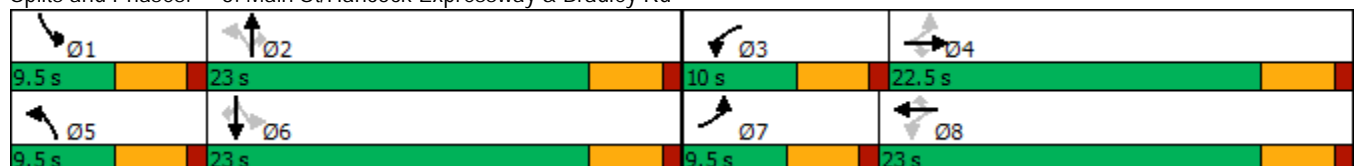
2019 Existing + Site  
AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	9.5	22.5	22.5	10.0	23.0	23.0	9.5	23.0	23.0	9.5	23.0	23.0
Total Split (%)	14.6%	34.6%	34.6%	15.4%	35.4%	35.4%	14.6%	35.4%	35.4%	14.6%	35.4%	35.4%
Maximum Green (s)	5.0	18.0	18.0	5.5	18.5	18.5	5.0	18.5	18.5	5.0	18.5	18.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	16.2	12.7	12.7	19.5	16.6	16.6	23.1	19.3	19.3	23.1	19.3	19.3
Actuated g/C Ratio	0.28	0.22	0.22	0.34	0.29	0.29	0.40	0.34	0.34	0.40	0.34	0.34
v/c Ratio	0.25	0.18	0.15	0.92	0.65	0.45	0.33	0.47	0.23	0.25	0.41	0.15
Control Delay	13.8	18.9	0.6	50.0	22.5	5.2	13.7	19.2	3.6	12.7	18.5	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	18.9	0.6	50.0	22.5	5.2	13.7	19.2	3.6	12.7	18.5	0.9
LOS	B	B	A	D	C	A	B	B	A	B	B	A
Approach Delay		13.1			26.3			15.6			15.2	
Approach LOS		B			C			B			B	

Intersection Summary

Area Type:	Other
Cycle Length:	65
Actuated Cycle Length:	57.4
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.92
Intersection Signal Delay:	19.9
Intersection LOS:	B
Intersection Capacity Utilization:	52.3%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 3: Main St/Hancock Expressway & Bradley Rd



Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↘	↗	↘		↔			↔	
Traffic Vol, veh/h	0	231	24	6	731	0	88	0	25	0	0	0
Future Vol, veh/h	0	231	24	6	731	0	88	0	25	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	335	215	-	215	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	82	82	82	90	90	90	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	251	26	7	891	0	98	0	28	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	891	0	0	277	0	0	1156	1156	251	1183	1182	891
Stage 1	-	-	-	-	-	-	251	251	-	905	905	-
Stage 2	-	-	-	-	-	-	905	905	-	278	277	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	761	-	-	1286	-	-	174	197	788	166	190	341
Stage 1	-	-	-	-	-	-	753	699	-	331	355	-
Stage 2	-	-	-	-	-	-	331	355	-	728	681	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	761	-	-	1286	-	-	173	196	788	160	189	341
Mov Cap-2 Maneuver	-	-	-	-	-	-	173	196	-	160	189	-
Stage 1	-	-	-	-	-	-	753	699	-	331	353	-
Stage 2	-	-	-	-	-	-	329	353	-	702	681	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.1			45.2			0		
HCM LOS							E			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	209	761	-	-	1286	-	-	-
HCM Lane V/C Ratio	0.601	-	-	-	0.006	-	-	-
HCM Control Delay (s)	45.2	0	-	-	7.8	-	-	0
HCM Lane LOS	E	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	3.4	0	-	-	0	-	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑↑		↗
Traffic Vol, veh/h	252	4	2	737	0	8
Future Vol, veh/h	252	4	2	737	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	220	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	82	82	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	274	4	2	899	0	9

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	278	0	- 274
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.13	-	- 6.23
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.219	-	- 3.319
Pot Cap-1 Maneuver	-	-	1283	-	0 764
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1283	-	- 764
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	764	-	-	1283	-
HCM Lane V/C Ratio	0.011	-	-	0.002	-
HCM Control Delay (s)	9.8	-	-	7.8	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	↗
Traffic Vol, veh/h	0	23	0	608	685	40
Future Vol, veh/h	0	23	0	608	685	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	72	72	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	32	0	844	979	57

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	490	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	524	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	524	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 524	-	-
HCM Lane V/C Ratio	- 0.062	-	-
HCM Control Delay (s)	- 12.3	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0.2	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↑↑	↑↑	↗
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	85	0	25	-	-	110
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	1021	1083	1620	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1021	1083	1620	-	-	-
Mov Cap-2 Maneuver	933	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

























Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1620	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	0	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-



Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

2019 Existing + Site  
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	462	172	163	186	156	91	333	198	277	487	64
Future Volume (vph)	81	462	172	163	186	156	91	333	198	277	487	64
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	370		480	335		185	155		105	295		240
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	95			240			135			230		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.624			0.232			0.378			0.485		
Satd. Flow (perm)	1162	3539	1583	432	3539	1583	704	3539	1583	903	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			171			225			205
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		793			845			428			866	
Travel Time (s)		15.4			16.5			7.3			14.8	
Peak Hour Factor	0.86	0.86	0.86	0.91	0.91	0.91	0.88	0.88	0.88	0.97	0.97	0.97
Adj. Flow (vph)	94	537	200	179	204	171	103	378	225	286	502	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	537	200	179	204	171	103	378	225	286	502	66
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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

