

Existing Site Details

Location (County)	Henrico County	Functional Classification²	Minor Arterial
Roadway/Corridor	Route 161 (Hilliard Road)	Typical Section (lanes)	4-lane, Undivided
From Intersection	Lakeside Avenue	One-way/Two-way	Two-way
To Intersection	Brook Road	Typical Section (width, ft)	48-feet
Distance¹	0.74 mi	Posted Speed Limit	40 mph
Freight Status	No Restrictions/Priority	Urban/Rural	Urban
		VDOT Pavement Quality	<i>Unknown</i>

¹Measured from center of "from intersection" to "to intersection"

²Per VDOT 2014 Approved Functional Classification Map

Existing Traffic Volumes/Operations

Traffic count, speed data, and capacity calculations can be found in Attachment A.

Segment Tube Count Date(s)	May 31, 2019 (Friday) to June 6, 2019 (Thursday)
Intersection TMC Date(s)	Lakeside Ave/Hilliard Rd – June 6, 2019 (Thursday) Brook Rd/Hilliard Rd – July 9, 2019 (Tuesday)*
AM Peak Hour	7:30AM -8:30AM
PM Peak Hour	5:00PM-6:00PM

*Brook Rd/Hilliard Rd required recounting due to a data/communication error.

Table 1 - Segment Counts/Averages/Capacity

Average Daily Count					4-lane Existing LOS			2-lane Road Diet LOS		
Direction	Weekday	Weekend	7-Day	ADT ¹	C Cap. ³	D Cap. ³	LOS ⁴	C Cap. ³	D Cap. ³	LOS ⁴
Eastbound	4,780	3,170	4,320	4,400	25,600	26,900	C or better	15,100	15,900	C or better
Westbound	3,177	2,199	2,898	2,900						
TOTAL	7,958	5,369	7,218	7,300						
Average Peak Hour					4-lane Existing LOS			2-lane Road Diet LOS		
Direction	Weekday	Weekend	7-Day	Peak ² Hour	C Cap. ³	D Cap. ³	LOS	C Cap. ³	D Cap. ³	LOS ⁴
Eastbound	627	232	514	520	2,310	2,420	C or better	1,360	1,440	C or better
Westbound	300	151	258	260						
TOTAL	927	383	772	780						

¹ADT calculated as 7-day average rounded up to nearest 100 vehicles.

²Peak hour calculated as 7-day average rounded up to nearest 10 vehicles.

³Capacities for LOS C and D calculated using the FDOT Quality Level of Service Tables (Table 1 for daily two-way volumes; Table 4 for peak hour two-way volumes).

⁴LOS compares totals for ADT and peak hour to respective LOS C and D calculated capacities.

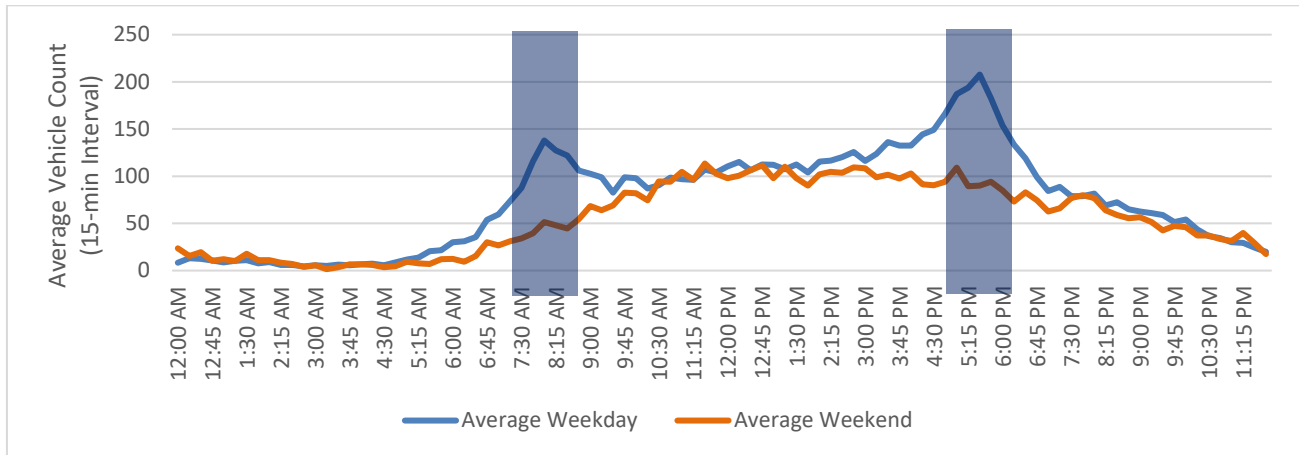


Figure 1 Total Average Weekday/Weekend Traffic Profile

Operations Analysis Results

Table 2 summarizes the intersection operations of the terminal intersections for the Hilliard Road corridor. Approaches highlighted in orange indicate segments considered for road diet modifications. Synchro analysis worksheets can be found in Attachment B.

Table 2 - Existing (2019) AM/PM HCM 6th Edition Results

Approach	Movement	Existing Storage (ft)	AM Peak Hour			PM Peak Hour		
			V/C	Delay (s) [LOS]	95 % Queue (ft) ³	V/C	Delay (s) [LOS]	95 % Queue (ft) ³
Lakeside Avenue/Hilliard Road¹								
EB	EBL	165	0.85	68.0 [E]	#250	0.92	70.2 [E]	#500
	EBT	--	0.29	28.7 [C]	150	0.56	34.1 [C]	300
	EBR	220	0.71	28.1 [C]	100	0.43	19.4 [B]	50
	Approach	-	-	36.2 [D]	-	-	39.7 [D]	-
WB	WBL	215	0.72	61.8 [E]	#75	0.64	63.7 [E]	75
	WBT	--	0.42	35.1 [D]	150	0.52	45.6 [D]	150
	WBR	130	0.00	0.0 [A]	0	0.00	0.0 [A]	0
	Approach	-	-	38.7 [D]	-	-	48.0 [D]	-
NB	NBL	130	0.72	45.2 [D]	150	0.56	40.1 [D]	200
	NBT	--	0.47	43.0 [D]	125	0.79	46.7 [D]	325
	NBR	130	0.12	36.9 [D]	0	0.26	34.9 [C]	25
	Approach	-	-	44.1 [D]	-	-	42.0 [D]	-
SB	SBL	235	0.00	27.9 [C]	25	0.03	34.3 [C]	25
	SBT	--	0.47	32.5 [C]	225	0.55	39.7 [D]	250
	SBR	--	0.71	30.5 [C]	125	0.55	25.7 [C]	100
	Approach	-	-	31.1 [C]	-	-	31.1 [C]	-
Overall Intersection			-	36.6 [D]	-	-	39.3 [D]	-

Approach	Movement	Existing Storage (ft)	AM Peak Hour			PM Peak Hour		
			V/C	Delay (s) [LOS]	95 % Queue (ft) ³	V/C	Delay (s) [LOS]	95 % Queue (ft) ³
Brook Road/Hilliard Road²								
EB	EBLT	--	0.39	33.6 [C]	100	0.64	40.3 [D]	275
	EBR	315	0.09	31.2 [C]	75	0.16	33.0 [C]	75
	Approach		-	32.5 [C]	-	-	37.5 [D]	-
WB	WBLTR	--	0.45	33.1 [C]	125	0.46	46.6 [D]	100
	Approach		-	33.1 [C]	-	-	46.6 [D]	-
NB	NBL	210	0.55	32.8 [C]	175	0.60	43.0 [D]	225
	NBTR	--	0.26	10.6 [B]	125	0.40	13.0 [B]	250
	Approach		-	16.2 [B]	-	-	18.1 [B]	-
SB	SBLT	--	0.63	26.2 [C]	250	0.70	30.0 [C]	375
	SBR	135	0.07	20.8 [C]	50	0.09	22.0 [C]	50
	Approach		-	25.4 [C]	-	-	28.9 [C]	-
Overall Intersection			0.54	23.6 [C]	-	0.64	27.7 [C]	-

¹Analysis used HCM 6 signal capacity methodology

²Analysis used HCM 2000 signal capacity methodology due to lane configuration constraints with software computation (dedicated lanes combined with shared lanes on EB approach)

³Rounded up to the nearest 25 feet

- 95th percentile volume exceeds capacity; queue may be longer.

Operations analysis findings:

- Estimated 95th percentile queues do not exceed storage on proposed road diet affected approaches during both weekday AM and PM peak hours.
- Lakeside Avenue/Hilliard Road
 - Westbound approach experiences LOS D during both weekday AM and PM peak hour conditions indicating limited spare capacity for reduction in lane configuration.
- Brook Road/Hilliard Road
 - Eastbound approach experiences LOS C and D during weekday AM and PM peak hour conditions respectively. This approach may be subject to potential lane configuration adjustments without critical impacts to vehicular traffic.
 - Any changes to lane configurations should consider geometric offset of eastbound and westbound approaches.

Table 3 - Existing Segment Traffic Volumes and Speeds

Segment	Direction	Lane	Traffic Volume (veh)		Speed (mph)	
			Approach	Segment	Average	85 th Percentile
1 – Hilliard Road	Eastbound	Outside	2,915	7,620	42.9	48.1
		Inside	1,713		43.6	48.8
	Westbound	Outside	1,647		40.6	45.4
		Inside	1,345		42.6	48.5

Note: Speed and associated volume data collected July 25, 2019.

Crash Summary

There were 15 reported crashes along Route 161 (Hilliard Road) from January 2014-April 2019. **Figure 2** shows the distribution of crashes along the segment, revealing that most crashes occur near the signalized intersections at the termini and summarize the collision types and crash severity, respectively. Other details from the crash report are summarized below.



Figure 2 Crash Map - Hilliard Road Corridor (Source: VDOT Tableau Crash Tool)

Table 4 - Rollins Ford Road Collision Type Summary (Jan 2014-Apr 2019)

Year	Collision Type									Total
	Rear End	Angle	Head On	Sideswipe	Fixed Object in Road	Non-Collision	Fixed Object Off Road	Animal	Other	
2014	1		1	2	2					6
2015		2								2
2016	2	1								3
2017	1									1
2018	3									3
2019										0
Total	7	3	1	2	2	0	0	0	0	15
Percentage	47%	20%	7%	13%	13%	0%	0%	0%	0%	100%

Review of crash types show approximately 67% of crashes are either rear-end or angle, commonly associated with the signalized intersections.

Table 5 - Crash Severity Summary (Jan 2014-Apr 2019)

Year	Crash Severity ¹					Total
	K	A	B	C	O	
2014			2		4	6
2015					2	2
2016			1		2	3
2017				1		1
2018			1		2	3
2019						0
Total	0	0	4	1	10	15
Percentage	0%	0%	27%	7%	67%	100%

¹Crash Severity as coded by the KABCO scale defined by the VA Crash Report Manual (2016) where;
 K = Dead, A = Serious Injury, B = Minor/Possible Injury, C = No Apparent Injury, O = No Injury (driver only)

Most crashes (67%) are reported as property damage only (PDO) and no fatalities have been reported since 2014. Approximately six (6) crashes occurred on the segment portion of Hilliard Road outside the influence of area of the Lakeside Avenue and Brook Road intersection areas. three (3) segment crashes have potential to be mitigated with a road diet as summarized in **Table 6**.

Crash history data can be found in Attachment C.

Table 6 - Crashes Potentially Mitigated by Road Diet Implementation

Crash Doc. No. ¹	Crash Type ¹	Crash Description ¹	Road Diet Mitigation Potential
142385110	Sideswipe – Same Direction	V2 was stopped in inside lane, turning north. V1 was in outside lane heading east and veered into inside lane striking V2.	Consolidation of vehicle flow one travel lane with dedicated turn lanes could reduce speed sheer of two through lanes and provide clarity to vehicle movements on/off mainline.
142705137	Fixed Object – Off Road	V1 was driving east bound on Hilliard Rd. V1 was cut off by another vehicle and jerked the wheel. V1 crashed into the guard rail and came to rest on the road facing the opposite direction.	Consolidation of vehicle flow into one travel lane reduces potential for vehicle cut off movements.
163405200	Angle	V1 was making a left hand turn off of Ellis Ave. onto Hilliard Rd. when it struck V2 traveling E. on Hilliard.	Consolidation of travel lanes to one in each direction allows for easier assessment of gaps for minor street turning vehicles.

¹All crash details provided by VDOT Tableau Crash Tool.

RECOMMENDATIONS

Based on the analysis and information above, the following recommendations are made for the Hilliard Road corridor.

- **Safety**
 - Crash history on approaches to signalized intersections are consistent with expectations in terms of crash types. Consider review of signal timing/clearance phases to reduce rear-end crashes.
- **Road Diet**
 - **A road diet is recommended** on Hilliard Road between Lakeside Avenue and Brook Road as a means of improving safety, providing multimodal accommodations, and unlikely to impose undue burden on traffic operations.
 - Road diet extents should aim to maintain lane configurations on signalized approaches to Lakeside Avenue and Brook Road; transitions to/from existing should be assessed in conceptual design.
 - Existing and potential road diet configuration shown in **Figure 3**.

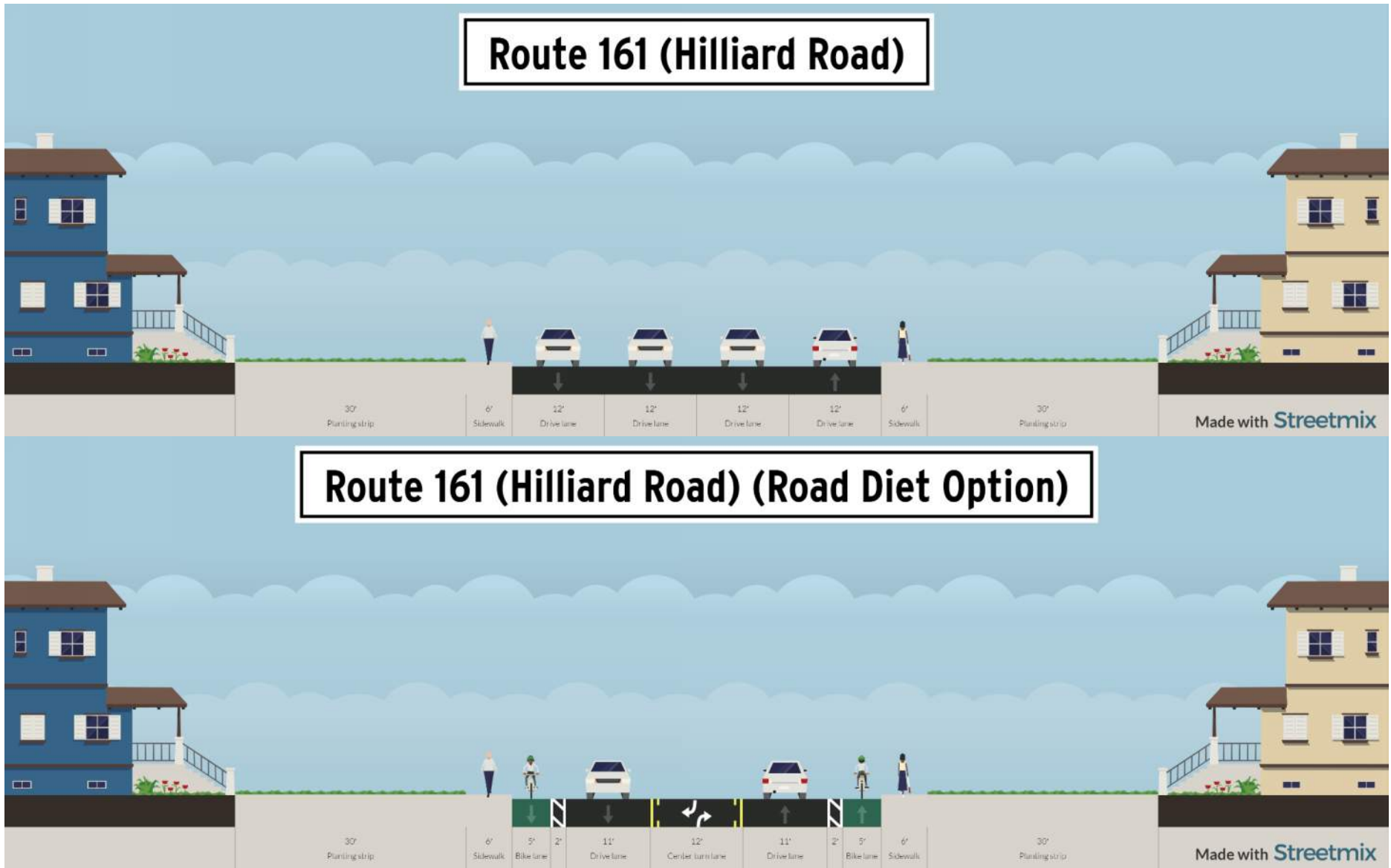


Figure 3 Hilliard Road - Existing and Proposed Road Diet Configurations

Attachment A Traffic Count, Speed Data, and
Capacity Analysis

Peggy Malone and Associates

WEEKLY SUMMARY FOR LANE 1
Starting: 5/31/2019

Page: 1

Station #: Site A-EB
Site ID: 000000009369
Location: Hilliard Rd, W of US 1
Direction: EAST

