

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 5094
Site Code: 5094
Station ID: EB Hamlin Rd
West of Norfolk

Latitude: 0' 0.0000 Undefined

EB	Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
		20	25	30	35	40	45	50	55	60	65	70	75	999				
03/15/16		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00		1	0	0	1	2	9	66	149	81	13	3	0	0	0	325	52	54
12 PM		2	0	0	0	6	7	71	142	60	21	4	0	0	0	313	53	57
13:00		1	0	0	0	0	11	66	81	43	11	0	0	0	0	213	52	55
14:00		5	0	2	2	1	8	62	128	67	18	2	0	0	0	295	53	56
15:00		6	0	0	0	2	6	48	188	108	21	1	1	0	0	381	53	55
16:00		7	0	1	2	5	16	115	379	217	41	5	1	0	0	789	53	55
17:00		12	0	0	0	2	16	125	394	284	55	4	0	0	0	892	53	56
18:00		7	0	0	0	3	10	52	176	124	32	4	0	0	0	408	53	57
19:00		2	0	0	1	1	16	52	95	50	7	1	0	0	0	225	52	54
20:00		0	0	0	0	5	18	44	57	39	2	1	0	0	1	167	52	54
21:00		0	0	0	1	1	11	29	44	16	6	0	0	0	0	108	51	55
22:00		0	0	0	1	3	7	14	25	8	2	0	0	0	0	60	50	54
23:00		0	0	0	0	2	1	10	19	6	0	0	0	0	0	38	50	53
Total		43	0	3	8	33	136	754	1877	1103	229	25	2	0	1	4214		
Percent		1.0%	0.0%	0.1%	0.2%	0.8%	3.2%	17.9%	44.5%	26.2%	5.4%	0.6%	0.0%	0.0%	0.0%			
AM Peak	11:00				11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00				11:00		
Vol.		1			1	2	9	66	149	81	13	3				325		
PM Peak	17:00		14:00	14:00	12:00	20:00	17:00	17:00	17:00	17:00	16:00	15:00		20:00	17:00			
Vol.		12	2	2	6	18	125	394	284	55	5	1		1	892			

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West of Norfolk

Latitude: 0' 0.0000 Undefined

EB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/16/16	0	0	0	1	0	2	6	7	2	3	0	0	0	0	21	54	58
01:00	0	0	0	0	0	0	7	1	4	0	0	0	0	0	12	52	54
02:00	0	0	0	0	0	1	2	1	0	0	0	0	0	0	4	47	49
03:00	0	0	0	0	0	1	2	2	1	1	0	0	0	0	7	54	58
04:00	0	0	0	0	0	1	4	5	1	0	0	0	0	0	11	49	52
05:00	0	0	0	0	2	3	14	10	1	0	0	0	0	0	30	48	49
06:00	0	0	0	0	1	7	33	27	10	4	0	0	0	0	82	50	54
07:00	0	0	0	0	1	10	59	51	15	3	0	0	0	0	139	49	53
08:00	0	0	1	0	2	15	45	67	20	1	0	0	0	0	151	49	53
09:00	1	0	0	0	1	6	55	52	29	13	0	1	0	0	158	53	57
10:00	0	0	0	0	1	4	40	82	38	5	1	0	0	0	171	52	54
11:00	2	0	0	0	0	4	36	120	95	16	3	1	0	0	277	53	56
12 PM	1	0	0	0	0	8	68	155	77	22	8	1	0	0	340	53	58
13:00	0	0	0	0	1	8	49	83	50	13	1	1	0	0	206	53	56
14:00	1	0	0	0	1	4	39	100	80	19	8	0	1	0	253	54	59
15:00	9	0	0	1	0	9	41	175	171	41	7	1	0	0	455	54	58
16:00	22	5	5	10	10	25	84	277	276	69	6	0	0	0	789	54	57
17:00	13	0	0	0	0	10	97	314	318	89	10	0	0	1	852	54	58
18:00	7	0	0	0	1	4	32	172	125	42	5	2	0	0	390	54	58
19:00	0	0	0	0	4	9	39	88	72	12	4	0	0	0	228	53	56
20:00	1	0	0	0	1	3	23	62	40	14	2	1	0	0	147	54	58
21:00	1	0	0	0	2	11	20	57	21	6	1	0	1	0	120	52	56
22:00	0	0	0	0	1	6	12	31	18	5	1	0	0	0	74	53	57
23:00	0	0	0	0	3	3	9	10	5	4	0	0	0	0	34	53	57
Total	58	5	6	12	32	154	816	1949	1469	382	57	8	2	1	4951		
Percent	1.2%	0.1%	0.1%	0.2%	0.6%	3.1%	16.5%	39.4%	29.7%	7.7%	1.2%	0.2%	0.0%	0.0%			
AM Peak	11:00		08:00	00:00	05:00	08:00	07:00	11:00	11:00	11:00	11:00	09:00			11:00		
Vol.	2		1	1	2	15	59	120	95	16	3	1			277		
PM Peak	16:00	16:00	16:00	16:00	16:00	16:00	17:00	17:00	17:00	17:00	17:00	18:00	14:00	17:00	17:00		
Vol.	22	5	5	10	10	25	97	314	318	89	10	2	1	1	852		