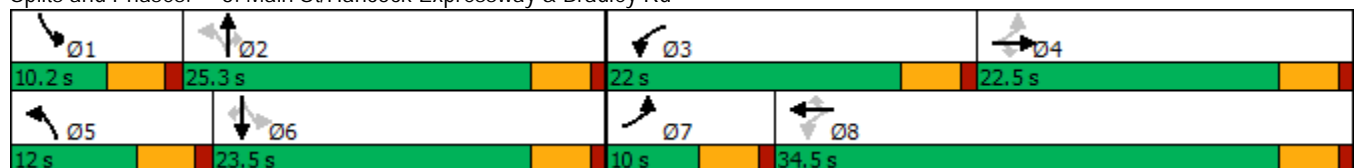
2019 Existing + Site  
PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	10.0	22.5	22.5	22.0	34.5	34.5	12.0	25.3	25.3	10.2	23.5	23.5
Total Split (%)	12.5%	28.1%	28.1%	27.5%	43.1%	43.1%	15.0%	31.6%	31.6%	12.8%	29.4%	29.4%
Maximum Green (s)	5.5	18.0	18.0	17.5	30.0	30.0	7.5	20.8	20.8	5.7	19.0	19.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	21.3	15.8	15.8	30.0	22.5	22.5	27.9	20.9	20.9	26.3	21.9	21.9
Actuated g/C Ratio	0.30	0.22	0.22	0.43	0.32	0.32	0.40	0.30	0.30	0.37	0.31	0.31
v/c Ratio	0.24	0.68	0.39	0.48	0.18	0.28	0.27	0.36	0.36	0.70	0.46	0.10
Control Delay	14.0	30.0	6.2	16.9	18.4	4.5	15.1	21.7	5.2	29.1	23.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	30.0	6.2	16.9	18.4	4.5	15.1	21.7	5.2	29.1	23.4	0.3
LOS	B	C	A	B	B	A	B	C	A	C	C	A
Approach Delay		22.5			13.6			15.5			23.5	
Approach LOS		C			B			B			C	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	70.5
Natural Cycle:	65
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.70
Intersection Signal Delay:	19.4
Intersection LOS:	B
Intersection Capacity Utilization:	61.4%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 3: Main St/Hancock Expressway & Bradley Rd



Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	686	52	21	299	0	49	0	22	0	0	0
Future Vol, veh/h	0	686	52	21	299	0	49	0	22	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	335	215	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	84	84	84	83	83	83	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	715	54	25	356	0	59	0	27	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	356	0	0	769	0	0	1121	1121	715	1162	1175	356
Stage 1	-	-	-	-	-	-	715	715	-	406	406	-
Stage 2	-	-	-	-	-	-	406	406	-	756	769	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1203	-	-	845	-	-	183	206	431	172	192	688
Stage 1	-	-	-	-	-	-	422	434	-	622	598	-
Stage 2	-	-	-	-	-	-	622	598	-	400	411	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1203	-	-	845	-	-	179	200	431	158	186	688
Mov Cap-2 Maneuver	-	-	-	-	-	-	179	200	-	158	186	-
Stage 1	-	-	-	-	-	-	422	434	-	622	580	-
Stage 2	-	-	-	-	-	-	604	580	-	375	411	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.6			31.6			0		
HCM LOS							D			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	219	1203	-	-	845	-	-	-
HCM Lane V/C Ratio	0.391	-	-	-	0.03	-	-	-
HCM Control Delay (s)	31.6	0	-	-	9.4	-	-	0
HCM Lane LOS	D	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	1.7	0	-	-	0.1	-	-	-

Intersection						
Int Delay, s/veh	4.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑↑		↗
Traffic Vol, veh/h	694	14	320	5	0	5
Future Vol, veh/h	694	14	320	5	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	220	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	84	84	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	723	15	381	6	0	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	738	0	- 723
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.13	-	- 6.23
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.219	-	- 3.319
Pot Cap-1 Maneuver	-	-	866	-	0 425
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	866	-	- 425
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	12.2	13.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	425	-	-	866	-
HCM Lane V/C Ratio	0.013	-	-	0.44	-
HCM Control Delay (s)	13.6	-	-	12.4	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0	-	-	2.3	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↕↕	↕↕	↗
Traffic Vol, veh/h	0	41	0	622	821	65
Future Vol, veh/h	0	41	0	622	821	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	51	0	707	933	74

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	467	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	542	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	542	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 542	-	-
HCM Lane V/C Ratio	- 0.095	-	-
HCM Control Delay (s)	- 12.3	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0.3	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↑↑	↑↑	↗
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	85	0	25	-	-	110
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

























Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	1021	1083	1620	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1021	1083	1620	-	-	-
Mov Cap-2 Maneuver	933	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1620	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	0	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

2040 Background  
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	250	100	375	650	515	170	475	165	115	550	155
Future Volume (vph)	115	250	100	375	650	515	170	475	165	115	550	155
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	370		480	335		185	155		105	295		240
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	95			240			135			230		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.362			0.432			0.191			0.390		
Satd. Flow (perm)	674	3539	1583	805	3539	1583	356	3539	1583	726	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			340			205			205
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		793			845			428			866	
Travel Time (s)		15.4			16.5			7.3			14.8	
Peak Hour Factor	0.93	0.93	0.93	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	124	269	108	441	765	606	200	559	194	135	647	182
Shared Lane Traffic (%)												
Lane Group Flow (vph)	124	269	108	441	765	606	200	559	194	135	647	182
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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

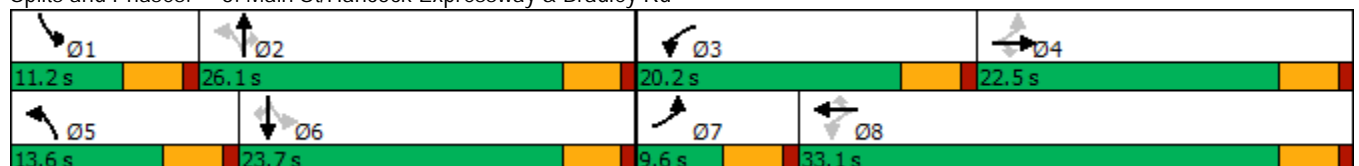
2040 Background  
AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	9.6	22.5	22.5	20.2	33.1	33.1	13.6	26.1	26.1	11.2	23.7	23.7
Total Split (%)	12.0%	28.1%	28.1%	25.3%	41.4%	41.4%	17.0%	32.6%	32.6%	14.0%	29.6%	29.6%
Maximum Green (s)	5.1	18.0	18.0	15.7	28.6	28.6	9.1	21.6	21.6	6.7	19.2	19.2
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)	20.0	14.8	14.8	34.5	27.1	27.1	31.1	24.0	24.0	25.9	19.3	19.3
Actuated g/C Ratio	0.26	0.19	0.19	0.45	0.36	0.36	0.41	0.31	0.31	0.34	0.25	0.25
v/c Ratio	0.50	0.39	0.23	0.79	0.61	0.78	0.65	0.50	0.30	0.40	0.72	0.33
Control Delay	21.6	28.4	1.1	27.6	23.2	17.8	26.7	25.2	4.7	19.1	32.4	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	28.4	1.1	27.6	23.2	17.8	26.7	25.2	4.7	19.1	32.4	4.8
LOS	C	C	A	C	C	B	C	C	A	B	C	A
Approach Delay		20.8			22.5			21.3			25.3	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	76.3
Natural Cycle:	75
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.79
Intersection Signal Delay:	22.7
Intersection LOS:	C
Intersection Capacity Utilization:	67.3%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 3: Main St/Hancock Expressway & Bradley Rd





Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	429	25	8	931	11	90	0	25	11	0	4
Future Vol, veh/h	3	429	25	8	931	11	90	0	25	11	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	335	215	-	215	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	85	85	85	90	90	90	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	466	27	9	1095	13	100	0	28	12	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1108	0	0	493	0	0	1038	1598	233	1352	1612	548
Stage 1	-	-	-	-	-	-	472	472	-	1113	1113	-
Stage 2	-	-	-	-	-	-	566	1126	-	239	499	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	626	-	-	1067	-	-	185	105	769	109	103	480
Stage 1	-	-	-	-	-	-	542	557	-	222	282	-
Stage 2	-	-	-	-	-	-	476	278	-	743	542	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	626	-	-	1067	-	-	181	104	769	104	102	480
Mov Cap-2 Maneuver	-	-	-	-	-	-	181	104	-	104	102	-
Stage 1	-	-	-	-	-	-	539	554	-	221	280	-
Stage 2	-	-	-	-	-	-	468	276	-	713	539	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			42.9			36.3		
HCM LOS							E			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	217	626	-	-	1067	-	-	131
HCM Lane V/C Ratio	0.589	0.005	-	-	0.009	-	-	0.124
HCM Control Delay (s)	42.9	10.8	-	-	8.4	-	-	36.3
HCM Lane LOS	E	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	3.3	0	-	-	0	-	-	0.4

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑		↑
Traffic Vol, veh/h	440	25	25	950	0	25
Future Vol, veh/h	440	25	25	950	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	220	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	85	85	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	478	27	29	1118	0	27

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	505	0	- 239
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	- 6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	- 3.32
Pot Cap-1 Maneuver	-	-	1056	-	0 762
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1056	-	- 762
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	762	-	-	1056	-
HCM Lane V/C Ratio	0.036	-	-	0.028	-
HCM Control Delay (s)	9.9	-	-	8.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↕↕	↕↕	↗
Traffic Vol, veh/h	0	35	0	810	955	70
Future Vol, veh/h	0	35	0	810	955	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	72	72	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	49	0	1125	1364	100

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	682	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	392	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	392	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	392	-	-
HCM Lane V/C Ratio	-	0.126	-	-
HCM Control Delay (s)	-	15.5	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↑↑	↑↑	↗
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	85	0	25	-	-	110
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	1021	1083	1620	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1021	1083	1620	-	-	-
Mov Cap-2 Maneuver	933	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1620	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	0	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

2040 Background  
PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	165	575	200	225	300	350	115	400	305	400	675	160
Future Volume (vph)	165	575	200	225	300	350	115	400	305	400	675	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	370		480	335		185	155		105	295		240
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	95			240			135			230		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.553			0.157			0.377			0.299		
Satd. Flow (perm)	1030	3539	1583	292	3539	1583	702	3539	1583	557	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			233			385			293			165
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		793			845			428			866	
Travel Time (s)		15.4			16.5			7.3			14.8	
Peak Hour Factor	0.86	0.86	0.86	0.91	0.91	0.91	0.88	0.88	0.88	0.97	0.97	0.97
Adj. Flow (vph)	192	669	233	247	330	385	131	455	347	412	696	165
Shared Lane Traffic (%)												
Lane Group Flow (vph)	192	669	233	247	330	385	131	455	347	412	696	165
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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

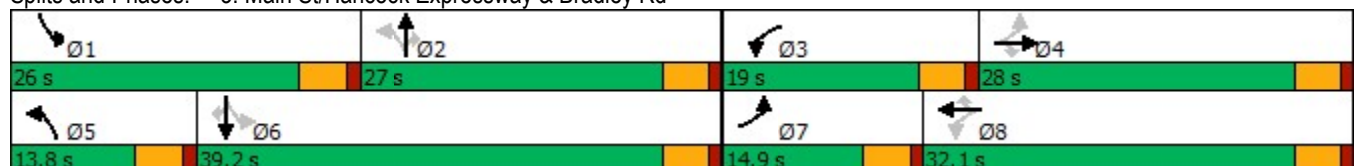
2040 Background  
PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	14.9	28.0	28.0	19.0	32.1	32.1	13.8	27.0	27.0	26.0	39.2	39.2
Total Split (%)	14.9%	28.0%	28.0%	19.0%	32.1%	32.1%	13.8%	27.0%	27.0%	26.0%	39.2%	39.2%
Maximum Green (s)	10.4	23.5	23.5	14.5	27.6	27.6	9.3	22.5	22.5	21.5	34.7	34.7
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	32.2	22.2	22.2	38.9	25.5	25.5	32.7	24.1	24.1	47.9	34.8	34.8
Actuated g/C Ratio	0.33	0.23	0.23	0.40	0.26	0.26	0.34	0.25	0.25	0.49	0.36	0.36
v/c Ratio	0.46	0.83	0.43	0.77	0.35	0.55	0.40	0.52	0.57	0.80	0.55	0.24
Control Delay	23.3	45.5	7.0	38.2	30.2	6.4	19.5	35.1	10.9	30.1	27.4	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.3	45.5	7.0	38.2	30.2	6.4	19.5	35.1	10.9	30.1	27.4	4.7
LOS	C	D	A	D	C	A	B	D	B	C	C	A
Approach Delay		33.4			22.7			23.9			25.3	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	96.9
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	26.5
Intersection LOS:	C
Intersection Capacity Utilization:	76.6%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 3: Main St/Hancock Expressway & Bradley Rd