File: Hilliard Rd, W of US 1_EB.PRN
Job#: 19-243 TS Max
GPS: 37.61753, -77.46180

TIME	MON 3		TUE 4		WED 5		THU 6		FRI 31		SAT 1		SUN 2		WK TOT		WK AVG	
	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Lane 1																		
00:15	1	68	10	86	7	68	2	69	8	77	8	63	10	44	46	475	7	68
00:30	3	68	7	64	4	48	4	69	11	88	8	73	15	59	52	469	7	67
00:45	14	76	8	53	1	65	4	61	11	79	4	65	4	70	46	469	7	67
01:00	6	65	4	73	7	74	1	75	5	67	7	61	3	47	33	462	5	66
01:15	8	62	3	66	4	67	4	63	6	67	5	69	0	70	30	464	4	66
01:30	5	72	1	66	2	62	4	68	6	82	9	68	13	54	40	472	6	67
01:45	3	71	1	63	7	80	1	62	6	61	7	66	4	46	29	449	4	64
02:00	10	61	5	67	4	67	3	69	8	93	7	53	7	58	44	468	6	67
02:15	2	70	1	72	5	71	3	77	5	78	4	57	5	65	25	490	4	70
02:30	3	68	5	62	4	78	6	86	5	96	2	76	9	47	34	513	5	73
02:45	6	85	1	98	2	83	3	71	7	90	3	78	2	61	24	566	3	81
03:00	1	63	2	80	3	68	3	85	2	87	3	84	6	48	20	515	3	74
03:15	4	88	7	69	2	94	4	84	2	89	0	53	0	60	19	537	3	77
03:30	2	86	5	92	10	97	3	94	6	113	1	68	2	58	29	608	4	87
03:45	2	89	3	91	4	102	4	84	3	117	5	60	2	50	23	593	3	85
04:00	7	92	8	85	9	100	1	70	4	102	3	60	4	51	36	560	5	80
04:15	3	100	7	120	7	88	3	108	6	124	6	55	3	48	35	643	5	92
04:30	7	115	3	102	10	118	4	105	4	133	2	71	4	41	34	685	5	98
04:45	3	132	7	121	7	127	9	117	6	133	3	62	1	40	36	732	5	105
05:00	8	159	8	142	8	159	7	142	10	138	5	71	4	71	50	882	7	126
05:15	12	143	11	131	10	202	13	173	10	145	7	53	2	48	65	895	9	128
05:30	17	165	16	178	12	193	15	161	9	174	5	57	3	51	77	979	11	140
05:45	13	154	17	152	19	155	18	149	16	119	11	51	2	61	96	841	14	120
06:00	23	116	22	95	24	95	27	106	24	108	10	49	6	47	136	616	19	88
06:15	20	88	28	88	18	83	21	99	21	88	9	50	4	40	121	536	17	77
06:30	20	75	26	97	22	69	27	79	20	87	12	42	4	51	131	500	19	71
06:45	26	69	36	66	38	54	43	65	42	44	21	37	11	44	217	379	31	54
07:00	38	51	59	57	44	48	39	49	42	72	21	34	9	44	252	355	36	51
07:15	51	62	52	65	60	51	53	57	51	52	24	44	16	42	307	373	44	53
07:30	36	55	58	52	55	33	48	46	54	51	22	72	18	33	291	342	42	49
07:45	72	45	91	50	59	44	74	53	59	65	25	60	14	35	394	352	56	50
08:00	89	54	71	48	76	39	74	46	93	69	29	66	24	33	456	355	65	51
08:15	85	40	86	48	73	32	74	57	84	39	33	41	26	37	461	294	66	42
08:30	80	51	63	36	96	51	45	70	84	36	32	46	26	20	426	310	61	44
08:45	59	31	63	34	74	40	50	65	59	47	33	53	28	22	366	292	52	42
09:00	57	33	55	49	63	16	58	48	45	43	46	42	34	35	358	266	51	38
09:15	58	36	61	49	63	30	65	44	57	49	43	27	30	31	377	266	54	38
09:30	47	49	50	50	50	26	50	46	60	41	41	39	44	26	342	277	49	40
09:45	62	41	46	33	65	26	54	37	67	35	55	34	37	16	386	222	55	32
10:00	44	37	49	42	57	16	57	30	57	61	45	30	34	22	343	238	49	34
10:15	45	30	48	31	53	26	64	25	55	27	60	25	28	19	353	183	50	26
10:30	53	20	57	24	50	24	45	21	56	25	73	26	41	16	375	156	54	22
10:45	65	17	58	13	56	16	51	18	67	30	63	21	51	19	411	134	59	19
11:00	55	16	66	8	54	10	59	25	51	19	81	19	41	10	407	107	58	15
11:15	47	12	60	17	63	7	68	16	66	25	66	30	47	15	417	122	60	17
11:30	70	18	51	13	60	19	70	9	60	16	78	17	63	14	452	106	65	15
11:45	55	12	64	13	74	8	71	11	67	23	80	7	46	6	457	80	65	11
12:00	72	11	66	4	54	4	74	9	62	20	73	10	53	3	454	61	65	9
TOTALS	4690		4741		4682		4753		5083		3585		2768		30302		4330	
AM Times	07:45		07:45		08:00		11:15		07:45		11:00		11:15		11:15		11:15	
AM Peaks	326		311		319		283		320		305		209		1780		252	
AM PHF	0.92		0.85		0.83		0.96		0.86		0.94		0.83		0.97		0.97	
PM Times	17:00		17:00		17:00		17:00		16:45		14:15		12:30		17:00		17:00	
PM Peaks	621		603		709		625		590		295		246		3597		512	
PM PHF	0.94		0.85		0.88		0.90		0.85		0.88		0.88		0.92		0.92	

Peggy Malone and Associates

WEEKLY SUMMARY FOR LANE 1
Starting: 5/31/2019

Page: 1

Station #: Site A-WB
Site ID: 00000009388
Location: Hilliard Rd, W of US 1
Direction: WEST

File: Hilliard Rd, W of US 1_WB.PRN
Job#: 19-243 TS Max
GPS: 37.61753, -77.46180

TIME Lane 1	MON 3		TUE 4		WED 5		THU 6		FRI 31		SAT 1		SUN 2		WK TOT		WK AVG	
	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
00:15	3	48	10	46	4	48	5	44	10	51	6	58	7	36	45	331	6	47
00:30	4	32	2	29	3	41	4	44	5	49	9	41	7	40	34	276	5	39
00:45	8	38	0	56	1	45	4	47	4	43	4	37	9	51	30	317	4	45
01:00	2	46	1	49	3	40	3	38	4	61	10	48	4	40	27	322	4	46
01:15	3	47	4	29	7	42	3	39	11	49	9	38	6	43	43	287	6	41
01:30	4	51	3	56	4	49	6	30	7	54	9	46	5	28	38	314	5	45
01:45	2	35	3	45	7	32	2	46	0	53	3	46	8	22	25	279	4	40
02:00	1	45	2	42	0	65	6	45	1	50	1	51	7	42	18	340	3	49
02:15	1	53	2	37	4	41	0	49	2	58	6	46	2	41	17	325	2	46
02:30	2	45	0	34	0	42	1	55	2	68	1	48	2	36	8	328	1	47
02:45	0	42	1	54	0	36	2	42	1	59	1	49	2	31	7	313	1	45
03:00	3	46	6	42	1	32	3	43	4	51	0	34	2	51	19	299	3	43
03:15	3	37	5	48	1	55	3	50	1	53	1	49	2	36	16	328	2	47
03:30	2	40	2	56	5	46	1	61	2	66	2	39	2	38	16	346	2	49
03:45	3	45	2	53	1	52	5	55	0	45	2	53	4	32	17	335	2	48
04:00	0	45	1	57	1	49	1	61	1	60	3	52	3	43	10	367	1	52
04:15	2	53	1	60	2	49	4	56	4	69	1	49	2	31	16	367	2	52
04:30	2	61	1	59	0	45	0	59	1	65	0	38	1	31	5	358	1	51
04:45	3	58	3	77	2	66	5	79	6	67	2	48	3	38	24	433	3	62
05:00	2	72	8	85	4	73	5	68	3	54	5	49	5	27	32	428	5	61
05:15	5	74	5	82	8	77	4	80	3	71	4	38	2	40	31	462	4	66
05:30	9	95	15	72	11	68	14	70	11	98	4	45	2	27	66	475	9	68
05:45	10	85	5	70	12	53	10	71	8	83	6	41	5	35	56	438	8	63
06:00	15	75	10	89	16	64	16	75	8	84	5	41	4	33	74	461	11	66
06:15	26	56	23	59	11	54	14	81	17	92	3	33	3	23	97	398	14	57
06:30	15	53	24	59	24	38	22	61	18	49	7	35	8	38	118	333	17	48
06:45	25	57	32	46	19	45	26	53	29	43	19	35	9	33	159	312	23	45
07:00	37	40	18	40	28	34	32	37	27	36	8	26	15	21	165	234	24	33
07:15	38	46	39	49	48	24	28	39	33	43	17	21	5	25	208	247	30	35
07:30	53	33	50	29	65	29	63	29	65	41	16	23	12	26	324	210	46	30
07:45	64	31	93	26	69	22	79	23	71	33	26	37	14	28	416	200	59	29
08:00	91	30	102	33	100	30	91	30	75	38	32	33	18	22	509	216	73	31
08:15	91	31	82	28	79	26	78	19	63	36	23	30	14	20	430	190	61	27
08:30	79	33	75	25	95	34	74	32	74	22	16	28	15	24	428	198	61	28
08:45	65	23	61	20	67	23	62	31	73	30	32	19	16	17	376	163	54	23
09:00	53	25	66	28	66	27	50	30	68	27	34	23	23	13	360	173	51	25
09:15	50	9	53	31	58	16	55	33	43	26	31	28	24	17	314	160	45	23
09:30	44	15	36	26	26	27	39	24	39	24	28	5	25	15	237	136	34	19
09:45	59	20	46	22	38	16	45	11	44	24	43	20	30	25	305	138	44	20
10:00	55	17	46	19	52	15	54	19	50	30	46	25	39	15	342	140	49	20
10:15	39	20	42	14	40	19	33	13	41	26	40	17	21	13	256	122	37	17
10:30	29	11	36	10	35	10	34	20	49	17	47	17	28	15	258	100	37	14
10:45	43	20	43	16	25	6	50	13	44	24	45	23	29	4	279	106	40	15
11:00	37	15	47	12	35	10	31	15	33	18	55	19	32	15	270	104	39	15
11:15	36	7	26	12	34	4	43	12	38	13	43	15	36	20	256	83	37	12
11:30	44	6	40	6	49	9	35	5	44	12	57	16	29	11	298	65	43	9
11:45	35	3	45	9	35	9	37	4	40	12	51	13	28	9	271	59	39	8
12:00	39	4	51	7	46	5	63	3	50	9	42	8	28	4	319	40	46	6

TOTALS	3109	3221	2983	3189	3413	2488	1922	20325	2904
AM Times	08:00	07:45	07:45	07:45	08:00	11:00	10:45	07:45	07:45
AM Peaks	326	352	343	322	285	206	126	1783	253
AM PHF	0.90	0.86	0.86	0.88	0.95	0.90	0.88	0.88	0.88
PM Times	17:15	16:45	16:45	16:45	17:30	14:00	12:30	17:15	17:15
PM Peaks	329	316	284	297	357	194	174	1836	260
PM PHF	0.87	0.93	0.92	0.93	0.91	0.95	0.85	0.97	0.97

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 1-Lakeside Ave and Hilliard Rd AM
Site Code :
Start Date : 6/6/2019
Page No : 1

Groups Printed- Car

Start Time	Lakeside Ave Southbound					Hilliard Rd Westbound					Lakeside Ave Northbound					Hilliard Rd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	51	18	0	0	69	0	22	3	0	25	8	10	26	0	44	73	35	31	0	139	277
07:15 AM	79	30	1	0	110	0	39	10	0	49	6	15	51	0	72	80	41	27	0	148	379
07:30 AM	102	54	0	0	156	0	71	7	0	78	8	20	59	0	87	90	61	37	0	188	509
07:45 AM	119	55	0	0	174	1	72	15	0	88	9	25	64	0	98	94	56	45	0	195	555
Total	351	157	1	0	509	1	204	35	0	240	31	70	200	0	301	337	193	140	0	670	1720
08:00 AM	83	48	1	0	132	1	58	11	0	70	6	20	61	0	87	103	69	41	0	213	502
08:15 AM	74	40	0	0	114	1	57	8	0	66	3	26	64	0	93	111	46	33	0	190	463
08:30 AM	68	38	0	0	106	1	51	5	0	57	7	32	62	0	101	97	39	31	1	168	432
08:45 AM	56	31	0	1	88	2	44	12	0	58	19	40	44	0	103	83	41	40	0	164	413
Total	281	157	1	1	440	5	210	36	0	251	35	118	231	0	384	394	195	145	1	735	1810
09:00 AM	49	20	1	1	71	1	41	2	0	44	9	17	39	0	65	63	42	36	0	141	321
09:15 AM	54	20	2	0	76	2	26	5	0	33	9	36	36	1	82	57	45	34	0	136	327
09:30 AM	50	26	4	0	80	3	43	5	0	51	7	27	43	0	77	60	51	41	0	152	360
09:45 AM	39	21	1	0	61	2	36	6	0	44	8	34	35	0	77	59	42	41	0	142	324
Total	192	87	8	1	288	8	146	18	0	172	33	114	153	1	301	239	180	152	0	571	1332
Grand Total	824	401	10	2	1237	14	560	89	0	663	99	302	584	1	986	970	568	437	1	1976	4862
Apprch %	66.6	32.4	0.8	0.2		2.1	84.5	13.4	0		10	30.6	59.2	0.1		49.1	28.7	22.1	0.1		
Total %	16.9	8.2	0.2	0	25.4	0.3	11.5	1.8	0	13.6	2	6.2	12	0	20.3	20	11.7	9	0	40.6	

Start Time	Lakeside Ave Southbound					Hilliard Rd Westbound					Lakeside Ave Northbound					Hilliard Rd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:30 AM	102	54	0	0	156	0	71	7	0	78	8	20	59	0	87	90	61	37	0	188	509
07:45 AM	119	55	0	0	174	1	72	15	0	88	9	25	64	0	98	94	56	45	0	195	555
08:00 AM	83	48	1	0	132	1	58	11	0	70	6	20	61	0	87	103	69	41	0	213	502
08:15 AM	74	40	0	0	114	1	57	8	0	66	3	26	64	0	93	111	46	33	0	190	463
Total Volume	378	197	1	0	576	3	258	41	0	302	26	91	248	0	365	398	232	156	0	786	2029
% App. Total	65.6	34.2	0.2	0		1	85.4	13.6	0		7.1	24.9	67.9	0		50.6	29.5	19.8	0		
PHF	.794	.895	.250	0	.828	.750	.896	.683	0	.858	.722	.875	.969	0	.931	.896	.841	.867	0	.923	.914

Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:30 AM

Peggy Malone & Associates, Inc.

(888) 247-8602

File Name : 1-Lakeside Ave and Hilliard Rd AM

Site Code :

Start Date : 6/6/2019

Page No : 1

Groups Printed- Truck

Start Time	Lakeside Ave Southbound					Hilliard Rd Westbound					Lakeside Ave Northbound					Hilliard Rd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	1	0	0	0	1	0	2	0	0	2	0	0	0	0	0	2	10	2	0	14	17
07:15 AM	3	0	0	0	3	0	2	0	0	2	1	0	2	0	3	2	3	0	0	5	13
07:30 AM	2	1	0	0	3	0	2	0	0	2	0	1	1	0	2	2	4	0	0	6	13
07:45 AM	1	0	0	0	1	0	2	1	0	3	1	0	4	0	5	1	6	3	0	10	19
Total	7	1	0	0	8	0	8	1	0	9	2	1	7	0	10	7	23	5	0	35	62
08:00 AM	1	3	0	0	4	0	8	0	0	8	0	0	3	0	3	3	3	1	0	7	22
08:15 AM	2	3	0	0	5	0	3	0	0	3	0	2	5	0	7	1	3	0	0	4	19
08:30 AM	6	2	0	0	8	0	2	0	0	2	0	0	1	0	1	1	3	0	0	4	15
08:45 AM	0	1	0	0	1	1	3	1	0	5	0	1	0	0	1	5	3	3	0	11	18
Total	9	9	0	0	18	1	16	1	0	18	0	3	9	0	12	10	12	4	0	26	74
09:00 AM	0	1	1	0	2	1	1	0	0	2	0	0	2	0	2	1	4	1	0	6	12
09:15 AM	0	1	0	0	1	0	4	0	0	4	1	1	1	0	3	1	3	0	0	4	12
09:30 AM	3	2	0	0	5	0	0	1	0	1	0	0	0	0	0	2	2	1	0	5	11
09:45 AM	3	1	0	0	4	0	2	0	0	2	0	1	1	0	2	2	3	0	0	5	13
Total	6	5	1	0	12	1	7	1	0	9	1	2	4	0	7	6	12	2	0	20	48
Grand Total	22	15	1	0	38	2	31	3	0	36	3	6	20	0	29	23	47	11	0	81	184
Apprch %	57.9	39.5	2.6	0		5.6	86.1	8.3	0		10.3	20.7	69	0		28.4	58	13.6	0		
Total %	12	8.2	0.5	0	20.7	1.1	16.8	1.6	0	19.6	1.6	3.3	10.9	0	15.8	12.5	25.5	6	0	44	

Start Time	Lakeside Ave Southbound					Hilliard Rd Westbound					Lakeside Ave Northbound					Hilliard Rd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:45 AM	1	0	0	0	1	0	2	1	3	3	1	0	4	5	5	1	6	3	10	10	19
08:00 AM	1	3	0	0	4	0	8	0	8	8	0	0	3	3	3	3	3	1	7	7	22
08:15 AM	2	3	0	0	5	0	3	0	3	3	0	2	5	7	7	1	3	0	4	4	19
08:30 AM	6	2	0	0	8	0	2	0	2	2	0	0	1	1	1	1	3	0	4	4	15
Total Volume	10	8	0	0	18	0	15	1	16	16	1	2	13	16	16	6	15	4	25	25	75
% App. Total	55.6	44.4	0	0		0	93.8	6.2			6.2	12.5	81.2			24	60	16			
PHF	.417	.667	.000	.563		.000	.469	.250	.500		.250	.250	.650	.571		.500	.625	.333	.625		.852

Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:45 AM

Peggy Malone & Associates, Inc.

