

# Bexley Trinity Development

## Traffic Impact Study

Prepared for: Continental Real Estate Companies  
December 14, 2023



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## I. Purpose of Report & Study Objectives

The purpose of this traffic analysis and report is to document the potential traffic impacts of a mixed-use development located in Bexley, Ohio. This traffic impact study (TIS) is required by the City of Bexley as part of the development approval process.

## II. Proposed Development

### A. Off-Site Developments

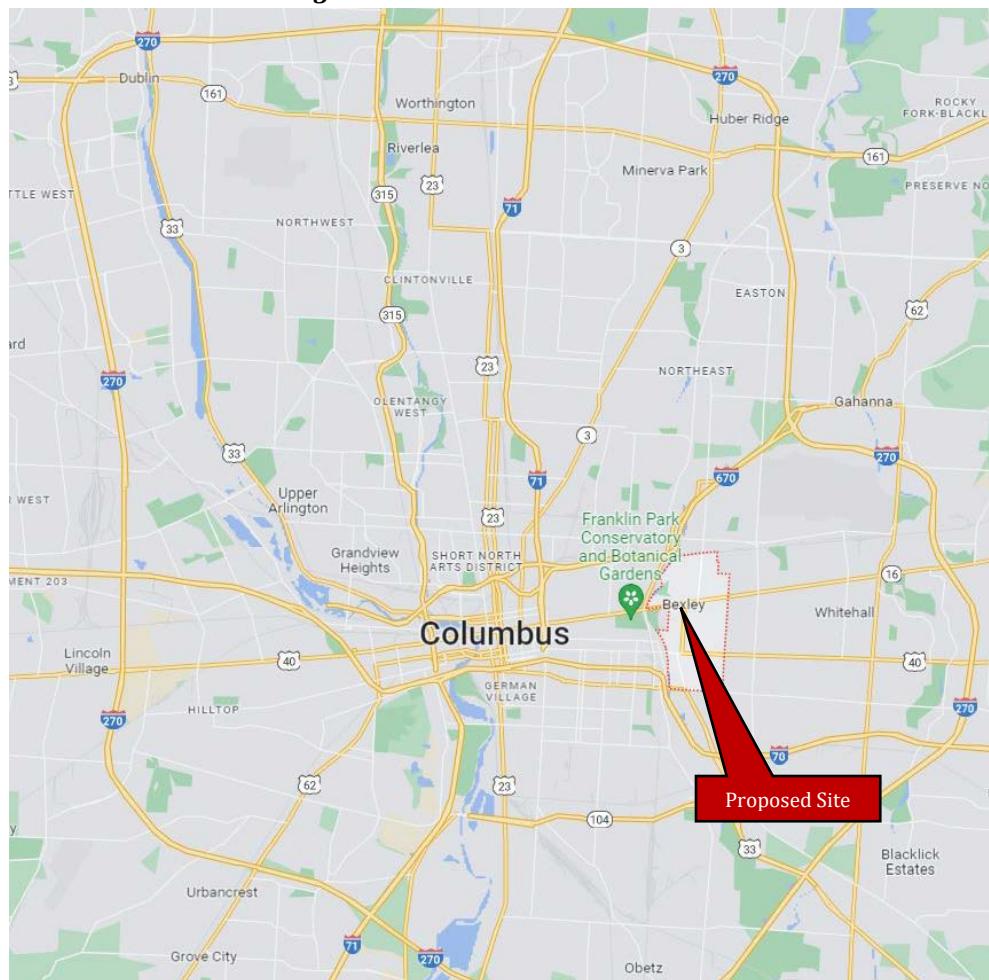
The surrounding area largely consists of housing developments/single family homes to the north, commercial developments to the east and west, and Capital University to the south. The existing site is currently developed as college housing for Capital University.

### B. On-Site Development

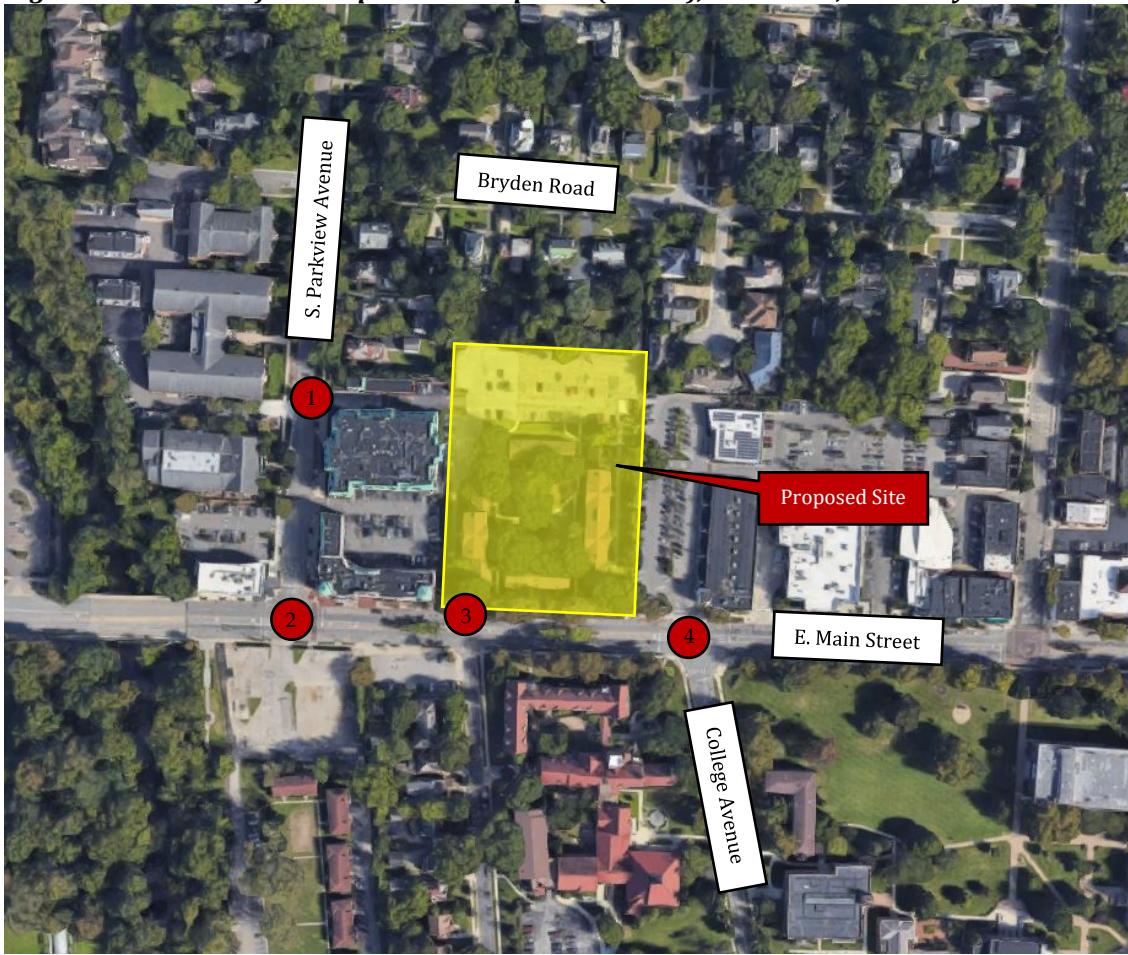
#### Location

The site is located on the north side of E. Main Street, between The Alexander and Bexley Square. **Figure 1** shows the location of the proposed site in central Ohio and **Figure 2** shows the study area.

*Figure 1 - Location in Central Ohio*



**Figure 2 – Location of the Proposed Development (Yellow), Site Drives, and Study Intersections**

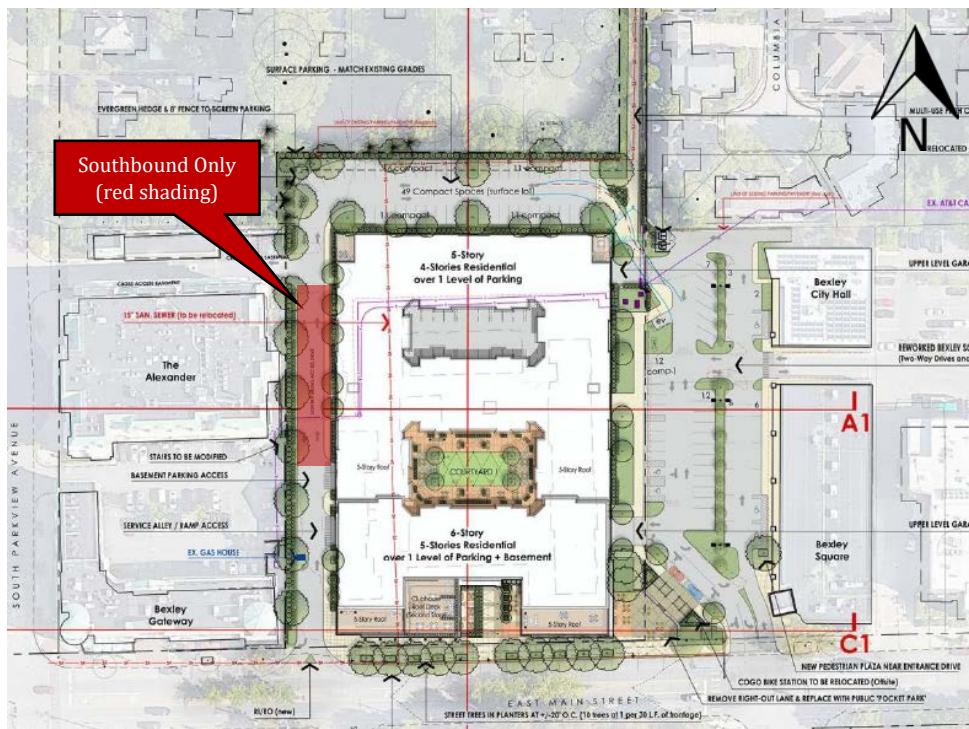


### Land Use & Intensity

The site is proposed to develop as a 232-unit multifamily housing development above office/retail space and a parking garage. The development is proposed to have one full access point on S. Parkview Avenue via cross access to The Alexander development, a right-in/right-out (RIRO) access along E. Main Street, and cross access to Bexley Square which connects to the E. Main Street & College Avenue intersection. It should be noted that there is existing access to the site via Bryden Road which permits two-way vehicular traffic, but this access is proposed to be changed to a pedestrian and bicycle accessway only with the redevelopment.

**Figure 3** shows the proposed site access and cross access for adjacent developments which encourages exiting drivers to access E. Main Street via Site Access 2 (RIRO) and Site Access 3 (full access at College Avenue). The north/south service road on the west side of the proposed building will permit southbound traffic only from The Alexander access to the garage access. Traffic volumes within the TIS represent these conditions. The previous development did not have access to E. Main Street. A higher resolution graphic of the site plan can be found in **Appendix A**.

**Figure 3 – Concept Plan Exhibit**



### III. Area Conditions

#### A. Area of Influence

The study intersections for the proposed development are listed below. Numbers correspond to **Figure 2**.

1. S. Parkview Avenue & Site Access 1 (full access)
2. E. Main Street & S. Parkview Avenue
3. E. Main Street & Site Access 2 (RIRO access)
4. E. Main Street & College Avenue/Site Access 3 (full access)

E. Main Street is a five-lane section roadway with a center median, street parking, and a posted speed limit of 25 MPH. S. Parkview Avenue has a two-lane section with a posted speed limit of 25 MPH.

#### B. Jurisdictions

The proposed site and all access points are under City of Bexley jurisdiction.

#### C. Traffic Volumes & Conditions

Turning movement count data for the intersections of S. Parkview Avenue & The Alexander Access (Site Access 1), E. Main Street & S. Parkview Avenue, and E. Main Street & College Avenue was collected by Carpenter Marty Transportation (CM) on December 5<sup>th</sup>, 2023. Capital University and local city schools were in session. Mid-Ohio Regional Planning Commission (MORPC) provided linear, annual growth rates for the study intersections. Count data and MORPC growth rates can be found in **Appendix B**.

## IV. Projected Traffic

### A. Background Traffic

For analysis, the Opening Year of the development is 2025 and the Design, or Horizon Year, is 2035. The previously described MORPC growth rates were applied to the Background volumes to produce No Build volumes for the Opening and Horizon Years. Note that trips generated by the existing site were not removed from the count data in order to produce conservative results.

### B. Proposed Site Trip Generation

Trips for the proposed development site were generated using the ITE methodologies and the Trip Generation Manual, 11<sup>th</sup> Edition. Land Use Codes (LUC) 221 – *Multifamily Housing (Mid-Rise) – Not Close to Rail Transit*, 710 – *General Office Building*, 822 – *Strip Retail Plaza (<40k)*, and 932 – *High-Turnover (Sit-Down) Restaurant* were used to generate trips for the proposed development. ITE recommended pass-by and internal capture reductions were applied. **Table 1** summarizes the trip generation for the proposed development. Trip generation outputs from ITE can be found in **Appendix C**.

*Table 1 – Proposed Site Trip Generation Summary*

Land Use	Size	Weekday AM Peak		Weekday PM Peak	
		Entry	Exit	Entry	Exit
<b>221 – Multifamily Housing (Mid-Rise) – Not Close to Rail Transit</b>	232 Dwelling Units	21	70	55	35
Internal		1	8	11	8
Pass-By		0	0	0	0
Non-Pass-By		20	62	44	27
<b>710 – General Office Building</b>	12,450 SF	25	3	5	24
Internal		6	3	2	4
Pass-By		0	0	0	0
Non-Pass-By		19	0	3	20
<b>822 – Strip Retail Plaza (&lt;40k)</b>	5,000 SF	11	7	24	24
Internal		3	2	13	13
Pass-By		0	0	4	4
Non-Pass-By		8	5	7	7
<b>932 – High-Turnover (Sit-Down) Restaurant</b>	6,000 SF	32	26	33	21
		9	6	13	14
		0	0	9	3
		23	20	11	4
<b>Total Internal Trips</b>	<b>19</b>	<b>19</b>	<b>39</b>	<b>39</b>	
<b>Total Pass-By Trips</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>7</b>	
<b>Total Non-Pass-By Trips</b>	<b>70</b>	<b>87</b>	<b>65</b>	<b>58</b>	

Trips for the proposed development were distributed to/from the site based on count data, knowledge of the surrounding area, and engineering judgement. Proposed development site traffic was added to the No Build traffic to produce Build traffic for the Opening and Horizon Years. The full volume calculations can be found in **Appendix D**.

## V. Traffic Analysis

### A. Turn Lane Warrant & Length Analysis

A turn lane warrant analysis was conducted at all unsignalized study intersections using standard ODOT turn lane warrant graphs. If a turn lane was warranted in any particular scenario, the length was calculated using methodologies in the ODOT Location and Design (L&D) Manual and it was represented as such in the capacity analysis unless otherwise noted. Lengths for existing turn lanes were also calculated for both No Build and Build volumes in the Horizon Year.

### B. Capacity Analysis

The Highway Capacity Manual module of Synchro 11 was used to analyze capacity at all study intersections. A minimum Level-of-Service (LOS) of D for the overall intersection and approaches, and LOS E for individual movements during peak traffic hours was considered acceptable at each intersection. If unacceptable LOS/delay occurred, mitigation was attempted to bring LOS/delay back to acceptable levels. Signal timings for all signalized intersections follow the recommendations in the ODOT Analysis and Traffic Simulation (OATS) Manual. Parking restrictions along E. Main Street were considered and implemented in the analysis. The eastbound travel lanes do not allow parking through the study area until approximately Sheridan Avenue. East of Sheridan Avenue, on-street parking is allowed from 8 AM to 4 PM for two-hour increments and is restricted from 4 to 6 PM. Westbound travel lanes allow on-street parking from west of the study area until Parkview Avenue with no parking allowed from 7 to 9 AM and time restricted parking from 9 AM to 6 PM.

## VI. Results

### A. Turn Lane Warrant & Length Analysis

Based on the results of the turn lane warrant analysis, no turn lanes are warranted at either unsignalized site access point. Existing and calculated turn lane lengths are shown in **Table 2**. The full turn lane warrant and length analysis can be found in **Appendix E**.

**Table 2 – Turn Lane Length Summary**

Intersection	Turn Lane	Existing	No Build	Build
E. Main Street & S. Parkview Avenue	Eastbound Left	150'	225'	225'
	Westbound Left	90'	100'	100'
	Southbound Right	200'	200'	200'
E. Main Street & College Avenue	Eastbound Left	95'	150'	150'
	Westbound Left	140'	225'	225'
	Southbound Left	65'	200'	200'
	Northbound Right	190'	250'	250'

As shown in **Table 2**, several existing turn lanes do not meet calculated lengths per ODOT methodologies. However, calculated No Build and Build lengths are the same. Thus, any future turn lane length extensions would not be the responsibility of the development. Note, the development of the property will provide additional storage for the southbound left turn

movement at the E. Main Street & College Avenue intersection compared to its existing condition.

### B. Capacity Analysis

Results of the capacity analysis for the study intersections in No Build and Build scenarios can be seen in **Table 3** below. The full capacity analysis can be found in **Appendix F**.

*Table 3 - Capacity Analysis Summary (LOS/delay)*

Intersection	Approach/ Movement	Opening Year (2025)				Horizon Year (2035)			
		AM No Build	AM Build	PM No Build	PM Build	AM No Build	AM Build	PM No Build	PM Build
S. Parkview Ave. & Site Access 1	EB	A/9.1	A/9.1	B/10.2	B/10.4	A/9.1	A/9.1	B/10.3	B/10.5
	WB	A/10.1	B/10.2	B/11.4	B/10.9	B/10.2	B/10.2	B/11.5	B/11.0
	NBL	A/7.6	A/7.6	A/7.6	A/7.6	A/7.6	A/7.6	A/7.6	A/7.6
	SBL	A/7.5	A/7.5	A/7.6	A/7.7	A/7.5	A/7.5	A/7.7	A/7.7
E. Main St. & S. Parkview Ave.	EB	A/3.8	A/3.9	A/4.8	A/5.0	A/3.9	A/4.0	A/5.1	A/5.3
	WB	A/4.0	A/4.1	A/5.0	A/5.3	A/4.2	A/4.3	A/5.3	A/5.6
	NB	D/35.9	D/35.8	D/36.7	D/36.7	D/35.8	D/35.8	D/36.7	D/36.7
	SB	D/40.6	D/41.0	D/39.6	D/39.8	D/40.8	D/41.2	D/39.7	D/39.9
	Total	<b>A/7.2</b>	<b>A/7.3</b>	<b>A/8.2</b>	<b>A/8.4</b>	<b>A/7.2</b>	<b>A/7.3</b>	<b>A/8.4</b>	<b>A/8.6</b>
E. Main St. & Site Access 2	SBR	---	B/11.8	---	C/15.3	---	B/12.2	---	C/16.1
E. Main St. & College Ave./ Site Access 3	EB	B/11.8	C/26.0	C/30.2	C/31.1	B/12.5	C/27.1	C/31.4	C/31.5
	WB	A/5.5	A/7.4	B/11.1	B/11.8	A/5.8	A/7.8	B/11.8	B/11.8
	NB	D/38.9	D/35.1	C/31.3	C/30.6	D/38.5	C/34.8	C/31.5	C/31.9
	SB	D/36.4	D/36.3	C/34.4	D/36.2	D/36.1	D/36.0	D/35.2	D/42.1
	Total	<b>B/13.7</b>	<b>B/19.2</b>	<b>C/24.3</b>	<b>C/25.2</b>	<b>B/13.9</b>	<b>B/19.6</b>	<b>C/25.1</b>	<b>C/26.0</b>

As seen in **Table 3** above, all study intersections show acceptable LOS/delay levels in all scenarios.

## VII. Recommendations and Conclusions

Based on the analysis herein, no turn lane or capacity improvements are required for any study intersection in No Build or Build conditions. Thus, none are recommended. It is recommended that the site access points be permitted as shown in the site plan. Approximately three or four on-street parking spots will need to be removed to accommodate the RIRO access to the north side of E. Main Street. Corridor signal timing adjustments should be considered by the City to ensure all signalized intersections have optimized timings. This would be a No Build improvement.

The proposed site plan promotes vehicular access to E. Main Street, but also provides cross access to adjacent developments on the north side of E. Main Street. Cross access to adjacent developments, along with accommodations for pedestrians and cyclists, are always encouraged as they reduce vehicular impacts to public roadways. In summary, based on the design of the site, drivers are encouraged to enter and exit the site on E. Main Street via the RIRO or the E. Main Street/College Avenue signalized intersection, but also can travel to

adjacent developments without needing to access public roadways if residents are destined to any of the adjacent developments. Based on the data collected and analyzed herein, the E. Main Street access points are expected to be the most heavily utilized for vehicular traffic.

## VIII. Appendices

- Appendix A – Site Plan
- Appendix B – Count Data & Growth Rate Data
- Appendix C – Trip Generation
- Appendix D – Volume Calculations
- Appendix E – Turn Lane Warrant and Length Analysis
- Appendix F – Capacity Analysis

# Appendix A

## Appendix A Site Plan

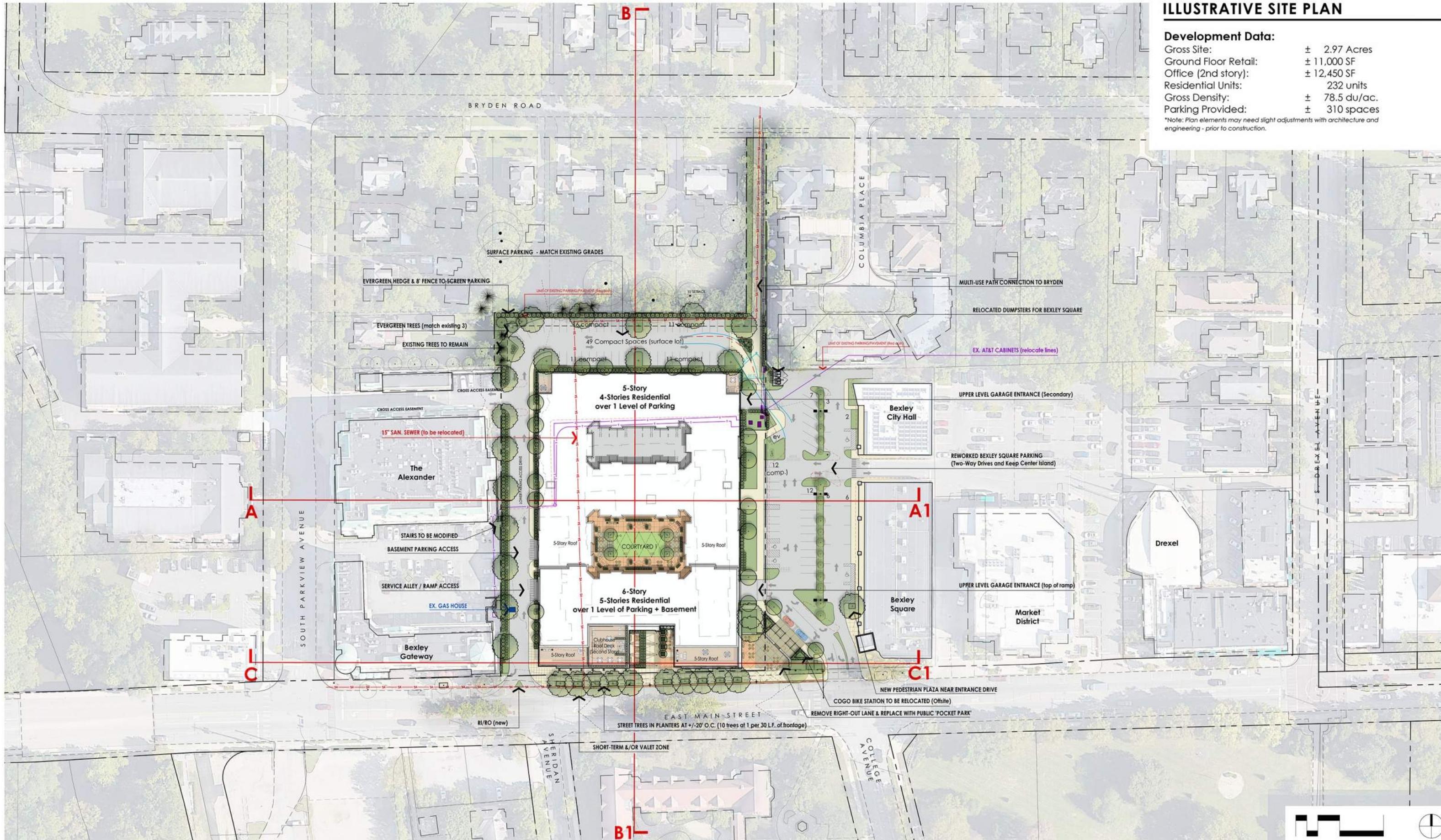


## ILLUSTRATIVE SITE PLAN

### Development Data:

Gross Site: ± 2.97 Acres  
 Ground Floor Retail: ± 11,000 SF  
 Office (2nd story): ± 12,450 SF  
 Residential Units: 232 units  
 Gross Density: ± 78.5 du/ac.  
 Parking Provided: ± 310 spaces

\*Note: Plan elements may need slight adjustments with architecture and engineering - prior to construction.



NOTE: This plan is Conceptual in nature. All dimensions and site layout are approximate and may change with final architecture and engineering.

CONCEPTUAL DEVELOPMENT PLAN  
**2200 E. Main Street**  
 Bexley, OH

July 13, 2023 (rev.: 8.10.23, 9.8.23, 10.6.23, 11.03.23 - ARB)

## Appendix B

# Appendix B Count Data & Growth Rate Data



**E. Main Street & College Avenue - Slip Right - ATR**

Tue Dec 5, 2023

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 1139373, Location: 39.957283, -82.94037

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US

Leg Direction	North Southbound		
Time	T	App	Int
2023-12-05 7:00AM	5	5	5
7:15AM	10	10	10
7:30AM	2	2	2
7:45AM	4	4	4
Hourly Total	21	21	21
8:00AM	8	8	8
8:15AM	4	4	4
8:30AM	6	6	6
8:45AM	9	9	9
Hourly Total	27	27	27
4:00PM	8	8	8
4:15PM	6	6	6
4:30PM	15	15	15
4:45PM	15	15	15
Hourly Total	44	44	44
5:00PM	20	20	20
5:15PM	24	24	24
5:30PM	17	17	17
5:45PM	16	16	16
Hourly Total	77	77	77
<b>Total</b>	<b>169</b>	<b>169</b>	<b>169</b>
<b>% Approach</b>	100%	-	-
<b>% Total</b>	100%	<b>100%</b>	-
<b>Lights</b>	<b>169</b>	<b>169</b>	<b>169</b>
<b>% Lights</b>	100%	<b>100%</b>	100%
<b>Articulated Trucks</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>% Articulated Trucks</b>	0%	<b>0%</b>	0%
<b>Buses and Single-Unit Trucks</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>% Buses and Single-Unit Trucks</b>	0%	<b>0%</b>	0%

\*T: Thru

**E. Main Street & College Avenue - Slip Right - ATR**

Tue Dec 5, 2023

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 1139373, Location: 39.957283, -82.94037

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US

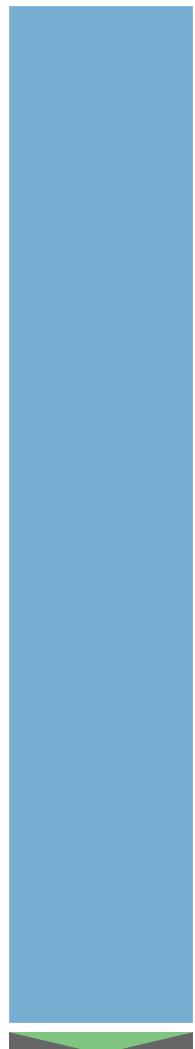
N

Total: 169

In: 169

Out: 0

169



Out: 169      In: 0

Total: 169

S

**E. Main Street & College Avenue - Slip Right - ATR**

Tue Dec 5, 2023

AM Peak (8 AM - 9 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 1139373, Location: 39.957283, -82.94037

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US

Leg Direction	North Southbound		
Time	T	App	Int
2023-12-05 8:00AM	8	8	8
8:15AM	4	4	4
8:30AM	6	6	6
8:45AM	9	9	9
<b>Total</b>	27	27	27
<b>% Approach</b>	100%	-	-
<b>% Total</b>	100%	100%	-
<b>PHF</b>	0.750	0.750	0.750
<b>Lights</b>	27	27	27
<b>% Lights</b>	100%	100%	100%
<b>Articulated Trucks</b>	0	0	0
<b>% Articulated Trucks</b>	0%	0%	0%
<b>Buses and Single-Unit Trucks</b>	0	0	0
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%

\*T: Thru

**E. Main Street & College Avenue - Slip Right - ATR**

Tue Dec 5, 2023

AM Peak (8 AM - 9 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

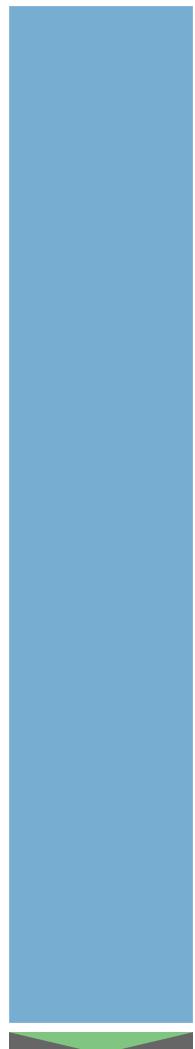
All Channels

ID: 1139373, Location: 39.957283, -82.94037

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US

N  
Total: 27  
In: 27      Out: 0

27



Out: 27      In: 0  
Total: 27  
S

**E. Main Street & College Avenue - Slip Right - ATR**

Tue Dec 5, 2023

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Channels

ID: 1139373, Location: 39.957283, -82.94037

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US

Leg Direction	North Southbound		
Time	T	App	Int
2023-12-05 5:00PM	20	20	<b>20</b>
5:15PM	24	24	<b>24</b>
5:30PM	17	17	<b>17</b>
5:45PM	16	16	<b>16</b>
<b>Total</b>	<b>77</b>	<b>77</b>	<b>77</b>
<b>% Approach</b>	100%	-	-
<b>% Total</b>	100%	<b>100%</b>	-
<b>PHF</b>	0.802	<b>0.802</b>	0.802
<b>Lights</b>	<b>77</b>	<b>77</b>	<b>77</b>
<b>% Lights</b>	100%	<b>100%</b>	100%
<b>Articulated Trucks</b>	0	0	0
<b>% Articulated Trucks</b>	0%	0%	0%
<b>Buses and Single-Unit Trucks</b>	0	0	0
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%

\*T: Thru

**E. Main Street & College Avenue - Slip Right - ATR**

Tue Dec 5, 2023

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

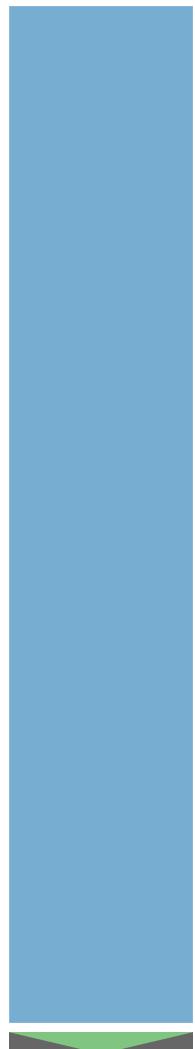
All Channels

ID: 1139373, Location: 39.957283, -82.94037

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US

N  
Total: 77  
In: 77      Out: 0

77



Out: 77      In: 0  
Total: 77  
S

**E. Main Street & College Avenue - TMC**

Tue Dec 5, 2023

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139370, Location: 39.957237, -82.940004

 Provided by: Carpenter Marty (CM) Transportation Inc.  
 6612 Singletree Drive, Columbus, OH, 43229, US

