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To: Julie Boswell (Isle of Wight County)

From: Steve Schmidt, PE, PTOE

RE: US Route 460 at US Route 258
Operational Analysis

Date: January 18, 2024

Copy: David Gutermuth, PE (TG)

Timmons Group has performed an operational analysis to investigate the westbound left turn queue at the intersection of US Route 460 and US Route 258 in Isle of Wight County, Virginia.

The analysis addresses the queue length under both existing and future (2031) analysis timeframes.

Existing Conditions

US Route 460 (Windsor Boulevard) is a four-lane, undivided principal arterial with a posted speed limit of 35 mph within the study limits. The roadway runs east-west within the study limits and according to the 2022 VDOT AADT data, carries approximately 11,00 vehicles per day between US Route 258 and the Town of Windsor western border and approximately 17,000 vehicles per day between US Route 258 and Court Street.

US Route 258 (Prince Boulevard) is a two-lane, undivided minor arterial with a posted speed limit 45 mph within the study area. The roadway runs north-south within the study limits and according to the 2022 VDOT AADT data, carries approximately 5,900 vehicles per day between US Route 460 and the Town of Windsor northern border and approximately 5,550 vehicles per day between US Route 460 and the Town of Windsor western border.

The existing geometry of the intersections within the study area is shown on Figure 1.

2023 Existing Traffic Volumes

A directional turning movement count was collected on Thursday, October 19, 2023, at the US Route 460 and US Route 258 intersection during the AM (7-9) and PM (4-6) peak hours. The collected traffic data is included in Appendix A.

The peak hours analyzed in this report align with the highest traffic volumes of the roadway network. The morning peak hour (7:15-8:15 AM) and evening peak hour (4:30-5:30 PM). The existing 2023 peak hour traffic volumes are shown on Figure 2.

Existing signal timings for the US Route 460 and US Route 258 intersections were provided by VDOT and are included in Appendix B.

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Capacity Analysis

Queuing analyses were conducted using the HCM 2000 methodology (as calculated by SYNCHRO) and SimTraffic simulations. The Synchro 95th percentile queue is the maximum back of queue for a particular lane within a lane group considering 95th percentile traffic volumes. The SimTraffic maximum queues are the average maximum queues after 10 runs of 60 minutes each.

Note that it is possible for the 95th percentile queue to be higher than the SimTraffic maximum queue due to the method in which each software calculates its respective value. The 95th percentile queue is based on an HCM formula and therefore is theoretical while the SimTraffic maximum queue varies based on simulation results.

Since the goal of the analysis is to determine the maximum westbound left queue, the Synchro analysis was analyzed with no westbound left turn lane storage or taper to capture the full simulated max queue length.

As shown on Figure 2, the westbound left turn lane has an effective storage of 150 feet.

2023 Existing Conditions

Table 1 summarizes the 2023 existing intersection LOS, delay, 95th percentile (Synchro), and maximum (SimTraffic) queue lengths based on the existing lane geometry (Figure 1), 2023 existing peak hour traffic volumes shown on Figure 2, and the existing signal timings as provided by VDOT. The corresponding analysis worksheets are included in Appendix C.

Under 2023 existing volume conditions:

- The signalized intersection of US Route 460 and US Route 258 operates at an overall LOS D during the AM and PM peak hours.
- The mainline movements (eastbound and westbound) operate at LOS C or better during the AM and PM peak hours.
- The northbound left/through/right movement and approach operate at LOS D during the AM peak hour and LOS E during the PM Peak hour. The southbound left/through/right movement and approach operate at LOS E during the AM and PM peak hours.
- The maximum westbound left of 150 feet queue fills the 150 feet of available storage during the PM peak hour. Traffic spills back and blocks the westbound through movement.
- All other 95th percentile and maximum queues are contained within the available storage.

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Table 1: 2023 Existing Traffic Volumes
Intersection Level of Service, Delay, and Queue Summary

Intersection and Type of Control	Movement and Approach	Turn Lane Storage (ft)	AM PEAK HOUR				PM PEAK HOUR			
			Delay [1] (sec/veh)	LOS [1]	HCS 95th Percentile Queue Length (ft)	Simulated Maximum Queue Length[(2)] (ft)	Delay [1] (sec/veh)	LOS [1]	HCS 95th Percentile Queue Length (ft)	Simulated Maximum Queue Length[(2)] (ft)
1. US Route 460 (E-W) at	EB Left	220	19.3	B	21	60	19.9	B	27	62
US Route 258 (N-S)	EB Thru		27.9	C	201	209	32.5	C	288	240
Signalized	EB Thru/Right		27.9	C	201	217	32.5	C	288	254
	EB Approach		*27.6*	*C*	--	--	*32.1*	*C*	--	--
	WB Left	150	19.9	B	52	74	21.8	C	134	150
	WB Thru		24.4	C	153	181	27.9	C	319	217
	WB Thru/Right		24.4	C	153	170	27.9	C	319	217
	WB Approach		*23.8*	*C*	--	--	*26.7*	*C*	--	--
	NB Left/Thru/Right		53.7	D	216	258	64.3	E	158	228
	NB Approach		*53.7*	*D*	--	--	*64.3*	*E*	--	--
	SB Left/Thru/Right		55.5	E	208	292	63.6	E	205	236
	SB Approach		*55.5*	*E*	--	--	*63.6*	*E*	--	--
	Overall		**35.2**	**D**	**--**	**--**	**37.3**	**D**	**--**	**--**

[1] *Overall intersection LOS and delay reported for signalized intersections and roundabouts only.*

[2] SimTraffic Queues are average maximum queues after 10 runs of 60 minutes each.

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2031 Background Conditions

The background 2031 volumes were analyzed assuming existing intersection geometry in conjunction with projected background traffic volumes, which consists of general traffic growth and growth due to approved, neighboring developments.

The background volumes were based on a 1.0% annual growth rate. The growth rate was compounded annually for the 15-year period from 2023 to 2031 and was applied to all movements at the study intersections. The resulting 2031 vehicle background (existing + growth) volumes are shown on Figure 3.

Additionally, the traffic associated with the approved Tidewater Logistics Center Rezoning Windsor Boulevard at Dominion Way was included in the 2031 background condition analysis. The background trips (Figure 4) and site trips generated (Figure 5) were extracted from the approved Tidewater Logistics Center Rezoning Windsor Boulevard at Dominion Way Traffic Impact Analysis (TIA) (included in Appendix D).

Table 2 summarizes the 2031 background intersection LOS, delay, 95th percentile (Synchro), and maximum (SimTraffic) queue lengths based on the existing lane geometry (Figure 1), 2031 background peak hour traffic volumes shown on Figure 6, and the existing signal timings as provided by VDOT. The corresponding analysis worksheets are included in Appendix E.

Under 2031 background volume conditions:

- The signalized intersection of US Route 460 and US Route 258 will operate at an overall LOS D during the AM and PM peak hours.
- The mainline movements (eastbound and westbound) will operate at LOS C or better during the AM and PM peak hours.
- The northbound and southbound left/through/right movement and approaches will operate at LOS E during the PM Peak hour.
- The maximum westbound left queue of 281 feet will exceed the 150 feet of available storage during the PM peak hour. Traffic will spill back and block the westbound through movement.
- All other 95th percentile and maximum queues will be contained within the available storage.

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Table 2: 2031 Background Traffic Volumes
Intersection Level of Service, Delay, and Queue Summary

Intersection and Type of Control	Movement and Approach	Turn Lane Storage (ft)	AM PEAK HOUR				PM PEAK HOUR			
			Delay [1] (sec/veh)	LOS [1]	HCS 95th Percentile Queue Length (ft)	Simulated Maximum Queue Length[(2)] (ft)	Delay [1] (sec/veh)	LOS [1]	HCS 95th Percentile Queue Length (ft)	Simulated Maximum Queue Length[(2)] (ft)
1. US Route 460 (E-W) at	EB Left	220	19.4	B	19	125	20.8	B	27	149
US Route 258 (N-S)	EB Thru		34.3	C	268	320	40.4	C	349	318
Signalized	EB Thru/Right		34.3	C	268	328	40.4	C	349	351
	EB Approach		*33.9*	*C*	--	--	*39.8*	*C*	--	--
	WB Left	150	22.1	C	112	189	33.8	C	#275	281
	WB Thru		25.2	C	163	185	30.3	C	390	318
	WB Thru/Right		25.2	C	163	196	30.3	C	390	307
	WB Approach		*24.4*	*C*	--	--	*31.2*	*C*	--	--
	NB Left/Thru/Right		56.2	E	245	270	67.4	E	#271	296
	NB Approach		*56.2*	*E*	--	--	*67.4*	*E*	--	--
	SB Left/Thru/Right		60.3	E	#237	279	65.7	E	311	326
	SB Approach		*60.3*	*E*	--	--	*65.7*	*E*	--	--
	Overall		**37.2**	**D**	**--**	**--**	**41.4**	**D**	**--**	**--**

[1] *Overall intersection LOS and delay reported for signalized intersections and roundabouts only.*

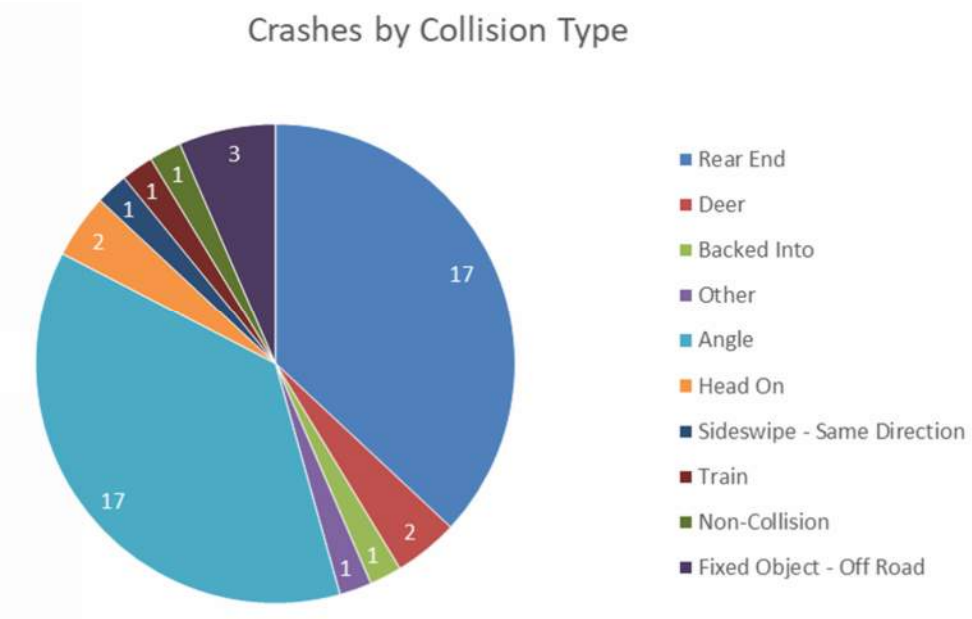
[2] SimTraffic Queues are average maximum queues after 10 runs of 60 minutes each.

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

Crash Data

A crash analysis was completed for past five (5) years (July 31, 2018 to July 31, 2023) within 500' of the US Route 460 and US Route 258 intersection. A map of the crashes showing their location, collision type, and severity can be found in Figures 7 and 8.

Over the past five (5) years, there has been a total 46 crashes – four (4) crashes that caused visible injury and 42 that caused property damage only. The majority of crashes were rear end crashes (17 crashes) and angle crashes (17 crashes). A summary of all the crashes by collision type is shown below:



Five (5) of the crashes occurred on the westbound approach and were further analyzed. At the westbound approach, there were three (3) rear end crashes and two (2) angle crashes as shown on Figure 9. Below is a detailed summary of the five (5) crashes occurring at the westbound approach.

Table 3: Summary of Westbound Crashes

Document Number	Vehicle Maneuver Type	Action Type	Direction of Travel
181905121	Making a left turn; stopped in traffic lane; stopped in traffic lane	Fail to maintain proper control; no improper action; no improper action	East; west; west
190145267	Making right turn; going straight ahead	Did not have right-of-way; no improper action	South; west
182335294	Going straight ahead; stopped in traffic lane	Following too close; no improper action	West; west
203445361	Going straight ahead; going straight ahead; going straight ahead	Following too close; no improper action; no improper action	West; west; west
220415149	Making left turn; going straight ahead	Other improper turn; No improper action	West; east

Proposed Improvements

As discussed above, the existing westbound left turn queue fills the available storage and blocks the westbound through traffic. Should traffic continue to grow and the approved developments be completed, the westbound left queue will grow and exceed the available storage by 130 feet.

As shown below, the existing pavement striping has a yellow striped out median beyond the westbound left turn lane. If the median was repurposed and the pavement restriped, the westbound left turn lane could be extended by approximately 115 feet.

This extension will accommodate the existing maximum left turn queue and will accommodate the majority of the future 2031 future left turn queue.

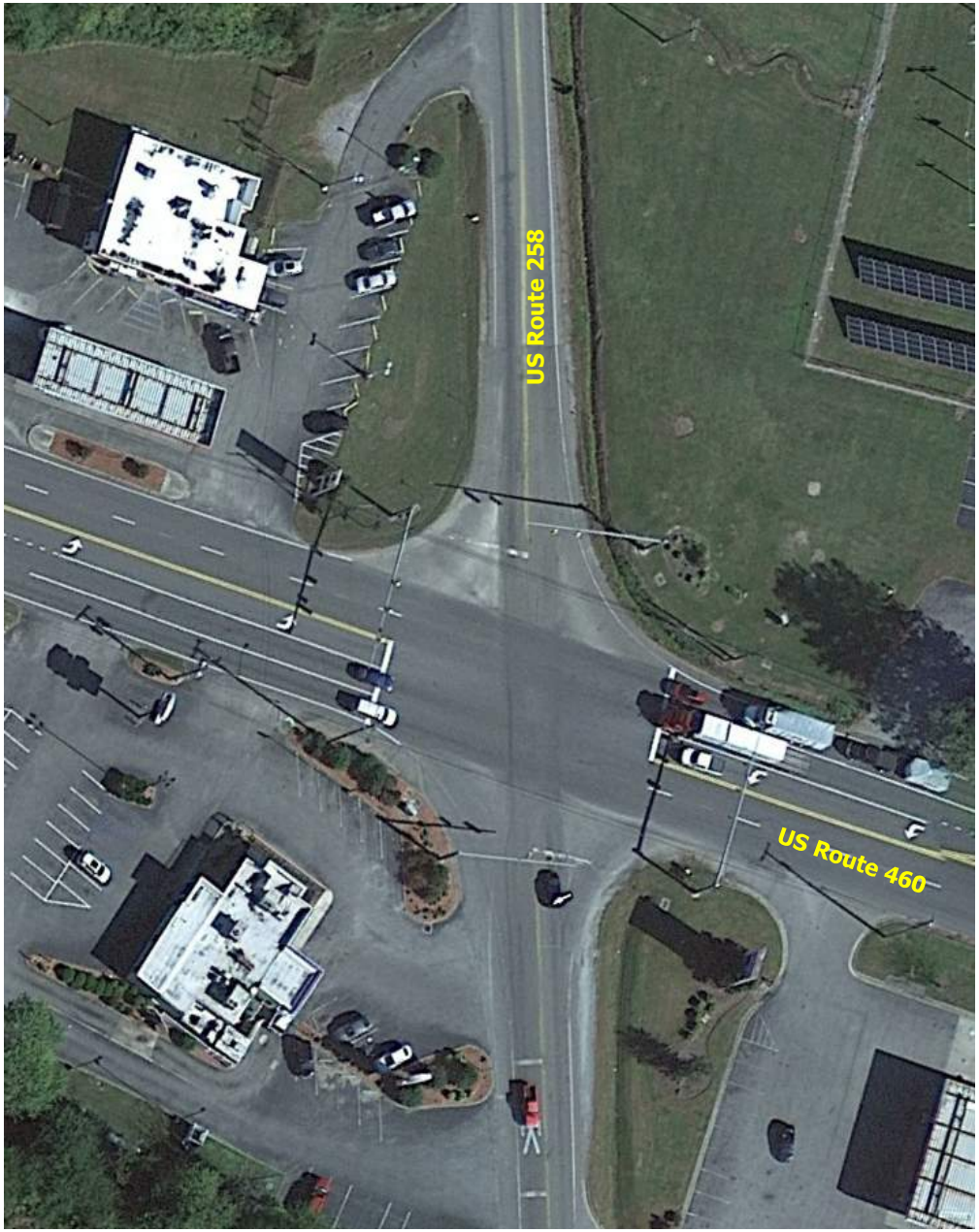


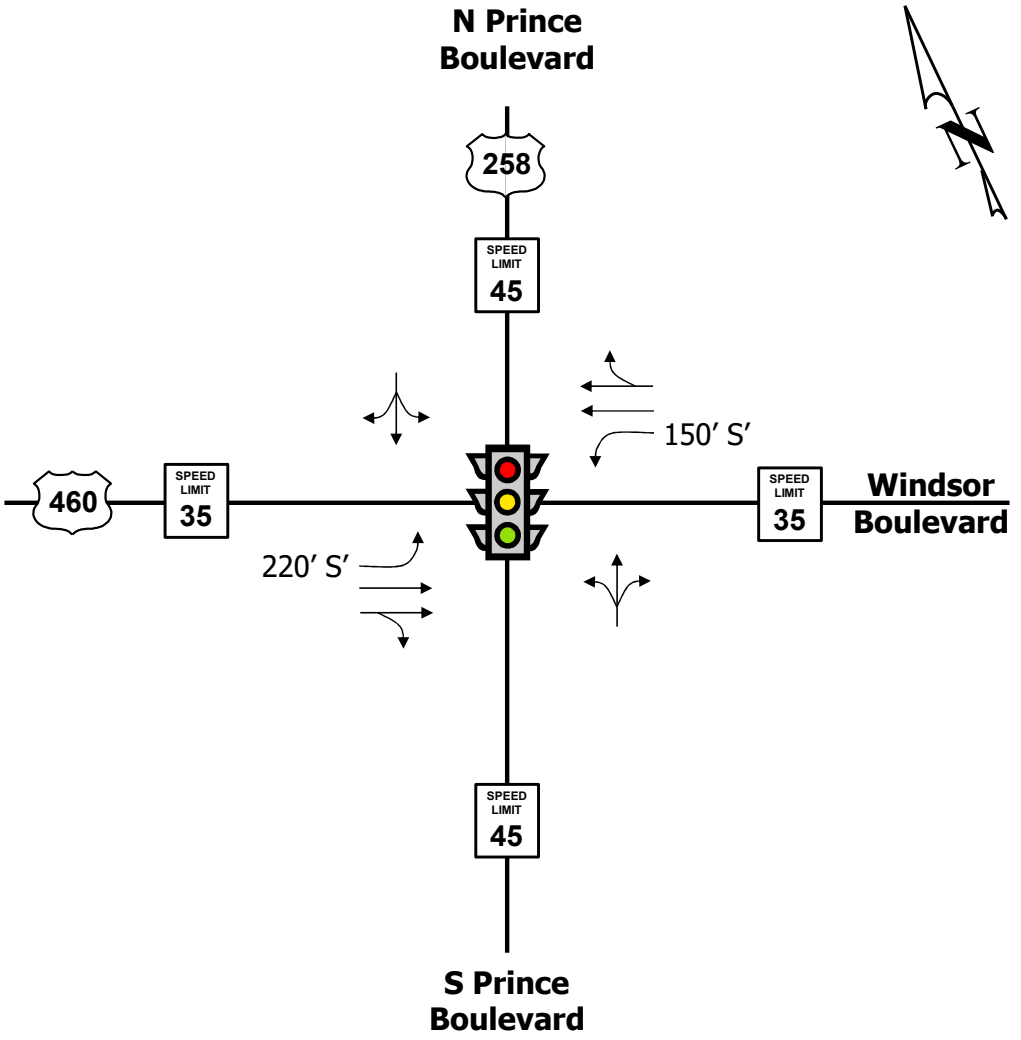
Existing Striping at Intersection

Conclusions

The results of the analysis indicate the following:

- The capacity analysis provided shows that the minimum turn lane dimensions for storage are not adequate to service westbound left turn movement under existing or future conditions.
- It is recommended that the existing striped median be repurposed and the pavement restriped to extend the westbound left turn lane by approximately 115 feet.