(888) 247-8602

File Name : 1-Lakeside Ave and Hilliard Rd AM

Site Code :

Start Date : 6/6/2019

Page No : 1

Groups Printed- Combined

Start Time	Lakeside Ave Southbound					Hilliard Rd Westbound					Lakeside Ave Northbound					Hilliard Rd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	52	18	0	0	70	0	24	3	0	27	8	10	26	0	44	75	45	33	0	153	294
07:15 AM	82	30	1	0	113	0	41	10	0	51	7	15	53	0	75	82	44	27	0	153	392
07:30 AM	104	55	0	0	159	0	73	7	0	80	8	21	60	0	89	92	65	37	0	194	522
07:45 AM	120	55	0	0	175	1	74	16	0	91	10	25	68	0	103	95	62	48	0	205	574
Total	358	158	1	0	517	1	212	36	0	249	33	71	207	0	311	344	216	145	0	705	1782
08:00 AM	84	51	1	0	136	1	66	11	0	78	6	20	64	0	90	106	72	42	0	220	524
08:15 AM	76	43	0	0	119	1	60	8	0	69	3	28	69	0	100	112	49	33	0	194	482
08:30 AM	74	40	0	0	114	1	53	5	0	59	7	32	63	0	102	98	42	31	1	172	447
08:45 AM	56	32	0	1	89	3	47	13	0	63	19	41	44	0	104	88	44	43	0	175	431
Total	290	166	1	1	458	6	226	37	0	269	35	121	240	0	396	404	207	149	1	761	1884
09:00 AM	49	21	2	1	73	2	42	2	0	46	9	17	41	0	67	64	46	37	0	147	333
09:15 AM	54	21	2	0	77	2	30	5	0	37	10	37	37	1	85	58	48	34	0	140	339
09:30 AM	53	28	4	0	85	3	43	6	0	52	7	27	43	0	77	62	53	42	0	157	371
09:45 AM	42	22	1	0	65	2	38	6	0	46	8	35	36	0	79	61	45	41	0	147	337
Total	198	92	9	1	300	9	153	19	0	181	34	116	157	1	308	245	192	154	0	591	1380
Grand Total	846	416	11	2	1275	16	591	92	0	699	102	308	604	1	1015	993	615	448	1	2057	5046
Apprch %	66.4	32.6	0.9	0.2		2.3	84.5	13.2	0		10	30.3	59.5	0.1		48.3	29.9	21.8	0		
Total %	16.8	8.2	0.2	0	25.3	0.3	11.7	1.8	0	13.9	2	6.1	12	0	20.1	19.7	12.2	8.9	0	40.8	

Start Time	Lakeside Ave Southbound					Hilliard Rd Westbound					Lakeside Ave Northbound					Hilliard Rd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:30 AM	104	55	0	0	159	0	73	7	0	80	8	21	60	0	89	92	65	37	0	194	522
07:45 AM	120	55	0	0	175	1	74	16	0	91	10	25	68	0	103	95	62	48	0	205	574
08:00 AM	84	51	1	0	136	1	66	11	0	78	6	20	64	0	90	106	72	42	0	220	524
08:15 AM	76	43	0	0	119	1	60	8	0	69	3	28	69	0	100	112	49	33	0	194	482
Total Volume	384	204	1	0	589	3	273	42	0	318	27	94	261	0	382	405	248	160	0	813	2102
% App. Total	65.2	34.6	0.2	0		0.9	85.8	13.2	0		7.1	24.6	68.3	0		49.8	30.5	19.7	0		
PHF	.800	.927	.250	0	.841	.750	.922	.656	0	.874	.675	.839	.946	0	.927	.904	.861	.833	0	.924	.916

Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:30 AM

Peggy Malone & Associates, Inc.

(888) 247-8602

File Name : 1-Lakeside Ave and Hilliard Rd PM

Site Code :

Start Date : 6/6/2019

Page No : 1

Groups Printed- Car

Start Time	Lakeside Ave Southbound					Hilliard Rd Westbound					Lakeside Ave Northbound					Hilliard Rd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	37	36	2	0	75	1	36	10	0	47	11	26	52	0	89	66	80	48	1	195	406
03:45 PM	56	42	0	0	98	1	51	10	0	62	18	38	51	0	107	49	51	47	0	147	414
Total	93	78	2	0	173	2	87	20	0	109	29	64	103	0	196	115	131	95	1	342	820
04:00 PM	62	42	0	0	104	2	45	11	0	58	21	46	65	0	132	65	84	55	0	204	498
04:15 PM	63	34	2	0	99	4	33	10	0	47	17	62	80	0	159	77	92	55	0	224	529
04:30 PM	68	43	1	0	112	2	38	11	0	51	20	46	66	0	132	92	107	70	0	269	564
04:45 PM	55	43	0	0	98	2	50	19	0	71	28	74	85	0	187	66	111	84	0	261	617
Total	248	162	3	0	413	10	166	51	0	227	86	228	296	0	610	300	394	264	0	958	2208
05:00 PM	76	50	1	0	127	7	55	6	0	68	29	73	96	0	198	67	150	70	1	288	681
05:15 PM	85	49	2	0	136	7	59	10	0	76	21	57	88	0	166	91	152	85	0	328	706
05:30 PM	88	47	1	0	136	6	46	9	0	61	26	74	82	2	184	77	140	74	3	294	675
05:45 PM	78	57	6	0	141	5	44	8	0	57	13	73	92	0	178	74	100	75	0	249	625
Total	327	203	10	0	540	25	204	33	0	262	89	277	358	2	726	309	542	304	4	1159	2687
06:00 PM	72	42	4	0	118	5	54	11	0	70	12	51	85	0	148	61	89	47	0	197	533
06:15 PM	50	35	2	0	87	1	36	12	0	49	12	46	70	0	128	69	73	54	0	196	460
Grand Total	790	520	21	0	1331	43	547	127	0	717	228	666	912	2	1808	854	1229	764	5	2852	6708
Apprch %	59.4	39.1	1.6	0		6	76.3	17.7	0		12.6	36.8	50.4	0.1		29.9	43.1	26.8	0.2		
Total %	11.8	7.8	0.3	0	19.8	0.6	8.2	1.9	0	10.7	3.4	9.9	13.6	0	27	12.7	18.3	11.4	0.1	42.5	

Start Time	Lakeside Ave Southbound				Hilliard Rd Westbound				Lakeside Ave Northbound				Hilliard Rd Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	76	50	1	127	7	55	6	68	29	73	96	198	67	150	70	287	680
05:15 PM	85	49	2	136	7	59	10	76	21	57	88	166	91	152	85	328	706
05:30 PM	88	47	1	136	6	46	9	61	26	74	82	182	77	140	74	291	670
05:45 PM	78	57	6	141	5	44	8	57	13	73	92	178	74	100	75	249	625
Total Volume	327	203	10	540	25	204	33	262	89	277	358	724	309	542	304	1155	2681
% App. Total	60.6	37.6	1.9		9.5	77.9	12.6		12.3	38.3	49.4		26.8	46.9	26.3		
PHF	.929	.890	.417	.957	.893	.864	.825	.862	.767	.936	.932	.914	.849	.891	.894	.880	.949

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 1-Lakeside Ave and Hilliard Rd PM
Site Code :
Start Date : 6/6/2019
Page No : 1

Groups Printed- Truck

Start Time	Lakeside Ave Southbound					Hilliard Rd Westbound					Lakeside Ave Northbound					Hilliard Rd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	0	1	0	0	1	0	1	0	0	1	0	1	3	0	4	4	2	0	0	6	12
03:45 PM	1	0	0	0	1	0	2	0	0	2	0	1	1	0	2	1	0	0	0	1	6
Total	1	1	0	0	2	0	3	0	0	3	0	2	4	0	6	5	2	0	0	7	18
04:00 PM	0	0	0	0	0	1	1	0	0	2	0	1	1	0	2	1	3	0	0	4	8
04:15 PM	3	2	0	0	5	0	1	0	0	1	0	0	2	0	2	0	2	2	0	4	12
04:30 PM	1	0	0	0	1	1	4	0	0	5	0	0	4	0	4	2	2	0	0	4	14
04:45 PM	0	3	0	0	3	0	4	0	0	4	0	1	3	0	4	1	0	0	0	1	12
Total	4	5	0	0	9	2	10	0	0	12	0	2	10	0	12	4	7	2	0	13	46
05:00 PM	2	1	0	0	3	0	2	0	0	2	0	0	0	0	0	2	1	1	0	4	9
05:15 PM	1	0	0	0	1	0	1	0	0	1	0	1	1	0	2	1	2	0	0	3	7
05:30 PM	1	0	0	0	1	0	2	0	0	2	0	0	1	0	1	0	2	0	0	2	6
05:45 PM	1	0	0	0	1	0	2	0	0	2	0	0	1	0	1	0	0	1	0	1	5
Total	5	1	0	0	6	0	7	0	0	7	0	1	3	0	4	3	5	2	0	10	27
06:00 PM	2	1	0	0	3	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	4
06:15 PM	1	0	0	0	1	0	2	0	0	2	0	0	1	0	1	0	2	0	0	2	6
Grand Total	13	8	0	0	21	2	22	0	0	24	0	5	19	0	24	12	16	4	0	32	101
Apprch %	61.9	38.1	0	0		8.3	91.7	0	0		0	20.8	79.2	0		37.5	50	12.5	0		
Total %	12.9	7.9	0	0	20.8	2	21.8	0	0	23.8	0	5	18.8	0	23.8	11.9	15.8	4	0	31.7	

Start Time	Lakeside Ave Southbound				Hilliard Rd Westbound				Lakeside Ave Northbound				Hilliard Rd Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
04:15 PM	3	2	0	5	0	1	0	1	0	0	2	2	0	2	2	4	12
04:30 PM	1	0	0	1	1	4	0	5	0	0	4	4	2	2	0	4	14
04:45 PM	0	3	0	3	0	4	0	4	0	1	3	4	1	0	0	1	12
05:00 PM	2	1	0	3	0	2	0	2	0	0	0	0	2	1	1	4	9
Total Volume	6	6	0	12	1	11	0	12	0	1	9	10	5	5	3	13	47
% App. Total	50	50	0		8.3	91.7	0		0	10	90		38.5	38.5	23.1		
PHF	.500	.500	.000	.600	.250	.688	.000	.600	.000	.250	.563	.625	.625	.625	.375	.813	.839

Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:15 PM

Peggy Malone & Associates, Inc.
(888) 247-8602

File Name : 1-Lakeside Ave and Hilliard Rd PM
Site Code :
Start Date : 6/6/2019
Page No : 1

Groups Printed- Combined

Start Time	Lakeside Ave Southbound					Hilliard Rd Westbound					Lakeside Ave Northbound					Hilliard Rd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	37	37	2	0	76	1	37	10	0	48	11	27	55	0	93	70	82	48	1	201	418
03:45 PM	57	42	0	0	99	1	53	10	0	64	18	39	52	0	109	50	51	47	0	148	420
Total	94	79	2	0	175	2	90	20	0	112	29	66	107	0	202	120	133	95	1	349	838
04:00 PM	62	42	0	0	104	3	46	11	0	60	21	47	66	0	134	66	87	55	0	208	506
04:15 PM	66	36	2	0	104	4	34	10	0	48	17	62	82	0	161	77	94	57	0	228	541
04:30 PM	69	43	1	0	113	3	42	11	0	56	20	46	70	0	136	94	109	70	0	273	578
04:45 PM	55	46	0	0	101	2	54	19	0	75	28	75	88	0	191	67	111	84	0	262	629
Total	252	167	3	0	422	12	176	51	0	239	86	230	306	0	622	304	401	266	0	971	2254
05:00 PM	78	51	1	0	130	7	57	6	0	70	29	73	96	0	198	69	151	71	1	292	690
05:15 PM	86	49	2	0	137	7	60	10	0	77	21	58	89	0	168	92	154	85	0	331	713
05:30 PM	89	47	1	0	137	6	48	9	0	63	26	74	83	2	185	77	142	74	3	296	681
05:45 PM	79	57	6	0	142	5	46	8	0	59	13	73	93	0	179	74	100	76	0	250	630
Total	332	204	10	0	546	25	211	33	0	269	89	278	361	2	730	312	547	306	4	1169	2714
06:00 PM	74	43	4	0	121	5	54	11	0	70	12	51	86	0	149	61	89	47	0	197	537
06:15 PM	51	35	2	0	88	1	38	12	0	51	12	46	71	0	129	69	75	54	0	198	466
Grand Total	803	528	21	0	1352	45	569	127	0	741	228	671	931	2	1832	866	1245	768	5	2884	6809
Apprch %	59.4	39.1	1.6	0		6.1	76.8	17.1	0		12.4	36.6	50.8	0.1		30	43.2	26.6	0.2		
Total %	11.8	7.8	0.3	0	19.9	0.7	8.4	1.9	0	10.9	3.3	9.9	13.7	0	26.9	12.7	18.3	11.3	0.1	42.4	

Start Time	Lakeside Ave Southbound				Hilliard Rd Westbound				Lakeside Ave Northbound				Hilliard Rd Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	78	51	1	130	7	57	6	70	29	73	96	198	69	151	71	291	689
05:15 PM	86	49	2	137	7	60	10	77	21	58	89	168	92	154	85	331	713
05:30 PM	89	47	1	137	6	48	9	63	26	74	83	183	77	142	74	293	676
05:45 PM	79	57	6	142	5	46	8	59	13	73	93	179	74	100	76	250	630
Total Volume	332	204	10	546	25	211	33	269	89	278	361	728	312	547	306	1165	2708
% App. Total	60.8	37.4	1.8		9.3	78.4	12.3		12.2	38.2	49.6		26.8	47	26.3		
PHF	.933	.895	.417	.961	.893	.879	.825	.873	.767	.939	.940	.919	.848	.888	.900	.880	.950

Peggy Malone & Associates

904-992-8072

File Name : 2-Brook Rd and Hilliard Rd-Hilliard Ave AM

Site Code :

Start Date : 7/9/2019

Page No : 1

Groups Printed- Car

Start Time	Brook Rd Southbound					Hilliard Rd Westbound					Brook Rd Northbound					Hilliard Ave Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	12	66	1	1	80	4	2	10	0	16	2	64	20	0	86	15	1	13	1	30	212
07:15 AM	14	95	2	0	111	10	8	11	1	30	5	103	40	0	148	15	2	45	1	63	352
07:30 AM	22	135	6	0	163	11	9	9	1	30	2	117	45	0	164	19	3	39	0	61	418
07:45 AM	24	130	2	0	156	5	14	12	0	31	0	110	39	0	149	26	0	34	0	60	396
Total	72	426	11	1	510	30	33	42	2	107	9	394	144	0	547	75	6	131	2	214	1378
08:00 AM	17	129	0	0	146	4	8	16	0	28	0	112	41	0	153	33	2	25	0	60	387
08:15 AM	24	144	4	0	172	1	4	11	1	17	0	99	26	0	125	30	2	23	0	55	369
08:30 AM	17	122	1	3	143	4	9	13	2	28	6	127	34	0	167	18	1	27	0	46	384
08:45 AM	15	114	0	0	129	4	6	11	0	21	0	133	32	0	165	26	2	26	0	54	369
Total	73	509	5	3	590	13	27	51	3	94	6	471	133	0	610	107	7	101	0	215	1509
09:00 AM	7	116	3	0	126	9	4	7	0	20	2	121	26	0	149	26	1	35	0	62	357
09:15 AM	15	90	0	0	105	1	5	5	0	11	2	112	24	0	138	16	0	26	0	42	296
09:30 AM	13	93	2	0	108	3	3	8	0	14	4	104	13	0	121	21	2	25	0	48	291
09:45 AM	15	98	5	0	118	8	6	9	0	23	2	125	29	0	156	26	2	45	0	73	370
Total	50	397	10	0	457	21	18	29	0	68	10	462	92	0	564	89	5	131	0	225	1314
Grand Total	195	1332	26	4	1557	64	78	122	5	269	25	1327	369	0	1721	271	18	363	2	654	4201
Apprch %	12.5	85.5	1.7	0.3		23.8	29	45.4	1.9		1.5	77.1	21.4	0		41.4	2.8	55.5	0.3		
Total %	4.6	31.7	0.6	0.1	37.1	1.5	1.9	2.9	0.1	6.4	0.6	31.6	8.8	0	41	6.5	0.4	8.6	0	15.6	