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West of Norfolk

Latitude: 0' 0.0000 Undefined

EB	Start Time	15	16:20	21:25	26:30	31:35	36:40	41:45	46:50	51:55	56:60	61:65	66:70	71:75	76:999	Total	85th Percent	95th Percent
03/17/16		0	0	0	0	0	0	9	5	0	0	1	0	0	0	15	48	61
01:00		0	0	1	0	0	2	4	5	0	0	1	0	0	0	13	49	61
02:00		0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	63	64
03:00		0	0	0	0	1	0	0	2	0	1	0	0	0	0	4	57	59
04:00		0	0	0	0	0	2	1	1	2	1	0	0	0	0	7	54	58
05:00		0	0	0	0	0	5	10	7	3	0	0	0	0	0	25	49	52
06:00		0	0	0	0	1	5	20	34	12	3	0	0	0	0	75	51	54
07:00		1	0	0	0	3	4	31	63	25	4	3	0	0	0	134	52	55
08:00		1	0	0	0	1	9	38	67	29	4	2	1	0	0	152	52	54
09:00		1	0	0	0	1	5	35	73	37	19	1	0	0	0	172	54	57
10:00		1	0	0	0	0	6	40	71	48	11	4	1	0	0	182	53	58
11:00		4	0	0	0	1	2	34	148	86	29	9	0	2	0	315	54	59
12 PM		3	0	0	0	2	14	44	110	85	20	3	0	0	0	281	53	57
13:00		1	0	0	0	1	9	39	91	68	18	9	2	0	0	238	54	59
14:00		1	0	0	0	0	7	38	118	116	28	3	1	1	0	313	54	58
15:00		8	0	0	1	2	9	45	158	122	26	6	0	0	0	377	53	57
16:00		23	4	3	5	2	6	71	323	249	50	9	1	0	0	746	53	57
17:00		13	0	0	1	4	17	60	338	292	54	6	2	0	0	787	54	57
18:00		4	0	0	0	0	12	56	172	121	42	3	2	0	0	412	54	58
19:00		1	0	0	0	0	8	37	95	57	14	5	0	0	0	217	53	57
20:00		1	0	0	0	2	11	29	55	31	9	1	0	0	0	139	53	56
21:00		0	0	0	0	1	10	27	40	15	10	1	0	0	0	104	53	57
22:00		0	0	0	0	2	4	13	30	10	5	0	0	0	0	64	52	56
23:00		0	0	0	1	0	4	12	19	6	0	0	0	0	0	42	49	53
Total		63	4	4	8	24	151	694	2025	1414	348	68	10	3	0	4816		
Percent		1.3%	0.1%	0.1%	0.2%	0.5%	3.1%	14.4%	42.0%	29.4%	7.2%	1.4%	0.2%	0.1%	0.0%			
AM Peak	11:00			01:00		07:00	08:00	10:00	11:00	11:00	11:00	11:00	08:00	11:00		11:00		
Vol.		4		1		3	9	40	148	86	29	9	1	2		315		
PM Peak	16:00	16:00	16:00	16:00	17:00	17:00	16:00	17:00	17:00	17:00	13:00	13:00	14:00		17:00			
Vol.		23	4	3	5	4	17	71	338	292	54	9	2	1	787			