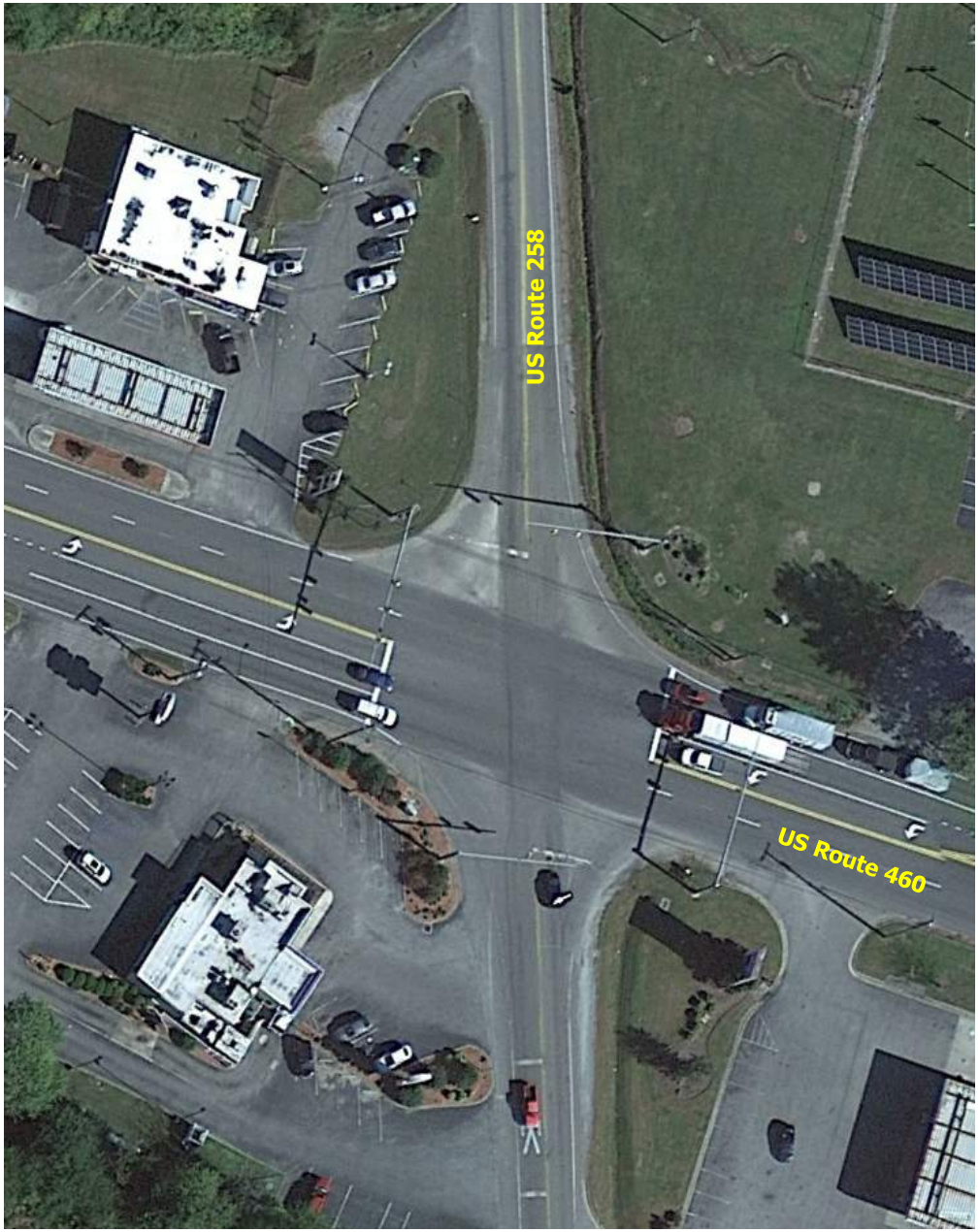
*Per TOSAM, Effective Storage is the length of the full width lane plus ½ the length of the taper

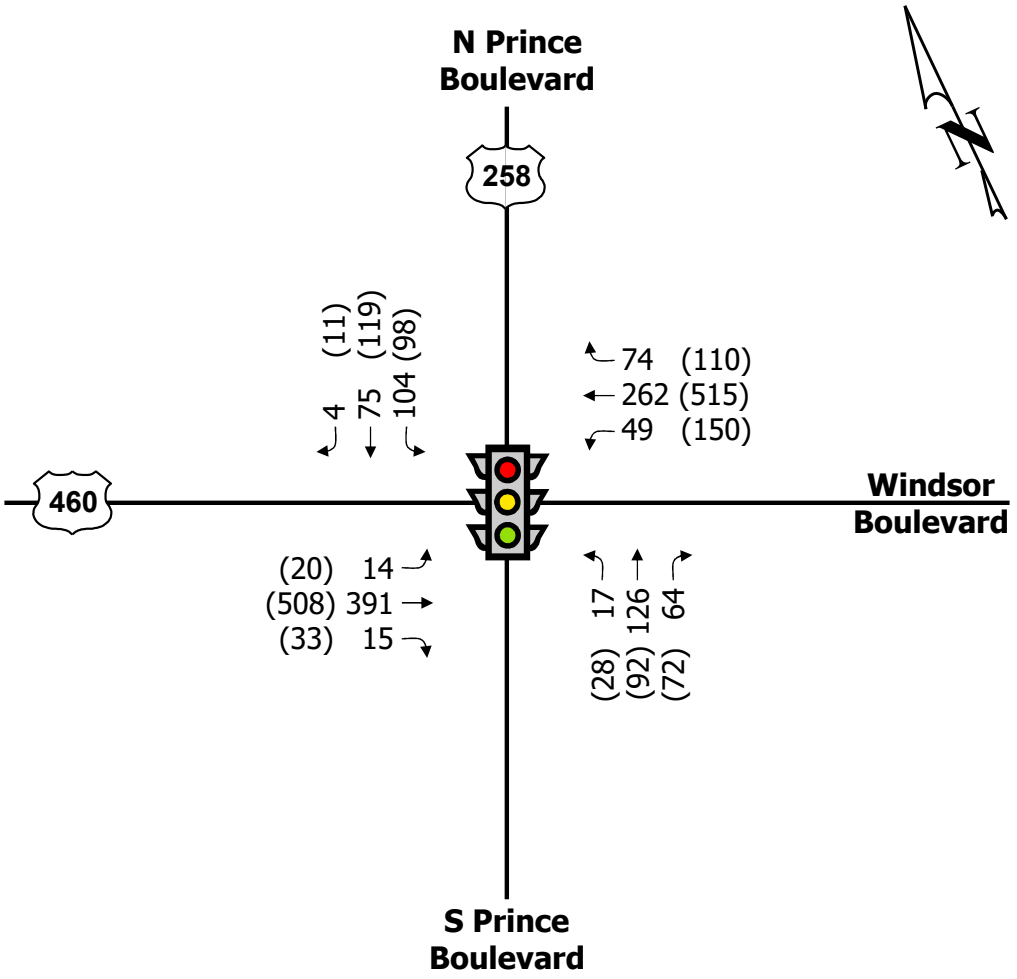
LEGEND:
- Existing Road
- Signalized Intersection
- Lane Configuration
- S′ Effective Storage (feet)*

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Existing Roadway Geometry and Stop Control
US Route 460 and US Route 258 Operational Analysis
Isle of Wight, Virginia

Figure 1





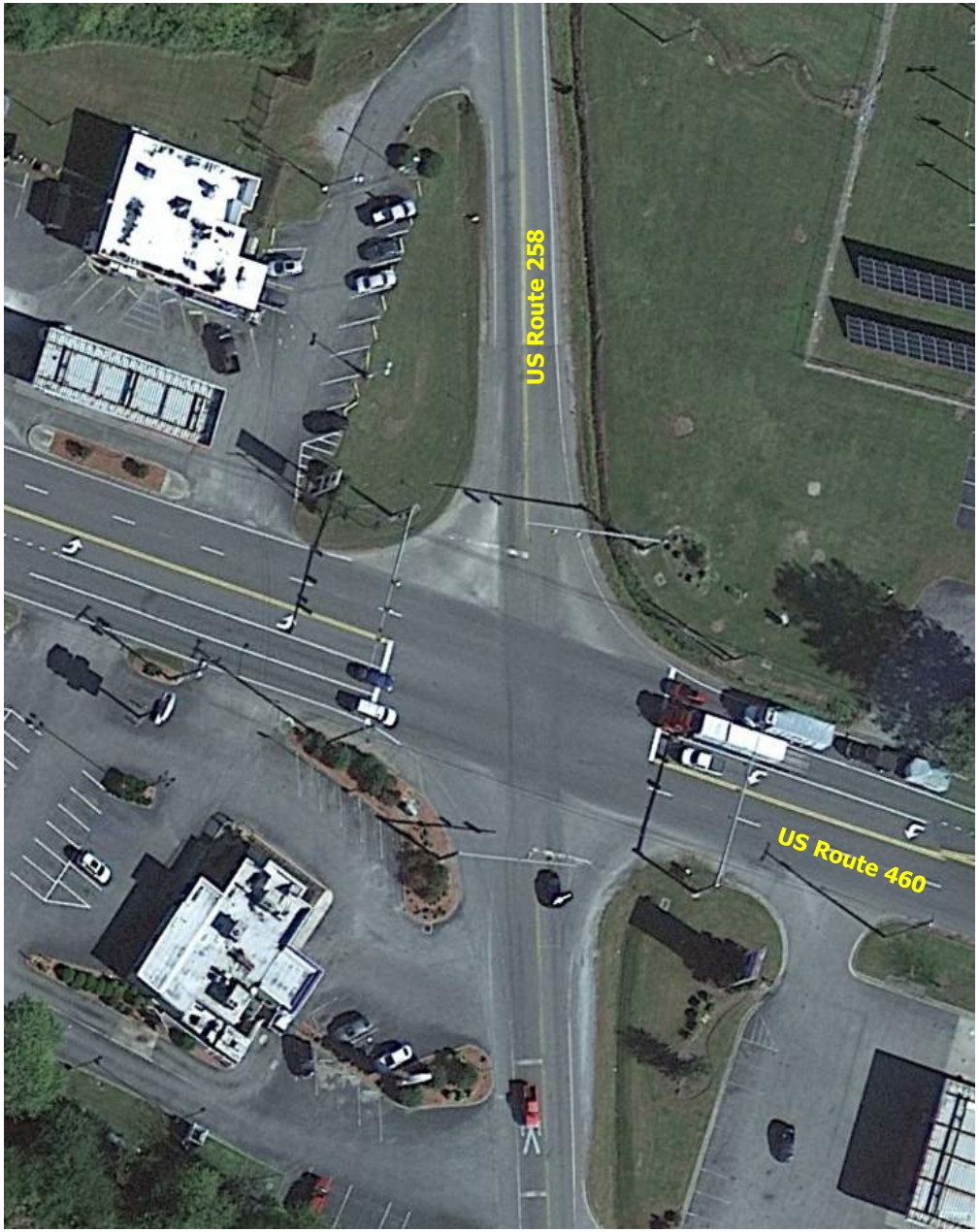
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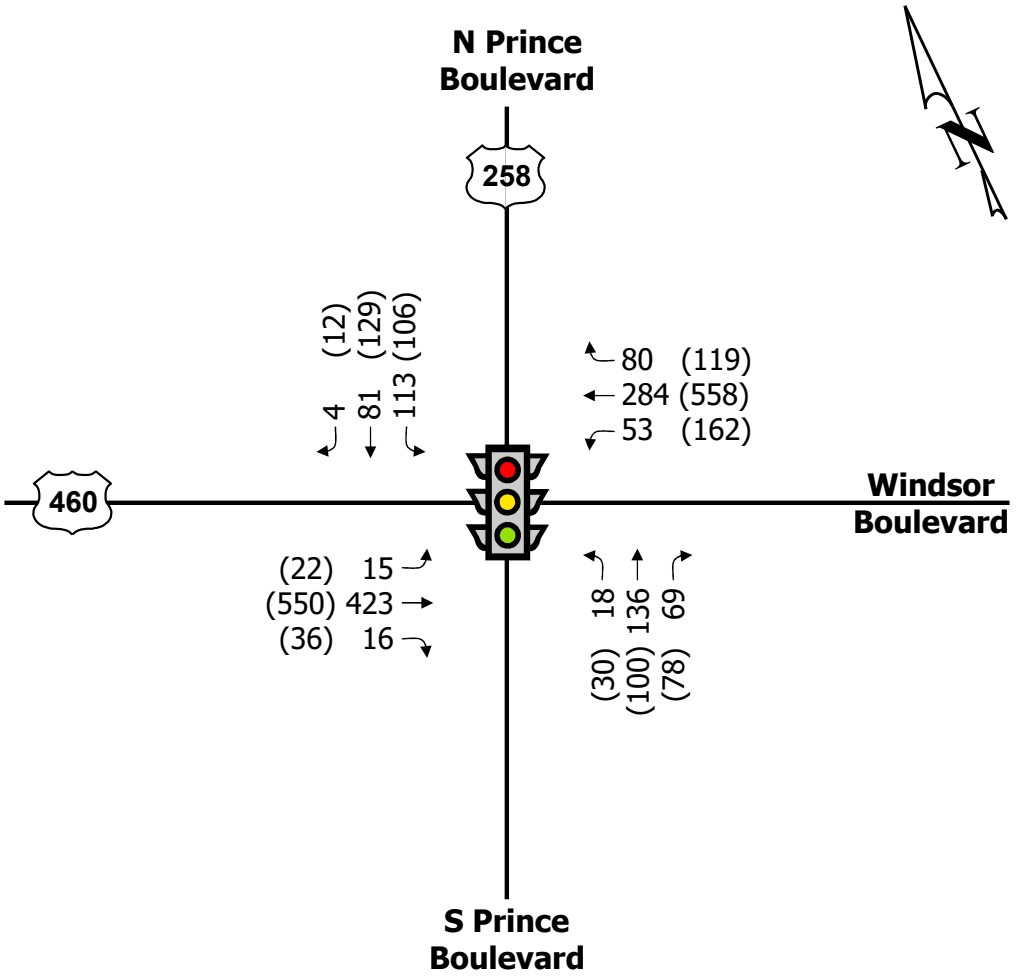
- Existing Road
- Signalized Intersection
- Lane Configuration
- 00 AM Peak Hour Volumes
- (00) PM Peak Hour Volumes

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2023 Existing Peak Hour Traffic Volumes
US Route 460 and US Route 258 Operational Analysis
Isle of Wight, Virginia