Start Time	Brook Rd Southbound				Hilliard Rd Westbound				Brook Rd Northbound				Hilliard Ave Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	22	135	6	163	11	9	9	29	2	117	45	164	19	3	39	61	417
07:45 AM	24	130	2	156	5	14	12	31	0	110	39	149	26	0	34	60	396
08:00 AM	17	129	0	146	4	8	16	28	0	112	41	153	33	2	25	60	387
08:15 AM	24	144	4	172	1	4	11	16	0	99	26	125	30	2	23	55	368
Total Volume	87	538	12	637	21	35	48	104	2	438	151	591	108	7	121	236	1568
% App. Total	13.7	84.5	1.9		20.2	33.7	46.2		0.3	74.1	25.5		45.8	3	51.3		
PHF	.906	.934	.500	.926	.477	.625	.750	.839	.250	.936	.839	.901	.818	.583	.776	.967	.940

Peggy Malone & Associates

904-992-8072

File Name : 2-Brook Rd and Hilliard Rd-Hilliard Ave AM

Site Code :

Start Date : 7/9/2019

Page No : 1

Groups Printed- Truck

Start Time	Brook Rd Southbound					Hilliard Rd Westbound					Brook Rd Northbound					Hilliard Ave Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	3	2	1	0	6	0	0	1	0	1	0	1	1	0	2	1	0	3	0	4	13
07:15 AM	4	3	0	0	7	0	0	0	0	0	0	4	0	0	4	2	0	4	0	6	17
07:30 AM	2	4	0	0	6	1	1	0	0	2	0	2	1	0	3	2	0	4	0	6	17
07:45 AM	1	5	0	0	6	0	0	1	0	1	1	6	0	0	7	3	0	4	0	7	21
Total	10	14	1	0	25	1	1	2	0	4	1	13	2	0	16	8	0	15	0	23	68
08:00 AM	5	3	0	0	8	1	1	0	0	2	0	0	2	0	2	3	0	1	0	4	16
08:15 AM	2	2	0	0	4	0	0	0	0	0	0	3	0	0	3	3	0	5	0	8	15
08:30 AM	1	3	0	0	4	0	0	0	0	0	0	4	2	0	6	0	0	3	0	3	13
08:45 AM	3	5	0	0	8	0	0	0	0	0	1	3	1	0	5	2	0	2	0	4	17
Total	11	13	0	0	24	1	1	0	0	2	1	10	5	0	16	8	0	11	0	19	61
09:00 AM	3	1	0	0	4	0	0	0	0	0	0	5	1	0	6	1	0	1	0	2	12
09:15 AM	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	1	0	4	0	5	14
09:30 AM	3	3	1	0	7	1	0	0	0	1	0	0	0	0	0	4	0	3	0	7	15
09:45 AM	1	5	1	0	7	0	0	1	0	1	1	9	0	0	10	0	0	1	0	1	19
Total	7	12	2	0	21	1	0	1	0	2	1	20	1	0	22	6	0	9	0	15	60
Grand Total	28	39	3	0	70	3	2	3	0	8	3	43	8	0	54	22	0	35	0	57	189
Apprch %	40	55.7	4.3	0		37.5	25	37.5	0		5.6	79.6	14.8	0		38.6	0	61.4	0		
Total %	14.8	20.6	1.6	0	37	1.6	1.1	1.6	0	4.2	1.6	22.8	4.2	0	28.6	11.6	0	18.5	0	30.2	

Start Time	Brook Rd Southbound				Hilliard Rd Westbound				Brook Rd Northbound				Hilliard Ave Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	4	3	0	7	0	0	0	0	0	4	0	4	2	0	4	6	17
07:30 AM	2	4	0	6	1	1	0	2	0	2	1	3	2	0	4	6	17
07:45 AM	1	5	0	6	0	0	1	1	1	6	0	7	3	0	4	7	21
08:00 AM	5	3	0	8	1	1	0	2	0	0	2	2	3	0	1	4	16
Total Volume	12	15	0	27	2	2	1	5	1	12	3	16	10	0	13	23	71
% App. Total	44.4	55.6	0		40	40	20		6.2	75	18.8		43.5	0	56.5		
PHF	.600	.750	.000	.844	.500	.500	.250	.625	.250	.500	.375	.571	.833	.000	.813	.821	.845

Peggy Malone & Associates

904-992-8072

File Name : 2-Brook Rd and Hilliard Rd-Hilliard Ave AM

Site Code :

Start Date : 7/9/2019

Page No : 1

Groups Printed- Combined

Start Time	Brook Rd Southbound					Hilliard Rd Westbound					Brook Rd Northbound					Hilliard Ave Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	15	68	2	1	86	4	2	11	0	17	2	65	21	0	88	16	1	16	1	34	225
07:15 AM	18	98	2	0	118	10	8	11	1	30	5	107	40	0	152	17	2	49	1	69	369
07:30 AM	24	139	6	0	169	12	10	9	1	32	2	119	46	0	167	21	3	43	0	67	435
07:45 AM	25	135	2	0	162	5	14	13	0	32	1	116	39	0	156	29	0	38	0	67	417
Total	82	440	12	1	535	31	34	44	2	111	10	407	146	0	563	83	6	146	2	237	1446
08:00 AM	22	132	0	0	154	5	9	16	0	30	0	112	43	0	155	36	2	26	0	64	403
08:15 AM	26	146	4	0	176	1	4	11	1	17	0	102	26	0	128	33	2	28	0	63	384
08:30 AM	18	125	1	3	147	4	9	13	2	28	6	131	36	0	173	18	1	30	0	49	397
08:45 AM	18	119	0	0	137	4	6	11	0	21	1	136	33	0	170	28	2	28	0	58	386
Total	84	522	5	3	614	14	28	51	3	96	7	481	138	0	626	115	7	112	0	234	1570
09:00 AM	10	117	3	0	130	9	4	7	0	20	2	126	27	0	155	27	1	36	0	64	369
09:15 AM	15	93	0	0	108	1	5	5	0	11	2	118	24	0	144	17	0	30	0	47	310
09:30 AM	16	96	3	0	115	4	3	8	0	15	4	104	13	0	121	25	2	28	0	55	306
09:45 AM	16	103	6	0	125	8	6	10	0	24	3	134	29	0	166	26	2	46	0	74	389
Total	57	409	12	0	478	22	18	30	0	70	11	482	93	0	586	95	5	140	0	240	1374
Grand Total	223	1371	29	4	1627	67	80	125	5	277	28	1370	377	0	1775	293	18	398	2	711	4390
Apprch %	13.7	84.3	1.8	0.2		24.2	28.9	45.1	1.8		1.6	77.2	21.2	0		41.2	2.5	56	0.3		
Total %	5.1	31.2	0.7	0.1	37.1	1.5	1.8	2.8	0.1	6.3	0.6	31.2	8.6	0	40.4	6.7	0.4	9.1	0	16.2	

Start Time	Brook Rd Southbound				Hilliard Rd Westbound				Brook Rd Northbound				Hilliard Ave Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	24	139	6	169	12	10	9	31	2	119	46	167	21	3	43	67	434
07:45 AM	25	135	2	162	5	14	13	32	1	116	39	156	29	0	38	67	417
08:00 AM	22	132	0	154	5	9	16	30	0	112	43	155	36	2	26	64	403
08:15 AM	26	146	4	176	1	4	11	16	0	102	26	128	33	2	28	63	383
Total Volume	97	552	12	661	23	37	49	109	3	449	154	606	119	7	135	261	1637
% App. Total	14.7	83.5	1.8		21.1	33.9	45		0.5	74.1	25.4		45.6	2.7	51.7		
PHF	.933	.945	.500	.939	.479	.661	.766	.852	.375	.943	.837	.907	.826	.583	.785	.974	.943

Peggy Malone & Associates

904-992-8072

File Name : 2-Brook Rd and Hilliard Rd-Hilliard Ave PM

Site Code :

Start Date : 7/9/2019

Page No : 1

Groups Printed- Car

Start Time	Brook Rd Southbound					Hilliard Rd Westbound					Brook Rd Northbound					Hilliard Ave Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	14	139	7	0	160	4	2	8	0	14	6	131	33	0	170	38	6	42	0	86	430
03:45 PM	9	127	3	0	139	5	6	4	0	15	5	132	26	0	163	39	2	37	0	78	395
Total	23	266	10	0	299	9	8	12	0	29	11	263	59	0	333	77	8	79	0	164	825
04:00 PM	13	154	5	1	173	3	1	7	0	11	11	162	23	0	196	40	5	45	0	90	470
04:15 PM	17	127	5	0	149	9	2	5	0	16	8	137	36	0	181	46	6	59	0	111	457
04:30 PM	20	152	7	0	179	5	4	9	0	18	4	160	36	0	200	38	5	55	1	99	496
04:45 PM	15	161	8	0	184	1	5	10	0	16	5	135	30	0	170	40	5	75	0	120	490
Total	65	594	25	1	685	18	12	31	0	61	28	594	125	0	747	164	21	234	1	420	1913
05:00 PM	25	185	6	0	216	2	3	9	1	15	4	150	43	0	197	54	6	83	0	143	571
05:15 PM	35	177	7	0	219	5	4	5	0	14	8	176	43	0	227	63	4	107	0	174	634
05:30 PM	19	157	5	0	181	9	2	12	0	23	15	135	33	0	183	60	5	93	0	158	545
05:45 PM	23	142	6	0	171	3	4	4	0	11	6	156	24	1	187	48	7	68	0	123	492
Total	102	661	24	0	787	19	13	30	1	63	33	617	143	1	794	225	22	351	0	598	2242
06:00 PM	22	155	3	0	180	4	7	7	0	18	8	133	27	0	168	33	4	50	0	87	453
06:15 PM	6	135	5	0	146	4	3	6	0	13	2	128	30	0	160	37	1	28	0	66	385
Grand Total	218	1811	67	1	2097	54	43	86	1	184	82	1735	384	1	2202	536	56	742	1	1335	5818
Apprch %	10.4	86.4	3.2	0		29.3	23.4	46.7	0.5		3.7	78.8	17.4	0		40.1	4.2	55.6	0.1		
Total %	3.7	31.1	1.2	0	36	0.9	0.7	1.5	0	3.2	1.4	29.8	6.6	0	37.8	9.2	1	12.8	0	22.9	

Start Time	Brook Rd Southbound				Hilliard Rd Westbound				Brook Rd Northbound				Hilliard Ave Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	25	185	6	216	2	3	9	14	4	150	43	197	54	6	83	143	570
05:15 PM	35	177	7	219	5	4	5	14	8	176	43	227	63	4	107	174	634
05:30 PM	19	157	5	181	9	2	12	23	15	135	33	183	60	5	93	158	545
05:45 PM	23	142	6	171	3	4	4	11	6	156	24	186	48	7	68	123	491
Total Volume	102	661	24	787	19	13	30	62	33	617	143	793	225	22	351	598	2240
% App. Total	13	84	3		30.6	21	48.4		4.2	77.8	18		37.6	3.7	58.7		
PHF	.729	.893	.857	.898	.528	.813	.625	.674	.550	.876	.831	.873	.893	.786	.820	.859	.883

Peggy Malone & Associates

904-992-8072

File Name : 2-Brook Rd and Hilliard Rd-Hilliard Ave PM

Site Code :

Start Date : 7/9/2019

Page No : 1

Groups Printed- Truck

Start Time	Brook Rd Southbound					Hilliard Rd Westbound					Brook Rd Northbound					Hilliard Ave Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	1	2	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	6
03:45 PM	1	6	1	0	8	0	0	1	0	1	0	3	1	0	4	1	0	1	0	2	15
Total	2	8	1	0	11	0	0	1	0	1	0	6	1	0	7	1	0	1	0	2	21
04:00 PM	2	8	0	0	10	0	0	0	0	0	0	3	1	0	4	0	0	1	0	1	15
04:15 PM	1	0	0	0	1	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	7
04:30 PM	2	1	0	0	3	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	5
04:45 PM	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	4
Total	5	12	0	0	17	0	0	0	0	0	0	11	1	0	12	0	0	2	0	2	31
05:00 PM	0	2	0	0	2	0	0	0	0	0	1	3	0	0	4	0	0	1	0	1	7
05:15 PM	1	1	0	0	2	0	0	1	0	1	0	1	0	0	1	0	0	1	0	1	5
05:30 PM	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	0	0	3	0	3	6
05:45 PM	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	5
Total	2	5	0	0	7	0	0	1	0	1	1	8	0	0	9	0	0	6	0	6	23
06:00 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	5
06:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	9	28	1	0	38	0	0	2	0	2	1	25	2	0	28	1	0	12	0	13	81
Apprch %	23.7	73.7	2.6	0		0	0	100	0		3.6	89.3	7.1	0		7.7	0	92.3	0		
Total %	11.1	34.6	1.2	0	46.9	0	0	2.5	0	2.5	1.2	30.9	2.5	0	34.6	1.2	0	14.8	0	16	

Start Time	Brook Rd Southbound				Hilliard Rd Westbound				Brook Rd Northbound				Hilliard Ave Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:30 PM																	
03:30 PM	1	2	0	3	0	0	0	0	0	3	0	3	0	0	0	0	6
03:45 PM	1	6	1	8	0	0	1	1	0	3	1	4	1	0	1	2	15
04:00 PM	2	8	0	10	0	0	0	0	0	3	1	4	0	0	1	1	15
04:15 PM	1	0	0	1	0	0	0	0	0	5	0	5	0	0	1	1	7
Total Volume	5	16	1	22	0	0	1	1	0	14	2	16	1	0	3	4	43
% App. Total	22.7	72.7	4.5		0	0	100		0	87.5	12.5		25	0	75		
PHF	.625	.500	.250	.550	.000	.000	.250	.250	.000	.700	.500	.800	.250	.000	.750	.500	.717

Peggy Malone & Associates

904-992-8072

File Name : 2-Brook Rd and Hilliard Rd-Hilliard Ave PM

Site Code :

Start Date : 7/9/2019

Page No : 1

Groups Printed- Combined

Start Time	Brook Rd Southbound					Hilliard Rd Westbound					Brook Rd Northbound					Hilliard Ave Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
03:30 PM	15	141	7	0	163	4	2	8	0	14	6	134	33	0	173	38	6	42	0	86	436
03:45 PM	10	133	4	0	147	5	6	5	0	16	5	135	27	0	167	40	2	38	0	80	410
Total	25	274	11	0	310	9	8	13	0	30	11	269	60	0	340	78	8	80	0	166	846
04:00 PM	15	162	5	1	183	3	1	7	0	11	11	165	24	0	200	40	5	46	0	91	485
04:15 PM	18	127	5	0	150	9	2	5	0	16	8	142	36	0	186	46	6	60	0	112	464
04:30 PM	22	153	7	0	182	5	4	9	0	18	4	162	36	0	202	38	5	55	1	99	501
04:45 PM	15	164	8	0	187	1	5	10	0	16	5	136	30	0	171	40	5	75	0	120	494
Total	70	606	25	1	702	18	12	31	0	61	28	605	126	0	759	164	21	236	1	422	1944
05:00 PM	25	187	6	0	218	2	3	9	1	15	5	153	43	0	201	54	6	84	0	144	578
05:15 PM	36	178	7	0	221	5	4	6	0	15	8	177	43	0	228	63	4	108	0	175	639
05:30 PM	20	157	5	0	182	9	2	12	0	23	15	137	33	0	185	60	5	96	0	161	551
05:45 PM	23	144	6	0	173	3	4	4	0	11	6	158	24	1	189	48	7	69	0	124	497
Total	104	666	24	0	794	19	13	31	1	64	34	625	143	1	803	225	22	357	0	604	2265
06:00 PM	22	157	3	0	182	4	7	7	0	18	8	133	27	0	168	33	4	53	0	90	458
06:15 PM	6	136	5	0	147	4	3	6	0	13	2	128	30	0	160	37	1	28	0	66	386
Grand Total	227	1839	68	1	2135	54	43	88	1	186	83	1760	386	1	2230	537	56	754	1	1348	5899
Apprch %	10.6	86.1	3.2	0		29	23.1	47.3	0.5		3.7	78.9	17.3	0		39.8	4.2	55.9	0.1		
Total %	3.8	31.2	1.2	0	36.2	0.9	0.7	1.5	0	3.2	1.4	29.8	6.5	0	37.8	9.1	0.9	12.8	0	22.9	