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Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/18/16	0	0	0	0	0	0	2	7	4	1	0	0	0	0	14	53	56
01:00	0	0	0	0	1	0	6	5	4	1	2	0	0	0	19	55	62
02:00	0	0	0	0	1	1	2	5	2	0	0	0	0	0	11	50	53
03:00	0	0	0	0	0	1	3	1	0	0	0	0	0	0	5	46	48
04:00	0	0	0	0	0	2	2	4	1	1	0	0	0	0	10	52	57
05:00	0	0	0	0	0	6	12	12	4	1	0	0	0	0	35	49	54
06:00	0	0	0	0	3	6	21	25	11	3	2	0	0	0	71	52	57
07:00	3	0	0	0	1	5	46	53	19	9	1	0	0	0	137	52	56
08:00	0	0	0	0	0	10	43	69	33	7	0	1	0	0	163	52	54
09:00	0	0	0	0	0	8	43	68	34	11	0	0	0	0	164	52	56
10:00	3	0	0	0	1	8	46	66	38	10	0	1	0	0	173	53	56
11:00	2	0	0	1	2	5	55	135	66	10	5	1	0	0	282	53	55
12 PM	3	0	0	0	2	1	45	117	90	19	1	0	0	0	278	53	56
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	11	0	0	1	11	53	326	567	306	73	11	3	0	0	1362		
Percent	0.8%	0.0%	0.0%	0.1%	0.8%	3.9%	23.9%	41.6%	22.5%	5.4%	0.8%	0.2%	0.0%	0.0%			
AM Peak	07:00			11:00	06:00	08:00	11:00	11:00	11:00	09:00	11:00	08:00				11:00	
Vol.	3			1	3	10	55	135	66	11	5	1			282		
PM Peak	12:00				12:00	12:00	12:00	12:00	12:00	12:00	12:00					12:00	
Vol.	3				2	1	45	117	90	19	1				278		
Total	175	9	13	29	100	494	2590	6418	4292	1032	161	23	5	2	15343		
Percent	1.1%	0.1%	0.1%	0.2%	0.7%	3.2%	16.9%	41.8%	28.0%	6.7%	1.0%	0.1%	0.0%	0.0%			

15th Percentile : 42 MPH
50th Percentile : 48 MPH
85th Percentile : 53 MPH
95th Percentile : 57 MPH

Stats 10 MPH Pace Speed : 46-55 MPH
Number in Pace : 10710
Percent in Pace : 69.8%
Number of Vehicles > 55 MPH : 1223
Percent of Vehicles > 55 MPH : 8.0%
Mean Speed(Average) : 48 MPH

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6006
Site Code: 6006
Station ID: WB Hamlin Rd
West of Norfolk

Latitude: 0' 0.0000 Undefined

WB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th	95th
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999		Percent	Percent
03/15/16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	6	0	0	0	8	35	56	24	5	2	0	0	0	0	136	47	50
11:00	1	0	0	0	7	52	88	53	4	0	0	0	0	0	205	47	49
12 PM	1	0	0	0	3	47	133	81	12	1	0	0	0	0	278	48	49
13:00	2	0	0	0	4	34	91	62	8	0	0	0	0	0	201	48	49
14:00	1	0	0	2	6	33	101	51	10	2	0	0	0	0	206	48	50
15:00	1	0	0	0	10	26	105	51	11	1	0	0	0	0	205	48	50
16:00	1	0	0	0	3	36	121	70	11	2	1	0	0	0	245	48	50
17:00	3	0	0	0	0	29	120	95	14	3	0	0	0	0	264	48	51
18:00	0	0	0	0	2	21	87	69	11	1	0	0	0	0	191	48	51
19:00	0	0	0	0	4	34	69	23	10	2	0	0	0	0	142	47	52
20:00	0	0	0	0	2	23	36	21	5	0	0	0	0	0	87	48	50
21:00	0	0	0	2	3	12	34	17	3	0	0	0	0	0	71	47	49
22:00	0	0	0	0	6	10	20	10	0	1	0	0	0	0	47	46	49
23:00	0	0	0	0	1	10	18	8	1	0	0	0	0	0	38	47	49
Total	16	0	0	4	59	402	1079	635	105	15	1	0	0	0	2316		
Percent	0.7%	0.0%	0.0%	0.2%	2.5%	17.4%	46.6%	27.4%	4.5%	0.6%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00				10:00	11:00	11:00	11:00	10:00	10:00					11:00		
Vol.	6				8	52	88	53	5	2					205		
PM Peak	17:00			14:00	15:00	12:00	12:00	17:00	17:00	17:00	16:00				12:00		
Vol.	3			2	10	47	133	95	14	3	1				278		

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Site Code: 6006
Site Code: 6006
Station ID: WB Hamlin Rd
West of Norfolk