Figure 2





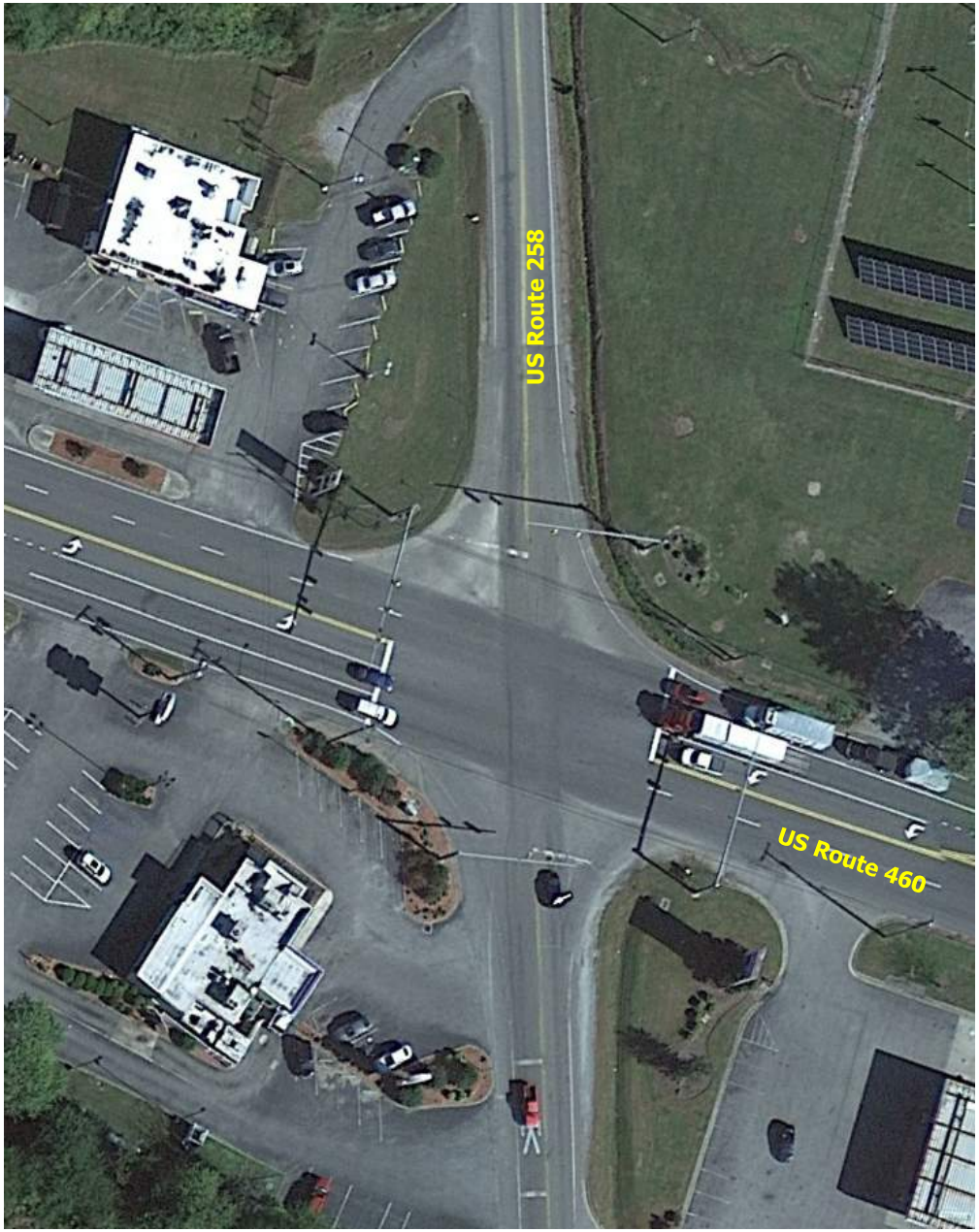
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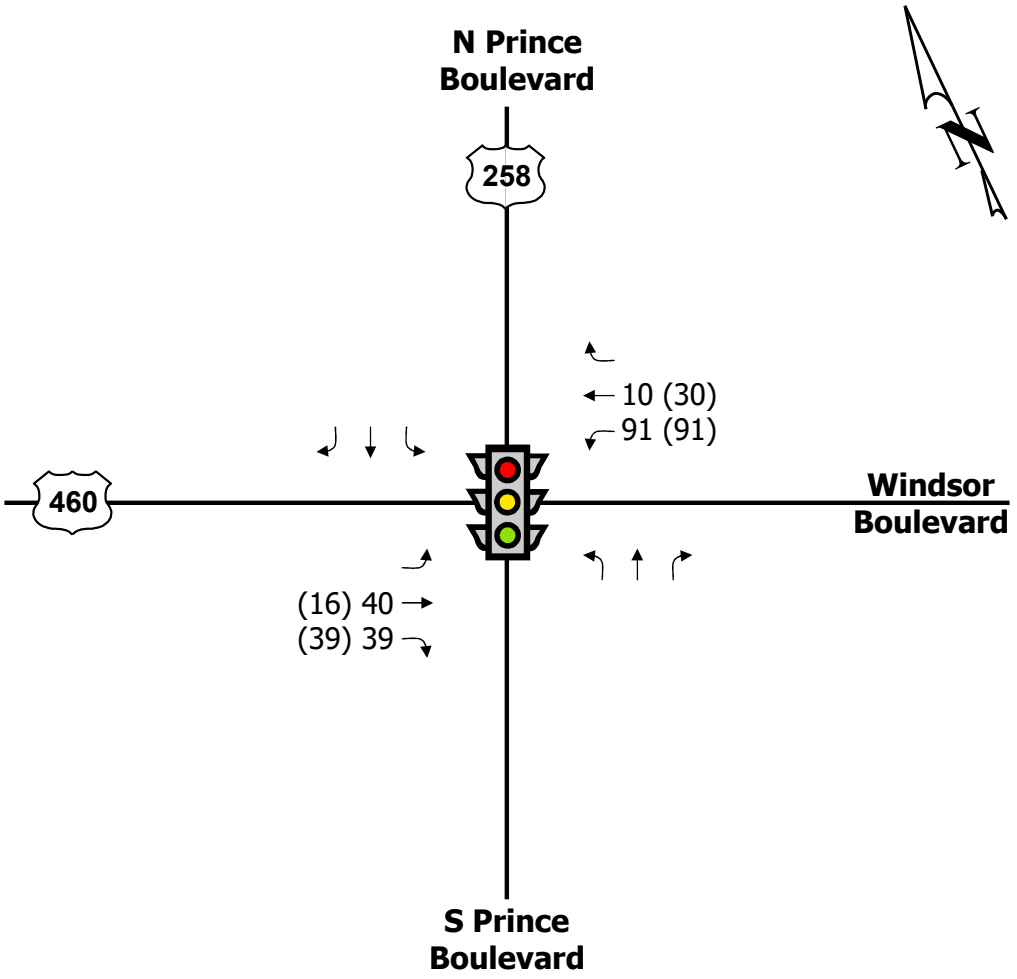
- Existing Road
- Signalized Intersection
- Lane Configuration
- 00 AM Peak Hour Volumes
- (00) PM Peak Hour Volumes

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2031 Background (Ext + Growth) Traffic Volumes
US Route 460 and US Route 258 Operational Analysis
Isle of Wight, Virginia

Figure 3





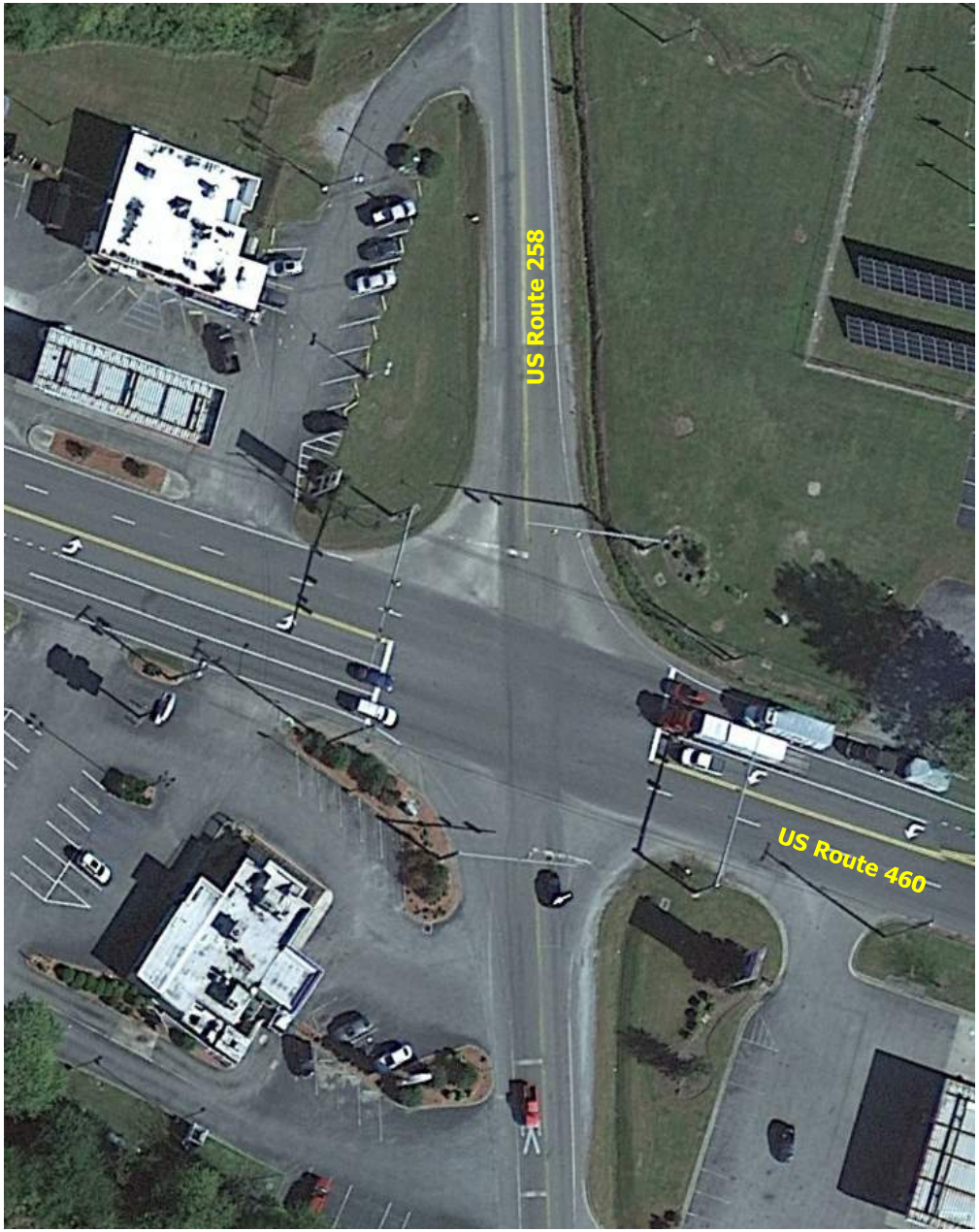
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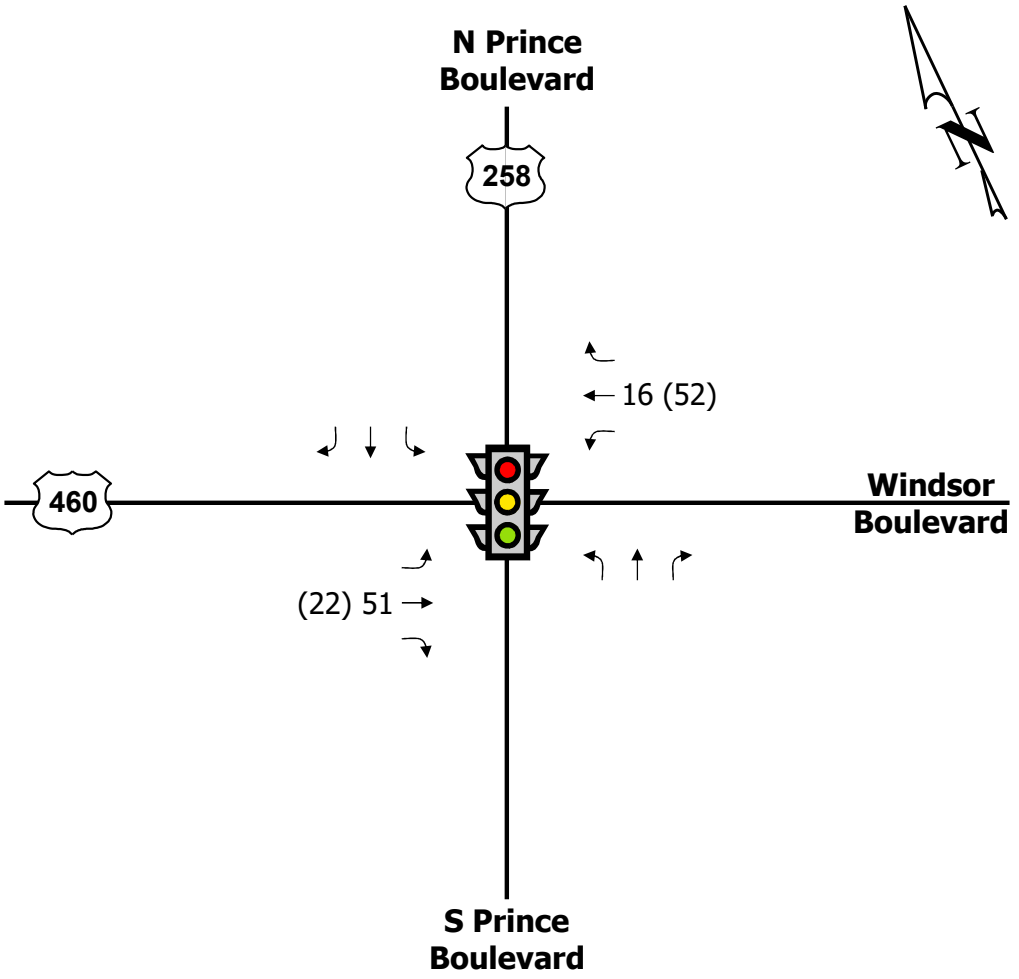
- Existing Road
- Signalized Intersection
- Lane Configuration
- 00 AM Peak Hour Trips
- (00) PM Peak Hour Trips

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Background Developments from Tidewater Logistics TIA US Route 460 and US Route 258 Operational Analysis Isle of Wight, Virginia

Figure 4





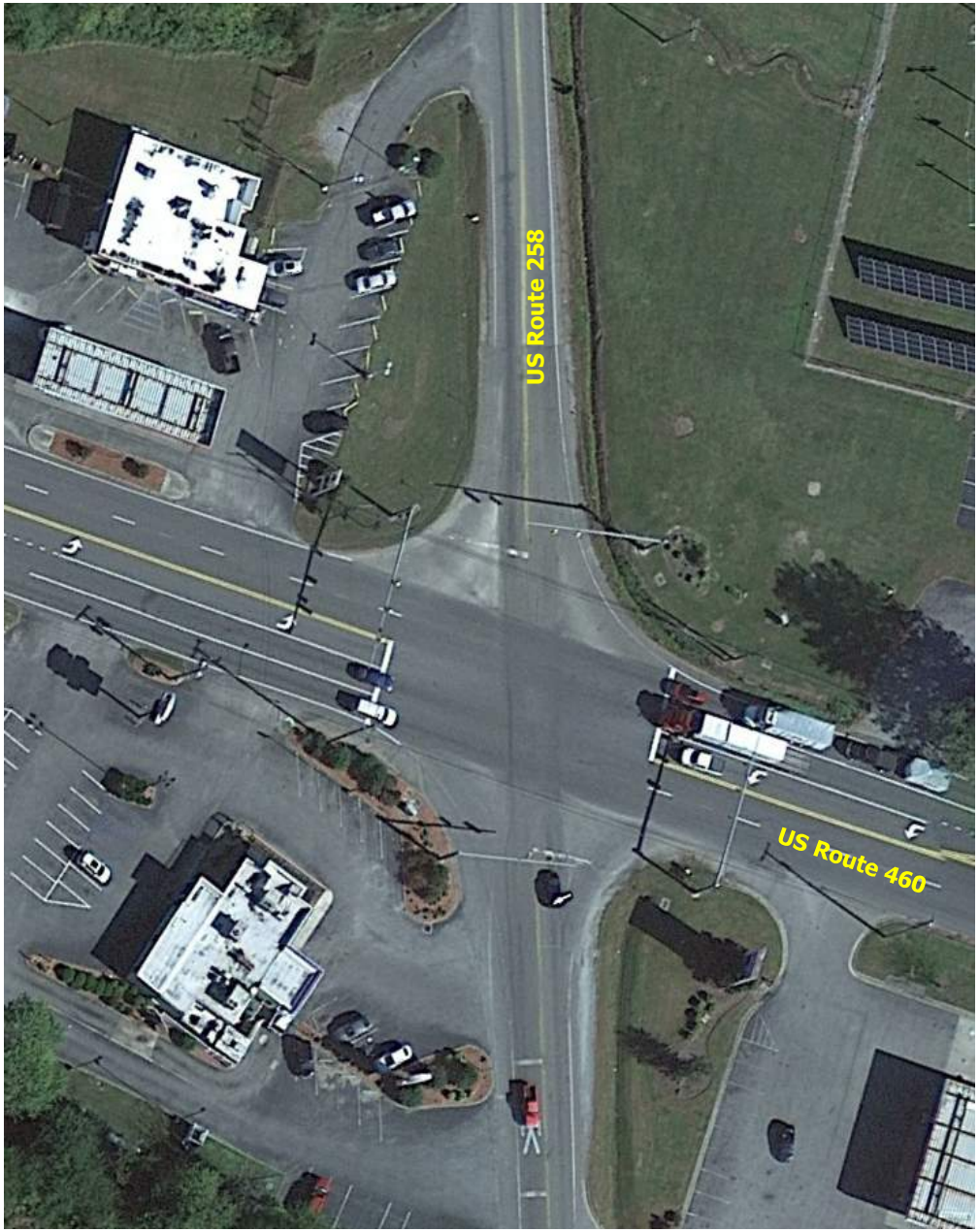
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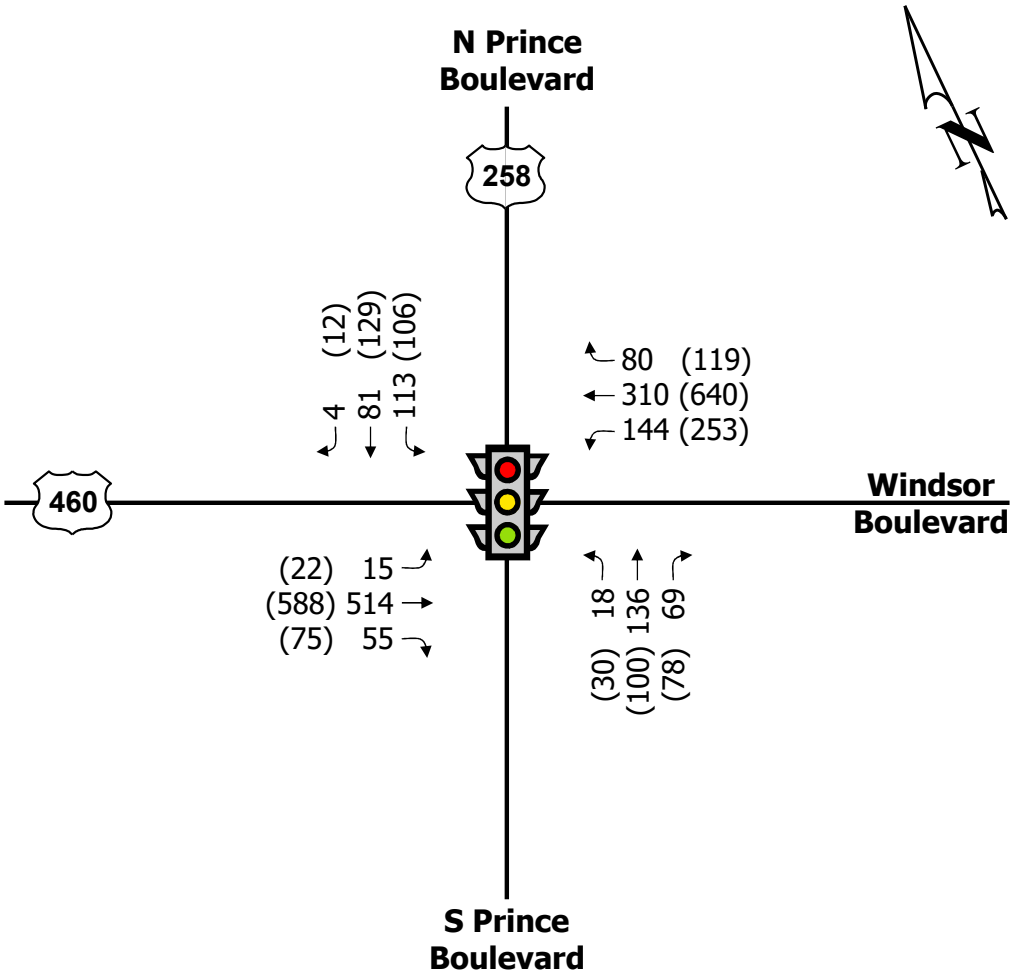
- Existing Road
- Signalized Intersection
- Lane Configuration
- 00 AM Peak Hour Volumes
- (00) PM Peak Hour Volumes