Start Time	Brook Rd Southbound				Hilliard Rd Westbound				Brook Rd Northbound				Hilliard Ave Eastbound				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 03:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	25	187	6	218	2	3	9	14	5	153	43	201	54	6	84	144	577
05:15 PM	36	178	7	221	5	4	6	15	8	177	43	228	63	4	108	175	639
05:30 PM	20	157	5	182	9	2	12	23	15	137	33	185	60	5	96	161	551
05:45 PM	23	144	6	173	3	4	4	11	6	158	24	188	48	7	69	124	496
Total Volume	104	666	24	794	19	13	31	63	34	625	143	802	225	22	357	604	2263
% App. Total	13.1	83.9	3		30.2	20.6	49.2		4.2	77.9	17.8		37.3	3.6	59.1		
PHF	.722	.890	.857	.898	.528	.813	.646	.685	.567	.883	.831	.879	.893	.786	.826	.863	.885

Station #: Site A-EB
Site ID: 000000008507
Location: Hilliard Rd, E of Belmont Golf Course
Direction: EAST
Lane: 1

File: D0724001.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
00:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
00:30	0	0	0	0	0	0	2	2	1	0	0	0	0	0	5
00:45	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Hour Total	0	0	0	0	0	0	3	3	4	0	0	0	0	0	10
01:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
01:30	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
01:45	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2
02:00	0	0	0	0	0	0	1	1	0	2	0	0	0	0	4
Hour Total	0	0	0	0	0	2	2	1	1	2	0	1	0	0	9
02:15	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
02:30	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
02:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
03:00	0	0	0	0	0	1	1	1	1	0	0	0	0	0	4
Hour Total	0	0	0	0	0	1	2	4	3	0	0	0	0	0	10
03:15	0	0	0	0	0	0	0	2	2	0	0	0	0	0	4
03:30	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
03:45	0	0	0	0	0	0	1	3	1	0	0	0	0	0	5
04:00	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
Hour Total	0	0	0	0	0	0	2	6	4	1	0	0	0	0	13
04:15	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
04:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
04:45	0	0	0	0	0	0	0	2	1	1	0	0	0	0	4
05:00	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6
Hour Total	0	0	0	0	0	1	0	7	3	1	1	0	0	0	13
05:15	0	0	0	0	0	1	1	2	2	0	0	0	0	0	6
05:30	0	0	0	0	0	1	0	3	0	1	0	0	0	0	5
05:45	0	0	0	0	0	0	2	4	1	0	0	0	0	0	7
06:00	0	0	0	0	0	0	1	4	5	6	0	0	0	0	16
Hour Total	0	0	0	0	0	2	4	13	8	7	0	0	0	0	34
06:15	0	0	0	0	0	0	1	7	3	2	0	0	0	0	13
06:30	0	0	0	0	0	0	1	6	5	1	0	0	0	0	13
06:45	0	0	0	0	0	1	5	16	8	2	0	0	0	0	32
07:00	0	0	0	0	0	1	4	8	4	0	1	0	0	0	18
Hour Total	0	0	0	0	0	2	11	37	20	5	1	0	0	0	76
07:15	0	0	0	0	0	0	6	12	7	0	0	0	0	0	25
07:30	0	0	0	0	0	0	3	19	8	2	0	0	0	0	32
07:45	0	0	0	0	0	0	10	18	11	1	1	0	0	0	41
08:00	0	0	1	0	0	1	11	13	8	4	3	0	0	0	41
Hour Total	0	0	1	0	0	1	30	62	34	7	4	0	0	0	139
08:15	0	0	0	2	0	0	6	18	9	2	0	0	0	0	37
08:30	0	0	0	0	1	2	4	15	9	2	0	0	0	0	33
08:45	0	0	0	0	1	1	3	15	7	4	0	0	0	0	31
09:00	0	0	0	0	0	0	5	23	12	4	0	0	0	0	44
Hour Total	0	0	0	2	2	3	18	71	37	12	0	0	0	0	145

Station #: Site A-EB
Site ID: 000000008507
Location: Hilliard Rd, E of Belmont Golf Course
Direction: EAST
Lane: 1

File: D0724001.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
09:15	0	0	0	0	0	2	12	16	9	3	0	0	0	0	42
09:30	0	0	0	0	0	0	6	17	9	0	0	0	0	0	32
09:45	0	0	0	0	1	1	9	15	8	1	0	0	0	0	35
10:00	0	0	0	1	0	1	7	26	8	2	0	0	0	0	45
Hour Total	0	0	0	1	1	4	34	74	34	6	0	0	0	0	154
10:15	0	0	1	0	0	0	9	12	8	0	0	0	0	0	30
10:30	0	0	0	0	0	1	6	17	5	2	0	0	0	0	31
10:45	0	0	0	0	0	1	5	16	8	2	0	0	0	0	32
11:00	0	0	0	0	0	1	9	10	9	6	0	0	0	0	35
Hour Total	0	0	1	0	0	3	29	55	30	10	0	0	0	0	128
11:15	0	0	0	0	0	1	8	18	9	5	0	0	0	0	41
11:30	0	1	0	0	1	6	9	18	12	0	0	1	0	0	48
11:45	0	0	0	0	0	0	5	17	8	2	1	0	0	0	33
12:00	0	0	0	0	0	0	7	13	11	3	0	0	0	0	34
Hour Total	0	1	0	0	1	7	29	66	40	10	1	1	0	0	156
12:15	0	0	0	0	0	1	12	16	6	0	0	0	0	0	35
12:30	0	0	0	0	0	0	3	23	9	4	0	0	0	0	39
12:45	0	0	0	0	0	0	12	25	12	1	0	0	0	0	50
13:00	0	0	0	0	0	0	5	25	11	5	0	0	0	0	46
Hour Total	0	0	0	0	0	1	32	89	38	10	0	0	0	0	170
13:15	0	0	0	0	0	4	5	24	8	4	0	0	0	0	45
13:30	0	0	0	0	0	0	5	19	10	2	0	0	0	0	36
13:45	0	0	0	0	0	1	8	27	6	3	0	0	0	0	45
14:00	0	0	0	0	0	1	9	20	11	0	0	0	0	0	41
Hour Total	0	0	0	0	0	6	27	90	35	9	0	0	0	0	167
14:15	0	0	0	0	0	3	10	28	10	1	0	0	0	0	52
14:30	0	0	0	0	0	3	13	24	13	2	2	0	0	0	57
14:45	0	0	0	0	0	5	10	23	12	4	0	0	0	0	54
15:00	0	0	0	0	0	1	9	21	8	7	0	0	1	0	47
Hour Total	0	0	0	0	0	12	42	96	43	14	2	0	1	0	210
15:15	0	0	0	0	0	2	11	29	8	1	0	0	0	0	51
15:30	0	0	0	0	0	3	11	29	9	2	0	0	0	0	54
15:45	0	0	0	0	0	0	9	23	11	2	0	0	0	0	45
16:00	0	0	0	0	0	2	12	36	10	4	1	0	0	0	65
Hour Total	0	0	0	0	0	7	43	117	38	9	1	0	0	0	215
16:15	0	0	0	0	2	4	14	23	16	2	0	0	0	0	61
16:30	0	0	0	0	0	0	5	34	14	2	0	0	0	0	55
16:45	0	0	0	0	0	2	22	37	26	1	0	0	0	0	88
17:00	0	0	0	0	0	1	11	41	22	11	0	0	0	0	86
Hour Total	0	0	0	0	2	7	52	135	78	16	0	0	0	0	290
17:15	0	0	3	1	3	4	30	32	32	7	2	0	0	0	114
17:30	1	0	0	0	1	1	9	38	31	7	2	0	0	0	90
17:45	0	0	0	0	0	2	12	50	9	1	0	0	0	0	74
18:00	0	0	0	0	0	2	16	43	13	2	2	0	0	0	78
Hour Total	1	0	3	1	4	9	67	163	85	17	6	0	0	0	356

SPEED SUMMARY
Thu 7/25/2019

Station #: Site A-EB
Site ID: 000000008507
Location: Hilliard Rd, E of Belmont Golf Course
Direction: EAST
Lane: 1

File: D0724001.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
18:15	0	0	1	0	0	0	6	32	12	4	0	0	0	0	55
18:30	0	0	0	0	0	0	8	29	19	2	0	0	0	0	58
18:45	0	0	0	0	0	4	5	20	10	5	0	0	0	0	44
19:00	0	0	0	0	0	0	1	18	10	2	0	0	0	0	31
Hour Total	0	0	1	0	0	4	20	99	51	13	0	0	0	0	188
19:15	0	0	0	0	1	2	3	15	8	1	1	0	0	0	31
19:30	0	0	0	0	0	1	3	12	4	0	0	0	0	0	20
19:45	0	0	0	0	2	0	9	19	6	0	0	0	0	0	36
20:00	0	0	0	0	0	0	10	18	11	3	0	0	0	0	42
Hour Total	0	0	0	0	3	3	25	64	29	4	1	0	0	0	129
20:15	0	0	0	0	0	3	8	19	3	2	1	0	0	0	36
20:30	0	0	0	0	0	0	9	22	2	0	0	0	0	0	33
20:45	0	0	0	0	0	1	7	13	4	0	1	0	0	0	26
21:00	0	0	0	0	0	2	4	16	7	0	0	0	0	0	29
Hour Total	0	0	0	0	0	6	28	70	16	2	2	0	0	0	124
21:15	0	0	0	0	0	2	11	5	2	2	0	0	0	0	22
21:30	0	0	0	0	0	2	12	9	4	0	0	0	0	0	27
21:45	0	0	0	0	0	2	3	12	2	0	0	0	0	0	19
22:00	0	0	0	0	0	0	10	5	3	1	0	0	0	0	19
Hour Total	0	0	0	0	0	6	36	31	11	3	0	0	0	0	87
22:15	0	0	0	0	0	0	5	7	6	0	0	0	0	0	18
22:30	0	0	0	0	0	1	3	4	0	0	0	0	0	0	8
22:45	0	0	0	0	0	1	5	2	2	2	0	0	0	0	12
23:00	0	0	0	0	0	0	1	5	0	1	0	0	0	0	7
Hour Total	0	0	0	0	0	2	14	18	8	3	0	0	0	0	45
23:15	0	0	0	0	0	0	5	7	3	0	0	0	0	0	15
23:30	0	0	0	0	0	0	8	3	0	0	0	0	0	0	11
23:45	0	0	0	0	0	0	2	4	1	0	0	0	0	0	7
24:00	0	0	0	0	0	1	4	5	2	2	0	0	0	0	14
Hour Total	0	0	0	0	0	1	19	19	6	2	0	0	0	0	47
DAY TOTAL	1	1	6	4	13	90	569	1390	656	163	19	2	1	0	2915
PERCENTS	0.0%	0.0%	0.2%	0.1%	0.4%	3.1%	19.5%	47.7%	22.5%	5.6%	0.7%	0.1%	0.0%	0.0%	100.0%

Station #: Site A-EB
Site ID: 000000008507
Location: Hilliard Rd, E of Belmont Golf Course
Direction: EAST
Lane: 1

File: D0724001.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME <10 <15 <20 <25 <30 <35 <40 <45 <50 <55 <60 <65 <70 <120 Total

Statistical Information...

15th Percentile Speed
37.8 mph

85th Percentile Speed
48.1 mph

Median Speed
42.8 mph

Average Speed
42.9 mph

10 MPH Pace Speed
40 mph to 50 mph
2046 vehicles in pace
Representing 70.2% of the total vehicles

Vehicles > 30 MPH
2890
99.2%

Station #: Site A-EB
 Site ID: 000000008507
 Location: Hilliard Rd, E of Belmont Golf Course
 Direction: EAST
 Lane: 1

File: D0724001.prn
 Job #: 19-279 TO/KL Min
 GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
GRAND TOTAL	1	6	13	90	569	1390	656	19	1	0	2915				
PERCENTS	0.0%	0.2%	0.1%	0.4%	3.1%	19.5%	47.7%	22.5%	5.6%	0.7%	0.1%	0.0%	0.0%	100.0%	

Station #: Site A-EB
Site ID: 000000008507
Location: Hilliard Rd, E of Belmont Golf Course
Direction: EAST
Lane: 2

File: D0724001.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
00:15	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5
00:30	0	0	0	0	0	1	1	2	3	0	0	0	0	0	7
00:45	0	0	0	0	0	0	0	2	2	0	0	0	0	0	4
01:00	0	0	0	0	0	1	1	1	0	0	0	0	0	0	3
Hour Total	0	0	0	0	0	2	2	9	6	0	0	0	0	0	19
01:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
01:30	0	0	0	0	0	0	2	0	3	0	0	0	0	0	5
01:45	0	0	0	0	0	2	1	1	0	0	0	0	0	0	4
02:00	0	0	0	0	0	0	0	2	0	1	0	0	0	0	3
Hour Total	0	0	0	0	0	2	3	3	5	1	0	0	0	0	14
02:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
02:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
02:45	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	1	0	1	1	0	0	0	0	0	3
Hour Total	0	0	0	0	0	1	2	3	1	0	0	0	0	0	7
03:15	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
03:30	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
03:45	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
04:00	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2
Hour Total	0	0	0	0	0	0	2	4	0	2	0	0	0	0	8
04:15	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	2	0	1	0	0	0	0	3
05:00	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3
Hour Total	0	0	0	0	0	0	2	4	1	2	0	0	0	0	9
05:15	0	0	0	0	0	0	0	3	0	1	0	0	0	0	4
05:30	0	0	0	0	0	0	1	2	2	0	0	0	0	0	5
05:45	0	0	0	0	0	0	2	1	1	0	0	0	0	0	4
06:00	0	0	0	0	0	0	0	3	5	0	0	0	0	0	8
Hour Total	0	0	0	0	0	0	3	9	8	1	0	0	0	0	21
06:15	0	0	0	0	0	1	1	5	0	0	2	0	0	0	9
06:30	0	0	0	0	0	1	4	1	4	0	0	0	0	0	10
06:45	0	0	0	0	0	0	1	6	1	1	0	0	0	0	9
07:00	0	0	0	0	0	1	2	9	1	1	0	0	0	0	14
Hour Total	0	0	0	0	0	3	8	21	6	2	2	0	0	0	42
07:15	0	0	0	0	0	0	2	17	4	1	2	0	1	0	27
07:30	0	0	0	0	0	0	3	9	0	5	0	0	0	0	17
07:45	0	0	0	0	0	0	2	7	6	2	1	0	0	0	18
08:00	0	0	0	0	0	0	5	12	7	3	0	0	0	0	27
Hour Total	0	0	0	0	0	0	12	45	17	11	3	0	1	0	89
08:15	0	0	0	0	0	0	5	4	10	0	0	0	0	0	19
08:30	0	0	0	0	0	1	1	10	7	1	0	0	0	0	20
08:45	0	0	0	0	0	1	2	12	2	0	0	0	0	0	17
09:00	0	0	0	0	0	2	4	8	10	4	0	0	0	0	28
Hour Total	0	0	0	0	0	4	12	34	29	5	0	0	0	0	84

Station #: Site A-EB
Site ID: 000000008507
Location: Hilliard Rd, E of Belmont Golf Course
Direction: EAST
Lane: 2

File: D0724001.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
09:15	0	0	0	0	0	0	0	15	8	0	0	0	0	0	23
09:30	0	0	0	0	0	2	3	11	4	3	0	0	0	0	23
09:45	0	0	0	0	0	0	2	9	6	1	0	0	0	0	18
10:00	0	0	0	0	0	0	3	15	3	0	0	0	0	0	21
Hour Total	0	0	0	0	0	2	8	50	21	4	0	0	0	0	85
10:15	0	0	0	0	0	1	5	6	2	0	0	0	0	0	14
10:30	0	0	1	0	0	1	0	6	11	0	1	0	0	0	20
10:45	0	0	0	0	0	0	2	9	7	0	0	1	0	0	19
11:00	0	0	0	1	0	1	5	6	13	0	0	0	0	0	26
Hour Total	0	0	1	1	0	3	12	27	33	0	1	1	0	0	79
11:15	0	0	0	0	0	0	3	9	11	0	0	0	0	1	24
11:30	0	0	0	0	0	2	9	19	12	0	0	0	0	0	42
11:45	0	0	0	0	0	1	9	5	5	1	0	0	0	0	21
12:00	0	0	0	0	1	0	2	8	5	5	2	0	0	0	23
Hour Total	0	0	0	0	1	3	23	41	33	6	2	0	0	1	110
12:15	0	0	0	0	0	0	7	7	1	1	0	0	0	0	16
12:30	0	0	0	0	0	0	4	12	8	0	0	0	0	0	24
12:45	0	0	0	0	0	1	3	9	11	2	0	0	0	0	26
13:00	0	0	0	0	0	0	2	10	9	0	0	0	0	0	21
Hour Total	0	0	0	0	0	1	16	38	29	3	0	0	0	0	87
13:15	0	0	0	0	0	0	3	13	10	1	0	0	0	0	27
13:30	0	0	0	0	0	0	7	13	4	1	0	0	0	0	25
13:45	0	0	0	0	0	2	2	14	11	0	0	0	0	0	29
14:00	0	0	0	0	0	0	2	16	6	3	0	0	0	0	27
Hour Total	0	0	0	0	0	2	14	56	31	5	0	0	0	0	108
14:15	0	0	0	0	0	1	6	16	4	0	0	0	0	0	27
14:30	0	0	0	0	0	0	14	8	12	3	0	0	0	0	37
14:45	0	0	0	0	0	0	2	17	11	0	0	0	0	0	30
15:00	0	0	0	0	0	2	5	15	11	1	0	0	1	0	35
Hour Total	0	0	0	0	0	3	27	56	38	4	0	0	1	0	129
15:15	0	0	0	0	0	0	3	16	1	3	0	0	0	0	23
15:30	0	0	0	0	0	0	3	12	1	8	2	0	0	0	26
15:45	0	0	0	0	0	0	6	8	10	4	0	0	0	0	28
16:00	0	0	0	0	0	0	6	5	8	3	2	0	0	0	24
Hour Total	0	0	0	0	0	0	18	41	20	18	4	0	0	0	101
16:15	0	0	0	0	1	0	3	13	21	2	0	0	0	0	40
16:30	0	0	0	0	0	0	10	17	11	3	0	0	0	1	42
16:45	0	0	0	1	1	1	11	15	15	1	0	0	0	0	45
17:00	0	0	0	0	0	1	5	27	15	0	2	0	0	0	50
Hour Total	0	0	0	1	2	2	29	72	62	6	2	0	0	1	177
17:15	2	0	0	2	1	1	6	31	14	5	0	0	0	0	62
17:30	0	0	0	0	0	1	9	15	14	7	1	1	0	0	48
17:45	0	0	0	0	0	1	4	30	9	7	0	1	0	0	52
18:00	0	0	0	0	0	0	3	23	16	2	0	0	0	0	44
Hour Total	2	0	0	2	1	3	22	99	53	21	1	2	0	0	206

