

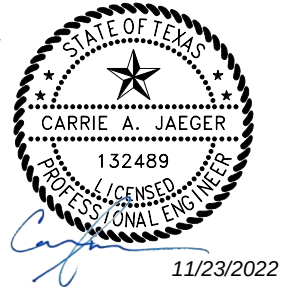
TECHNICAL MEMORANDUM

Date: November 23, 2022

To: Leon Barba, P.E. City Engineer & Jo Ann Garcia, P.E. Road Bond Program Manager
City of Kyle
[Submitted by email to <lbarba@cityofkyle.com> and <jgarcia@cityofkyle.com>]

From: Carrie Jaeger, P.E., PTOE
Project Manager | Associate
Texas Licensed Professional Engineer No. 132489

Subject: Traffic Memo – Dacy Lane at Bunton Creek Rd Intersection Traffic Signal Warrant and Traffic Analysis



1.0 INTRODUCTION

Cobb, Fendley and Associates, Inc. was asked to perform a warrant analysis and traffic study for the intersection of Dacy Lane at Bunton Creek Road located in the City of Kyle in Hays County, Texas. This technical memorandum summarizes the findings for this intersection.

2.0 PROJECT SITE

The project site is located in Kyle, Texas east of IH 35 in Hays County. Dacy Lane (CR 205) is an existing 5-lane (two lanes in each direction with a continuous center left turn lane), curb and gutter arterial roadway that runs northeast to southwest. It has a posted speed limit of 45 mph. Bunton Creek Road is an existing 3-lane (one lane in each direction with a continuous center left turn lane), curb and gutter, collector roadway that runs northwest to southeast. It has a posted speed limit of 35 mph. These two roadways meet at a T-intersection that is all-way stop-controlled.



Figure 2.1: Intersection Location



Figure 2.2: Intersection Layout

Site Visit

A site visit was conducted in November 2022 and photos from that site visit can be seen in **Attachment 1**.

3.0 TURNING MOVEMENT COUNTS

Turning movement counts (TMC) were performed on September 27, 2022, at the intersection of Dacy Lane and Bunton Creek Road for a period of 24 hours starting at 12:00 AM (see **Attachment 2**). The TMC at the intersection was recorded in 15-minute intervals. Traffic counts were performed by C.J. Hensch & Associates Inc. in September 2022 with a video camera that records the intersection for 24 hours. The data is then processed by C.J. Hensch & Associates Inc. to determine vehicle and pedestrian counts for each movement at that intersection.

4.0 TRAFFIC SIGNAL WARRANT ANALYSIS

A traffic signal warrant analysis was performed at the study intersection based on procedures outlined in the latest edition of the *Texas Manual on Uniform Traffic Control Devices (TMUTCD)*. In this analysis, the traffic data collected in September 2022 was used to evaluate the warrant analysis. Two crashes were reported to the TxDOT Crash Records Information System (CRIS) in the last year. One on August 9, 2021 and one on August 18, 2021. One was from driver inattention, and one was from a distraction in the vehicle, both of which are considered non-correctable crashes. The warrant analysis results are summarized below based on the 24-hour TMC data collection at the intersection:

Warrant 1: Eight-Hour Vehicular Volume

The highest eight-hour vehicular counts at the intersection are ranked and shown in **Table 4.1**.

Table 4.1: Highest Eight Hour Vehicle Volumes

Time Ends	Major St. - Both App.		Minor St. - Hi. Vol. App.	
	Buntun Creek Road		Dacy Lane	
	Veh. Total	Ped. Total	Veh. Total	Ped. Total
7:00 PM	864		496	
6:00 PM	915		424	
9:00 AM	886		378	
8:00 PM	808		429	
5:00 PM	712		460	
10:00 AM	757		358	
9:00 PM	707		373	
4:00 PM	634		361	

Table 4.2 below shows the results of the eight-hour vehicular volume warrant analysis. In order to meet the criteria in Warrant 1, the eight-hour volume needs to meet 100% of Condition A or B, or 80% of both Condition A and Condition B. As shown in **Table 4.2**, Warrant 1 is satisfied with the 2022 collected volume.

Table 4.2: Warrant 1 Eight-Hour Vehicular Volume Warrant Analysis (Table 4C-1, TMUTCD)

Condition A - Minimum Vehicle Volume

Number of Lanes		Vehicles per hour on Major St (Total of Both Approaches)					Vehicles per hour on higher-volume Minor St approach (One Direction Only)				
		Buntun Creek Road					Dacy Lane				
Major Street	Minor Street	Required				Existing	Required				Existing
		100% ^a	80% ^b	70% ^c	56% ^d		100% ^a	80% ^b	70% ^c	56% ^d	
1	1	500	400	350	280	106%	150	120	105	84	179%
2 or more	1	600	480	420	336		150	120	105	84	
2 or more	2 or more	600	480	420	336	792	200	160	140	112	358
1	2 or more	500	400	350	280		200	160	140	112	

Condition B - Interruption of Continuous Traffic

Number of Lanes		Vehicles per hour on Major St (Total of Both Approaches)					Vehicles per hour on higher-volume Minor St approach (One Direction Only)				
Major Street	Minor Street	Required				Existing	Required				Existing
		100% ^a	80% ^b	70% ^c	56% ^d		100% ^a	80% ^b	70% ^c	56% ^d	
1	1	750	600	525	420	70%	75	60	53	42	358%
2 or more	1	900	720	630	504		75	60	53	42	
2 or more	2 or more	900	720	630	504	634	100	80	70	56	358
1	2 or more	750	600	525	420		100	80	70	56	

^aBasic minimum hourly volume.

^bUsed for combination of Conditions A and B after adequate trial of other remedial measures.

^cMay be used when the major-street speed exceeds 40 mph or in a community with a population of less than 10,000.

^dMay be used for combination of Conditions A and B after adequate trial of other remedial measures when major street exceeds 40 mph or in an isolated community with a population of less than 10,000.

Warrant 2: Four-Hour Vehicular Volume

As shown in **Figure 4.1**, the Warrant 2 – Four-Hour Vehicular Volume is satisfied.



Figure 4.1: Warrant 2, Four-Hour Vehicular Volume, Figure 4C-1 TMUTCD

Warrant 3: Peak-Hour Vehicular Volume

As shown in **Figure 4.2**, the Warrant 3 – Peak Hour Vehicular Volume is satisfied.

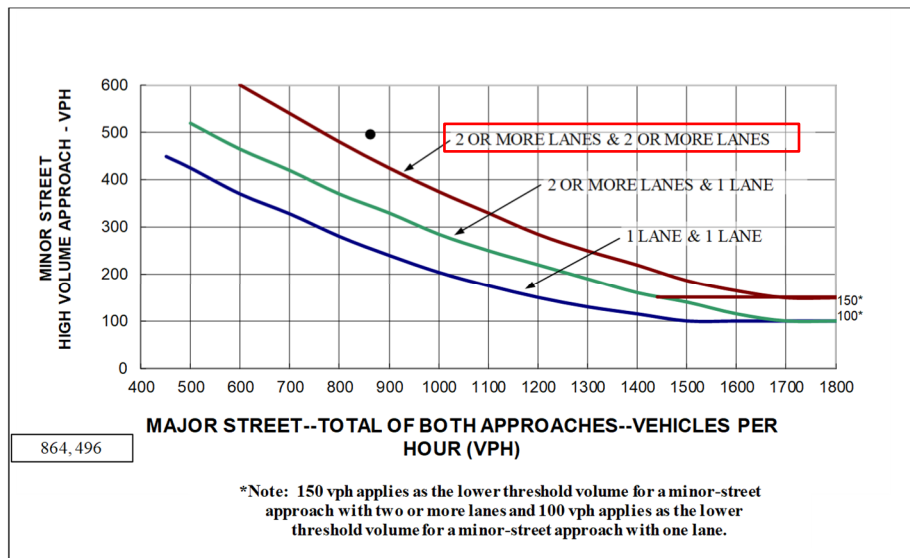


Figure 4.2: Warrant 3, Peak Hour Vehicular Volume, Figure 4C-3 TMUTCD

5.0 TRAFFIC ANALYSIS

Peak Hour Determination

The peak hours for the analysis were determined for this project. For the AM peak hour, 7:15 to 8:15 AM will be used and for the PM peak hour, 5:15 to 6:15 PM will be used as shown in **Table 5.1**.

Table 5.1 - Peak Hour Determination

Locations	AM Peak Hour	PM Peak Hour
Dacy Lane at Kyle Parkway	7:15 - 8:15 AM	5:15- 6:15 PM
Dacy Lane at Bunton Creek Road	7:15 - 8:15 AM	5:00- 6:00 PM
Bunton Creek Road at Lehman Road	7:15 - 8:15 AM	5:15- 6:15 PM
Peak Hour Used for Analysis	7:15 - 8:15 AM	5:15 - 6:15 PM

Adjustment Factor for COVID19 Pandemic

At the time of the data collection, it is assumed that traffic volumes have normalized after the COVID19 pandemic and therefore no adjustment factor will be applied.

Level of Service and Capacity Analysis

An intersection level of service (LOS) analysis was performed for the intersections of Dacy Lane at Bunton Creek Road. The traffic volumes for each scenario were analyzed according to the Highway Capacity Manual (6th Edition) and LOS were determined for each movement for each scenario. The intersections of Dacy Lane at Bunton Creek Road and Lehman Road at Bunton Creek Road are all-way stop-controlled intersections, while Dacy Lane at Kyle Parkway is a two-way stop-controlled intersection. Bunton Creek Road at Philomena Drive is a signalized intersection. All intersections were included in the same synchro file for the analysis. SimTraffic was used for the analysis. The SimTraffic file was adjusted to match as close as possible to field conditions and these adjustments were keep the same for all analysis scenarios.

Levels of service are based on delay (seconds per vehicle) and vary based on intersection control. **Table 5.2** shows the analysis scenarios that were included in this report. **Table 5.3** and **Table 5.4** below depict the control delay thresholds for signalized and unsignalized intersections respectively.

Table 5.2: Analysis Scenarios

Analysis Scenarios
2022 Existing – All-way stop-controlled
2022 Existing - Signalized
2022 Existing – Signalized w/Widening to 5 Lane
2022 Existing - Roundabout

Table 5.3: Signalized Intersection LOS

LOS	Control Delay/Vehicle (s/veh)
A	≤10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

Table 5.4: Unsignalized Intersection LOS

LOS	Control Delay/Vehicle (s/veh)
A	< 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Tables 5.5 show the results of the capacity analysis for several scenarios with the existing volumes for 2022.

Table 5.5: Level of Service Analysis for Dacy Lane at Bunton Creek Road

Scenario	Analysis	Delay (s/veh) and Level of Service by Movement												Int
		Dacy Lane						Bunton Creek Road						
		Northbound			Southbound			Eastbound			Westbound			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Intersection Dacy Lane at Bunton Creek Road														
AM Existing 2022	Control Delay	-	-	-	25.7	-	11.1	20.1	11.2	-	-	113.5	145.6	62.2
	LOS	-	-	-	D	-	B	C	B	-	-	F	F	F
	95% Queue (ft)	-	-	-	210	-	135	158	107	-	-	1298	1298	-
AM Proposed 2022 Signal	Control Delay	-	-	-	27.7	-	8.9	16.2	6.1	-	-	27.2	34.2	21.9
	LOS	-	-	-	C	-	A	B	A	-	-	C	C	C
	95% Queue (ft)	-	-	-	241	-	120	162	111	-	-	503	503	-
AM Proposed 2022 - Signal with Widening to 5 lane	Control Delay	-	-	-	27.3	-	6.6	14.3	5.5	-	-	10.2	12.7	13.3
	LOS	-	-	-	C	-	A	B	A	-	-	B	B	B
	95% Queue (ft)	-	-	-	236	-	101	145	71	-	-	128	229	-
AM Proposed 2022 - Roundabout	Control Delay	-	-	-	5.8	-	5	7.6	6.2	-	-	6.1	8.2	6.6
	LOS	-	-	-	A	-	A	A	A	-	-	A	A	A
	95% Queue (ft)	-	-	-	90	-	80	105	64	-	-	137	137	-
PM Existing 2022	Control Delay	-	-	-	181.4	-	15.1	20.1	18.8	-	-	236.8	236.9	132.0
	LOS	-	-	-	F	-	C	C	C	-	-	F	F	F
	95% Queue (ft)	-	-	-	990	-	842	151	184	-	-	1429	1429	-
PM Proposed 2022 Signal	Control Delay	-	-	-	27	-	7.1	33.8	28.2	-	-	15.9	7.8	21.2
	LOS	-	-	-	C	-	A	C	C	-	-	B	A	C
	95% Queue (ft)	-	-	-	261	-	87	130	119	-	-	457	475	-
PM Proposed 2022 - Signal with Widening to 5 lane	Control Delay	-	-	-	31.0	-	4.7	12.9	6.2	-	-	14.0	11.0	15.0
	LOS	-	-	-	C	-	A	B	A	-	-	B	B	B
	95% Queue (ft)	-	-	-	324	-	72	120	71	-	-	138	217	-
PM Proposed 2022 - Roundabout	Control Delay	-	-	-	9.3	-	4.8	7.9	6.8	-	-	7.9	6.9	7.4
	LOS	-	-	-	A	-	A	A	A	-	-	A	A	A
	95% Queue (ft)	-	-	-	155	-	58	90	80	-	-	124	155	-

6.0 PRELIMINARY COSTS ESTIMATES – SIGNALIZATION

Preliminary cost estimate breakdown for a traffic signal with wooden poles and span wires (Option 1) can be found in **Attachment 4**. Preliminary cost estimate breakdown for a traffic signal with metal poles and mast arms (Option 2) can be found in **Attachment 4**. **Table 6.1** shows the preliminary estimated construction costs for the two options. Both options include radar presence detection and battery backup. Texas Department of Transportation (TxDOT) bid tabs for new construction from September 2022 were used for the preliminary cost estimate.

Table 6.1: Preliminary Estimated Costs

ESTIMATED COSTS	OPTION 1	OPTION 2
SIGNAL SUBTOTAL	\$ 138,002.98	\$ 270,607.19
SIGNING AND STRIPING	\$ 5,000.00	\$ 5,000.00
TRAFFIC CONTROL	\$ 20,000.00	\$ 20,000.00
EROSION CONTROL AND SW3P (2%)	\$ 2,760.06	\$ 5,412.14
SUBTOTAL	\$ 165,763.04	\$ 301,019.33
MOBILIZATION (5%)	\$ 8,288.15	\$ 15,050.97
CONTINGENCY (30%)	\$ 52,215.36	\$ 94,821.09
PROJECT TOTAL	\$ 226,266.55	\$ 410,891.39

7.0 PRELIMINARY SCHEDULES - SIGNALIZATION

Option 1 – Signal with Wooden Poles

Figure 7.1 shows the estimated schedule for the design, bidding, and construction of a traffic signal with wooden poles and span wires. This assumes all materials including the cabinet and controller can be obtained in 2 months. The estimated time frame is 13 months.

Task	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18
Design Phase																		
Notice to Proceed																		
75% Design with Survey																		
75% Design Review																		
100% Design																		
100% Design Review																		
Bidding Phase																		
Construction Phase																		
Notice to Proceed																		
Material Acquisition																		
Construction																		
Substantial Completion																		

Figure 7.1: Design and Construction Schedule for a Signal with Wooden Poles and Span Wire

Option 2 – Signal with Metal Poles

Figure 7.2 shows the estimated schedule for the design, bidding, and construction of a traffic signal with metal poles and underground conduit. This assumes all materials including the poles with mast arms, cabinet, and controller can be obtained in 7 months. The estimated time frame is 18 months.

Task	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18
Design Phase																		
Notice to Proceed																		
75% Design with Survey																		
75% Design Review																		
100% Design																		
100% Design Review																		
Bidding Phase																		
Construction Phase																		
Notice to Proceed																		
Material Acquisition																		
Construction																		
Substantial Completion																		

Figure 7.2: Design and Construction Schedule for a Signal with Metal Poles and Conduit

The schedules above are for information purposes, and they can be adjusted with shorter review times, purchasing materials prior to bidding out construction, etc. Each intersection has its own characteristics, including pole number and location, length of mast arms, location of existing utilities, and the construction schedule can vary based on these characteristics. If multiple intersections are constructed at the same time, the schedule can be adjusted to reduce the effect of the material acquisition time on the construction schedule.

8.0 RECOMMENDATIONS & CONCLUSIONS

The analysis of the intersection of Dacy Lane and Bunton Creek Road included the signal warrant analysis for existing conditions. As the intersection meets warrants 1, 2, and 3, it is recommended that a signal be installed at this location. While the signalization did improve certain movements, Bunton Creek Road is over capacity and additional capacity is recommended for this area. Even with the signalization of Dacy Lane at Bunton Creek Road, the westbound queues are still significant in the AM and PM peak hours if the roadway is not widened.

It is also recommended that any improvement at Dacy Lane at Bunton Creek Road be included with improvements at Bunton Creek Road at Lehman Road. Improving the operations at Lehman Road at Bunton Creek Road without improving the intersection of Dacy Lane at Bunton Creek Road is expected to cause additional congestion at the Dacy Lane at Bunton Creek Road intersection.

9.0 ATTACHMENTS

Included for your use and review with this memorandum are the following:

- Attachment 1 – Site Visit Photos
- Attachment 2 – Turning Movement Counts
- Attachment 3 – Synchro Reports
- Attachment 4 – Preliminary Cost Estimates

Attachment 1 – Site Visit Photos



Photo 1: Looking North at Bunton Creek Road and Dacy Lane



Photo 2: Looking North at Bunton Creek Road and Dacy Lane



Photo 3: Looking West at Bunton Creek Road and Dacy Lane



Photo 4: Looking South at Bunton Creek Road and Dacy Lane



Photo 5: Looking East at Bunton Creek Road and Dacy Lane



Photo 6: Looking East at Bunton Creek Road and Dacy Lane



Photo 7: Looking East at Bunton Creek Road and Dacy Lane

Attachment 2 – Turning Movement Counts

Dacy Lane at Bunton Creek Rd - TMC

Tue Sep 27, 2022

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 993666, Location: 30.003809, -97.855585