Intersection												
Int Delay, s/veh	5.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	873	55	25	506	19	65	0	25	20	0	7
Future Vol, veh/h	7	873	55	25	506	19	65	0	25	20	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	335	215	-	215	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	84	84	84	83	83	83	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	909	57	30	602	23	78	0	30	22	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	625	0	0	966	0	0	1284	1608	455	1131	1642	301
Stage 1	-	-	-	-	-	-	923	923	-	662	662	-
Stage 2	-	-	-	-	-	-	361	685	-	469	980	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	952	-	-	709	-	-	122	104	552	158	99	695
Stage 1	-	-	-	-	-	-	290	347	-	417	457	-
Stage 2	-	-	-	-	-	-	630	447	-	544	326	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	952	-	-	709	-	-	116	99	552	144	94	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	116	99	-	144	94	-
Stage 1	-	-	-	-	-	-	288	345	-	414	438	-
Stage 2	-	-	-	-	-	-	597	428	-	511	324	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.5			75.9			28.7		
HCM LOS							F			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	149	952	-	-	709	-	-	181
HCM Lane V/C Ratio	0.728	0.008	-	-	0.042	-	-	0.162
HCM Control Delay (s)	75.9	8.8	-	-	10.3	-	-	28.7
HCM Lane LOS	F	A	-	-	B	-	-	D
HCM 95th %tile Q(veh)	4.3	0	-	-	0.1	-	-	0.6

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑		↑
Traffic Vol, veh/h	890	25	25	550	0	50
Future Vol, veh/h	890	25	25	550	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	220	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	84	84	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	927	26	30	655	0	54

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	953	0	- 464
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	- 6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	- 3.32
Pot Cap-1 Maneuver	-	-	717	-	0 545
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	717	-	- 545
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	12.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	545	-	-	717	-
HCM Lane V/C Ratio	0.1	-	-	0.042	-
HCM Control Delay (s)	12.3	-	-	10.2	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-



Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	↗
Traffic Vol, veh/h	0	70	0	760	1005	95
Future Vol, veh/h	0	70	0	760	1005	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	88	0	864	1142	108

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	571	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	464	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	464	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	464	-	-
HCM Lane V/C Ratio	-	0.189	-	-
HCM Control Delay (s)	-	14.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.7	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↑↑	↑↑	↗
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	85	0	25	-	-	110
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

























Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	1021	1083	1620	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1021	1083	1620	-	-	-
Mov Cap-2 Maneuver	933	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1620	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	0	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

2040 Background + Site  
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	253	100	375	651	515	170	476	165	115	551	156
Future Volume (vph)	121	253	100	375	651	515	170	476	165	115	551	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	370		480	335		185	155		105	295		240
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	95			240			135			230		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.338			0.404			0.224			0.352		
Satd. Flow (perm)	630	3539	1583	753	3539	1583	417	3539	1583	656	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			349			175			184
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		793			845			428			866	
Travel Time (s)		15.4			16.5			7.3			14.8	
Peak Hour Factor	0.93	0.93	0.93	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	130	272	108	441	766	606	200	560	194	135	648	184
Shared Lane Traffic (%)												
Lane Group Flow (vph)	130	272	108	441	766	606	200	560	194	135	648	184
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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

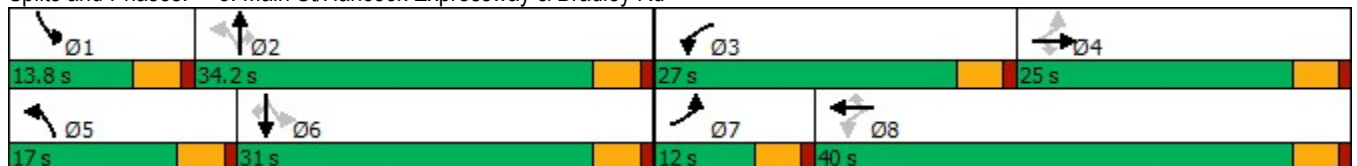
2040 Background + Site  
AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	12.0	25.0	25.0	27.0	40.0	40.0	17.0	34.2	34.2	13.8	31.0	31.0
Total Split (%)	12.0%	25.0%	25.0%	27.0%	40.0%	40.0%	17.0%	34.2%	34.2%	13.8%	31.0%	31.0%
Maximum Green (s)	7.5	20.5	20.5	22.5	35.5	35.5	12.5	29.7	29.7	9.3	26.5	26.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	24.3	17.0	17.0	41.7	29.8	29.8	40.8	29.9	29.9	36.0	27.5	27.5
Actuated g/C Ratio	0.26	0.18	0.18	0.45	0.32	0.32	0.44	0.32	0.32	0.38	0.29	0.29
v/c Ratio	0.51	0.42	0.26	0.79	0.68	0.82	0.59	0.50	0.31	0.38	0.62	0.31
Control Delay	25.2	36.6	2.9	31.0	31.0	22.0	24.4	28.8	7.0	20.0	33.2	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	36.6	2.9	31.0	31.0	22.0	24.4	28.8	7.0	20.0	33.2	6.0
LOS	C	D	A	C	C	C	C	C	A	B	C	A
Approach Delay		26.6			28.0			23.4			26.2	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	93.7
Natural Cycle:	75
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	26.4
Intersection LOS:	C
Intersection Capacity Utilization:	67.4%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 3: Main St/Hancock Expressway & Bradley Rd



Intersection												
Int Delay, s/veh	4.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	443	25	8	931	11	103	0	25	11	0	4
Future Vol, veh/h	3	443	25	8	931	11	103	0	25	11	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	335	215	-	215	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	85	85	85	90	90	90	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	482	27	9	1095	13	114	0	28	12	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1108	0	0	509	0	0	1054	1614	241	1360	1628	548
Stage 1	-	-	-	-	-	-	488	488	-	1113	1113	-
Stage 2	-	-	-	-	-	-	566	1126	-	247	515	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	626	-	-	1052	-	-	180	103	760	107	101	480
Stage 1	-	-	-	-	-	-	530	548	-	222	282	-
Stage 2	-	-	-	-	-	-	476	278	-	735	533	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	626	-	-	1052	-	-	177	102	760	102	100	480
Mov Cap-2 Maneuver	-	-	-	-	-	-	177	102	-	102	100	-
Stage 1	-	-	-	-	-	-	527	545	-	221	279	-
Stage 2	-	-	-	-	-	-	468	275	-	705	530	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.1			53.1			36.9		
HCM LOS							F			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	208	626	-	-	1052	-	-	129
HCM Lane V/C Ratio	0.684	0.005	-	-	0.009	-	-	0.126
HCM Control Delay (s)	53.1	10.8	-	-	8.5	-	-	36.9
HCM Lane LOS	F	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	4.3	0	-	-	0	-	-	0.4