Leg Direction	E. Main Street Eastbound					E. Main Street Westbound					College Avenue Northbound					Private Drive Southbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2023-12-05 7:00AM	3	78	4	0	85	10	108	0	0	118	19	0	16	0	35	1	0	0	0	1	239
7:15AM	2	68	3	0	73	15	125	0	0	140	20	2	19	0	41	10	0	0	0	10	264
7:30AM	1	117	13	0	131	9	124	1	0	134	31	1	24	0	56	2	0	0	0	2	323
7:45AM	6	131	16	0	153	19	142	5	0	166	40	1	39	0	80	3	1	0	1	5	404
Hourly Total	12	394	36	0	442	53	499	6	0	558	110	4	98	0	212	16	1	0	1	18	1230
8:00AM	6	90	11	0	107	35	146	3	0	184	40	1	40	0	81	3	0	0	0	3	375
8:15AM	3	101	28	0	132	50	194	4	0	248	28	1	28	0	57	2	1	1	0	4	441
8:30AM	4	123	26	0	153	39	172	3	0	214	24	1	33	0	58	5	0	2	0	7	432
8:45AM	6	114	20	0	140	16	130	4	0	150	29	1	33	0	63	11	2	0	0	13	366
Hourly Total	19	428	85	0	532	140	642	14	0	796	121	4	134	0	259	21	3	3	0	27	1614
4:00PM	13	159	27	0	199	29	149	5	0	183	22	2	43	0	67	11	3	1	0	15	464
4:15PM	6	159	31	0	196	25	161	2	0	188	29	3	36	0	68	10	1	0	0	11	463
4:30PM	7	172	22	0	201	30	143	5	0	178	33	1	49	0	83	15	5	0	0	20	482
4:45PM	7	194	15	0	216	40	124	1	0	165	26	1	36	0	63	20	4	2	0	26	470
Hourly Total	33	684	95	0	812	124	577	13	0	714	110	7	164	0	281	56	13	3	0	72	1879
5:00PM	8	163	32	0	203	41	131	3	0	175	25	0	41	0	66	25	6	1	0	32	476
5:15PM	14	181	33	0	228	32	134	5	0	171	37	4	30	0	71	24	5	2	0	31	501
5:30PM	21	201	22	0	244	27	147	2	0	176	35	3	50	0	88	20	0	0	0	20	528
5:45PM	15	168	23	0	206	41	118	7	0	166	23	1	36	0	60	25	4	3	0	32	464
Hourly Total	58	713	110	0	881	141	530	17	0	688	120	8	157	0	285	94	15	6	0	115	1969
<b>Total</b>	122	2219	326	0	2667	458	2248	50	0	2756	461	23	553	0	1037	187	32	12	1	232	6692
<b>% Approach</b>	4.6%	83.2%	12.2%	0%	-	16.6%	81.6%	1.8%	0%	-	44.5%	2.2%	53.3%	0%	-	80.6%	13.8%	5.2%	0.4%	-	-
<b>% Total</b>	1.8%	33.2%	4.9%	0%	<b>39.9%</b>	6.8%	33.6%	0.7%	0%	<b>41.2%</b>	6.9%	0.3%	8.3%	0%	<b>15.5%</b>	2.8%	0.5%	0.2%	0%	<b>3.5%</b>	-
<b>Lights</b>	122	2174	318	0	<b>2614</b>	453	2206	50	0	<b>2709</b>	457	23	543	0	<b>1023</b>	184	32	12	1	<b>229</b>	6575
<b>% Lights</b>	100%	98.0%	97.5%	0%	<b>98.0%</b>	98.9%	98.1%	100%	0%	<b>98.3%</b>	99.1%	100%	98.2%	0%	<b>98.6%</b>	98.4%	100%	100%	100%	<b>98.7%</b>	98.3%
<b>Articulated Trucks</b>	0	5	0	0	<b>5</b>	1	3	0	0	<b>4</b>	1	0	0	0	<b>1</b>	0	0	0	0	<b>0</b>	10
<b>% Articulated Trucks</b>	0%	0.2%	0%	0%	<b>0.2%</b>	0.2%	0.1%	0%	0%	<b>0.1%</b>	0.2%	0%	0%	0%	<b>0.1%</b>	0%	0%	0%	0%	<b>0%</b>	0.1%
<b>Buses and Single-Unit Trucks</b>	0	40	8	0	<b>48</b>	4	39	0	0	<b>43</b>	3	0	10	0	<b>13</b>	3	0	0	0	<b>3</b>	107
<b>% Buses and Single-Unit Trucks</b>	0%	1.8%	2.5%	0%	<b>1.8%</b>	0.9%	1.7%	0%	0%	<b>1.6%</b>	0.7%	0%	1.8%	0%	<b>1.3%</b>	1.6%	0%	0%	0%	<b>1.3%</b>	1.6%

\*L: Left, R: Right, T: Thru, U: U-Turn

Tue Dec 5, 2023

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139370, Location: 39.957237, -82.940004

**[N] Private Drive**

Total: 428

In: 232 Out: 196

12  
32  
187  
1

**[W] E. Main Street**  
 Total: 5388  
 In: 2667 Out: 2721

 122  
 2219  
 326

50  
 2248  
 458  
 Out: 2959 Total: 5715  
**[E] E. Main Street**

Out: 816

In: 1037

Total: 1853

**[S] College Avenue**461  
23  
553

**E. Main Street & College Avenue - TMC**

Tue Dec 5, 2023

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139370, Location: 39.957237, -82.940004

 Provided by: Carpenter Marty (CM) Transportation Inc.  
 6612 Singletree Drive, Columbus, OH, 43229, US

Leg Direction	E. Main Street Eastbound					E. Main Street Westbound					College Avenue Northbound					Private Drive Southbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2023-12-05 7:45AM	6	131	16	0	153	19	142	5	0	166	40	1	39	0	80	3	1	0	1	5	404
8:00AM	6	90	11	0	107	35	146	3	0	184	40	1	40	0	81	3	0	0	0	3	375
8:15AM	3	101	28	0	132	50	194	4	0	248	28	1	28	0	57	2	1	1	0	4	441
8:30AM	4	123	26	0	153	39	172	3	0	214	24	1	33	0	58	5	0	2	0	7	432
<b>Total</b>	19	445	81	0	545	143	654	15	0	812	132	4	140	0	276	13	2	3	1	19	1652
<b>% Approach</b>	3.5%	81.7%	14.9%	0%	-	17.6%	80.5%	1.8%	0%	-	47.8%	1.4%	50.7%	0%	-	68.4%	10.5%	15.8%	5.3%	-	-
<b>% Total</b>	1.2%	26.9%	4.9%	0%	33.0%	8.7%	39.6%	0.9%	0%	49.2%	8.0%	0.2%	8.5%	0%	16.7%	0.8%	0.1%	0.2%	0.1%	1.2%	-
<b>PHF</b>	0.792	0.849	0.723	-	0.891	0.715	0.843	0.750	-	0.819	0.825	1.000	0.875	-	0.852	0.650	0.500	0.375	0.250	0.679	0.937
<b>Lights</b>	19	432	77	0	528	142	642	15	0	799	129	4	137	0	270	11	2	3	1	17	1614
<b>% Lights</b>	100%	97.1%	95.1%	0%	96.9%	99.3%	98.2%	100%	0%	98.4%	97.7%	100%	97.9%	0%	97.8%	84.6%	100%	100%	100%	89.5%	97.7%
<b>Articulated Trucks</b>	0	1	0	0	1	1	2	0	0	3	1	0	0	0	1	0	0	0	0	0	5
<b>% Articulated Trucks</b>	0%	0.2%	0%	0%	0.2%	0.7%	0.3%	0%	0%	0.4%	0.8%	0%	0%	0%	0.4%	0%	0%	0%	0%	0%	0.3%
<b>Buses and Single-Unit Trucks</b>	0	12	4	0	16	0	10	0	0	10	2	0	3	0	5	2	0	0	0	2	33
<b>% Buses and Single-Unit Trucks</b>	0%	2.7%	4.9%	0%	2.9%	0%	1.5%	0%	0%	1.2%	1.5%	0%	2.1%	0%	1.8%	15.4%	0%	0%	0%	10.5%	2.0%

\*L: Left, R: Right, T: Thru, U: U-Turn

**E. Main Street & College Avenue - TMC**

Tue Dec 5, 2023

AM Peak (7:45 AM - 8:45 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139370, Location: 39.957237, -82.940004

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US**[N] Private Drive**

Total: 58

In: 19      Out: 39

32 13

**[W] E. Main Street**  
Total: 1334  
In: 545      Out: 789**[E] E. Main Street**  
Out: 598      Total: 1410  
In: 812

132

4

140

Out: 226      In: 276

Total: 502

**[S] College Avenue**

**E. Main Street & College Avenue - TMC**

Tue Dec 5, 2023

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139370, Location: 39.957237, -82.940004

 Provided by: Carpenter Marty (CM) Transportation Inc.  
 6612 Singletree Drive, Columbus, OH, 43229, US

Leg Direction	E. Main Street Eastbound					E. Main Street Westbound					College Avenue Northbound					Private Drive Southbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2023-12-05 4:45PM	7	194	15	0	216	40	124	1	0	165	26	1	36	0	63	20	4	2	0	26	470
5:00PM	8	163	32	0	203	41	131	3	0	175	25	0	41	0	66	25	6	1	0	32	476
5:15PM	14	181	33	0	228	32	134	5	0	171	37	4	30	0	71	24	5	2	0	31	501
5:30PM	21	201	22	0	244	27	147	2	0	176	35	3	50	0	88	20	0	0	0	20	528
<b>Total</b>	50	739	102	0	<b>891</b>	140	536	11	0	<b>687</b>	123	8	157	0	<b>288</b>	89	15	5	0	<b>109</b>	1975
<b>% Approach</b>	5.6%	82.9%	11.4%	0%	-	20.4%	78.0%	1.6%	0%	-	42.7%	2.8%	54.5%	0%	-	81.7%	13.8%	4.6%	0%	-	-
<b>% Total</b>	2.5%	37.4%	5.2%	0%	<b>45.1%</b>	7.1%	27.1%	0.6%	0%	<b>34.8%</b>	6.2%	0.4%	7.9%	0%	<b>14.6%</b>	4.5%	0.8%	0.3%	0%	<b>5.5%</b>	-
<b>PHF</b>	0.595	0.919	0.773	-	<b>0.913</b>	0.854	0.912	0.550	-	<b>0.976</b>	0.831	0.500	0.785	-	<b>0.818</b>	0.890	0.625	0.625	-	<b>0.852</b>	0.935
<b>Lights</b>	50	732	101	0	<b>883</b>	139	529	11	0	<b>679</b>	123	8	155	0	<b>286</b>	89	15	5	0	<b>109</b>	1957
<b>% Lights</b>	100%	99.1%	99.0%	0%	<b>99.1%</b>	99.3%	98.7%	100%	0%	<b>98.8%</b>	100%	100%	98.7%	0%	<b>99.3%</b>	100%	100%	100%	0%	<b>100%</b>	99.1%
<b>Articulated Trucks</b>	0	0	0	0	<b>0</b>	0	0	0	0	<b>0</b>	0	0	0	0	<b>0</b>	0	0	0	0	<b>0</b>	0
<b>% Articulated Trucks</b>	0%	0%	0%	0%	<b>0%</b>	0%	0%	0%	0%	<b>0%</b>	0%	0%	0%	0%	<b>0%</b>	0%	0%	0%	0%	<b>0%</b>	0%
<b>Buses and Single-Unit Trucks</b>	0	7	1	0	<b>8</b>	1	7	0	0	<b>8</b>	0	0	2	0	<b>2</b>	0	0	0	0	<b>0</b>	18
<b>% Buses and Single-Unit Trucks</b>	0%	0.9%	1.0%	0%	<b>0.9%</b>	0.7%	1.3%	0%	0%	<b>1.2%</b>	0%	0%	1.3%	0%	<b>0.7%</b>	0%	0%	0%	0%	<b>0%</b>	0.9%

\*L: Left, R: Right, T: Thru, U: U-Turn

**E. Main Street & College Avenue - TMC**

Tue Dec 5, 2023

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

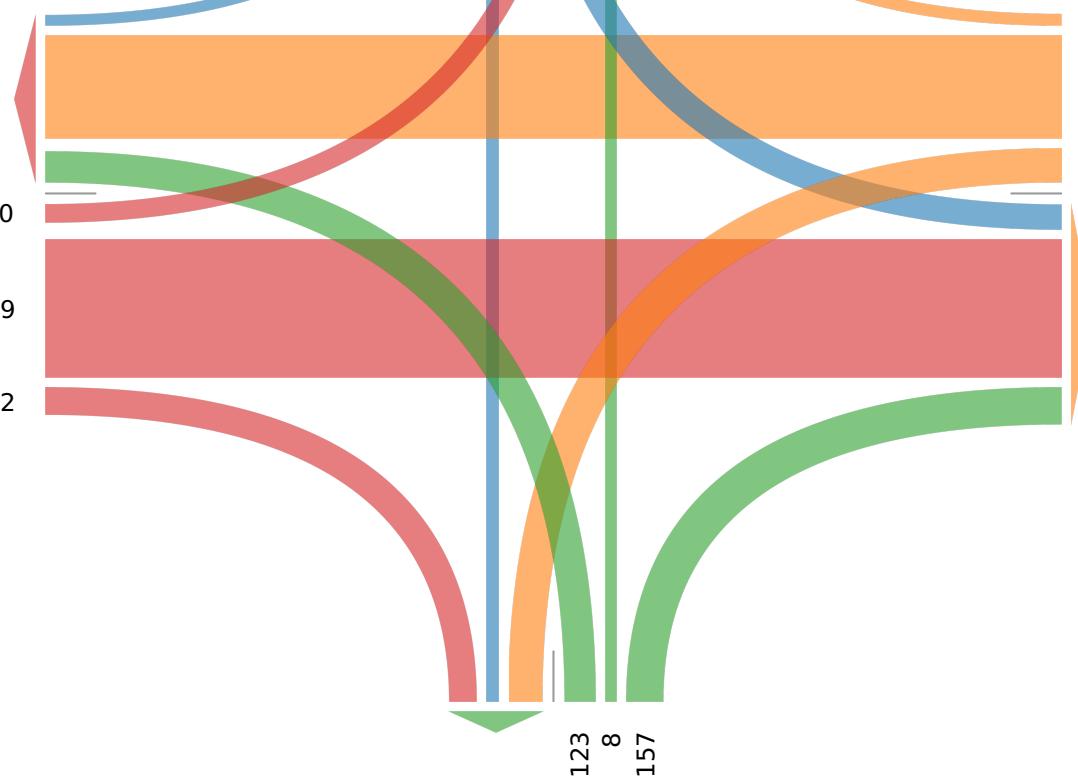
ID: 1139370, Location: 39.957237, -82.940004

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US**[N] Private Drive**

Total: 178

In: 109    Out: 69

5 15 89

**[W] E. Main Street**  
Total: 1555  
In: 891    Out: 664**[E] E. Main Street**  
Total: 1672  
Out: 985    In: 687

Out: 257    In: 288

Total: 545

**[S] College Avenue**

**E. Main Street & S. Parkview Avenue - TMC**

Tue Dec 5, 2023

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139374, Location: 39.957323, -82.942265

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US

Leg Direction	E. Main Street Eastbound					E. Main Street Westbound					Private Drive Northbound					S. Parkview Avenue Southbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2023-12-05 7:00AM	11	82	0	0	93	1	122	4	0	127	0	0	0	0	0	3	0	15	0	18	238
7:15AM	12	70	0	0	82	0	155	11	0	166	0	0	0	0	0	1	0	22	0	23	271
7:30AM	18	129	0	0	147	0	154	10	0	164	0	0	0	0	0	1	0	19	0	20	331
7:45AM	14	142	1	0	157	0	165	15	0	180	0	0	0	0	0	6	0	21	0	27	364
Hourly Total	55	423	1	0	479	1	596	40	0	637	0	0	0	0	0	11	0	77	0	88	1204
8:00AM	22	102	0	0	124	0	178	11	0	189	1	1	0	0	2	10	0	21	0	31	346
8:15AM	22	130	0	0	152	0	204	13	0	217	0	0	0	0	0	9	1	30	0	40	409
8:30AM	16	146	1	0	163	0	179	11	0	190	1	0	0	0	1	7	0	26	0	33	387
8:45AM	24	146	2	0	172	1	146	11	0	158	1	1	0	0	2	5	0	31	0	36	368
Hourly Total	84	524	3	0	611	1	707	46	0	754	3	2	0	0	5	31	1	108	0	140	1510
4:00PM	17	197	1	0	215	2	156	19	0	177	2	1	1	0	4	18	0	26	0	44	440
4:15PM	23	210	3	0	236	1	178	18	0	197	2	1	2	0	5	13	0	32	0	45	483
4:30PM	34	212	2	0	248	3	170	19	0	192	1	0	1	0	2	16	0	29	0	45	487
4:45PM	29	220	0	0	249	2	143	22	0	167	6	0	2	0	8	9	0	21	0	30	454
Hourly Total	103	839	6	0	948	8	647	78	0	733	11	2	6	0	19	56	0	108	0	164	1864
5:00PM	26	191	1	0	218	2	160	15	0	177	7	0	0	0	7	19	1	25	0	45	447
5:15PM	31	224	2	0	257	1	180	22	0	203	0	2	0	0	2	21	3	23	0	47	509
5:30PM	28	218	0	0	246	1	156	29	0	186	0	0	1	0	1	18	2	24	0	44	477
5:45PM	31	187	0	0	218	1	145	22	0	168	1	0	1	0	2	14	2	17	0	33	421
Hourly Total	116	820	3	0	939	5	641	88	0	734	8	2	2	0	12	72	8	89	0	169	1854
Total	358	2606	13	0	2977	15	2591	252	0	2858	22	6	8	0	36	170	9	382	0	561	6432
% Approach	12.0%	87.5%	0.4%	0%	-	0.5%	90.7%	8.8%	0%	-	61.1%	16.7%	22.2%	0%	-	30.3%	1.6%	68.1%	0%	-	-
% Total	5.6%	40.5%	0.2%	0%	46.3%	0.2%	40.3%	3.9%	0%	44.4%	0.3%	0.1%	0.1%	0%	0.6%	2.6%	0.1%	5.9%	0%	8.7%	-
Lights	354	2558	13	0	2925	15	2544	251	0	2810	22	6	8	0	36	167	9	379	0	555	6326
% Lights	98.9%	98.2%	100%	0%	98.3%	100%	98.2%	99.6%	0%	98.3%	100%	100%	100%	0%	100%	98.2%	100%	99.2%	0%	98.9%	98.4%
Articulated Trucks	1	4	0	0	5	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	6
% Articulated Trucks	0.3%	0.2%	0%	0%	0.2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.1%
Buses and Single-Unit Trucks	3	44	0	0	47	0	46	1	0	47	0	0	0	0	0	3	0	3	0	6	100
% Buses and Single-Unit Trucks	0.8%	1.7%	0%	0%	1.6%	0%	1.8%	0.4%	0%	1.6%	0%	0%	0%	0%	0%	1.8%	0%	0.8%	0%	1.1%	1.6%

\*L: Left, R: Right, T: Thru, U: U-Turn

**E. Main Street & S. Parkview Avenue - TMC**

Tue Dec 5, 2023

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139374, Location: 39.957323, -82.942265

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US**[N] S. Parkview Avenue**Total: 1177  
In: 561 Out: 616

382 9 170

**[W] E. Main Street**  
Total: 5972  
In: 2977 Out: 2995**[E] E. Main Street**  
Out: 2784 Total: 5642  
In: 2858358  
2606  
13Out: 37 In: 36  
Total: 73  
**[S] Private Drive**

**E. Main Street & S. Parkview Avenue - TMC**

Tue Dec 5, 2023

AM Peak (8 AM - 9 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139374, Location: 39.957323, -82.942265

 Provided by: Carpenter Marty (CM) Transportation Inc.  
 6612 Singletree Drive, Columbus, OH, 43229, US

Leg Direction	E. Main Street Eastbound					E. Main Street Westbound					Private Drive Northbound					S. Parkview Avenue Southbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2023-12-05 8:00AM	22	102	0	0	124	0	178	11	0	189	1	1	0	0	2	10	0	21	0	31	346
8:15AM	22	130	0	0	152	0	204	13	0	217	0	0	0	0	0	9	1	30	0	40	409
8:30AM	16	146	1	0	163	0	179	11	0	190	1	0	0	0	1	7	0	26	0	33	387
8:45AM	24	146	2	0	172	1	146	11	0	158	1	1	0	0	2	5	0	31	0	36	368
<b>Total</b>	84	524	3	0	611	1	707	46	0	754	3	2	0	0	5	31	1	108	0	140	1510
<b>% Approach</b>	13.7%	85.8%	0.5%	0%	-	0.1%	93.8%	6.1%	0%	-	60.0%	40.0%	0%	0%	-	22.1%	0.7%	77.1%	0%	-	-
<b>% Total</b>	5.6%	34.7%	0.2%	0%	40.5%	0.1%	46.8%	3.0%	0%	49.9%	0.2%	0.1%	0%	0%	0.3%	2.1%	0.1%	7.2%	0%	9.3%	-
<b>PHF</b>	0.875	0.897	0.375	-	0.888	0.250	0.866	0.885	-	0.869	0.750	0.500	-	-	0.625	0.775	0.250	0.871	-	0.875	0.923
<b>Lights</b>	81	506	3	0	590	1	687	46	0	734	3	2	0	0	5	30	1	108	0	139	1468
<b>% Lights</b>	96.4%	96.6%	100%	0%	96.6%	100%	97.2%	100%	0%	97.3%	100%	100%	0%	0%	100%	96.8%	100%	100%	0%	99.3%	97.2%
<b>Articulated Trucks</b>	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<b>% Articulated Trucks</b>	1.2%	0%	0%	0%	0.2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.1%
<b>Buses and Single-Unit Trucks</b>	2	18	0	0	20	0	20	0	0	20	0	0	0	0	0	1	0	0	0	1	41
<b>% Buses and Single-Unit Trucks</b>	2.4%	3.4%	0%	0%	3.3%	0%	2.8%	0%	0%	2.7%	0%	0%	0%	0%	0%	3.2%	0%	0%	0%	0.7%	2.7%

\*L: Left, R: Right, T: Thru, U: U-Turn

**E. Main Street & S. Parkview Avenue - TMC**

Tue Dec 5, 2023

AM Peak (8 AM - 9 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139374, Location: 39.957323, -82.942265

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US**[N] S. Parkview Avenue**

Total: 272

In: 140 Out: 132

108  
1  
31**[W] E. Main Street**  
Total: 1429  
In: 611 Out: 818**[E] E. Main Street**  
Out: 555 Total: 1309 In: 754  
46  
707  
1

Out: 5

In: 5

Total: 10

**[S] Private Drive**

**E. Main Street & S. Parkview Avenue - TMC**

Tue Dec 5, 2023

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139374, Location: 39.957323, -82.942265

 Provided by: Carpenter Marty (CM) Transportation Inc.  
 6612 Singletree Drive, Columbus, OH, 43229, US

Leg Direction	E. Main Street Eastbound					E. Main Street Westbound					Private Drive Northbound					S. Parkview Avenue Southbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2023-12-05 4:30PM	34	212	2	0	248	3	170	19	0	192	1	0	1	0	2	16	0	29	0	45	487
4:45PM	29	220	0	0	249	2	143	22	0	167	6	0	2	0	8	9	0	21	0	30	454
5:00PM	26	191	1	0	218	2	160	15	0	177	7	0	0	0	7	19	1	25	0	45	447
5:15PM	31	224	2	0	257	1	180	22	0	203	0	2	0	0	2	21	3	23	0	47	509
<b>Total</b>	120	847	5	0	972	8	653	78	0	739	14	2	3	0	19	65	4	98	0	167	1897
<b>% Approach</b>	12.3%	87.1%	0.5%	0%	-	1.1%	88.4%	10.6%	0%	-	73.7%	10.5%	15.8%	0%	-	38.9%	2.4%	58.7%	0%	-	-
<b>% Total</b>	6.3%	44.6%	0.3%	0%	<b>51.2%</b>	0.4%	34.4%	4.1%	0%	<b>39.0%</b>	0.7%	0.1%	0.2%	0%	<b>1.0%</b>	3.4%	0.2%	5.2%	0%	<b>8.8%</b>	-
<b>PHF</b>	0.882	0.945	0.625	-	<b>0.946</b>	0.667	0.907	0.886	-	<b>0.910</b>	0.500	0.250	0.375	-	<b>0.594</b>	0.774	0.333	0.845	-	<b>0.888</b>	0.932
<b>Lights</b>	119	842	5	0	966	8	644	78	0	730	14	2	3	0	19	64	4	97	0	165	1880
<b>% Lights</b>	99.2%	99.4%	100%	0%	<b>99.4%</b>	100%	98.6%	100%	0%	<b>98.8%</b>	100%	100%	100%	0%	<b>100%</b>	98.5%	100%	99.0%	0%	<b>98.8%</b>	99.1%
<b>Articulated Trucks</b>	0	0	0	0	<b>0</b>	0	0	0	0	<b>0</b>	0	0	0	0	<b>0</b>	0	0	0	0	<b>0</b>	0
<b>% Articulated Trucks</b>	0%	0%	0%	0%	<b>0%</b>	0%	0%	0%	0%	<b>0%</b>	0%	0%	0%	0%	<b>0%</b>	0%	0%	0%	0%	<b>0%</b>	0%
<b>Buses and Single-Unit Trucks</b>	1	5	0	0	<b>6</b>	0	9	0	0	<b>9</b>	0	0	0	0	<b>0</b>	1	0	1	0	<b>2</b>	17
<b>% Buses and Single-Unit Trucks</b>	0.8%	0.6%	0%	0%	<b>0.6%</b>	0%	1.4%	0%	0%	<b>1.2%</b>	0%	0%	0%	0%	<b>0%</b>	1.5%	0%	1.0%	0%	<b>1.2%</b>	0.9%

\*L: Left, R: Right, T: Thru, U: U-Turn

**E. Main Street & S. Parkview Avenue - TMC**

Tue Dec 5, 2023

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139374, Location: 39.957323, -82.942265

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US**[N] S. Parkview Avenue**

Total: 367

In: 167 Out: 200

98 4 65

**[W] E. Main Street**  
Total: 1737  
In: 972 Out: 765**[E] E. Main Street**  
Total: 1654  
In: 739 Out: 915

Out: 17 In: 19

Total: 36

**[S] Private Drive**

**S. Parkview Avenue & The Alexander Access - TMC**

Tue Dec 5, 2023

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139375, Location: 39.958212, -82.942195

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US

Leg Direction	Private Drive Eastbound					The Alexander Access Westbound					S. Parkview Avenue Northbound					S. Parkview Avenue Southbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2023-12-05 7:00AM	0	0	0	0	0	0	0	0	0	0	1	12	0	1	14	0	17	0	0	17	31
7:15AM	0	0	0	0	0	0	0	1	0	1	1	23	0	0	24	0	25	1	0	26	51
7:30AM	0	0	0	0	0	0	0	0	0	0	0	29	0	0	29	0	25	0	0	25	54
7:45AM	0	0	0	0	0	0	0	0	0	0	1	27	1	0	29	0	28	0	0	28	57
Hourly Total	0	0	0	0	0	0	0	1	0	1	3	91	1	1	96	0	95	1	0	96	193
8:00AM	0	0	0	0	0	2	0	0	0	2	2	29	0	0	31	0	31	2	0	33	66
8:15AM	0	0	0	0	0	0	0	1	0	1	1	31	1	0	33	1	42	2	0	45	79
8:30AM	0	0	1	0	1	0	0	0	0	0	2	23	0	0	25	1	33	0	0	34	60
8:45AM	0	0	0	0	0	2	0	0	0	2	2	22	2	0	26	2	36	1	0	39	67
Hourly Total	0	0	1	0	1	4	0	1	0	5	7	105	3	0	115	4	142	5	0	151	272
4:00PM	0	0	0	0	0	0	0	3	0	3	0	31	0	0	31	0	37	1	0	38	72
4:15PM	0	0	0	0	0	2	0	0	0	2	0	42	1	0	43	1	40	2	0	43	88
4:30PM	0	0	0	0	0	0	0	1	0	1	0	40	2	1	43	1	37	0	0	38	82
4:45PM	0	0	0	0	0	1	0	0	0	1	2	39	1	0	42	2	36	0	0	38	81
Hourly Total	0	0	0	0	0	3	0	4	0	7	2	152	4	1	159	4	150	3	0	157	323
5:00PM	0	0	0	0	0	0	0	0	0	0	0	40	2	0	42	0	35	0	0	35	77
5:15PM	0	0	1	0	1	1	0	0	0	1	1	52	1	0	54	1	41	0	0	42	98
5:30PM	1	0	0	0	1	1	0	0	0	1	1	47	1	0	49	0	36	1	0	37	88
5:45PM	0	0	0	0	0	0	0	1	0	1	2	47	0	0	49	1	25	0	1	27	77
Hourly Total	1	0	1	0	2	2	0	1	0	3	4	186	4	0	194	2	137	1	1	141	340
Total	1	0	2	0	3	9	0	7	0	16	16	534	12	2	564	10	524	10	1	545	1128
% Approach	33.3%	0%	66.7%	0%	-	56.3%	0%	43.8%	0%	-	2.8%	94.7%	2.1%	0.4%	-	1.8%	96.1%	1.8%	0.2%	-	-
% Total	0.1%	0%	0.2%	0%	0.3%	0.8%	0%	0.6%	0%	1.4%	1.4%	47.3%	1.1%	0.2%	50.0%	0.9%	46.5%	0.9%	0.1%	48.3%	-
Lights	1	0	2	0	3	9	0	7	0	16	16	528	12	2	558	10	519	10	1	540	1117
% Lights	100%	0%	100%	0%	100%	100%	0%	100%	0%	100%	100%	98.9%	100%	100%	98.9%	100%	99.0%	100%	100%	99.1%	99.0%
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Articulated Trucks	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Buses and Single-Unit Trucks	0	0	0	0	0	0	0	0	0	0	0	6	0	5	0	0	5	0	0	11	
% Buses and Single-Unit Trucks	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1.1%	0%	0%	1.1%	0%	1.0%	0%	0%	0.9%	1.0%

\*L: Left, R: Right, T: Thru, U: U-Turn

**S. Parkview Avenue & The Alexander Access - TMC**

Tue Dec 5, 2023

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

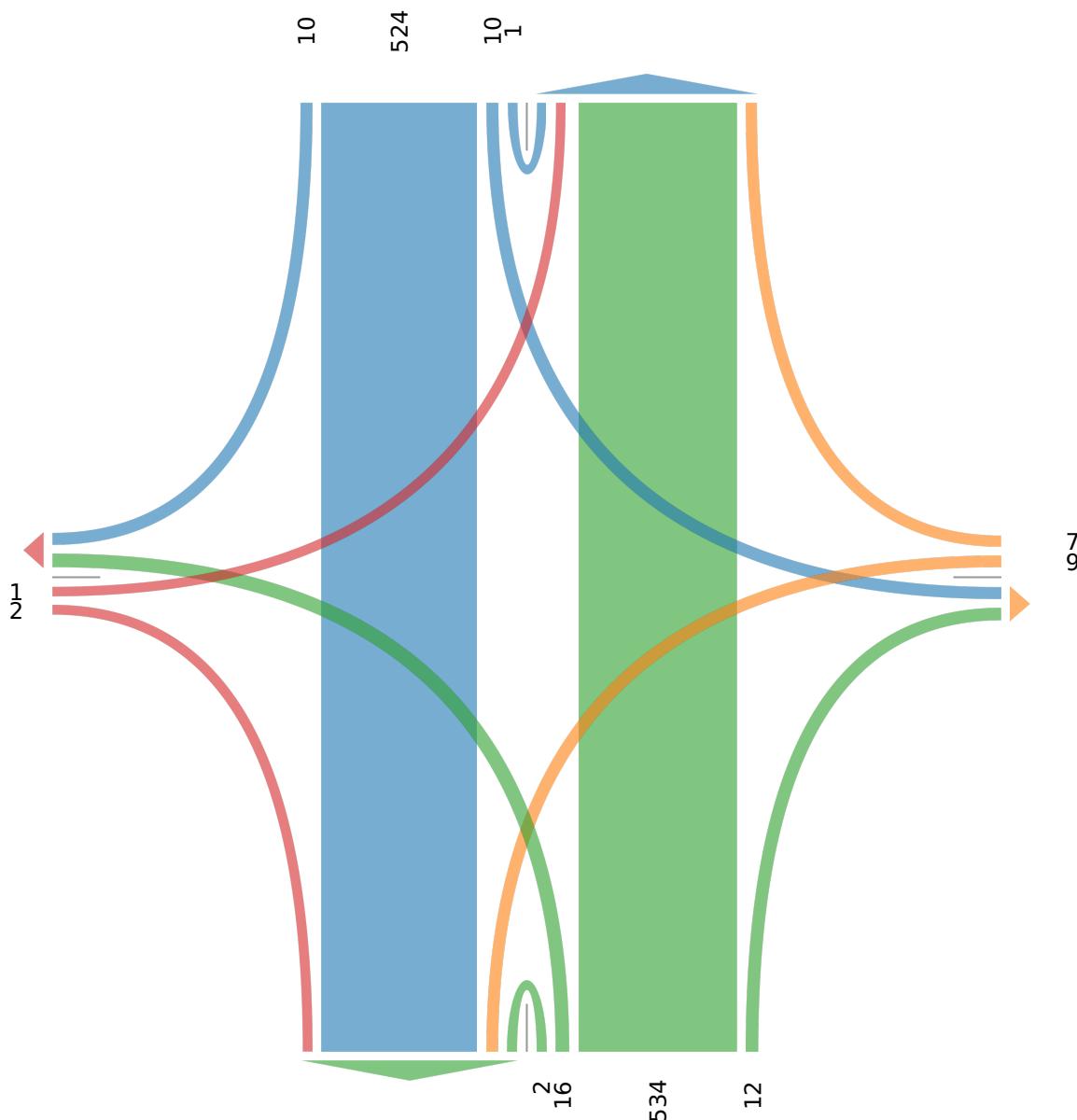
ID: 1139375, Location: 39.958212, -82.942195

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US**[N] S. Parkview Avenue**

Total: 1088

In: 545

Out: 543

**[W] Private Drive**  
Total: 29  
In: 3 Out: 26**[S] S. Parkview Avenue**  
Total: 1101  
In: 564  
Out: 537

**S. Parkview Avenue & The Alexander Access - TMC**

Tue Dec 5, 2023

AM Peak (8 AM - 9 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139375, Location: 39.958212, -82.942195

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US

Leg Direction	Private Drive Eastbound					The Alexander Access Westbound					S. Parkview Avenue Northbound					S. Parkview Avenue Southbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2023-12-05 8:00AM	0	0	0	0	0	2	0	0	0	2	2	29	0	0	31	0	31	2	0	33	66
8:15AM	0	0	0	0	0	0	0	1	0	1	1	31	1	0	33	1	42	2	0	45	79
8:30AM	0	0	1	0	1	0	0	0	0	0	2	23	0	0	25	1	33	0	0	34	60
8:45AM	0	0	0	0	0	2	0	0	0	2	2	22	2	0	26	2	36	1	0	39	67
<b>Total</b>	0	0	1	0	1	4	0	1	0	5	7	105	3	0	115	4	142	5	0	151	272
<b>% Approach</b>	0%	0%	100%	0%	-	80.0%	0%	20.0%	0%	-	6.1%	91.3%	2.6%	0%	-	2.6%	94.0%	3.3%	0%	-	-
<b>% Total</b>	0%	0%	0.4%	0%	<b>0.4%</b>	1.5%	0%	0.4%	0%	<b>1.8%</b>	2.6%	38.6%	1.1%	0%	<b>42.3%</b>	1.5%	52.2%	1.8%	0%	<b>55.5%</b>	-
<b>PHF</b>	-	-	0.250	-	<b>0.250</b>	0.500	-	0.250	-	<b>0.625</b>	0.875	0.847	0.375	-	<b>0.871</b>	0.500	0.845	0.625	-	<b>0.839</b>	0.861
<b>Lights</b>	0	0	1	0	1	4	0	1	0	5	7	102	3	0	112	4	142	5	0	151	269
<b>% Lights</b>	0%	0%	100%	0%	<b>100%</b>	100%	0%	100%	0%	<b>100%</b>	100%	97.1%	100%	0%	<b>97.4%</b>	100%	100%	100%	0%	<b>100%</b>	98.9%
<b>Articulated Trucks</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<b>Buses and Single-Unit Trucks</b>	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2.9%	0%	0%	2.6%	0%	0%	0%	0%	0%	1.1%

\*L: Left, R: Right, T: Thru, U: U-Turn

**S. Parkview Avenue & The Alexander Access - TMC**

Tue Dec 5, 2023

AM Peak (8 AM - 9 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139375, Location: 39.958212, -82.942195

Provided by: Carpenter Marty (CM) Transportation Inc.