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Tidewater Logistics Center Trip Distributions
US Route 460 and US Route 258 Operational Analysis
Isle of Wight, Virginia

Figure 5





LEGEND:

- Existing Road
- Signalized Intersection
- Lane Configuration
- 00 AM Peak Hour Volumes
- (00) PM Peak Hour Volumes

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2031 Total Background Peak Hour Traffic Volumes
US Route 460 and US Route 258 Operational Analysis
Isle of Wight, Virginia

Figure 6



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Overall Crash Map by Crash Severity
US Route 460 and US Route 258 Operational Analysis
Isle of Wight, Virginia

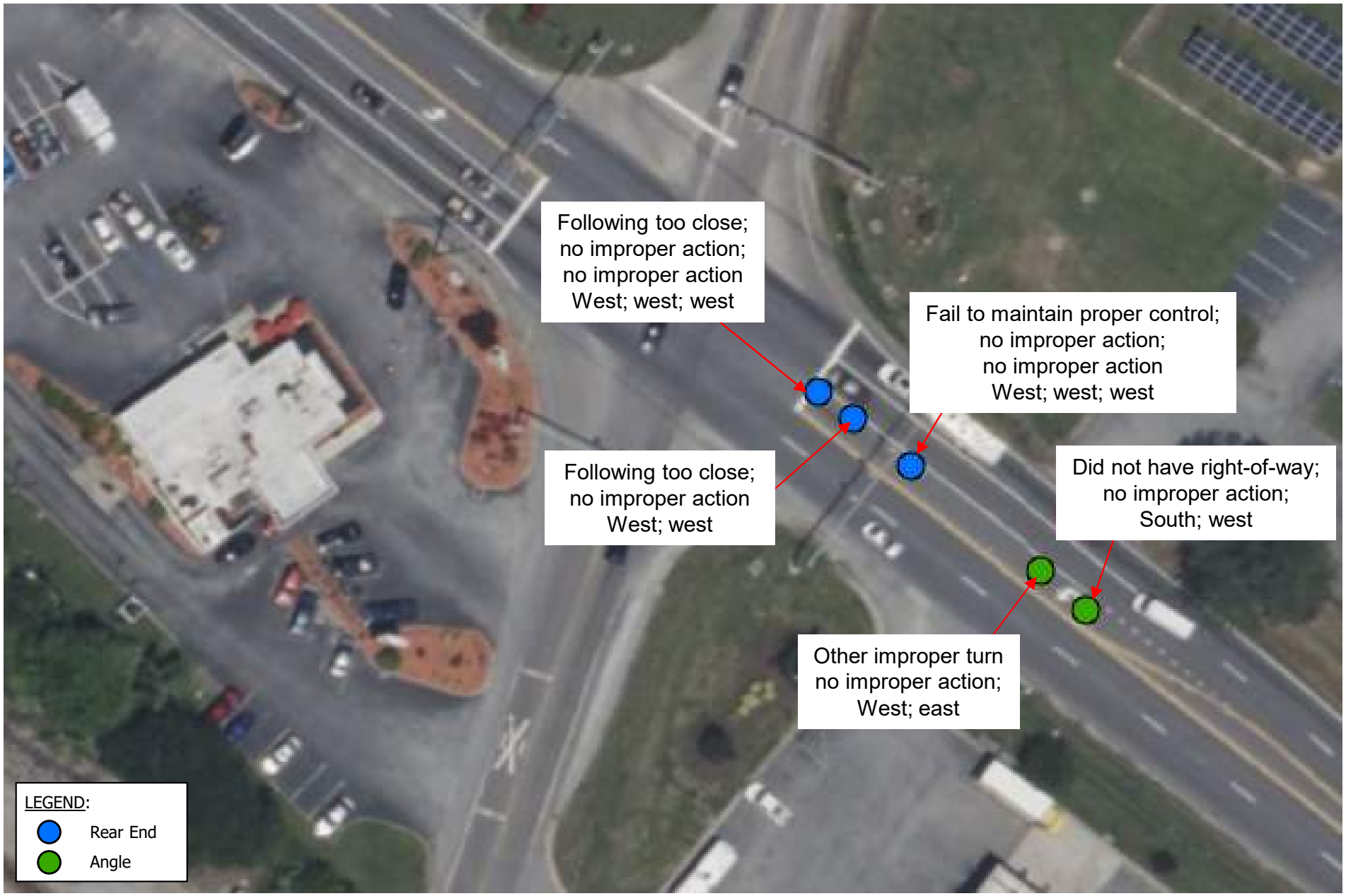
Figure
7



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Overall Crash Map by Collision Type
US Route 460 and US Route 258 Operational Analysis
Isle of Wight, Virginia

Figure
8



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Westbound Approach Crash Map
US Route 460 and US Route 258 Operational Analysis
Isle of Wight, Virginia

Figure
9

APPENDIX A

2023 Count Data

TRAFFIC DATA COLLECTION

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Site Code :
Start Date : 10/19/2023
Page No : 1

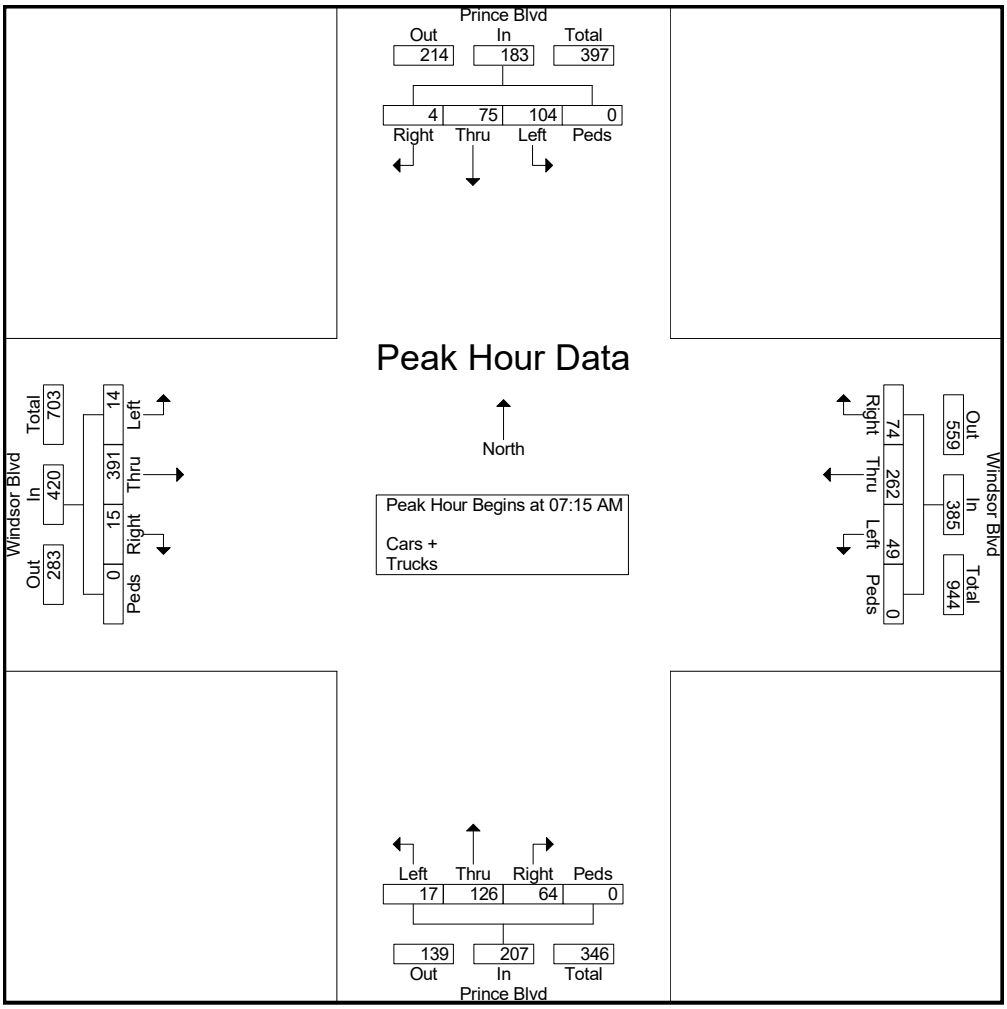
Groups Printed- Cars + - Trucks

	Prince Blvd Southbound					Windsor Blvd Westbound					Prince Blvd Northbound					Windsor Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	5	13	22	0	40	21	50	5	0	76	13	35	7	0	55	3	89	8	0	100	271
07:15 AM	1	23	29	0	53	13	59	11	0	83	19	34	5	0	58	3	91	5	0	99	293
07:30 AM	0	16	27	0	43	21	78	13	0	112	18	28	6	0	52	3	93	4	0	100	307
07:45 AM	3	16	23	0	42	17	63	15	0	95	17	28	4	0	49	5	104	4	0	113	299
Total	9	68	101	0	178	72	250	44	0	366	67	125	22	0	214	14	377	21	0	412	1170
08:00 AM	0	20	25	0	45	23	62	10	0	95	10	36	2	0	48	4	103	1	0	108	296
08:15 AM	4	13	25	0	42	19	66	9	0	94	12	23	9	0	44	5	91	2	0	98	278
08:30 AM	1	20	28	0	49	10	60	10	0	80	14	13	3	0	30	8	74	4	0	86	245
08:45 AM	3	20	20	0	43	8	66	14	0	88	13	17	8	0	38	2	101	0	0	103	272
Total	8	73	98	0	179	60	254	43	0	357	49	89	22	0	160	19	369	7	0	395	1091
Grand Total	17	141	199	0	357	132	504	87	0	723	116	214	44	0	374	33	746	28	0	807	2261
Apprch %	4.8	39.5	55.7	0		18.3	69.7	12	0		31	57.2	11.8	0		4.1	92.4	3.5	0		
Total %	0.8	6.2	8.8	0	15.8	5.8	22.3	3.8	0	32	5.1	9.5	1.9	0	16.5	1.5	33	1.2	0	35.7	
Cars +	16	132	188	0	336	120	361	74	0	555	108	206	32	0	346	21	590	25	0	636	1873
% Cars +	94.1	93.6	94.5	0	94.1	90.9	71.6	85.1	0	76.8	93.1	96.3	72.7	0	92.5	63.6	79.1	89.3	0	78.8	82.8
Trucks	1	9	11	0	21	12	143	13	0	168	8	8	12	0	28	12	156	3	0	171	388
% Trucks	5.9	6.4	5.5	0	5.9	9.1	28.4	14.9	0	23.2	6.9	3.7	27.3	0	7.5	36.4	20.9	10.7	0	21.2	17.2

TRAFFIC DATA COLLECTION

File Name : Windsor(Windsor and Prince)
Site Code :
Start Date : 10/19/2023
Page No : 2

	Prince Blvd Southbound					Windsor Blvd Westbound					Prince Blvd Northbound					Windsor Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	1	**23**	**29**	0	**53**	13	59	11	0	83	**19**	34	5	0	**58**	3	91	**5**	0	99	293
07:30 AM	0	16	27	0	43	21	**78**	13	0	**112**	18	28	**6**	0	52	3	93	4	0	100	**307**
07:45 AM	**3**	16	23	0	42	17	63	**15**	0	95	17	28	4	0	49	**5**	**104**	4	0	**113**	299
08:00 AM	0	20	25	0	45	**23**	62	10	0	95	10	**36**	2	0	48	4	103	1	0	108	296
Total Volume	4	75	104	0	183	74	262	49	0	385	64	126	17	0	207	15	391	14	0	420	1195
% App. Total	2.2	41	56.8	0		19.2	68.1	12.7	0		30.9	60.9	8.2	0		3.6	93.1	3.3	0		
PHF	.333	.815	.897	.000	.863	.804	.840	.817	.000	.859	.842	.875	.708	.000	.892	.750	.940	.700	.000	.929	.973



TRAFFIC DATA COLLECTION

File Name : Windsor(Windsor and Prince)
Site Code :
Start Date : 10/19/2023
Page No : 1

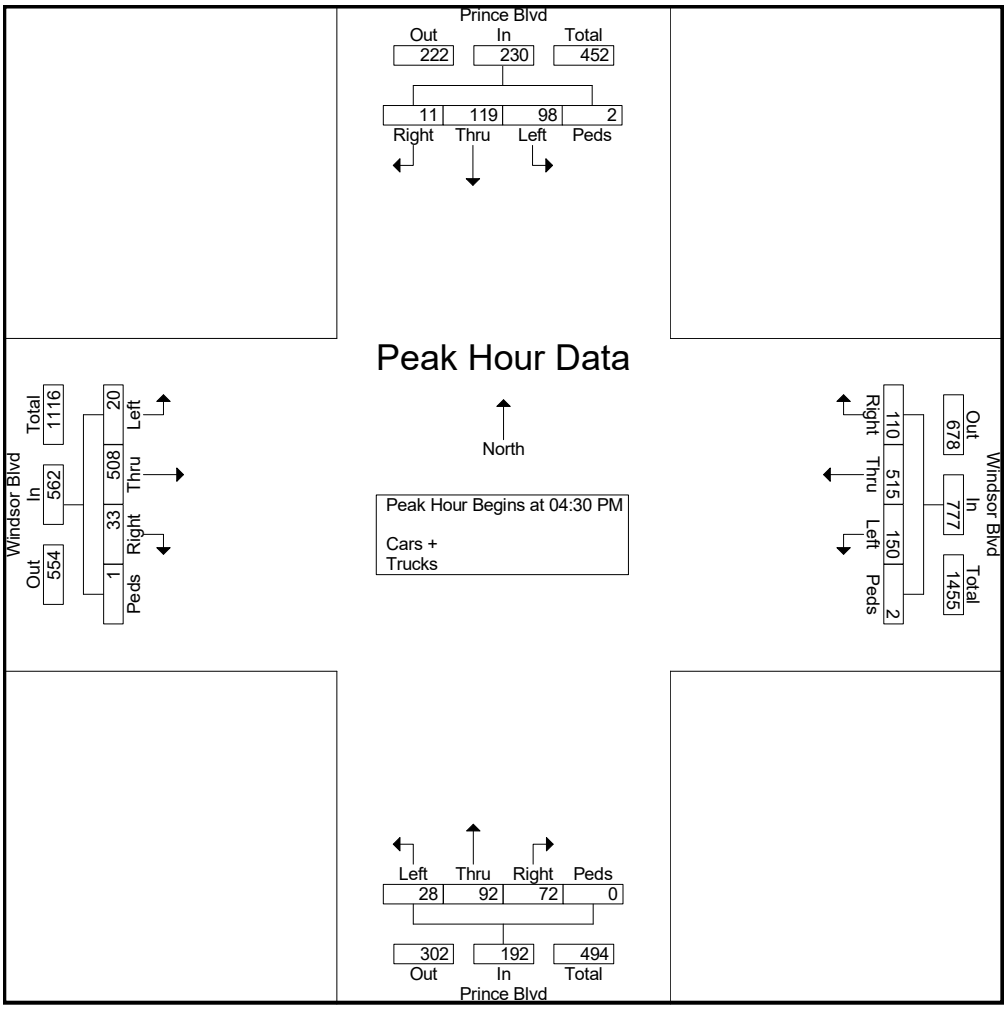
Groups Printed- Cars + - Trucks

	Prince Blvd Southbound					Windsor Blvd Westbound					Prince Blvd Northbound					Windsor Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
04:00 PM	6	26	36	0	68	23	127	41	0	191	21	14	12	0	47	7	63	1	0	71	377
04:15 PM	5	31	40	0	76	20	121	38	0	179	19	21	9	0	49	10	70	1	0	81	385
04:30 PM	0	32	25	0	57	24	131	45	0	200	24	19	10	0	53	11	173	2	0	186	496
04:45 PM	2	32	25	2	61	28	131	37	2	198	22	27	6	0	55	4	115	6	0	125	439
Total	13	121	126	2	262	95	510	161	2	768	86	81	37	0	204	32	421	10	0	463	1697
05:00 PM	3	22	21	0	46	33	131	36	0	200	15	18	9	0	42	9	114	8	1	132	420
05:15 PM	6	33	27	0	66	25	122	32	0	179	11	28	3	0	42	9	106	4	0	119	406
05:30 PM	2	22	19	4	47	30	132	34	2	198	16	34	9	1	60	5	106	5	0	116	421
05:45 PM	1	35	28	0	64	32	110	37	1	180	19	15	13	0	47	4	118	7	0	129	420
Total	12	112	95	4	223	120	495	139	3	757	61	95	34	1	191	27	444	24	1	496	1667
Grand Total	25	233	221	6	485	215	1005	300	5	1525	147	176	71	1	395	59	865	34	1	959	3364
Apprch %	5.2	48	45.6	1.2		14.1	65.9	19.7	0.3		37.2	44.6	18	0.3		6.2	90.2	3.5	0.1		
Total %	0.7	6.9	6.6	0.2	14.4	6.4	29.9	8.9	0.1	45.3	4.4	5.2	2.1	0	11.7	1.8	25.7	1	0	28.5	
Cars +	20	223	216	6	465	209	886	292	4	1391	141	163	59	1	364	45	772	29	1	847	3067
% Cars +	80	95.7	97.7	100	95.9	97.2	88.2	97.3	80	91.2	95.9	92.6	83.1	100	92.2	76.3	89.2	85.3	100	88.3	91.2
Trucks	5	10	5	0	20	6	119	8	1	134	6	13	12	0	31	14	93	5	0	112	297
% Trucks	20	4.3	2.3	0	4.1	2.8	11.8	2.7	20	8.8	4.1	7.4	16.9	0	7.8	23.7	10.8	14.7	0	11.7	8.8