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑		↑
Traffic Vol, veh/h	440	29	27	950	0	33
Future Vol, veh/h	440	29	27	950	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	220	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	85	85	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	478	32	32	1118	0	36

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	510	0	- 239
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	- 6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	- 3.32
Pot Cap-1 Maneuver	-	-	1051	-	0 762
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1051	-	- 762
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	762	-	-	1051	-
HCM Lane V/C Ratio	0.047	-	-	0.03	-
HCM Control Delay (s)	10	-	-	8.5	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↕↕	↕↕	↗
Traffic Vol, veh/h	0	38	0	812	955	71
Future Vol, veh/h	0	38	0	812	955	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	72	72	70	70
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	54	0	1128	1364	101

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	682	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	392	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	392	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 392	-	-
HCM Lane V/C Ratio	- 0.137	-	-
HCM Control Delay (s)	- 15.6	-	-
HCM Lane LOS	- C	-	-
HCM 95th %tile Q(veh)	- 0.5	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗	↖	↑↑	↑↑	↗
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	85	0	25	-	-	110
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	1021	1083	1620	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1021	1083	1620	-	-	-
Mov Cap-2 Maneuver	933	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

























Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1620	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	0	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-



Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

2040 Background + Site  
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	577	200	225	303	350	115	401	305	400	680	163
Future Volume (vph)	169	577	200	225	303	350	115	401	305	400	680	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	370		480	335		185	155		105	295		240
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	95			240			135			230		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.551			0.157			0.372			0.298		
Satd. Flow (perm)	1026	3539	1583	292	3539	1583	693	3539	1583	555	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			233			385			295			168
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		793			845			428			866	
Travel Time (s)		15.4			16.5			7.3			14.8	
Peak Hour Factor	0.86	0.86	0.86	0.91	0.91	0.91	0.88	0.88	0.88	0.97	0.97	0.97
Adj. Flow (vph)	197	671	233	247	333	385	131	456	347	412	701	168
Shared Lane Traffic (%)												
Lane Group Flow (vph)	197	671	233	247	333	385	131	456	347	412	701	168
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)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100	20	20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6

Lanes, Volumes, Timings  
3: Main St/Hancock Expressway & Bradley Rd

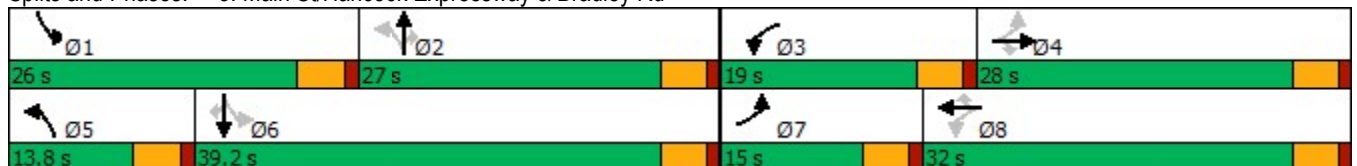
2040 Background + Site  
PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	15.0	28.0	28.0	19.0	32.0	32.0	13.8	27.0	27.0	26.0	39.2	39.2
Total Split (%)	15.0%	28.0%	28.0%	19.0%	32.0%	32.0%	13.8%	27.0%	27.0%	26.0%	39.2%	39.2%
Maximum Green (s)	10.5	23.5	23.5	14.5	27.5	27.5	9.3	22.5	22.5	21.5	34.7	34.7
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	None	Max	Max	None	Max	Max
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	32.3	22.2	22.2	38.8	25.5	25.5	32.7	24.1	24.1	47.8	34.8	34.8
Actuated g/C Ratio	0.33	0.23	0.23	0.40	0.26	0.26	0.34	0.25	0.25	0.49	0.36	0.36
v/c Ratio	0.47	0.83	0.43	0.77	0.36	0.55	0.40	0.52	0.56	0.80	0.55	0.25
Control Delay	23.5	45.6	7.0	38.4	30.3	6.4	19.6	35.1	10.8	30.2	27.5	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	45.6	7.0	38.4	30.3	6.4	19.6	35.1	10.8	30.2	27.5	4.7
LOS	C	D	A	D	C	A	B	D	B	C	C	A
Approach Delay		33.5			22.8			23.9			25.4	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type:	Other
Cycle Length:	100
Actuated Cycle Length:	96.9
Natural Cycle:	80
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.83
Intersection Signal Delay:	26.6
Intersection LOS:	C
Intersection Capacity Utilization:	76.7%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 3: Main St/Hancock Expressway & Bradley Rd



Intersection												
Int Delay, s/veh	6.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	887	55	19	506	25	73	0	25	20	1	7
Future Vol, veh/h	7	887	55	19	506	25	73	0	25	20	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	175	-	335	215	-	215	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	84	84	84	83	83	83	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	924	57	23	602	30	88	0	30	22	1	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	632	0	0	981	0	0	1286	1616	462	1124	1643	301
Stage 1	-	-	-	-	-	-	938	938	-	648	648	-
Stage 2	-	-	-	-	-	-	348	678	-	476	995	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	947	-	-	699	-	-	122	103	547	160	99	695
Stage 1	-	-	-	-	-	-	284	341	-	425	464	-
Stage 2	-	-	-	-	-	-	641	450	-	539	321	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	947	-	-	699	-	-	116	99	547	147	95	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	116	99	-	147	95	-
Stage 1	-	-	-	-	-	-	282	339	-	422	449	-
Stage 2	-	-	-	-	-	-	612	435	-	506	319	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.4			92.2			29.2		
HCM LOS							F			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	145	947	-	-	699	-	-	179
HCM Lane V/C Ratio	0.814	0.008	-	-	0.032	-	-	0.17
HCM Control Delay (s)	92.2	8.8	-	-	10.3	-	-	29.2
HCM Lane LOS	F	A	-	-	B	-	-	D
HCM 95th %tile Q(veh)	5.2	0	-	-	0.1	-	-	0.6

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑		↑
Traffic Vol, veh/h	890	39	30	550	0	55
Future Vol, veh/h	890	39	30	550	0	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	150	220	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	84	84	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	927	41	36	655	0	60