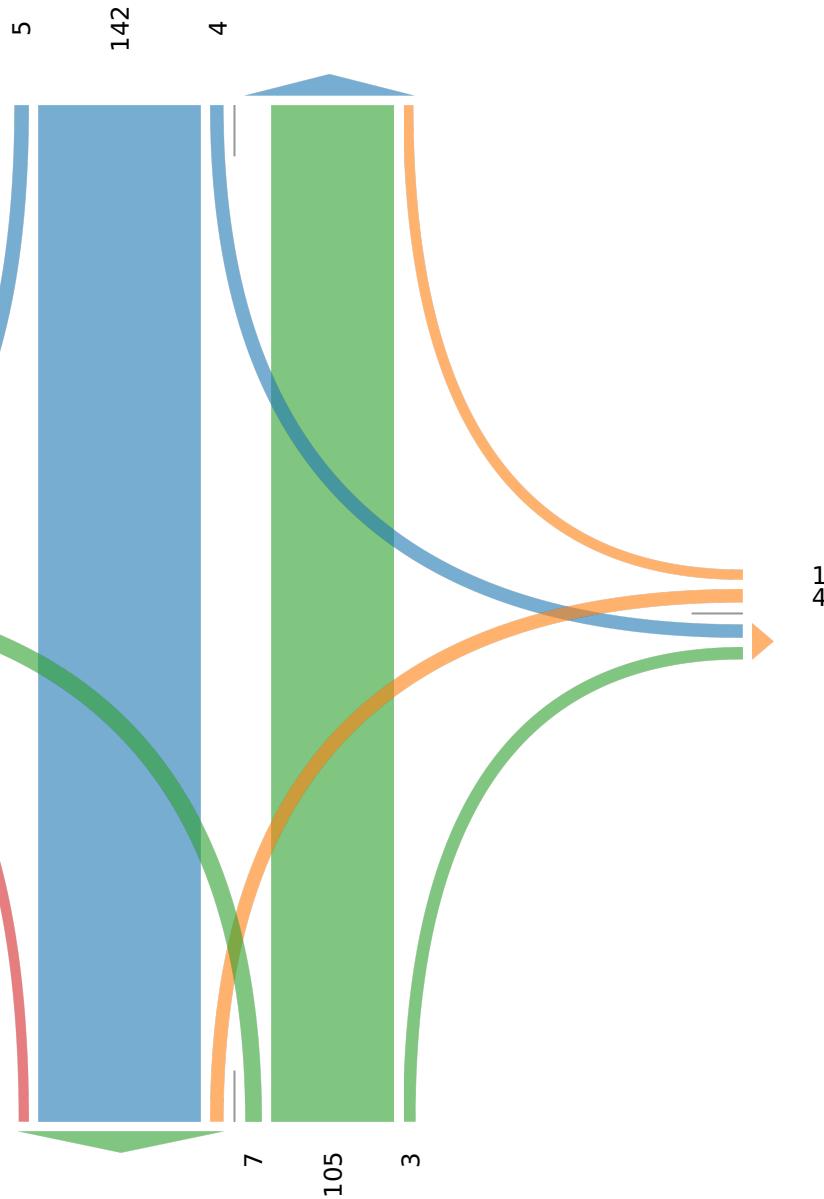
6612 Singletree Drive, Columbus, OH, 43229, US

**[N] S. Parkview Avenue**

Total: 257

In: 151

Out: 106

**[S] S. Parkview Avenue**

Out: 147      In: 115

Total: 262

**S. Parkview Avenue & The Alexander Access - TMC**

Tue Dec 5, 2023

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139375, Location: 39.958212, -82.942195

Provided by: Carpenter Marty (CM) Transportation Inc.  
6612 Singletree Drive, Columbus, OH, 43229, US

Leg Direction	Private Drive Eastbound					The Alexander Access Westbound					S. Parkview Avenue Northbound					S. Parkview Avenue Southbound					
Time	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	L	T	R	U	App	Int
2023-12-05 4:45PM	0	0	0	0	0	1	0	0	0	1	2	39	1	0	42	2	36	0	0	38	81
5:00PM	0	0	0	0	0	0	0	0	0	0	0	40	2	0	42	0	35	0	0	35	77
5:15PM	0	0	1	0	1	1	0	0	0	1	1	52	1	0	54	1	41	0	0	42	98
5:30PM	1	0	0	0	1	1	0	0	0	1	1	47	1	0	49	0	36	1	0	37	88
<b>Total</b>	1	0	1	0	2	3	0	0	0	3	4	178	5	0	187	3	148	1	0	152	344
<b>% Approach</b>	50.0%	0%	50.0%	0%	-	100%	0%	0%	0%	-	2.1%	95.2%	2.7%	0%	-	2.0%	97.4%	0.7%	0%	-	-
<b>% Total</b>	0.3%	0%	0.3%	0%	<b>0.6%</b>	0.9%	0%	0%	0%	<b>0.9%</b>	1.2%	51.7%	1.5%	0%	<b>54.4%</b>	0.9%	43.0%	0.3%	0%	<b>44.2%</b>	-
<b>PHF</b>	0.250	-	0.250	-	<b>0.500</b>	0.750	-	-	-	<b>0.750</b>	0.500	0.856	0.625	-	<b>0.866</b>	0.375	0.902	0.250	-	<b>0.905</b>	0.878
<b>Lights</b>	1	0	1	0	2	3	0	0	0	3	4	177	5	0	186	3	146	1	0	150	341
<b>% Lights</b>	100%	0%	100%	0%	<b>100%</b>	100%	0%	0%	0%	<b>100%</b>	100%	99.4%	100%	0%	<b>99.5%</b>	100%	98.6%	100%	0%	<b>98.7%</b>	99.1%
<b>Articulated Trucks</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Buses and Single-Unit Trucks</b>	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.6%	0%	0%	0.5%	0%	1.4%	0%	0%	<b>1.3%</b>	0.9%

\*L: Left, R: Right, T: Thru, U: U-Turn

**S. Parkview Avenue & The Alexander Access - TMC**

Tue Dec 5, 2023

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1139375, Location: 39.958212, -82.942195

Provided by: Carpenter Marty (CM) Transportation Inc.

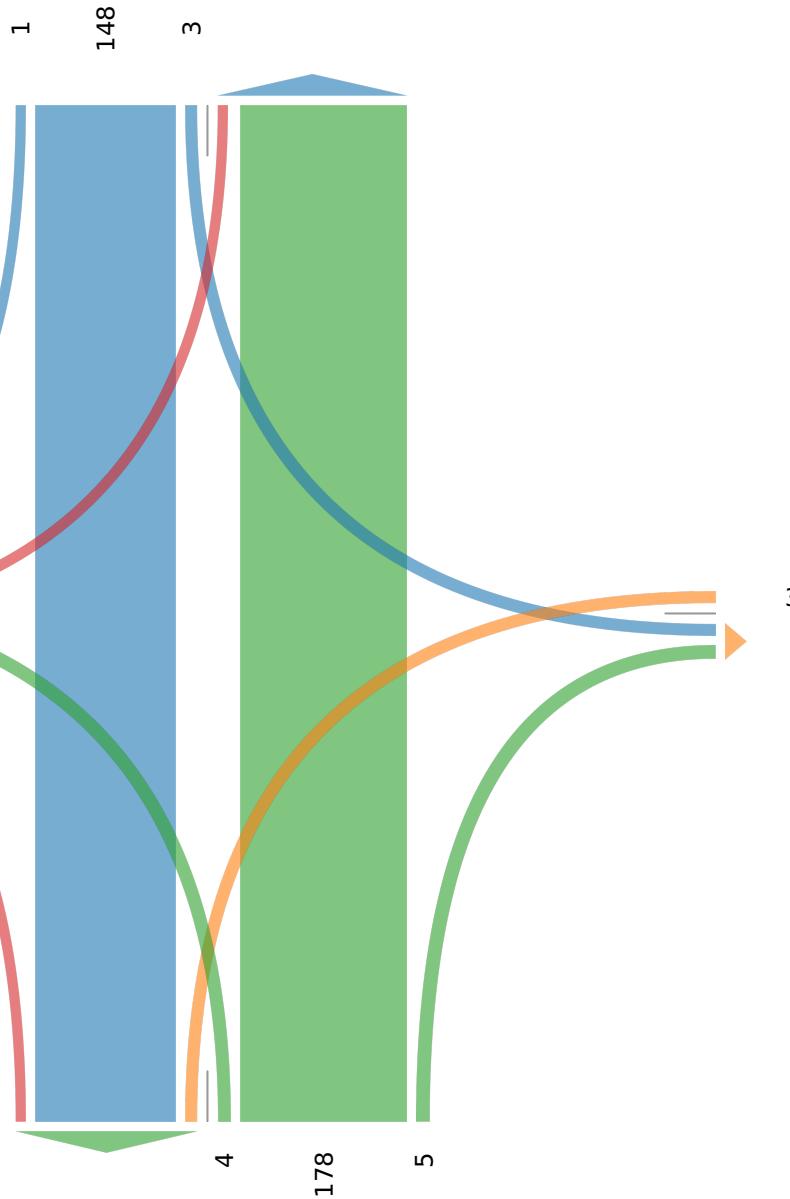
6612 Singletree Drive, Columbus, OH, 43229, US

**[N] S. Parkview Avenue**

Total: 331

In: 152

Out: 179



**From:** [Hwashik Jang](#)  
**To:** [Leiana Yates](#)  
**Cc:** [Nick Gill](#); [Drew Laurent](#)  
**Subject:** RE: Growth Rate Request - Bexley Trinity Development TIS  
**Date:** Wednesday, June 28, 2023 11:36:07 AM  
**Attachments:** [image002.png](#)  
[image003.png](#)

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Leiana,

We have completed processing growth rates for your traffic study.

Please use linear annual growth rates as summarized below.

<u>Location</u>	<u>Linear Annual Growth Rate</u>
E Main St e/o College Ave	0.70%
College Ave n/o E Main St	0.70%
E Main St w/o College Ave	0.70%
College Ave s/o E Main St	0.30%
E Main St e/o Parkview Ave	0.70%
Parkview Ave n/o E Main St	0.30%
E Main St w/o Parkview Ave	0.50%
Parkview Ave n/o Alexander Access	0.30%
Parkview Ave s/o Alexander Access	0.30%

Note: The above rate was derived based on planning level analysis by using MORPC's regional travel demand model.

If you have any questions, please let me know.

Thanks,

**HWASHIK JANG**  
Senior Planner | Mid-Ohio Regional Planning Commission  
T: 614.233.4145 | [hjiang@morpcc.org](mailto:hjiang@morpcc.org)  
111 Liberty Street, Suite 100 | Columbus, OH 43215



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**From:** Leiana Yates <lyates@cmtran.com>  
**Sent:** Tuesday, June 13, 2023 11:41 AM

# Appendix C

## Appendix C Trip Generation



**Scenario - 1**

Scenario Name: AM Peak

User Group:

Dev. phase: 1

No. of Years to Project 0  
Traffic :

Analyst Note:

Warning:

**VEHICLE TRIPS BEFORE REDUCTION**

Land Use & Data Source	Location	IV	Size	Time Period	Method	Entry Split%	Exit Split%	Total
Rate/Equation					Rate/Equation			
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	General Urban/Suburban	Dwelling Units	232	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	21	70	91
Data Source: Trip Generation Manual, 11th Ed					T = 0.44(X) - 11.61	23%	77%	
710 - General Office Building	General Urban/Suburban	1000 Sq. Ft. GFA	12.45	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	25	3	28
Data Source: Trip Generation Manual, 11th Ed					Ln(T) = 0.86Ln(X) + 1.16	88%	12%	
822 - Strip Retail Plaza (<40k)	General Urban/Suburban	1000 Sq. Ft. GLA	5	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	11	7	18
Data Source: Trip Generation Manual, 11th Ed					Ln(T) = 0.66Ln(X) + 1.84	60%	40%	
932 - High-Turnover (Sit-Down) Restaurant	General Urban/Suburban	1000 Sq. Ft. GFA	6	Weekday, Peak Hour of Adjacent Street Traffic,	Average	32	26	58
Data Source: Trip Generation Manual, 11th Ed					9.57	55%	45%	

**VEHICLE TO PERSON TRIP CONVERSION****BASELINE SITE VEHICLE CHARACTERISTICS:**

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	100	100	1	1	23	77
710 - General Office Building	99	100	1.1	1.1	88	12
822 - Strip Retail Plaza (<40k)	100	100	1	1	60	40
932 - High-Turnover (Sit-Down) Restaurant	100	100	1	1	55	45

**ESTIMATED BASELINE SITE PERSON TRIPS:**

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	21	70	0	0	21	70
	91		0	0	91	
710 - General Office Building	27	4	0	0	27	4
	31		0	0	31	
822 - Strip Retail Plaza (<40k)	11	7	0	0	11	7
	18		0	0	18	
932 - High-Turnover (Sit-Down) Restaurant	32	26	0	0	32	26
	58		0	0	58	

**INTERNAL VEHICLE TRIP REDUCTION****LAND USE GROUP ASSIGNMENT:**

Land Use	Land Use Group
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	Residential
710 - General Office Building	Office
822 - Strip Retail Plaza (<40k)	Retail
932 - High-Turnover (Sit-Down) Restaurant	Restaurant

**BALANCED PERSON TRIPS:**

221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit									710 - General Office Building		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>> BALANCED ==>>	1	Unconstrained Demand	UIPTC	PAF	Persons Entry		
70	1	2	1		1	1	3	1	27		
Persons Entry	PAF	UIPTC	Unconstrained Demand	<==== BALANCED <====	0	Unconstrained Demand	UIPTC	PAF	Persons Exit		
21	1	0	0		0	0	1	1	4		
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit									822 - Strip Retail Plaza (<40k)		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>> BALANCED ==>>	1	Unconstrained Demand	UIPTC	PAF	Persons Entry		
70	1	1	1		1	2	17	1	11		
Persons Entry	PAF	UIPTC	Unconstrained Demand	<==== BALANCED <====	0	Unconstrained Demand	UIPTC	PAF	Persons Exit		
21	1	2	0		0	1	14	1	7		
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit									932 - High-Turnover (Sit-Down) Restaurant		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>> BALANCED ==>>	6	Unconstrained Demand	UIPTC	PAF	Persons Entry		
70	1	20	14		6	6	20	1	32		
Persons Entry	PAF	UIPTC	Unconstrained Demand	<==== BALANCED <====	1	Unconstrained Demand	UIPTC	PAF	Persons Exit		
21	1	5	1		1	1	4	1	26		
710 - General Office Building									822 - Strip Retail Plaza (<40k)		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>> BALANCED ==>>	1	Unconstrained Demand	UIPTC	PAF	Persons Entry		
4	1	28	1		1	3	32	1	11		
Persons Entry	PAF	UIPTC	Unconstrained Demand	<==== BALANCED <====	1	Unconstrained Demand	UIPTC	PAF	Persons Exit		
27	1	4	1		1	2	29	1	7		
710 - General Office Building									932 - High-Turnover (Sit-Down) Restaurant		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>> BALANCED ==>>	2	Unconstrained Demand	UIPTC	PAF	Persons Entry		
4	1	63	2		2	7	23	1	32		
Persons Entry	PAF	UIPTC	Unconstrained Demand	<==== BALANCED <====	4	Unconstrained Demand	UIPTC	PAF	Persons Exit		
27	1	14	4		4	8	31	1	26		
822 - Strip Retail Plaza (<40k)									932 - High-Turnover (Sit-Down) Restaurant		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>> BALANCED ==>>	1	Unconstrained Demand	UIPTC	PAF	Persons Entry		
7	1	13	1		1	16	50	1	32		
Persons Entry	PAF	UIPTC	Unconstrained Demand	<==== BALANCED <====	1	Unconstrained Demand	UIPTC	PAF	Persons Exit		
11	1	8	1		1	4	14	1	26		

**INTERNAL PERSON TRIPS:****221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit**

Internal Person Trips From	Entry	Exit	Total
710 - General Office Building	0	1	1

822 - Strip Retail Plaza (<40k)	0	1	1
932 - High-Turnover (Sit-Down) Restaurant	1	6	7
<b>Total Internal Person Trips</b>	<b>1</b>	<b>8</b>	<b>9</b>

**710 - General Office Building**

Internal Person Trips From	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	1	0	1
822 - Strip Retail Plaza (<40k)	1	1	2
932 - High-Turnover (Sit-Down) Restaurant	4	2	6
<b>Total Internal Person Trips</b>	<b>6</b>	<b>3</b>	<b>9</b>

**822 - Strip Retail Plaza (<40k)**

Internal Person Trips From	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	1	0	1
710 - General Office Building	1	1	2
932 - High-Turnover (Sit-Down) Restaurant	1	1	2
<b>Total Internal Person Trips</b>	<b>3</b>	<b>2</b>	<b>5</b>

**932 - High-Turnover (Sit-Down) Restaurant**

Internal Person Trips From	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	6	1	7
710 - General Office Building	2	4	6
822 - Strip Retail Plaza (<40k)	1	1	2
<b>Total Internal Person Trips</b>	<b>9</b>	<b>6</b>	<b>15</b>

**INTERNAL VEHICLE TRIPS AND CAPTURE:****221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit**

Total Internal Person Trips	1	8	9
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
<b>Total Vehicle Internal Trips</b>	<b>1</b>	<b>8</b>	<b>9</b>
Total External Vehicle Trips	20	62	82
<b>Internal Vehicle Trip Capture</b>	<b>5%</b>	<b>11%</b>	<b>0%</b>

**710 - General Office Building**

Total Internal Person Trips	6	3	9
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
<b>Total Vehicle Internal Trips</b>	<b>6</b>	<b>3</b>	<b>9</b>
Total External Vehicle Trips	19	0	19
<b>Internal Vehicle Trip Capture</b>	<b>24%</b>	<b>90%</b>	<b>0%</b>

**822 - Strip Retail Plaza (<40k)**

Total Internal Person Trips	3	2	5
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
<b>Total Vehicle Internal Trips</b>	<b>3</b>	<b>2</b>	<b>5</b>
Total External Vehicle Trips	8	5	13
<b>Internal Vehicle Trip Capture</b>	<b>27%</b>	<b>27%</b>	<b>0%</b>

**932 - High-Turnover (Sit-Down) Restaurant**

Total Internal Person Trips	9	6	15
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
<b>Total Vehicle Internal Trips</b>	<b>9</b>	<b>6</b>	<b>15</b>
Total External Vehicle Trips	23	20	43
<b>Internal Vehicle Trip Capture</b>	<b>28%</b>	<b>23%</b>	<b>0%</b>

**PASS-BY VEHICLE TRIP REDUCTION**

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	20	62	0.00%	0.00%	0	0
710 - General Office Building	19	0	0.00%	0.00%	0	0
822 - Strip Retail Plaza (<40k)	8	5	0.00%	0.00%	0	0
932 - High-Turnover (Sit-Down) Restaurant	23	20	0.00%	0.00%	0	0

**DIVERTED VEHICLE TRIP REDUCTION**

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	20	62	0.00%	0.00%	0	0
710 - General Office Building	19	0	0.00%	0.00%	0	0
822 - Strip Retail Plaza (<40k)	8	5	0.00%	0.00%	0	0
932 - High-Turnover (Sit-Down) Restaurant	23	20	0.00%	0.00%	0	0

**EXTRA VEHICLE TRIP REDUCTION**

Land Use	(External - (Pass-by + Diverted)) Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	20	62	0.00%	0.00%	0	0
710 - General Office Building	19	0	0.00%	0.00%	0	0
822 - Strip Retail Plaza (<40k)	8	5	0.00%	0.00%	0	0
932 - High-Turnover (Sit-Down) Restaurant	23	20	0.00%	0.00%	0	0

**NEW VEHICLE TRIPS**

Land Use	New Vehicle Trips		
	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	20	62	82
710 - General Office Building	19	0	19
822 - Strip Retail Plaza (<40k)	8	5	13
932 - High-Turnover (Sit-Down) Restaurant	23	20	43

**RESULTS**

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	89	106	195
Internal Vehicle Trips	19	19	38
External Vehicle Trips	70	87	157
Internal Vehicle Trip Capture	21%	18%	20%
Pass-by Vehicle Trips	0	0	0
Diverted Vehicle Trips	0	0	0

Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	70	87	157

**Scenario - 2**

Scenario Name: PM Peak

User Group:

Dev. phase: 1

No. of Years to Project 0  
Traffic :

Analyst Note:

Warning:

**VEHICLE TRIPS BEFORE REDUCTION**

Land Use & Data Source	Location	IV	Size	Time Period	Method Rate/Equation	Entry Split%	Exit Split%	Total
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	General Urban/Suburban	Dwelling Units	232	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LIN)	55	35	90
Data Source: Trip Generation Manual, 11th Ed					$T = 0.39(X) + 0.34$	61%	39%	
710 - General Office Building	General Urban/Suburban	1000 Sq. Ft. GFA	12.45	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	5	24	29
Data Source: Trip Generation Manual, 11th Ed					$\ln(T) = 0.83\ln(X) + 1.29$	17%	83%	
822 - Strip Retail Plaza (<40k)	General Urban/Suburban	1000 Sq. Ft. GLA	5	Weekday, Peak Hour of Adjacent Street Traffic,	Best Fit (LOG)	24	24	48
Data Source: Trip Generation Manual, 11th Ed					$\ln(T) = 0.71\ln(X) + 2.72$	50%	50%	
932 - High-Turnover (Sit-Down) Restaurant	General Urban/Suburban	1000 Sq. Ft. GFA	6	Weekday, Peak Hour of Adjacent Street Traffic,	Average	33	21	54
Data Source: Trip Generation Manual, 11th Ed					9.05	61%	39%	

**VEHICLE TO PERSON TRIP CONVERSION****BASELINE SITE VEHICLE CHARACTERISTICS:**

Land Use	Baseline Site Vehicle Mode Share		Baseline Site Vehicle Occupancy		Baseline Site Vehicle Directional Split	
	Entry (%)	Exit (%)	Entry	Exit	Entry (%)	Exit (%)
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	100	100	1	1	61	39
710 - General Office Building	100	99	1.1	1.1	17	83
822 - Strip Retail Plaza (<40k)	100	100	1	1	50	50
932 - High-Turnover (Sit-Down) Restaurant	100	100	1	1	61	39

**ESTIMATED BASELINE SITE PERSON TRIPS:**

Land Use	Person Trips by Vehicle		Person Trips by Other Modes		Total Baseline Site Person Trips	
	Entry	Exit	Entry	Exit	Entry	Exit
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	55	35	0	0	55	35
	90		0	0		90
710 - General Office Building	6	27	0	0	6	27
	33		0	0		33
822 - Strip Retail Plaza (<40k)	24	24	0	0	24	24
	48		0	0		48
932 - High-Turnover (Sit-Down) Restaurant	33	21	0	0	33	21
	54		0	0		54

**INTERNAL VEHICLE TRIP REDUCTION****LAND USE GROUP ASSIGNMENT:**

Land Use	Land Use Group
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	Residential
710 - General Office Building	Office
822 - Strip Retail Plaza (<40k)	Retail
932 - High-Turnover (Sit-Down) Restaurant	Restaurant

**BALANCED PERSON TRIPS:**

221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit									710 - General Office Building		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>> BALANCED ==>>	1	Unconstrained Demand	UIPTC	PAF	Persons Entry		
35	1	4	1		1	3	57	1	6		
Persons Entry	PAF	UIPTC	Unconstrained Demand	<==== BALANCED <====	1	Unconstrained Demand	UIPTC	PAF	Persons Exit		
55	1	4	2		1	1	2	1	27		
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit									822 - Strip Retail Plaza (<40k)		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>> BALANCED ==>>	2	Unconstrained Demand	UIPTC	PAF	Persons Entry		
35	1	42	15		2	2	10	1	24		
Persons Entry	PAF	UIPTC	Unconstrained Demand	<==== BALANCED <====	6	Unconstrained Demand	UIPTC	PAF	Persons Exit		
55	1	46	25		6	6	26	1	24		
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit									932 - High-Turnover (Sit-Down) Restaurant		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>> BALANCED ==>>	5	Unconstrained Demand	UIPTC	PAF	Persons Entry		
35	1	21	7		5	5	14	1	33		
Persons Entry	PAF	UIPTC	Unconstrained Demand	<==== BALANCED <====	4	Unconstrained Demand	UIPTC	PAF	Persons Exit		
55	1	16	9		4	4	18	1	21		
710 - General Office Building									822 - Strip Retail Plaza (<40k)		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>> BALANCED ==>>	2	Unconstrained Demand	UIPTC	PAF	Persons Entry		
27	1	20	5		2	2	8	1	24		
Persons Entry	PAF	UIPTC	Unconstrained Demand	<==== BALANCED <====	0	Unconstrained Demand	UIPTC	PAF	Persons Exit		
6	1	31	2		0	0	2	1	24		
710 - General Office Building									932 - High-Turnover (Sit-Down) Restaurant		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>> BALANCED ==>>	1	Unconstrained Demand	UIPTC	PAF	Persons Entry		
27	1	4	1		1	1	2	1	33		
Persons Entry	PAF	UIPTC	Unconstrained Demand	<==== BALANCED <====	1	Unconstrained Demand	UIPTC	PAF	Persons Exit		
6	1	30	2		1	1	3	1	21		
822 - Strip Retail Plaza (<40k)									932 - High-Turnover (Sit-Down) Restaurant		
Persons Exit	PAF	UIPTC	Unconstrained Demand	==>> BALANCED ==>>	7	Unconstrained Demand	UIPTC	PAF	Persons Entry		
24	1	29	7		7	10	29	1	33		
Persons Entry	PAF	UIPTC	Unconstrained Demand	<==== BALANCED <====	9	Unconstrained Demand	UIPTC	PAF	Persons Exit		
24	1	50	12		9	9	41	1	21		

**INTERNAL PERSON TRIPS:****221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit**

Internal Person Trips From	Entry	Exit	Total
710 - General Office Building	1	1	2

822 - Strip Retail Plaza (<40k)	6	2	9
932 - High-Turnover (Sit-Down) Restaurant	4	5	8
<b>Total Internal Person Trips</b>	<b>11</b>	<b>8</b>	<b>19</b>

**710 - General Office Building**

Internal Person Trips From	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	1	1	2
822 - Strip Retail Plaza (<40k)	0	2	2
932 - High-Turnover (Sit-Down) Restaurant	1	1	1
<b>Total Internal Person Trips</b>	<b>2</b>	<b>4</b>	<b>6</b>

**822 - Strip Retail Plaza (<40k)**

Internal Person Trips From	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	2	6	9
710 - General Office Building	2	0	2
932 - High-Turnover (Sit-Down) Restaurant	9	7	16
<b>Total Internal Person Trips</b>	<b>13</b>	<b>13</b>	<b>26</b>

**932 - High-Turnover (Sit-Down) Restaurant**

Internal Person Trips From	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit	5	4	8
710 - General Office Building	1	1	1
822 - Strip Retail Plaza (<40k)	7	9	16
<b>Total Internal Person Trips</b>	<b>13</b>	<b>14</b>	<b>27</b>

**INTERNAL VEHICLE TRIPS AND CAPTURE:****221 - Multifamily Housing (Mid-Rise)-Not Close to Rail Transit**

Total Internal Person Trips	11	8	19
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
<b>Total Vehicle Internal Trips</b>	<b>11</b>	<b>8</b>	<b>19</b>
Total External Vehicle Trips	44	27	71
<b>Internal Vehicle Trip Capture</b>	<b>20%</b>	<b>23%</b>	<b>0%</b>

**710 - General Office Building**

Total Internal Person Trips	2	4	6
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
<b>Total Vehicle Internal Trips</b>	<b>2</b>	<b>4</b>	<b>6</b>
Total External Vehicle Trips	3	20	23
<b>Internal Vehicle Trip Capture</b>	<b>40%</b>	<b>16%</b>	<b>0%</b>

**822 - Strip Retail Plaza (<40k)**

Total Internal Person Trips	13	13	26
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
<b>Total Vehicle Internal Trips</b>	<b>13</b>	<b>13</b>	<b>26</b>
Total External Vehicle Trips	11	11	22
<b>Internal Vehicle Trip Capture</b>	<b>55%</b>	<b>55%</b>	<b>0%</b>

**932 - High-Turnover (Sit-Down) Restaurant**

Total Internal Person Trips	13	14	27
Vehicle Mode Share	100%	100%	-
Vehicle Occupancy	1.00	1.00	-
<b>Total Vehicle Internal Trips</b>	<b>13</b>	<b>14</b>	<b>27</b>
Total External Vehicle Trips	20	7	27
<b>Internal Vehicle Trip Capture</b>	<b>39%</b>	<b>66%</b>	<b>0%</b>

**PASS-BY VEHICLE TRIP REDUCTION**

Land Use	External Vehicle Trips		Pass-by Vehicle Trip %		Pass-by Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	44	27	0.00%	0.00%	0	0
710 - General Office Building	3	20	0.00%	0.00%	0	0
822 - Strip Retail Plaza (<40k)	11	11	34.00%	34.00%	4	4
932 - High-Turnover (Sit-Down) Restaurant	20	7	43.00%	43.00%	9	3

**DIVERTED VEHICLE TRIP REDUCTION**

Land Use	External Vehicle Trips		Diverted Vehicle Trip %		Diverted Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	44	27	0.00%	0.00%	0	0
710 - General Office Building	3	20	0.00%	0.00%	0	0
822 - Strip Retail Plaza (<40k)	11	11	0.00%	0.00%	0	0
932 - High-Turnover (Sit-Down) Restaurant	20	7	0.00%	0.00%	0	0

**EXTRA VEHICLE TRIP REDUCTION**

Land Use	(External - (Pass-by + Diverted)) Vehicle Trips		Extra Vehicle Trip Reduction %		Extra Reduced Vehicle Trips	
	Entry	Exit	Entry (%)	Exit (%)	Entry	Exit
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	44	27	0.00%	0.00%	0	0
710 - General Office Building	3	20	0.00%	0.00%	0	0
822 - Strip Retail Plaza (<40k)	7	7	0.00%	0.00%	0	0
932 - High-Turnover (Sit-Down) Restaurant	11	4	0.00%	0.00%	0	0

**NEW VEHICLE TRIPS**

Land Use	New Vehicle Trips		
	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	44	27	71
710 - General Office Building	3	20	23
822 - Strip Retail Plaza (<40k)	7	7	14
932 - High-Turnover (Sit-Down) Restaurant	11	4	15

**RESULTS**

Site Totals	Entry	Exit	Total
Vehicle Trips Before Reduction	117	104	221
Internal Vehicle Trips	39	39	78
External Vehicle Trips	78	65	143
Internal Vehicle Trip Capture	33%	38%	36%
Pass-by Vehicle Trips	13	7	20
Diverted Vehicle Trips	0	0	0

Extra Reduced Vehicle Trips	0	0	0
New Vehicle Trips	65	58	123

# Appendix D

## Volume Calculations



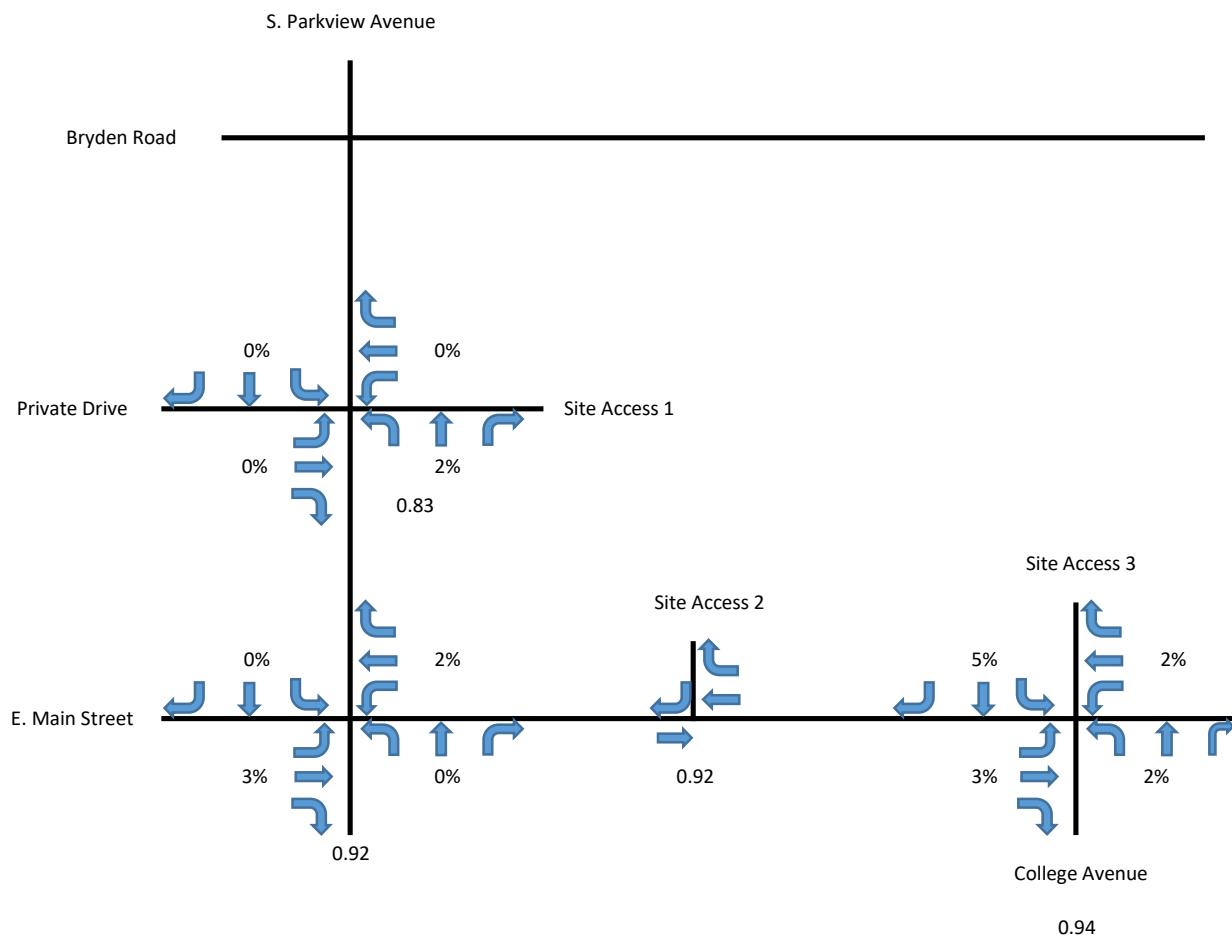
Bexley Trinity Development TIS  
Traffic Volume Calculations