Latitude: 0' 0.0000 Undefined

WB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/16/16	0	0	0	0	0	4	4	2	0	0	0	0	0	0	10	46	48
01:00	0	0	0	0	0	3	2	0	1	0	0	0	0	0	6	50	53
02:00	0	0	0	0	0	2	1	2	0	0	0	0	0	0	5	48	49
03:00	0	0	0	0	0	3	0	1	0	0	0	0	0	0	4	47	48
04:00	0	1	0	0	0	2	5	4	0	0	0	0	0	0	12	47	49
05:00	0	0	0	0	2	2	33	13	5	1	0	0	0	0	56	49	53
06:00	2	0	0	0	4	21	114	66	9	0	0	0	0	0	216	48	49
07:00	6	0	0	0	0	56	312	141	15	0	0	0	0	0	530	47	49
08:00	13	0	0	0	9	64	286	136	19	0	0	0	0	0	527	47	49
09:00	2	0	0	1	6	41	150	77	18	4	1	0	0	0	300	48	52
10:00	0	0	0	1	4	34	84	35	2	0	0	0	0	0	160	46	49
11:00	0	0	0	0	3	35	89	54	4	2	0	0	0	0	187	47	49
12 PM	3	0	0	0	3	45	137	88	11	0	0	0	0	0	287	48	49
13:00	0	0	0	0	8	28	129	40	9	2	0	0	0	0	216	47	50
14:00	1	0	0	0	3	34	99	49	5	0	0	0	0	0	191	47	49
15:00	2	0	0	0	7	44	82	82	4	0	0	0	0	0	221	48	49
16:00	0	0	0	1	3	40	114	76	16	1	0	0	0	0	251	48	51
17:00	2	0	1	0	5	40	131	85	18	3	0	0	0	0	285	48	51
18:00	2	0	0	0	8	39	101	45	14	1	0	0	0	0	210	48	51
19:00	0	0	0	0	2	26	85	26	4	0	0	0	0	0	143	46	49
20:00	0	0	0	0	4	29	67	18	2	0	1	0	0	0	121	45	49
21:00	0	0	0	0	1	21	49	14	2	0	0	1	0	0	88	46	49
22:00	0	0	0	1	2	17	17	7	2	0	0	0	0	0	46	46	49
23:00	0	0	0	1	1	8	11	4	0	0	0	0	0	0	25	45	48
Total	33	1	1	5	75	638	2102	1065	160	14	2	1	0	0	4097		
Percent	0.8%	0.0%	0.0%	0.1%	1.8%	15.6%	51.3%	26.0%	3.9%	0.3%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	04:00		09:00	08:00	08:00	07:00	07:00	08:00	09:00	09:00				07:00		
Vol.	13	1		1	9	64	312	141	19	4	1				530		
PM Peak	12:00		17:00	16:00	13:00	12:00	12:00	12:00	17:00	17:00	20:00	21:00			12:00		
Vol.	3		1	1	8	45	137	88	18	3	1	1			287		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6006
Site Code: 6006
Station ID: WB Hamlin Rd
West of Norfolk

Latitude: 0' 0.0000 Undefined

WB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/17/16	0	0	0	0	0	1	5	0	0	0	0	0	0	0	6	44	44
01:00	0	0	0	1	0	2	1	1	0	0	0	0	0	0	5	46	48
02:00	0	0	0	0	3	3	1	1	1	0	0	0	0	0	9	46	52
03:00	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3	42	44
04:00	0	0	0	0	0	1	8	1	3	0	0	0	0	0	13	51	53
05:00	0	0	0	0	1	9	28	13	4	0	0	0	0	0	55	48	51
06:00	1	0	0	1	1	16	99	68	7	1	0	0	0	0	194	48	49
07:00	11	0	0	0	3	40	284	209	27	1	0	1	0	0	576	48	50
08:00	9	0	0	1	3	27	247	209	29	3	0	1	0	0	529	48	51
09:00	3	0	0	0	3	23	123	97	21	2	1	0	0	0	273	49	52
10:00	1	0	0	0	2	28	76	41	10	0	0	1	0	0	159	48	51
11:00	3	0	0	0	4	39	93	58	5	1	0	0	0	0	203	47	49
12 PM	1	0	0	1	3	49	150	50	11	1	0	0	0	0	266	47	49
13:00	0	0	0	1	5	32	104	39	7	0	0	0	0	0	188	47	49
14:00	2	0	0	1	2	39	91	52	7	0	0	0	0	0	194	47	49
15:00	3	0	0	0	6	40	120	56	12	2	0	0	0	0	239	48	50
16:00	0	0	0	1	3	29	118	68	3	0	0	0	0	0	222	47	49
17:00	4	0	0	0	4	33	118	90	13	1	0	0	0	0	263	48	50
18:00	1	0	0	1	5	33	88	42	9	2	0	0	0	0	181	48	51
19:00	0	0	0	0	1	26	65	36	6	2	0	0	0	0	136	48	50
20:00	0	0	0	0	2	19	63	18	2	0	0	0	0	0	104	46	49
21:00	0	0	0	0	3	4	27	14	2	0	0	0	0	0	50	48	49
22:00	0	0	0	0	1	10	22	12	1	1	0	0	0	0	47	47	49
23:00	0	0	0	0	0	10	11	5	2	0	0	0	0	0	28	47	51
Total	39	0	0	8	56	514	1943	1180	182	17	1	3	0	0	3943		
Percent	1.0%	0.0%	0.0%	0.2%	1.4%	13.0%	49.3%	29.9%	4.6%	0.4%	0.0%	0.1%	0.0%	0.0%			
AM Peak	07:00			01:00	11:00	07:00	07:00	07:00	08:00	08:00	09:00	07:00				07:00	
Vol.	11			1	4	40	284	209	29	3	1	1			576		
PM Peak	17:00			12:00	15:00	12:00	12:00	17:00	17:00	15:00					12:00		
Vol.	4			1	6	49	150	90	13	2					266		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6006
Site Code: 6006
Station ID: WB Hamlin Rd
West of Norfolk