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Dacy Ln Southbound					Bunton Creek Rd Westbound					Bunton Creek Rd Eastbound				
Time	R	L	U	App	Ped*	R	T	U	App	Ped*	T	L	App	Ped*	Int
2022-09-27 12:00AM	2	11	0	13	0	3	6	0	9	0	9	7	16	-	38
12:15AM	2	9	0	11	0	3	3	0	6	0	8	3	11	-	28
12:30AM	0	9	0	9	0	5	3	0	8	0	6	2	8	-	25
12:45AM	0	4	0	4	0	0	2	0	2	0	3	2	5	-	11
Hourly Total	4	33	0	37	0	11	14	0	25	0	26	14	40	-	102
1:00AM	0	12	0	12	0	2	4	0	6	0	1	1	2	-	20
1:15AM	0	4	0	4	0	1	1	0	2	0	4	1	5	-	11
1:30AM	0	6	0	6	0	1	3	0	4	0	2	1	3	-	13
1:45AM	2	3	0	5	0	2	5	0	7	0	2	1	3	-	15
Hourly Total	2	25	0	27	0	6	13	0	19	0	9	4	13	-	59
2:00AM	1	5	0	6	0	2	3	0	5	0	6	1	7	-	18
2:15AM	1	3	0	4	0	1	2	0	3	0	0	0	0	-	7
2:30AM	2	4	0	6	0	3	4	0	7	0	0	2	2	-	15
2:45AM	2	2	0	4	0	1	3	0	4	0	0	0	0	-	8
Hourly Total	6	14	0	20	0	7	12	0	19	0	6	3	9	-	48
3:00AM	1	3	0	4	0	2	3	0	5	0	1	1	2	-	11
3:15AM	2	3	0	5	0	1	5	0	6	0	1	0	1	-	12
3:30AM	2	2	0	4	0	1	9	0	10	0	3	0	3	-	17
3:45AM	0	1	0	1	0	4	3	0	7	0	3	3	6	-	14
Hourly Total	5	9	0	14	0	8	20	0	28	0	8	4	12	-	54
4:00AM	4	4	0	8	0	1	6	0	7	0	4	0	4	-	19
4:15AM	3	3	0	6	0	5	15	0	20	0	1	0	1	-	27
4:30AM	5	3	0	8	0	16	42	0	58	0	3	2	5	-	71
4:45AM	3	4	0	7	0	13	36	0	49	0	2	2	4	-	60
Hourly Total	15	14	0	29	0	35	99	0	134	0	10	4	14	-	177
5:00AM	2	10	0	12	0	15	40	0	55	0	3	4	7	-	74
5:15AM	3	11	0	14	0	28	50	0	78	0	8	0	8	-	100
5:30AM	12	21	0	33	0	28	39	0	67	0	8	8	16	-	116
5:45AM	11	32	0	43	0	39	72	0	111	0	16	8	24	-	178
Hourly Total	28	74	0	102	0	110	201	0	311	0	35	20	55	-	468
6:00AM	11	22	0	33	0	63	82	0	145	0	14	9	23	-	201
6:15AM	17	23	0	40	0	79	71	0	150	0	14	13	27	-	217
6:30AM	19	19	0	38	0	77	73	0	150	0	12	18	30	-	218
6:45AM	37	35	0	72	0	78	73	0	151	0	15	33	48	-	271
Hourly Total	84	99	0	183	0	297	299	0	596	0	55	73	128	-	907
7:00AM	57	26	0	83	0	72	78	0	150	0	22	28	50	-	283
7:15AM	64	50	0	114	0	86	64	0	150	0	31	41	72	-	336
7:30AM	40	48	0	88	0	84	54	0	138	0	34	67	101	-	327
7:45AM	29	64	0	93	0	60	64	0	124	0	36	65	101	-	318
Hourly Total	190	188	0	378	0	302	260	0	562	0	123	201	324	-	1264
8:00AM	29	77	0	106	0	66	62	0	128	0	43	39	82	-	316
8:15AM	15	97	0	112	0	63	66	0	129	0	42	20	62	-	303
8:30AM	19	61	0	80	0	73	67	0	140	0	30	19	49	-	269
8:45AM	25	35	0	60	0	48	62	0	110	0	29	28	57	-	227
Hourly Total	88	270	0	358	0	250	257	0	507	0	144	106	250	-	1115
9:00AM	14	45	0	59	0	42	54	0	96	0	33	20	53	-	208
9:15AM	18	39	0	57	0	40	64	0	104	0	27	13	40	-	201
9:30AM	15	38	0	53	0	36	47	0	83	0	29	13	42	-	178
9:45AM	17	47	0	64	0	34	56	0	90	0	34	16	50	-	204
Hourly Total	64	169	0	233	0	152	221	0	373	0	123	62	185	-	791
10:00AM	19	29	0	48	0	40	55	0	95	0	37	12	49	-	192
10:15AM	24	38	0	62	0	37	56	0	93	0	29	15	44	-	199

Leg Direction	Dacy Ln Southbound					Bunton Creek Rd Westbound					Bunton Creek Rd Eastbound					
Time	R	L	U	App	Ped*	R	T	U	App	Ped*	T	L	App	Ped*	Int	
10:30AM	20	43	0	63	0	39	47	0	86	0	35	14	49	-	198	
10:45AM	13	55	0	68	0	34	52	0	86	0	26	16	42	-	196	
Hourly Total	76	165	0	241	0	150	210	0	360	0	127	57	184	-	785	
11:00AM	13	40	0	53	0	44	45	0	89	0	37	14	51	-	193	
11:15AM	22	43	0	65	0	38	47	0	85	0	27	13	40	-	190	
11:30AM	19	61	0	80	0	41	41	0	82	0	25	19	44	-	206	
11:45AM	20	55	0	75	0	48	42	0	90	0	43	17	60	-	225	
Hourly Total	74	199	0	273	0	171	175	0	346	0	132	63	195	-	814	
12:00PM	18	43	0	61	0	34	37	0	71	0	49	26	75	-	207	
12:15PM	12	58	0	70	0	49	58	0	107	0	33	11	44	-	221	
12:30PM	15	65	0	80	0	48	49	0	97	0	37	11	48	-	225	
12:45PM	19	44	0	63	0	46	44	0	90	0	36	18	54	-	207	
Hourly Total	64	210	0	274	0	177	188	0	365	0	155	66	221	-	860	
1:00PM	18	57	0	75	0	44	52	0	96	0	36	15	51	-	222	
1:15PM	10	52	0	62	0	45	50	0	95	0	41	23	64	-	221	
1:30PM	18	61	0	79	0	45	53	0	98	0	43	21	64	-	241	
1:45PM	18	66	0	84	0	22	53	0	75	0	46	24	70	-	229	
Hourly Total	64	236	0	300	0	156	208	0	364	0	166	83	249	-	913	
2:00PM	35	65	0	100	0	37	44	0	81	0	45	15	60	-	241	
2:15PM	19	63	0	82	0	43	47	0	90	0	46	17	63	-	235	
2:30PM	23	69	0	92	0	39	64	0	103	0	37	13	50	-	245	
2:45PM	27	60	0	87	0	56	76	0	132	1	34	21	55	-	274	
Hourly Total	104	257	0	361	0	175	231	0	406	1	162	66	228	-	995	
3:00PM	28	77	0	105	0	46	65	0	111	0	60	26	86	-	302	
3:15PM	40	66	0	106	0	40	35	0	75	0	58	27	85	-	266	
3:30PM	43	73	0	116	0	44	51	0	95	0	49	18	67	-	278	
3:45PM	40	93	0	133	0	41	55	0	96	0	60	37	97	-	326	
Hourly Total	151	309	0	460	0	171	206	0	377	0	227	108	335	-	1172	
4:00PM	33	76	0	109	0	34	49	0	83	0	67	67	134	-	326	
4:15PM	37	74	0	111	0	65	48	0	113	0	50	73	123	-	347	
4:30PM	27	66	0	93	0	52	70	0	122	0	59	63	122	-	337	
4:45PM	25	86	0	111	0	57	49	0	106	0	64	48	112	-	329	
Hourly Total	122	302	0	424	0	208	216	0	424	0	240	251	491	-	1339	
5:00PM	34	89	0	123	0	43	59	0	102	0	61	38	99	-	324	
5:15PM	28	93	0	121	0	60	58	0	118	0	60	49	109	-	348	
5:30PM	26	101	0	127	0	53	50	0	103	0	65	42	107	-	337	
5:45PM	37	88	0	125	0	59	72	0	131	0	63	32	95	-	351	
Hourly Total	125	371	0	496	0	215	239	0	454	0	249	161	410	-	1360	
6:00PM	24	88	0	112	0	48	64	0	112	0	62	24	86	-	310	
6:15PM	28	70	0	98	0	41	62	0	103	0	56	38	94	-	295	
6:30PM	19	101	0	120	0	52	57	0	109	0	66	32	98	-	327	
6:45PM	21	78	0	99	0	44	57	0	101	0	70	35	105	-	305	
Hourly Total	92	337	0	429	0	185	240	0	425	0	254	129	383	-	1237	
7:00PM	15	82	0	97	0	45	38	0	83	0	54	16	70	-	250	
7:15PM	18	91	0	109	0	47	49	0	96	0	63	20	83	-	288	
7:30PM	13	56	0	69	0	59	70	0	129	0	62	19	81	-	279	
7:45PM	19	79	0	98	0	53	43	0	96	0	45	24	69	-	263	
Hourly Total	65	308	0	373	0	204	200	0	404	0	224	79	303	-	1080	
8:00PM	9	66	0	75	0	41	40	0	81	0	45	24	69	-	225	
8:15PM	7	70	0	77	0	27	42	0	69	0	47	19	66	-	212	
8:30PM	13	56	0	69	0	28	33	0	61	0	45	17	62	-	192	
8:45PM	9	55	0	64	0	25	30	0	55	0	30	8	38	-	157	
Hourly Total	38	247	0	285	0	121	145	0	266	0	167	68	235	-	786	
9:00PM	10	50	0	60	0	15	22	0	37	0	33	6	39	-	136	
9:15PM	8	50	0	58	0	12	16	0	28	0	31	9	40	-	126	
9:30PM	5	30	0	35	0	12	27	0	39	0	18	8	26	-	100	
9:45PM	7	38	0	45	0	17	20	0	37	0	27	6	33	-	115	
Hourly Total	30	168	0	198	0	56	85	0	141	0	109	29	138	-	477	
10:00PM	5	27	0	32	0	17	13	0	30	0	21	7	28	-	90	
10:15PM	5	23	0	28	0	11	11	0	22	0	17	9	26	-	76	

Leg Direction	Dacy Ln Southbound					Bunton Creek Rd Westbound					Bunton Creek Rd Eastbound				
Time	R	L	U	App	Ped*	R	T	U	App	Ped*	T	L	App	Ped*	Int
10:30PM	4	28	0	32	0	12	13	0	25	0	13	6	19	-	76
10:45PM	5	18	0	23	0	3	14	0	17	0	17	7	24	-	64
Hourly Total	19	96	0	115	0	43	51	0	94	0	68	29	97	-	306
11:00PM	3	24	0	27	0	3	10	0	13	0	7	11	18	-	58
11:15PM	0	15	0	15	0	3	13	0	16	0	9	2	11	-	42
11:30PM	2	12	0	14	0	4	8	0	12	0	5	3	8	-	34
11:45PM	3	17	0	20	0	0	3	0	3	0	14	4	18	-	41
Hourly Total	8	68	0	76	0	10	34	0	44	0	35	20	55	-	175
Total	1518	4168	0	5686	0	3220	3824	0	7044	1	2854	1700	4554	-	17284
% Approach	26.7%	73.3%	0%	-	-	45.7%	54.3%	0%	-	-	62.7%	37.3%	-	-	-
% Total	8.8%	24.1%	0%	32.9%	-	18.6%	22.1%	0%	40.8%	-	16.5%	9.8%	26.3%	-	-
Lights	1489	4079	0	5568	-	3131	3731	0	6862	-	2784	1676	4460	-	16890
% Lights	98.1%	97.9%	0%	97.9%	-	97.2%	97.6%	0%	97.4%	-	97.5%	98.6%	97.9%	-	97.7%
Articulated Trucks	6	24	0	30	-	34	37	0	71	-	25	2	27	-	128
% Articulated Trucks	0.4%	0.6%	0%	0.5%	-	1.1%	1.0%	0%	1.0%	-	0.9%	0.1%	0.6%	-	0.7%
Buses and Single-Unit Trucks	23	65	0	88	-	55	56	0	111	-	45	22	67	-	266
% Buses and Single-Unit Trucks	1.5%	1.6%	0%	1.5%	-	1.7%	1.5%	0%	1.6%	-	1.6%	1.3%	1.5%	-	1.5%
Pedestrians	-	-	-	-	0	-	-	-	-	1	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Dacy Lane at Bunton Creek Rd - TMC

Tue Sep 27, 2022

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 993666, Location: 30.003809, -97.855585



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] Dacy Ln

Total: 10606

In: 5686

Out: 4920

1518

4168

[W] Bunton Creek Rd

Total: 9896

In: 4554 Out: 5342

1700

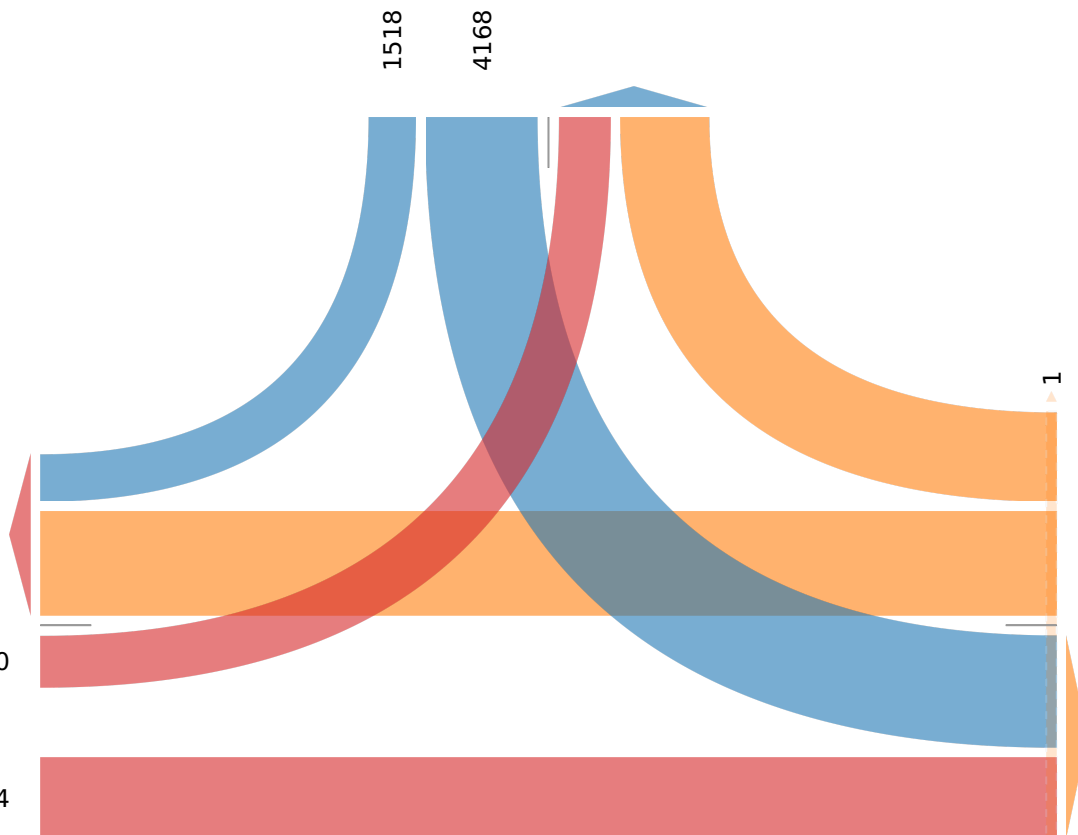
2854

3220
3824

Out: 7022 In: 7044

Total: 14066

[E] Bunton Creek Rd



Dacy Lane at Bunton Creek Rd - TMC

Tue Sep 27, 2022

AM Peak (Sep 27 2022 7:15AM - 8:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 993666, Location: 30.003809, -97.855585



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Dacy Ln Southbound					Bunton Creek Rd Westbound					Bunton Creek Rd Eastbound					
Time	R	L	U	App	Ped*	R	T	U	App	Ped*	T	L	App	Ped*	Int	
2022-09-27 7:15AM	64	50	0	114	0	86	64	0	150	0	31	41	72	-	336	
7:30AM	40	48	0	88	0	84	54	0	138	0	34	67	101	-	327	
7:45AM	29	64	0	93	0	60	64	0	124	0	36	65	101	-	318	
8:00AM	29	77	0	106	0	66	62	0	128	0	43	39	82	-	316	
Total	162	239	0	401	0	296	244	0	540	0	144	212	356	-	1297	
% Approach	40.4%	59.6%	0%	-	-	54.8%	45.2%	0%	-	-	40.4%	59.6%	-	-	-	
% Total	12.5%	18.4%	0%	30.9%	-	22.8%	18.8%	0%	41.6%	-	11.1%	16.3%	27.4%	-	-	
PHF	0.633	0.776	-	0.879	-	0.860	0.953	-	0.900	-	0.837	0.791	0.881	-	0.965	
Lights	160	233	0	393	-	291	241	0	532	-	142	209	351	-	1276	
% Lights	98.8%	97.5%	0%	98.0%	-	98.3%	98.8%	0%	98.5%	-	98.6%	98.6%	98.6%	-	98.4%	
Articulated Trucks	1	2	0	3	-	1	1	0	2	-	1	0	1	-	6	
% Articulated Trucks	0.6%	0.8%	0%	0.7%	-	0.3%	0.4%	0%	0.4%	-	0.7%	0%	0.3%	-	0.5%	
Buses and Single-Unit Trucks	1	4	0	5	-	4	2	0	6	-	1	3	4	-	15	
% Buses and Single-Unit Trucks	0.6%	1.7%	0%	1.2%	-	1.4%	0.8%	0%	1.1%	-	0.7%	1.4%	1.1%	-	1.2%	
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	0	-	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	0	-	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Dacy Lane at Bunton Creek Rd - TMC

Tue Sep 27, 2022

AM Peak (Sep 27 2022 7:15AM - 8:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 993666, Location: 30.003809, -97.855585



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] Dacy Ln

Total: 909

In: 401

Out: 508

162

239

[W] Bunton Creek Rd

Total: 762

In: 356

Out: 406

212

144

296

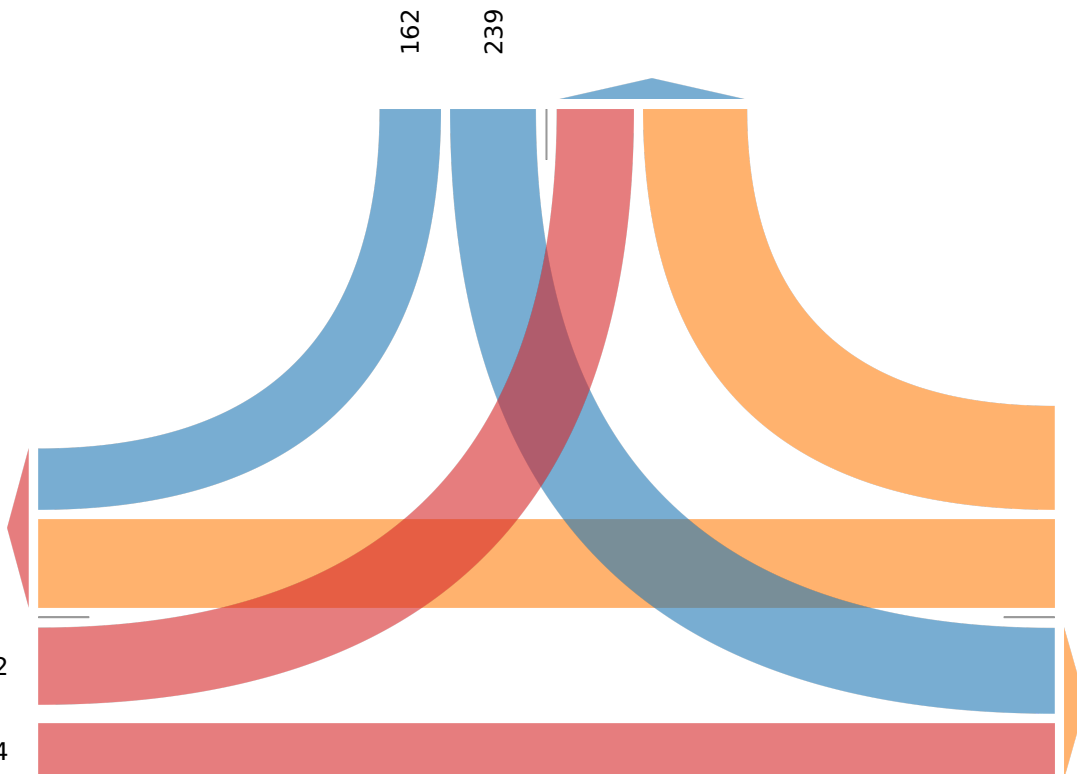
244

Out: 383

In: 540

Total: 923

[E] Bunton Creek Rd



Dacy Lane at Bunton Creek Rd - TMC

Tue Sep 27, 2022

Midday Peak (Sep 27 2022 1PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 993666, Location: 30.003809, -97.855585