	Year	Period	Scenario	Plate
		AM	Peak Hour Factors and Truck Percentages	

A  
N

A study wide peak hour of 7:45-8:45  
was utilized



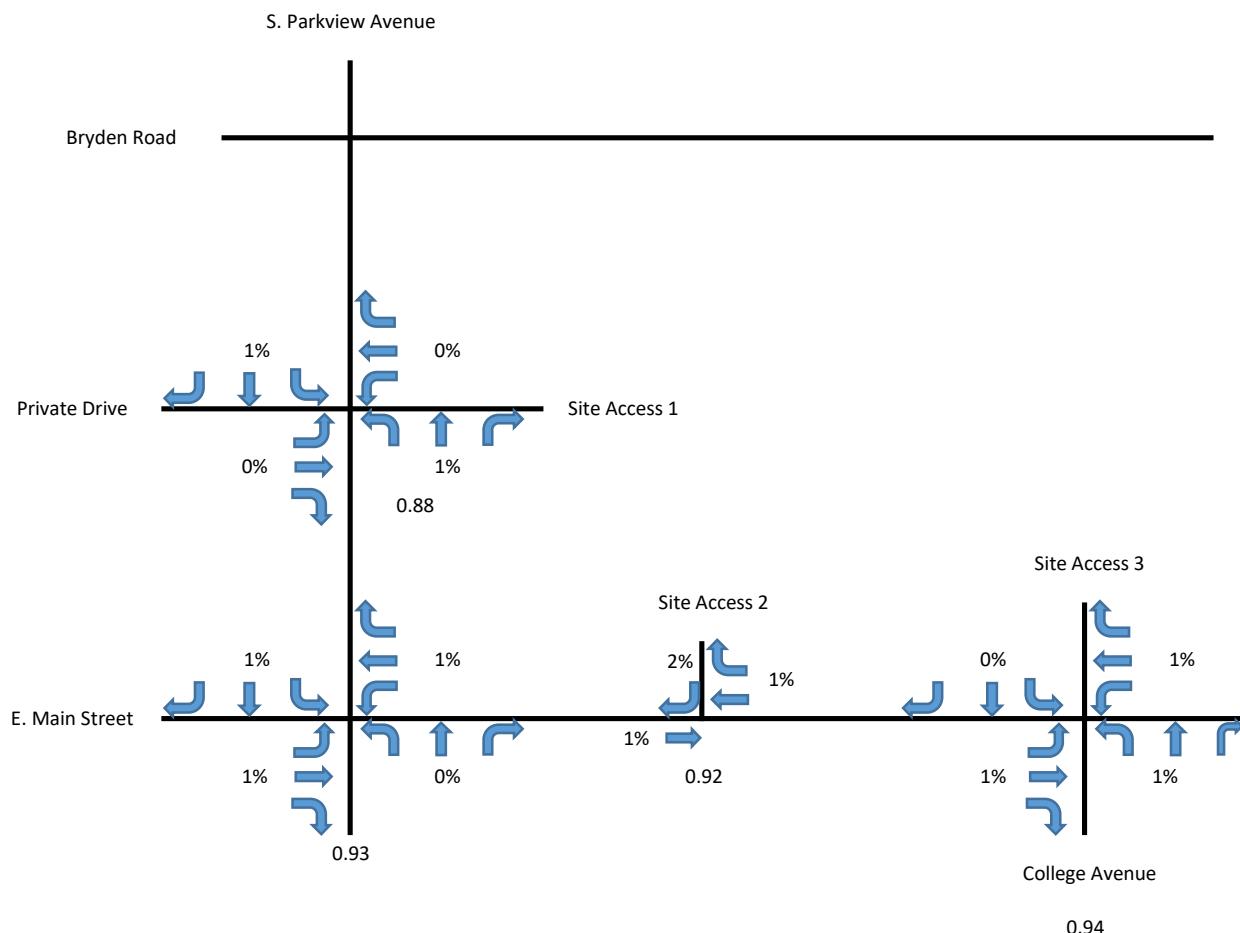
Bexley Trinity Development TIS  
Traffic Volume Calculations



	Year	Period	Scenario	Plate
		PM	Peak Hour Factors and Truck Percentages	

A  
N

A study wide peak hour of 4:45-5:45  
was utilized

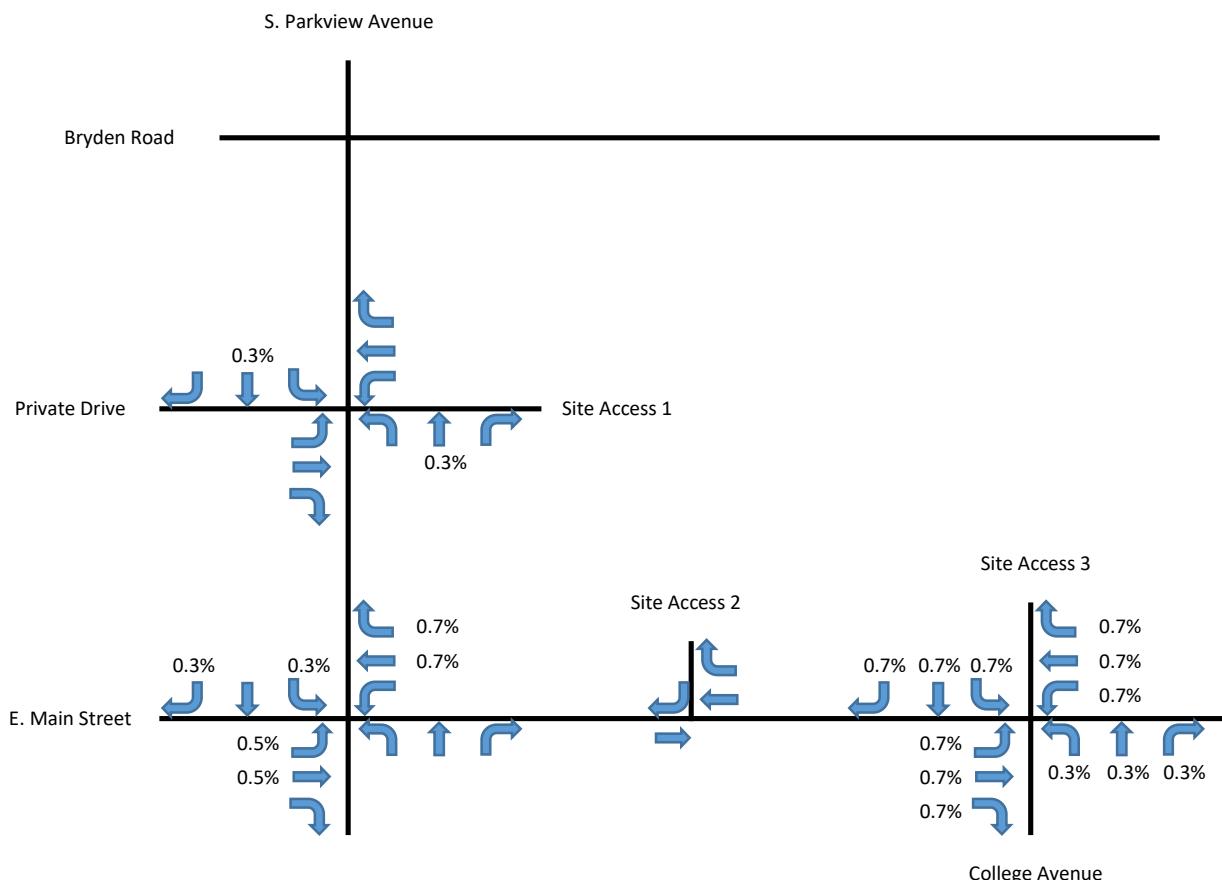


Bexley Trinity Development TIS  
Traffic Volume Calculations



	Year	Period	Scenario	Plate
			Growth Rates	

▲  
N



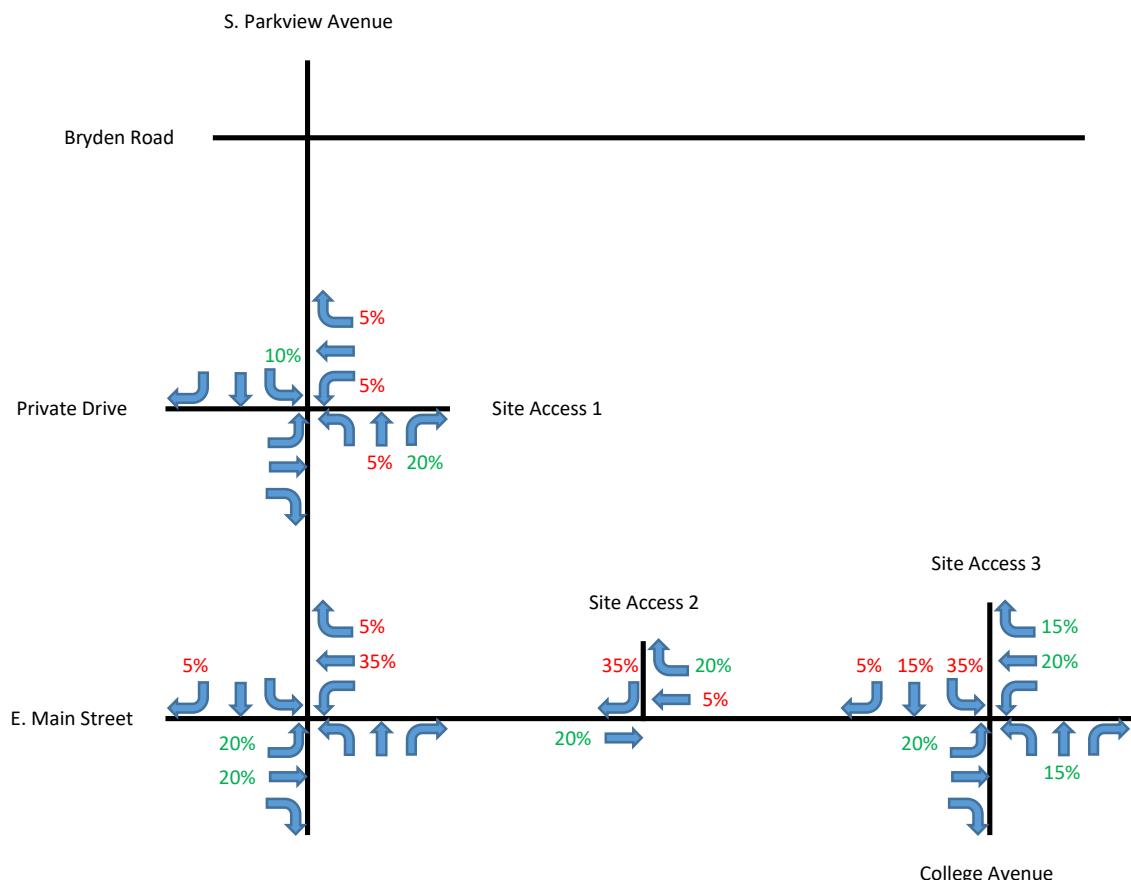
Bexley Trinity Development TIS  
Traffic Volume Calculations



Year	Period	Scenario	Plate
		Proposed Development Non-Pass-By Distribution	

▲

N



Bexley Trinity Development TIS  
Traffic Volume Calculations

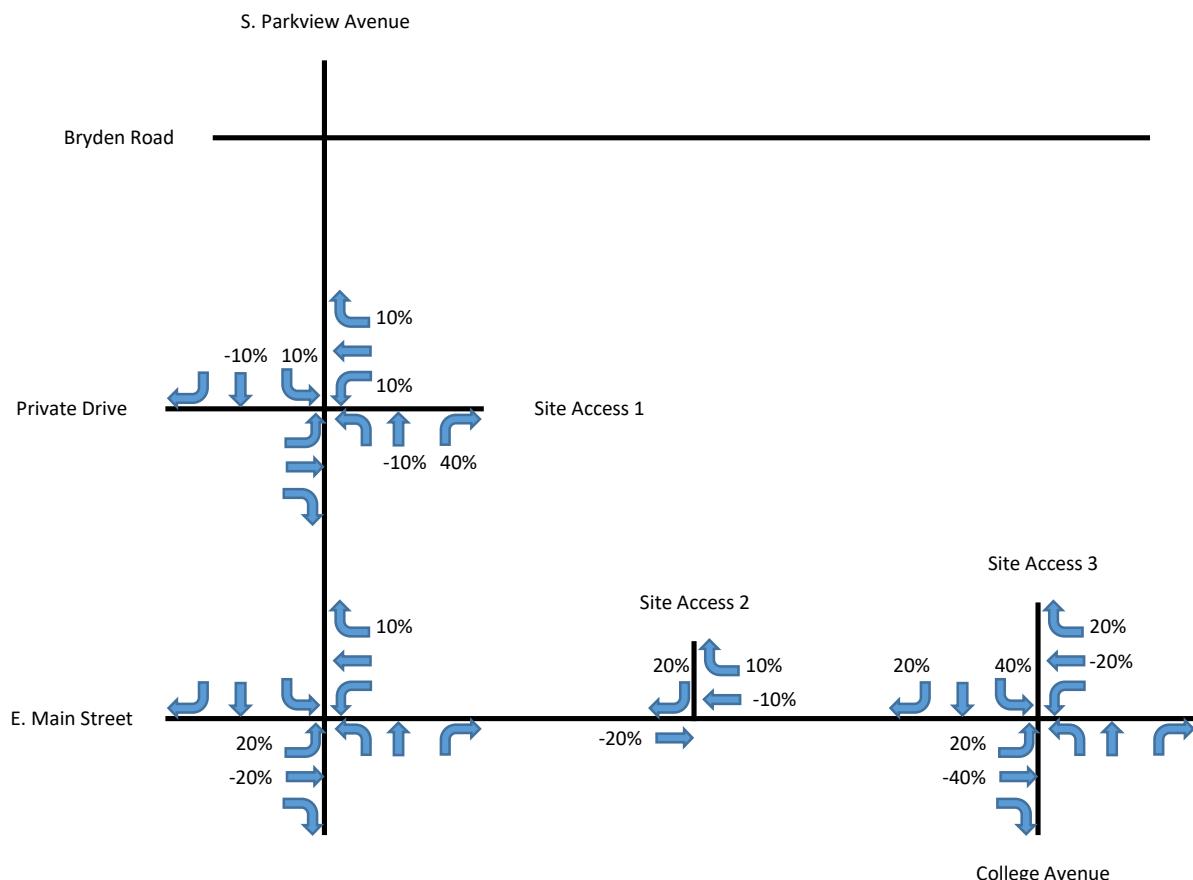
**CARPENTER**  
**MARTY** transportation

Year	Period	Scenario	Plate
------	--------	----------	-------

Proposed Development  
Pass-By Distribution

▲

N



Bexley Trinity Development TIS  
Traffic Volume Calculations

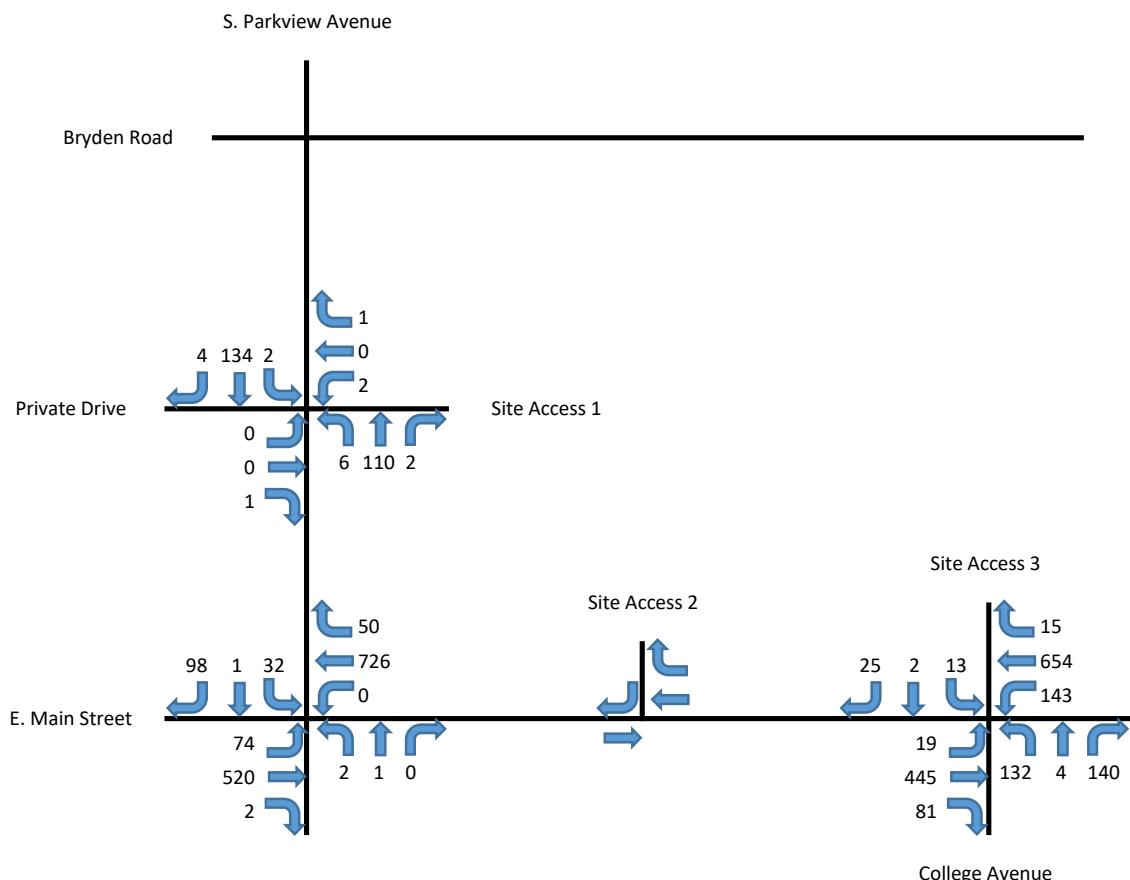


Year	Period	Scenario	Plate
2023	AM	Count	A1

▲

N

A study wide peak hour of 7:45-  
8:45 was utilized



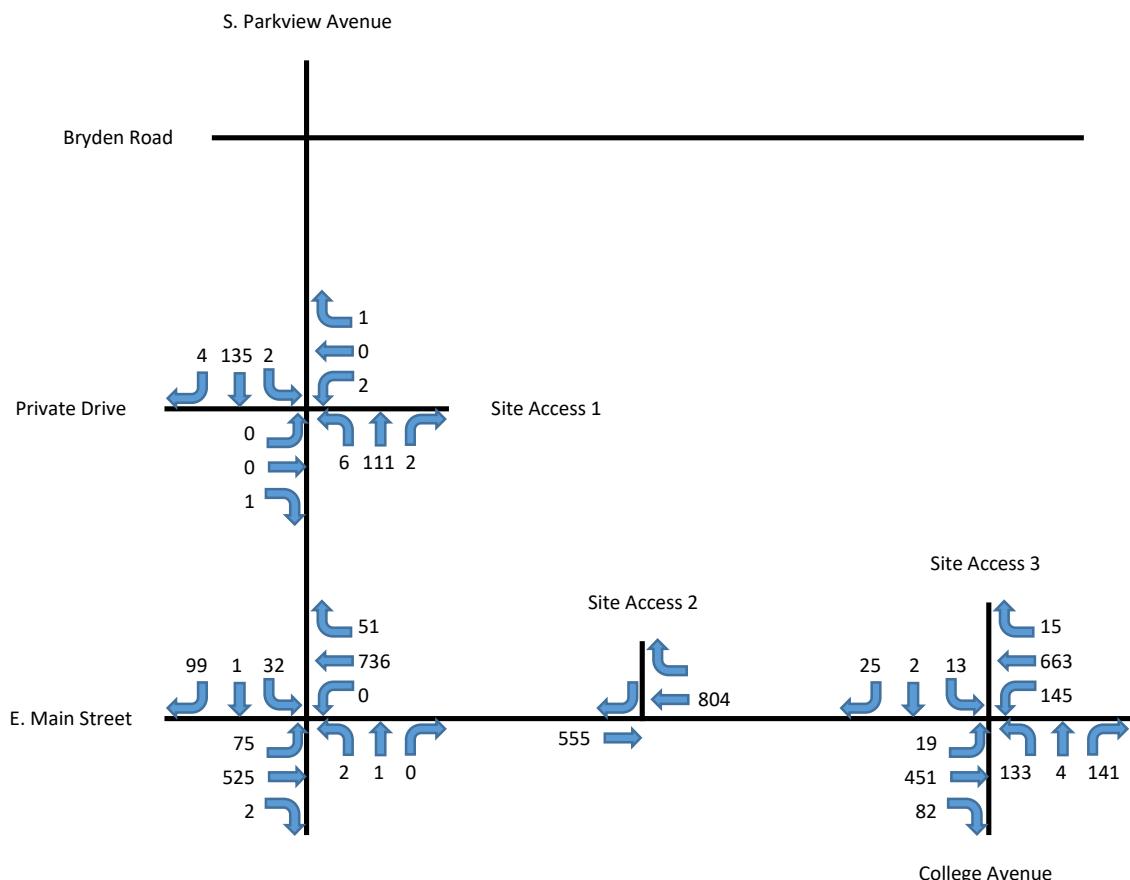
Bexley Trinity Development TIS  
Traffic Volume Calculations



Year	Period	Scenario	Plate
2025	AM	No Build	B1 = A1 Grown

▲

N



Bexley Trinity Development TIS  
Traffic Volume Calculations

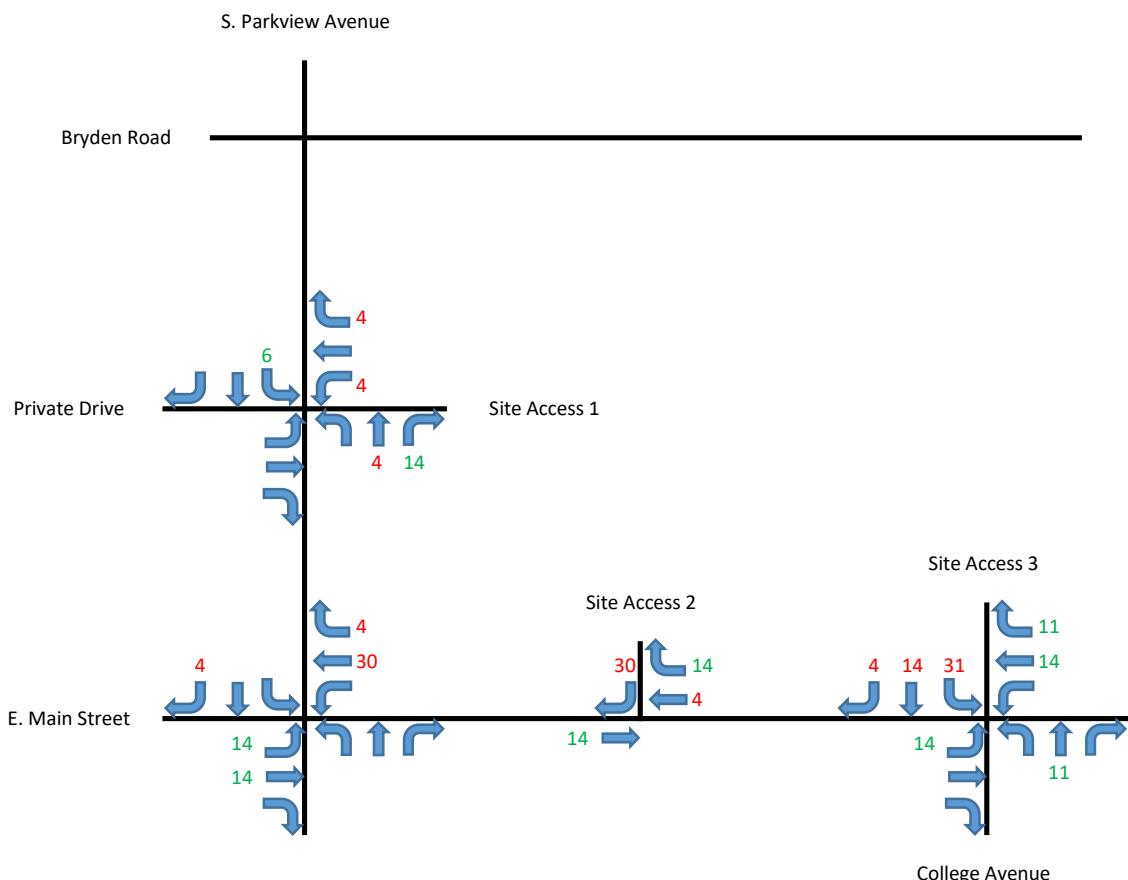


Year	Period	Scenario	Plate
	AM	Non-Pass-By Traffic	C1

▲

N

Entry      70  
Exit      87



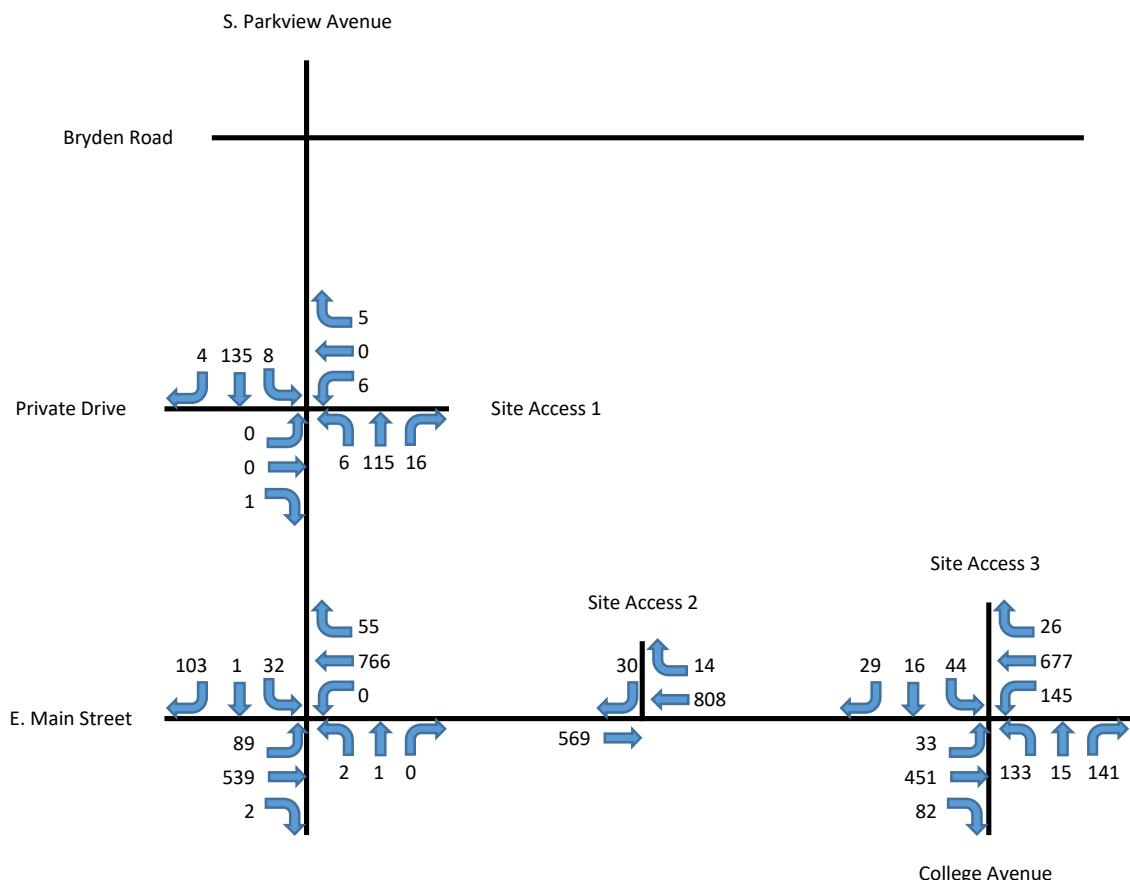
Bexley Trinity Development TIS  
Traffic Volume Calculations



Year	Period	Scenario	Plate
2025	AM	Build	D1 = B1 + C1

▲

N



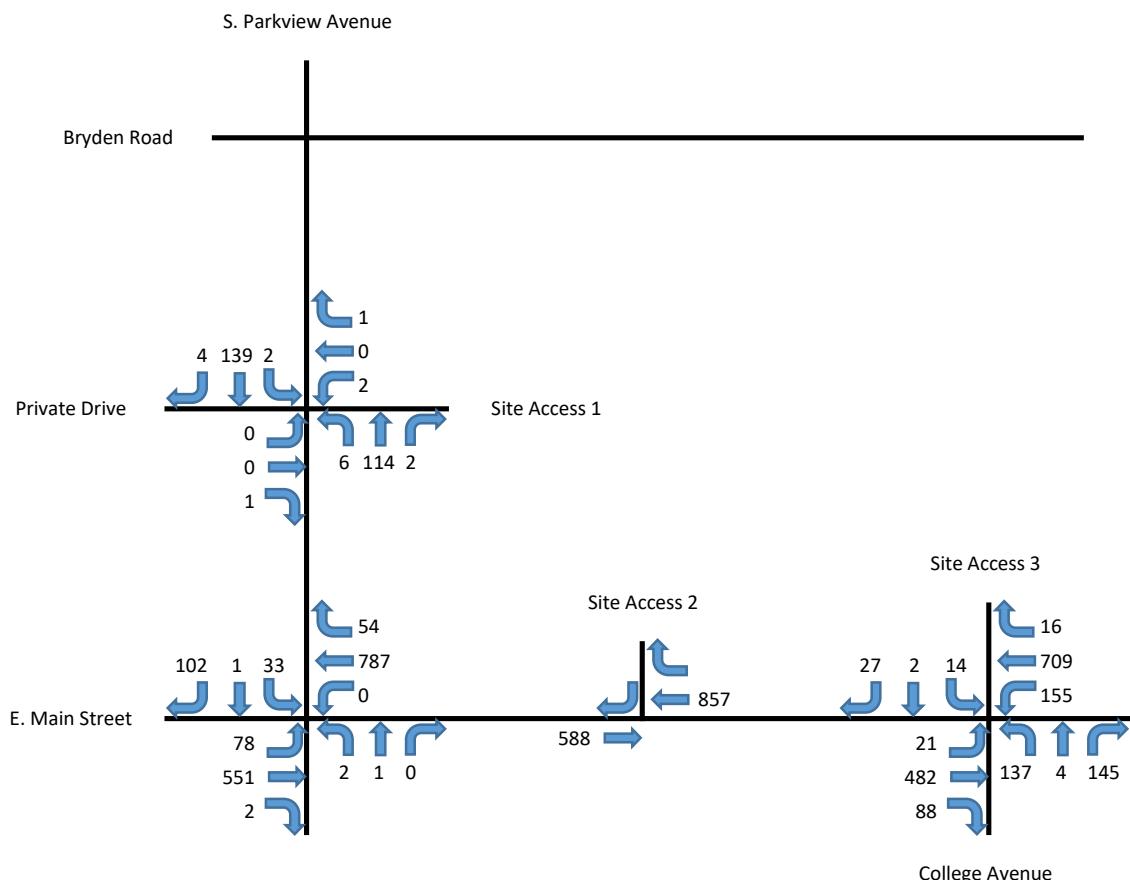
Bexley Trinity Development TIS  
Traffic Volume Calculations