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	968	0	- 464
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	- 6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	- 3.32
Pot Cap-1 Maneuver	-	-	707	-	0 545
Stage 1	-	-	-	-	0 -
Stage 2	-	-	-	-	0 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	707	-	- 545
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	545	-	-	707	-
HCM Lane V/C Ratio	0.11	-	-	0.051	-
HCM Control Delay (s)	12.4	-	-	10.4	-
HCM Lane LOS	B	-	-	B	-
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↕↕	↕↕	↗
Traffic Vol, veh/h	0	72	0	761	1005	100
Future Vol, veh/h	0	72	0	761	1005	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	90	0	865	1142	114

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	571	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	464	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	464	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	464	-	-
HCM Lane V/C Ratio	-	0.194	-	-
HCM Control Delay (s)	-	14.6	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.7	-	-

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘	↗	↘	↑↑	↑↑	↗
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	85	0	25	-	-	110
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	1021	1083	1620	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1021	1083	1620	-	-	-
Mov Cap-2 Maneuver	933	-	-	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1620	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	0	-	0	0	-	-
HCM Lane LOS	A	-	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #1 7:30**

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.3	3.7	0.0	0.0	0.0	0.1	0.2	0.1
Total Del/Veh (s)	0.3	0.1	3.6	0.9	0.0	16.2	5.8	2.1

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #2 7:45**

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.3	3.5	0.0	0.0	0.0	0.2	0.1	0.2
Total Del/Veh (s)	0.2	0.1	2.0	0.8	0.1	13.4	4.6	1.6

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #3 8:00**

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.3	3.5	0.0	0.0	0.0	0.2	0.1	0.2
Total Del/Veh (s)	0.2	0.1	3.0	1.1	0.1	20.7	7.9	2.2

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #4 8:15**

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.3	4.2	0.0	0.0	0.0	0.1	0.2	0.1
Total Del/Veh (s)	0.2	0.0	2.7	0.8	0.0	12.3	6.5	1.8

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Entire Run**

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.3	3.5	0.0	0.0	0.0	0.2	0.2	0.1
Total Del/Veh (s)	0.2	0.1	2.8	0.9	0.0	15.8	6.3	2.0

1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #1 7:30

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.8	2.6	0.0	0.0	0.2	0.3	0.6
Total Del/Veh (s)	0.7	0.3	4.5	0.2	10.0	8.2	1.2

1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #2 7:45

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.7	3.3	0.0	0.0	0.1	0.1	0.6
Total Del/Veh (s)	0.6	0.2	6.1	0.4	15.9	6.8	1.2

1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #3 8:00

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.6	2.9	0.0	0.0	0.1	0.1	0.4
Total Del/Veh (s)	0.7	0.3	4.9	0.4	16.8	9.4	1.6

1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #4 8:15

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.7	3.0	0.0	0.0	0.2	0.1	0.5
Total Del/Veh (s)	0.7	0.2	4.8	0.3	9.9	5.5	1.1

1: Lincoln Plaza Dr & Bradley Rd Performance by movement Entire Run

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.7	2.9	0.0	0.0	0.2	0.2	0.5
Total Del/Veh (s)	0.7	0.3	5.1	0.3	13.3	7.8	1.3



1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #1 7:30

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.3	4.0	0.0	0.0	0.1	0.2	0.2
Total Del/Veh (s)	0.3	0.1	3.3	0.7	14.5	7.6	2.0

1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #2 7:45

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.2	4.2		0.0	0.1	0.1	0.2
Total Del/Veh (s)	0.2	0.1		0.8	13.1	6.0	1.8

1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #3 8:00

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.3	3.6	0.0	0.0	0.2	0.1	0.1
Total Del/Veh (s)	0.3	0.1	2.5	0.9	17.6	7.5	2.1

1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #4 8:15

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.3	3.6	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	0.3	0.0	2.5	0.8	13.7	7.3	1.9

1: Lincoln Plaza Dr & Bradley Rd Performance by movement Entire Run

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.3	3.7	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	0.3	0.1	2.7	0.8	15.1	7.1	2.0

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #1 7:30**

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.8	2.9	0.1	0.2	0.2	0.2	0.7
Total Del/Veh (s)	0.7	0.3	4.3	0.5	14.7	9.4	1.4

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #2 7:45**

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.7	3.0	0.1	0.2	0.2	0.1	0.7
Total Del/Veh (s)	0.7	0.2	5.4	0.5	14.3	5.7	1.5

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #3 8:00**

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.7	3.0	0.2	0.3	0.2	0.1	0.7
Total Del/Veh (s)	0.7	0.3	5.0	0.6	13.6	9.3	1.6

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #4 8:15**

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.7	2.8	0.1	0.3	0.1	0.1	0.7
Total Del/Veh (s)	0.7	0.3	4.0	0.5	12.4	6.9	1.2

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Entire Run**

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.7	2.9	0.1	0.2	0.2	0.1	0.7
Total Del/Veh (s)	0.7	0.3	4.9	0.6	13.8	7.9	1.4

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #1 7:30**

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	3.7	0.1	2.4	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Del/Veh (s)	9.3	0.2	0.6	0.4	0.3	15.8	9.5	17.7	14.2	1.8

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #2 7:45**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	4.2	0.2	3.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Del/Veh (s)	1.4	0.2	0.7	3.3	0.4	0.0	13.7	4.0	11.8	5.2	1.2

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #3 8:00**

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	All
Denied Del/Veh (s)	0.2	3.9	0.0	0.0	0.0	0.5	0.1	0.1
Total Del/Veh (s)	0.2	0.0	2.5	0.5	0.4	19.3	2.9	1.5

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #4 8:15**

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	All
Denied Del/Veh (s)	0.2	3.1	0.0	0.0	0.0	0.2	0.1	0.1	0.1
Total Del/Veh (s)	0.2	0.8	5.3	0.6	0.1	11.8	4.7	11.0	1.4

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Entire Run**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	3.8	0.2	3.2	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.1
Total Del/Veh (s)	7.3	0.2	0.5	3.1	0.5	0.3	15.2	5.8	12.4	11.2	1.5

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #1 7:30**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	2.9	0.2	3.1	0.0	0.0	0.0	0.2	0.2	0.1	0.3	0.3
Total Del/Veh (s)	4.6	0.4	0.4	5.6	0.2	0.1	17.8	11.1	17.6	5.1	1.6

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #2 7:45**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	3.6	0.2	2.8	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.3
Total Del/Veh (s)	6.2	0.4	0.5	5.1	0.3	0.1	16.7	9.3	19.8	7.0	1.5