Station #: Site A-EB
Site ID: 000000008507
Location: Hilliard Rd, E of Belmont Golf Course
Direction: EAST
Lane: 2

File: D0724001.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
18:15	0	0	0	1	0	1	0	13	11	1	2	0	0	0	29
18:30	0	0	0	0	0	1	6	9	3	1	0	0	0	0	20
18:45	0	0	0	0	0	1	4	7	0	4	1	0	0	2	19
19:00	0	0	0	0	0	0	7	9	6	3	0	0	0	0	25
Hour Total	0	0	0	1	0	3	17	38	20	9	3	0	0	2	93
19:15	0	0	0	0	1	1	7	5	4	0	0	0	0	0	18
19:30	0	0	0	0	0	0	4	14	0	0	0	0	0	0	18
19:45	0	0	0	0	1	1	3	6	3	3	0	0	0	0	17
20:00	0	0	0	0	0	0	10	12	5	0	0	0	0	0	27
Hour Total	0	0	0	0	2	2	24	37	12	3	0	0	0	0	80
20:15	0	0	0	0	0	1	2	5	7	1	0	0	0	0	16
20:30	0	0	0	0	0	1	6	7	4	0	0	0	0	0	18
20:45	0	0	0	0	0	0	2	7	4	3	0	0	0	0	16
21:00	0	0	0	0	0	1	6	5	3	1	0	1	0	0	17
Hour Total	0	0	0	0	0	3	16	24	18	5	0	1	0	0	67
21:15	0	0	0	0	0	0	8	3	2	1	0	0	0	0	14
21:30	0	0	0	0	0	0	1	5	1	2	0	0	0	0	9
21:45	0	0	0	0	0	1	1	4	6	0	0	0	1	0	13
22:00	0	0	0	0	0	0	1	4	1	0	0	0	0	0	6
Hour Total	0	0	0	0	0	1	11	16	10	3	0	0	1	0	42
22:15	0	0	0	0	0	0	1	5	3	0	0	0	0	0	9
22:30	0	0	0	0	0	0	2	5	0	0	0	0	0	0	7
22:45	0	0	0	0	0	2	0	6	3	0	0	0	0	0	11
23:00	0	0	0	0	0	0	3	4	0	1	0	0	0	0	8
Hour Total	0	0	0	0	0	2	6	20	6	1	0	0	0	0	35
23:15	0	0	0	0	0	0	0	2	2	1	0	0	0	0	5
23:30	0	0	0	0	0	1	0	0	4	1	0	0	0	1	7
23:45	0	0	0	0	0	0	1	1	1	0	0	0	0	0	3
24:00	0	0	0	0	0	0	2	2	2	0	0	0	0	0	6
Hour Total	0	0	0	0	0	1	3	5	9	2	0	0	0	1	21
DAY TOTAL	2	0	1	5	6	43	292	752	468	114	18	4	3	5	1713
PERCENTS	0.1%	0.0%	0.1%	0.3%	0.4%	2.5%	17.0%	43.9%	27.3%	6.7%	1.1%	0.2%	0.2%	0.3%	100.0%

Station #: Site A-EB
Site ID: 000000008507
Location: Hilliard Rd, E of Belmont Golf Course
Direction: EAST
Lane: 2

File: D0724001.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME <10 <15 <20 <25 <30 <35 <40 <45 <50 <55 <60 <65 <70 <120 Total

Statistical Information...

15th Percentile Speed
38.5 mph

85th Percentile Speed
48.8 mph

Median Speed
43.4 mph

Average Speed
43.6 mph

10 MPH Pace Speed
40 mph to 50 mph
1220 vehicles in pace
Representing 71.5% of the total vehicles

Vehicles > 30 MPH
1694
99.3%

Station #: Site A-EB
 Site ID: 000000008507
 Location: Hilliard Rd, E of Belmont Golf Course
 Direction: EAST
 Lane: 2

File: D0724001.prn
 Job #: 19-279 TO/KL Min
 GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
GRAND TOTAL	2	0	1	5	6	43	292	752	468	114	18	4	3	5	1713
PERCENTS	0.1%	0.0%	0.1%	0.3%	0.4%	2.5%	17.0%	43.9%	27.3%	6.7%	1.1%	0.2%	0.2%	0.3%	100.0%

Station #: Site A-WB
Site ID: 000000013616
Location: Hilliard Rd, E of Belmont Golf Course
Direction: WEST
Lane: 1

File: D0724002.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
00:15	0	0	0	0	0	0	1	1	0	1	0	0	0	0	3
00:30	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
00:45	0	0	0	0	0	1	2	1	0	0	0	0	0	0	4
01:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Hour Total	0	0	0	0	0	1	4	3	1	1	0	0	0	0	10
01:15	0	0	0	0	0	1	1	0	0	0	0	0	0	0	2
01:30	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3
01:45	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour Total	0	0	0	0	0	2	3	2	0	0	0	0	0	0	7
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
Hour Total	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	1	1	1	0	0	0	0	0	3
03:45	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
04:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Hour Total	0	0	0	0	0	0	2	2	1	1	0	0	0	0	6
04:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
05:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Hour Total	0	0	0	1	0	1	0	1	0	0	0	0	0	0	3
05:15	0	0	0	0	1	1	0	0	0	2	0	0	0	0	4
05:30	0	0	0	0	0	1	1	1	0	0	0	0	0	0	3
05:45	0	0	0	0	0	3	0	2	1	1	0	0	0	0	7
06:00	0	0	0	0	0	1	4	4	0	0	0	0	0	0	9
Hour Total	0	0	0	0	1	6	5	7	1	3	0	0	0	0	23
06:15	0	0	0	0	0	2	1	1	4	0	0	0	0	0	8
06:30	0	0	0	0	0	2	1	5	2	1	1	0	0	0	12
06:45	0	0	0	0	1	2	3	6	2	0	1	0	0	0	15
07:00	0	0	0	0	0	2	3	9	3	0	0	0	0	0	17
Hour Total	0	0	0	0	1	8	8	21	11	1	2	0	0	0	52
07:15	0	0	0	0	1	1	12	7	4	1	0	0	0	0	26
07:30	0	0	0	0	1	5	8	14	2	0	1	0	0	0	31
07:45	0	0	0	0	0	2	11	23	6	3	0	0	0	0	45
08:00	0	0	1	0	0	4	7	19	6	0	0	0	0	0	37
Hour Total	0	0	1	0	2	12	38	63	18	4	1	0	0	0	139
08:15	0	0	0	0	1	3	11	12	9	2	0	0	0	0	38
08:30	0	0	0	0	0	2	11	8	6	1	0	0	0	0	28
08:45	0	0	0	0	1	0	14	10	5	1	0	0	0	0	31
09:00	0	0	0	1	0	7	9	13	2	1	0	0	0	0	33
Hour Total	0	0	0	1	2	12	45	43	22	5	0	0	0	0	130

Station #: Site A-WB
Site ID: 000000013616
Location: Hilliard Rd, E of Belmont Golf Course
Direction: WEST
Lane: 1

File: D0724002.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
09:15	0	0	0	0	1	3	5	7	1	0	0	0	0	0	17
09:30	0	0	0	1	0	0	8	8	0	0	0	0	0	0	17
09:45	0	0	0	0	0	4	12	6	2	0	0	0	0	0	24
10:00	0	0	0	0	1	2	11	8	3	2	0	0	0	0	27
Hour Total	0	0	0	1	2	9	36	29	6	2	0	0	0	0	85
10:15	0	0	0	0	1	2	7	9	4	1	0	0	0	0	24
10:30	0	0	0	0	0	2	7	11	2	0	0	0	0	0	22
10:45	0	0	0	0	0	1	15	7	1	0	0	0	0	0	24
11:00	0	0	0	0	0	3	6	5	0	0	0	0	0	0	14
Hour Total	0	0	0	0	1	8	35	32	7	1	0	0	0	0	84
11:15	0	0	0	0	2	2	8	5	4	0	0	0	0	0	21
11:30	0	0	0	0	0	1	10	5	4	0	0	0	0	0	20
11:45	0	0	0	0	0	3	4	13	3	0	0	0	0	0	23
12:00	0	0	0	0	0	2	7	11	2	1	1	0	0	0	24
Hour Total	0	0	0	0	2	8	29	34	13	1	1	0	0	0	88
12:15	0	0	0	0	0	4	14	9	9	1	0	0	0	0	37
12:30	0	0	0	0	1	2	4	7	7	1	1	0	0	0	23
12:45	0	0	0	0	1	2	5	11	3	1	0	0	0	0	23
13:00	0	0	0	0	1	1	12	13	2	1	0	0	0	0	30
Hour Total	0	0	0	0	3	9	35	40	21	4	1	0	0	0	113
13:15	0	0	0	0	4	2	6	7	4	1	0	0	0	0	24
13:30	0	0	0	0	0	2	7	14	0	2	0	1	0	0	26
13:45	0	0	0	0	0	4	6	14	0	1	0	0	0	0	25
14:00	0	0	0	0	1	1	6	11	2	0	1	0	0	0	22
Hour Total	0	0	0	0	5	9	25	46	6	4	1	1	0	0	97
14:15	0	0	0	0	0	2	3	6	2	1	0	0	0	0	14
14:30	0	0	0	0	0	0	9	12	2	1	0	0	0	0	24
14:45	0	0	0	0	0	5	5	14	1	1	0	0	0	0	26
15:00	0	0	0	0	0	3	5	13	4	2	0	0	0	0	27
Hour Total	0	0	0	0	0	10	22	45	9	5	0	0	0	0	91
15:15	0	0	0	0	0	4	9	3	3	1	0	0	0	0	20
15:30	0	0	0	0	0	2	11	10	0	0	0	0	0	0	23
15:45	0	0	0	0	0	7	6	9	5	0	0	0	0	0	27
16:00	0	0	0	0	0	4	17	13	2	1	0	0	0	0	37
Hour Total	0	0	0	0	0	17	43	35	10	2	0	0	0	0	107
16:15	0	0	0	0	1	5	6	13	1	0	1	0	0	0	27
16:30	0	0	0	0	0	1	12	13	8	1	0	0	0	0	35
16:45	0	0	0	0	0	3	11	17	4	0	0	0	0	0	35
17:00	0	0	0	0	1	5	16	9	2	1	0	0	0	0	34
Hour Total	0	0	0	0	2	14	45	52	15	2	1	0	0	0	131
17:15	0	0	0	0	0	4	17	19	8	0	0	0	0	0	48
17:30	0	0	0	0	1	0	13	12	4	2	0	0	0	0	32
17:45	0	0	0	1	2	10	12	13	3	0	0	0	0	0	41
18:00	0	0	0	0	0	2	15	8	5	1	0	1	0	0	32
Hour Total	0	0	0	1	3	16	57	52	20	3	0	1	0	0	153

SPEED SUMMARY
Thu 7/25/2019

Station #: Site A-WB
Site ID: 000000013616
Location: Hilliard Rd, E of Belmont Golf Course
Direction: WEST
Lane: 1

File: D0724002.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
18:15	0	0	0	0	0	2	7	11	4	0	0	0	0	0	24
18:30	0	0	0	0	0	2	9	23	8	0	0	0	0	0	42
18:45	0	0	0	0	1	2	6	10	2	1	0	0	0	0	22
19:00	0	0	0	0	1	1	4	7	4	3	0	0	0	0	20
Hour Total	0	0	0	0	2	7	26	51	18	4	0	0	0	0	108
19:15	0	0	0	0	0	3	6	6	3	0	0	0	0	0	18
19:30	0	0	0	0	0	1	12	10	3	1	0	0	0	0	27
19:45	0	0	0	0	0	1	7	6	1	0	0	0	0	0	15
20:00	0	0	0	0	0	1	5	1	1	0	0	0	0	0	8
Hour Total	0	0	0	0	0	6	30	23	8	1	0	0	0	0	68
20:15	0	0	0	0	0	0	4	9	4	0	0	0	0	0	17
20:30	0	0	0	0	0	0	4	13	1	1	0	0	0	0	19
20:45	0	0	0	0	1	2	4	6	2	0	0	0	0	0	15
21:00	0	0	0	0	0	1	3	8	5	0	0	0	0	0	17
Hour Total	0	0	0	0	1	3	15	36	12	1	0	0	0	0	68
21:15	0	0	0	1	0	0	4	4	0	0	0	0	0	0	9
21:30	0	0	0	0	2	2	3	2	1	0	0	0	0	0	10
21:45	0	0	0	0	0	0	5	3	0	0	0	0	0	0	8
22:00	0	0	0	0	1	1	1	5	1	0	0	0	0	0	9
Hour Total	0	0	0	1	3	3	13	14	2	0	0	0	0	0	36
22:15	0	0	0	0	0	2	1	4	0	0	0	0	0	0	7
22:30	0	0	0	0	0	2	1	2	2	0	0	0	0	0	7
22:45	0	0	0	0	0	0	2	2	0	0	0	0	0	0	4
23:00	0	0	0	0	0	0	2	4	0	0	0	0	0	0	6
Hour Total	0	0	0	0	0	4	6	12	2	0	0	0	0	0	24
23:15	0	0	0	0	0	0	3	1	2	0	1	1	0	0	8
23:30	0	0	0	0	1	0	1	4	0	0	0	0	0	0	6
23:45	0	0	0	0	0	1	1	1	2	0	0	0	0	0	5
24:00	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
Hour Total	0	0	0	0	1	1	5	8	5	0	1	1	0	0	22
DAY TOTAL	0	0	1	5	31	166	528	652	208	45	8	3	0	0	1647
PERCENTS	0.0%	0.0%	0.1%	0.3%	1.9%	10.1%	32.1%	39.6%	12.6%	2.7%	0.5%	0.2%	0.0%	0.0%	100.0%

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TIME <10 <15 <20 <25 <30 <35 <40 <45 <50 <55 <60 <65 <70 <120 Total

Statistical Information...