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Dacy Ln Southbound					Bunton Creek Rd Westbound					Bunton Creek Rd Eastbound					
Time	R	L	U	App	Ped*	R	T	U	App	Ped*	T	L	App	Ped*	Int	
2022-09-27 1:00PM	18	57	0	75	0	44	52	0	96	0	36	15	51	-	222	
1:15PM	10	52	0	62	0	45	50	0	95	0	41	23	64	-	221	
1:30PM	18	61	0	79	0	45	53	0	98	0	43	21	64	-	241	
1:45PM	18	66	0	84	0	22	53	0	75	0	46	24	70	-	229	
Total	64	236	0	300	0	156	208	0	364	0	166	83	249	-	913	
% Approach	21.3%	78.7%	0%	-	-	42.9%	57.1%	0%	-	-	66.7%	33.3%	-	-	-	
% Total	7.0%	25.8%	0%	32.9%	-	17.1%	22.8%	0%	39.9%	-	18.2%	9.1%	27.3%	-	-	
PHF	0.889	0.894	-	0.893	-	0.867	0.981	-	0.929	-	0.902	0.865	0.889	-	0.947	
Lights	63	230	0	293	-	148	198	0	346	-	154	83	237	-	876	
% Lights	98.4%	97.5%	0%	97.7%	-	94.9%	95.2%	0%	95.1%	-	92.8%	100%	95.2%	-	95.9%	
Articulated Trucks	0	1	0	1	-	6	3	0	9	-	6	0	6	-	16	
% Articulated Trucks	0%	0.4%	0%	0.3%	-	3.8%	1.4%	0%	2.5%	-	3.6%	0%	2.4%	-	1.8%	
Buses and Single-Unit Trucks	1	5	0	6	-	2	7	0	9	-	6	0	6	-	21	
% Buses and Single-Unit Trucks	1.6%	2.1%	0%	2.0%	-	1.3%	3.4%	0%	2.5%	-	3.6%	0%	2.4%	-	2.3%	
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	0	-	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	0	-	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Dacy Lane at Bunton Creek Rd - TMC

Tue Sep 27, 2022

Midday Peak (Sep 27 2022 1PM - 2 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

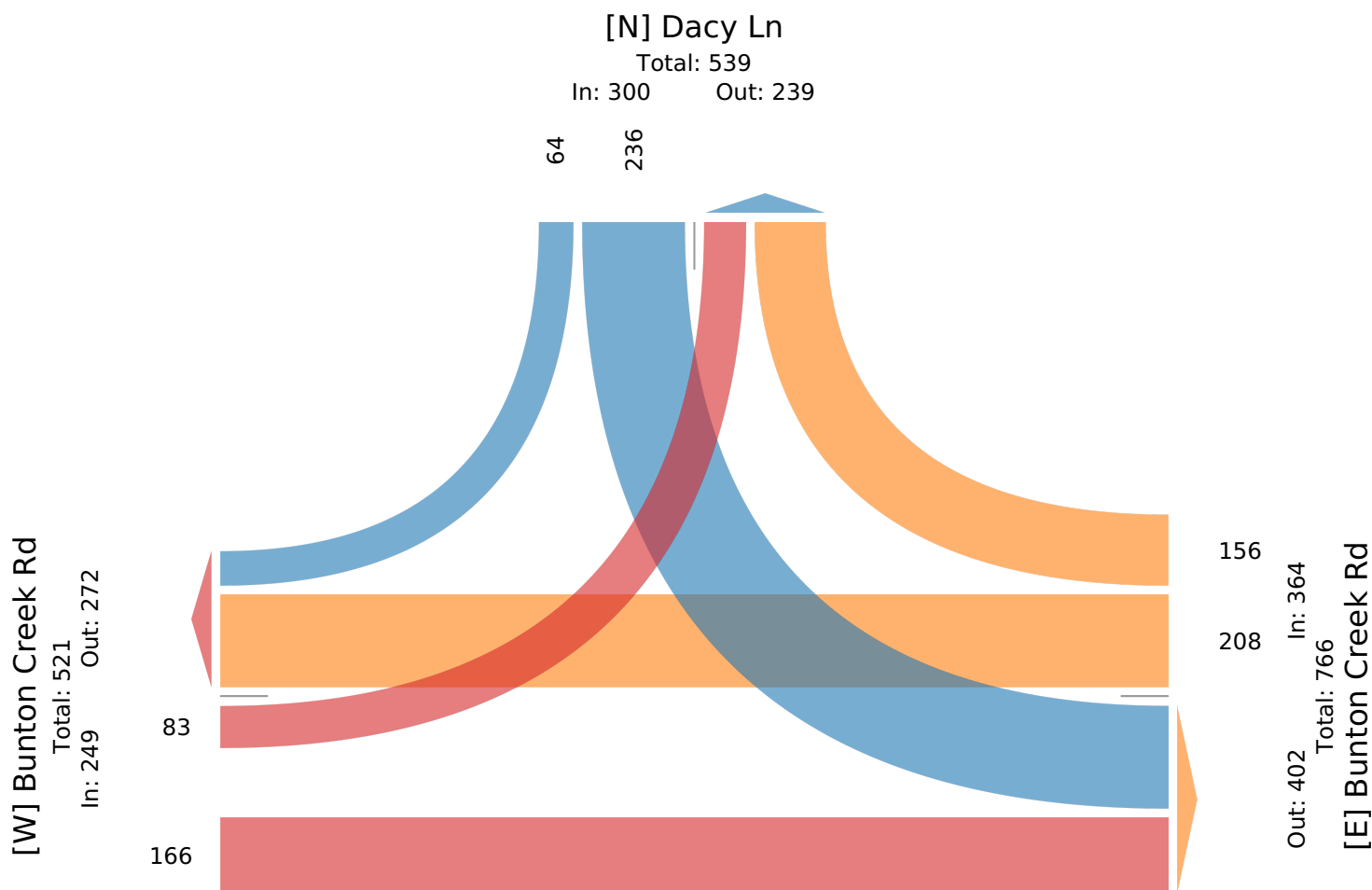
All Movements

ID: 993666, Location: 30.003809, -97.855585



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Dacy Lane at Bunton Creek Rd - TMC

Tue Sep 27, 2022

PM Peak (Sep 27 2022 5PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 993666, Location: 30.003809, -97.855585



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Dacy Ln Southbound					Bunton Creek Rd Westbound					Bunton Creek Rd Eastbound					
Time	R	L	U	App	Ped*	R	T	U	App	Ped*	T	L	App	Ped*	Int	
2022-09-27 5:00PM	34	89	0	123	0	43	59	0	102	0	61	38	99	-	324	
5:15PM	28	93	0	121	0	60	58	0	118	0	60	49	109	-	348	
5:30PM	26	101	0	127	0	53	50	0	103	0	65	42	107	-	337	
5:45PM	37	88	0	125	0	59	72	0	131	0	63	32	95	-	351	
Total	125	371	0	496	0	215	239	0	454	0	249	161	410	-	1360	
% Approach	25.2%	74.8%	0%	-	-	47.4%	52.6%	0%	-	-	60.7%	39.3%	-	-	-	
% Total	9.2%	27.3%	0%	36.5%	-	15.8%	17.6%	0%	33.4%	-	18.3%	11.8%	30.1%	-	-	
PHF	0.845	0.918	-	0.976	-	0.896	0.830	-	0.866	-	0.958	0.821	0.940	-	0.969	
Lights	124	367	0	491	-	214	236	0	450	-	245	159	404	-	1345	
% Lights	99.2%	98.9%	0%	99.0%	-	99.5%	98.7%	0%	99.1%	-	98.4%	98.8%	98.5%	-	98.9%	
Articulated Trucks	0	0	0	0	-	0	2	0	2	-	0	0	0	-	2	
% Articulated Trucks	0%	0%	0%	0%	-	0%	0.8%	0%	0.4%	-	0%	0%	0%	-	0.1%	
Buses and Single-Unit Trucks	1	4	0	5	-	1	1	0	2	-	4	2	6	-	13	
% Buses and Single-Unit Trucks	0.8%	1.1%	0%	1.0%	-	0.5%	0.4%	0%	0.4%	-	1.6%	1.2%	1.5%	-	1.0%	
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	0	-	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	0	-	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Dacy Lane at Bunton Creek Rd - TMC

Tue Sep 27, 2022

PM Peak (Sep 27 2022 5PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 993666, Location: 30.003809, -97.855585



Provided by: C. J. Hensch & Associates
Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

[N] Dacy Ln

Total: 872

In: 496

Out: 376

125

371

[W] Bunton Creek Rd

Total: 774

In: 410

Out: 364

161

249

215

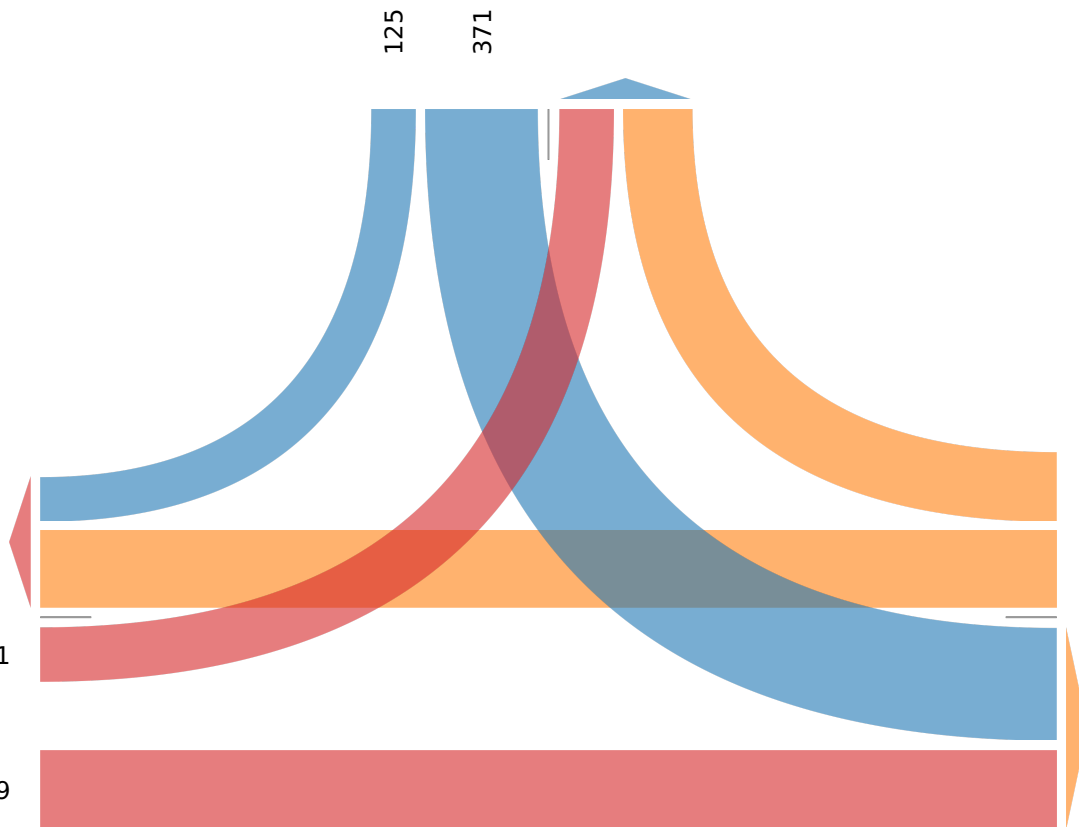
239

In: 454

Out: 620

Total: 1074

[E] Bunton Creek Rd



Dacy Ln at Kyle Pkwy - TMC

Tue Jun 7, 2022

Full Length (12 AM-12 AM (+1))

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

All Movements

ID: 960752, Location: 30.005613, -97.853568



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave., Pasadena, TX, 77503, US

Leg Direction	Dacy Ln Southbound					Dacy Ln Northbound					Kyle Pkwy Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2022-06-07 12:00AM	5	1	0	6	0	3	3	0	6	0	11	4	0	15	0	27
12:15AM	6	2	0	8	0	1	0	0	1	0	15	4	0	19	0	28
12:30AM	6	4	0	10	0	2	4	0	6	0	2	6	0	8	0	24
12:45AM	5	1	0	6	0	0	0	0	0	0	8	4	0	12	0	18
Hourly Total	22	8	0	30	0	6	7	0	13	0	36	18	0	54	0	97
1:00AM	2	2	0	4	0	1	0	0	1	0	5	2	0	7	0	12
1:15AM	2	1	0	3	0	0	0	0	0	0	3	2	0	5	0	8
1:30AM	2	3	0	5	0	4	0	0	4	0	2	3	0	5	0	14
1:45AM	1	0	0	1	0	1	2	0	3	0	1	4	0	5	0	9
Hourly Total	7	6	0	13	0	6	2	0	8	0	11	11	0	22	0	43
2:00AM	3	2	0	5	0	1	1	0	2	0	10	4	0	14	0	21
2:15AM	0	1	0	1	0	3	2	0	5	0	4	0	0	4	0	10
2:30AM	1	1	0	2	0	2	1	0	3	0	4	3	0	7	0	12
2:45AM	2	1	0	3	0	1	1	0	2	0	5	1	0	6	0	11
Hourly Total	6	5	0	11	0	7	5	0	12	0	23	8	0	31	0	54
3:00AM	5	1	0	6	0	3	2	0	5	0	6	2	0	8	0	19
3:15AM	4	2	0	6	0	0	3	0	3	0	4	2	0	6	0	15
3:30AM	2	1	0	3	0	0	5	0	5	0	2	1	0	3	0	11
3:45AM	4	5	0	9	0	2	4	0	6	0	3	3	0	6	0	21
Hourly Total	15	9	0	24	0	5	14	0	19	0	15	8	0	23	0	66
4:00AM	4	2	0	6	0	1	4	0	5	0	1	0	0	1	0	12
4:15AM	6	5	0	11	0	2	5	0	7	0	3	1	0	4	0	22
4:30AM	10	8	0	18	0	6	11	0	17	0	0	2	0	2	0	37
4:45AM	11	7	0	18	0	10	9	0	19	0	7	3	0	10	0	47
Hourly Total	31	22	0	53	0	19	29	0	48	0	11	6	0	17	0	118
5:00AM	11	3	0	14	0	2	12	0	14	0	1	1	0	2	0	30
5:15AM	17	10	0	27	0	6	19	0	25	0	4	2	0	6	0	58
5:30AM	22	10	0	32	0	5	25	0	30	0	8	3	0	11	0	73
5:45AM	40	15	0	55	0	5	28	0	33	0	21	3	0	24	0	112
Hourly Total	90	38	0	128	0	18	84	0	102	0	34	9	0	43	0	273
6:00AM	29	15	0	44	0	13	30	0	43	0	17	6	0	23	0	110
6:15AM	50	8	0	58	0	14	55	0	69	0	17	5	0	22	0	149
6:30AM	52	21	0	73	0	11	63	0	74	0	14	8	0	22	0	169
6:45AM	67	23	0	90	0	23	62	0	85	1	22	8	0	30	0	205
Hourly Total	198	67	0	265	0	61	210	0	271	1	70	27	0	97	0	633
7:00AM	58	32	0	90	0	23	47	0	70	0	15	11	0	26	0	186
7:15AM	66	35	0	101	0	37	55	0	92	0	25	13	0	38	0	231
7:30AM	84	48	0	132	0	45	51	0	96	0	18	13	0	31	0	259
7:45AM	85	39	0	124	0	44	65	0	109	0	26	16	0	42	0	275
Hourly Total	293	154	0	447	0	149	218	0	367	0	84	53	0	137	0	951
8:00AM	75	23	0	98	0	38	44	0	82	0	33	29	0	62	0	242
8:15AM	69	18	0	87	0	23	44	0	67	0	35	11	0	46	0	200
8:30AM	58	24	0	82	0	35	35	0	70	0	24	16	0	40	0	192
8:45AM	76	36	0	112	0	28	37	0	65	0	18	21	0	39	0	216
Hourly Total	278	101	0	379	0	124	160	0	284	0	110	77	0	187	0	850
9:00AM	61	23	0	84	0	24	19	0	43	0	22	23	0	45	0	172
9:15AM	74	21	0	95	0	16	38	0	54	0	28	25	0	53	0	202
9:30AM	65	16	0	81	0	28	33	0	61	0	26	25	0	51	0	193
9:45AM	56	30	0	86	0	28	34	0	62	0	46	29	0	75	0	223
Hourly Total	256	90	0	346	0	96	124	0	220	0	122	102	0	224	0	790
10:00AM	55	36	0	91	0	28	32	0	60	0	25	22	0	47	0	198
10:15AM	63	24	0	87	0	22	36	0	58	0	26	26	0	52	0	197
10:30AM	62	27	0	89	0	25	45	0	70	0	30	22	0	52	0	211
10:45AM	55	21	0	76	0	24	22	0	46	0	44	22	0	66	0	188

Leg Direction	Dacy Ln Southbound					Dacy Ln Northbound					Kyle Pkwy Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
Hourly Total	235	108	0	343	0	99	135	0	234	0	125	92	0	217	0	794
11:00AM	46	24	0	70	0	31	35	0	66	0	45	22	0	67	0	203
11:15AM	62	27	0	89	0	26	31	0	57	0	43	21	0	64	0	210
11:30AM	67	32	0	99	0	18	25	0	43	0	53	31	0	84	0	226
11:45AM	47	40	0	87	0	25	42	0	67	0	47	30	0	77	0	231
Hourly Total	222	123	0	345	0	100	133	0	233	0	188	104	0	292	0	870
12:00PM	65	28	0	93	0	36	36	0	72	0	53	37	1	91	0	256
12:15PM	64	32	0	96	0	29	35	0	64	0	63	47	0	110	0	270
12:30PM	70	24	0	94	0	51	29	0	80	0	48	26	0	74	0	248
12:45PM	59	29	0	88	0	41	36	0	77	0	53	32	0	85	0	250
Hourly Total	258	113	0	371	0	157	136	0	293	0	217	142	1	360	0	1024
1:00PM	67	29	0	96	0	49	36	0	85	0	48	26	0	74	0	255
1:15PM	55	29	0	84	0	37	37	0	74	0	44	27	0	71	0	229
1:30PM	72	34	0	106	0	40	31	0	71	0	49	42	0	91	0	268
1:45PM	59	43	0	102	0	29	32	0	61	0	50	34	0	84	0	247
Hourly Total	253	135	0	388	0	155	136	0	291	0	191	129	0	320	0	999
2:00PM	54	41	0	95	0	51	22	0	73	0	36	28	0	64	0	232
2:15PM	48	24	0	72	0	39	31	0	70	0	57	27	0	84	0	226
2:30PM	47	38	0	85	0	32	32	0	64	0	41	35	0	76	0	225
2:45PM	72	38	0	110	0	33	40	0	73	0	61	33	0	94	0	277
Hourly Total	221	141	0	362	0	155	125	0	280	0	195	123	0	318	0	960
3:00PM	57	18	0	75	0	34	22	0	56	0	59	31	0	90	0	221
3:15PM	61	29	0	90	0	41	20	0	61	0	60	47	0	107	0	258
3:30PM	51	26	0	77	0	28	37	0	65	0	70	42	0	112	0	254
3:45PM	79	41	0	120	0	30	42	0	72	0	47	33	0	80	0	272
Hourly Total	248	114	0	362	0	133	121	0	254	0	236	153	0	389	0	1005
4:00PM	46	32	0	78	0	38	42	0	80	0	45	33	0	78	0	236
4:15PM	68	33	0	101	0	36	24	0	60	0	64	43	0	107	0	268
4:30PM	56	24	0	80	0	43	35	0	78	0	85	46	0	131	0	289
4:45PM	50	43	0	93	0	41	48	0	89	0	81	34	0	115	0	297
Hourly Total	220	132	0	352	0	158	149	0	307	0	275	156	0	431	0	1090
5:00PM	55	35	0	90	0	41	37	0	78	0	81	43	0	124	0	292
5:15PM	63	38	0	101	0	51	38	0	89	0	71	34	0	105	0	295
5:30PM	65	40	0	105	0	55	35	0	90	0	99	49	0	148	0	343
5:45PM	53	43	0	96	0	42	42	0	84	0	67	37	0	104	0	284
Hourly Total	236	156	0	392	0	189	152	0	341	0	318	163	0	481	0	1214
6:00PM	62	49	0	111	0	40	37	0	77	0	78	46	0	124	0	312
6:15PM	68	37	0	105	0	37	27	0	64	0	60	42	0	102	0	271
6:30PM	58	34	0	92	0	33	33	0	66	0	72	41	0	113	0	271
6:45PM	61	33	0	94	0	34	27	0	61	0	89	42	0	131	0	286
Hourly Total	249	153	0	402	0	144	124	0	268	0	299	171	0	470	0	1140
7:00PM	49	30	0	79	0	33	30	0	63	0	79	41	0	120	0	262
7:15PM	62	16	0	78	0	35	26	0	61	0	71	49	0	120	0	259
7:30PM	56	26	0	82	0	30	32	0	62	0	65	34	0	99	0	243
7:45PM	40	25	0	65	0	30	28	0	58	0	63	40	0	103	1	226
Hourly Total	207	97	0	304	0	128	116	0	244	0	278	164	0	442	1	990
8:00PM	48	28	0	76	0	36	33	0	69	0	50	49	0	99	0	244
8:15PM	50	21	0	71	0	32	23	0	55	0	64	36	0	100	1	226
8:30PM	43	25	0	68	0	28	22	0	50	0	57	31	0	88	0	206
8:45PM	35	20	0	55	0	18	17	0	35	0	49	30	0	79	0	169
Hourly Total	176	94	0	270	0	114	95	0	209	0	220	146	0	366	1	845
9:00PM	33	20	0	53	0	28	10	0	38	0	45	30	0	75	0	166
9:15PM	31	16	0	47	0	27	18	0	45	0	39	19	0	58	0	150
9:30PM	30	15	0	45	0	27	14	0	41	0	39	32	0	71	0	157
9:45PM	30	17	0	47	0	12	10	0	22	0	35	27	0	62	0	131
Hourly Total	124	68	0	192	0	94	52	0	146	0	158	108	0	266	0	604
10:00PM	27	14	0	41	0	11	9	0	20	0	27	26	0	53	0	114
10:15PM	21	2	0	23	0	12	8	0	20	0	29	18	0	47	0	90
10:30PM	14	11	0	25	0	10	6	0	16	0	31	24	0	55	0	96
10:45PM	16	13	0	29	0	11	5	0	16	0	26	20	0	46	0	91