Year	Period	Scenario	Plate
2035	AM	No Build	E1 = A1 Grown

▲

N



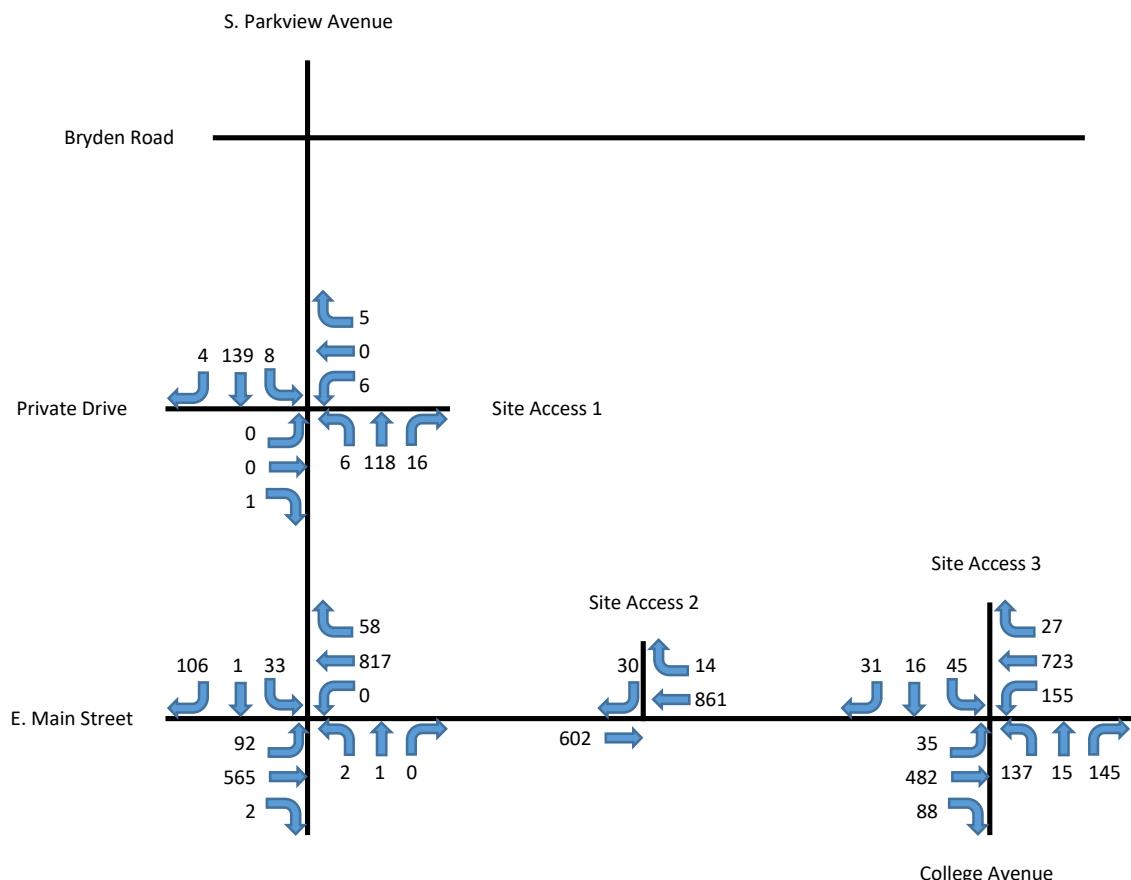
Bexley Trinity Development TIS  
Traffic Volume Calculations



Year	Period	Scenario	Plate
2035	AM	Build	F1 = C1 + E1

▲

N



Bexley Trinity Development TIS  
Traffic Volume Calculations

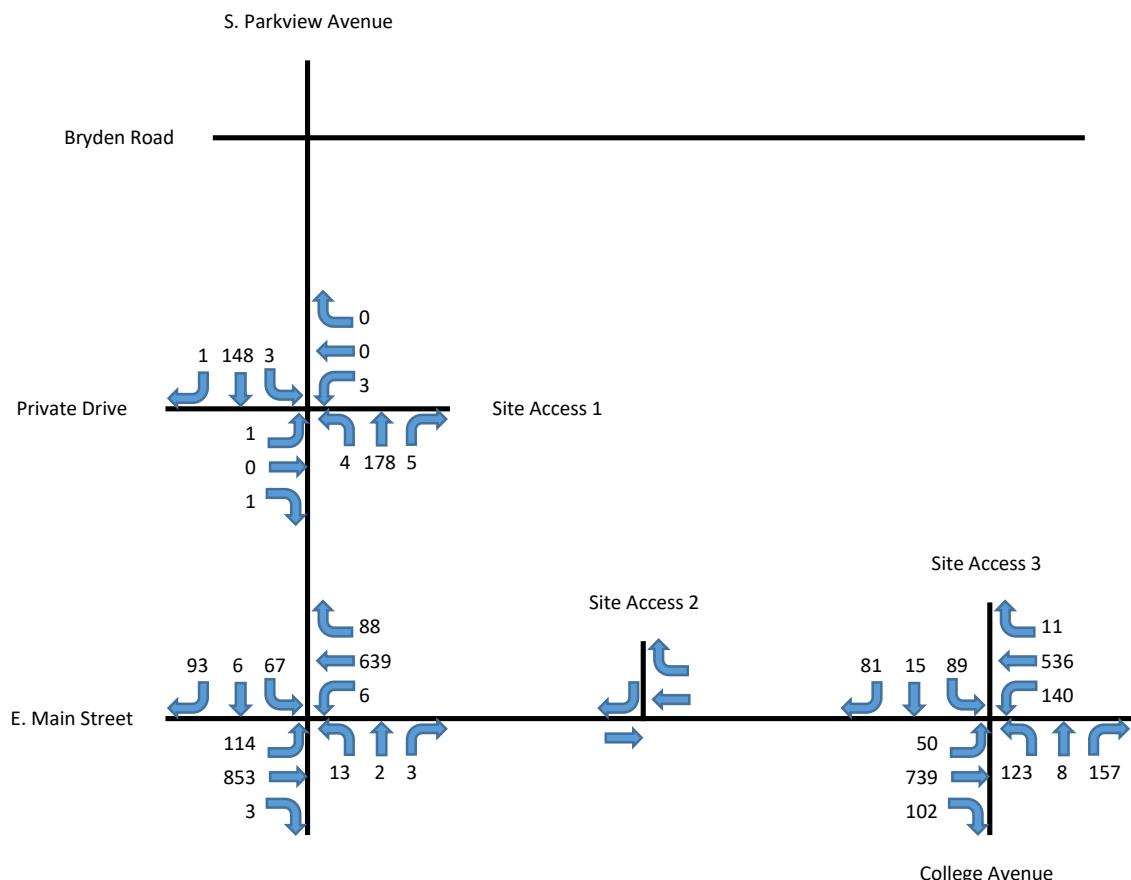


Year	Period	Scenario	Plate
2023	PM	Count	A2

▲

N

A study wide peak hour of 4:45-  
5:45 was utilized



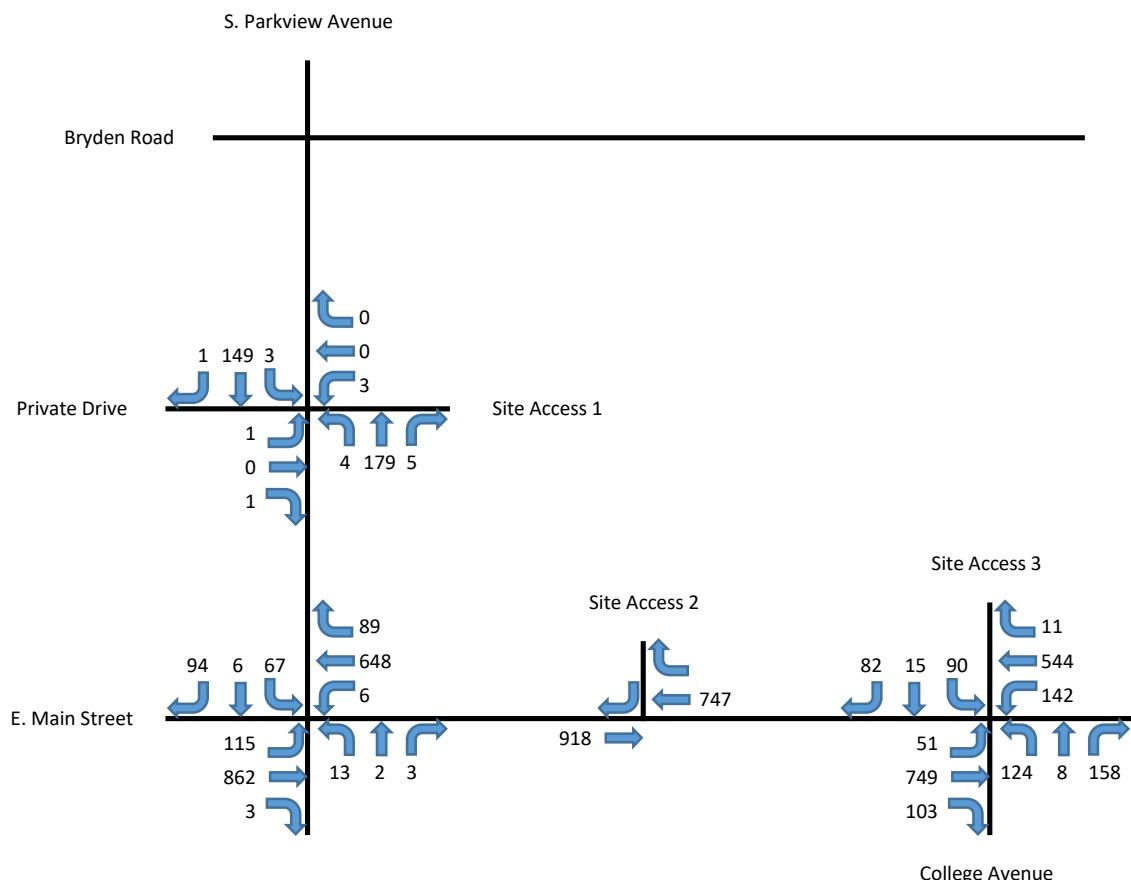
Bexley Trinity Development TIS  
Traffic Volume Calculations



Year	Period	Scenario	Plate
2025	PM	No Build	B2 = A2 Grown

▲

N



Bexley Trinity Development TIS  
Traffic Volume Calculations

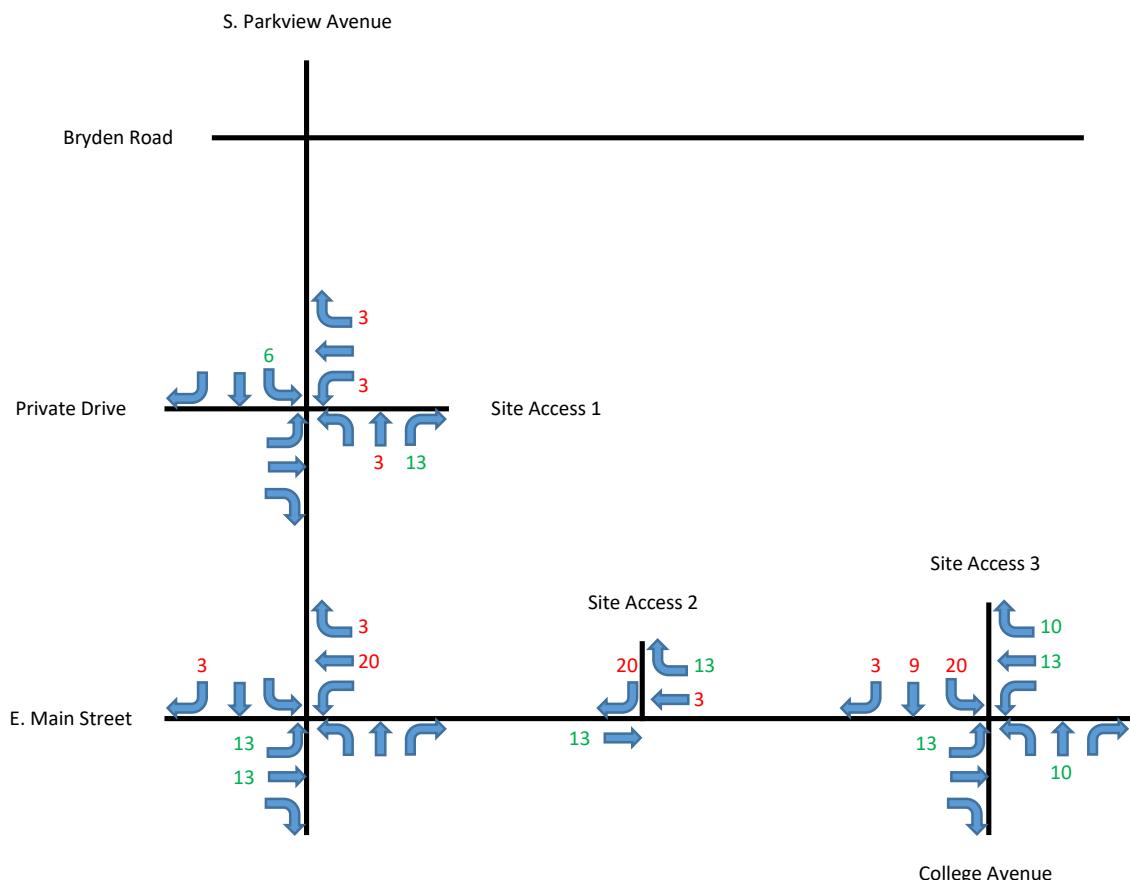


Year	Period	Scenario	Plate
	PM	Non-Pass-By Traffic	C2

▲

N

Entry      65  
Exit      58



Bexley Trinity Development TIS  
Traffic Volume Calculations

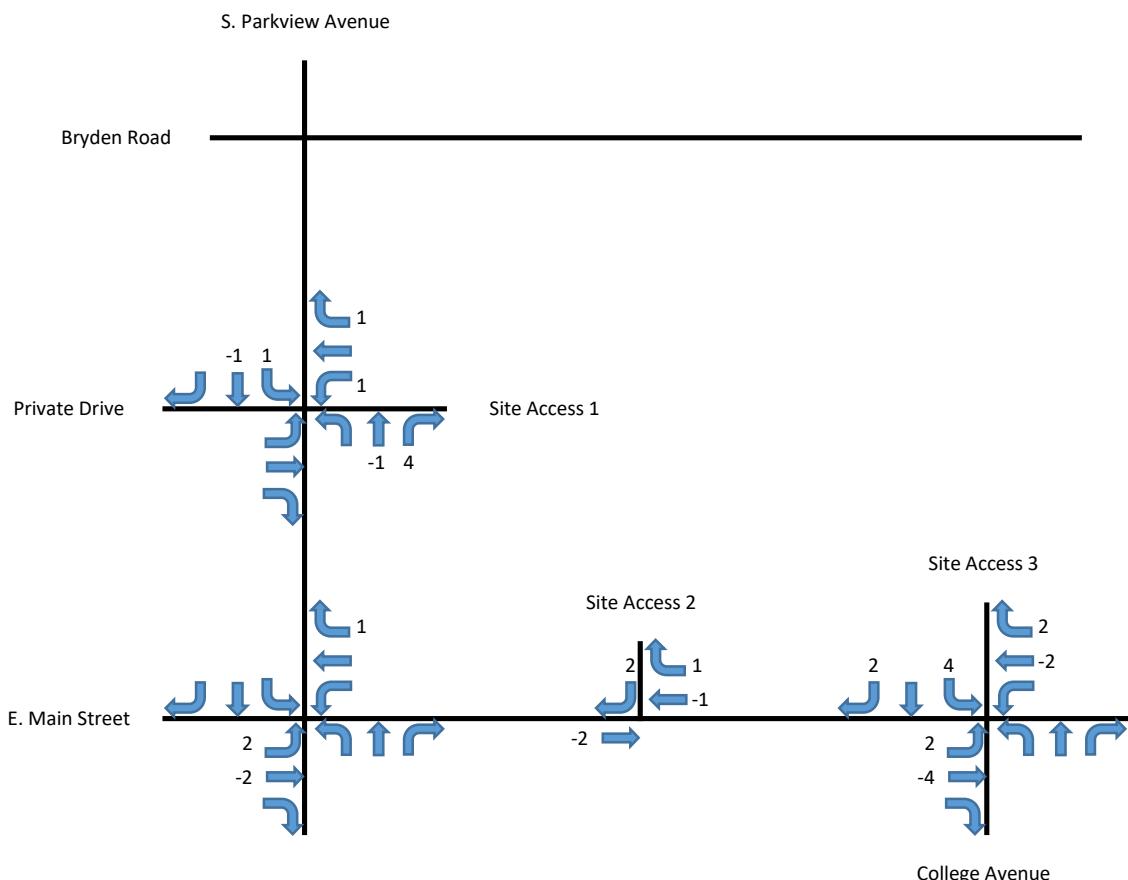


Year	Period	Scenario	Plate
	PM	Pass-By Traffic	D2

▲

N

Entry	13
Exit	7
Average	10



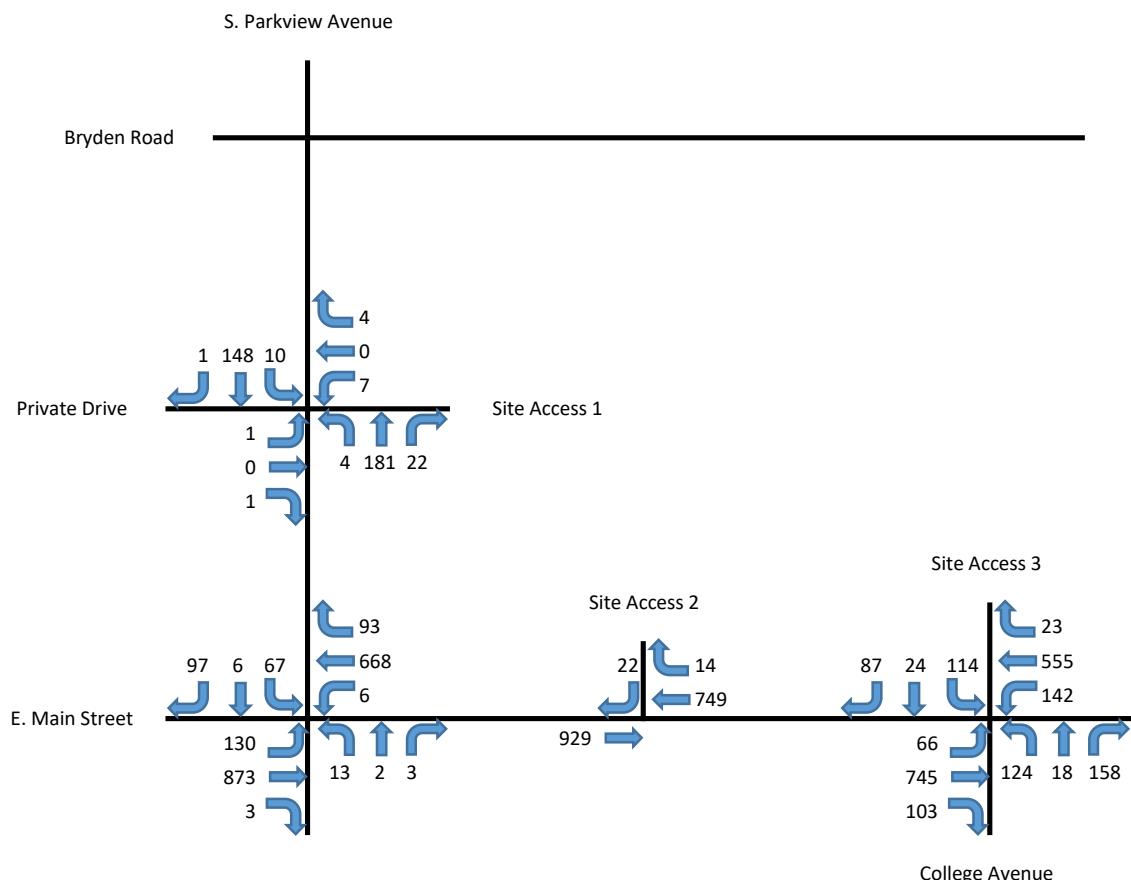
Bexley Trinity Development TIS  
Traffic Volume Calculations



Year	Period	Scenario	Plate
2025	PM	Build	E2 = B2 + C2 + D2

▲

N



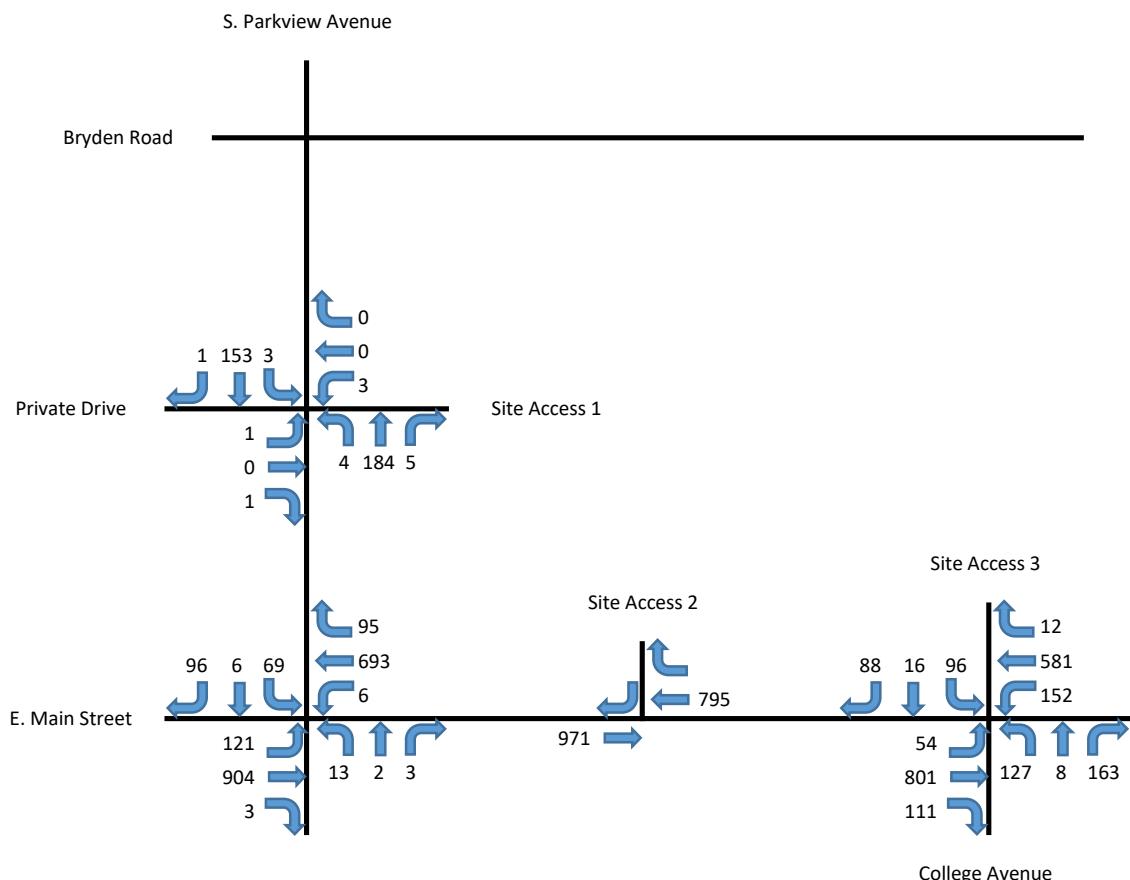
Bexley Trinity Development TIS  
Traffic Volume Calculations



Year	Period	Scenario	Plate
2035	PM	No Build	F2 = A2 Grown

▲

N



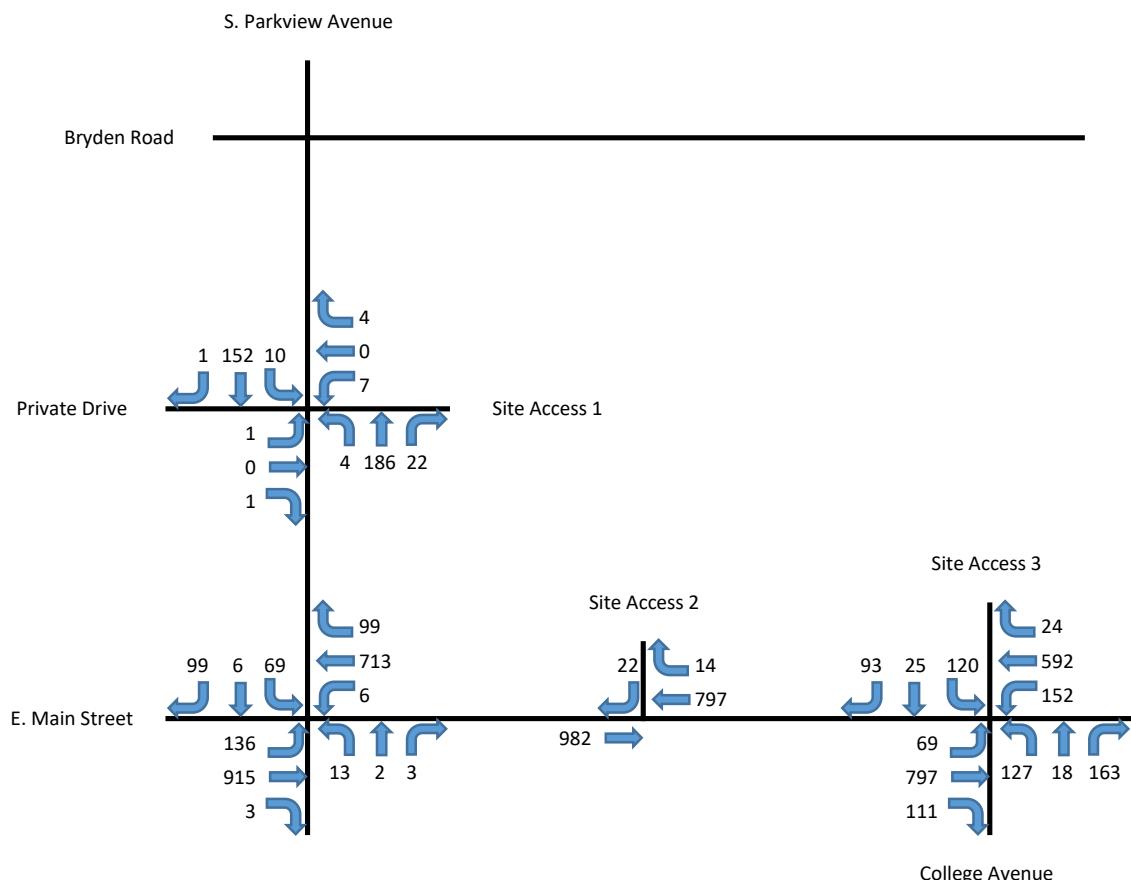
Bexley Trinity Development TIS  
Traffic Volume Calculations



Year	Period	Scenario	Plate
2035	PM	Build	G2 = C2 + D2 + E2

▲

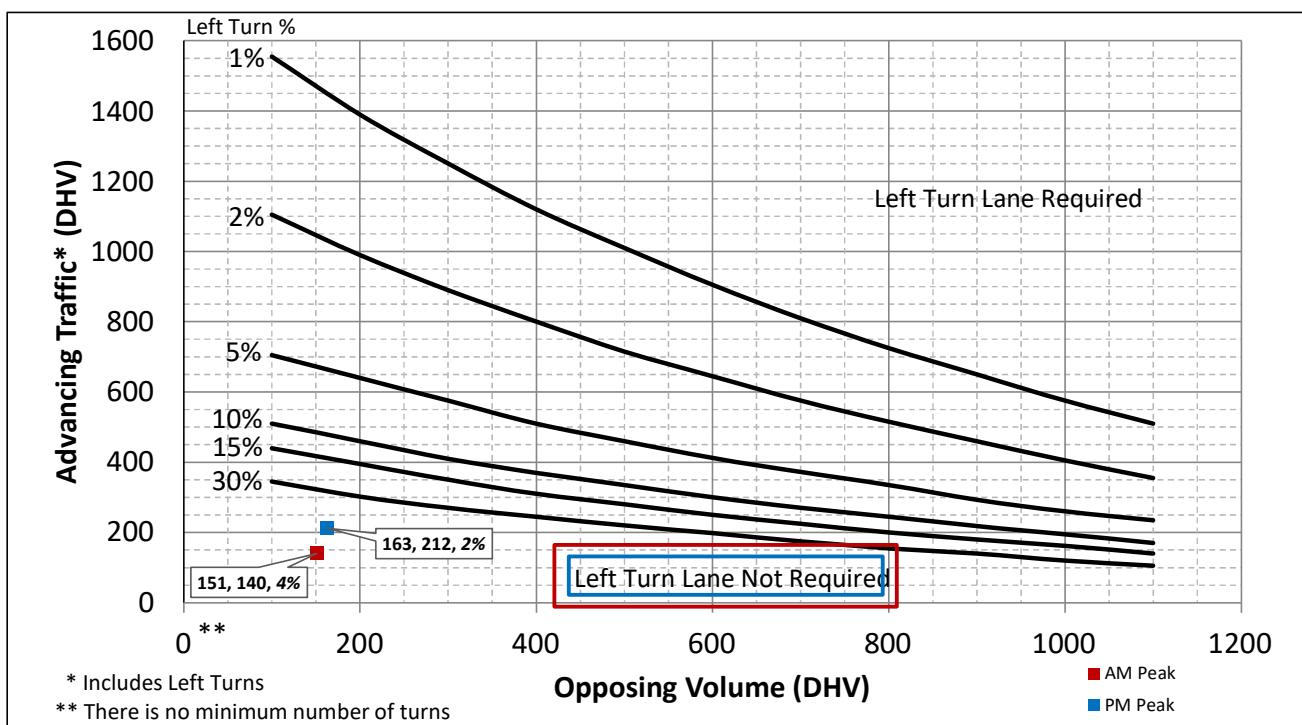
N



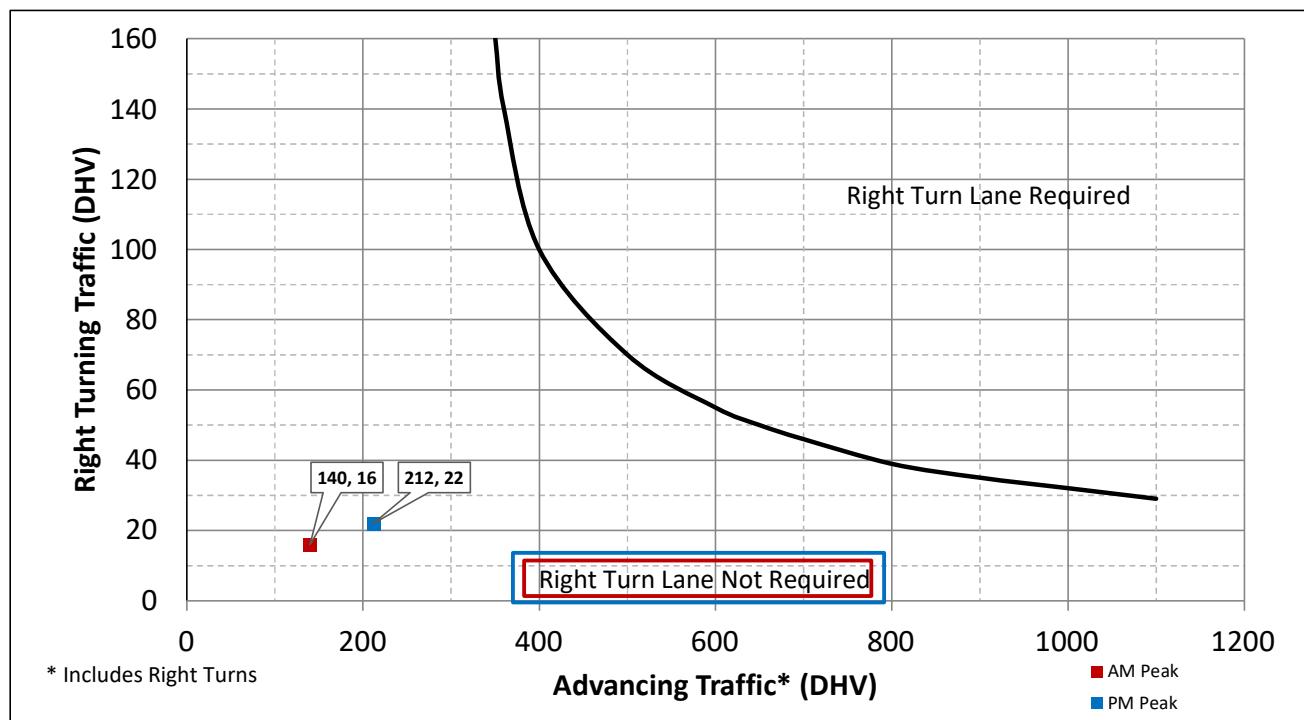
# Appendix E

## Turn Lane Warrant and Length Analysis

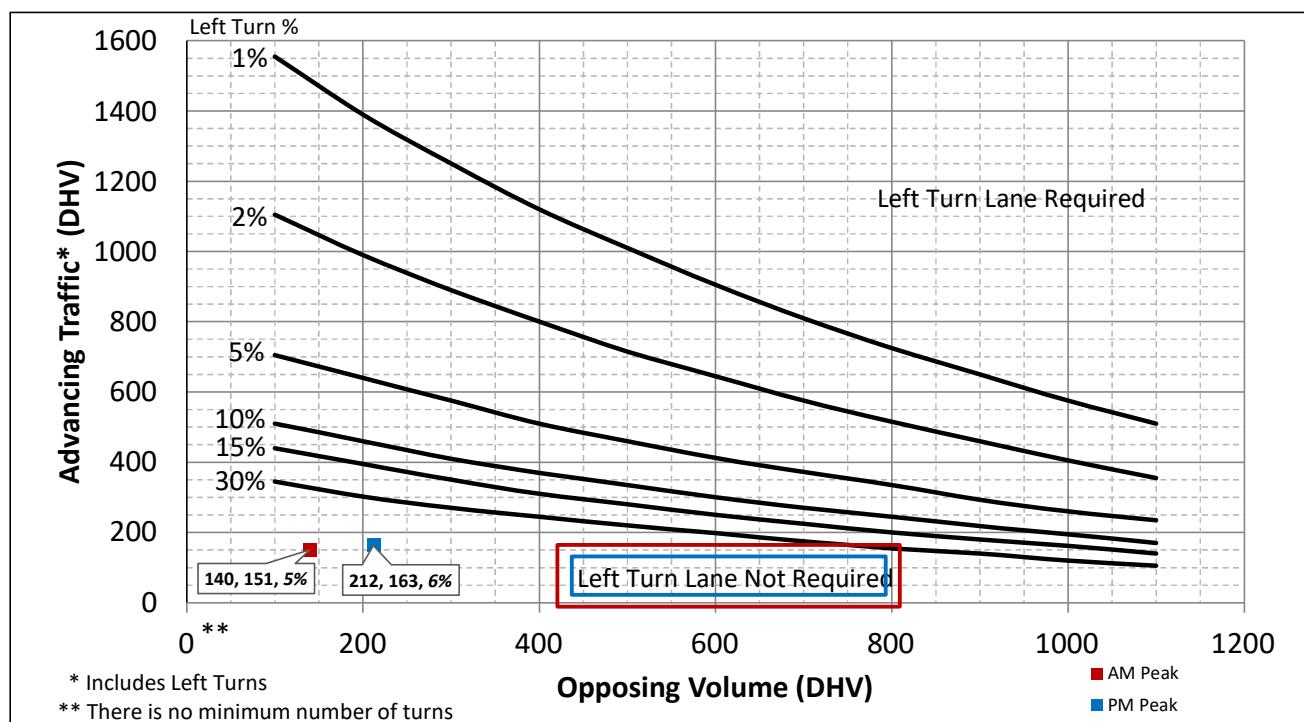


**2-Lane Highway Left Turn Lane Warrant**  
 (= < 40 mph or 70 kph Posted Speed)

**Turn Lane Length Calculations**

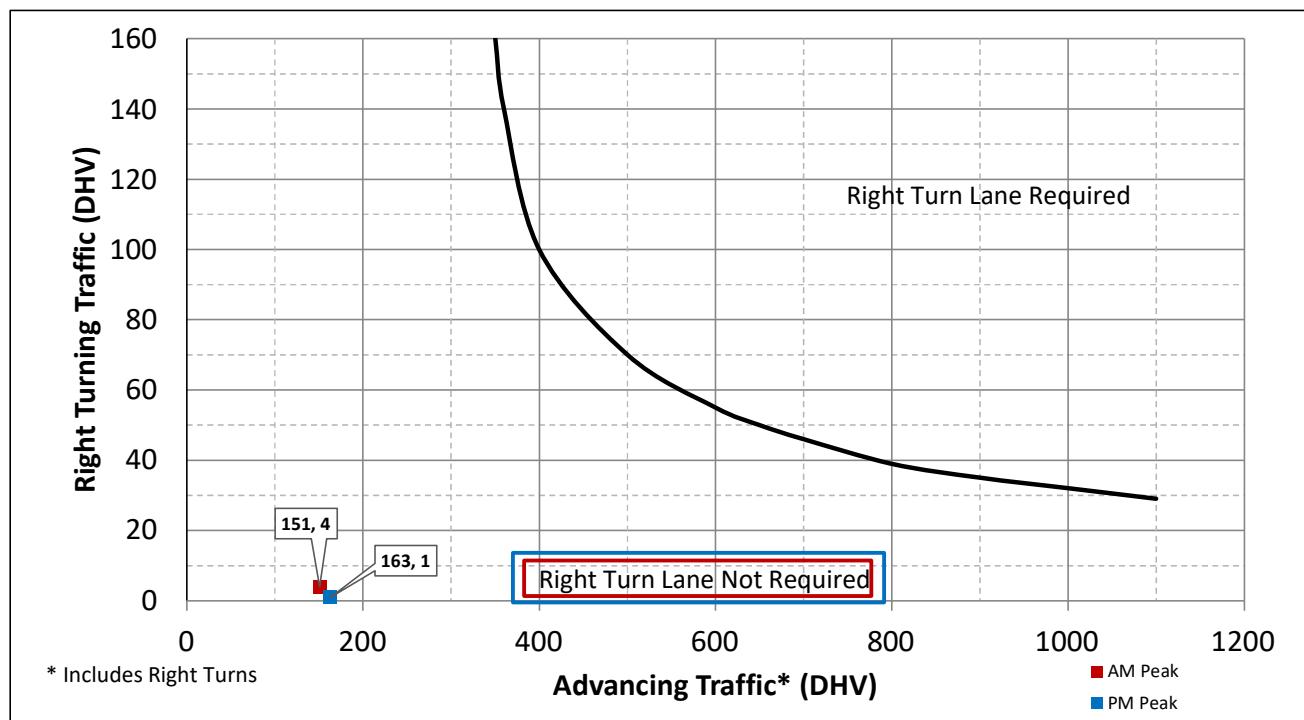
AM Peak	Design Speed	25	mph
	Traffic Control	Unsignalized	
	Cycle Length	Unsignalized	
	Cycles Per Hour	60	Assume 60
	Turn Lane Volume	6	VPH
	Advancing Traffic	140	VPH
	Opposing Volume	151	VPH
	Left Turn Percentage	4%	
	Location Type	Through Road	
	Condition	A	
	Vehicles/Cycle	1	
	Turn Lane Length	100	
	Offset Width	12	
	Approach Taper	125	
* Turn Lane Length includes 50 ft diverging taper			
PM Peak	Design Speed	25	mph
	Traffic Control	Unsignalized	
	Cycle Length	Unsignalized	
	Cycles Per Hour	60	Assume 60
	Turn Lane Volume	4	VPH
	Advancing Traffic	212	VPH
	Opposing Volume	163	VPH
	Left Turn Percentage	2%	
	Location Type	Through Road	
	Condition	A	
	Vehicles/Cycle	1	
	Turn Lane Length	100	
	Offset Width	12	
	Approach Taper	125	
* Turn Lane Length includes 50 ft diverging taper			
Is Left Turn Warrant Met		No	No Left Turn Lane Required