15th Percentile Speed
35.4 mph

85th Percentile Speed
45.4 mph

Median Speed
40.7 mph

Average Speed
40.6 mph

10 MPH Pace Speed
35 mph to 45 mph
1180 vehicles in pace
Representing 71.6% of the total vehicles

Vehicles > 30 MPH
1610
97.8%

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TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
GRAND TOTAL	0	0	1	5	31	166	528	652	208	45	8	3	0	0	1647
PERCENTS	0.0%	0.0%	0.1%	0.3%	1.9%	10.1%	32.1%	39.6%	12.6%	2.7%	0.5%	0.2%	0.0%	0.0%	100.0%

Station #: Site A-WB
Site ID: 000000013616
Location: Hilliard Rd, E of Belmont Golf Course
Direction: WEST
Lane: 2

File: D0724002.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
00:15	0	0	0	0	0	0	2	0	3	0	0	0	0	0	5
00:30	0	0	0	0	0	0	1	3	1	0	0	0	0	0	5
00:45	0	0	0	0	0	1	1	1	1	0	0	0	0	0	4
01:00	0	0	0	0	0	0	1	2	0	1	0	0	0	0	4
Hour Total	0	0	0	0	0	1	5	6	5	1	0	0	0	0	18
01:15	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
01:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
01:45	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Hour Total	0	0	0	0	0	1	3	2	0	0	0	0	0	0	6
02:15	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour Total	0	0	0	0	0	0	1	2	1	0	0	0	0	0	4
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hour Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
04:15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
04:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2
04:45	0	0	0	0	0	0	1	2	0	0	0	0	0	0	3
05:00	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
Hour Total	0	0	0	0	0	0	4	3	0	1	0	0	0	0	8
05:15	0	0	0	0	0	1	1	0	2	0	0	0	0	0	4
05:30	0	0	0	0	0	0	1	2	2	1	0	0	0	0	6
05:45	0	0	0	0	0	0	1	2	1	0	0	0	0	0	4
06:00	0	0	0	0	1	0	2	0	1	0	0	0	0	0	4
Hour Total	0	0	0	0	1	1	5	4	6	1	0	0	0	0	18
06:15	0	0	0	0	1	1	4	3	3	0	0	0	0	0	12
06:30	0	0	0	0	0	0	2	5	2	4	0	0	0	0	13
06:45	0	0	0	0	0	2	2	5	0	3	0	0	0	0	12
07:00	0	0	0	0	0	2	2	1	5	0	0	0	0	0	10
Hour Total	0	0	0	0	1	5	10	14	10	7	0	0	0	0	47
07:15	0	0	0	0	0	1	5	12	1	0	0	0	0	0	19
07:30	0	0	0	0	0	1	7	5	5	4	0	0	0	0	22
07:45	0	0	0	0	0	2	4	10	5	5	0	0	0	0	26
08:00	0	0	0	0	0	0	10	14	15	2	0	0	0	0	41
Hour Total	0	0	0	0	0	4	26	41	26	11	0	0	0	0	108
08:15	0	0	0	0	0	3	3	14	9	4	0	0	0	0	33
08:30	0	0	0	0	0	0	6	12	6	2	1	0	0	0	27
08:45	0	0	0	0	0	1	2	4	6	2	0	0	0	0	15
09:00	0	0	0	0	2	0	3	10	6	2	0	0	0	0	23
Hour Total	0	0	0	0	2	4	14	40	27	10	1	0	0	0	98

Station #: Site A-WB
Site ID: 000000013616
Location: Hilliard Rd, E of Belmont Golf Course
Direction: WEST
Lane: 2

File: D0724002.prn
Job #: 19-279 TO/KL Min
GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
09:15	0	0	0	0	0	2	6	6	3	1	0	0	0	0	18
09:30	0	0	0	0	0	2	3	14	5	1	0	0	0	0	25
09:45	0	0	0	0	0	1	3	9	8	1	0	0	0	0	22
10:00	0	0	0	0	0	0	3	4	4	0	0	0	0	0	11
Hour Total	0	0	0	0	0	5	15	33	20	3	0	0	0	0	76
10:15	0	0	0	0	0	1	2	10	3	0	0	0	0	0	16
10:30	0	0	0	1	0	1	4	5	3	1	0	0	0	0	15
10:45	0	0	0	0	1	1	1	9	2	0	0	0	0	0	14
11:00	0	0	0	0	0	0	5	6	6	1	0	0	0	0	18
Hour Total	0	0	0	1	1	3	12	30	14	2	0	0	0	0	63
11:15	0	0	0	0	0	0	6	6	2	0	0	0	0	0	14
11:30	0	0	0	0	0	1	5	12	6	1	0	0	0	0	25
11:45	0	0	0	0	0	1	1	4	8	1	1	0	0	0	16
12:00	0	0	0	0	0	4	3	9	2	3	0	0	0	0	21
Hour Total	0	0	0	0	0	6	15	31	18	5	1	0	0	0	76
12:15	0	0	0	0	0	2	5	1	5	0	0	0	0	1	14
12:30	0	0	0	0	0	1	6	12	3	2	1	0	0	0	25
12:45	0	0	0	0	0	1	4	11	5	0	1	0	0	0	22
13:00	0	0	0	0	0	2	5	8	2	1	0	0	0	0	18
Hour Total	0	0	0	0	0	6	20	32	15	3	2	0	0	1	79
13:15	0	0	0	0	0	1	10	11	0	0	0	0	0	0	22
13:30	0	0	0	0	0	2	7	5	7	2	1	0	0	0	24
13:45	0	0	0	0	0	0	2	10	10	2	0	0	0	1	25
14:00	0	0	0	0	0	1	9	12	5	3	0	0	0	0	30
Hour Total	0	0	0	0	0	4	28	38	22	7	1	0	0	1	101
14:15	0	0	0	0	0	0	3	0	2	0	0	0	0	0	5
14:30	0	0	0	0	0	1	2	6	6	0	0	0	0	0	15
14:45	0	0	0	0	0	0	6	6	7	1	1	0	0	0	21
15:00	0	0	0	0	0	0	5	9	8	0	0	0	0	0	22
Hour Total	0	0	0	0	0	1	16	21	23	1	1	0	0	0	63
15:15	0	0	0	0	0	1	2	8	4	3	1	1	0	0	20
15:30	0	0	0	0	0	1	2	8	5	2	0	0	0	0	18
15:45	0	0	0	0	1	0	6	11	9	0	0	0	0	0	27
16:00	0	0	0	0	2	0	7	10	1	1	0	0	0	0	21
Hour Total	0	0	0	0	3	2	17	37	19	6	1	1	0	0	86
16:15	0	0	0	0	0	0	6	5	8	2	0	0	0	0	21
16:30	0	0	0	0	0	2	1	9	2	4	1	0	0	0	19
16:45	0	0	0	0	0	3	6	10	6	0	0	0	0	0	25
17:00	0	0	0	0	0	2	1	11	7	0	2	0	0	0	23
Hour Total	0	0	0	0	0	7	14	35	23	6	3	0	0	0	88
17:15	0	0	0	0	0	4	1	13	5	2	0	0	0	0	25
17:30	0	0	0	0	0	2	5	22	4	1	2	0	0	0	36
17:45	0	0	0	0	1	2	8	9	10	1	0	0	0	0	31
18:00	0	0	0	0	0	0	2	10	6	8	0	0	0	0	26
Hour Total	0	0	0	0	1	8	16	54	25	12	2	0	0	0	118

Station #: Site A-WB
Site ID: 000000013616
Location: Hilliard Rd, E of Belmont Golf Course
Direction: WEST
Lane: 2

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GPS: 37.61749, -77.46257

TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
18:15	0	0	0	0	0	1	8	6	11	2	0	0	0	0	28
18:30	0	0	1	0	0	0	1	5	4	2	0	1	0	1	15
18:45	0	0	0	0	0	1	3	6	2	0	0	0	0	0	12
19:00	0	0	0	0	0	0	8	7	8	0	0	0	0	0	23
Hour Total	0	0	1	0	0	2	20	24	25	4	0	1	0	1	78
19:15	0	0	0	0	0	1	4	6	2	0	0	0	0	0	13
19:30	0	0	0	0	0	1	6	3	2	2	0	1	0	0	15
19:45	0	0	0	0	0	1	2	4	2	1	0	0	0	0	10
20:00	0	0	0	0	0	2	2	7	3	3	0	0	0	0	17
Hour Total	0	0	0	0	0	5	14	20	9	6	0	1	0	0	55
20:15	0	0	0	0	0	1	8	0	3	0	0	0	0	0	12
20:30	0	0	0	0	0	1	9	6	2	3	0	0	0	0	21
20:45	0	0	0	0	1	2	3	8	3	2	0	0	0	0	19
21:00	0	0	0	0	0	0	3	5	2	0	0	0	0	0	10
Hour Total	0	0	0	0	1	4	23	19	10	5	0	0	0	0	62
21:15	0	0	0	0	0	2	3	5	3	1	0	0	0	0	14
21:30	0	0	0	0	0	0	3	8	0	0	0	0	0	0	11
21:45	0	0	0	0	0	1	4	3	0	0	0	0	0	0	8
22:00	0	0	0	0	1	1	3	2	3	0	0	0	0	0	10
Hour Total	0	0	0	0	1	4	13	18	6	1	0	0	0	0	43
22:15	0	0	0	0	0	2	4	3	1	0	0	0	0	0	10
22:30	0	0	0	0	0	0	2	3	0	0	0	0	0	0	5
22:45	0	0	0	0	0	0	2	5	0	0	0	0	0	0	7
23:00	0	0	0	0	0	0	3	2	0	0	0	0	0	0	5
Hour Total	0	0	0	0	0	2	11	13	1	0	0	0	0	0	27
23:15	0	0	0	0	0	1	5	2	0	0	1	0	0	0	9
23:30	0	0	0	0	0	1	2	1	0	0	0	0	0	0	4
23:45	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
24:00	0	0	0	0	0	0	4	2	0	0	0	0	0	0	6
Hour Total	0	0	0	0	0	2	11	7	0	0	1	0	0	0	21
DAY TOTAL	0	0	1	1	11	78	313	525	305	92	13	3	0	3	1345
PERCENTS	0.0%	0.0%	0.1%	0.1%	0.8%	5.8%	23.3%	39.0%	22.7%	6.8%	1.0%	0.2%	0.0%	0.2%	100.0%

Station #: Site A-WB
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Direction: WEST
Lane: 2

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TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	-------

Statistical Information...

15th Percentile Speed
36.8 mph

85th Percentile Speed
48.5 mph

Median Speed
42.6 mph

Average Speed
42.6 mph

10 MPH Pace Speed
35 mph to 45 mph
838 vehicles in pace
Representing 62.4% of the total vehicles

Vehicles > 30 MPH
1329
99.0%

Station #: Site A-WB
 Site ID: 000000013616
 Location: Hilliard Rd, E of Belmont Golf Course
 Direction: WEST
 Lane: 2

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TIME	<10	<15	<20	<25	<30	<35	<40	<45	<50	<55	<60	<65	<70	<120	Total
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
GRAND TOTAL	0	0	1	1	11	78	313	525	305	92	13	3	0	3	1345
PERCENTS	0.0%	0.0%	0.1%	0.1%	0.8%	5.8%	23.3%	39.0%	22.7%	6.8%	1.0%	0.2%	0.0%	0.2%	100.0%

Table 1 Average Daily Volumes

Typical Section	LOS	Volume Threshold	Undivided Factor	Non-State Factor	Updated Threshold
4 lane divided	B		0.75	0.9	0
4 lane divided	C	37900	0.75	0.9	25600
4 lane divided	D	39800	0.75	0.9	26900
2 lane TWLT	B		1	0.9	0
3 lane TWLT	C	16800	1	0.9	15100
4 lane TWLT	D	17700	1	0.9	15900





















Table 4 Peak Hour Two-way Volumes

Typical Section	LOS	Volume Threshold	Undivided Factor	Non-State Factor	Updated Thresh.
4 lane divided	B		0.75	0.9	0
4 lane divided	C	3420	0.75	0.9	2310
4 lane divided	D	3580	0.75	0.9	2420
2 lane TWLT	B		1	0.9	0
3 lane TWLT	C	1510	1	0.9	1360
4 lane TWLT	D	1600	1	0.9	1440

Attachment B Synchro Analysis Worksheets

























HCM Signalized Intersection Capacity Analysis
6: Brook Rd & Hilliard Rd

Hilliard Road - Corridor Study
Existing 2019 AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	7	119	49	37	23	154	449	3	12	552	97
Future Volume (vph)	135	7	119	49	37	23	154	449	3	12	552	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5		5.5		5.5	6.0			6.0	6.0
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.97		1.00	1.00			1.00	0.85
Flt Protected	0.95	0.96	1.00		0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1531	1557	1468		1713		1770	3492			3503	1455
Flt Permitted	0.95	0.96	1.00		0.98		0.95	1.00			0.94	1.00
Satd. Flow (perm)	1531	1557	1468		1713		1770	3492			3292	1455
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	144	7	127	52	39	24	164	478	3	13	587	103
RTOR Reduction (vph)	0	0	111	0	8	0	0	0	0	0	0	73
Lane Group Flow (vph)	75	76	16	0	107	0	164	481	0	0	600	30
Confl. Peds. (#/hr)	2					2						
Heavy Vehicles (%)	12%	0%	10%	2%	6%	10%	2%	3%	50%	0%	3%	11%
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4		8	8		5	2			6	6
Permitted Phases			4							6		6
Actuated Green, G (s)	10.0	10.0	10.0		11.1		13.4	42.0			23.1	23.1
Effective Green, g (s)	10.0	10.0	10.0		11.1		13.4	42.0			23.1	23.1
Actuated g/C Ratio	0.12	0.12	0.12		0.14		0.17	0.52			0.29	0.29
Clearance Time (s)	5.5	5.5	5.5		5.5		5.5	6.0			6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	191	194	183		237		296	1831			949	419
v/s Ratio Prot	c0.05	0.05			c0.06		c0.09	0.14				
v/s Ratio Perm			0.01								c0.18	0.02
v/c Ratio	0.39	0.39	0.09		0.45		0.55	0.26			0.63	0.07
Uniform Delay, d1	32.3	32.3	31.0		31.7		30.6	10.5			24.8	20.7
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	1.3	1.3	0.2		1.4		2.2	0.1			1.4	0.1
Delay (s)	33.6	33.6	31.2		33.1		32.8	10.6			26.2	20.8
Level of Service	C	C	C		C		C	B			C	C
Approach Delay (s)		32.5			33.1			16.2			25.4	
Approach LOS		C			C			B			C	
Intersection Summary												
HCM 2000 Control Delay			23.6									C
HCM 2000 Volume to Capacity ratio			0.54									
Actuated Cycle Length (s)			80.1							22.5		
Intersection Capacity Utilization			55.5%									B
Analysis Period (min)			15									
Description: AM Peak 7:30am-8:30am												
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
3: Lakeside Ave & Hilliard Rd

Hilliard Road - Corridor Study
Existing 2019 AM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	248	405	42	273	3	261	94	27	1	204	384
Future Volume (veh/h)	160	248	405	42	273	3	261	94	27	1	204	384
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1796	1870	1870	1811	1900	1826	1856	1841	1900	1841	1870
Adj Flow Rate, veh/h	174	270	440	46	297	0	284	102	29	1	222	417
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	7	2	2	6	0	5	3	4	0	4	2
Cap, veh/h	205	944	624	64	707		395	217	239	461	469	588
Arrive On Green	0.12	0.28	0.28	0.04	0.21	0.00	0.12	0.12	0.12	0.25	0.25	0.25
Sat Flow, veh/h	1767	3413	1585	1781	3441	1610	3374	1856	1560	1810	1841	1585
Grp Volume(v), veh/h	174	270	440	46	297	0	284	102	29	1	222	417
Grp Sat Flow(s),veh/h/ln	1767	1706	1585	1781	1721	1610	1687	1856	1560	1810	1841	1585
Q Serve(g_s), s	9.7	6.2	23.4	2.6	7.5	0.0	8.2	5.2	1.6	0.0	10.3	22.6
Cycle Q Clear(g_c), s	9.7	6.2	23.4	2.6	7.5	0.0	8.2	5.2	1.6	0.0	10.3	22.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	944	624	64	707		395	217	239	461	469	588
V/C Ratio(X)	0.85	0.29	0.71	0.72	0.42		0.72	0.47	0.12	0.00	0.47	0.71
Avail Cap(c_a), veh/h	220	1166	727	106	1004		1008	554	522	505	513	626
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	28.5	25.6	47.9	34.7	0.0	42.7	41.4	36.7	27.9	31.7	27.0
Incr Delay (d2), s/veh	24.5	0.2	2.6	13.9	0.4	0.0	2.5	1.6	0.2	0.0	0.7	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	2.6	11.0	1.4	3.2	0.0	3.5	2.4	0.6	0.0	4.6	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.0	28.7	28.1	61.8	35.1	0.0	45.2	43.0	36.9	27.9	32.5	30.5
LnGrp LOS	E	C	C	E	D		D	D	D	C	C	C
Approach Vol, veh/h		884			343	A		415			640	
Approach Delay, s/veh		36.2			38.7			44.1			31.1	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	33.9		34.7	18.9	26.7		20.1				
Change Period (Y+Rc), s	* 8.2	* 6.1		* 9.1	* 7.3	* 6.1		8.3				
Max Green Setting (Gmax), s	* 6	* 34		* 28	* 13	* 29		30.0				
Max Q Clear Time (g_c+I1), s	4.6	25.4		24.6	11.7	9.5		10.2				
Green Ext Time (p_c), s	0.0	2.4		1.0	0.0	1.8		1.6				

Intersection Summary

HCM 6th Ctrl Delay	36.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Queues

3: Lakeside Ave & Hilliard Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	174	270	440	46	297	3	284	102	29	1	222	417
v/c Ratio	0.71	0.32	0.52	0.39	0.55	0.01	0.48	0.31	0.05	0.00	0.66	0.61
Control Delay	57.0	32.2	6.5	55.1	40.8	0.0	37.0	36.3	0.1	32.0	45.6	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.0	32.2	6.5	55.1	40.8	0.0	37.0	36.3	0.1	32.0	45.6	10.9
Queue Length 50th (ft)	94	68	33	25	82	0	73	50	0	0	116	43
Queue Length 95th (ft)	#250	126	94	#75	146	0	130	110	0	5	220	109
Internal Link Dist (ft)		502			3878			1020			1097	
Turn Bay Length (ft)	165		220	215		130	130		130	235		
Base Capacity (vph)	246	1302	980	119	1123	660	1126	623	593	569	575	679
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.21	0.45	0.39	0.26	0.00	0.25	0.16	0.05	0.00	0.39	0.61