Leg Direction	Dacy Ln Southbound					Dacy Ln Northbound					Kyle Pkwy Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
Hourly Total	78	40	0	118	0	44	28	0	72	0	113	88	0	201	0	391
11:00PM	10	10	0	20	0	13	2	0	15	0	19	5	0	24	0	59
11:15PM	8	7	0	15	0	9	1	0	10	0	18	10	0	28	0	53
11:30PM	5	1	0	6	0	1	5	0	6	0	17	6	0	23	0	35
11:45PM	13	3	0	16	0	4	0	0	4	0	5	9	0	14	0	34
Hourly Total	36	21	0	57	0	27	8	0	35	0	59	30	0	89	0	181
Total	3959	1995	0	5954	0	2188	2363	0	4551	1	3388	2088	1	5477	2	15982
% Approach	66.5%	33.5%	0%	-	-	48.1%	51.9%	0%	-	-	61.9%	38.1%	0%	-	-	-
% Total	24.8%	12.5%	0%	37.3%	-	13.7%	14.8%	0%	28.5%	-	21.2%	13.1%	0%	34.3%	-	-
Lights	3898	1935	0	5833	-	2115	2295	0	4410	-	3312	2076	1	5389	-	15632
% Lights	98.5%	97.0%	0%	98.0%	-	96.7%	97.1%	0%	96.9%	-	97.8%	99.4%	100%	98.4%	-	97.8%
Articulated Trucks	30	9	0	39	-	13	45	0	58	-	47	4	0	51	-	148
% Articulated Trucks	0.8%	0.5%	0%	0.7%	-	0.6%	1.9%	0%	1.3%	-	1.4%	0.2%	0%	0.9%	-	0.9%
Buses and Single-Unit Trucks	31	51	0	82	-	60	23	0	83	-	29	8	0	37	-	202
% Buses and Single-Unit Trucks	0.8%	2.6%	0%	1.4%	-	2.7%	1.0%	0%	1.8%	-	0.9%	0.4%	0%	0.7%	-	1.3%
Pedestrians	-	-	-	-	0	-	-	-	-	1	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	100%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Dacy Ln at Kyle Pkwy - TMC

Tue Jun 7, 2022

Full Length (12 AM-12 AM (+1))

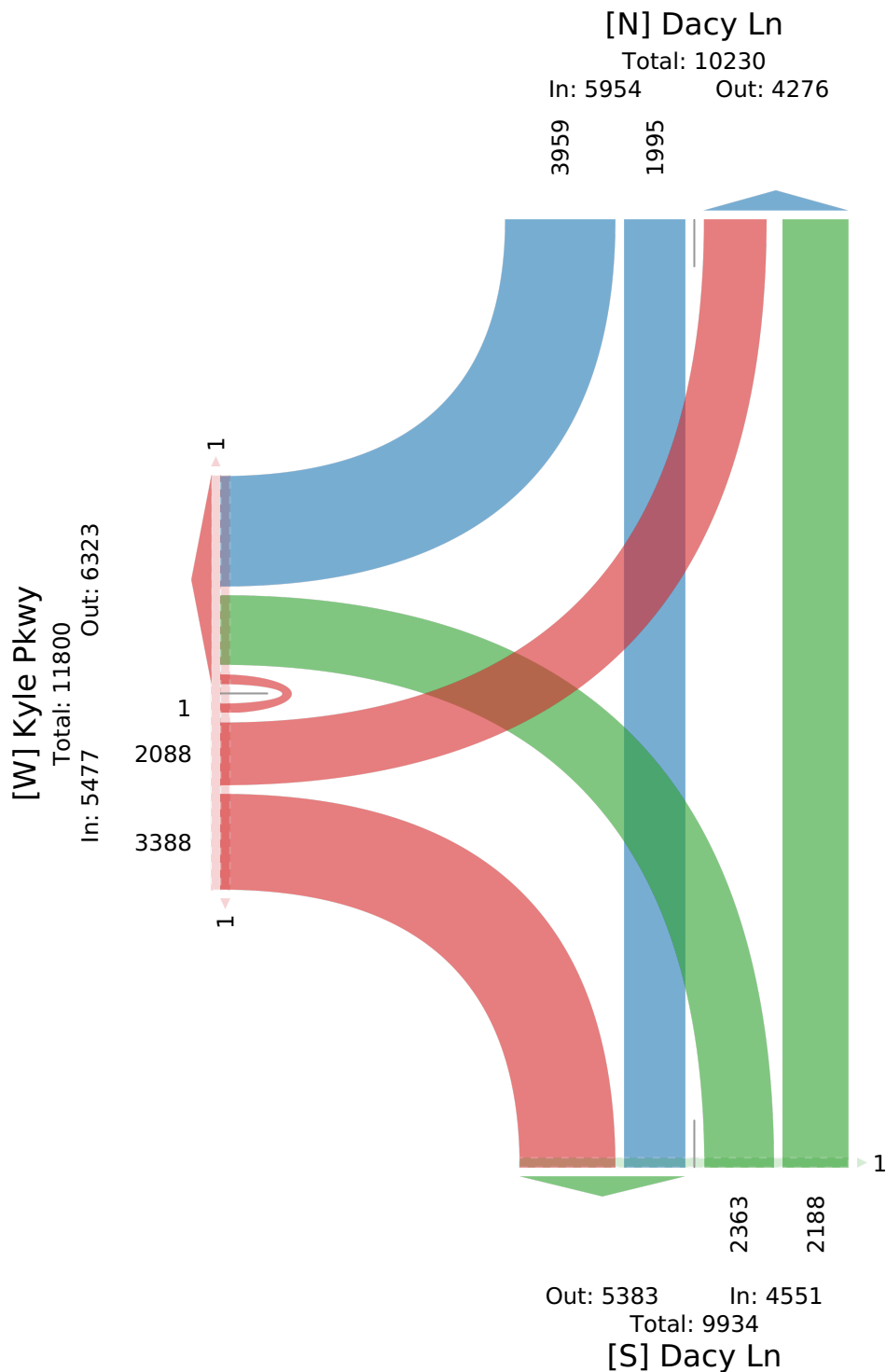
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians)

All Movements

ID: 960752, Location: 30.005613, -97.853568



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave., Pasadena, TX, 77503, US



Dacy Ln at Kyle Pkwy - TMC

Tue Jun 7, 2022

AM Peak (Jun 07 2022 7:15AM - 8:15 AM)

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

All Movements

ID: 960752, Location: 30.005613, -97.853568



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave., Pasadena, TX, 77503, US

Leg Direction	Dacy Ln Southbound					Dacy Ln Northbound					Kyle Pkwy Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2022-06-07 7:15AM	66	35	0	101	0	37	55	0	92	0	25	13	0	38	0	231
7:30AM	84	48	0	132	0	45	51	0	96	0	18	13	0	31	0	259
7:45AM	85	39	0	124	0	44	65	0	109	0	26	16	0	42	0	275
8:00AM	75	23	0	98	0	38	44	0	82	0	33	29	0	62	0	242
Total	310	145	0	455	0	164	215	0	379	0	102	71	0	173	0	1007
% Approach	68.1%	31.9%	0%	-	-	43.3%	56.7%	0%	-	-	59.0%	41.0%	0%	-	-	-
% Total	30.8%	14.4%	0%	45.2%	-	16.3%	21.4%	0%	37.6%	-	10.1%	7.1%	0%	17.2%	-	-
PHF	0.912	0.755	-	0.862	-	0.911	0.827	-	0.869	-	0.773	0.612	-	0.698	-	0.915
Lights	305	141	0	446	-	158	211	0	369	-	95	68	0	163	-	978
% Lights	98.4%	97.2%	0%	98.0%	-	96.3%	98.1%	0%	97.4%	-	93.1%	95.8%	0%	94.2%	-	97.1%
Articulated Trucks	1	0	0	1	-	0	2	0	2	-	7	1	0	8	-	11
% Articulated Trucks	0.3%	0%	0%	0.2%	-	0%	0.9%	0%	0.5%	-	6.9%	1.4%	0%	4.6%	-	1.1%
Buses and Single-Unit Trucks	4	4	0	8	-	6	2	0	8	-	0	2	0	2	-	18
% Buses and Single-Unit Trucks	1.3%	2.8%	0%	1.8%	-	3.7%	0.9%	0%	2.1%	-	0%	2.8%	0%	1.2%	-	1.8%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Dacy Ln at Kyle Pkwy - TMC

Tue Jun 7, 2022

AM Peak (Jun 07 2022 7:15AM - 8:15 AM)

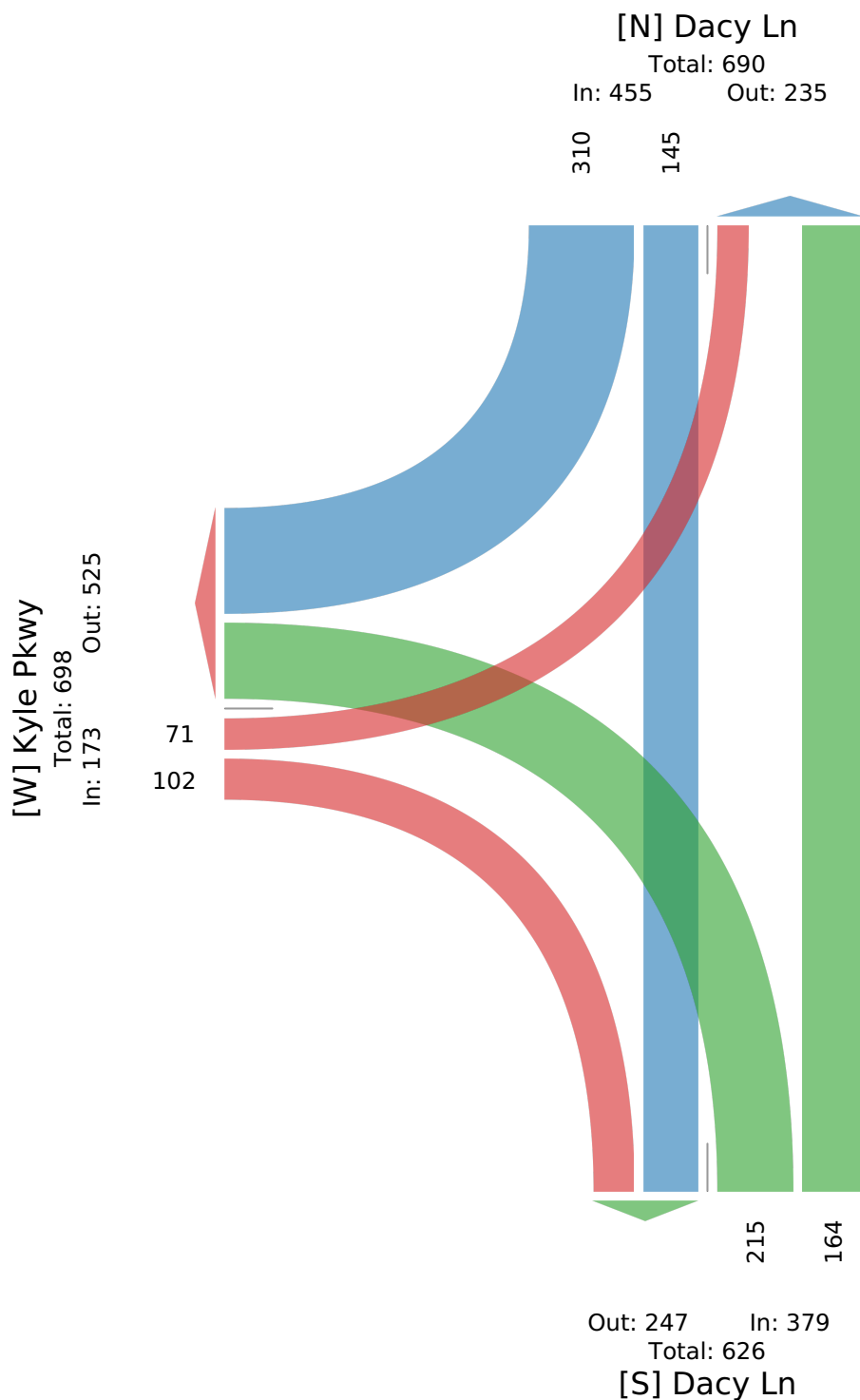
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians)

All Movements

ID: 960752, Location: 30.005613, -97.853568



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave., Pasadena, TX, 77503, US



Dacy Ln at Kyle Pkwy - TMC

Tue Jun 7, 2022

Midday Peak (Jun 07 2022 12PM - 1 PM)

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

All Movements

ID: 960752, Location: 30.005613, -97.853568



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave., Pasadena, TX, 77503, US

Leg Direction	Dacy Ln Southbound						Dacy Ln Northbound						Kyle Pkwy Eastbound						
Time	R	T	U	App	Ped*		T	L	U	App	Ped*		R	L	U	App	Ped*	Int	
2022-06-07 12:00PM	65	28	0	93	0		36	36	0	72	0		53	37	1	91	0	256	
12:15PM	64	32	0	96	0		29	35	0	64	0		63	47	0	110	0	270	
12:30PM	70	24	0	94	0		51	29	0	80	0		48	26	0	74	0	248	
12:45PM	59	29	0	88	0		41	36	0	77	0		53	32	0	85	0	250	
Total	258	113	0	371	0		157	136	0	293	0		217	142	1	360	0	1024	
% Approach	69.5%	30.5%	0%	-	-		53.6%	46.4%	0%	-	-		60.3%	39.4%	0.3%	-	-	-	
% Total	25.2%	11.0%	0%	36.2%	-		15.3%	13.3%	0%	28.6%	-		21.2%	13.9%	0.1%	35.2%	-	-	
PHF	0.921	0.883	-	0.966	-		0.770	0.944	-	0.916	-		0.861	0.755	0.250	0.818	-	0.948	
Lights	257	112	0	369	-		147	131	0	278	-		207	141	1	349	-	996	
% Lights	99.6%	99.1%	0%	99.5%	-		93.6%	96.3%	0%	94.9%	-		95.4%	99.3%	100%	96.9%	-	97.3%	
Articulated Trucks	0	0	0	0	-		1	4	0	5	-		6	1	0	7	-	12	
% Articulated Trucks	0%	0%	0%	0%	-		0.6%	2.9%	0%	1.7%	-		2.8%	0.7%	0%	1.9%	-	1.2%	
Buses and Single-Unit Trucks	1	1	0	2	-		9	1	0	10	-		4	0	0	4	-	16	
% Buses and Single-Unit Trucks	0.4%	0.9%	0%	0.5%	-		5.7%	0.7%	0%	3.4%	-		1.8%	0%	0%	1.1%	-	1.6%	
Pedestrians	-	-	-	-	0		-	-	-	-	0		-	-	-	-	0		
% Pedestrians	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Dacy Ln at Kyle Pkwy - TMC

Tue Jun 7, 2022

Midday Peak (Jun 07 2022 12PM - 1 PM)

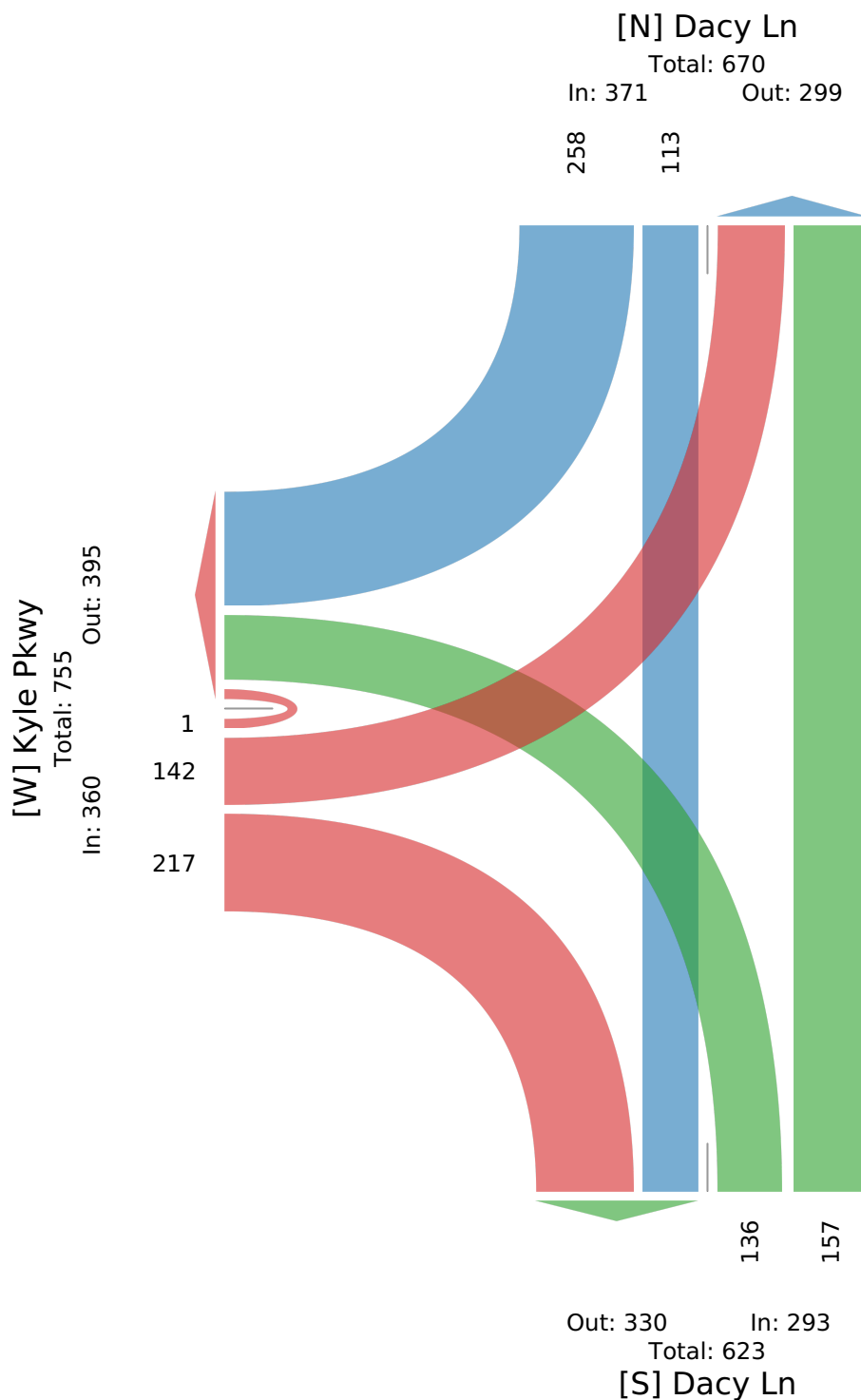
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians)

All Movements

ID: 960752, Location: 30.005613, -97.853568



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave., Pasadena, TX, 77503, US



Dacy Ln at Kyle Pkwy - TMC

Tue Jun 7, 2022

PM Peak (Jun 07 2022 5:15PM - 6:15 PM) - Overall Peak Hour

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

All Movements

ID: 960752, Location: 30.005613, -97.853568



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave., Pasadena, TX, 77503, US