TRAFFIC DATA COLLECTION

File Name : Windsor(Windsor and Prince)
Site Code :
Start Date : 10/19/2023
Page No : 2

	Prince Blvd Southbound					Windsor Blvd Westbound					Prince Blvd Northbound					Windsor Blvd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	32	25	0	57	24	**131**	**45**	0	**200**	**24**	19	**10**	0	53	**11**	**173**	2	0	**186**	**496**
04:45 PM	2	32	25	**2**	61	28	131	37	**2**	198	22	27	6	0	**55**	4	115	6	0	125	439
05:00 PM	3	22	21	0	46	**33**	131	36	0	200	15	18	9	0	42	9	114	**8**	**1**	132	420
05:15 PM	**6**	**33**	**27**	0	**66**	25	122	32	0	179	11	**28**	3	0	42	9	106	4	0	119	406
Total Volume	11	119	98	2	230	110	515	150	2	777	72	92	28	0	192	33	508	20	1	562	1761
% App. Total	4.8	51.7	42.6	0.9		14.2	66.3	19.3	0.3		37.5	47.9	14.6	0		5.9	90.4	3.6	0.2		
PHF	.458	.902	.907	.250	.871	.833	.983	.833	.250	.971	.750	.821	.700	.000	.873	.750	.734	.625	.250	.755	.888



APPENDIX B

Signal Timings

Rt. 460 @ 258 DQ Windsor

Phase Timing

10/23/2023 1:09:21 PM

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	3	15	8	8	3	15	0	0	0	0	0	0	0	0	0	0
Veh Ext	2.0	4.0	5.0	4.0	2.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Green 1	20	45	33	33	20	45	0	0	0	0	0	0	0	0	0	0
Max Green 2	20	60	40	40	25	60	0	0	0	0	0	0	0	0	0	0
Max Green 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Ext	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow	4.1	4.1	4.8	4.8	4.1	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Clr	2.1	2.1	3.1	2.7	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adv Flash	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bike MG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sol DW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Early Wlk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Wlk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Added	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0	25	0	0	0	25	0	0	0	0	0	0	0	0	0	0
Min Gap	1.0	3.0	0.0	3.0	1.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reduce After	5	10	0	10	5	10	0	0	0	0	0	0	0	0	0	0
TTReduce	5	5	0	5	5	5	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Max Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Red Revert	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Neg Ped	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AP Disc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pmt Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pmt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pmt Ped Clr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Return Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Phase Options

10/23/2023 1:09:21 PM

Phases	1-8								9-16							
Min Recalls		2				6										
Max Recalls																
Ped Recalls																
Soft Recall																
Dual Entry																
Red Rest																
Walk Rest																
Walk Expand																
Ped Recycle																
Sim Ped Term																
PC Thru Clr																
Guar Passage																
No Simult Gap																
Yel Lock																
Red Lock																
PhaseNext Lock	1	2	3	4	5	6										
No Term Call	1	2	3	4	5	6										
Cond Serv																
CS Enable																
Cond Reserve																
Reserve																
Veh Omit																
Ped Omit																
Perm Phase																
Protect Calls																
Protect Calls 2																
Flash Entry																
Flash Exit																
Flash Exit Yel																
Flash Exit Red																
Ped Scramble																
No Min Yel																
No Min Red Rev																
Max Scramble Walk																
Flash Yellow																
Flash FYA																
CNA 1																
CNA 2																

Rt. 460 @ 258 DQ Windsor

Phase Startup Options

10/23/2023 1:09:21 PM

Startup Flash	0	Mode	Yel->Red
Startup All Red	0	Yellow	0.0

Phases	1-8							9-16							
Startup Phases		2				6										
Startup Yellow		2				6										
Startup Red																
Startup No Walk																
Startup Next																
Startup Yel Fls																
Startup FYA																
No Veh Call																
No Ped Call																

Phase Startup Timing

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Start Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Max Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Unit

Red Revert	4.0	Ped Protect	No	AdvFls in Flash	No

Rt. 460 @ 258 DQ Windsor

Ring Sequence / Conflicting Phases

10/23/2023 1:09:21 PM

Ringgroup 1

Ring 1	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0
Ring 2	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ringgroup 2

Custom Sequences

Seq 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seq 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seq 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seq 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seq 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seq 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seq 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Seq 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Conflicting Phases

	1-8							9-16							
Phase 1															
Phase 2															
Phase 3															
Phase 4															
Phase 5															
Phase 6															
Phase 7															
Phase 8															
Phase 9															
Phase 10															
Phase 11															
Phase 12															
Phase 13															
Phase 14															
Phase 15															
Phase 16															

Rt. 460 @ 258 DQ Windsor

MCE Options

10/23/2023 1:09:21 PM

Phases	1-8							9-16							
MCE Ped Protect															
MCE Veh Call															
MCE Ped Call															
MCE Veh Omit															
MCE Ped Omit															
MCE Veh Sync															
MCE Ped Sync															
MCE Halt Don't Walk															

LRV Phases	1-8							
MCE LRV Term Early								

Rt. 460 @ 258 DQ Windsor

FYA/FRA

10/23/2023 1:09:21 PM

FYA	1	2	3	4	5	6	7	8
Prot Phs	1	0	0	0	5	0	0	0
Opp Thru	2	0	0	0	6	0	0	0
Start Phs	0	0	0	0	0	0	0	0
Opp Ped	0	0	0	0	0	0	0	0
Delay	4.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0
Min FYA	3.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0
Skip Prot Red	Enabled	Disabled	Disabled	Disabled	Enabled	Disabled	Disabled	Disabled
Head Mode	FYA 1	FYA 1	FYA 1	FYA 1	FYA 1	FYA 1	FYA 1	FYA 1

Ped Hawk 1

Veh Phase	0		
Ped Phase	0		
Flash Yel	0.0	Dark Signal	Yes
Flash Delay	0.0	Flash Carryover	0.0
Green Mode	Normal		

Ped Hawk 2

Veh Phase	0		
Ped Phase	0		
Flash Yel	0.0	Dark Signal	Yes
Flash Delay	0.0	Flash Carryover	0.0
Green Mode	Normal		

Ped Hawk 3

Veh Phase	0		
Ped Phase	0		
Flash Yel	0.0	Dark Signal	Yes
Flash Delay	0.0	Flash Carryover	0.0
Green Mode	Normal		

Ped Hawk 4

Veh Phase	0		
Ped Phase	0		
Flash Yel	0.0	Dark Signal	Yes
Flash Delay	0.0	Flash Carryover	0.0
Green Mode	Normal		

Rt. 460 @ 258 DQ Windsor

Overlap Startup Options

10/23/2023 1:09:21 PM

Overlaps	1-8							9-16							
Startup Overlap Green															
Startup Overlap Yellow															

Overlap Startup Timing

Overlap	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Start Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Min Green	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Overlap Unit Options

Overlaps	1-8							9-16							
Overlap Ped Recalls															
MCE Olap Ped Protect															
MCE Olap Ped Calls															
MCE Olap Ped Expand															
No Min Yellow															
No Min Red Rev															
Flash Yellow															
No Conflict															
Pre Signal															
Perm Red															
Perm FYA															
Perm FRA															

Rt. 460 @ 258 DQ Windsor

Coordination Options

10/23/2023 1:09:21 PM

Sync Time	00:00	RTC Set Time	00:00
Transition Mode	Best 2	Ped Adjust	None
Trans Short %	20	Trans Long %	35
Offset Reference	Lag FO	Short Cycles	0
Dual Entry	Normal	Overlap F/O	Disabled
Master Sync Mode	RTC	Master Sync Length	0
Adapt Thresh	0	Adapt Step	0
External Plan Max	0		
Hardwire No Match	Sched	Hardwire Sync Fail	0
Override Omit/Recall	No		

Phases	1-8	9-16
No Trans Recall		
Trans Ped Recall		
Trans Phases		

Rt. 460 @ 258 DQ Windsor

Hardwire Plans

10/23/2023 1:09:21 PM

Hardwire	Plan Select							Pattern	Offset	Mode
Plan 1								0	0	Hardwire
Plan 2								0	0	Hardwire
Plan 3								0	0	Hardwire
Plan 4								0	0	Hardwire
Plan 5								0	0	Hardwire
Plan 6								0	0	Hardwire
Plan 7								0	0	Hardwire
Plan 8								0	0	Hardwire
Plan 9								0	0	Hardwire
Plan 10								0	0	Hardwire
Plan 11								0	0	Hardwire
Plan 12								0	0	Hardwire
Plan 13								0	0	Hardwire
Plan 14								0	0	Hardwire
Plan 15								0	0	Hardwire
Plan 16								0	0	Hardwire
Plan 17								0	0	Hardwire
Plan 18								0	0	Hardwire
Plan 19								0	0	Hardwire
Plan 20								0	0	Hardwire
Plan 21								0	0	Hardwire
Plan 22								0	0	Hardwire
Plan 23								0	0	Hardwire
Plan 24								0	0	Hardwire
Plan 25								0	0	Hardwire
Plan 26								0	0	Hardwire
Plan 27								0	0	Hardwire
Plan 28								0	0	Hardwire
Plan 29								0	0	Hardwire
Plan 30								0	0	Hardwire
Plan 31								0	0	Hardwire
Plan 32								0	0	Hardwire

Rt. 460 @ 258 DQ Windsor

Soft Interconnect

10/23/2023 1:09:21 PM

Mode	Slave	Remote Int Number	0
Yield Delay	0		
Yield Duration	0		
Permissive	0		
Local Hold Limit	0		

Phases	1-8	9-16
Local Control Phases		
Local Hold Phases		
Local Perm Phases		
Local Call Phases		
Remote Perm Phases		
Remote Hold Phases		

Rt. 460 @ 258 DQ Windsor

Coordination Pattern 1

10/23/2023 1:09:21 PM

Cycle	115	Ringgroup 1 - Offset 1	0	Offset 2	0	Offset 3	0
		Ringgroup 2 - Offset 1	0	Offset 2	0	Offset 3	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Splits	20	46	24	25	19	47	0	0	0	0	0	0	0	0	0	0
Split Ext	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Float Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Perm Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Permissive Mode	Sing Band	Max Mode	Max Inh	Walk Rest	Yield
Ped Permissive	Yield				
Permissive Limit	0	Perm 2 Start	0	Perm 2 End	0
Alt Sequence		TOD Link	0		

Phases/Overlaps	1-8								9-16							
Coord Phases		2				6										
No Extend																
Float Enable																
Veh = Ped Perm																
Walk Rest																
Ped Recall																
Cond Ped Call																
Olap Ped Recall																
Ped Recycle																
Min Recall																
Max Recall																
Cond Serv																
Reservice																
Veh Omit																
Ped Omit																
Olap Omit																
Perm Reserve																
Perm 1 Phases																
Max Inhibit																
FYA Omit																
Adapt Phases																

Trans Mode	Default
Offset Ref	Default
Adaptive Mode	Disabled

Disable Priority	
Progression Phases	
Priority Alt Seq	
Reserve Extend	

Priority Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Priority Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Coordination Pattern 1

10/23/2023 1:09:21 PM

Alternate Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Sol DW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Veh Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Max Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Red Clr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Early Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Delay Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt CS Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt CS Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Coordination Pattern 2

10/23/2023 1:09:21 PM

Cycle	95	Ringgroup 1 - Offset 1	40	Offset 2	0	Offset 3	0
		Ringgroup 2 - Offset 1	0	Offset 2	0	Offset 3	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Splits	18	33	18	26	18	33	0	0	0	0	0	0	0	0	0	0
Split Ext	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Float Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Perm Min Green	8	12	8	8	8	12	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Permissive Mode	Sing Band	Max Mode	Max 1	Walk Rest	Yield
Ped Permissive	Yield				
Permissive Limit	10	Perm 2 Start	0	Perm 2 End	0
Alt Sequence		TOD Link	0		

Phases/Overlaps	1-8								9-16							
Coord Phases		2				6										
No Extend																
Float Enable																
Veh = Ped Perm																
Walk Rest																
Ped Recall																
Cond Ped Call																
Olap Ped Recall																
Ped Recycle																
Min Recall																
Max Recall																
Cond Serv																
Reservice																
Veh Omit																
Ped Omit																
Olap Omit																
Perm Reserve																
Perm 1 Phases																
Max Inhibit																
FYA Omit																
Adapt Phases																

Trans Mode	Default
Offset Ref	Default
Adaptive Mode	Disabled

Disable Priority	
Progression Phases	
Priority Alt Seq	
Reserve Extend	

Priority Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Priority Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Coordination Pattern 2

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Alternate Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Sol DW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Veh Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Max Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Red Clr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Early Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Delay Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt CS Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt CS Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Coordination Pattern 3

10/23/2023 1:09:21 PM

Cycle	150	Ringgroup 1 - Offset 1	0	Offset 2	0	Offset 3	0
		Ringgroup 2 - Offset 1	0	Offset 2	0	Offset 3	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Splits	20	80	25	25	20	80	0	0	0	0	0	0	0	0	0	0
Split Ext	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Float Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Perm Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Permissive Mode	Sing Band	Max Mode	Max Inh	Walk Rest	Yield
Ped Permissive	Yield				
Permissive Limit	0	Perm 2 Start	0	Perm 2 End	0
Alt Sequence		TOD Link	0		

Phases/Overlaps	1-8								9-16							
Coord Phases		2				6										
No Extend																
Float Enable																
Veh = Ped Perm																
Walk Rest																
Ped Recall																
Cond Ped Call																
Olap Ped Recall																
Ped Recycle																
Min Recall																
Max Recall																
Cond Serv																
Reservice																
Veh Omit																
Ped Omit																
Olap Omit																
Perm Reserve																
Perm 1 Phases																
Max Inhibit																
FYA Omit																
Adapt Phases																

Trans Mode	Default
Offset Ref	Default
Adaptive Mode	Disabled

Disable Priority	
Progression Phases	
Priority Alt Seq	
Reserve Extend	

Priority Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Priority Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Coordination Pattern 3

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Alternate Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Sol DW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Veh Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Max Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Red Clr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Early Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Delay Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt CS Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt CS Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Coordination Pattern 4

10/23/2023 1:09:21 PM

Cycle	200	Ringgroup 1 - Offset 1	175	Offset 2	0	Offset 3	0
		Ringgroup 2 - Offset 1	0	Offset 2	0	Offset 3	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Splits	18	126	28	28	22	122	0	0	0	0	0	0	0	0	0	0
Split Ext	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Float Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Perm Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Permissive Mode	Sing Band	Max Mode	Max Inh	Walk Rest	Yield
Ped Permissive	Yield				
Permissive Limit	0	Perm 2 Start	0	Perm 2 End	0
Alt Sequence		TOD Link	0		

Phases/Overlaps	1-8								9-16							
Coord Phases		2				6										
No Extend																
Float Enable																
Veh = Ped Perm																
Walk Rest																
Ped Recall																
Cond Ped Call																
Olap Ped Recall																
Ped Recycle																
Min Recall																
Max Recall																
Cond Serv																
Reservice																
Veh Omit																
Ped Omit																
Olap Omit																
Perm Reserve																
Perm 1 Phases																
Max Inhibit																
FYA Omit																
Adapt Phases																

Trans Mode	Default															
Offset Ref	Default															
Adaptive Mode	Disabled															
Disable Priority																
Progression Phases																
Priority Alt Seq																
Reserve Extend																

Priority Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Priority Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Coordination Pattern 4

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Alternate Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Sol DW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Veh Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Max Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Red Clr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Early Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Delay Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt CS Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt CS Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Coordination Pattern 5

10/23/2023 1:09:21 PM

Cycle	90	Ringgroup 1 - Offset 1	40	Offset 2	0	Offset 3	0
		Ringgroup 2 - Offset 1	0	Offset 2	0	Offset 3	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Splits	18	28	24	20	18	28	0	0	0	0	0	0	0	0	0	0
Split Ext	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Float Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Perm Min Green	8	12	8	8	8	12	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Permissive Mode	Sing Band	Max Mode	Max 1	Walk Rest	Yield
Ped Permissive	Yield				
Permissive Limit	10	Perm 2 Start	0	Perm 2 End	0
Alt Sequence	3	TOD Link	0		