**2-Lane Highway Right Turn Lane Warrant**  
 (= < 40 mph or 70 kph Posted Speed)

**Turn Lane Length Calculations**

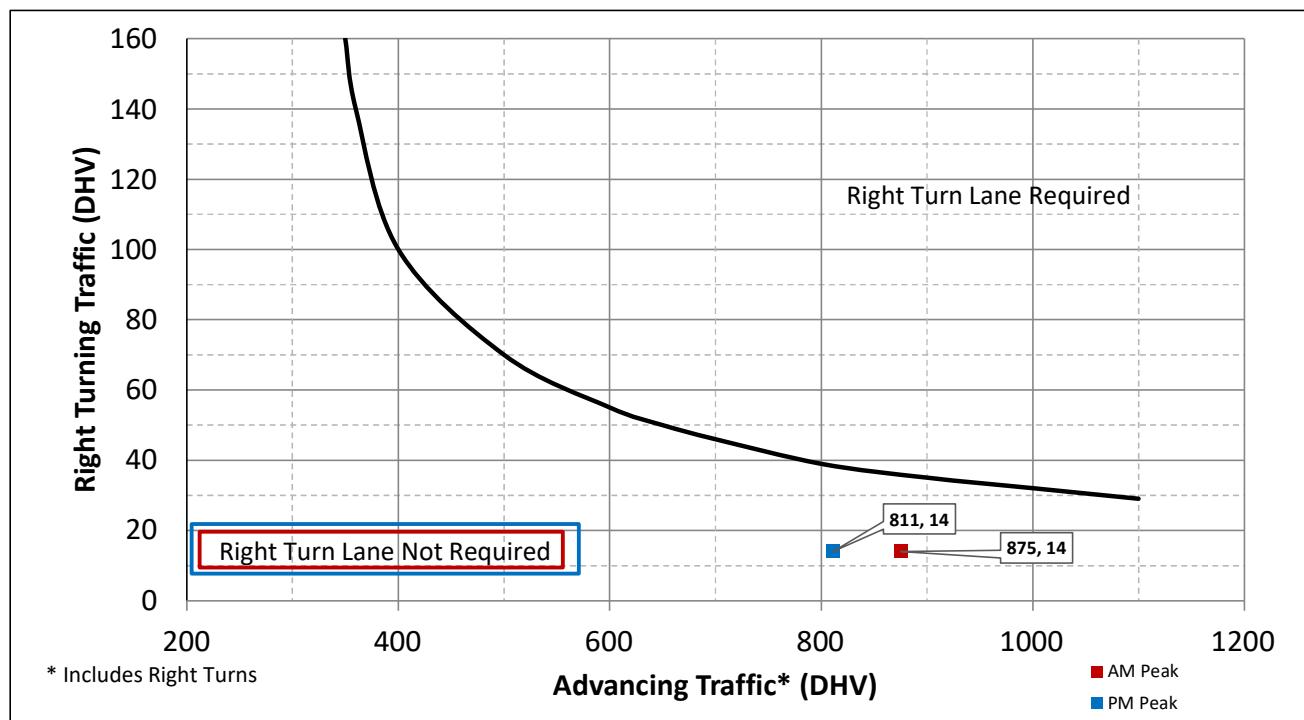
AM Peak	Design Speed	25	mph
	Traffic Control	Unsignalized	
	Cycle Length	Unsignalized	
	Cycles Per Hour	60	Assume 60
	Turn Lane Volume	16	VPH
	Advancing Traffic	140	VPH
	Right Turn Percentage	11%	
	Location Type	Through Road	
	Condition	A	
	Vehicles/Cycle	1	
Turn Lane Length	100		* Turn Lane Length includes 50 ft diverging taper
PM Peak	Design Speed	25	mph
	Traffic Control	Unsignalized	
	Cycle Length	Unsignalized	
	Cycles Per Hour	60	Assume 60
	Turn Lane Volume	22	VPH
	Advancing Traffic	212	VPH
	Right Turn Percentage	10%	
	Location Type	Through Road	
	Condition	A	
	Vehicles/Cycle	1	
Turn Lane Length	100		* Turn Lane Length includes 50 ft diverging taper
Is Right Turn Warrant Met	No	No Right Turn Lane Required	

**2-Lane Highway Left Turn Lane Warrant**  
 (= < 40 mph or 70 kph Posted Speed)

**Turn Lane Length Calculations**

AM Peak	Design Speed	25	mph
	Traffic Control	Unsignalized	
	Cycle Length	Unsignalized	
	Cycles Per Hour	60	Assume 60
	Turn Lane Volume	8	VPH
	Advancing Traffic	151	VPH
	Opposing Volume	140	VPH
	Left Turn Percentage	5%	
	Location Type	Through Road	
	Condition	A	
	Vehicles/Cycle	1	
	Turn Lane Length	100	
	Offset Width	12	
	Approach Taper	125	
* Turn Lane Length includes 50 ft diverging taper			
PM Peak	Design Speed	25	mph
	Traffic Control	Unsignalized	
	Cycle Length	Unsignalized	
	Cycles Per Hour	60	Assume 60
	Turn Lane Volume	10	VPH
	Advancing Traffic	163	VPH
	Opposing Volume	212	VPH
	Left Turn Percentage	6%	
	Location Type	Through Road	
	Condition	A	
	Vehicles/Cycle	1	
	Turn Lane Length	100	
	Offset Width	12	
	Approach Taper	125	
* Turn Lane Length includes 50 ft diverging taper			
Is Left Turn Warrant Met	No	No Left Turn Lane Required	

**2-Lane Highway Right Turn Lane Warrant**  
 (= < 40 mph or 70 kph Posted Speed)

**Turn Lane Length Calculations**

<b>AM Peak</b>	Design Speed	25	mph
	Traffic Control	Unsignalized	
	Cycle Length	Unsignalized	
	Cycles Per Hour	60	Assume 60
	Turn Lane Volume	4	VPH
	Advancing Traffic	151	VPH
	Right Turn Percentage	3%	
	Location Type	Through Road	
	Condition	A	
	Vehicles/Cycle	1	
<b>PM Peak</b>	Turn Lane Length	100	* Turn Lane Length includes 50 ft diverging taper
	Design Speed	25	mph
	Traffic Control	Unsignalized	
	Cycle Length	Unsignalized	
	Cycles Per Hour	60	Assume 60
	Turn Lane Volume	1	VPH
	Advancing Traffic	163	VPH
	Right Turn Percentage	1%	
	Location Type	Through Road	
	Condition	A	
<b>Is Right Turn Warrant Met</b>	Turn Lane Length	100	* Turn Lane Length includes 50 ft diverging taper
	No	No Right Turn Lane Required	

**2-Lane Highway Right Turn Lane Warrant**  
 (= < 40 mph or 70 kph Posted Speed)

**Turn Lane Length Calculations**

<b>AM Peak</b>	Design Speed	25	mph
	Traffic Control	Unsignalized	
	Cycle Length	Unsignalized	
	Cycles Per Hour	60	Assume 60
	Turn Lane Volume	14	VPH
	Advancing Traffic	875	VPH
	Right Turn Percentage	2%	
	Location Type	Through Road	
	Condition	A	
	Vehicles/Cycle	1	
<b>PM Peak</b>	Turn Lane Length	100	* Turn Lane Length includes 50 ft diverging taper
	Design Speed	25	mph
	Traffic Control	Unsignalized	
	Cycle Length	Unsignalized	
	Cycles Per Hour	60	Assume 60
	Turn Lane Volume	14	VPH
	Advancing Traffic	811	VPH
	Right Turn Percentage	2%	
	Location Type	Through Road	
	Condition	A	
Is Right Turn Warrant Met	Turn Lane Length	100	* Turn Lane Length includes 50 ft diverging taper
	No	No Right Turn Lane Required	

### Left Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 2 Phase	
	Cycle Length	Known	
	Cycles Per Hour	40	<i>Enter Cycles Per Hour</i>
	Turn Lane Volume	92	VPH
	Advancing Traffic	659	VPH
	Left Turn Percentage	14%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	3	
	Turn Lane Length	200	
	Offset Width	12	
	Approach Taper	245	
<b>PM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 2 Phase	
	Cycle Length	Known	
	Cycles Per Hour	40	<i>Enter Cycles Per Hour</i>
	Turn Lane Volume	136	VPH
	Advancing Traffic	1054	VPH
	Left Turn Percentage	13%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	4	
	Turn Lane Length	225	
	Offset Width	12	
	Approach Taper	245	



### Left Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 2 Phase	
	Cycle Length	Known	
	Cycles Per Hour	40	<i>Enter Cycles Per Hour</i>
	Turn Lane Volume	78	VPH
	Advancing Traffic	631	VPH
	Left Turn Percentage	12%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	2	
	Turn Lane Length	150	
	Offset Width	12	
	Approach Taper	245	
<b>PM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 2 Phase	
	Cycle Length	Known	
	Cycles Per Hour	40	<i>Enter Cycles Per Hour</i>
	Turn Lane Volume	121	VPH
	Advancing Traffic	1028	VPH
	Left Turn Percentage	12%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	4	
	Turn Lane Length	225	
	Offset Width	12	
	Approach Taper	245	



### Left Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	25	mph
	Traffic Control	Signalized - 2 Phase	
	Cycle Length	Known	
	Cycles Per Hour	40	<i>Enter Cycles Per Hour</i>
	Turn Lane Volume	0	VPH
	Advancing Traffic	875	VPH
	Left Turn Percentage	0%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	1	
	Turn Lane Length	100	
	Offset Width	12	
	Approach Taper	125	
<b>PM Peak</b>	Design Speed	25	mph
	Traffic Control	Signalized - 2 Phase	
	Cycle Length	Known	
	Cycles Per Hour	40	<i>Enter Cycles Per Hour</i>
	Turn Lane Volume	6	VPH
	Advancing Traffic	818	VPH
	Left Turn Percentage	1%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	1	
	Turn Lane Length	100	
	Offset Width	12	
	Approach Taper	125	



### Left Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	25	mph
	Traffic Control	Signalized - 2 Phase	
	Cycle Length	Known	
	Cycles Per Hour	40	<i>Enter Cycles Per Hour</i>
	Turn Lane Volume	0	VPH
	Advancing Traffic	841	VPH
	Left Turn Percentage	0%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	1	
	Turn Lane Length	100	
	Offset Width	12	
	Approach Taper	125	
<b>PM Peak</b>	Design Speed	25	mph
	Traffic Control	Signalized - 2 Phase	
	Cycle Length	Known	
	Cycles Per Hour	40	<i>Enter Cycles Per Hour</i>
	Turn Lane Volume	6	VPH
	Advancing Traffic	794	VPH
	Left Turn Percentage	1%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	1	
	Turn Lane Length	100	
	Offset Width	12	
	Approach Taper	125	



### Right Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	25	mph
	Traffic Control	Signalized - 2 Phase	
	Cycle Length	Known	
	Cycles Per Hour	40	<i>Enter Cycles Per Hour</i>
	Turn Lane Volume	106	VPH
	Advancing Traffic	140	VPH
	Right Turn Percentage	76%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	3	
<b>PM Peak</b>	Turn Lane Length	200	
	Design Speed	25	mph
	Traffic Control	Signalized - 2 Phase	
	Cycle Length	Known	
	Cycles Per Hour	40	<i>Enter Cycles Per Hour</i>
	Turn Lane Volume	99	VPH
	Advancing Traffic	174	VPH
	Right Turn Percentage	57%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	3	
	Turn Lane Length	200	



### Right Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	25	mph
	Traffic Control	Signalized - 2 Phase	
	Cycle Length	Known	
	Cycles Per Hour	40	<i>Enter Cycles Per Hour</i>
	Turn Lane Volume	102	VPH
	Advancing Traffic	136	VPH
	Right Turn Percentage	75%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	3	
<b>PM Peak</b>	Turn Lane Length	200	
	Design Speed	25	mph
	Traffic Control	Signalized - 2 Phase	
	Cycle Length	Known	
	Cycles Per Hour	40	<i>Enter Cycles Per Hour</i>
	Turn Lane Volume	96	VPH
	Advancing Traffic	171	VPH
	Right Turn Percentage	56%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	3	
	Turn Lane Length	200	



### Left Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	35	VPH
	Advancing Traffic	605	VPH
	Left Turn Percentage	6%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	1	
	Turn Lane Length	100	
	Offset Width	12	
	Approach Taper	245	
<b>PM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	69	VPH
	Advancing Traffic	977	VPH
	Left Turn Percentage	7%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	2	
	Turn Lane Length	150	
	Offset Width	12	
	Approach Taper	245	



### Left Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	21	VPH
	Advancing Traffic	591	VPH
	Left Turn Percentage	4%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	1	
	Turn Lane Length	100	
	Offset Width	12	
	Approach Taper	245	
<b>PM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	54	VPH
	Advancing Traffic	966	VPH
	Left Turn Percentage	6%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	2	
	Turn Lane Length	150	
	Offset Width	12	
	Approach Taper	245	



### Left Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	155	VPH
	Advancing Traffic	905	VPH
	Left Turn Percentage	17%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	4	
	Turn Lane Length	225	
	Offset Width	12	
<b>PM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	152	VPH
	Advancing Traffic	768	VPH
	Left Turn Percentage	20%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	4	
	Turn Lane Length	225	
	Offset Width	12	
	Approach Taper	245	



### Left Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	155	VPH
	Advancing Traffic	880	VPH
	Left Turn Percentage	18%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	4	
	Turn Lane Length	225	
	Offset Width	12	
	Approach Taper	245	
<b>PM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	152	VPH
	Advancing Traffic	745	VPH
	Left Turn Percentage	20%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	4	
	Turn Lane Length	225	
	Offset Width	12	
	Approach Taper	245	

### Left Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	45	VPH
	Advancing Traffic	92	VPH
	Left Turn Percentage	49%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	2	
	Turn Lane Length	150	
	Offset Width	12	
<b>PM Peak</b>	Approach Taper	245	
	Design Speed	35	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	120	VPH
	Advancing Traffic	238	VPH
	Left Turn Percentage	50%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	3	
	Turn Lane Length	200	
	Offset Width	12	
	Approach Taper	245	



### Left Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<b>Assume 40</b>
	Turn Lane Volume	14	VPH
	Advancing Traffic	43	VPH
	Left Turn Percentage	33%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	1	
	Turn Lane Length	100	
	Offset Width	12	
	Approach Taper	245	
<b>PM Peak</b>	Design Speed	35	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<b>Assume 40</b>
	Turn Lane Volume	96	VPH
	Advancing Traffic	200	VPH
	Left Turn Percentage	48%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	3	
	Turn Lane Length	200	
	Offset Width	12	
	Approach Taper	245	



### Right Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	25	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	145	VPH
	Advancing Traffic	297	VPH
	Right Turn Percentage	49%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	4	
<b>PM Peak</b>	Turn Lane Length	225	
	Design Speed	25	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	163	VPH
	Advancing Traffic	308	VPH
	Right Turn Percentage	53%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	5	
	Turn Lane Length	250	



### Right Turn Lane Length Calculations

<b>AM Peak</b>	Design Speed	25	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	145	VPH
	Advancing Traffic	286	VPH
	Right Turn Percentage	51%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	4	
<b>PM Peak</b>	Turn Lane Length	225	
	Design Speed	25	mph
	Traffic Control	Signalized - 3 Phase	
	Cycle Length	Unknown	
	Cycles Per Hour	40	<i>Assume 40</i>
	Turn Lane Volume	163	VPH
	Advancing Traffic	298	VPH
	Right Turn Percentage	55%	
	Location Type	Intersection	
	Condition	A	
	Vehicles/Cycle	5	
	Turn Lane Length	250	



# Appendix F

## Capacity Analysis



# Timing Report, Sorted By Phase

3: College Avenue/Bexley Square/Site Access 3 & E. Main Street

12/11/2023



Phase Number	2	3	4	6	8
Movement	NBTL	WBL	EBTL	SBTL	WBTL
Lead/Lag		Lead	Lag		
Lead-Lag Optimize		Yes	Yes		
Recall Mode	Min	None	C-Max	Min	C-Max
Maximum Split (s)	32	19	39	32	58
Maximum Split (%)	35.6%	21.1%	43.3%	35.6%	64.4%
Minimum Split (s)	16	13	26	16	26
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	2	2	2	2	2
Minimum Initial (s)	10	7	20	10	20
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)					
Flash Dont Walk (s)					
Dual Entry	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	2	34	53	2	34
End Time (s)	34	53	2	34	2
Yield/Force Off (s)	28	47	86	28	86
Yield/Force Off 170(s)	28	47	86	28	86
Local Start Time (s)	39	71	0	39	71
Local Yield (s)	65	84	33	65	33
Local Yield 170(s)	65	84	33	65	33

## Intersection Summary

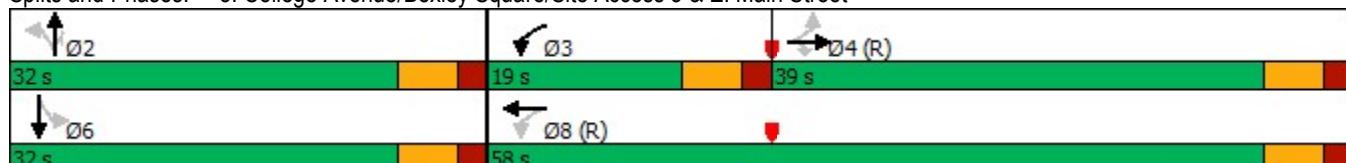
Cycle Length 90

Control Type Actuated-Coordinated

Natural Cycle 60

Offset: 53 (59%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Splits and Phases: 3: College Avenue/Bexley Square/Site Access 3 & E. Main Street



## HCM 6th Signalized Intersection Summary

3: College Avenue/Bexley Square/Site Access 3 &amp; E. Main Street

12/11/2023

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑↑			↑	↑	↑	↑	
Traffic Volume (veh/h)	19	451	82	145	663	15	133	4	141	13	2	25
Future Volume (veh/h)	19	451	82	145	663	15	133	4	141	13	2	25
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1826	1826	1826
Adj Flow Rate, veh/h	20	480	87	154	705	16	141	4	150	14	2	27
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	5	5	5
Cap, veh/h	496	1063	900	573	2541	58	262	5	240	122	16	220
Arrive On Green	0.57	0.57	0.57	0.08	0.72	0.72	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	726	1856	1572	1781	3552	81	1209	34	1585	1204	108	1456
Grp Volume(v), veh/h	20	480	87	154	353	368	145	0	150	14	0	29
Grp Sat Flow(s), veh/h/ln	726	1856	1572	1781	1777	1856	1244	0	1585	1204	0	1564
Q Serve(g_s), s	1.1	13.4	2.3	2.8	6.3	6.3	9.1	0.0	8.0	1.0	0.0	1.4
Cycle Q Clear(g_c), s	1.1	13.4	2.3	2.8	6.3	6.3	10.5	0.0	8.0	11.5	0.0	1.4
Prop In Lane	1.00			1.00		0.04	0.97		1.00	1.00		0.93
Lane Grp Cap(c), veh/h	496	1063	900	573	1271	1328	267	0	240	122	0	237
V/C Ratio(X)	0.04	0.45	0.10	0.27	0.28	0.28	0.54	0.00	0.63	0.12	0.00	0.12
Avail Cap(c_a), veh/h	496	1063	900	695	1271	1328	458	0	458	287	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.5	11.1	8.7	6.9	4.5	4.5	37.6	0.0	35.8	42.4	0.0	33.0
Incr Delay (d2), s/veh	0.2	1.4	0.2	0.2	0.5	0.5	1.7	0.0	2.7	0.4	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.2	5.6	0.8	1.0	2.2	2.2	3.2	0.0	3.2	0.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.6	12.5	8.9	7.2	5.1	5.1	39.3	0.0	38.5	42.8	0.0	33.3
LnGrp LOS	A	B	A	A	A	A	D	A	D	D	A	C
Approach Vol, veh/h	587				875			295			43	
Approach Delay, s/veh	11.8				5.5			38.9			36.4	
Approach LOS	B				A			D			D	
Timer - Assigned Phs	2	3	4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	19.6	12.9	57.5		19.6		70.4					
Change Period (Y+R <sub>c</sub> ), s	6.0	6.0	6.0		6.0		6.0					
Max Green Setting (Gmax), s	26.0	13.0	33.0		26.0		52.0					
Max Q Clear Time (g_c+l1), s	12.5	4.8	15.4		13.5		8.3					
Green Ext Time (p_c), s	1.1	0.2	3.5		0.1		5.5					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			13.7									
HCM 6th LOS			B									

# Timing Report, Sorted By Phase

6: Private Drive/S. Parkview Avenue & E. Main Street

12/11/2023



Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	C-Min	None	C-Min
Maximum Split (s)	27	63	27	63
Maximum Split (%)	30.0%	70.0%	30.0%	70.0%
Minimum Split (s)	16	26	16	26
Yellow Time (s)	4	4	4	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	10	20	10	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)				
Flash Dont Walk (s)				
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	63	0	63	0
End Time (s)	0	63	0	63
Yield/Force Off (s)	84	57	84	57
Yield/Force Off 170(s)	84	57	84	57
Local Start Time (s)	63	0	63	0
Local Yield (s)	84	57	84	57
Local Yield 170(s)	84	57	84	57
Intersection Summary				
Cycle Length		90		
Control Type	Actuated-Coordinated			
Natural Cycle		45		
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green				

Splits and Phases: 6: Private Drive/S. Parkview Avenue & E. Main Street



HCM 6th Signalized Intersection Summary  
6: Private Drive/S. Parkview Avenue & E. Main Street

12/11/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑↑			↔			↑	↑
Traffic Volume (veh/h)	75	525	2	0	736	51	2	1	0	32	1	99
Future Volume (veh/h)	75	525	2	0	736	51	2	1	0	32	1	99
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	571	2	0	800	55	2	1	0	35	1	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	2	2	2	0	0	0	0	0	0
Cap, veh/h	518	2733	10	80	2558	176	154	65	0	237	6	174
Arrive On Green	0.76	0.76	0.76	0.00	0.76	0.76	0.11	0.11	0.00	0.11	0.11	0.11
Sat Flow, veh/h	640	3603	13	839	3374	232	809	599	0	1457	53	1610
Grp Volume(v), veh/h	82	279	294	0	421	434	3	0	0	36	0	108
Grp Sat Flow(s), veh/h/ln	640	1763	1853	839	1777	1829	1408	0	0	1510	0	1610
Q Serve(g_s), s	4.2	4.1	4.1	0.0	6.8	6.8	0.0	0.0	0.0	0.0	0.0	5.8
Cycle Q Clear(g_c), s	10.9	4.1	4.1	0.0	6.8	6.8	1.6	0.0	0.0	1.6	0.0	5.8
Prop In Lane	1.00		0.01	1.00		0.13	0.67		0.00	0.97		1.00
Lane Grp Cap(c), veh/h	518	1337	1405	80	1348	1387	219	0	0	242	0	174
V/C Ratio(X)	0.16	0.21	0.21	0.00	0.31	0.31	0.01	0.00	0.00	0.15	0.00	0.62
Avail Cap(c_a), veh/h	518	1337	1405	80	1348	1387	401	0	0	423	0	376
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.2	3.1	3.1	0.0	3.4	3.4	35.8	0.0	0.0	36.5	0.0	38.4
Incr Delay (d2), s/veh	0.7	0.4	0.3	0.0	0.6	0.6	0.0	0.0	0.0	0.3	0.0	3.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.5	1.1	1.2	0.0	2.1	2.1	0.1	0.0	0.0	0.7	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	5.8	3.5	3.5	0.0	4.1	4.0	35.9	0.0	0.0	36.8	0.0	41.9
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	655				855			3			144	
Approach Delay, s/veh	3.8				4.0			35.9			40.6	
Approach LOS	A				A			D			D	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	15.7		74.3		15.7		74.3					
Change Period (Y+R <sub>c</sub> ), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	21.0		57.0		21.0		57.0					
Max Q Clear Time (g_c+l1), s	3.6		12.9		7.8		8.8					
Green Ext Time (p_c), s	0.0		4.6		0.4		7.0					
Intersection Summary												
HCM 6th Ctrl Delay			7.2									
HCM 6th LOS			A									

## Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	0	0	1	2	0	1	6	111	2	2	135	4
Future Vol, veh/h	0	0	1	2	0	1	6	111	2	2	135	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	0	0	0
Mvmt Flow	0	0	1	2	0	1	7	134	2	2	163	5

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	320	320	166	319	321	135	168	0	0	136	0	0
Stage 1	170	170	-	149	149	-	-	-	-	-	-	-
Stage 2	150	150	-	170	172	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.2	-	-
Pot Cap-1 Maneuver	637	600	884	638	599	919	1410	-	-	1461	-	-
Stage 1	837	762	-	858	778	-	-	-	-	-	-	-
Stage 2	857	777	-	837	760	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	633	596	884	634	595	919	1410	-	-	1461	-	-
Mov Cap-2 Maneuver	633	596	-	634	595	-	-	-	-	-	-	-
Stage 1	833	760	-	854	774	-	-	-	-	-	-	-
Stage 2	852	773	-	834	758	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.1	10.1	0.4	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1410	-	-	884	707	1461	-	-
HCM Lane V/C Ratio	0.005	-	-	0.001	0.005	0.002	-	-
HCM Control Delay (s)	7.6	0	-	9.1	10.1	7.5	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

# Timing Report, Sorted By Phase

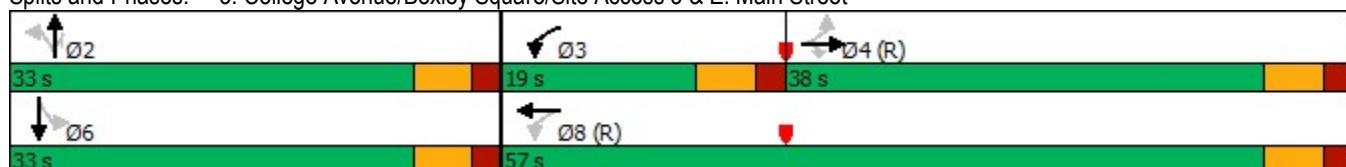
3: College Avenue/Bexley Square/Site Access 3 & E. Main Street

12/12/2023



Phase Number	2	3	4	6	8
Movement	NBTL	WBL	EBTL	SBTL	WBTL
Lead/Lag		Lead	Lag		
Lead-Lag Optimize		Yes	Yes		
Recall Mode	Min	None	C-Max	Min	C-Max
Maximum Split (s)	33	19	38	33	57
Maximum Split (%)	36.7%	21.1%	42.2%	36.7%	63.3%
Minimum Split (s)	16	13	26	16	26
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	2	2	2	2	2
Minimum Initial (s)	10	7	20	10	20
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)					
Flash Dont Walk (s)					
Dual Entry	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	1	34	53	1	34
End Time (s)	34	53	1	34	1
Yield/Force Off (s)	28	47	85	28	85
Yield/Force Off 170(s)	28	47	85	28	85
Local Start Time (s)	38	71	0	38	71
Local Yield (s)	65	84	32	65	32
Local Yield 170(s)	65	84	32	65	32
Intersection Summary					
Cycle Length		90			
Control Type	Actuated-Coordinated				
Natural Cycle		60			
Offset: 53 (59%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green					

Splits and Phases: 3: College Avenue/Bexley Square/Site Access 3 & E. Main Street



## HCM 6th Signalized Intersection Summary

3: College Avenue/Bexley Square/Site Access 3 &amp; E. Main Street

12/12/2023

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	451	82	145	677	26	133	15	141	44	16	29
Future Volume (veh/h)	33	451	82	145	677	26	133	15	141	44	16	29
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00			1.00	1.00		1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1826	1826	1826
Adj Flow Rate, veh/h	35	480	87	154	720	28	141	16	150	47	17	31
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	5	5	5
Cap, veh/h	456	987	836	468	2352	91	286	24	304	155	111	203
Arrive On Green	0.18	0.18	0.18	0.08	0.67	0.67	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	708	1856	1572	1781	3487	136	1096	124	1585	1191	579	1056
Grp Volume(v), veh/h	35	480	87	154	367	381	157	0	150	47	0	48
Grp Sat Flow(s), veh/h/ln	708	1856	1572	1781	1777	1846	1220	0	1585	1191	0	1636
Q Serve(g_s), s	3.7	21.0	4.2	3.2	7.6	7.6	9.5	0.0	7.6	3.5	0.0	2.2
Cycle Q Clear(g_c), s	3.7	21.0	4.2	3.2	7.6	7.6	11.7	0.0	7.6	15.1	0.0	2.2
Prop In Lane	1.00			1.00			0.07	0.90		1.00	1.00	0.65
Lane Grp Cap(c), veh/h	456	987	836	468	1199	1245	310	0	304	155	0	314
V/C Ratio(X)	0.08	0.49	0.10	0.33	0.31	0.31	0.51	0.00	0.49	0.30	0.00	0.15
Avail Cap(c_a), veh/h	456	987	836	589	1199	1245	461	0	476	283	0	491
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.9	26.0	19.1	10.3	6.0	6.0	35.1	0.0	32.4	41.1	0.0	30.3
Incr Delay (d2), s/veh	0.3	1.7	0.2	0.4	0.7	0.6	1.3	0.0	1.2	1.1	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.7	10.8	1.6	1.2	2.7	2.8	3.3	0.0	3.0	1.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.2	27.7	19.3	10.7	6.7	6.6	36.4	0.0	33.7	42.2	0.0	30.5
LnGrp LOS	B	C	B	B	A	A	D	A	C	D	A	C
Approach Vol, veh/h		602			902			307			95	
Approach Delay, s/veh		26.0			7.4			35.1			36.3	
Approach LOS		C			A			D			D	
Timer - Assigned Phs	2	3	4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	23.3	12.9	53.8		23.3		66.7					
Change Period (Y+R <sub>c</sub> ), s	6.0	6.0	6.0		6.0		6.0					
Max Green Setting (Gmax), s	27.0	13.0	32.0		27.0		51.0					
Max Q Clear Time (g_c+l1), s	13.7	5.2	23.0		17.1		9.6					
Green Ext Time (p_c), s	1.2	0.2	2.5		0.2		5.8					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay		19.2										
HCM 6th LOS		B										