Leg Direction	Dacy Ln Southbound					Dacy Ln Northbound					Kyle Pkwy Eastbound					
Time	R	T	U	App	Ped*	T	L	U	App	Ped*	R	L	U	App	Ped*	Int
2022-06-07 5:15PM	63	38	0	101	0	51	38	0	89	0	71	34	0	105	0	295
5:30PM	65	40	0	105	0	55	35	0	90	0	99	49	0	148	0	343
5:45PM	53	43	0	96	0	42	42	0	84	0	67	37	0	104	0	284
6:00PM	62	49	0	111	0	40	37	0	77	0	78	46	0	124	0	312
Total	243	170	0	413	0	188	152	0	340	0	315	166	0	481	0	1234
% Approach	58.8%	41.2%	0%	-	-	55.3%	44.7%	0%	-	-	65.5%	34.5%	0%	-	-	-
% Total	19.7%	13.8%	0%	33.5%	-	15.2%	12.3%	0%	27.6%	-	25.5%	13.5%	0%	39.0%	-	-
PHF	0.935	0.867	-	0.930	-	0.855	0.905	-	0.944	-	0.795	0.847	-	0.813	-	0.899
Lights	239	168	0	407	-	185	151	0	336	-	315	166	0	481	-	1224
% Lights	98.4%	98.8%	0%	98.5%	-	98.4%	99.3%	0%	98.8%	-	100%	100%	0%	100%	-	99.2%
Articulated Trucks	2	0	0	2	-	1	0	0	1	-	0	0	0	0	-	3
% Articulated Trucks	0.8%	0%	0%	0.5%	-	0.5%	0%	0%	0.3%	-	0%	0%	0%	0%	-	0.2%
Buses and Single-Unit Trucks	2	2	0	4	-	2	1	0	3	-	0	0	0	0	-	7
% Buses and Single-Unit Trucks	0.8%	1.2%	0%	1.0%	-	1.1%	0.7%	0%	0.9%	-	0%	0%	0%	0%	-	0.6%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Dacy Ln at Kyle Pkwy - TMC

Tue Jun 7, 2022

PM Peak (Jun 07 2022 5:15PM - 6:15 PM) - Overall Peak Hour

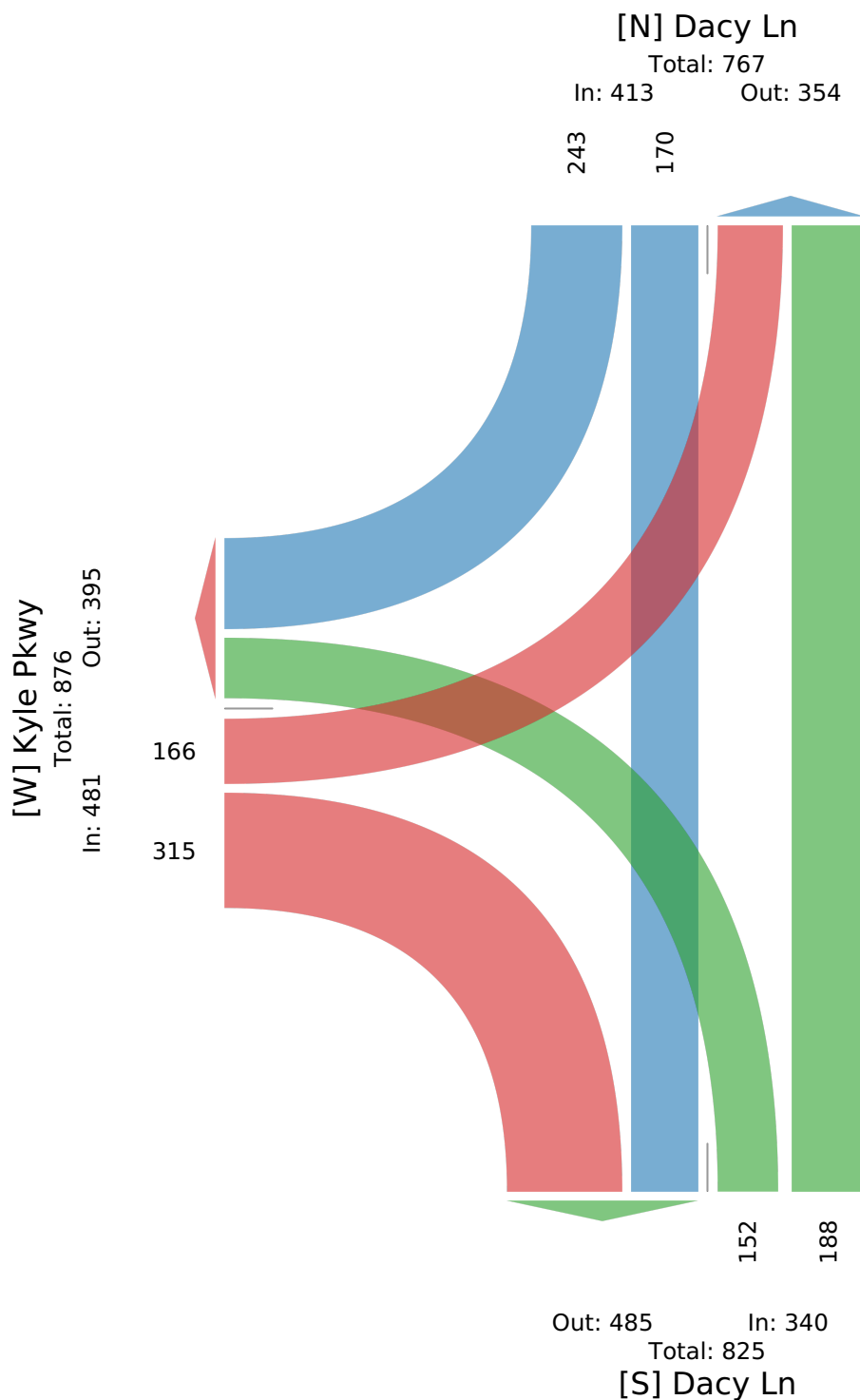
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians)

All Movements

ID: 960752, Location: 30.005613, -97.853568



Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave., Pasadena, TX, 77503, US



Lehman at Bunton Creek - TMC

Tue Sep 27, 2022

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 993665, Location: 29.998038, -97.850499



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Bunton Creek Westbound					Lehman Rd Northbound					Bunton Creek Rd Eastbound					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
2022-09-27 12:00AM	8	0	0	8	0	2	0	0	2	0	5	13	0	18	0	28
12:15AM	7	0	0	7	0	1	0	0	1	0	5	16	0	21	0	29
12:30AM	7	1	0	8	0	0	2	0	2	0	0	14	0	14	0	24
12:45AM	3	1	0	4	0	2	0	0	2	0	0	6	0	6	0	12
Hourly Total	25	2	0	27	0	5	2	0	7	0	10	49	0	59	0	93
1:00AM	4	1	0	5	0	0	2	0	2	0	0	12	0	12	0	19
1:15AM	2	1	0	3	0	1	0	0	1	0	0	8	0	8	0	12
1:30AM	2	0	0	2	0	0	0	0	0	0	0	10	0	10	0	12
1:45AM	7	1	0	8	0	2	0	0	2	0	0	4	0	4	0	14
Hourly Total	15	3	0	18	0	3	2	0	5	0	0	34	0	34	0	57
2:00AM	4	1	1	6	0	2	1	0	3	0	1	11	0	12	0	21
2:15AM	4	0	0	4	0	1	0	0	1	0	0	2	0	2	0	7
2:30AM	7	2	0	9	0	2	1	0	3	0	0	4	0	4	0	16
2:45AM	4	2	0	6	0	0	0	0	0	0	1	1	0	2	0	8
Hourly Total	19	5	1	25	0	5	2	0	7	0	2	18	0	20	0	52
3:00AM	4	1	0	5	0	2	1	0	3	0	1	3	0	4	0	12
3:15AM	4	0	0	4	0	1	0	0	1	0	1	1	0	2	0	7
3:30AM	10	0	0	10	0	0	1	0	1	0	1	6	0	7	0	18
3:45AM	6	0	0	6	0	0	0	0	0	0	2	1	0	3	0	9
Hourly Total	24	1	0	25	0	3	2	0	5	0	5	11	0	16	0	46
4:00AM	7	1	0	8	0	1	1	0	2	0	0	6	0	6	0	16
4:15AM	18	0	0	18	0	1	1	0	2	0	3	2	0	5	0	25
4:30AM	34	2	0	36	0	6	3	0	9	0	1	10	0	11	0	56
4:45AM	39	6	0	45	0	3	2	0	5	0	3	3	0	6	0	56
Hourly Total	98	9	0	107	0	11	7	0	18	0	7	21	0	28	0	153
5:00AM	51	5	0	56	0	5	3	0	8	0	2	8	0	10	0	74
5:15AM	68	5	0	73	0	3	8	0	11	0	3	14	0	17	0	101
5:30AM	55	10	0	65	0	5	12	0	17	0	5	3	0	8	0	90
5:45AM	111	26	0	137	0	4	11	0	15	0	10	10	0	20	0	172
Hourly Total	285	46	0	331	0	17	34	0	51	0	20	35	0	55	0	437
6:00AM	121	16	0	137	0	8	20	0	28	1	11	17	0	28	0	193
6:15AM	131	18	0	149	0	7	18	0	25	1	5	24	0	29	0	203
6:30AM	137	23	0	160	0	13	22	0	35	0	11	23	0	34	0	229
6:45AM	110	40	0	150	0	16	46	0	62	0	15	23	0	38	0	250
Hourly Total	499	97	0	596	0	44	106	0	150	2	42	87	0	129	0	875
7:00AM	105	32	0	137	0	21	77	0	98	0	15	26	0	41	0	276
7:15AM	91	35	0	126	0	40	87	0	127	0	18	62	0	80	0	333
7:30AM	82	42	0	124	0	46	79	0	125	0	18	65	0	83	0	332
7:45AM	98	35	0	133	0	46	50	0	96	1	17	63	0	80	0	309
Hourly Total	376	144	0	520	0	153	293	0	446	1	68	216	0	284	0	1250
8:00AM	85	38	0	123	0	42	50	0	92	0	36	78	0	114	0	329
8:15AM	58	54	0	112	0	33	57	0	90	3	66	45	0	111	0	313
8:30AM	78	46	0	124	0	33	57	0	90	0	45	53	0	98	0	312
8:45AM	82	39	0	121	0	29	18	0	47	1	15	46	0	61	0	229
Hourly Total	303	177	0	480	0	137	182	0	319	4	162	222	0	384	0	1183
9:00AM	83	21	0	104	0	18	13	0	31	0	20	52	0	72	0	207
9:15AM	82	25	0	107	0	14	12	0	26	0	13	47	0	60	0	193
9:30AM	60	17	0	77	0	15	16	0	31	0	16	47	0	63	0	171
9:45AM	74	31	0	105	0	14	12	0	26	0	13	59	0	72	0	203
Hourly Total	299	94	0	393	0	61	53	0	114	0	62	205	0	267	0	774
10:00AM	69	24	0	93	0	8	14	0	22	1	12	51	0	63	0	178
10:15AM	68	13	0	81	0	15	18	0	33	0	20	39	0	59	0	173

Leg Direction	Bunton Creek Westbound					Lehman Rd Northbound					Bunton Creek Rd Eastbound					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
10:30AM	64	16	0	80	0	17	16	0	33	0	20	43	0	63	0	176
10:45AM	69	20	0	89	0	14	11	0	25	0	20	72	0	92	0	206
Hourly Total	270	73	0	343	0	54	59	0	113	1	72	205	0	277	0	733
11:00AM	71	13	0	84	0	24	15	0	39	1	16	53	0	69	0	192
11:15AM	67	13	0	80	0	16	12	0	28	0	15	52	0	67	0	175
11:30AM	63	19	0	82	0	18	15	0	33	0	20	62	0	82	0	197
11:45AM	67	13	0	80	0	21	15	0	36	0	18	80	0	98	0	214
Hourly Total	268	58	0	326	0	79	57	0	136	1	69	247	0	316	0	778
12:00PM	57	19	0	76	0	11	12	0	23	0	22	49	0	71	0	170
12:15PM	70	16	0	86	0	27	22	0	49	0	22	76	0	98	0	233
12:30PM	77	15	0	92	0	22	20	0	42	0	17	70	0	87	0	221
12:45PM	68	15	0	83	0	32	15	0	47	0	18	55	0	73	0	203
Hourly Total	272	65	0	337	0	92	69	0	161	0	79	250	0	329	0	827
1:00PM	70	13	0	83	0	29	17	0	46	0	12	76	0	88	0	217
1:15PM	70	18	0	88	0	25	17	0	42	0	22	66	0	88	0	218
1:30PM	71	18	0	89	0	12	17	0	29	0	16	84	0	100	0	218
1:45PM	55	18	0	73	0	23	16	0	39	0	25	73	0	98	0	210
Hourly Total	266	67	0	333	0	89	67	0	156	0	75	299	0	374	0	863
2:00PM	54	21	0	75	0	18	19	0	37	0	32	70	0	102	0	214
2:15PM	80	18	0	98	0	33	13	0	46	0	22	75	0	97	0	241
2:30PM	75	25	0	100	0	24	23	0	47	1	24	85	0	109	0	256
2:45PM	100	30	0	130	0	35	25	0	60	0	17	64	0	81	0	271
Hourly Total	309	94	0	403	0	110	80	0	190	1	95	294	0	389	0	982
3:00PM	79	23	0	102	0	34	23	0	57	0	23	105	0	128	0	287
3:15PM	51	22	0	73	0	29	19	0	48	0	29	108	0	137	0	258
3:30PM	74	22	0	96	0	35	17	0	52	0	25	90	0	115	0	263
3:45PM	77	23	0	100	0	61	18	0	79	0	10	107	0	117	0	296
Hourly Total	281	90	0	371	0	159	77	0	236	0	87	410	0	497	0	1104
4:00PM	66	37	0	103	0	53	17	0	70	0	24	101	0	125	0	298
4:15PM	67	27	0	94	0	92	70	0	162	8	11	76	0	87	0	343
4:30PM	66	28	0	94	0	81	19	0	100	0	13	107	0	120	0	314
4:45PM	74	33	0	107	0	66	26	0	92	0	11	111	0	122	0	321
Hourly Total	273	125	0	398	0	292	132	0	424	8	59	395	0	454	0	1276
5:00PM	73	40	0	113	0	71	24	0	95	0	10	98	0	108	0	316
5:15PM	79	45	0	124	0	72	27	0	99	0	11	103	0	114	0	337
5:30PM	82	47	0	129	0	86	25	0	111	0	15	100	0	115	0	355
5:45PM	91	31	0	122	0	100	33	0	133	0	12	95	0	107	0	362
Hourly Total	325	163	0	488	0	329	109	0	438	0	48	396	0	444	0	1370
6:00PM	78	38	0	116	0	101	29	0	130	0	11	97	0	108	0	354
6:15PM	79	24	0	103	0	85	21	0	106	0	11	107	0	118	0	327
6:30PM	86	37	0	123	0	69	24	0	93	0	15	100	0	115	0	331
6:45PM	75	20	0	95	0	68	18	0	86	0	17	107	0	124	0	305
Hourly Total	318	119	0	437	0	323	92	0	415	0	54	411	0	465	0	1317
7:00PM	62	33	0	95	0	47	14	0	61	0	17	104	0	121	0	277
7:15PM	74	29	0	103	0	40	20	0	60	0	21	107	0	128	0	291
7:30PM	75	29	0	104	0	52	54	0	106	0	14	96	0	110	0	320
7:45PM	51	16	0	67	0	43	34	0	77	0	15	107	0	122	0	266
Hourly Total	262	107	0	369	0	182	122	0	304	0	67	414	0	481	0	1154
8:00PM	59	28	0	87	0	35	19	0	54	0	15	88	0	103	0	244
8:15PM	59	16	0	75	0	24	9	0	33	0	19	104	0	123	0	231
8:30PM	53	11	0	64	0	17	11	0	28	0	13	80	0	93	0	185
8:45PM	35	11	0	46	0	29	17	0	46	0	19	68	0	87	0	179
Hourly Total	206	66	0	272	0	105	56	0	161	0	66	340	0	406	0	839
9:00PM	35	10	0	45	0	16	8	0	24	0	17	69	0	86	0	155
9:15PM	20	5	0	25	0	17	5	0	22	0	9	73	0	82	0	129
9:30PM	29	5	0	34	0	10	8	0	18	0	11	38	0	49	0	101
9:45PM	23	11	0	34	0	14	7	0	21	1	19	44	0	63	0	118
Hourly Total	107	31	0	138	0	57	28	0	85	1	56	224	0	280	0	503
10:00PM	16	2	0	18	0	20	15	0	35	0	11	37	0	48	0	101
10:15PM	16	4	0	20	0	8	7	0	15	0	9	33	0	42	0	77

Leg Direction	Bunton Creek Westbound					Lehman Rd Northbound					Bunton Creek Rd Eastbound					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
10:30PM	20	2	0	22	0	4	3	0	7	0	5	40	0	45	0	74
10:45PM	12	2	0	14	0	5	1	0	6	0	3	30	0	33	0	53
Hourly Total	64	10	0	74	0	37	26	0	63	0	28	140	0	168	0	305
11:00PM	12	6	0	18	0	4	0	0	4	0	5	24	0	29	0	51
11:15PM	11	1	0	12	0	2	4	0	6	0	7	21	0	28	0	46
11:30PM	9	2	0	11	0	2	4	0	6	0	0	20	0	20	0	37
11:45PM	3	3	0	6	0	1	1	0	2	0	4	24	0	28	0	36
Hourly Total	35	12	0	47	0	9	9	0	18	0	16	89	0	105	0	170
Total	5199	1658	1	6858	0	2356	1666	0	4022	19	1249	5012	0	6261	0	17141
% Approach	75.8%	24.2%	0%	-	-	58.6%	41.4%	0%	-	-	19.9%	80.1%	0%	-	-	-
% Total	30.3%	9.7%	0%	40.0%	-	13.7%	9.7%	0%	23.5%	-	7.3%	29.2%	0%	36.5%	-	-
Lights	5119	1614	1	6734	-	2281	1628	0	3909	-	1222	4921	0	6143	-	16786
% Lights	98.5%	97.3%	100%	98.2%	-	96.8%	97.7%	0%	97.2%	-	97.8%	98.2%	0%	98.1%	-	97.9%
Articulated Trucks	21	5	0	26	-	6	10	0	16	-	7	11	0	18	-	60
% Articulated Trucks	0.4%	0.3%	0%	0.4%	-	0.3%	0.6%	0%	0.4%	-	0.6%	0.2%	0%	0.3%	-	0.4%
Buses and Single-Unit Trucks	59	39	0	98	-	69	28	0	97	-	20	80	0	100	-	295
% Buses and Single-Unit Trucks	1.1%	2.4%	0%	1.4%	-	2.9%	1.7%	0%	2.4%	-	1.6%	1.6%	0%	1.6%	-	1.7%
Pedestrians	-	-	-	-	0	-	-	-	-	18	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	94.7%	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	1	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	5.3%	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Lehman at Bunton Creek - TMC

Tue Sep 27, 2022

Full Length (12 AM-12 AM (+1))