Intersection Summary

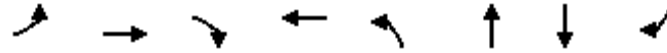
Description: AM Peak 7:30am-8:30am

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues
6: Brook Rd & Hilliard Rd

Hilliard Road - Corridor Study
Existing 2019 AM Peak























Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	75	76	127	115	164	481	600	103
v/c Ratio	0.40	0.40	0.43	0.48	0.56	0.27	0.65	0.21
Control Delay	43.4	43.3	12.8	40.0	41.6	11.5	30.0	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	43.3	12.8	40.0	41.6	11.5	30.0	6.1
Queue Length 50th (ft)	36	36	0	49	75	64	135	0
Queue Length 95th (ft)	98	98	54	122	170	117	240	35
Internal Link Dist (ft)		3878		323		1274	993	
Turn Bay Length (ft)			315		210			135
Base Capacity (vph)	484	493	551	549	446	2988	1873	874
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.15	0.23	0.21	0.37	0.16	0.32	0.12

Intersection Summary

Description: AM Peak 7:30am-8:30am

HCM Signalized Intersection Capacity Analysis
6: Brook Rd & Hilliard Rd

Hilliard Road - Corridor Study
Existing 2019 PM Peak

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	363	22	225	32	13	19	143	663	35	24	671	106
Future Volume (vph)	363	22	225	32	13	19	143	663	35	24	671	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.5	5.5		5.5		5.5	6.0			6.0	6.0
Lane Util. Factor	0.95	0.95	1.00		1.00		1.00	0.95			0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.99		1.00		1.00	1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Frt	1.00	1.00	0.85		0.96		1.00	0.99			1.00	0.85
Flt Protected	0.95	0.96	1.00		0.98		0.95	1.00			1.00	1.00
Satd. Flow (prot)	1681	1698	1593		1754		1805	3540			3569	1583
Flt Permitted	0.95	0.96	1.00		0.98		0.95	1.00			0.90	1.00
Satd. Flow (perm)	1681	1698	1593		1754		1805	3540			3220	1583
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)	408	25	253	36	15	21	161	745	39	27	754	119
RTOR Reduction (vph)	0	0	202	0	11	0	0	3	0	0	0	69
Lane Group Flow (vph)	216	217	51	0	61	0	161	781	0	0	781	50
Confl. Peds. (#/hr)			1	1					1	1		
Heavy Vehicles (%)	2%	0%	0%	3%	0%	0%	0%	1%	3%	0%	1%	2%
Turn Type	Split	NA	Perm	Split	NA		Prot	NA		Perm	NA	Perm
Protected Phases	4	4		8	8		5	2			6	6
Permitted Phases			4							6		6
Actuated Green, G (s)	20.1	20.1	20.1		7.5		14.9	54.9			34.5	34.5
Effective Green, g (s)	20.1	20.1	20.1		7.5		14.9	54.9			34.5	34.5
Actuated g/C Ratio	0.20	0.20	0.20		0.08		0.15	0.55			0.35	0.35
Clearance Time (s)	5.5	5.5	5.5		5.5		5.5	6.0			6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0			3.0	3.0
Lane Grp Cap (vph)	339	343	321		132		270	1953			1116	548
v/s Ratio Prot	c0.13	0.13			c0.03		c0.09	0.22				
v/s Ratio Perm			0.03								c0.24	0.03
v/c Ratio	0.64	0.63	0.16		0.46		0.60	0.40			0.70	0.09
Uniform Delay, d1	36.4	36.3	32.7		44.1		39.5	12.8			28.0	21.9
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00			1.00	1.00
Incremental Delay, d2	3.9	3.8	0.2		2.5		3.5	0.1			1.9	0.1
Delay (s)	40.3	40.1	33.0		46.6		43.0	13.0			30.0	22.0
Level of Service	D	D	C		D		D	B			C	C
Approach Delay (s)		37.5			46.6			18.1			28.9	
Approach LOS		D			D			B			C	
Intersection Summary												
HCM 2000 Control Delay			27.7			HCM 2000 Level of Service		C				
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			99.5			Sum of lost time (s)		22.5				
Intersection Capacity Utilization			70.6%			ICU Level of Service		C				
Analysis Period (min)			15									
Description: PM Peak 5:00pm-6:00pm												
c Critical Lane Group												

HCM 6th Signalized Intersection Summary
3: Lakeside Ave & Hilliard Rd

Hilliard Road - Corridor Study
Existing 2019 PM Peak



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↘	↗	↘	↘	↗	↘	↘	↗	↘
Traffic Volume (veh/h)	306	547	309	33	211	25	358	277	89	10	204	332
Future Volume (veh/h)	306	547	309	33	211	25	358	277	89	10	204	332
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1856	1900	1885	1900	1900	1900	1900	1870
Adj Flow Rate, veh/h	322	576	325	35	222	0	377	292	94	11	215	349
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	0	3	0	1	0	0	0	0	2
Cap, veh/h	350	993	751	54	425		675	368	360	371	390	634
Arrive On Green	0.20	0.28	0.28	0.03	0.12	0.00	0.19	0.19	0.19	0.21	0.21	0.21
Sat Flow, veh/h	1795	3582	1591	1810	3526	1610	3483	1900	1605	1810	1900	1580
Grp Volume(v), veh/h	322	576	325	35	222	0	377	292	94	11	215	349
Grp Sat Flow(s),veh/h/ln	1795	1791	1591	1810	1763	1610	1742	1900	1605	1810	1900	1580
Q Serve(g_s), s	19.0	15.0	14.7	2.1	6.4	0.0	10.6	15.8	5.2	0.5	11.0	18.3
Cycle Q Clear(g_c), s	19.0	15.0	14.7	2.1	6.4	0.0	10.6	15.8	5.2	0.5	11.0	18.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	350	993	751	54	425		675	368	360	371	390	634
V/C Ratio(X)	0.92	0.58	0.43	0.64	0.52		0.56	0.79	0.26	0.03	0.55	0.55
Avail Cap(c_a), veh/h	361	1433	946	119	983		968	528	494	469	493	719
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	33.6	19.0	51.8	44.6	0.0	39.3	41.5	34.5	34.3	38.5	24.9
Incr Delay (d2), s/veh	27.6	0.5	0.4	12.0	1.0	0.0	0.7	5.3	0.4	0.0	1.2	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	6.5	7.8	1.1	2.8	0.0	4.6	7.9	2.1	0.2	5.2	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.2	34.1	19.4	63.7	45.6	0.0	40.1	46.7	34.9	34.3	39.7	25.7
LnGrp LOS	E	C	B	E	D		D	D	C	C	D	C
Approach Vol, veh/h		1223			257	A		763			575	
Approach Delay, s/veh		39.7			48.0			42.0			31.1	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	36.0		31.3	28.4	19.1		29.2				
Change Period (Y+Rc), s	* 8.2	* 6.1		* 9.1	* 7.3	* 6.1		8.3				
Max Green Setting (Gmax), s	* 7.1	* 43		* 28	* 22	* 30		30.0				
Max Q Clear Time (g_c+I1), s	4.1	17.0		20.3	21.0	8.4		17.8				
Green Ext Time (p_c), s	0.0	5.5		1.6	0.1	1.3		2.9				

Intersection Summary

HCM 6th Ctrl Delay	39.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Queues
3: Lakeside Ave & Hilliard Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	322	576	325	35	222	26	377	292	94	11	215	349
v/c Ratio	0.89	0.63	0.36	0.32	0.49	0.06	0.49	0.69	0.17	0.04	0.69	0.48
Control Delay	71.4	40.8	2.6	61.4	49.4	0.3	39.9	49.2	1.1	40.6	56.2	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.4	40.8	2.6	61.4	49.4	0.3	39.9	49.2	1.1	40.6	56.2	8.2
Queue Length 50th (ft)	218	191	4	23	77	0	115	183	0	6	141	42
Queue Length 95th (ft)	#479	285	37	65	129	0	188	319	5	24	245	92
Internal Link Dist (ft)		502			3878			1020			1097	
Turn Bay Length (ft)	165		220	215		130	130		130	235		
Base Capacity (vph)	361	1440	966	119	984	621	970	532	569	471	496	726
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.40	0.34	0.29	0.23	0.04	0.39	0.55	0.17	0.02	0.43	0.48

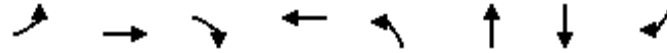
Intersection Summary

Description: PM Peak 5:00pm-6:00pm

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues
6: Brook Rd & Hilliard Rd



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	216	217	253	72	161	784	781	119
v/c Ratio	0.64	0.63	0.48	0.40	0.59	0.40	0.71	0.20
Control Delay	49.8	49.6	8.6	50.3	55.1	14.6	34.4	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	49.6	8.6	50.3	55.1	14.6	34.4	8.0
Queue Length 50th (ft)	135	136	0	37	99	150	232	6
Queue Length 95th (ft)	271	272	69	99	208	238	367	49
Internal Link Dist (ft)		3878		323		1274	993	
Turn Bay Length (ft)			315		210			135
Base Capacity (vph)	536	542	680	363	414	2723	1822	941
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.40	0.37	0.20	0.39	0.29	0.43	0.13

Intersection Summary

Description: PM Peak 5:00pm-6:00pm

Attachment C Crash Data

Hilliard Road Crash History
January 2013 - April 2019

OBJECTID	Collision_Type	Crash_Dsc	Crash_Mill	Crash_Sev	Light_Cond	Roadway_Surface_Cond	Route_Or_Street_Nm	Weather_Condition	Crash_Dt	Document_Nbr	SegInd
489932	1. Rear End	V2 WAS TRAVELING EAST IN THE RIGHT LANE ON HILLIARD RD. V2 WAS SLOWING BECAUSE OF A DOG IN THE ROADWAY. V1 WAS TRAVELING TOO CLOSELY BEHIND V2. V1 STURCK V2 FROM BEHIND.	728		2. Daylight	1. Dry	HILLIARD RD	1. No Adverse Condition (Clear/Cloudy)	11/18/2014	143225196	1
229251	3. Head On	V1 WAS TRAVELING SOUTH ON BROOK ROAD. V2 WAS TRAVELING NORTH ON BROOK ROAD. V3 WAS TRAVELING WEST ON HILLIARD AVENUE. V1 FAILED TO YIELD TO ONCOMING TRAFFIC WHILE MAKING A LEFT HAND TURN AT THE INTERSECTION OF BROOK AND HILLIARD AVENUE AND WAS STRUCK BY V2. V1 THEN STRUCK V3 IN FRONT OF 7001 BROOK ROAD.	1651	B	2. Daylight	1. Dry	BROOK ROAD	1. No Adverse Condition (Clear/Cloudy)	7/19/2014	142015006	
420786	4. Sideswipe - Same Direction	V2 WAS STOPPED IN INSIDE LANE, TURNING NORTH. V1 WAS IN OUTSIDE LANE HEADING EAST AND VEERED INTO INSIDE LANE STRIKING V2.	700		1. Dawn	1. Dry	1600 HILLARD	1. No Adverse Condition (Clear/Cloudy)	8/26/2014	142385110	1
476701	4. Sideswipe - Same Direction	V1 AND V2 MADE A U-TURN ON HILLIARD ROAD, BOTH VEHICLES STOPPED IN THE ROADWAY. IT IS UNCLEAR AS TO WHICH CAR PROCEEDED TO SIDE SWIPE THE OTHER. SEE ICR 140630009	2330		5. Darknes	1. Dry	HILLIARD ROAD	1. No Adverse Condition (Clear/Cloudy)	6/30/2014	141835034	
327838	9. Fixed Object - Off Road	V1 WAS TRAVELLING EAST ON HILLIARD RD APPROACHING BROOK RD. V1 RAN OFF THE ROAD TO THE RIGHT TO AVOID AN UNKNOWN ANIMAL. V1 STRUCK THE CURB, WENT ACROSS THE GRASS, TOOK OUT A FIRE HYDRANT, THEN FLIPPED AN UNKNOWN NUMBER OF TIMES LANDING UPRIGHT, HALF ON THE CURB, HALF IN THE STREET, FACING NORTH. OTHER DAMAGE TO PROPERTY: GRASS, GROUNDS, ADDRESS MARKER BELONGING TO THE MOOSE LODGE, 1207 HILLIARD RD, HENRICO 23228.\$500.00.	211	B	5. Darknes	1. Dry	1207 HILLIARD RD	1. No Adverse Condition (Clear/Cloudy)	11/27/2014	143335095	1
287250	9. Fixed Object - Off Road	V1 WAS DRIVING EAST BOUND ON HILLIARD RD. V1 WAS CUT OFF BY ANOTHER VEHICLE AND JERKED THE WHEEL. V1 CRASHED INTO THE GUARD RAIL AND CAME TO REST ON THE ROAD FACING THE OPPOSITE DIRECTION.	1810		2. Daylight	1. Dry	HILLIARD RD	1. No Adverse Condition (Clear/Cloudy)	9/27/2014	142705137	1
115999	2. Angle	V1 WAS PULLING OUT OF A PARKING LOT AND TURNING LEFT ONTO WEST BOUND HILLIARD RD. WHEN V2 WAS TRAVELING STRAIGHT ON EAST BOUND HILLIARD AND V2 HIT V1	1354		2. Daylight	1. Dry	HILLIARD RD	1. No Adverse Condition (Clear/Cloudy)	10/19/2015	152925314	
523867	2. Angle	V2 WAS TRAVELING SOUTH BOUND ON BROOK ROAD IN THE STRAIGHT AWAY LANE. V1 WAS TRAVELING NORTH BOUND ON BROOK ROAD IN THE LEFT TURN LANE TO TURN ONTO HILLARD ROAD. V2 HAD THE RIGHT OF WAY. V1 STRUCK V2 ON THE DRIVER SIDE CAUSING DAMAGE TO BOTH BE VEHICLES.	2128		4. Darknes	1. Dry	BROOK RD	1. No Adverse Condition (Clear/Cloudy)	7/27/2015	152095051	
47110	1. Rear End	V1 AND V2 WERE HEADED EAST ON HILLIARD. V2 SLOWED FOR THE VEHICLE IN FRONT OF HIM, AND V1 RAN INTO THE BACK OF V2, PUSHING V2 ONTO THE SIDEWALK/YARD AT 1903 HILLIARD.	1638	B	2. Daylight	1. Dry	HILLIARD RD	1. No Adverse Condition (Clear/Cloudy)	10/28/2016	163025354	1
203648	1. Rear End	V2 WAS IN THE RIGHT HAND TURN LANE ABOUT TO TURN RIGHT ONTO BROOK ROAD. V1 WAS DRIVING BEHIND V2 IN THE RIGHT HAND TURN LANE. V1 HAD BRAKE ISSUES AND WAS UNABLE TO BRAKE. V1 REAR ENDED V2.	1627		2. Daylight	1. Dry	BROOK ROAD	1. No Adverse Condition (Clear/Cloudy)	4/2/2016	160935203	
122145	2. Angle	V1 WAS MAKING A LEFT HAND TURN OFF OF ELLIS AVE. ONTO HILLIARD RD. WHEN IT STRUCK V2 TRAVELING E. ON HILLIARD.	2000		4. Darknes	1. Dry	HILLIARD RD	1. No Adverse Condition (Clear/Cloudy)	11/20/2016	163405200	1
64637	1. Rear End	V1 AND V2 WERE TRAVELING EAST ON HILLIARD RD APPROACHING BROOK RD.V1 AND V2 WERE SLOWING TO STOP. V1 HIT V2 IN THE RIGHT TURN LANE.	835	C	2. Daylight	1. Dry	HILLARD RD	1. No Adverse Condition (Clear/Cloudy)	2/8/2017	170395096	
726064	1. Rear End	V2 WAS STATIONARY FACING EAST IN THE SECOND LEFT TURN LANE AT THE TRAFFIC LIGHT AT THE INTERSECTION OF BROOK ROAD AND HILLIARD ROAD. V1 WAS HEADED EAST IN THE SECOND LEFT TURN LANE ALSO. V1 STRUCK V2 IN THE REAR WHEN THE TRAFFIC SIGNAL CHANGED TO GREEN.	1429	B	2. Daylight	1. Dry	HILLIARD ROAD	1. No Adverse Condition (Clear/Cloudy)	8/11/2018	182235141	
233135	1. Rear End	V1 AND V2 WERE STOPPED IN THE RIGHT TURNING LANE ON HILLIARD ROAD AT A REDLIGHT. WHEN THE LIGHT TURNED GREEN V1 STARTED BEFORE V2 STARTED AND V1 STRUCK THE REAR OF V2.	1535		2. Daylight	1. Dry	HILLIARD ROAD	1. No Adverse Condition (Clear/Cloudy)	1/23/2018	180425004	
467469	1. Rear End	V2 WAS STOPPED AT THE RED LIGHT AT THE INTERSECTION OF HILLIARD RD. AND LAKESIDE AVE. V1 ATTEMPTED TO BRAKE WHEN HE SLID IN TO THE REAR OF V2S STOPPED VEHICLE.	812		2. Daylight	2. Wet	HILLIARD RD	5. Rain	7/30/2018	182115121	