# Timing Report, Sorted By Phase

6: Private Drive/S. Parkview Avenue & E. Main Street

12/12/2023



Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	C-Min	None	C-Min
Maximum Split (s)	26	64	26	64
Maximum Split (%)	28.9%	71.1%	28.9%	71.1%
Minimum Split (s)	16	26	16	26
Yellow Time (s)	4	4	4	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	10	20	10	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)				
Flash Dont Walk (s)				
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	64	0	64	0
End Time (s)	0	64	0	64
Yield/Force Off (s)	84	58	84	58
Yield/Force Off 170(s)	84	58	84	58
Local Start Time (s)	64	0	64	0
Local Yield (s)	84	58	84	58
Local Yield 170(s)	84	58	84	58
Intersection Summary				
Cycle Length		90		
Control Type	Actuated-Coordinated			
Natural Cycle		45		
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green				

Splits and Phases: 6: Private Drive/S. Parkview Avenue & E. Main Street



HCM 6th Signalized Intersection Summary  
6: Private Drive/S. Parkview Avenue & E. Main Street

12/12/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑↑			↔			↑	↑
Traffic Volume (veh/h)	89	539	2	0	766	55	2	1	0	32	1	103
Future Volume (veh/h)	89	539	2	0	766	55	2	1	0	32	1	103
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	97	586	2	0	833	60	2	1	0	35	1	112
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	2	2	2	0	0	0	0	0	0
Cap, veh/h	499	2732	9	80	2548	184	154	65	0	237	6	175
Arrive On Green	0.76	0.76	0.76	0.00	0.76	0.76	0.11	0.11	0.00	0.11	0.11	0.11
Sat Flow, veh/h	618	3604	12	828	3362	242	808	597	0	1457	53	1610
Grp Volume(v), veh/h	97	287	301	0	440	453	3	0	0	36	0	112
Grp Sat Flow(s), veh/h/ln	618	1763	1853	828	1777	1827	1405	0	0	1509	0	1610
Q Serve(g_s), s	5.4	4.2	4.2	0.0	7.2	7.2	0.0	0.0	0.0	0.0	0.0	6.0
Cycle Q Clear(g_c), s	12.6	4.2	4.2	0.0	7.2	7.2	1.6	0.0	0.0	1.6	0.0	6.0
Prop In Lane	1.00		0.01	1.00		0.13	0.67		0.00	0.97		1.00
Lane Grp Cap(c), veh/h	499	1336	1405	80	1347	1385	219	0	0	243	0	175
V/C Ratio(X)	0.19	0.21	0.21	0.00	0.33	0.33	0.01	0.00	0.00	0.15	0.00	0.64
Avail Cap(c_a), veh/h	499	1336	1405	80	1347	1385	384	0	0	407	0	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.5	3.1	3.1	0.0	3.5	3.5	35.8	0.0	0.0	36.5	0.0	38.4
Incr Delay (d2), s/veh	0.9	0.4	0.3	0.0	0.6	0.6	0.0	0.0	0.0	0.3	0.0	3.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.7	1.1	1.2	0.0	2.2	2.3	0.1	0.0	0.0	0.7	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.4	3.5	3.5	0.0	4.1	4.1	35.8	0.0	0.0	36.8	0.0	42.3
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	685				893			3			148	
Approach Delay, s/veh	3.9				4.1			35.8			41.0	
Approach LOS	A				A			D			D	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	15.8		74.2		15.8		74.2					
Change Period (Y+R <sub>c</sub> ), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	20.0		58.0		20.0		58.0					
Max Q Clear Time (g_c+l1), s	3.6		14.6		8.0		9.2					
Green Ext Time (p_c), s	0.0		5.0		0.4		7.5					
Intersection Summary												
HCM 6th Ctrl Delay			7.3									
HCM 6th LOS			A									

## Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	0	0	1	6	0	5	6	115	16	8	135	4
Future Vol, veh/h	0	0	1	6	0	5	6	115	16	8	135	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	0	0	0
Mvmt Flow	0	0	1	7	0	6	7	139	19	10	163	5

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	352	358	166	349	351	149	168	0	0	158	0	0
Stage 1	186	186	-	163	163	-	-	-	-	-	-	-
Stage 2	166	172	-	186	188	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.2	-	-
Pot Cap-1 Maneuver	607	572	884	609	577	903	1410	-	-	1434	-	-
Stage 1	820	750	-	844	767	-	-	-	-	-	-	-
Stage 2	841	760	-	820	748	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	597	565	884	602	569	903	1410	-	-	1434	-	-
Mov Cap-2 Maneuver	597	565	-	602	569	-	-	-	-	-	-	-
Stage 1	816	744	-	840	763	-	-	-	-	-	-	-
Stage 2	831	756	-	812	742	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	9.1	10.2			0.3			0.4		
HCM LOS	A	B								
<hr/>										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR		
Capacity (veh/h)	1410	-	-	884	710	1434	-	-		
HCM Lane V/C Ratio	0.005	-	-	0.001	0.019	0.007	-	-		
HCM Control Delay (s)	7.6	0	-	9.1	10.2	7.5	0	-		
HCM Lane LOS	A	A	-	A	B	A	A	-		
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-		

**Intersection**

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
<b>Lane Configurations</b>						
Traffic Vol, veh/h	0	569	808	14	0	30
Future Vol, veh/h	0	569	808	14	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	618	878	15	0	33

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	0	559
Stage 1	0	-	-	0	-
Stage 2	0	-	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	559
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	559
HCM Lane V/C Ratio	-	-	-	0.058
HCM Control Delay (s)	-	-	-	11.8
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

# Timing Report, Sorted By Phase

3: College Avenue/Bexley Square/Site Access 3 & E. Main Street

12/11/2023



Phase Number	2	3	4	6	8
Movement	NBTL	WBL	EBTL	SBTL	WBTL
Lead/Lag		Lead	Lag		
Lead-Lag Optimize		Yes	Yes		
Recall Mode	Min	None	C-Max	Min	C-Max
Maximum Split (s)	28	18	44	28	62
Maximum Split (%)	31.1%	20.0%	48.9%	31.1%	68.9%
Minimum Split (s)	16	13	26	16	26
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	2	2	2	2	2
Minimum Initial (s)	10	7	20	10	20
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)					
Flash Dont Walk (s)					
Dual Entry	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	6	34	52	6	34
End Time (s)	34	52	6	34	6
Yield/Force Off (s)	28	46	0	28	0
Yield/Force Off 170(s)	28	46	0	28	0
Local Start Time (s)	44	72	0	44	72
Local Yield (s)	66	84	38	66	38
Local Yield 170(s)	66	84	38	66	38

## Intersection Summary

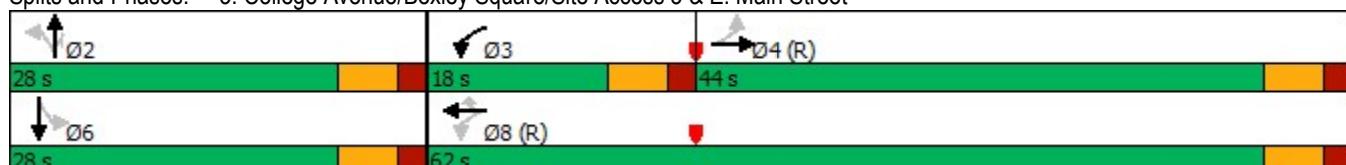
Cycle Length 90

Control Type Actuated-Coordinated

Natural Cycle 55

Offset: 52 (58%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Splits and Phases: 3: College Avenue/Bexley Square/Site Access 3 & E. Main Street



## HCM 6th Signalized Intersection Summary

3: College Avenue/Bexley Square/Site Access 3 &amp; E. Main Street

12/11/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑	↑	↑	↑	↑	↑	↑	
Traffic Volume (veh/h)	51	749	103	142	544	11	124	8	158	90	15	82
Future Volume (veh/h)	51	749	103	142	544	11	124	8	158	90	15	82
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	54	797	110	151	579	12	132	9	168	96	16	87
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	460	1521	210	371	1176	997	317	19	388	201	62	338
Arrive On Green	0.16	0.16	0.16	0.08	0.62	0.62	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	832	3161	436	1795	1885	1598	985	79	1598	1227	256	1393
Grp Volume(v), veh/h	54	451	456	151	579	12	141	0	168	96	0	103
Grp Sat Flow(s), veh/h/ln	832	1791	1807	1795	1885	1598	1064	0	1598	1227	0	1649
Q Serve(g_s), s	5.1	20.8	20.8	3.5	15.0	0.3	8.4	0.0	8.0	6.9	0.0	4.5
Cycle Q Clear(g_c), s	7.2	20.8	20.8	3.5	15.0	0.3	13.0	0.0	8.0	19.8	0.0	4.5
Prop In Lane	1.00		0.24	1.00		1.00	0.94		1.00	1.00		0.84
Lane Grp Cap(c), veh/h	460	862	869	371	1176	997	336	0	388	201	0	400
V/C Ratio(X)	0.12	0.52	0.52	0.41	0.49	0.01	0.42	0.00	0.43	0.48	0.00	0.26
Avail Cap(c_a), veh/h	460	862	869	474	1176	997	338	0	391	203	0	403
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.6	28.4	28.4	12.5	9.2	6.4	32.6	0.0	28.8	39.6	0.0	27.5
Incr Delay (d2), s/veh	0.5	2.2	2.1	0.7	1.5	0.0	0.8	0.0	0.8	1.7	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.1	10.4	10.5	1.4	6.1	0.1	2.8	0.0	3.1	2.2	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.1	30.6	30.5	13.2	10.7	6.4	33.4	0.0	29.6	41.4	0.0	27.9
LnGrp LOS	C	C	C	B	B	A	C	A	C	D	A	C
Approach Vol, veh/h	961				742			309			199	
Approach Delay, s/veh	30.2				11.1			31.3			34.4	
Approach LOS	C				B			C			C	
Timer - Assigned Phs	2	3	4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	27.9	12.8	49.3		27.9		62.1					
Change Period (Y+R <sub>c</sub> ), s	6.0	6.0	6.0		6.0		6.0					
Max Green Setting (Gmax), s	22.0	12.0	38.0		22.0		56.0					
Max Q Clear Time (g_c+l1), s	15.0	5.5	22.8		21.8		17.0					
Green Ext Time (p_c), s	0.8	0.2	5.8		0.0		4.7					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			24.3									
HCM 6th LOS			C									

# Timing Report, Sorted By Phase

6: Private Drive/S. Parkview Avenue & E. Main Street

12/11/2023



Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	C-Min	None	C-Min
Maximum Split (s)	26	64	26	64
Maximum Split (%)	28.9%	71.1%	28.9%	71.1%
Minimum Split (s)	16	26	16	26
Yellow Time (s)	4	4	4	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	10	20	10	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)				
Flash Dont Walk (s)				
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	64	0	64	0
End Time (s)	0	64	0	64
Yield/Force Off (s)	84	58	84	58
Yield/Force Off 170(s)	84	58	84	58
Local Start Time (s)	64	0	64	0
Local Yield (s)	84	58	84	58
Local Yield 170(s)	84	58	84	58
Intersection Summary				
Cycle Length		90		
Control Type	Actuated-Coordinated			
Natural Cycle		45		
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green				

Splits and Phases: 6: Private Drive/S. Parkview Avenue & E. Main Street



HCM 6th Signalized Intersection Summary  
6: Private Drive/S. Parkview Avenue & E. Main Street

12/11/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑	↑	↔	↔		↑	↑	↑
Traffic Volume (veh/h)	115	862	3	6	648	89	13	2	3	67	6	94
Future Volume (veh/h)	115	862	3	6	648	89	13	2	3	67	6	94
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	124	927	3	6	697	96	14	2	3	72	6	101
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	503	2770	9	489	1426	1208	142	23	18	235	17	176
Arrive On Green	0.76	0.76	0.76	0.76	0.76	0.76	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	690	3662	12	606	1885	1598	653	205	161	1435	151	1598
Grp Volume(v), veh/h	124	453	477	6	697	96	19	0	0	78	0	101
Grp Sat Flow(s), veh/h/ln	690	1791	1883	606	1885	1598	1019	0	0	1586	0	1598
Q Serve(g_s), s	7.6	7.4	7.4	0.3	12.9	1.4	0.2	0.0	0.0	0.0	0.0	5.4
Cycle Q Clear(g_c), s	20.5	7.4	7.4	7.7	12.9	1.4	3.8	0.0	0.0	3.6	0.0	5.4
Prop In Lane	1.00			1.00		1.00	0.74		0.16	0.92		1.00
Lane Grp Cap(c), veh/h	503	1355	1424	489	1426	1208	182	0	0	252	0	176
V/C Ratio(X)	0.25	0.33	0.33	0.01	0.49	0.08	0.10	0.00	0.00	0.31	0.00	0.57
Avail Cap(c_a), veh/h	503	1355	1424	489	1426	1208	338	0	0	414	0	355
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.90	0.90	0.90	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.2	3.6	3.6	4.8	4.2	2.8	36.4	0.0	0.0	37.2	0.0	38.0
Incr Delay (d2), s/veh	1.2	0.7	0.6	0.0	1.1	0.1	0.2	0.0	0.0	0.7	0.0	2.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.2	2.1	2.2	0.0	4.2	0.4	0.4	0.0	0.0	1.6	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.4	4.2	4.2	4.9	5.3	3.0	36.7	0.0	0.0	37.9	0.0	40.9
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1054				799			19			179	
Approach Delay, s/veh	4.8				5.0			36.7			39.6	
Approach LOS	A				A			D			D	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	15.9		74.1		15.9		74.1					
Change Period (Y+R <sub>c</sub> ), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	20.0		58.0		20.0		58.0					
Max Q Clear Time (g_c+l1), s	5.8		22.5		7.4		14.9					
Green Ext Time (p_c), s	0.0		8.2		0.5		6.7					
Intersection Summary												
HCM 6th Ctrl Delay			8.2									
HCM 6th LOS			A									

## Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	1	0	1	3	0	0	4	179	5	3	149	1
Future Vol, veh/h	1	0	1	3	0	0	4	179	5	3	149	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	1	1	1
Mvmt Flow	1	0	1	3	0	0	5	203	6	3	169	1

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	392	395	170	392	392	206	170	0	0	209	0	0
Stage 1	176	176	-	216	216	-	-	-	-	-	-	-
Stage 2	216	219	-	176	176	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	571	545	879	571	547	840	1413	-	-	1368	-	-
Stage 1	831	757	-	791	728	-	-	-	-	-	-	-
Stage 2	791	726	-	831	757	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	568	542	879	568	544	840	1413	-	-	1368	-	-
Mov Cap-2 Maneuver	568	542	-	568	544	-	-	-	-	-	-	-
Stage 1	828	755	-	788	725	-	-	-	-	-	-	-
Stage 2	788	723	-	828	755	-	-	-	-	-	-	-

Approach	EB	WB			NB		SB	
HCM Control Delay, s	10.2	11.4			0.2		0.1	
HCM LOS	B	B						
<hr/>								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1413	-	-	690	568	1368	-	-
HCM Lane V/C Ratio	0.003	-	-	0.003	0.006	0.002	-	-
HCM Control Delay (s)	7.6	0	-	10.2	11.4	7.6	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

# Timing Report, Sorted By Phase

3: College Avenue/Bexley Square/Site Access 3 & E. Main Street

12/12/2023



Phase Number	2	3	4	6	8
Movement	NBTL	WBL	EBTL	SBTL	WBTL
Lead/Lag		Lead	Lag		
Lead-Lag Optimize		Yes	Yes		
Recall Mode	Min	None	C-Max	Min	C-Max
Maximum Split (s)	29	18	43	29	61
Maximum Split (%)	32.2%	20.0%	47.8%	32.2%	67.8%
Minimum Split (s)	16	13	26	16	26
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	2	2	2	2	2
Minimum Initial (s)	10	7	20	10	20
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)					
Flash Dont Walk (s)					
Dual Entry	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	5	34	52	5	34
End Time (s)	34	52	5	34	5
Yield/Force Off (s)	28	46	89	28	89
Yield/Force Off 170(s)	28	46	89	28	89
Local Start Time (s)	43	72	0	43	72
Local Yield (s)	66	84	37	66	37
Local Yield 170(s)	66	84	37	66	37

## Intersection Summary

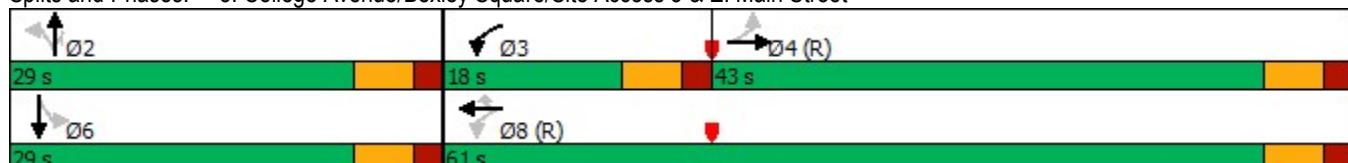
Cycle Length 90

Control Type Actuated-Coordinated

Natural Cycle 55

Offset: 52 (58%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Splits and Phases: 3: College Avenue/Bexley Square/Site Access 3 & E. Main Street



# HCM 6th Signalized Intersection Summary

3: College Avenue/Bexley Square/Site Access 3 & E. Main Street

12/12/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	745	103	142	555	23	124	18	158	114	24	87
Future Volume (veh/h)	66	745	103	142	555	23	124	18	158	114	24	87
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	70	793	110	151	590	24	132	19	168	121	26	93
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	434	1480	205	364	1152	976	307	39	408	203	93	333
Arrive On Green	0.15	0.15	0.15	0.08	0.61	0.61	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	815	3159	438	1795	1885	1598	907	154	1598	1215	364	1302
Grp Volume(v), veh/h	70	450	453	151	590	24	151	0	168	121	0	119
Grp Sat Flow(s), veh/h/ln	815	1791	1806	1795	1885	1598	1061	0	1598	1215	0	1666
Q Serve(g_s), s	6.8	20.8	20.8	3.6	15.9	0.5	8.7	0.0	7.9	8.9	0.0	5.2
Cycle Q Clear(g_c), s	9.9	20.8	20.8	3.6	15.9	0.5	13.9	0.0	7.9	22.8	0.0	5.2
Prop In Lane	1.00		0.24	1.00		1.00	0.87		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	434	839	846	364	1152	976	346	0	408	203	0	426
V/C Ratio(X)	0.16	0.54	0.54	0.41	0.51	0.02	0.44	0.00	0.41	0.60	0.00	0.28
Avail Cap(c_a), veh/h	434	839	846	467	1152	976	346	0	408	203	0	426
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.8	29.0	29.0	13.0	9.9	6.9	32.0	0.0	27.9	40.4	0.0	26.9
Incr Delay (d2), s/veh	0.8	2.4	2.4	0.8	1.6	0.0	0.9	0.0	0.7	4.7	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.6	10.5	10.6	1.4	6.6	0.2	3.0	0.0	3.1	2.9	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.6	31.5	31.5	13.8	11.5	7.0	32.9	0.0	28.5	45.0	0.0	27.2
LnGrp LOS	C	C	C	B	B	A	C	A	C	D	A	C
Approach Vol, veh/h		973			765			319			240	
Approach Delay, s/veh		31.1			11.8			30.6			36.2	
Approach LOS		C			B			C			D	
Timer - Assigned Phs	2	3	4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	29.0	12.8	48.2		29.0		61.0					
Change Period (Y+R <sub>c</sub> ), s	6.0	6.0	6.0		6.0		6.0					
Max Green Setting (Gmax), s	23.0	12.0	37.0		23.0		55.0					
Max Q Clear Time (g_c+l1), s	15.9	5.6	22.8		24.8		17.9					
Green Ext Time (p_c), s	0.9	0.2	5.7		0.0		4.9					
Intersection Summary												
HCM 6th Ctrl Delay		25.2										
HCM 6th LOS			C									

# Timing Report, Sorted By Phase

6: Private Drive/S. Parkview Avenue & E. Main Street

12/12/2023



Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	C-Min	None	C-Min
Maximum Split (s)	23	67	23	67
Maximum Split (%)	25.6%	74.4%	25.6%	74.4%
Minimum Split (s)	16	26	16	26
Yellow Time (s)	4	4	4	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	10	20	10	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)				
Flash Dont Walk (s)				
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	67	0	67	0
End Time (s)	0	67	0	67
Yield/Force Off (s)	84	61	84	61
Yield/Force Off 170(s)	84	61	84	61
Local Start Time (s)	67	0	67	0
Local Yield (s)	84	61	84	61
Local Yield 170(s)	84	61	84	61
Intersection Summary				
Cycle Length		90		
Control Type	Actuated-Coordinated			
Natural Cycle		50		
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green				

Splits and Phases: 6: Private Drive/S. Parkview Avenue & E. Main Street



HCM 6th Signalized Intersection Summary  
6: Private Drive/S. Parkview Avenue & E. Main Street

12/12/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑	↑	↔	↔		↑	↑	↑
Traffic Volume (veh/h)	130	873	3	6	668	93	13	2	3	67	6	97
Future Volume (veh/h)	130	873	3	6	668	93	13	2	3	67	6	97
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	140	939	3	6	718	100	14	2	3	72	6	104
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	488	2770	9	483	1426	1208	141	23	18	235	17	176
Arrive On Green	0.76	0.76	0.76	0.76	0.76	0.76	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	674	3662	12	600	1885	1598	652	205	161	1435	151	1598
Grp Volume(v), veh/h	140	459	483	6	718	100	19	0	0	78	0	104
Grp Sat Flow(s), veh/h/ln	674	1791	1883	600	1885	1598	1018	0	0	1586	0	1598
Q Serve(g_s), s	9.3	7.6	7.6	0.3	13.5	1.5	0.2	0.0	0.0	0.0	0.0	5.6
Cycle Q Clear(g_c), s	22.8	7.6	7.6	7.9	13.5	1.5	3.8	0.0	0.0	3.6	0.0	5.6
Prop In Lane	1.00			1.00		1.00	0.74		0.16	0.92		1.00
Lane Grp Cap(c), veh/h	488	1354	1424	483	1426	1208	182	0	0	252	0	176
V/C Ratio(X)	0.29	0.34	0.34	0.01	0.50	0.08	0.10	0.00	0.00	0.31	0.00	0.59
Avail Cap(c_a), veh/h	488	1354	1424	483	1426	1208	291	0	0	366	0	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	3.6	3.6	4.9	4.3	2.9	36.4	0.0	0.0	37.2	0.0	38.1
Incr Delay (d2), s/veh	1.5	0.7	0.6	0.0	1.3	0.1	0.2	0.0	0.0	0.7	0.0	3.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.4	2.1	2.2	0.0	4.5	0.4	0.4	0.0	0.0	1.6	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.3	4.3	4.2	4.9	5.6	3.0	36.7	0.0	0.0	37.9	0.0	41.2
LnGrp LOS	B	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1082				824			19			182	
Approach Delay, s/veh	5.0				5.3			36.7			39.8	
Approach LOS	A				A			D			D	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	15.9		74.1		15.9		74.1					
Change Period (Y+R <sub>c</sub> ), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	17.0		61.0		17.0		61.0					
Max Q Clear Time (g_c+l1), s	5.8		24.8		7.6		15.5					
Green Ext Time (p_c), s	0.0		8.6		0.5		7.0					
Intersection Summary												
HCM 6th Ctrl Delay			8.4									
HCM 6th LOS			A									

## Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	1	0	1	7	0	4	4	181	22	10	148	1
Future Vol, veh/h	1	0	1	7	0	4	4	181	22	10	148	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	1	1	1
Mvmt Flow	1	0	1	8	0	5	5	206	25	11	168	1

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	422	432	169	420	420	219	169	0	0	231	0	0
Stage 1	191	191	-	229	229	-	-	-	-	-	-	-
Stage 2	231	241	-	191	191	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	546	519	880	547	528	826	1415	-	-	1343	-	-
Stage 1	815	746	-	778	718	-	-	-	-	-	-	-
Stage 2	776	710	-	815	746	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	538	512	880	541	521	826	1415	-	-	1343	-	-
Mov Cap-2 Maneuver	538	512	-	541	521	-	-	-	-	-	-	-
Stage 1	812	739	-	775	715	-	-	-	-	-	-	-
Stage 2	769	707	-	807	739	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	10.4	10.9			0.1			0.5		
HCM LOS	B	B								
<hr/>										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR		
Capacity (veh/h)	1415	-	-	668	619	1343	-	-		
HCM Lane V/C Ratio	0.003	-	-	0.003	0.02	0.008	-	-		
HCM Control Delay (s)	7.6	0	-	10.4	10.9	7.7	0	-		
HCM Lane LOS	A	A	-	B	B	A	A	-		
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-		

**Intersection**

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	929	749	14	0	22
Future Vol, veh/h	0	929	749	14	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1010	814	15	0	24

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.319
Pot Cap-1 Maneuver	0	-	-	0	373
Stage 1	0	-	-	0	-
Stage 2	0	-	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	373
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.3
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	373
HCM Lane V/C Ratio	-	-	-	0.064
HCM Control Delay (s)	-	-	-	15.3
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2

## Timing Report, Sorted By Phase

3: College Avenue/Bexley Square/Site Access 3 &amp; E. Main Street

12/11/2023



Phase Number	2	3	4	6	8
Movement	NBTL	WBL	EBTL	SBTL	WBTL
Lead/Lag		Lead	Lag		
Lead-Lag Optimize		Yes	Yes		
Recall Mode	Min	None	C-Max	Min	C-Max
Maximum Split (s)	32	19	39	32	58
Maximum Split (%)	35.6%	21.1%	43.3%	35.6%	64.4%
Minimum Split (s)	16	13	26	16	26
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	2	2	2	2	2
Minimum Initial (s)	10	7	20	10	20
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)					
Flash Dont Walk (s)					
Dual Entry	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	1	33	52	1	33
End Time (s)	33	52	1	33	1
Yield/Force Off (s)	27	46	85	27	85
Yield/Force Off 170(s)	27	46	85	27	85
Local Start Time (s)	39	71	0	39	71
Local Yield (s)	65	84	33	65	33
Local Yield 170(s)	65	84	33	65	33

## Intersection Summary

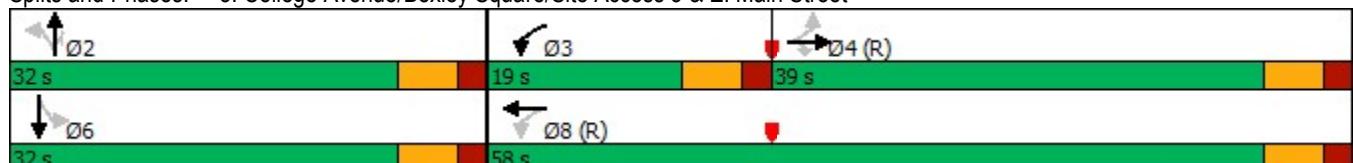
Cycle Length 90

Control Type Actuated-Coordinated

Natural Cycle 60

Offset: 52 (58%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Splits and Phases: 3: College Avenue/Bexley Square/Site Access 3 &amp; E. Main Street



## HCM 6th Signalized Intersection Summary

3: College Avenue/Bexley Square/Site Access 3 &amp; E. Main Street

12/11/2023

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	482	88	155	709	16	137	4	145	14	2	27
Future Volume (veh/h)	21	482	88	155	709	16	137	4	145	14	2	27
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00			1.00	1.00		1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1826	1826	1826
Adj Flow Rate, veh/h	22	513	94	165	754	17	146	4	154	15	2	29
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	5	5	5
Cap, veh/h	473	1052	891	543	2522	57	268	5	248	123	16	229
Arrive On Green	0.57	0.57	0.57	0.08	0.71	0.71	0.16	0.16	0.16	0.16	0.16	0.16
Sat Flow, veh/h	693	1856	1572	1781	3553	80	1204	33	1585	1199	101	1462
Grp Volume(v), veh/h	22	513	94	165	377	394	150	0	154	15	0	31
Grp Sat Flow(s), veh/h/ln	693	1856	1572	1781	1777	1856	1237	0	1585	1199	0	1563
Q Serve(g_s), s	1.3	14.9	2.5	3.1	7.0	7.0	9.4	0.0	8.2	1.1	0.0	1.5
Cycle Q Clear(g_c), s	1.3	14.9	2.5	3.1	7.0	7.0	10.9	0.0	8.2	12.0	0.0	1.5
Prop In Lane	1.00			1.00			0.04	0.97		1.00	1.00	0.94
Lane Grp Cap(c), veh/h	473	1052	891	543	1262	1318	273	0	248	123	0	245
V/C Ratio(X)	0.05	0.49	0.11	0.30	0.30	0.30	0.55	0.00	0.62	0.12	0.00	0.13
Avail Cap(c_a), veh/h	473	1052	891	664	1262	1318	456	0	458	281	0	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.7	11.7	9.0	7.5	4.8	4.8	37.3	0.0	35.4	42.4	0.0	32.7
Incr Delay (d2), s/veh	0.2	1.6	0.2	0.3	0.6	0.6	1.7	0.0	2.5	0.4	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.2	6.3	0.9	1.1	2.4	2.5	3.3	0.0	3.3	0.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.9	13.3	9.2	7.9	5.4	5.4	39.1	0.0	38.0	42.8	0.0	32.9
LnGrp LOS	A	B	A	A	A	A	D	A	D	D	A	C
Approach Vol, veh/h		629			936			304			46	
Approach Delay, s/veh		12.5			5.8			38.5			36.1	
Approach LOS		B			A			D			D	
Timer - Assigned Phs	2	3	4		6			8				
Phs Duration (G+Y+R <sub>c</sub> ), s	20.1	12.9	57.0		20.1			69.9				
Change Period (Y+R <sub>c</sub> ), s	6.0	6.0	6.0		6.0			6.0				
Max Green Setting (Gmax), s	26.0	13.0	33.0		26.0			52.0				
Max Q Clear Time (g_c+l1), s	12.9	5.1	16.9		14.0			9.0				
Green Ext Time (p_c), s	1.1	0.3	3.7		0.1			6.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			13.9									
HCM 6th LOS			B									

# Timing Report, Sorted By Phase

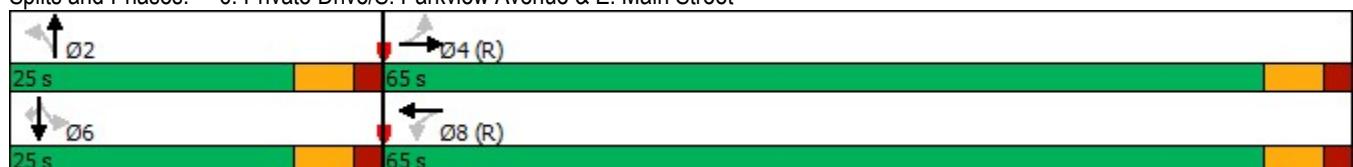
6: Private Drive/S. Parkview Avenue & E. Main Street

12/11/2023



Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	C-Min	None	C-Min
Maximum Split (s)	25	65	25	65
Maximum Split (%)	27.8%	72.2%	27.8%	72.2%
Minimum Split (s)	16	26	16	26
Yellow Time (s)	4	4	4	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	10	20	10	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)				
Flash Dont Walk (s)				
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	65	0	65	0
End Time (s)	0	65	0	65
Yield/Force Off (s)	84	59	84	59
Yield/Force Off 170(s)	84	59	84	59
Local Start Time (s)	65	0	65	0
Local Yield (s)	84	59	84	59
Local Yield 170(s)	84	59	84	59
Intersection Summary				
Cycle Length		90		
Control Type	Actuated-Coordinated			
Natural Cycle		45		
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green				

Splits and Phases: 6: Private Drive/S. Parkview Avenue & E. Main Street



HCM 6th Signalized Intersection Summary  
6: Private Drive/S. Parkview Avenue & E. Main Street