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

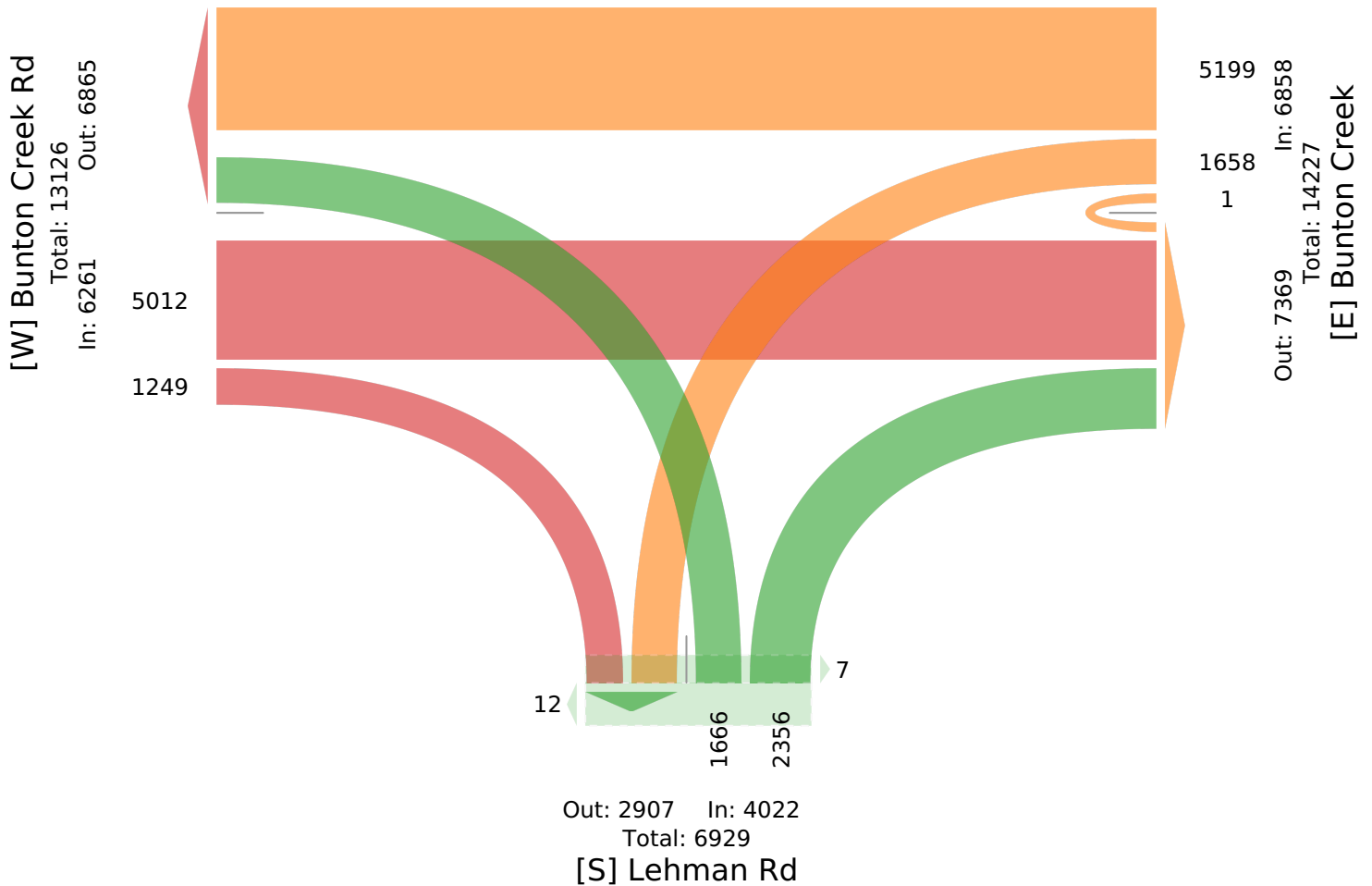
All Movements

ID: 993665, Location: 29.998038, -97.850499



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Lehman at Bunton Creek - TMC

Tue Sep 27, 2022

AM Peak (Sep 27 2022 7:15AM - 8:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 993665, Location: 29.998038, -97.850499



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Bunton Creek Westbound					Lehman Rd Northbound					Bunton Creek Rd Eastbound					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
2022-09-27 7:15AM	91	35	0	126	0	40	87	0	127	0	18	62	0	80	0	333
7:30AM	82	42	0	124	0	46	79	0	125	0	18	65	0	83	0	332
7:45AM	98	35	0	133	0	46	50	0	96	1	17	63	0	80	0	309
8:00AM	85	38	0	123	0	42	50	0	92	0	36	78	0	114	0	329
Total	356	150	0	506	0	174	266	0	440	1	89	268	0	357	0	1303
% Approach	70.4%	29.6%	0%	-	-	39.5%	60.5%	0%	-	-	24.9%	75.1%	0%	-	-	-
% Total	27.3%	11.5%	0%	38.8%	-	13.4%	20.4%	0%	33.8%	-	6.8%	20.6%	0%	27.4%	-	-
PHF	0.908	0.893	-	0.951	-	0.946	0.764	-	0.866	-	0.618	0.859	-	0.783	-	0.978
Lights	354	145	0	499	-	169	262	0	431	-	89	263	0	352	-	1282
% Lights	99.4%	96.7%	0%	98.6%	-	97.1%	98.5%	0%	98.0%	-	100%	98.1%	0%	98.6%	-	98.4%
Articulated Trucks	0	0	0	0	-	0	2	0	2	-	0	0	0	0	-	2
% Articulated Trucks	0%	0%	0%	0%	-	0%	0.8%	0%	0.5%	-	0%	0%	0%	0%	-	0.2%
Buses and Single-Unit Trucks	2	5	0	7	-	5	2	0	7	-	0	5	0	5	-	19
% Buses and Single-Unit Trucks	0.6%	3.3%	0%	1.4%	-	2.9%	0.8%	0%	1.6%	-	0%	1.9%	0%	1.4%	-	1.5%
Pedestrians	-	-	-	-	0	-	-	-	-	1	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Lehman at Bunton Creek - TMC

Tue Sep 27, 2022

AM Peak (Sep 27 2022 7:15AM - 8:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

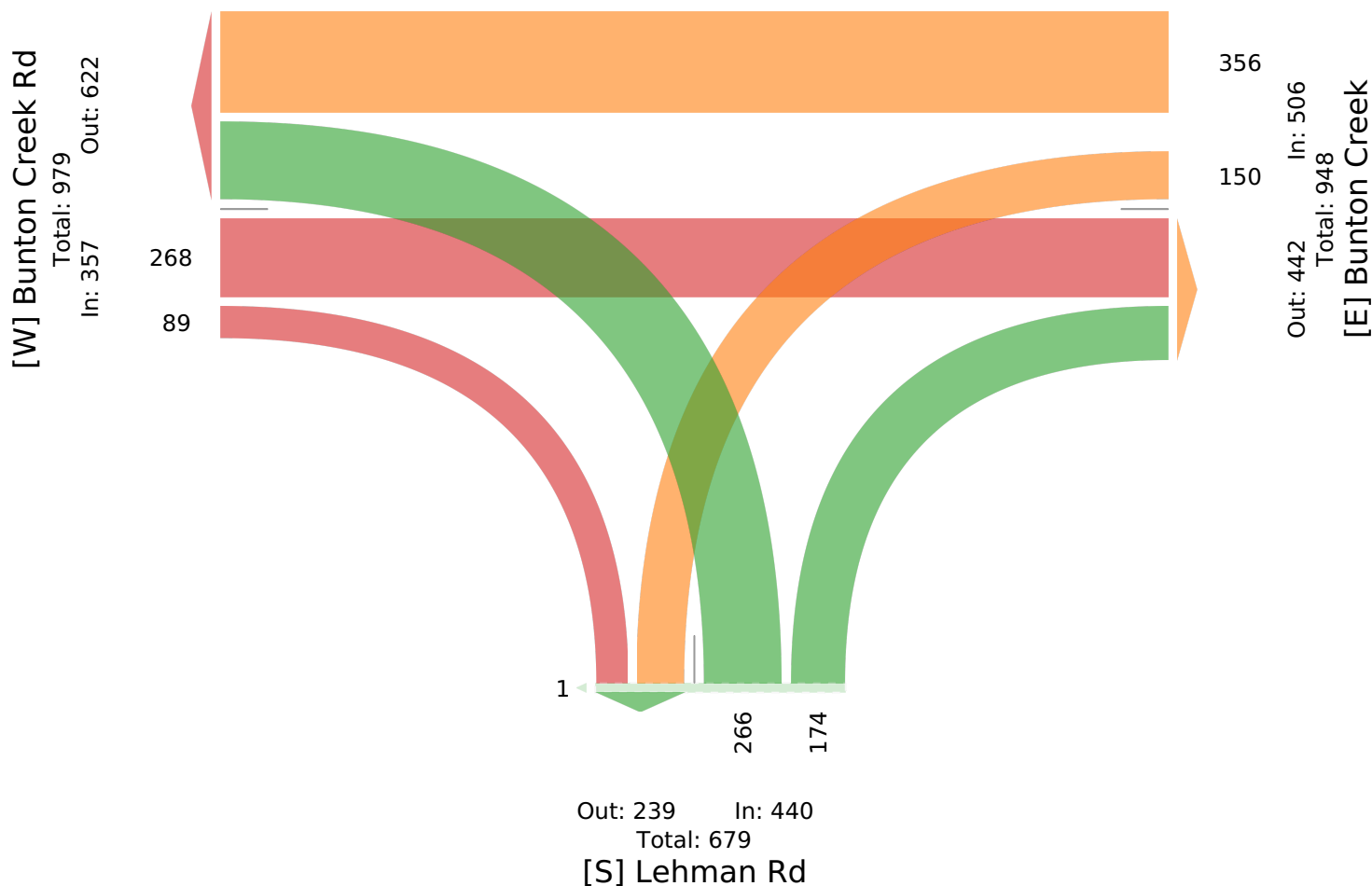
All Movements

ID: 993665, Location: 29.998038, -97.850499



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Lehman at Bunton Creek - TMC

Tue Sep 27, 2022

Midday Peak (Sep 27 2022 12:15PM - 1:15 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 993665, Location: 29.998038, -97.850499



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Bunton Creek Westbound					Lehman Rd Northbound					Bunton Creek Rd Eastbound					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
2022-09-27 12:15PM	70	16	0	86	0	27	22	0	49	0	22	76	0	98	0	233
12:30PM	77	15	0	92	0	22	20	0	42	0	17	70	0	87	0	221
12:45PM	68	15	0	83	0	32	15	0	47	0	18	55	0	73	0	203
1:00PM	70	13	0	83	0	29	17	0	46	0	12	76	0	88	0	217
Total	285	59	0	344	0	110	74	0	184	0	69	277	0	346	0	874
% Approach	82.8%	17.2%	0%	-	-	59.8%	40.2%	0%	-	-	19.9%	80.1%	0%	-	-	-
% Total	32.6%	6.8%	0%	39.4%	-	12.6%	8.5%	0%	21.1%	-	7.9%	31.7%	0%	39.6%	-	-
PHF	0.925	0.922	-	0.935	-	0.859	0.841	-	0.939	-	0.784	0.911	-	0.883	-	0.938
Lights	282	57	0	339	-	106	71	0	177	-	66	265	0	331	-	847
% Lights	98.9%	96.6%	0%	98.5%	-	96.4%	95.9%	0%	96.2%	-	95.7%	95.7%	0%	95.7%	-	96.9%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	1	0	1	-	1
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0.4%	0%	0.3%	-	0.1%
Buses and Single-Unit Trucks	3	2	0	5	-	4	3	0	7	-	3	11	0	14	-	26
% Buses and Single-Unit Trucks	1.1%	3.4%	0%	1.5%	-	3.6%	4.1%	0%	3.8%	-	4.3%	4.0%	0%	4.0%	-	3.0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Lehman at Bunton Creek - TMC

Tue Sep 27, 2022

Midday Peak (Sep 27 2022 12:15PM - 1:15 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

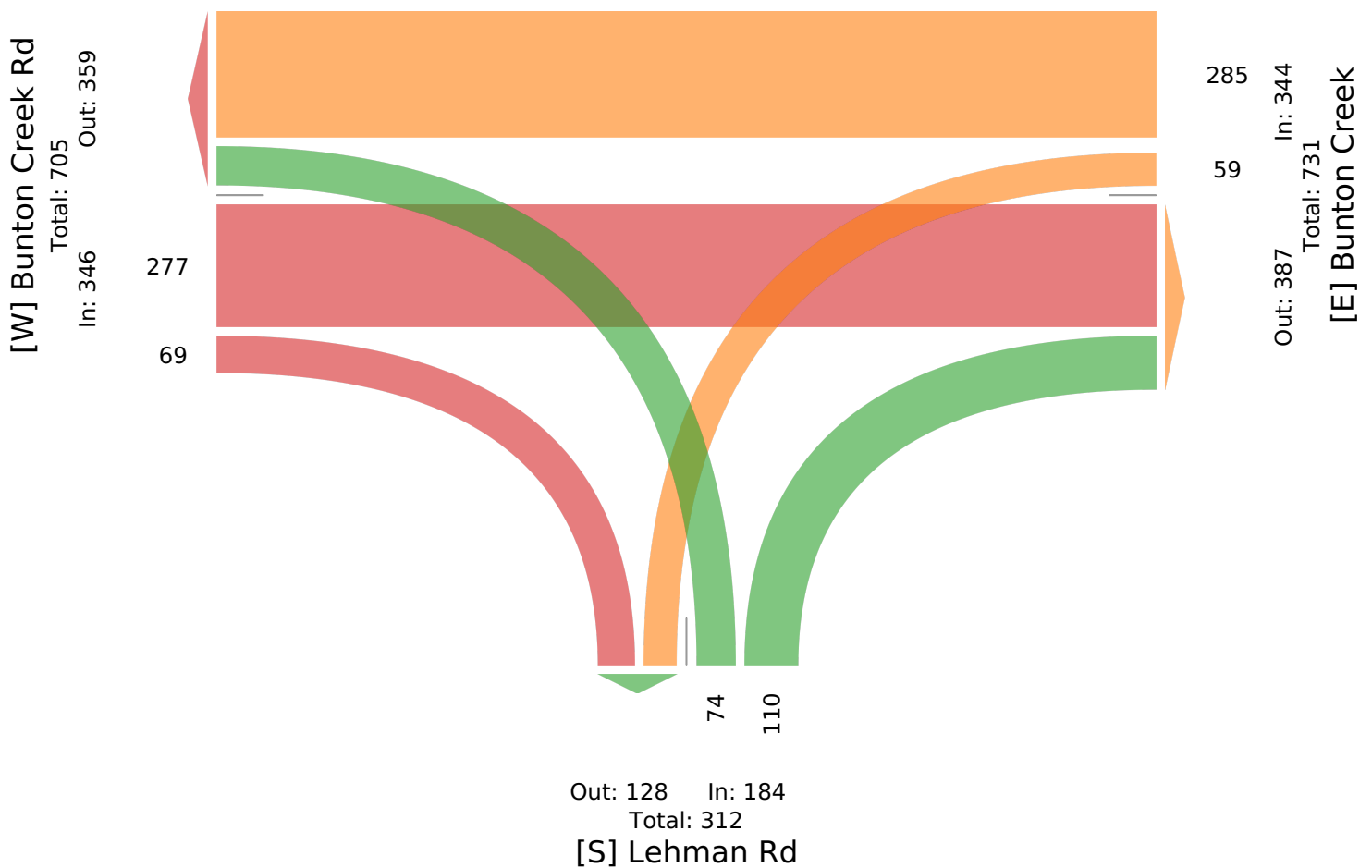
All Movements

ID: 993665, Location: 29.998038, -97.850499



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Lehman at Bunton Creek - TMC

Tue Sep 27, 2022

PM Peak (Sep 27 2022 5:15PM - 6:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

All Movements

ID: 993665, Location: 29.998038, -97.850499



Provided by: C. J. Hensch & Associates Inc.

5215 Sycamore Ave.,
Pasadena, TX, 77503, US

Leg Direction	Bunton Creek Westbound					Lehman Rd Northbound					Bunton Creek Rd Eastbound					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
2022-09-27 5:15PM	79	45	0	124	0	72	27	0	99	0	11	103	0	114	0	337
5:30PM	82	47	0	129	0	86	25	0	111	0	15	100	0	115	0	355
5:45PM	91	31	0	122	0	100	33	0	133	0	12	95	0	107	0	362
6:00PM	78	38	0	116	0	101	29	0	130	0	11	97	0	108	0	354
Total	330	161	0	491	0	359	114	0	473	0	49	395	0	444	0	1408
% Approach	67.2%	32.8%	0%	-	-	75.9%	24.1%	0%	-	-	11.0%	89.0%	0%	-	-	-
% Total	23.4%	11.4%	0%	34.9%	-	25.5%	8.1%	0%	33.6%	-	3.5%	28.1%	0%	31.5%	-	-
PHF	0.907	0.856	-	0.952	-	0.889	0.864	-	0.889	-	0.817	0.959	-	0.965	-	0.972
Lights	328	159	0	487	-	356	113	0	469	-	49	392	0	441	-	1397
% Lights	99.4%	98.8%	0%	99.2%	-	99.2%	99.1%	0%	99.2%	-	100%	99.2%	0%	99.3%	-	99.2%
Articulated Trucks	0	0	0	0	-	0	0	0	0	-	0	1	0	1	-	1
% Articulated Trucks	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0.3%	0%	0.2%	-	0.1%
Buses and Single-Unit Trucks	2	2	0	4	-	3	1	0	4	-	0	2	0	2	-	10
% Buses and Single-Unit Trucks	0.6%	1.2%	0%	0.8%	-	0.8%	0.9%	0%	0.8%	-	0%	0.5%	0%	0.5%	-	0.7%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Lehman at Bunton Creek - TMC

Tue Sep 27, 2022

PM Peak (Sep 27 2022 5:15PM - 6:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)

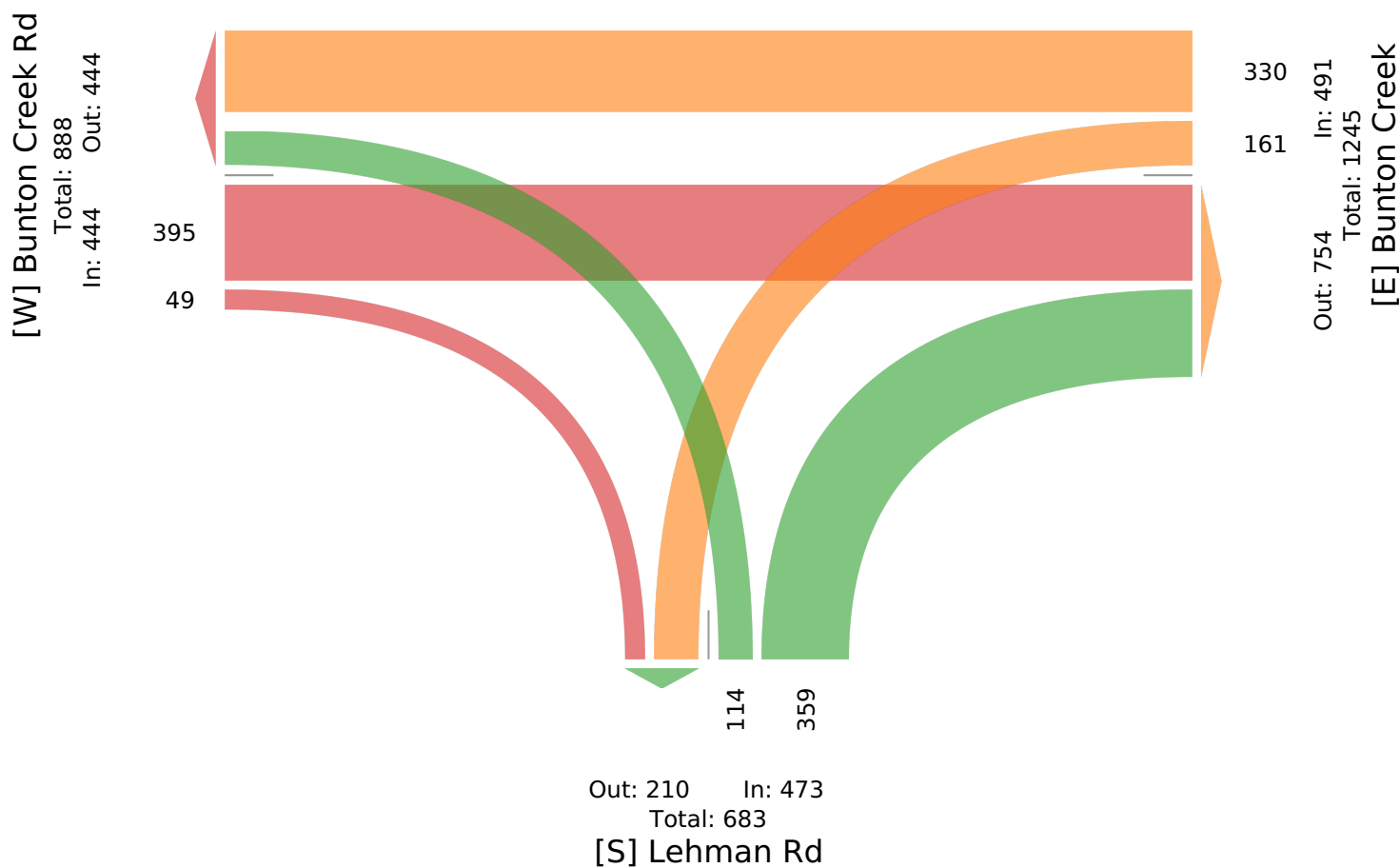
All Movements

ID: 993665, Location: 29.998038, -97.850499



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5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Attachment 3 – Synchro Reports