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #3 8:00**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	3.7	0.3	2.8	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.3
Total Del/Veh (s)	4.8	0.5	0.7	5.3	0.2	0.1	25.3	12.4	22.2	8.2	2.0

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #4 8:15**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	3.0	0.3	2.8	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.3
Total Del/Veh (s)	2.3	0.4	0.5	5.4	0.3	0.1	15.8	6.4	15.3	3.2	1.4

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Entire Run**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	3.3	0.3	2.8	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.3
Total Del/Veh (s)	4.4	0.4	0.5	5.4	0.3	0.1	19.1	10.1	18.8	5.5	1.7

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #1 7:30**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	4.2	0.2	3.5	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.1
Total Del/Veh (s)	11.6	0.3	0.3	2.8	0.5	0.2	13.6	7.4	15.3	4.9	1.7

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #2 7:45**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)		0.2	3.3	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.1
Total Del/Veh (s)		0.2	0.3	5.1	0.5	0.1	15.9	10.2	11.2	9.2	1.9

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #3 8:00**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	3.6	0.2	3.1	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.1
Total Del/Veh (s)	8.5	0.2	0.4	4.4	0.6	0.2	19.3	14.3	13.0	11.1	2.0

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #4 8:15**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)		0.1	3.1	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.1
Total Del/Veh (s)		0.2	0.4	2.5	0.6	0.3	15.7	7.0	23.0	12.2	1.8

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Entire Run**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	3.3	0.2	3.2	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.1
Total Del/Veh (s)	9.3	0.3	0.3	3.3	0.6	0.3	16.8	9.7	15.0	9.3	1.9

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #1 7:30**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	2.1	0.3	2.8	0.0	0.0	0.0	0.1	0.2	0.1		0.1	0.3
Total Del/Veh (s)	4.3	0.4	0.5	4.9	0.3	0.1	19.6	14.4	16.0		8.3	1.7

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #2 7:45**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	2.0	0.2	2.9	0.0	0.0	0.0	0.1	0.1	0.1		0.1	0.3
Total Del/Veh (s)	2.9	0.4	0.3	5.2	0.2	0.1	16.8	5.3	16.6		4.4	1.3

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #3 8:00**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	2.6	0.2	2.7	0.0	0.0	0.0	0.2	0.1	0.1		0.2	0.3
Total Del/Veh (s)	4.3	0.5	0.3	6.4	0.3	0.3	26.7	13.3	22.5		4.9	2.4

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Interval #4 8:15**

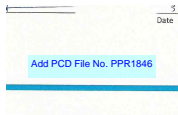
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	3.7	0.2	2.7	0.0	0.0	0.0	0.2	0.1	0.2		0.1	0.3
Total Del/Veh (s)	2.8	0.4	0.4	7.8	0.3	0.2	20.9	10.8	19.9		8.5	1.8

**1: Lincoln Plaza Dr & Bradley Rd Performance by movement Entire Run**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	2.7	0.2	2.8	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.2	0.3
Total Del/Veh (s)	3.3	0.4	0.4	6.1	0.3	0.2	21.8	11.7	18.7	32.0	6.3	1.9

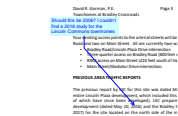
# Markup Summary

Daniel Torres (23)



**Subject:** Text Box  
**Page Label:** 1  
**Author:** Daniel Torres  
**Date:** 4/23/2019 10:31:08 AM  
**Color:** ■

Add PCD File No. PPR1846



**Subject:** Callout  
**Page Label:** 4  
**Author:** Daniel Torres  
**Date:** 4/24/2019 1:40:41 PM  
**Color:** ■

Should this be 2006? I couldn't find a 2016 study for the Lincoln Commons townhomes

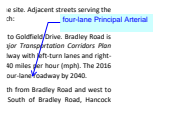


**Subject:** Callout  
**Page Label:** 4  
**Author:** Daniel Torres  
**Date:** 4/24/2019 1:41:44 PM  
**Color:** ■

Please verify this date. Per the records I found the original study for the entire Lincoln Plaza site was in 2004 with an update in 2005.

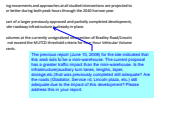


**Subject:** EPC ENG Approval  
**Page Label:** 1  
**Author:** Daniel Torres  
**Date:** 4/24/2019 4:39:57 PM  
**Color:** ■



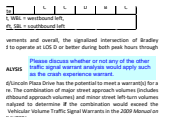
**Subject:** Callout  
**Page Label:** 4  
**Author:** Daniel Torres  
**Date:** 4/24/2019 7:08:53 AM  
**Color:** ■

four-lane Principal Arterial



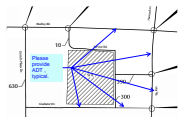
**Subject:** Callout  
**Page Label:** 12  
**Author:** Daniel Torres  
**Date:** 4/25/2019 10:48:19 AM  
**Color:** ■

The previous report (June 10, 2008) for the site indicated that this area was to be a mini-warehouse. The current proposal has a greater traffic impact than the mini-warehouse. Is the infrastructure(auxiliary turn lanes, lengths, taper, storage,etc.)that was previously completed still adequate? Are the roads (Gladiator, Service rd, Lincoln plaza, etc.) still adequate due to the impact of this development? Please address this in your report.



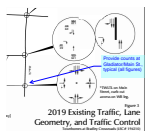
**Subject:** Text Box  
**Page Label:** 9  
**Author:** Daniel Torres  
**Date:** 4/25/2019 10:49:16 AM  
**Color:** ■

Please discuss whether or not any of the other traffic signal warrant analysis would apply such as the crash experience warrant.



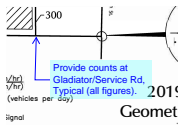
**Subject:** Callout  
**Page Label:** 17  
**Author:** Daniel Torres  
**Date:** 4/25/2019 10:52:14 AM  
**Color:** ■

Please provide ADT , typical.