Phases/Overlaps	1-8								9-16							
Coord Phases		2				6										
No Extend																
Float Enable																
Veh = Ped Perm																
Walk Rest																
Ped Recall																
Cond Ped Call																
Olap Ped Recall																
Ped Recycle																
Min Recall																
Max Recall																
Cond Serv																
Reservice																
Veh Omit																
Ped Omit																
Olap Omit																
Perm Reserve																
Perm 1 Phases																
Max Inhibit																
FYA Omit																
Adapt Phases																

Trans Mode	Default
Offset Ref	Default
Adaptive Mode	Disabled

Disable Priority																
Progression Phases																
Priority Alt Seq																
Reserve Extend																

Priority Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Priority Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Coordination Pattern 5

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Alternate Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Sol DW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Veh Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Max Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Red Clr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Early Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Delay Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt CS Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt CS Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Coordination Pattern 6

10/23/2023 1:09:21 PM

Cycle	120	Ringgroup 1 - Offset 1	96	Offset 2	0	Offset 3	0
		Ringgroup 2 - Offset 1	0	Offset 2	0	Offset 3	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Splits	18	46	28	28	18	46	0	0	0	0	0	0	0	0	0	0
Split Ext	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Float Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Perm Min Green	8	12	8	8	8	12	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Permissive Mode	Sing Band	Max Mode	Max 2	Walk Rest	Yield
Ped Permissive	Yield				
Permissive Limit	10	Perm 2 Start	0	Perm 2 End	0
Alt Sequence	3	TOD Link	0		

Phases/Overlaps	1-8								9-16							
Coord Phases		2				6										
No Extend																
Float Enable																
Veh = Ped Perm																
Walk Rest																
Ped Recall																
Cond Ped Call																
Olap Ped Recall																
Ped Recycle																
Min Recall																
Max Recall																
Cond Serv																
Reservice																
Veh Omit																
Ped Omit																
Olap Omit																
Perm Reserve																
Perm 1 Phases																
Max Inhibit																
FYA Omit																
Adapt Phases																

Trans Mode	Default
Offset Ref	Default
Adaptive Mode	Disabled

Disable Priority																
Progression Phases																
Priority Alt Seq																
Reserve Extend																

Priority Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Priority Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Coordination Pattern 6

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Alternate Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Sol DW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Veh Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Max Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Red Clr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Early Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Delay Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt CS Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt CS Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Coordination Pattern 7

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Cycle	130	Ringgroup 1 - Offset 1	60	Offset 2	0	Offset 3	0
		Ringgroup 2 - Offset 1	0	Offset 2	0	Offset 3	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Splits	18	48	30	34	18	48	0	0	0	0	0	0	0	0	0	0
Split Ext	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Float Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Perm Min Green	8	12	8	8	8	12	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Permissive Mode	Sing Band	Max Mode	Max 2	Walk Rest	Yield
Ped Permissive	Yield				
Permissive Limit	10	Perm 2 Start	0	Perm 2 End	0
Alt Sequence	2 3	TOD Link	0		

Phases/Overlaps	1-8							9-16							
Coord Phases		2				6									
No Extend															
Float Enable															
Veh = Ped Perm															
Walk Rest															
Ped Recall															
Cond Ped Call															
Olap Ped Recall															
Ped Recycle															
Min Recall															
Max Recall	1														
Cond Serv															
Reservice															
Veh Omit															
Ped Omit															
Olap Omit															
Perm Reserve															
Perm 1 Phases															
Max Inhibit															
FYA Omit															
Adapt Phases															

Trans Mode	Default					
Offset Ref	Default					
Adaptive Mode	Disabled					
Disable Priority						
Progression Phases						
Priority Alt Seq						
Reserve Extend						

Priority Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Priority Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Coordination Pattern 7

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Alternate Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Sol DW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Veh Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Max Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Red Clr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Early Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Delay Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt CS Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt CS Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Coordination Pattern 14

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Cycle	200	Ringgroup 1 - Offset 1	175	Offset 2	0	Offset 3	0
		Ringgroup 2 - Offset 1	0	Offset 2	0	Offset 3	0

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Splits	18	126	28	28	22	122	0	0	0	0	0	0	0	0	0	0
Split Ext	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Float Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Perm Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Trans Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Split 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA Before	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PA After	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Permissive Mode	Sing Band	Max Mode	Max Inh	Walk Rest	Yield
Ped Permissive	Yield				
Permissive Limit	0	Perm 2 Start	0	Perm 2 End	0
Alt Sequence		TOD Link	0		

Phases/Overlaps	1-8								9-16							
Coord Phases		2				6										
No Extend																
Float Enable																
Veh = Ped Perm																
Walk Rest																
Ped Recall																
Cond Ped Call																
Olap Ped Recall																
Ped Recycle																
Min Recall																
Max Recall																
Cond Serv																
Reservice																
Veh Omit																
Ped Omit																
Olap Omit																
Perm Reserve																
Perm 1 Phases																
Max Inhibit																
FYA Omit																
Adapt Phases																

Trans Mode	Default															
Offset Ref	Default															
Adaptive Mode	Disabled															
Disable Priority																
Progression Phases																
Priority Alt Seq																
Reserve Extend																

Priority Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Priority Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recovery Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Coordination Pattern 14

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Alternate Timing-Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Alt Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Ped Clr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Sol DW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Veh Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Max Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Red Clr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Early Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt Delay Walk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alt CS Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt CS Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Preempt Inputs

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Preempt Input	1	2	3	4	5	6	7	8	9	10
Delay	0	0	0	0	0	0	0	0	0	0
Checkout Limit	0	0	0	0	0	0	0	0	0	0
Locked	No	No	No	No	No	No	No	No	No	No
Interlock	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled	Disabled
Input Number	0	0	0	0	0	0	0	0	0	0
Input Priority	All	All	All	All	All	All	All	All	All	All
Delay Mode	Inp	Inp	Inp	Inp	Inp	Inp	Inp	Inp	Inp	Inp

Preempt Priority

Preempt	1	2	3	4	5	6	7	8	9	10
Priority	1	0	0	0	0	0	0	0	0	0

Remote Preemption

Remote Preempt	RM 1	RM 2	RM 3	RM 4	RM 5	RM 6	RM 7	RM 8
Int Number	0	0	0	0	0	0	0	0
PE Number	0	0	0	0	0	0	0	0
Mode	Dis	Dis	Dis	Dis	Dis	Dis	Dis	Dis
Slack	0	0	0	0	0	0	0	0
Travel Time	0	0	0	0	0	0	0	0
Alt TT 1	0	0	0	0	0	0	0	0
Alt TT 2	0	0	0	0	0	0	0	0
Alt TT 3	0	0	0	0	0	0	0	0
Alt TT 4	0	0	0	0	0	0	0	0
Alt TT 5	0	0	0	0	0	0	0	0
Alt TT 6	0	0	0	0	0	0	0	0
Alt TT 7	0	0	0	0	0	0	0	0

Rt. 460 @ 258 DQ Windsor

Preempt 1 (Configuration)

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Enabled	Yes	Dwell Mode	Normal	Output Mode	All
Output2 Mode	All	Fail Action	Preempt Off	Exit Mode	Normal
Override Flash	No	Change Phasenext	Yes		

	1-8	9-16
Enable Phases		
Preempt Inputs	1	

	1-8		
LRV Disable		Max	0
LRV Dwell Flash			
LRV Omit		Delay	0
LRV No Yel			

Preempt 1 (Timing/Phases/Overlaps)

Phases/Overlaps	1-8	9-16
Omit Olap Grn Clr		
Phs EWlk to Grn		
TClr 1 Veh Phases	3	
TClr 1 Ped Phases		
TClr 1 Olap		
TClr 1 Olap Ped		
TClr 2 Veh Phases		
TClr 2 Ped Phases		
TClr 2 Olap		
TClr 2 Olap Ped		
Init Dwell Phases		
Dwell Veh Phases	2 6	
Dwell Ped Phases		
Dwell Olap		
Dwell Olap Ped		
Exit Veh Phases	2 6	
Exit Ped Phases		
Exit Olap		
Exit Olap Ped		
Zero Phase Walk		
Zero Phase Ped Clr		
Zero Phase Green	1 2 4 5 6	
Zero Olap Walk		
Zero Olap Ped Clr		
Zero Olap Green		
Dwell-Phase Red		
Dwell-Phase Red Flash		
Dwell-Phase Yel Flash		
Dwell-Olap Red Flash		
Dwell-Olap Yel Flash		
Dwell-Ped Dark		
Dwell-Olap Ped Dark		

Start Green	0	Start Walk	0
		Start Ped Clr	0
Track Clear 1	12	Track Clear 2	0
TC1 Extend	0	TC1 Max	0
Exit Ped Clr	0	Exit Yellow	0.0
Exit Red	0.0		
Min Dwell	0	Min Duration	0
Dwell Extend	0		
Max Dwell	0	Max Call	180
Reserve Inh Same	0		
Reserve Inh All	0		
Delay	0		

Phases/Overlaps	1-8	9-16
TClr 1 FR Olap		
TClr 2 FR Olap		
Dwell FR Olap		
TClr 1 FYA		
TClr 2 FYA		
Dwell FYA	5	

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Preempt 2 (Configuration)

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Enabled	Yes	Dwell Mode	Normal	Output Mode	All
Output2 Mode	All	Fail Action	Preempt Off	Exit Mode	Normal
Override Flash	No	Change Phasenext	Yes		

	1-8	9-16
Enable Phases		
Preempt Inputs	2	

	1-8		
LRV Disable		Max	0
LRV Dwell Flash			
LRV Omit		Delay	0
LRV No Yel			

Preempt 2 (Timing/Phases/Overlaps)

Phases/Overlaps	1-8	9-16
Omit Olap Grn Clr		
Phs EWlk to Grn		
TClr 1 Veh Phases		
TClr 1 Ped Phases		
TClr 1 Olap		
TClr 1 Olap Ped		
TClr 2 Veh Phases		
TClr 2 Ped Phases		
TClr 2 Olap		
TClr 2 Olap Ped		
Init Dwell Phases		
Dwell Veh Phases	2 5	
Dwell Ped Phases		
Dwell Olap		
Dwell Olap Ped		
Exit Veh Phases	2 6	
Exit Ped Phases		
Exit Olap		
Exit Olap Ped		
Zero Phase Walk		
Zero Phase Ped Clr		
Zero Phase Green	1 3 4 6	
Zero Olap Walk		
Zero Olap Ped Clr		
Zero Olap Green		
Dwell-Phase Red		
Dwell-Phase Red Flash		
Dwell-Phase Yel Flash		
Dwell-Olap Red Flash		
Dwell-Olap Yel Flash		
Dwell-Ped Dark		
Dwell-Olap Ped Dark		

Start Green	0	Start Walk	0
		Start Ped Clr	0
Track Clear 1	0	Track Clear 2	0
TC1 Extend	0	TC1 Max	0
Exit Ped Clr	0	Exit Yellow	0.0
Exit Red	0.0		
Min Dwell	0	Min Duration	0
Dwell Extend	0		
Max Dwell	0	Max Call	180
Reserve Inh Same	0		
Reserve Inh All	0		
Delay	0		

Phases/Overlaps	1-8	9-16
TClr 1 FR Olap		
TClr 2 FR Olap		
Dwell FR Olap		
TClr 1 FYA		
TClr 2 FYA		
Dwell FYA	1	

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Preempt 3 (Configuration)

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Enabled	Yes	Dwell Mode	Normal	Output Mode	All
Output2 Mode	All	Fail Action	Preempt Off	Exit Mode	Normal
Override Flash	No	Change Phasenext	Yes		

	1-8	9-16
Enable Phases		
Preempt Inputs	3	

	1-8		
LRV Disable		Max	0
LRV Dwell Flash			
LRV Omit		Delay	0
LRV No Yel			

Preempt 3 (Timing/Phases/Overlaps)

Phases/Overlaps	1-8	9-16
Omit Olap Grn Clr		
Phs EWlk to Grn		
TClr 1 Veh Phases		
TClr 1 Ped Phases		
TClr 1 Olap		
TClr 1 Olap Ped		
TClr 2 Veh Phases		
TClr 2 Ped Phases		
TClr 2 Olap		
TClr 2 Olap Ped		
Init Dwell Phases		
Dwell Veh Phases	3	
Dwell Ped Phases		
Dwell Olap		
Dwell Olap Ped		
Exit Veh Phases	2 6	
Exit Ped Phases		
Exit Olap		
Exit Olap Ped		
Zero Phase Walk		
Zero Phase Ped Clr		
Zero Phase Green	1 2 4 5 6	
Zero Olap Walk		
Zero Olap Ped Clr		
Zero Olap Green		
Dwell-Phase Red		
Dwell-Phase Red Flash		
Dwell-Phase Yel Flash		
Dwell-Olap Red Flash		
Dwell-Olap Yel Flash		
Dwell-Ped Dark		
Dwell-Olap Ped Dark		

Start Green	0	Start Walk	0
		Start Ped Clr	0
Track Clear 1	0	Track Clear 2	0
TC1 Extend	0	TC1 Max	0
Exit Ped Clr	0	Exit Yellow	0.0
Exit Red	0.0		
Min Dwell	0	Min Duration	0
Dwell Extend	0		
Max Dwell	0	Max Call	180
Reserve Inh Same	0		
Reserve Inh All	0		
Delay	0		

Phases/Overlaps	1-8	9-16
TClr 1 FR Olap		
TClr 2 FR Olap		
Dwell FR Olap		
TClr 1 FYA		
TClr 2 FYA		
Dwell FYA		

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Preempt 4 (Configuration)

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Enabled	Yes	Dwell Mode	Normal	Output Mode	All
Output2 Mode	All	Fail Action	Preempt Off	Exit Mode	Normal
Override Flash	No	Change Phasenext	Yes		

	1-8	9-16
Enable Phases		
Preempt Inputs	4	

	1-8		
LRV Disable		Max	0
LRV Dwell Flash			
LRV Omit		Delay	0
LRV No Yel			

Preempt 4 (Timing/Phases/Overlaps)

Phases/Overlaps	1-8	9-16
Omit Olap Grn Clr		
Phs EWlk to Grn		
TClr 1 Veh Phases		
TClr 1 Ped Phases		
TClr 1 Olap		
TClr 1 Olap Ped		
TClr 2 Veh Phases		
TClr 2 Ped Phases		
TClr 2 Olap		
TClr 2 Olap Ped		
Init Dwell Phases		
Dwell Veh Phases	4	
Dwell Ped Phases		
Dwell Olap		
Dwell Olap Ped		
Exit Veh Phases	2 6	
Exit Ped Phases		
Exit Olap		
Exit Olap Ped		
Zero Phase Walk		
Zero Phase Ped Clr		
Zero Phase Green	1 2 3 5 6	
Zero Olap Walk		
Zero Olap Ped Clr		
Zero Olap Green		
Dwell-Phase Red		
Dwell-Phase Red Flash		
Dwell-Phase Yel Flash		
Dwell-Olap Red Flash		
Dwell-Olap Yel Flash		
Dwell-Ped Dark		
Dwell-Olap Ped Dark		

Start Green	0	Start Walk	0
		Start Ped Clr	0
Track Clear 1	0	Track Clear 2	0
TC1 Extend	0	TC1 Max	0
Exit Ped Clr	0	Exit Yellow	0.0
Exit Red	0.0		
Min Dwell	0	Min Duration	0
Dwell Extend	0		
Max Dwell	0	Max Call	180
Reserve Inh Same	0		
Reserve Inh All	0		
Delay	0		

Phases/Overlaps	1-8	9-16
TClr 1 FR Olap		
TClr 2 FR Olap		
Dwell FR Olap		
TClr 1 FYA		
TClr 2 FYA		
Dwell FYA		

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Preempt 5 (Configuration)

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Enabled	Yes	Dwell Mode	Normal	Output Mode	All
Output2 Mode	All	Fail Action	Preempt Off	Exit Mode	In Step
Override Flash	No	Change Phasenext	Yes		

	1-8	9-16
Enable Phases		
Preempt Inputs	5	

	1-8		
LRV Disable		Max	0
LRV Dwell Flash			
LRV Omit		Delay	0
LRV No Yel			

Preempt 5 (Timing/Phases/Overlaps)

Phases/Overlaps	1-8	9-16
Omit Olap Grn Clr		
Phs EWlk to Grn		
TClr 1 Veh Phases		
TClr 1 Ped Phases		
TClr 1 Olap		
TClr 1 Olap Ped		
TClr 2 Veh Phases		
TClr 2 Ped Phases		
TClr 2 Olap		
TClr 2 Olap Ped		
Init Dwell Phases		
Dwell Veh Phases	1 6	
Dwell Ped Phases		
Dwell Olap		
Dwell Olap Ped		
Exit Veh Phases		
Exit Ped Phases		
Exit Olap		
Exit Olap Ped		
Zero Phase Walk		
Zero Phase Ped Clr		
Zero Phase Green	2 3 4 5	
Zero Olap Walk		
Zero Olap Ped Clr		
Zero Olap Green		
Dwell-Phase Red		
Dwell-Phase Red Flash		
Dwell-Phase Yel Flash		
Dwell-Olap Red Flash		
Dwell-Olap Yel Flash		
Dwell-Ped Dark		
Dwell-Olap Ped Dark		

Start Green	0	Start Walk	0
		Start Ped Clr	0
Track Clear 1	0	Track Clear 2	0
TC1 Extend	0	TC1 Max	0
Exit Ped Clr	0	Exit Yellow	0.0
Exit Red	0.0		
Min Dwell	0	Min Duration	0
Dwell Extend	0		
Max Dwell	0	Max Call	180
Reserve Inh Same	0		
Reserve Inh All	0		
Delay	0		

Phases/Overlaps	1-8	9-16
TClr 1 FR Olap		
TClr 2 FR Olap		
Dwell FR Olap		
TClr 1 FYA		
TClr 2 FYA		
Dwell FYA	5	