3: Lehman Rd & Bunton Creek Rd Performance by movement

Movement	SET	SER	NWL	NWT	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.3
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	1.4	0.7	0.6
Total Delay (hr)	3.5	1.7	19.4	41.3	2.5	0.6	69.1
Total Del/Veh (s)	35.2	34.6	334.5	332.0	23.7	11.4	139.8

5: Bunton Creek Rd & Dacy Lane Performance by movement

Movement	SEL	SET	NWT	NWR	SWL	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.5	0.1	0.0	0.0	0.2	0.1	0.1
Total Delay (hr)	1.7	0.6	12.9	14.7	2.4	0.9	33.2
Total Del/Veh (s)	20.1	11.2	113.5	145.6	25.7	11.1	62.2

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.4	0.5	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.3	0.7	0.1	0.2	2.0	0.3	0.4	1.2	0.8	0.3	1.2	0.2
Total Del/Veh (s)	16.9	14.1	8.0	15.6	16.4	13.1	22.1	23.5	12.6	23.1	25.1	8.7

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	7.7
Total Del/Veh (s)	17.2

10: Dacy Lane Performance by movement

Movement	SEL	SER	NEL	NET	SWT	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.3	0.1
Total Delay (hr)	1.1	0.1	0.3	0.1	0.1	0.3	2.0
Total Del/Veh (s)	27.1	3.4	4.4	0.8	1.6	2.0	4.4

Total Zone Performance

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.6
Total Delay (hr)	112.0
Total Del/Veh (s)	698.9

Arterial Level of Service: NW Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dacy Lane	5	113.5	135.5	0.2	6
Philomena Drive	7	17.1	29.9	0.1	14
Total		130.6	165.4	0.3	7

Arterial Level of Service: SE Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Philomena Drive	7	14.1	30.3	0.1	17
Dacy Lane	5	11.8	23.7	0.1	17
Total		25.9	54.0	0.3	17

Intersection: 3: Lehman Rd & Bunton Creek Rd

Movement	SE	NW	NE	NE
Directions Served	TR	LT	L	R
Maximum Queue (ft)	502	2210	174	312
Average Queue (ft)	189	1561	108	75
95th Queue (ft)	405	2699	177	193
Link Distance (ft)	870	4140		1934
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)			8	0
Queuing Penalty (veh)			18	0

Intersection: 5: Bunton Creek Rd & Dacy Lane

Movement	SE	SE	NW	B12	SW	SW
Directions Served	L	T	TR	T	L	R
Maximum Queue (ft)	191	151	1142	153	260	192
Average Queue (ft)	94	56	763	37	111	74
95th Queue (ft)	158	107	1298	189	210	135
Link Distance (ft)		521	1137	558	861	861
Upstream Blk Time (%)			17			
Queuing Penalty (veh)			126			
Storage Bay Dist (ft)	175					
Storage Blk Time (%)	1	0				
Queuing Penalty (veh)	2	0				

Intersection: 7: Philomena Drive & Bunton Creek Rd

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	TR	LT	TR
Maximum Queue (ft)	98	173	158	257	187	231	155	134
Average Queue (ft)	36	71	29	132	72	94	78	51
95th Queue (ft)	76	134	87	219	129	166	127	105
Link Distance (ft)		686		521	2782	2782	180	180
Upstream Blk Time (%)							0	0
Queuing Penalty (veh)							0	0
Storage Bay Dist (ft)	150		190					
Storage Blk Time (%)		1		2				
Queuing Penalty (veh)		0		1				

Intersection: 10: Dacy Lane

Movement	SE	SE	NE	SW
Directions Served	L	R	L	TR
Maximum Queue (ft)	173	77	82	26
Average Queue (ft)	66	37	37	1
95th Queue (ft)	128	58	71	14
Link Distance (ft)	218	218		504
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)			225	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 147

3: Lehman Rd & Bunton Creek Rd Performance by movement

Movement	SET	SER	NWL	NWT	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.2	0.0	0.3
Denied Del/Veh (s)	0.0	0.0	0.5	0.5	1.7	0.8	0.6
Total Delay (hr)	17.4	7.6	2.4	5.5	6.1	1.5	40.6
Total Del/Veh (s)	170.6	164.8	43.7	44.2	59.4	27.2	83.3

5: Bunton Creek Rd & Dacy Lane Performance by movement

Movement	SEL	SET	NWT	NWR	SWL	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.5	0.1	0.0	0.0	0.1	0.2	0.1
Total Delay (hr)	1.4	0.3	3.2	3.6	2.6	0.7	11.8
Total Del/Veh (s)	16.2	6.1	27.2	34.2	27.7	8.9	21.9

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.4	0.4	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.3	0.7	0.1	0.2	2.2	0.3	0.5	1.1	0.8	0.3	1.2	0.2
Total Del/Veh (s)	18.3	15.3	9.4	16.3	17.7	15.8	25.1	22.8	13.3	25.3	24.7	9.0

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	8.1
Total Del/Veh (s)	18.0

10: Dacy Lane Performance by movement

Movement	SEL	SER	NEL	NET	SWT	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.3	0.1
Total Delay (hr)	0.8	0.1	0.4	0.1	0.1	0.3	1.7
Total Del/Veh (s)	20.9	3.3	4.5	0.6	1.6	2.0	3.7

Total Zone Performance

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.6
Total Delay (hr)	62.2
Total Del/Veh (s)	419.1

Arterial Level of Service: NW Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dacy Lane	5	27.2	49.7	0.2	17
Philomena Drive	7	17.6	30.4	0.1	14
Total		44.7	80.0	0.3	15

Arterial Level of Service: SE Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Philomena Drive	7	15.3	31.4	0.1	16
Dacy Lane	5	6.9	19.0	0.1	22
Total		22.2	50.4	0.3	18

Intersection: 3: Lehman Rd & Bunton Creek Rd

Movement	SE	B13	B12	NW	NE	NE
Directions Served	TR	T	T	LT	L	R
Maximum Queue (ft)	924	269	38	550	174	633
Average Queue (ft)	708	107	9	320	160	253
95th Queue (ft)	1100	417	70	507	198	570
Link Distance (ft)	870	558	1137	4140		1934
Upstream Blk Time (%)	31	6				
Queuing Penalty (veh)	151	31				
Storage Bay Dist (ft)					150	
Storage Blk Time (%)					34	0
Queuing Penalty (veh)					67	0

Intersection: 5: Bunton Creek Rd & Dacy Lane

Movement	SE	SE	NW	SW	SW
Directions Served	L	T	TR	L	R
Maximum Queue (ft)	182	161	573	301	137
Average Queue (ft)	94	42	286	144	72
95th Queue (ft)	162	111	503	241	120
Link Distance (ft)		521	1137	861	861
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	175				
Storage Blk Time (%)	1				
Queuing Penalty (veh)	2				

Intersection: 7: Philomena Drive & Bunton Creek Rd

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	TR	LT	TR
Maximum Queue (ft)	114	179	182	322	192	288	174	144
Average Queue (ft)	33	68	33	149	72	93	82	52
95th Queue (ft)	77	128	97	266	129	181	134	102
Link Distance (ft)		686		521	2782	2782	180	180
Upstream Blk Time (%)							0	
Queuing Penalty (veh)							0	
Storage Bay Dist (ft)	150		190					
Storage Blk Time (%)		0		4				
Queuing Penalty (veh)		0		2				

Intersection: 10: Dacy Lane

Movement	SE	SE	NE
Directions Served	L	R	L
Maximum Queue (ft)	129	71	102
Average Queue (ft)	59	39	38
95th Queue (ft)	105	60	75
Link Distance (ft)	218	218	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			225
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 253

3: Lehman Rd & Bunton Creek Rd Performance by movement

Movement	SET	SER	NWL	NWT	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Denied Del/Veh (s)	0.0	0.0	0.2	0.1	1.7	0.8	0.5
Total Delay (hr)	2.7	1.0	1.3	2.7	7.2	1.9	16.8
Total Del/Veh (s)	26.6	21.1	22.8	21.5	67.7	32.6	33.9

5: Bunton Creek Rd & Dacy Lane Performance by movement

Movement	SEL	SET	NWT	NWR	SWL	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.5	0.0	0.0	0.0	0.2	0.1	0.1
Total Delay (hr)	1.1	0.3	1.2	1.4	2.6	0.5	7.1
Total Del/Veh (s)	14.3	5.5	10.2	12.7	27.3	6.6	13.3

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.2	0.7	0.0	0.2	1.6	0.2	0.4	1.1	0.6	0.3	1.2	0.1
Total Del/Veh (s)	14.9	14.2	3.1	14.2	12.8	10.0	20.5	21.9	10.1	22.9	22.9	6.5

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	6.6
Total Del/Veh (s)	15.0

10: Dacy Lane Performance by movement

Movement	SEL	SER	NEL	NET	SWT	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.3	0.1
Total Delay (hr)	0.8	0.2	0.3	0.1	0.1	0.2	1.6
Total Del/Veh (s)	20.9	3.5	4.2	0.6	1.6	1.9	3.7

Total Zone Performance

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.6
Total Delay (hr)	32.2
Total Del/Veh (s)	235.3

Arterial Level of Service: NW Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dacy Lane	5	10.2	33.0	0.2	25
Philomena Drive	7	12.5	25.4	0.1	16
Total		22.6	58.4	0.3	21

Arterial Level of Service: SE Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Philomena Drive	7	14.2	30.2	0.1	17
Dacy Lane	5	6.6	18.5	0.1	22
Total		20.8	48.6	0.3	19

Intersection: 3: Lehman Rd & Bunton Creek Rd

Movement	SE	SE	NW	NW	NW	NE	NE
Directions Served	T	TR	L	T	T	L	R
Maximum Queue (ft)	175	198	181	146	166	174	746
Average Queue (ft)	95	127	90	83	94	164	278
95th Queue (ft)	152	189	159	135	144	194	789
Link Distance (ft)	866	866		4140	4140		1916
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			200			150	
Storage Blk Time (%)			0			35	0
Queuing Penalty (veh)			0			69	0

Intersection: 5: Bunton Creek Rd & Dacy Lane

Movement	SE	SE	SE	NW	NW	SW	SW
Directions Served	L	T	T	T	TR	L	R
Maximum Queue (ft)	175	109	67	172	288	287	132
Average Queue (ft)	82	23	24	66	128	146	63
95th Queue (ft)	145	71	57	128	229	236	101
Link Distance (ft)		520	520	1134	1134	849	849
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	175						
Storage Blk Time (%)	1						
Queuing Penalty (veh)	1						

Intersection: 7: Philomena Drive & Bunton Creek Rd

Movement	SE	SE	SE	NW	NW	NW	NE	NE	SW	SW
Directions Served	L	T	TR	L	T	TR	LT	TR	LT	TR
Maximum Queue (ft)	81	140	60	77	139	152	155	186	165	110
Average Queue (ft)	29	57	16	26	55	79	66	84	86	50
95th Queue (ft)	63	110	43	59	108	131	113	139	136	96
Link Distance (ft)		686	686		520	520	2770	2770	168	168
Upstream Blk Time (%)									0	
Queuing Penalty (veh)									0	
Storage Bay Dist (ft)	150			190						
Storage Blk Time (%)		0			0					
Queuing Penalty (veh)		0			0					

Intersection: 10: Dacy Lane

Movement	SE	SE	NE	SW
Directions Served	L	R	L	TR
Maximum Queue (ft)	150	86	94	6
Average Queue (ft)	57	40	37	0
95th Queue (ft)	107	63	77	4
Link Distance (ft)	218	218		504
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			225	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 71

3: Lehman Rd & Bunton Creek Rd Performance by movement

Movement	SET	SER	NWL	NWT	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.3
Denied Del/Veh (s)	0.0	0.0	0.5	0.5	1.4	0.7	0.6
Total Delay (hr)	0.6	0.3	1.1	2.3	1.4	0.5	6.3
Total Del/Veh (s)	6.3	6.1	19.8	19.5	13.4	9.1	12.9

5: Bunton Creek Rd & Dacy Lane Performance by movement

Movement	SEL	SET	NWT	NWR	SWL	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.7	0.3	0.7	0.9	0.5	0.4	3.5
Total Del/Veh (s)	7.6	6.2	6.1	8.2	5.8	5.0	6.6

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.4	0.6	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.3	0.8	0.1	0.2	1.9	0.3	0.4	1.3	0.9	0.3	1.3	0.2
Total Del/Veh (s)	16.6	15.5	7.4	16.6	15.6	12.7	24.4	24.6	14.5	24.3	25.7	8.6

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	8.1
Total Del/Veh (s)	17.7

10: Dacy Lane Performance by movement

Movement	SEL	SER	NEL	NET	SWT	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.3	0.1
Total Delay (hr)	1.0	0.1	0.4	0.1	0.1	0.2	1.9
Total Del/Veh (s)	25.4	3.3	4.4	1.0	1.4	1.8	4.2

Total Zone Performance

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.6
Total Delay (hr)	19.8
Total Del/Veh (s)	145.8

Arterial Level of Service: NW Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dacy Lane	5	6.1	28.5	0.2	29
Philomena Drive	7	15.0	30.5	0.1	13
Total		21.1	59.0	0.3	21

Arterial Level of Service: SE Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Philomena Drive	7	15.5	31.7	0.1	16
Dacy Lane	5	6.8	18.7	0.1	22
Total		22.3	50.3	0.3	18

Intersection: 3: Lehman Rd & Bunton Creek Rd

Movement	SE	NW	NE	NE
Directions Served	TR	LT	L	R
Maximum Queue (ft)	191	409	172	235
Average Queue (ft)	47	123	76	46
95th Queue (ft)	120	288	145	140
Link Distance (ft)	850	4121		1911
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)			3	0
Queuing Penalty (veh)			7	2

Intersection: 5: Bunton Creek Rd & Dacy Lane

Movement	SE	SE	NW	SW	SW
Directions Served	L	T	TR	L	R
Maximum Queue (ft)	156	105	186	129	107
Average Queue (ft)	48	27	75	44	39
95th Queue (ft)	105	64	137	90	80
Link Distance (ft)		509	1137	847	847
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	175				
Storage Blk Time (%)	1				
Queuing Penalty (veh)	1				

Intersection: 7: Philomena Drive & Bunton Creek Rd

Movement	SE	SE	NW	NW	NE	NE	SW	SW	B15
Directions Served	L	TR	L	TR	LT	TR	LT	TR	T
Maximum Queue (ft)	136	205	190	307	189	263	170	133	9
Average Queue (ft)	35	73	37	140	74	98	84	58	0
95th Queue (ft)	80	141	106	235	133	175	136	110	7
Link Distance (ft)		686		509	2782	2782	180	180	654
Upstream Blk Time (%)							0	0	
Queuing Penalty (veh)							0	0	
Storage Bay Dist (ft)	150		190						
Storage Blk Time (%)		1	0	3					
Queuing Penalty (veh)		1	0	2					

Intersection: 10: Dacy Lane

Movement	SE	SE	NE	SW
Directions Served	L	R	L	TR
Maximum Queue (ft)	172	64	87	15
Average Queue (ft)	64	38	38	1
95th Queue (ft)	121	58	72	9
Link Distance (ft)	218	218		504
Upstream Blk Time (%)	0			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)			225	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 13

3: Lehman Rd & Bunton Creek Rd Performance by movement

Movement	SET	SER	NWL	NWT	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.1	0.2
Denied Del/Veh (s)	0.0	0.0	0.5	0.4	1.3	0.5	0.4
Total Delay (hr)	6.4	0.8	3.2	7.1	0.9	4.5	22.9
Total Del/Veh (s)	35.3	42.1	57.8	57.4	23.6	34.6	41.9

5: Bunton Creek Rd & Dacy Lane Performance by movement

Movement	SEL	SET	NWT	NWR	SWL	SWT	SWR	All
Denied Delay (hr)	0.0	0.0	2.5	1.8	0.0	0.0	0.0	4.4
Denied Del/Veh (s)	0.2	0.0	30.0	25.6	0.0	0.0	0.0	9.2
Total Delay (hr)	1.2	1.5	20.3	17.3	22.4	0.4	0.7	63.8
Total Del/Veh (s)	20.1	18.8	239.8	236.9	181.4	28.7	15.1	132.0

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.4	0.4	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.3	0.8	0.1	0.2	1.6	0.2	0.4	1.2	0.9	0.3	1.2	0.2
Total Del/Veh (s)	17.5	15.6	9.1	17.2	17.3	12.8	21.4	22.2	12.9	23.4	23.5	8.3

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	7.5
Total Del/Veh (s)	17.3

10: Dacy Lane Performance by movement

Movement	SEL	SER	NEL	NET	SWT	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.3	0.1
Total Delay (hr)	1.5	0.8	0.2	0.1	0.2	0.1	2.9
Total Del/Veh (s)	23.1	6.9	3.9	0.8	3.7	1.4	6.3

Total Zone Performance

Movement	All
Denied Delay (hr)	4.7
Denied Del/Veh (s)	6.6
Total Delay (hr)	97.1
Total Del/Veh (s)	739.0

Arterial Level of Service: NW Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dacy Lane	5	239.8	294.6	0.2	3
Philomena Drive	7	17.6	30.8	0.1	13
Total		257.4	325.4	0.3	4

Arterial Level of Service: SE Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Philomena Drive	7	15.6	31.6	0.1	16
Dacy Lane	5	19.2	32.0	0.1	13
Total		34.9	63.6	0.3	14

Intersection: 3: Lehman Rd & Bunton Creek Rd

Movement	SE	NW	NE	NE
Directions Served	TR	LT	L	R
Maximum Queue (ft)	457	729	175	484
Average Queue (ft)	235	318	92	192
95th Queue (ft)	501	653	196	417
Link Distance (ft)	870	4140		1934
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)			0	25
Queuing Penalty (veh)			1	37

Intersection: 5: Bunton Creek Rd & Dacy Lane

Movement	SE	SE	NW	B12	B13	SW	SW
Directions Served	L	T	TR	T	T	L	R
Maximum Queue (ft)	195	262	1142	381	332	766	670
Average Queue (ft)	80	87	959	203	87	582	312
95th Queue (ft)	151	184	1429	631	382	990	842
Link Distance (ft)		521	1137	558	870	861	861
Upstream Blk Time (%)			45	23		5	3
Queuing Penalty (veh)			241	122		15	8
Storage Bay Dist (ft)	175						
Storage Blk Time (%)	1	2					
Queuing Penalty (veh)	2	4					

Intersection: 7: Philomena Drive & Bunton Creek Rd

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	TR	LT	TR
Maximum Queue (ft)	67	164	93	242	194	266	151	130
Average Queue (ft)	32	74	24	114	74	98	80	51
95th Queue (ft)	61	131	72	190	131	182	127	99
Link Distance (ft)		686		521	2782	2782	180	180
Upstream Blk Time (%)							0	
Queuing Penalty (veh)							0	
Storage Bay Dist (ft)	150		190					
Storage Blk Time (%)		1		1				
Queuing Penalty (veh)		0		0				

Intersection: 10: Dacy Lane

Movement	SE	SE	B8	NE	SW	SW
Directions Served	L	R	T	L	T	TR
Maximum Queue (ft)	249	166	26	62	54	32
Average Queue (ft)	86	74	1	27	7	4
95th Queue (ft)	168	132	12	56	52	38
Link Distance (ft)	218	218	581		504	504
Upstream Blk Time (%)	2	0				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)				225		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Zone Summary

Zone wide Queuing Penalty: 430

3: Lehman Rd & Bunton Creek Rd Performance by movement

Movement	SET	SER	NWL	NWT	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.1	0.2
Denied Del/Veh (s)	0.0	0.0	0.5	0.4	1.6	0.6	0.4
Total Delay (hr)	25.3	3.2	2.6	5.9	1.5	2.6	41.2
Total Del/Veh (s)	137.8	157.5	47.5	47.3	38.1	19.9	74.2