12/11/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑↑			↔			↑	↑
Traffic Volume (veh/h)	78	551	2	0	787	54	2	1	0	33	1	102
Future Volume (veh/h)	78	551	2	0	787	54	2	1	0	33	1	102
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	85	599	2	0	855	59	2	1	0	36	1	111
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	2	2	2	0	0	0	0	0	0
Cap, veh/h	490	2732	9	80	2557	176	154	65	0	237	6	175
Arrive On Green	0.76	0.76	0.76	0.00	0.76	0.76	0.11	0.11	0.00	0.11	0.11	0.11
Sat Flow, veh/h	606	3604	12	818	3373	233	804	595	0	1460	51	1610
Grp Volume(v), veh/h	85	293	308	0	450	464	3	0	0	37	0	111
Grp Sat Flow(s), veh/h/ln	606	1763	1853	818	1777	1828	1399	0	0	1511	0	1610
Q Serve(g_s), s	4.8	4.3	4.3	0.0	7.4	7.4	0.0	0.0	0.0	0.0	0.0	5.9
Cycle Q Clear(g_c), s	12.2	4.3	4.3	0.0	7.4	7.4	1.7	0.0	0.0	1.7	0.0	5.9
Prop In Lane	1.00		0.01	1.00		0.13	0.67		0.00	0.97		1.00
Lane Grp Cap(c), veh/h	490	1336	1405	80	1347	1386	219	0	0	243	0	175
V/C Ratio(X)	0.17	0.22	0.22	0.00	0.33	0.33	0.01	0.00	0.00	0.15	0.00	0.63
Avail Cap(c_a), veh/h	490	1336	1405	80	1347	1386	368	0	0	391	0	340
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.5	3.2	3.2	0.0	3.5	3.5	35.8	0.0	0.0	36.5	0.0	38.4
Incr Delay (d2), s/veh	0.8	0.4	0.4	0.0	0.7	0.7	0.0	0.0	0.0	0.3	0.0	3.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	1.2	1.2	0.0	2.3	2.3	0.1	0.0	0.0	0.8	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.3	3.5	3.5	0.0	4.2	4.2	35.8	0.0	0.0	36.8	0.0	42.2
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	686				914			3			148	
Approach Delay, s/veh	3.9				4.2			35.8			40.8	
Approach LOS	A				A			D			D	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	15.8		74.2		15.8		74.2					
Change Period (Y+R <sub>c</sub> ), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	19.0		59.0		19.0		59.0					
Max Q Clear Time (g_c+l1), s	3.7		14.2		7.9		9.4					
Green Ext Time (p_c), s	0.0		5.0		0.4		7.8					
Intersection Summary												
HCM 6th Ctrl Delay			7.2									
HCM 6th LOS			A									

## Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	0	0	1	2	0	1	6	114	2	2	139	4
Future Vol, veh/h	0	0	1	2	0	1	6	114	2	2	139	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	0	0	0
Mvmt Flow	0	0	1	2	0	1	7	137	2	2	167	5

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	327	327	170	326	328	138	172	0	0	139	0	0
Stage 1	174	174	-	152	152	-	-	-	-	-	-	-
Stage 2	153	153	-	174	176	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.2	-	-
Pot Cap-1 Maneuver	630	595	879	631	594	916	1405	-	-	1457	-	-
Stage 1	833	759	-	855	775	-	-	-	-	-	-	-
Stage 2	854	775	-	833	757	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	626	591	879	627	590	916	1405	-	-	1457	-	-
Mov Cap-2 Maneuver	626	591	-	627	590	-	-	-	-	-	-	-
Stage 1	829	757	-	851	771	-	-	-	-	-	-	-
Stage 2	849	771	-	830	755	-	-	-	-	-	-	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	9.1	10.2			0.4			0.1		
HCM LOS	A	B								
<hr/>										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR		
Capacity (veh/h)	1405	-	-	879	701	1457	-	-		
HCM Lane V/C Ratio	0.005	-	-	0.001	0.005	0.002	-	-		
HCM Control Delay (s)	7.6	0	-	9.1	10.2	7.5	0	-		
HCM Lane LOS	A	A	-	A	B	A	A	-		
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-		

# Timing Report, Sorted By Phase

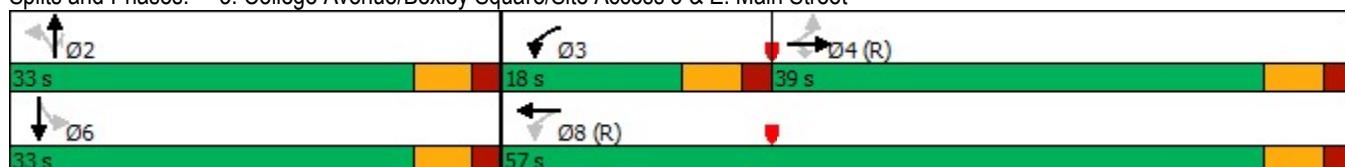
3: College Avenue/Bexley Square/Site Access 3 & E. Main Street

12/12/2023



Phase Number	2	3	4	6	8
Movement	NBTL	WBL	EBTL	SBTL	WBTL
Lead/Lag		Lead	Lag		
Lead-Lag Optimize		Yes	Yes		
Recall Mode	Min	None	C-Max	Min	C-Max
Maximum Split (s)	33	18	39	33	57
Maximum Split (%)	36.7%	20.0%	43.3%	36.7%	63.3%
Minimum Split (s)	16	13	26	16	26
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	2	2	2	2	2
Minimum Initial (s)	10	7	20	10	20
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)					
Flash Dont Walk (s)					
Dual Entry	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	1	34	52	1	34
End Time (s)	34	52	1	34	1
Yield/Force Off (s)	28	46	85	28	85
Yield/Force Off 170(s)	28	46	85	28	85
Local Start Time (s)	39	72	0	39	72
Local Yield (s)	66	84	33	66	33
Local Yield 170(s)	66	84	33	66	33
Intersection Summary					
Cycle Length		90			
Control Type	Actuated-Coordinated				
Natural Cycle		60			
Offset: 52 (58%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green					

Splits and Phases: 3: College Avenue/Bexley Square/Site Access 3 & E. Main Street



## HCM 6th Signalized Intersection Summary

3: College Avenue/Bexley Square/Site Access 3 &amp; E. Main Street

12/12/2023

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	482	88	155	723	27	137	15	145	45	16	31
Future Volume (veh/h)	35	482	88	155	723	27	137	15	145	45	16	31
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1870	1870	1870	1826	1826	1826
Adj Flow Rate, veh/h	37	513	94	165	769	29	146	16	154	48	17	33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3	2	2	2	2	2	2	5	5	5
Cap, veh/h	435	976	827	439	2337	88	292	24	313	156	110	213
Arrive On Green	0.17	0.17	0.17	0.08	0.67	0.67	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	676	1856	1572	1781	3492	132	1095	120	1585	1186	555	1077
Grp Volume(v), veh/h	37	513	94	165	391	407	162	0	154	48	0	50
Grp Sat Flow(s), veh/h/ln	676	1856	1572	1781	1777	1847	1215	0	1585	1186	0	1632
Q Serve(g_s), s	4.1	22.6	4.5	3.4	8.4	8.4	9.8	0.0	7.8	3.6	0.0	2.3
Cycle Q Clear(g_c), s	4.2	22.6	4.5	3.4	8.4	8.4	12.1	0.0	7.8	15.6	0.0	2.3
Prop In Lane	1.00		1.00	1.00		0.07	0.90		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	435	976	827	439	1189	1236	316	0	313	156	0	322
V/C Ratio(X)	0.09	0.53	0.11	0.38	0.33	0.33	0.51	0.00	0.49	0.31	0.00	0.16
Avail Cap(c_a), veh/h	435	976	827	541	1189	1236	459	0	476	277	0	490
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.4	27.0	19.5	11.2	6.3	6.3	34.9	0.0	32.1	41.1	0.0	29.9
Incr Delay (d2), s/veh	0.4	2.0	0.3	0.5	0.7	0.7	1.3	0.0	1.2	1.1	0.0	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.7	11.7	1.7	1.3	3.1	3.2	3.4	0.0	3.1	1.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.7	29.0	19.8	11.7	7.1	7.0	36.2	0.0	33.3	42.2	0.0	30.1
LnGrp LOS	B	C	B	B	A	A	D	A	C	D	A	C
Approach Vol, veh/h		644			963			316			98	
Approach Delay, s/veh		27.1			7.8			34.8			36.0	
Approach LOS		C			A			C			D	
Timer - Assigned Phs	2	3	4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	23.8	12.9	53.3		23.8		66.2					
Change Period (Y+R <sub>c</sub> ), s	6.0	6.0	6.0		6.0		6.0					
Max Green Setting (Gmax), s	27.0	12.0	33.0		27.0		51.0					
Max Q Clear Time (g_c+l1), s	14.1	5.4	24.6		17.6		10.4					
Green Ext Time (p_c), s	1.2	0.2	2.6		0.2		6.3					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay		19.6										
HCM 6th LOS			B									

Timing Report, Sorted By Phase  
6: Private Drive/S. Parkview Avenue & E. Main Street

12/12/2023



Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	C-Min	None	C-Min
Maximum Split (s)	24	66	24	66
Maximum Split (%)	26.7%	73.3%	26.7%	73.3%
Minimum Split (s)	16	26	16	26
Yellow Time (s)	4	4	4	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	10	20	10	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)				
Flash Dont Walk (s)				
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	66	0	66	0
End Time (s)	0	66	0	66
Yield/Force Off (s)	84	60	84	60
Yield/Force Off 170(s)	84	60	84	60
Local Start Time (s)	66	0	66	0
Local Yield (s)	84	60	84	60
Local Yield 170(s)	84	60	84	60
Intersection Summary				
Cycle Length		90		
Control Type	Actuated-Coordinated			
Natural Cycle		45		
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green				

Splits and Phases: 6: Private Drive/S. Parkview Avenue & E. Main Street



HCM 6th Signalized Intersection Summary  
6: Private Drive/S. Parkview Avenue & E. Main Street

12/12/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑↑			↔			↑	↑
Traffic Volume (veh/h)	92	565	2	0	817	58	2	1	0	33	1	106
Future Volume (veh/h)	92	565	2	0	817	58	2	1	0	33	1	106
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1856	1856	1856	1870	1870	1870	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	614	2	0	888	63	2	1	0	36	1	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	2	2	2	0	0	0	0	0	0
Cap, veh/h	473	2732	9	80	2551	181	154	65	0	238	6	175
Arrive On Green	0.76	0.76	0.76	0.00	0.76	0.76	0.11	0.11	0.00	0.11	0.11	0.11
Sat Flow, veh/h	585	3604	12	807	3365	239	802	594	0	1459	51	1610
Grp Volume(v), veh/h	100	300	316	0	469	482	3	0	0	37	0	115
Grp Sat Flow(s), veh/h/ln	585	1763	1853	807	1777	1827	1396	0	0	1511	0	1610
Q Serve(g_s), s	6.1	4.5	4.5	0.0	7.8	7.8	0.0	0.0	0.0	0.0	0.0	6.2
Cycle Q Clear(g_c), s	13.9	4.5	4.5	0.0	7.8	7.8	1.7	0.0	0.0	1.7	0.0	6.2
Prop In Lane	1.00		0.01	1.00		0.13	0.67		0.00	0.97		1.00
Lane Grp Cap(c), veh/h	473	1336	1405	80	1347	1385	219	0	0	243	0	175
V/C Ratio(X)	0.21	0.22	0.22	0.00	0.35	0.35	0.01	0.00	0.00	0.15	0.00	0.66
Avail Cap(c_a), veh/h	473	1336	1405	80	1347	1385	351	0	0	375	0	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.9	3.2	3.2	0.0	3.6	3.6	35.8	0.0	0.0	36.5	0.0	38.5
Incr Delay (d2), s/veh	1.0	0.4	0.4	0.0	0.7	0.7	0.0	0.0	0.0	0.3	0.0	4.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	1.2	1.3	0.0	2.4	2.5	0.1	0.0	0.0	0.8	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.9	3.6	3.6	0.0	4.3	4.3	35.8	0.0	0.0	36.8	0.0	42.6
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	716				951			3			152	
Approach Delay, s/veh	4.0				4.3			35.8			41.2	
Approach LOS	A				A			D			D	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	15.8		74.2		15.8		74.2					
Change Period (Y+R <sub>c</sub> ), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	18.0		60.0		18.0		60.0					
Max Q Clear Time (g_c+l1), s	3.7		15.9		8.2		9.8					
Green Ext Time (p_c), s	0.0		5.4		0.3		8.2					
Intersection Summary												
HCM 6th Ctrl Delay			7.3									
HCM 6th LOS			A									

## Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	0	0	1	6	0	5	6	118	16	8	139	4
Future Vol, veh/h	0	0	1	6	0	5	6	118	16	8	139	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0	2	2	2	0	0	0
Mvmt Flow	0	0	1	7	0	6	7	142	19	10	167	5

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	359	365	170	356	358	152	172	0	0	161	0	0
Stage 1	190	190	-	166	166	-	-	-	-	-	-	-
Stage 2	169	175	-	190	192	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.2	-	-
Pot Cap-1 Maneuver	600	566	879	603	572	900	1405	-	-	1430	-	-
Stage 1	816	747	-	841	765	-	-	-	-	-	-	-
Stage 2	838	758	-	816	745	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	590	559	879	596	565	900	1405	-	-	1430	-	-
Mov Cap-2 Maneuver	590	559	-	596	565	-	-	-	-	-	-	-
Stage 1	812	741	-	837	761	-	-	-	-	-	-	-
Stage 2	828	754	-	808	739	-	-	-	-	-	-	-

Approach	EB	WB			NB		SB			
HCM Control Delay, s	9.1	10.2			0.3		0.4			
HCM LOS	A	B								
<hr/>										
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR		
Capacity (veh/h)	1405	-	-	879	704	1430	-	-		
HCM Lane V/C Ratio	0.005	-	-	0.001	0.019	0.007	-	-		
HCM Control Delay (s)	7.6	0	-	9.1	10.2	7.5	0	-		
HCM Lane LOS	A	A	-	A	B	A	A	-		
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-		

**Intersection**

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
<b>Lane Configurations</b>						
Traffic Vol, veh/h	0	602	861	14	0	30
Future Vol, veh/h	0	602	861	14	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	654	936	15	0	33

Major/Minor	Major1	Major2	Minor2	
Conflicting Flow All	-	0	-	476
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	-	-	535
Stage 1	0	-	-	0
Stage 2	0	-	-	0
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	535
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	535
HCM Lane V/C Ratio	-	-	-	0.061
HCM Control Delay (s)	-	-	-	12.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

# Timing Report, Sorted By Phase

3: College Avenue/Bexley Square/Site Access 3 & E. Main Street

12/11/2023



Phase Number	2	3	4	6	8
Movement	NBTL	WBL	EBTL	SBTL	WBTL
Lead/Lag		Lead	Lag		
Lead-Lag Optimize		Yes	Yes		
Recall Mode	Min	None	C-Max	Min	C-Max
Maximum Split (s)	28	18	44	28	62
Maximum Split (%)	31.1%	20.0%	48.9%	31.1%	68.9%
Minimum Split (s)	16	13	26	16	26
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	2	2	2	2	2
Minimum Initial (s)	10	7	20	10	20
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)					
Flash Dont Walk (s)					
Dual Entry	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	6	34	52	6	34
End Time (s)	34	52	6	34	6
Yield/Force Off (s)	28	46	0	28	0
Yield/Force Off 170(s)	28	46	0	28	0
Local Start Time (s)	44	72	0	44	72
Local Yield (s)	66	84	38	66	38
Local Yield 170(s)	66	84	38	66	38

## Intersection Summary

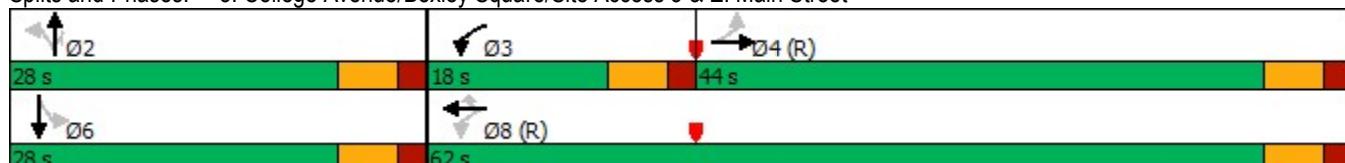
Cycle Length 90

Control Type Actuated-Coordinated

Natural Cycle 60

Offset: 52 (58%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Splits and Phases: 3: College Avenue/Bexley Square/Site Access 3 & E. Main Street



## HCM 6th Signalized Intersection Summary

3: College Avenue/Bexley Square/Site Access 3 &amp; E. Main Street

12/11/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑	↑	↑	↑	↑	↑	↑	
Traffic Volume (veh/h)	54	801	111	152	581	12	127	8	163	96	16	88
Future Volume (veh/h)	54	801	111	152	581	12	127	8	163	96	16	88
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	57	852	118	162	618	13	135	9	173	102	17	94
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	431	1514	210	352	1173	994	312	18	391	193	62	341
Arrive On Green	0.16	0.16	0.16	0.08	0.62	0.62	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	802	3160	438	1795	1885	1598	960	75	1598	1221	253	1396
Grp Volume(v), veh/h	57	483	487	162	618	13	144	0	173	102	0	111
Grp Sat Flow(s), veh/h/ln	802	1791	1806	1795	1885	1598	1035	0	1598	1221	0	1649
Q Serve(g_s), s	5.6	22.4	22.4	3.8	16.6	0.3	8.7	0.0	8.3	7.4	0.0	4.9
Cycle Q Clear(g_c), s	9.3	22.4	22.4	3.8	16.6	0.3	13.6	0.0	8.3	21.1	0.0	4.9
Prop In Lane	1.00		0.24	1.00		1.00	0.94		1.00	1.00		0.85
Lane Grp Cap(c), veh/h	431	858	866	352	1173	994	331	0	391	193	0	403
V/C Ratio(X)	0.13	0.56	0.56	0.46	0.53	0.01	0.44	0.00	0.44	0.53	0.00	0.28
Avail Cap(c_a), veh/h	431	858	866	454	1173	994	331	0	391	193	0	403
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	29.2	29.2	13.4	9.6	6.5	32.9	0.0	28.8	40.4	0.0	27.5
Incr Delay (d2), s/veh	0.6	2.5	2.5	0.9	1.7	0.0	0.9	0.0	0.8	2.7	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.3	11.3	11.4	1.5	6.8	0.1	2.9	0.0	3.2	2.4	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.9	31.7	31.7	14.3	11.2	6.5	33.8	0.0	29.6	43.1	0.0	27.9
LnGrp LOS	C	C	C	B	B	A	C	A	C	D	A	C
Approach Vol, veh/h	1027				793			317			213	
Approach Delay, s/veh	31.4				11.8			31.5			35.2	
Approach LOS	C				B			C			D	
Timer - Assigned Phs	2	3	4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	28.0	12.9	49.1		28.0		62.0					
Change Period (Y+R <sub>c</sub> ), s	6.0	6.0	6.0		6.0		6.0					
Max Green Setting (Gmax), s	22.0	12.0	38.0		22.0		56.0					
Max Q Clear Time (g_c+l1), s	15.6	5.8	24.4		23.1		18.6					
Green Ext Time (p_c), s	0.8	0.2	5.9		0.0		5.2					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			25.1									
HCM 6th LOS			C									

# Timing Report, Sorted By Phase

6: Private Drive/S. Parkview Avenue & E. Main Street

12/11/2023



Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	C-Min	None	C-Min
Maximum Split (s)	25	65	25	65
Maximum Split (%)	27.8%	72.2%	27.8%	72.2%
Minimum Split (s)	16	26	16	26
Yellow Time (s)	4	4	4	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	10	20	10	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)				
Flash Dont Walk (s)				
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	65	0	65	0
End Time (s)	0	65	0	65
Yield/Force Off (s)	84	59	84	59
Yield/Force Off 170(s)	84	59	84	59
Local Start Time (s)	65	0	65	0
Local Yield (s)	84	59	84	59
Local Yield 170(s)	84	59	84	59
Intersection Summary				
Cycle Length		90		
Control Type	Actuated-Coordinated			
Natural Cycle		50		
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green				

Splits and Phases: 6: Private Drive/S. Parkview Avenue & E. Main Street



HCM 6th Signalized Intersection Summary  
6: Private Drive/S. Parkview Avenue & E. Main Street

12/11/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑	↑	↓	↓		↑	↑	↑
Traffic Volume (veh/h)	121	904	3	6	693	95	13	2	3	69	6	96
Future Volume (veh/h)	121	904	3	6	693	95	13	2	3	69	6	96
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00		1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	130	972	3	6	745	102	14	2	3	74	6	103
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	471	2770	9	468	1426	1208	140	22	18	236	16	176
Arrive On Green	0.76	0.76	0.76	0.76	0.76	0.76	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	656	3663	11	581	1885	1598	643	204	159	1442	148	1598
Grp Volume(v), veh/h	130	475	500	6	745	102	19	0	0	80	0	103
Grp Sat Flow(s), veh/h/ln	656	1791	1883	581	1885	1598	1005	0	0	1589	0	1598
Q Serve(g_s), s	9.0	7.9	7.9	0.3	14.3	1.5	0.2	0.0	0.0	0.0	0.0	5.5
Cycle Q Clear(g_c), s	23.3	7.9	7.9	8.2	14.3	1.5	3.9	0.0	0.0	3.7	0.0	5.5
Prop In Lane	1.00			1.00		1.00	0.74		0.16	0.92		1.00
Lane Grp Cap(c), veh/h	471	1354	1424	468	1426	1208	180	0	0	252	0	176
V/C Ratio(X)	0.28	0.35	0.35	0.01	0.52	0.08	0.11	0.00	0.00	0.32	0.00	0.58
Avail Cap(c_a), veh/h	471	1354	1424	468	1426	1208	321	0	0	398	0	337
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.88	0.88	0.88	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.1	3.6	3.6	5.0	4.4	2.9	36.4	0.0	0.0	37.3	0.0	38.1
Incr Delay (d2), s/veh	1.4	0.7	0.7	0.0	1.2	0.1	0.3	0.0	0.0	0.7	0.0	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.3	2.2	2.3	0.0	4.7	0.4	0.4	0.0	0.0	1.7	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.6	4.4	4.3	5.0	5.6	3.0	36.7	0.0	0.0	38.0	0.0	41.1
LnGrp LOS	B	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1105				853			19			183	
Approach Delay, s/veh	5.1				5.3			36.7			39.7	
Approach LOS	A				A			D			D	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	15.9		74.1		15.9		74.1					
Change Period (Y+R <sub>c</sub> ), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	19.0		59.0		19.0		59.0					
Max Q Clear Time (g_c+l1), s	5.9		25.3		7.5		16.3					
Green Ext Time (p_c), s	0.0		8.8		0.5		7.4					
Intersection Summary												
HCM 6th Ctrl Delay			8.4									
HCM 6th LOS			A									

## Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	1	0	1	3	0	0	4	184	5	3	153	1
Future Vol, veh/h	1	0	1	3	0	0	4	184	5	3	153	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	1	1	1
Mvmt Flow	1	0	1	3	0	0	5	209	6	3	174	1

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	403	406	175	403	403	212	175	0	0	215	0	0
Stage 1	181	181	-	222	222	-	-	-	-	-	-	-
Stage 2	222	225	-	181	181	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	562	537	874	562	539	833	1407	-	-	1361	-	-
Stage 1	825	754	-	785	723	-	-	-	-	-	-	-
Stage 2	785	721	-	825	754	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	559	534	874	559	536	833	1407	-	-	1361	-	-
Mov Cap-2 Maneuver	559	534	-	559	536	-	-	-	-	-	-	-
Stage 1	822	752	-	782	720	-	-	-	-	-	-	-
Stage 2	782	718	-	822	752	-	-	-	-	-	-	-

Approach	EB	WB			NB		SB	
HCM Control Delay, s	10.3	11.5			0.2		0.1	
HCM LOS	B	B						
<hr/>								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1407	-	-	682	559	1361	-	-
HCM Lane V/C Ratio	0.003	-	-	0.003	0.006	0.003	-	-
HCM Control Delay (s)	7.6	0	-	10.3	11.5	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

# Timing Report, Sorted By Phase

3: College Avenue/Bexley Square/Site Access 3 & E. Main Street

12/12/2023



Phase Number	2	3	4	6	8
Movement	NBTL	WBL	EBTL	SBTL	WBTL
Lead/Lag		Lead	Lag		
Lead-Lag Optimize		Yes	Yes		
Recall Mode	Min	None	C-Max	Min	C-Max
Maximum Split (s)	28	18	44	28	62
Maximum Split (%)	31.1%	20.0%	48.9%	31.1%	68.9%
Minimum Split (s)	16	13	26	16	26
Yellow Time (s)	4	4	4	4	4
All-Red Time (s)	2	2	2	2	2
Minimum Initial (s)	10	7	20	10	20
Vehicle Extension (s)	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0
Walk Time (s)					
Flash Dont Walk (s)					
Dual Entry	Yes	No	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes
Start Time (s)	6	34	52	6	34
End Time (s)	34	52	6	34	6
Yield/Force Off (s)	28	46	0	28	0
Yield/Force Off 170(s)	28	46	0	28	0
Local Start Time (s)	44	72	0	44	72
Local Yield (s)	66	84	38	66	38
Local Yield 170(s)	66	84	38	66	38

## Intersection Summary

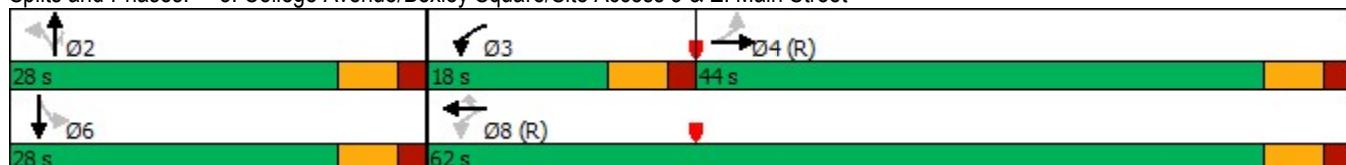
Cycle Length 90

Control Type Actuated-Coordinated

Natural Cycle 60

Offset: 52 (58%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Splits and Phases: 3: College Avenue/Bexley Square/Site Access 3 & E. Main Street



## HCM 6th Signalized Intersection Summary

3: College Avenue/Bexley Square/Site Access 3 &amp; E. Main Street

12/12/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑	↑	↑	↑	↑	↑	↑	
Traffic Volume (veh/h)	69	797	111	152	592	24	127	18	163	120	25	93
Future Volume (veh/h)	69	797	111	152	592	24	127	18	163	120	25	93
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	73	848	118	162	630	26	135	19	173	128	27	99
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	419	1513	211	353	1173	994	288	36	391	177	87	320
Arrive On Green	0.16	0.16	0.16	0.08	0.62	0.62	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	783	3158	439	1795	1885	1598	869	146	1598	1210	357	1308
Grp Volume(v), veh/h	73	481	485	162	630	26	154	0	173	128	0	126
Grp Sat Flow(s), veh/h/ln	783	1791	1806	1795	1885	1598	1016	0	1598	1210	0	1665
Q Serve(g_s), s	7.4	22.3	22.3	3.8	17.1	0.6	9.2	0.0	8.3	7.2	0.0	5.6
Cycle Q Clear(g_c), s	11.6	22.3	22.3	3.8	17.1	0.6	14.8	0.0	8.3	22.0	0.0	5.6
Prop In Lane	1.00		0.24	1.00		1.00	0.88		1.00	1.00		0.79
Lane Grp Cap(c), veh/h	419	858	865	353	1173	994	323	0	391	177	0	407
V/C Ratio(X)	0.17	0.56	0.56	0.46	0.54	0.03	0.48	0.00	0.44	0.72	0.00	0.31
Avail Cap(c_a), veh/h	419	858	865	455	1173	994	323	0	391	177	0	407
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.5	29.1	29.1	13.4	9.6	6.5	33.4	0.0	28.8	42.3	0.0	27.8
Incr Delay (d2), s/veh	0.9	2.6	2.6	0.9	1.8	0.0	1.1	0.0	0.8	13.5	0.0	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.7	11.3	11.4	1.5	7.0	0.2	3.2	0.0	3.2	3.5	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.4	31.8	31.7	14.3	11.4	6.6	34.5	0.0	29.6	55.7	0.0	28.2
LnGrp LOS	C	C	C	B	B	A	C	A	C	E	A	C
Approach Vol, veh/h	1039				818			327			254	
Approach Delay, s/veh	31.5				11.8			31.9			42.1	
Approach LOS	C				B			C			D	
Timer - Assigned Phs	2	3	4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	28.0	12.9	49.1		28.0		62.0					
Change Period (Y+R <sub>c</sub> ), s	6.0	6.0	6.0		6.0		6.0					
Max Green Setting (Gmax), s	22.0	12.0	38.0		22.0		56.0					
Max Q Clear Time (g_c+l1), s	16.8	5.8	24.3		24.0		19.1					
Green Ext Time (p_c), s	0.7	0.2	6.0		0.0		5.3					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay		26.0										
HCM 6th LOS			C									

# Timing Report, Sorted By Phase

6: Private Drive/S. Parkview Avenue & E. Main Street

12/12/2023



Phase Number	2	4	6	8
Movement	NBTL	EBTL	SBTL	WBTL
Lead/Lag				
Lead-Lag Optimize				
Recall Mode	None	C-Min	None	C-Min
Maximum Split (s)	23	67	23	67
Maximum Split (%)	25.6%	74.4%	25.6%	74.4%
Minimum Split (s)	16	26	16	26
Yellow Time (s)	4	4	4	4
All-Red Time (s)	2	2	2	2
Minimum Initial (s)	10	20	10	20
Vehicle Extension (s)	3	3	3	3
Minimum Gap (s)	3	3	3	3
Time Before Reduce (s)	0	0	0	0
Time To Reduce (s)	0	0	0	0
Walk Time (s)				
Flash Dont Walk (s)				
Dual Entry	Yes	Yes	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes
Start Time (s)	67	0	67	0
End Time (s)	0	67	0	67
Yield/Force Off (s)	84	61	84	61
Yield/Force Off 170(s)	84	61	84	61
Local Start Time (s)	67	0	67	0
Local Yield (s)	84	61	84	61
Local Yield 170(s)	84	61	84	61
Intersection Summary				
Cycle Length		90		
Control Type	Actuated-Coordinated			
Natural Cycle		50		
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green				

Splits and Phases: 6: Private Drive/S. Parkview Avenue & E. Main Street



HCM 6th Signalized Intersection Summary  
6: Private Drive/S. Parkview Avenue & E. Main Street

12/12/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑		↑	↑	↑	↔	↔		↑	↑	↑
Traffic Volume (veh/h)	136	915	3	6	713	99	13	2	3	69	6	99
Future Volume (veh/h)	136	915	3	6	713	99	13	2	3	69	6	99
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	146	984	3	6	767	106	14	2	3	74	6	106
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	457	2770	8	463	1426	1208	140	22	17	236	16	176
Arrive On Green	0.76	0.76	0.76	0.76	0.76	0.76	0.11	0.11	0.11	0.11	0.11	0.11
Sat Flow, veh/h	640	3663	11	575	1885	1598	641	203	158	1442	148	1598
Grp Volume(v), veh/h	146	481	506	6	767	106	19	0	0	80	0	106
Grp Sat Flow(s), veh/h/ln	640	1791	1883	575	1885	1598	1003	0	0	1589	0	1598
Q Serve(g_s), s	10.9	8.1	8.1	0.3	15.0	1.6	0.2	0.0	0.0	0.0	0.0	5.7
Cycle Q Clear(g_c), s	26.0	8.1	8.1	8.4	15.0	1.6	3.9	0.0	0.0	3.7	0.0	5.7
Prop In Lane	1.00		0.01	1.00		1.00	0.74		0.16	0.92		1.00
Lane Grp Cap(c), veh/h	457	1354	1424	463	1426	1208	180	0	0	253	0	176
V/C Ratio(X)	0.32	0.36	0.36	0.01	0.54	0.09	0.11	0.00	0.00	0.32	0.00	0.60
Avail Cap(c_a), veh/h	457	1354	1424	463	1426	1208	289	0	0	366	0	302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.8	3.7	3.7	5.1	4.5	2.9	36.4	0.0	0.0	37.3	0.0	38.1
Incr Delay (d2), s/veh	1.8	0.7	0.7	0.1	1.5	0.1	0.3	0.0	0.0	0.7	0.0	3.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.6	2.2	2.3	0.0	5.0	0.4	0.4	0.0	0.0	1.7	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.7	4.4	4.4	5.1	6.0	3.0	36.7	0.0	0.0	38.0	0.0	41.4
LnGrp LOS	B	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1133				879			19			186	
Approach Delay, s/veh	5.3				5.6			36.7			39.9	
Approach LOS	A				A			D			D	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+R <sub>c</sub> ), s	15.9		74.1		15.9		74.1					
Change Period (Y+R <sub>c</sub> ), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	17.0		61.0		17.0		61.0					
Max Q Clear Time (g_c+l1), s	5.9		28.0		7.7		17.0					
Green Ext Time (p_c), s	0.0		9.1		0.5		7.8					
Intersection Summary												
HCM 6th Ctrl Delay			8.6									
HCM 6th LOS			A									

## Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
<b>Lane Configurations</b>												
Traffic Vol, veh/h	1	0	1	7	0	4	4	186	22	10	152	1
Future Vol, veh/h	1	0	1	7	0	4	4	186	22	10	152	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	80	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	1	1	1
Mvmt Flow	1	0	1	8	0	5	5	211	25	11	173	1

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	432	442	174	430	430	224	174	0	0	236	0	0
Stage 1	196	196	-	234	234	-	-	-	-	-	-	-
Stage 2	236	246	-	196	196	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	537	513	875	539	521	820	1409	-	-	1337	-	-
Stage 1	810	742	-	774	715	-	-	-	-	-	-	-
Stage 2	772	706	-	810	742	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	528	506	875	533	514	820	1409	-	-	1337	-	-
Mov Cap-2 Maneuver	528	506	-	533	514	-	-	-	-	-	-	-
Stage 1	807	735	-	771	712	-	-	-	-	-	-	-
Stage 2	764	703	-	802	735	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	11	0.1	0.5
HCM LOS	B	B		
<hr/>				
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	1409	-	-	659 616 1337
HCM Lane V/C Ratio	0.003	-	-	0.003 0.021 0.008
HCM Control Delay (s)	7.6	0	-	10.5 11 7.7
HCM Lane LOS	A	A	-	B B A A
HCM 95th %tile Q(veh)	0	-	-	0 0.1 0 -

**Intersection**

Int Delay, s/veh 0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	982	797	14	0	22
Future Vol, veh/h	0	982	797	14	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1067	866	15	0	24

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	-	-	-	6.23
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	3.319
Pot Cap-1 Maneuver	0	-	-	0	348
Stage 1	0	-	-	0	-
Stage 2	0	-	-	0	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	348
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	348
HCM Lane V/C Ratio	-	-	-	0.069
HCM Control Delay (s)	-	-	-	16.1
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.2