Rt. 460 @ 258 DQ Windsor

TOD Pattern Events

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	Time	DOW							Holidays								Mode	Pattern	Offset
Event 1	05:45		M	T	W	T	F										Sched	0	0
Event 2	06:30		M	T	W	T	F										Sched	5	0
Event 3	07:10		M	T	W	T	F										Sched	0	0
Event 4	07:40		M	T	W	T	F										Sched	6	0
Event 5	10:00		M	T	W	T	F										Sched	6	0
Event 6	11:00		M	T	W	T	F										Sched	6	0
Event 7	14:30		M	T	W	T	F										Sched	0	0
Event 8	15:00		M	T	W	T	F										Sched	7	0
Event 9	19:00		M	T	W	T	F										Sched	5	0
Event 10	20:30		M	T	W	T	F										Sched	0	0
Event 11	22:00		M	T	W	T	F										Sched	0	0
Event 12	00:00	S	M	T	W	T	F	S									Sched	0	0
Event 13	08:00	S						S									Sched	5	0
Event 14	10:00	S															Sched	6	0
Event 15	11:00							S									Sched	6	0
Event 16	18:30	S						S									Sched	5	0
Event 17	20:30	S						S									Sched	5	0
Event 18	22:00	S						S									Sched	0	0
Event 19	00:00																Sched	0	0
Event 20	00:00																Sched	0	0
Event 21	00:00																Sched	0	0
Event 22	00:00																Sched	0	0
Event 23	00:00																Sched	0	0
Event 24	00:00																Sched	0	0
Event 25	00:00																Sched	0	0
Event 26	00:00																Sched	0	0
Event 27	00:00																Sched	0	0
Event 28	00:00																Sched	0	0
Event 29	00:00																Sched	0	0
Event 30	00:00																Sched	0	0
Event 31	00:00																Sched	0	0
Event 32	00:00																Sched	0	0

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TOD Function Event 1

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Start Time: 07:10 DOW: M T W T F Holidays:

Phases	1-8	9-16
Min Recall		
Max Recall		
Soft Recall		
Ped Recall		
Olap Ped Recall		
Ped Recycle		
Max 2	1 2 3 4 5 6	
Max 3		
Cond Serv		
Phase Omit		
Ped Omit		
Olap Omit		
Red Rest		
Walk Rest		
Aud Ped Dis		
Special Function		
FYA Omit		

Priority Plan	0
Remote PE Time	0
Alt Detector Select	0
Disable Det Diagnostics	No

TOD Function Event 2

Start Time: 07:40 DOW: M T W T F Holidays:

Phases	1-8	9-16
Min Recall		
Max Recall		
Soft Recall		
Ped Recall		
Olap Ped Recall		
Ped Recycle		
Max 2		
Max 3		
Cond Serv		
Phase Omit		
Ped Omit		
Olap Omit		
Red Rest		
Walk Rest		
Aud Ped Dis		
Special Function		
FYA Omit		

Priority Plan	0
Remote PE Time	0
Alt Detector Select	0
Disable Det Diagnostics	No

Rt. 460 @ 258 DQ Windsor

Holidays

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	Active Holidays								Month	Day	DOW							WOM
Date 1									0	0								0
Date 2									0	0								0
Date 3									0	0								0
Date 4									0	0								0
Date 5									0	0								0
Date 6									0	0								0
Date 7									0	0								0
Date 8									0	0								0
Date 9									0	0								0
Date 10									0	0								0
Date 11									0	0								0
Date 12									0	0								0
Date 13									0	0								0
Date 14									0	0								0
Date 15									0	0								0
Date 16									0	0								0
Date 17									0	0								0
Date 18									0	0								0
Date 19									0	0								0
Date 20									0	0								0
Date 21									0	0								0
Date 22									0	0								0
Date 23									0	0								0
Date 24									0	0								0
Date 25									0	0								0
Date 26									0	0								0
Date 27									0	0								0
Date 28									0	0								0
Date 29									0	0								0
Date 30									0	0								0
Date 31									0	0								0
Date 32									0	0								0

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Vehicle Detector 1

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Delay	0.0	Extend	0.0	Carryover	0.0	Queue Limit	0
Mode	No Disc	Added	Enabled	System	Enabled		
Fail Mode	None	Max Pres	0	No Act	0	Erratic	0	Fail Time	0
Delay 2	0.0						

Phases	1-8	9-16
Call Phases	2	
Yellow Lock Phases		
Red Lock Phases		
Extend Phases	2	
XSwitch Phases		
Bike Call Phases		

Vehicle Detector 2

Delay	0.0	Extend	0.0	Carryover	0.0	Queue Limit	0
Mode	No Disc	Added	Enabled	System	Enabled		
Fail Mode	None	Max Pres	0	No Act	0	Erratic	0	Fail Time	0
Delay 2	0.0						

Phases	1-8	9-16
Call Phases	2	
Yellow Lock Phases		
Red Lock Phases		
Extend Phases	2	
XSwitch Phases		
Bike Call Phases		

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Vehicle Detector 3

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Delay	Extend	Carryover	Queue Limit
0.0	0.0	0.0	0

Mode	Added	System
FYA	Enabled	Enabled

Fail Mode	Max Pres	No Act	Erratic	Fail Time
None	0	0	0	0

Delay 2
0.0

Phases	1-8	9-16
Call Phases	5	
Yellow Lock Phases		
Red Lock Phases		
Extend Phases	5	
XSwitch Phases	6	
Bike Call Phases		

Vehicle Detector 4

Delay	Extend	Carryover	Queue Limit
0.0	0.0	0.0	0

Mode	Added	System
No Disc	Enabled	Enabled

Fail Mode	Max Pres	No Act	Erratic	Fail Time
None	0	0	0	0

Delay 2
0.0

Phases	1-8	9-16
Call Phases	4	
Yellow Lock Phases		
Red Lock Phases		
Extend Phases	4	
XSwitch Phases		
Bike Call Phases		

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Vehicle Detector 5

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Delay	Extend	Carryover	Queue Limit
0.0	0.0	0.0	0

Mode	Added	System
No Disc	Enabled	Enabled

Fail Mode	Max Pres	No Act	Erratic	Fail Time
None	0	0	0	0

Delay 2
0.0

Phases	1-8								9-16							
Call Phases						6										
Yellow Lock Phases																
Red Lock Phases																
Extend Phases						6										
XSwitch Phases																
Bike Call Phases																

Vehicle Detector 6

Delay	Extend	Carryover	Queue Limit
0.0	0.0	0.0	0

Mode	Added	System
No Disc	Enabled	Enabled

Fail Mode	Max Pres	No Act	Erratic	Fail Time
None	0	0	0	0

Delay 2
0.0

Phases	1-8								9-16							
Call Phases						6										
Yellow Lock Phases																
Red Lock Phases																
Extend Phases						6										
XSwitch Phases																
Bike Call Phases																

Rt. 460 @ 258 DQ Windsor

Vehicle Detector 7

10/23/2023 1:09:21 PM

Delay	Extend	Carryover	Queue Limit
0.0	0.0	0.0	0

Mode	Added	System
FYA	Enabled	Enabled

Fail Mode	Max Pres	No Act	Erratic	Fail Time
None	0	0	0	0

Delay 2
0.0

Phases	1-8	9-16
Call Phases	1	
Yellow Lock Phases		
Red Lock Phases		
Extend Phases	1	
XSwitch Phases	2	
Bike Call Phases		

Vehicle Detector 8

Delay	Extend	Carryover	Queue Limit
0.0	0.0	0.0	0

Mode	Added	System
No Disc	Enabled	Enabled

Fail Mode	Max Pres	No Act	Erratic	Fail Time
None	0	0	0	0

Delay 2
0.0

Phases	1-8	9-16
Call Phases	3	
Yellow Lock Phases		
Red Lock Phases		
Extend Phases	3	
XSwitch Phases		
Bike Call Phases		

Rt. 460 @ 258 DQ Windsor

Vehicle Detector 9

10/23/2023 1:09:21 PM

Delay	0.0	Extend	0.0	Carryover	0.0	Queue Limit	0		
Mode	No Disc	Added	Enabled	System	Enabled				
Fail Mode	None	Max Pres	0	No Act	0	Erratic	0	Fail Time	0
Delay 2	0.0								

Phases	1-8								9-16							
Call Phases			3													
Yellow Lock Phases																
Red Lock Phases																
Extend Phases			3													
XSwitch Phases																
Bike Call Phases																

Rt. 460 @ 258 DQ Windsor

Pedestrian Detector 1

10/23/2023 1:09:21 PM

No Act	Max Pres	Erratic	Fail Mode
0	0	0	None

Phases/Overlaps	1-8								9-16							
Call Ped Phases					6											
Call Ped Olaps																
Call Phases																
Locked Call Phases																
Ped Entry Phases																
Olap Ped Entry Phases																
Ped Cascade Phases																
Call Walk2																

Pedestrian Detector 2

No Act	Max Pres	Erratic	Fail Mode
0	0	0	None

Phases/Overlaps	1-8								9-16							
Call Ped Phases					6											
Call Ped Olaps																
Call Phases																
Locked Call Phases																
Ped Entry Phases																
Olap Ped Entry Phases																
Ped Cascade Phases																
Call Walk2																

Pedestrian Detector 3

No Act	Max Pres	Erratic	Fail Mode
0	0	0	None

Phases/Overlaps	1-8								9-16							
Call Ped Phases																
Call Ped Olaps	1															
Call Phases																
Locked Call Phases																
Ped Entry Phases																
Olap Ped Entry Phases																
Ped Cascade Phases																
Call Walk2																

Pedestrian Detector 4

No Act	Max Pres	Erratic	Fail Mode
0	0	0	None

Phases/Overlaps	1-8								9-16							
Call Ped Phases																
Call Ped Olaps	1															
Call Phases																
Locked Call Phases																
Ped Entry Phases																
Olap Ped Entry Phases																
Ped Cascade Phases																
Call Walk2																

Rt. 460 @ 258 DQ Windsor

Pedestrian Detector 5

10/23/2023 1:09:21 PM

No Act	Max Pres	Erratic	Fail Mode
0	0	0	None

Phases/Overlaps	1-8	9-16
Call Ped Phases	3	
Call Ped Olaps		
Call Phases		
Locked Call Phases		
Ped Entry Phases		
Olap Ped Entry Phases		
Ped Cascade Phases		
Call Walk2		

Pedestrian Detector 6

No Act	Max Pres	Erratic	Fail Mode
0	0	0	None

Phases/Overlaps	1-8	9-16
Call Ped Phases	3	
Call Ped Olaps		
Call Phases		
Locked Call Phases		
Ped Entry Phases		
Olap Ped Entry Phases		
Ped Cascade Phases		
Call Walk2		

Pedestrian Detector 7

No Act	Max Pres	Erratic	Fail Mode
0	0	0	None

Phases/Overlaps	1-8	9-16
Call Ped Phases	2	
Call Ped Olaps		
Call Phases		
Locked Call Phases		
Ped Entry Phases		
Olap Ped Entry Phases		
Ped Cascade Phases		
Call Walk2		

Pedestrian Detector 8

No Act	Max Pres	Erratic	Fail Mode
0	0	0	None

Phases/Overlaps	1-8	9-16
Call Ped Phases	2	
Call Ped Olaps		
Call Phases		
Locked Call Phases		
Ped Entry Phases		
Olap Ped Entry Phases		
Ped Cascade Phases		
Call Walk2		

Rt. 460 @ 258 DQ Windsor

Transit/LRV Startup/Options

10/23/2023 1:09:21 PM

	LRV 1-8									
No Startup Call									Warn Flash Rate	1 Hz

Rsrv Inh Mode: Seconds

Rt. 460 @ 258 DQ Windsor

Control / Config

10/23/2023 1:09:21 PM

Pattern Mode	Central						
Manual Pattern	0	Manual Offset	0				
Stop Time Input	Enabled						
Aux Switch	None		5				
DLS Mode	D4	Time Zone	Est (UTC-5)			GPS Thresh	0
Password Timeout	0						

	1-8	9-16
Maint Phs Recalls		
Maint Ped Recalls		

Serial 1 Port Configuration

Broadcast Plan/Sync	Disabled	Broadcast Time	00:00
Serial Rebroadcast	Disabled	Response	None

Serial 2 Port Configuration

Broadcast Plan/Sync	Disabled	Broadcast Time	00:00

Ethernet Port Configuration

Broadcast Plan/Sync	Disabled	Broadcast Time	00:00
Serial Rebroadcast	Disabled		

Peer Configuration

Peer 1	0
Peer 2	0
Peer 3	0
Peer 4	0
Peer 5	0
Peer 6	0
Peer 7	0
Peer 8	0

APPENDIX C

Existing Conditions

Synchro Worksheets

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	14	418	51	346	214	188
v/c Ratio	0.03	0.36	0.13	0.28	0.69	0.69
Control Delay	20.6	30.3	20.9	23.7	53.5	60.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	30.3	20.9	23.7	53.5	60.4
Queue Length 50th (ft)	6	123	20	72	145	138
Queue Length 95th (ft)	21	201	52	153	216	208
Internal Link Dist (ft)		1914		1846	1043	1160
Turn Bay Length (ft)	220		150			
Base Capacity (vph)	501	1204	436	1298	333	311
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.35	0.12	0.27	0.64	0.60

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	391	15	49	262	74	17	126	64	104	75	4
Future Volume (vph)	14	391	15	49	262	74	17	126	64	104	75	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2	6.2		6.2	6.2			7.9			7.5	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	0.97			0.96			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.97	
Satd. Flow (prot)	1626	2954		1570	2819			1697			1738	
Flt Permitted	0.52	1.00		0.46	1.00			1.00			0.97	
Satd. Flow (perm)	897	2954		762	2819			1697			1738	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	14	403	15	51	270	76	18	130	66	107	77	4
RTOR Reduction (vph)	0	2	0	0	19	0	0	13	0	0	1	0
Lane Group Flow (vph)	14	416	0	51	327	0	0	201	0	0	187	0
Heavy Vehicles (%)	11%	21%	36%	15%	28%	9%	27%	4%	7%	6%	6%	6%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	6			2								
Actuated Green, G (s)	52.2	45.5		52.2	49.0			21.2			18.8	
Effective Green, g (s)	52.2	45.5		52.2	49.0			21.2			18.8	
Actuated g/C Ratio	0.44	0.38		0.44	0.41			0.18			0.16	
Clearance Time (s)	6.2	6.2		6.2	6.2			7.9			7.5	
Vehicle Extension (s)	2.0	4.0		2.0	4.0			5.0			4.0	
Lane Grp Cap (vph)	409	1120		376	1151			299			272	
v/s Ratio Prot	0.00	c0.14		c0.01	c0.12			c0.12			c0.11	
v/s Ratio Perm	0.01			0.05								
v/c Ratio	0.03	0.37		0.14	0.28			0.67			0.69	
Uniform Delay, d1	19.3	26.9		19.9	23.8			46.1			47.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	0.9		0.1	0.6			7.5			7.6	
Delay (s)	19.3	27.9		19.9	24.4			53.7			55.5	
Level of Service	B	C		B	C			D			E	
Approach Delay (s)		27.6			23.8			53.7			55.5	
Approach LOS		C			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	35.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	27.8
Intersection Capacity Utilization	62.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection: 1: US Route 258 & US Route 460

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	76	196	210	119	185	186	277	266
Average Queue (ft)	6	95	85	23	68	57	135	135
95th Queue (ft)	41	174	177	70	145	137	236	229
Link Distance (ft)		1947	1947		1879	1879	1063	1179
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	220			150				
Storage Blk Time (%)	0	0		0	1			
Queuing Penalty (veh)	0	0		0	0			

Network Summary

Network wide Queuing Penalty: 0

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	22	608	169	703	215	256
v/c Ratio	0.07	0.50	0.45	0.49	0.77	0.79
Control Delay	19.9	34.6	23.7	29.4	64.9	67.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.9	34.6	23.7	29.4	64.9	67.7
Queue Length 50th (ft)	9	209	77	235	158	205
Queue Length 95th (ft)	27	288	134	319	238	293
Internal Link Dist (ft)		1914		1846	1043	1160
Turn Bay Length (ft)	220		150			
Base Capacity (vph)	339	1239	391	1425	322	376
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.49	0.43	0.49	0.67	0.68

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	508	33	150	515	110	28	92	72	98	119	11
Future Volume (vph)	20	508	33	150	515	110	28	92	72	98	119	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2	6.2		6.2	6.2			6.7			6.7	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	0.97			0.95			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1570	3200		1752	3183			1668			1779	
Flt Permitted	0.29	1.00		0.32	1.00			0.99			0.98	
Satd. Flow (perm)	484	3200		599	3183			1668			1779	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	22	571	37	169	579	124	31	103	81	110	134	12
RTOR Reduction (vph)	0	3	0	0	12	0	0	17	0	0	2	0
Lane Group Flow (vph)	22	605	0	169	691	0	0	198	0	0	254	0
Heavy Vehicles (%)	15%	11%	24%	3%	12%	3%	17%	7%	4%	2%	4%	20%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	6			2								
Actuated Green, G (s)	60.0	49.1		60.0	55.2			20.6			23.6	
Effective Green, g (s)	60.0	49.1		60.0	55.2			20.6			23.6	
Actuated g/C Ratio	0.46	0.38		0.46	0.42			0.16			0.18	
Clearance Time (s)	6.2	6.2		6.2	6.2			6.7			6.7	
Vehicle Extension (s)	2.0	4.0		2.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	263	1208		373	1351			264			322	
v/s Ratio Prot	0.00	0.19		c0.04	c0.22			c0.12			c0.14	
v/s Ratio Perm	0.04			0.17								
v/c Ratio	0.08	0.50		0.45	0.51			0.75			0.79	
Uniform Delay, d1	19.8	31.0		21.5	27.5			52.2			50.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	1.5		0.3	0.4			12.0			12.8	
Delay (s)	19.9	32.5		21.8	27.9			64.3			63.6	
Level of Service	B	C		C	C			E			E	
Approach Delay (s)		32.1			26.7			64.3			63.6	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	37.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	25.8
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection: 1: US Route 258 & US Route 460