5: Bunton Creek Rd & Dacy Lane Performance by movement

Movement	SEL	SET	NWT	NWR	SWL	SWT	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.0	0.7	3.1	2.1	3.2	0.0	0.3	10.3
Total Del/Veh (s)	15.9	7.8	33.8	28.2	27.0	0.5	7.1	21.2

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.4	0.5	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.3	0.8	0.1	0.3	1.9	0.3	0.4	1.2	1.0	0.4	1.3	0.2
Total Del/Veh (s)	17.0	15.3	9.8	18.8	18.1	13.8	22.8	22.1	14.1	24.7	25.3	9.0

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	8.1
Total Del/Veh (s)	18.1

10: Dacy Lane Performance by movement

Movement	SEL	SER	NEL	NET	SWT	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.3	0.1
Total Delay (hr)	1.4	0.6	0.2	0.1	0.0	0.1	2.4
Total Del/Veh (s)	23.0	4.9	4.0	0.6	0.8	1.2	5.3

Total Zone Performance

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.5
Total Delay (hr)	62.1
Total Del/Veh (s)	518.6

Arterial Level of Service: NW Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dacy Lane	5	33.8	59.8	0.2	14
Philomena Drive	7	18.1	31.2	0.1	13
Total		51.9	91.1	0.3	14

Arterial Level of Service: SE Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Philomena Drive	7	15.3	31.3	0.1	16
Dacy Lane	5	8.8	21.9	0.1	19
Total		24.1	53.2	0.3	17

Intersection: 3: Lehman Rd & Bunton Creek Rd

Movement	SE	B13	B12	NW	NE	NE
Directions Served	TR	T	T	LT	L	R
Maximum Queue (ft)	969	572	256	792	174	329
Average Queue (ft)	828	234	38	336	97	150
95th Queue (ft)	1133	618	226	646	180	257
Link Distance (ft)	870	558	1137	4140		1934
Upstream Blk Time (%)	46	11				
Queuing Penalty (veh)	312	76				
Storage Bay Dist (ft)					150	
Storage Blk Time (%)					1	8
Queuing Penalty (veh)					4	13

Intersection: 5: Bunton Creek Rd & Dacy Lane

Movement	SE	SE	NW	SW	SW
Directions Served	L	T	TR	L	R
Maximum Queue (ft)	155	151	562	301	122
Average Queue (ft)	73	66	251	166	48
95th Queue (ft)	130	119	457	261	87
Link Distance (ft)		521	1137	861	861
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	175				
Storage Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			

Intersection: 7: Philomena Drive & Bunton Creek Rd

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	TR	LT	TR
Maximum Queue (ft)	113	229	182	273	184	268	177	162
Average Queue (ft)	35	77	30	128	73	104	89	57
95th Queue (ft)	83	158	92	215	127	188	143	120
Link Distance (ft)		686		521	2782	2782	180	180
Upstream Blk Time (%)							0	0
Queuing Penalty (veh)							0	0
Storage Bay Dist (ft)	150		190					
Storage Blk Time (%)		1	0	2				
Queuing Penalty (veh)		1	0	1				

Intersection: 10: Dacy Lane

Movement	SE	SE	B8	NE
Directions Served	L	R	T	L
Maximum Queue (ft)	235	114	4	80
Average Queue (ft)	85	63	0	30
95th Queue (ft)	166	95	3	63
Link Distance (ft)	218	218	581	
Upstream Blk Time (%)	1			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)			225	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 407

3: Lehman Rd & Bunton Creek Rd Performance by movement

Movement	SET	SER	NWL	NWT	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Denied Del/Veh (s)	0.0	0.0	0.2	0.1	1.5	0.5	0.3
Total Delay (hr)	3.6	0.4	1.2	2.5	1.5	1.8	11.0
Total Del/Veh (s)	19.4	20.6	21.5	19.5	37.0	14.0	19.7

5: Bunton Creek Rd & Dacy Lane Performance by movement

Movement	SEL	SET	NWT	NWR	SWL	SWT	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.5	1.3	0.8	3.8	0.0	0.2	7.5
Total Del/Veh (s)	12.9	6.2	14.0	11.0	31.0	0.5	4.7	15.0

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.2	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.3	0.8	0.1	0.2	1.6	0.2	0.4	1.1	0.8	0.3	1.2	0.1
Total Del/Veh (s)	16.9	14.5	4.5	14.9	14.6	11.0	21.3	21.6	10.7	22.6	23.5	6.7

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	7.0
Total Del/Veh (s)	15.7

10: Dacy Lane Performance by movement

Movement	SEL	SER	NEL	NET	SWT	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.3	0.1
Total Delay (hr)	1.4	0.7	0.2	0.1	0.0	0.1	2.5
Total Del/Veh (s)	23.2	5.6	3.9	0.7	0.8	1.2	5.5

Total Zone Performance

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.4
Total Delay (hr)	28.0
Total Del/Veh (s)	229.3

Arterial Level of Service: NW Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dacy Lane	5	14.0	40.5	0.2	20
Philomena Drive	7	14.5	27.7	0.1	15
Total		28.5	68.3	0.3	18

Arterial Level of Service: SE Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Philomena Drive	7	14.5	30.5	0.1	16
Dacy Lane	5	7.1	20.1	0.1	20
Total		21.6	50.6	0.3	18

Intersection: 3: Lehman Rd & Bunton Creek Rd

Movement	SE	SE	NW	NW	NW	NE	NE
Directions Served	T	TR	L	T	T	L	R
Maximum Queue (ft)	213	221	190	169	174	174	347
Average Queue (ft)	112	126	78	78	86	92	114
95th Queue (ft)	169	191	145	129	143	164	215
Link Distance (ft)	866	866		4140	4140		1916
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			200			150	
Storage Blk Time (%)			0	0		1	4
Queuing Penalty (veh)			1	0		3	6

Intersection: 5: Bunton Creek Rd & Dacy Lane

Movement	SE	SE	SE	NW	NW	SW	SW
Directions Served	L	T	T	T	TR	L	R
Maximum Queue (ft)	154	78	83	154	243	408	96
Average Queue (ft)	67	31	37	77	128	184	41
95th Queue (ft)	120	68	71	138	217	324	72
Link Distance (ft)		520	520	1134	1134	849	849
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	175						
Storage Blk Time (%)	0						
Queuing Penalty (veh)	0						

Intersection: 7: Philomena Drive & Bunton Creek Rd

Movement	SE	SE	SE	NW	NW	NW	NE	NE	SW	SW
Directions Served	L	T	TR	L	T	TR	LT	TR	LT	TR
Maximum Queue (ft)	94	135	87	65	139	174	136	212	190	164
Average Queue (ft)	34	58	24	24	57	78	65	91	85	50
95th Queue (ft)	67	108	61	57	111	135	109	162	142	110
Link Distance (ft)		686	686		520	520	2770	2770	168	168
Upstream Blk Time (%)									0	0
Queuing Penalty (veh)									0	0
Storage Bay Dist (ft)	150			190						
Storage Blk Time (%)	0	0			0					
Queuing Penalty (veh)	0	0			0					

Intersection: 10: Dacy Lane

Movement	SE	SE	B8	NE	SW	SW
Directions Served	L	R	T	L	T	TR
Maximum Queue (ft)	206	166	16	75	4	4
Average Queue (ft)	85	69	1	29	0	0
95th Queue (ft)	163	120	14	63	3	3
Link Distance (ft)	218	218	581		504	504
Upstream Blk Time (%)	2	0				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)				225		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Zone Summary

Zone wide Queuing Penalty: 10

3: Lehman Rd & Bunton Creek Rd Performance by movement

Movement	SET	SER	NWL	NWT	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.1	0.2
Denied Del/Veh (s)	0.0	0.0	0.5	0.5	1.3	0.6	0.4
Total Delay (hr)	1.0	0.1	0.7	1.6	0.4	1.3	5.1
Total Del/Veh (s)	5.5	6.8	12.0	13.0	9.2	10.6	9.4

5: Bunton Creek Rd & Dacy Lane Performance by movement

Movement	SEL	SET	NWT	NWR	SWL	SWT	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.6	0.7	0.5	1.1	0.0	0.2	3.6
Total Del/Veh (s)	7.9	6.8	7.9	6.9	9.3	0.4	4.8	7.4

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.4	0.5	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.3	0.8	0.1	0.2	1.8	0.3	0.4	1.3	1.0	0.3	1.3	0.2
Total Del/Veh (s)	17.2	15.9	8.6	18.1	17.1	13.6	23.6	23.5	13.4	25.1	24.3	9.8

7: Philomena Drive & Bunton Creek Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	8.1
Total Del/Veh (s)	17.9

10: Dacy Lane Performance by movement

Movement	SEL	SER	NEL	NET	SWT	SWR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.3	0.1
Total Delay (hr)	1.8	0.6	0.2	0.1	0.0	0.1	2.9
Total Del/Veh (s)	28.1	5.2	4.2	0.9	0.8	1.3	6.2

Total Zone Performance

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.5
Total Delay (hr)	19.7
Total Del/Veh (s)	170.0

Arterial Level of Service: NW Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Dacy Lane	5	7.9	34.3	0.2	24
Philomena Drive	7	16.8	32.5	0.1	13
Total		24.7	66.8	0.3	19

Arterial Level of Service: SE Bunton Creek Rd

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Philomena Drive	7	15.9	32.0	0.1	16
Dacy Lane	5	7.6	20.3	0.1	20
Total		23.5	52.3	0.3	17

Intersection: 3: Lehman Rd & Bunton Creek Rd

Movement	SE	NW	NE	NE
Directions Served	TR	LT	L	R
Maximum Queue (ft)	154	243	151	224
Average Queue (ft)	57	62	39	80
95th Queue (ft)	133	183	100	167
Link Distance (ft)	850	4121		1911
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			150	
Storage Blk Time (%)				2
Queuing Penalty (veh)				3

Intersection: 5: Bunton Creek Rd & Dacy Lane

Movement	SE	SE	NW	SW	SW
Directions Served	L	T	TR	L	R
Maximum Queue (ft)	126	102	156	218	72
Average Queue (ft)	42	40	60	65	27
95th Queue (ft)	90	80	124	155	58
Link Distance (ft)		509	1137	847	847
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	175				
Storage Blk Time (%)	0				
Queuing Penalty (veh)	0				

Intersection: 7: Philomena Drive & Bunton Creek Rd

Movement	SE	SE	NW	NW	NE	NE	SW	SW
Directions Served	L	TR	L	TR	LT	TR	LT	TR
Maximum Queue (ft)	97	193	185	286	193	268	168	151
Average Queue (ft)	33	76	32	134	76	100	85	56
95th Queue (ft)	71	143	105	240	136	190	138	113
Link Distance (ft)		686		509	2782	2782	180	180
Upstream Blk Time (%)							0	0
Queuing Penalty (veh)							0	0
Storage Bay Dist (ft)	150		190					
Storage Blk Time (%)		1	0	3				
Queuing Penalty (veh)		1	0	2				

Intersection: 10: Dacy Lane

Movement	SE	SE	B8	NE	SW
Directions Served	L	R	T	L	TR
Maximum Queue (ft)	252	121	16	74	4
Average Queue (ft)	97	65	1	29	0
95th Queue (ft)	195	100	16	62	3
Link Distance (ft)	218	218	581		504
Upstream Blk Time (%)	3				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)				225	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Zone Summary

Zone wide Queuing Penalty: 6

Attachment 4 – Preliminary Cost Estimates

Dacy Lane at Bunton Creek Rd
Option 1
Engineer's Opinion of Probable Cost
PRELIMINARY
November 16, 2022

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
Option 1 - Wooden Poles						
618	6053	CONDT (PVC) (SCH 80) (3")	LF	150	\$ 32.91	\$ 4,936.50
620	6007	ELEC CONDR (NO.8) BARE	LF	150	\$ 1.37	\$ 1,698.80
620	6008	ELEC CONDR (NO.8) INSULATED	LF	1750	\$ 1.37	\$ 1,698.80
620	6011	ELEC CONDR (NO.4) BARE	LF	50	\$ 2.63	\$ 131.50
620	6011	ELEC CONDR (NO.4) INSULATED	LF	100	\$ 2.92	\$ 292.00
624	6010	GROUND BOX TY D (162922)W/APRON	EA	1	\$ 2,328.07	\$ 2,328.07
625	6002	ZINC-COAT STL WIRE STRAND (3/16")	LF	450	\$ 4.34	\$ 1,953.00
625	6004	ZINC-COAT STL WIRE STRAND (5/16")	LF	450	\$ 4.39	\$ 1,975.50
627	6002	TIMBER POLE (CL 2) 40 FT	EA	4	\$ 2,791.50	\$ 11,166.00
628	6165	ELC SRV TY D 120/240 070(NS)AL(E)SP(O)	EA	1	\$ 7,269.17	\$ 7,269.17
644	6076	REMOVE SM RD SN SUP&AM	EA	3	\$ 167.50	\$ 502.50
680	6002	INSTALL HWY TRF SIG (ISOLATED)	EA	1	\$ 13,170.62	\$ 13,170.62
682	6001	VEH SIG SEC (12")LED(GRN)	EA	6	\$ 293.99	\$ 1,763.94
682	6002	VEH SIG SEC (12")LED(GRN ARW)	EA	2	\$ 310.16	\$ 620.32
682	6003	VEH SIG SEC (12")LED(YEL)	EA	6	\$ 313.58	\$ 1,881.48
682	6005	VEH SIG SEC (12")LED(RED)	EA	6	\$ 309.56	\$ 1,857.36
682	6018	PED SIG SEC (LED)(COUNTDOWN)	EA	8	\$ 743.73	\$ 5,949.84
682	6020	PED SIG SEC (HOUSING ONLY)	EA	8	\$ 150.00	\$ 1,200.00
682	6051	BACKPLATE W/REFL BRDR(3 SEC)ALUM	EA	4	\$ 145.56	\$ 582.24
682	6052	BACKPLATE W/REFL BRDR(4 SEC)ALUM	EA	2	\$ 186.67	\$ 373.34
684	6031	TRF SIG CBL (TY A)(14 AWG)(5 CONDR)	LF	1750	\$ 2.84	\$ 4,970.00
684	6032	TRF SIG CBL (TY A)(14 AWG)(7 CONDR)	LF	1500	\$ 2.94	\$ 4,410.00
688	6001	PED DETECT PUSH BUTTON (APS)	EA	8	\$ 1,344.47	\$ 10,755.76
688	6003	PED DETECTOR CONTROLLER UNIT	EA	1	\$ 3,856.39	\$ 3,856.39
690	6069	INSTALL OF LUMINAIRE MAST ARMS	EA	2	\$ 481.00	\$ 962.00
690	6078	INSTL DOWN GUY W/GUARD	EA	8	\$ 1,325.00	\$ 10,600.00
6058	6001	BBU SYSTEM (EXTERNAL BATT CABINET)	EA	1	\$ 8,347.36	\$ 8,347.36
6119	6032	LED RDWY LUMINAIRE (.25KW EQ)	EA	2	\$ 1,500.00	\$ 3,000.00
6292	6001	RVDS(PRESENCE DETECTION ONLY)	EA	3	\$ 9,916.83	\$ 29,750.49
SIGNAL SUBTOTAL						\$ 138,002.98
SIGNING AND STRIPING						\$ 5,000.00
TRAFFIC CONTROL						\$ 20,000.00
EROSION CONTROL AND SW3P (2%)						\$ 2,760.06
SUBTOTAL						\$ 165,763.04
MOBILIZATION (5%)						\$ 8,288.15
CONTINGENCY (30%)						\$ 52,215.36
PROJECT TOTAL						\$ 226,266.55

Dacy Lane at Bunton Creek Rd
Option 2
Engineer's Opinion of Probable Cost
PRELIMINARY
November 16, 2022

ITEM	CODE	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
Option 2 - Metal Poles						
416	6030	DRILL SHAFT (TRF SIG POLE) (24 IN)	LF	6	\$ 109.00	\$ 654.00
416	6032	DRILL SHAFT (TRF SIG POLE) (36 IN)	LF	39	\$ 521.45	\$ 20,336.55
618	6046	CONDT (PVC) (SCH 80) (2")	LF	50	\$ 27.14	\$ 1,357.00
618	6053	CONDT (PVC) (SCH 80) (3")	LF	250	\$ 32.91	\$ 8,227.50
618	6054	CONDT (PVC) (SCH 80) (3") (BORE)	LF	1300	\$ 47.17	\$ 61,321.00
618	6058	CONDT (PVC) (SCH 80) (4")	LF	40	\$ 76.53	\$ 3,061.20
620	6007	ELEC CONDR (NO.8) BARE	LF	1640	\$ 1.37	\$ 2,246.80
620	6008	ELEC CONDR (NO.8) INSULATED	LF	1400	\$ 1.37	\$ 1,698.80
620	6011	ELEC CONDR (NO.4) BARE	LF	50	\$ 2.63	\$ 131.50
620	6011	ELEC CONDR (NO.4) INSULATED	LF	100	\$ 2.92	\$ 292.00
624	6010	GROUND BOX TY D (162922)W/APRON	EA	5	\$ 2,328.07	\$ 11,640.35
628	6165	ELC SRV TY D 120/240 070(NS)AL(E)SP(O)	EA	1	\$ 7,269.17	\$ 7,269.17
644	6076	REMOVE SM RD SN SUP&AM	EA	3	\$ 167.50	\$ 502.50
680	6002	INSTALL HWY TRF SIG (ISOLATED)	EA	1	\$ 13,170.62	\$ 13,170.62
682	6001	VEH SIG SEC (12")LED(GRN)	EA	6	\$ 293.99	\$ 1,763.94
682	6002	VEH SIG SEC (12")LED(GRN ARW)	EA	2	\$ 310.16	\$ 620.32
682	6003	VEH SIG SEC (12")LED(YEL)	EA	6	\$ 313.58	\$ 1,881.48
682	6005	VEH SIG SEC (12")LED(RED)	EA	6	\$ 309.56	\$ 1,857.36
682	6018	PED SIG SEC (LED)(COUNTDOWN)	EA	8	\$ 743.73	\$ 5,949.84
682	6020	PED SIG SEC (HOUSING ONLY)	EA	8	\$ 150.00	\$ 1,200.00
682	6051	BACKPLATE W/REFL BRDR(3 SEC)ALUM	EA	4	\$ 145.56	\$ 582.24
682	6052	BACKPLATE W/REFL BRDR(4 SEC)ALUM	EA	2	\$ 186.67	\$ 373.34
684	6031	TRF SIG CBL (TY A)(14 AWG)(5 CONDR)	LF	1750	\$ 2.84	\$ 4,970.00
684	6032	TRF SIG CBL (TY A)(14 AWG)(7 CONDR)	LF	1500	\$ 2.94	\$ 4,410.00
686	6043	INS TRF SIG PL AM(S)1 ARM(40')LUM	EA	2	\$ 19,072.36	\$ 38,144.72
686	6051	INS TRF SIG PL AM(S)1 ARM(48')LUM	EA	1	\$ 19,108.53	\$ 19,108.53
687	6001	PED POLE ASSEMBLY	EA	1	\$ 2,126.43	\$ 2,126.43
688	6001	PED DETECT PUSH BUTTON (APS)	EA	8	\$ 1,344.47	\$ 10,755.76
688	6003	PED DETECTOR CONTROLLER UNIT	EA	1	\$ 3,856.39	\$ 3,856.39
6058	6001	BBU SYSTEM (EXTERNAL BATT CABINET)	EA	1	\$ 8,347.36	\$ 8,347.36
6119	6032	LED RDWY LUMINAIRE (.25KW EQ)	EA	2	\$ 1,500.00	\$ 3,000.00
6292	6001	RVDS(PRESENCE DETECTION ONLY)	EA	3	\$ 9,916.83	\$ 29,750.49
SIGNAL SUBTOTAL						\$ 270,607.19
SIGNING AND STRIPING						\$ 5,000.00
TRAFFIC CONTROL						\$ 20,000.00
EROSION CONTROL AND SW3P (2%)						\$ 5,412.14
SUBTOTAL						\$ 301,019.33
MOBILIZATION (5%)						\$ 15,050.97
CONTINGENCY (30%)						\$ 94,821.09
PROJECT TOTAL						\$ 410,891.39