**Subject:** Callout  
**Page Label:** 17  
**Author:** Daniel Torres  
**Date:** 4/25/2019 12:16:31 PM  
**Color:** ■

Provide counts at Gladiator/Main St., typical (all figures)



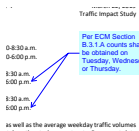
**Subject:** Callout  
**Page Label:** 17  
**Author:** Daniel Torres  
**Date:** 4/25/2019 12:16:41 PM  
**Color:** ■

Provide counts at Gladiator/Service Rd, Typical (all figures).

located by the property, with two on Bradley  
 west of Hancock Expressway/Bradley Road  
 around Expressway/Bradley Road  
 Note that there are also reports in 2008  
 and 2010 for the Bradley Crossroads site  
 which includes this lot.  
 May 10, 2006. This 2006 study was for the  
 site plus all other adjacent parcels (some  
 of a report for the adjacent townships  
 Storage Time development (dated June 1,  
 operation of Lincoln Plaza Drive/Bradley  
 rdial center (dated January 26, 2015) was

**Subject:** Text Box  
**Page Label:** 4  
**Author:** Daniel Torres  
**Date:** 4/25/2019 7:19:57 AM  
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Note that there are also reports in 2008 and 2010 for the Bradley Crossroads site which includes this lot.



**Subject:** Callout  
**Page Label:** 5  
**Author:** Daniel Torres  
**Date:** 4/25/2019 7:23:05 AM  
**Color:** ■

Per ECM Section B.3.1.A counts shall be obtained on Tuesday, Wednesday or Thursday.

Hancock Expressway/Bradley Road  
 Wednesday, March 6, 2019 from 6:30-8:30 a.m.  
 Wednesday, March 6, 2019 from 4:00-6:00 p.m.  
 Bradley Road/Lincoln Plaza Drive  
 Tuesday, March 12, 2019 from 6:30-8:30 a.m.  
 Monday, March 18, 2019 from 4:00-6:00 p.m.  
 Main Street/Right-of-Way (ROW) access  
 Tuesday, March 12, 2019 from 6:30-8:30 a.m.  
 Monday, March 18, 2019 from 4:00-6:00 p.m.

**Subject:** Highlight  
**Page Label:** 5  
**Author:** Daniel Torres  
**Date:** 4/25/2019 7:23:33 AM  
**Color:** ■

Monday, March 18, 2019 from 4:00-6:00 p.m

Wednesday, March 6, 2019 from 6:30-8:30 a.m.  
 Wednesday, March 6, 2019 from 4:00-6:00 p.m.  
 Bradley Road/Lincoln Plaza Drive  
 Tuesday, March 12, 2019 from 6:30-8:30 a.m.  
 Monday, March 18, 2019 from 4:00-6:00 p.m.  
 Main Street/Right-of-Way (ROW) access  
 Tuesday, March 12, 2019 from 6:30-8:30 a.m.  
 Monday, March 18, 2019 from 4:00-6:00 p.m.

**Subject:** Highlight  
**Page Label:** 5  
**Author:** Daniel Torres  
**Date:** 4/25/2019 7:23:38 AM  
**Color:** ■

Monday, March 18, 2019 from 4:00-6:00 p.m.

For this site was dated May 10, 2006. This 2006 study was for the  
 project, which included the site plus all other adjacent parcels (some  
 of a report for the adjacent townships  
 Storage Time development (dated June 1,  
 operation of Lincoln Plaza Drive/Bradley  
 rdial center (dated January 26, 2015) was

**Subject:** Callout  
**Page Label:** 4  
**Author:** Daniel Torres  
**Date:** 4/25/2019 7:26:08 AM  
**Color:** ■

Please include descriptions of Gladiator Drive and Service Road.

Provide counts for  
 Gladiator/Main St.

**Subject:** Text Box  
**Page Label:** 5  
**Author:** Daniel Torres  
**Date:** 4/25/2019 7:30:32 AM  
**Color:** ■

Provide counts for Gladiator/Main St.

ry component in determining the site's traffic impact  
 generated vehicle trips projected to be oriented to  
 plus have been based on the following factors: the p  
 od system serving the site, and the site's geograph  
 y County and the City of Colorado Springs.  
 Please include Gladiator Drive in  
 all your traffic volume analysis.  
 lumes at the proposed site access points on Bradl  
 ted by applying the directional distribution percent  
 trip-generation estimates (from Table 7). Figure 5 sh  
 ows for the weekday morning and evening peak hou

**Subject:** Text Box  
**Page Label:** 6  
**Author:** Daniel Torres  
**Date:** 4/25/2019 7:45:13 AM  
**Color:** ■

Please include Gladiator Drive in all your traffic volume analysis.



**Subject:** Callout  
**Page Label:** 7  
**Author:** Daniel Torres  
**Date:** 4/25/2019 7:49:04 AM  
**Color:** ■

Include Gladiator Drive/Main St. analysis.

r all short- and long-term traffic scenarios durin  
 s shown in Table 3. Detailed Synchro reports ar

Table 4 shows the  
 signalized LOS results.

**Subject:** Callout  
**Page Label:** 8  
**Author:** Daniel Torres  
**Date:** 4/25/2019 8:20:03 AM  
**Color:** ■

Table 4 shows the signalized LOS results.

**Subject:** Callout  
**Page Label:** 8  
**Author:** Daniel Torres  
**Date:** 4/25/2019 9:00:44 AM  
**Color:** ■

Please separate the turn movement results, specifically the left turn movements. Per the provided calculations there are LOS of E and F indicated. Please address this in the text and discuss what steps can be taken to bring them to a satisfactory level.

Page 9 March 22, 2019  
 Traffic Impact Study

the speed of the major street. The graph is shown in Section 4.1 of the report. Please refer to the report for more information on this subject.

4 Traffic

Major arterial streets for the study are shown in Section 4.1 of the report. The major arterial streets are shown in Section 4.1 of the report. The major arterial streets are shown in Section 4.1 of the report. The major arterial streets are shown in Section 4.1 of the report.

**Subject:** Callout  
**Page Label:** 10  
**Author:** Daniel Torres  
**Date:** 4/25/2019 9:26:54 AM  
**Color:** ■

Based on the figure below it does not appear that any fell above the threshold. Please revise statement.

**Subject:** Cloud+  
**Page Label:** 12  
**Author:** Daniel Torres  
**Date:** 4/25/2019 9:30:22 AM  
**Color:** ■

Please address in the text.

Gladiator Drive would not exceed  
 Traffic Signal Warrants.

-State what the current  
 applicable Transportation  
 Impact Fees are and what  
 option the developer will be  
 selecting for payment

**Subject:** Text Box  
**Page Label:** 12  
**Author:** Daniel Torres  
**Date:** 4/25/2019 9:48:28 AM  
**Color:** ■

-State what the current applicable Transportation Impact Fees are and what option the developer will be selecting for payment