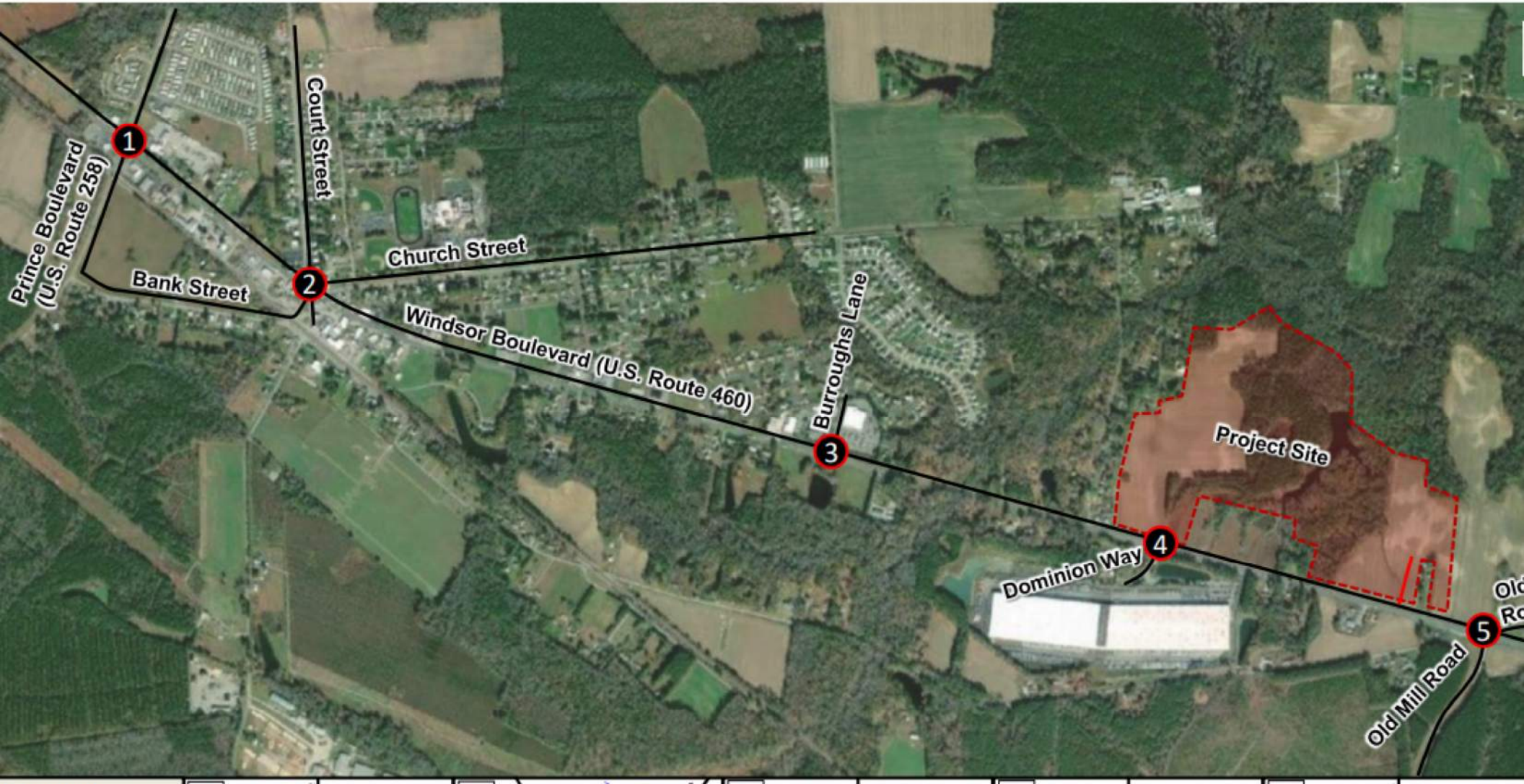
Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	54	232	248	149	240	267	225	255
Average Queue (ft)	11	122	120	68	107	109	100	125
95th Queue (ft)	35	204	216	134	198	211	187	211
Link Distance (ft)		1947	1947		1879	1879	1063	1179
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	220			150				
Storage Blk Time (%)		0		0	2			
Queuing Penalty (veh)		0		1	3			

Network Summary

Network wide Queuing Penalty: 4

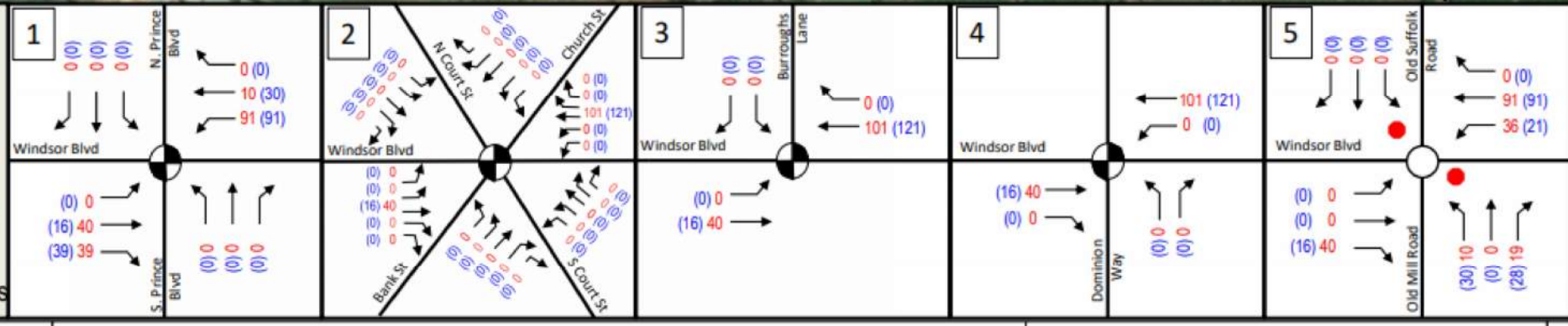
APPENDIX D

Other Development TIAs



Legend

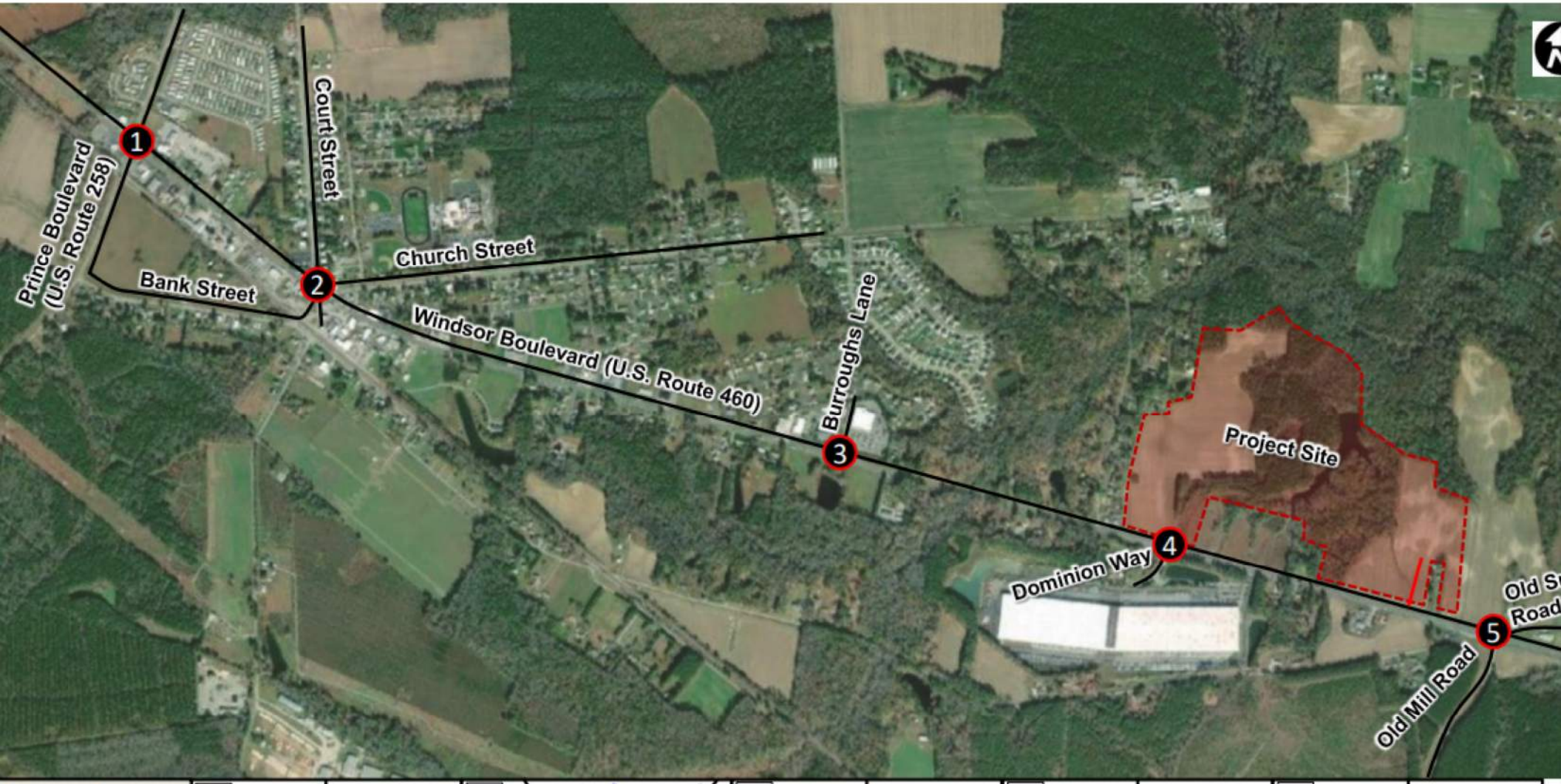
- nalized Intersection
- signalized ersection
- dy Intersection
- posed Access Point
- p Sign
- (PM) Traffic Volumes



mley»Horn

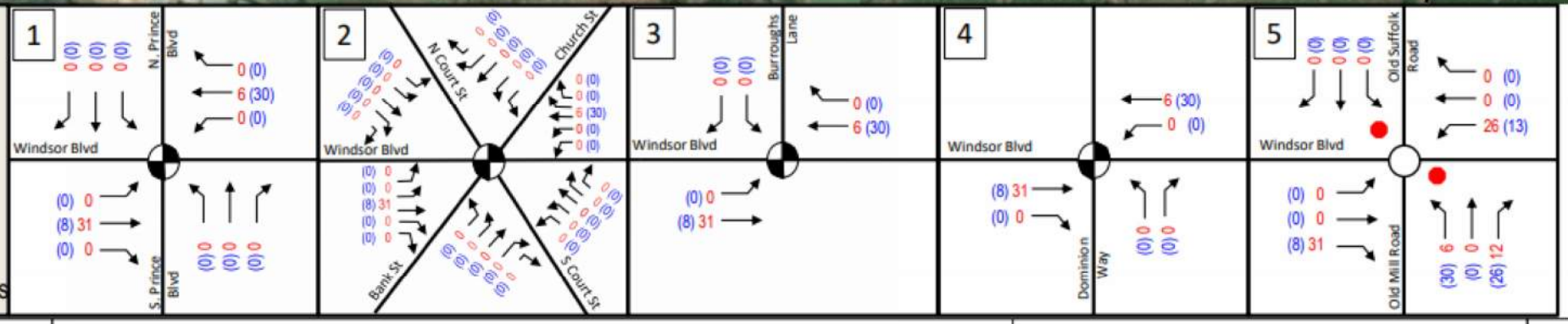
Tidewater Logistics Center TIA
Windsor, VA

2025 Background Volumes



Legend

- Signalized Intersection
- Unsignalized Intersection
- Study Intersection
- Proposed Access Point
- Stop Sign
- AM (PM) Traffic Volumes



mley»Horn	Tidewater Logistics Center TIA Windsor, VA	2031 Background Volumes

APPENDIX E

2031 Background Conditions

Synchro Worksheets

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	15	587	148	402	230	204
v/c Ratio	0.03	0.58	0.46	0.32	0.73	0.76
Control Delay	18.7	35.7	24.1	23.9	57.1	65.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.7	35.7	24.1	23.9	57.1	65.8
Queue Length 50th (ft)	6	200	66	92	156	150
Queue Length 95th (ft)	19	268	112	163	245	#237
Internal Link Dist (ft)		1914		1846	1043	1160
Turn Bay Length (ft)	220		150			
Base Capacity (vph)	472	1073	342	1267	328	301
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.55	0.43	0.32	0.70	0.68

Intersection Summary

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	514	55	144	310	80	18	136	69	113	81	4
Future Volume (vph)	15	514	55	144	310	80	18	136	69	113	81	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2	6.2		6.2	6.2			7.9			7.5	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.99		1.00	0.97			0.96			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.97	
Satd. Flow (prot)	1626	2905		1570	2819			1697			1738	
Flt Permitted	0.48	1.00		0.33	1.00			1.00			0.97	
Satd. Flow (perm)	823	2905		540	2819			1697			1738	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	15	530	57	148	320	82	19	140	71	116	84	4
RTOR Reduction (vph)	0	7	0	0	17	0	0	13	0	0	1	0
Lane Group Flow (vph)	15	580	0	148	385	0	0	217	0	0	203	0
Heavy Vehicles (%)	11%	21%	36%	15%	28%	9%	27%	4%	7%	6%	6%	6%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	6			2								
Actuated Green, G (s)	52.1	41.7		52.1	48.9			21.4			18.7	
Effective Green, g (s)	52.1	41.7		52.1	48.9			21.4			18.7	
Actuated g/C Ratio	0.43	0.35		0.43	0.41			0.18			0.16	
Clearance Time (s)	6.2	6.2		6.2	6.2			7.9			7.5	
Vehicle Extension (s)	2.0	4.0		2.0	4.0			5.0			4.0	
Lane Grp Cap (vph)	378	1009		323	1148			302			270	
v/s Ratio Prot	0.00	c0.20		c0.04	0.14			c0.13			c0.12	
v/s Ratio Perm	0.02			0.16								
v/c Ratio	0.04	0.58		0.46	0.34			0.72			0.75	
Uniform Delay, d1	19.4	31.9		21.7	24.4			46.5			48.4	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.0	2.4		0.4	0.8			9.7			11.9	
Delay (s)	19.4	34.3		22.1	25.2			56.2			60.3	
Level of Service	B	C		C	C			E			E	
Approach Delay (s)		33.9			24.4			56.2			60.3	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	37.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	27.8
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection: 1: US Route 258 & US Route 460

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	80	309	315	148	226	226	285	297
Average Queue (ft)	9	151	154	75	86	78	142	150
95th Queue (ft)	44	261	269	141	175	177	250	250
Link Distance (ft)		1947	1947		1879	1879	1063	1179
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	220			150				
Storage Blk Time (%)	0	2		1	2			
Queuing Penalty (veh)	0	0		1	2			

Network Summary

Network wide Queuing Penalty: 3

Lane Group	EBL	EBT	WBL	WBT	NBT	SBT
Lane Group Flow (vph)	24	721	275	825	227	268
v/c Ratio	0.09	0.68	0.77	0.59	0.80	0.81
Control Delay	19.9	41.3	40.2	31.8	68.6	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.9	41.3	40.2	31.8	68.6	69.6
Queue Length 50th (ft)	10	295	140	301	168	214
Queue Length 95th (ft)	27	349	#275	390	#271	311
Internal Link Dist (ft)		1914		1846	1043	1160
Turn Bay Length (ft)	220		150			
Base Capacity (vph)	295	1097	355	1409	316	374
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.66	0.77	0.59	0.72	0.72

Intersection Summary

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	588	75	253	640	119	30	100	78	106	129	12
Future Volume (vph)	22	588	75	253	640	119	30	100	78	106	129	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.2	6.2		6.2	6.2			6.7			6.7	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00			1.00	
Frt	1.00	0.98		1.00	0.98			0.95			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			0.98	
Satd. Flow (prot)	1570	3155		1752	3188			1669			1778	
Flt Permitted	0.23	1.00		0.23	1.00			0.99			0.98	
Satd. Flow (perm)	380	3155		428	3188			1669			1778	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	639	82	275	696	129	33	109	85	115	140	13
RTOR Reduction (vph)	0	7	0	0	10	0	0	17	0	0	2	0
Lane Group Flow (vph)	24	714	0	275	815	0	0	210	0	0	266	0
Heavy Vehicles (%)	15%	11%	24%	3%	12%	3%	17%	7%	4%	2%	4%	20%
Turn Type	D.P+P	NA		D.P+P	NA		Split	NA		Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	6			2								
Actuated Green, G (s)	59.4	43.7		59.4	54.6			20.8			24.0	
Effective Green, g (s)	59.4	43.7		59.4	54.6			20.8			24.0	
Actuated g/C Ratio	0.46	0.34		0.46	0.42			0.16			0.18	
Clearance Time (s)	6.2	6.2		6.2	6.2			6.7			6.7	
Vehicle Extension (s)	2.0	4.0		2.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	217	1060		355	1338			267			328	
v/s Ratio Prot	0.00	0.23		c0.09	0.26			c0.13			c0.15	
v/s Ratio Perm	0.05			c0.26								
v/c Ratio	0.11	0.67		0.77	0.61			0.79			0.81	
Uniform Delay, d1	20.7	37.0		24.5	29.4			52.5			50.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.1	3.4		9.3	0.9			14.9			14.8	
Delay (s)	20.8	40.4		33.8	30.3			67.4			65.7	
Level of Service	C	D		C	C			E			E	
Approach Delay (s)		39.8			31.2			67.4			65.7	
Approach LOS		D			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	41.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	25.8
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection: 1: US Route 258 & US Route 460

Movement	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LTR
Maximum Queue (ft)	154	356	345	150	380	342	252	344
Average Queue (ft)	17	185	192	117	178	172	128	158
95th Queue (ft)	79	301	308	179	322	301	226	278
Link Distance (ft)		1947	1947		1879	1879	1063	1179
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	220			150				
Storage Blk Time (%)	0	5		7	8			
Queuing Penalty (veh)	0	1		23	21			

Network Summary

Network wide Queuing Penalty: 45