Latitude: 0' 0.0000 Undefined

WB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/18/16	0	0	0	0	0	6	9	6	0	0	0	0	0	0	21	47	49
01:00	0	0	1	0	0	1	5	2	0	0	0	0	0	0	9	46	48
02:00	0	0	0	0	1	2	8	3	0	0	0	0	0	0	14	46	48
03:00	0	0	0	0	2	2	2	1	0	0	0	0	0	0	7	44	48
04:00	0	0	0	0	0	2	5	4	1	0	0	0	0	0	12	48	51
05:00	0	0	0	0	2	6	17	20	0	0	0	0	0	0	45	48	49
06:00	1	0	0	0	2	18	82	66	9	3	0	0	0	0	181	48	51
07:00	6	0	1	4	8	34	244	209	23	3	1	0	0	0	533	48	50
08:00	13	0	0	0	13	29	224	187	28	4	0	0	0	0	498	48	51
09:00	0	0	0	0	0	18	108	88	24	4	1	0	0	0	243	49	53
10:00	0	0	0	0	0	20	66	53	8	3	0	0	0	0	150	48	52
11:00	2	1	0	0	0	38	96	60	10	2	1	0	0	0	210	48	51
12 PM	1	0	0	2	4	29	116	84	17	0	1	0	0	0	254	48	51
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	23	1	2	6	32	205	982	783	120	19	4	0	0	0	2177		
Percent	1.1%	0.0%	0.1%	0.3%	1.5%	9.4%	45.1%	36.0%	5.5%	0.9%	0.2%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	01:00	07:00	08:00	11:00	07:00	07:00	08:00	08:00	07:00						07:00
Vol.	13	1	1	4	13	38	244	209	28	4	1						533
PM Peak	12:00			12:00	12:00	12:00	12:00	12:00	12:00		12:00						12:00
Vol.	1			2	4	29	116	84	17		1						254
Total	111	2	3	23	222	1759	6106	3663	567	65	8	4	0	0	12533		
Percent	0.9%	0.0%	0.0%	0.2%	1.8%	14.0%	48.7%	29.2%	4.5%	0.5%	0.1%	0.0%	0.0%	0.0%			

15th Percentile : 39 MPH
50th Percentile : 43 MPH
85th Percentile : 48 MPH
95th Percentile : 50 MPH

Stats 10 MPH Pace Speed : 41-50 MPH
 Number in Pace : 9769
 Percent in Pace : 77.9%
Number of Vehicles > 55 MPH : 77
Percent of Vehicles > 55 MPH : 0.6%
Mean Speed(Average) : 44 MPH

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6007
Site Code: 6007
Station ID: EB Hamlin Rd
West of Rochelle Park Dr

Latitude: 0' 0.0000 Undefined

EB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent	
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999				
03/15/16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	7	0	7	17	32	39	205	190	38	4	0	0	0	0	539	48	51	
12 PM	7	0	8	30	30	52	198	207	37	8	1	0	0	0	578	49	52	
13:00	8	1	10	23	30	58	147	164	38	4	0	0	0	0	483	49	52	
14:00	9	5	4	18	31	52	179	165	38	4	2	0	0	0	507	49	52	
15:00	10	0	0	13	26	62	252	248	98	10	1	0	0	0	720	50	53	
16:00	21	0	2	16	39	86	340	512	140	7	1	0	0	0	1164	49	53	
17:00	31	0	2	7	39	98	494	502	157	8	0	0	0	0	1338	49	53	
18:00	14	0	0	17	28	36	272	321	103	11	1	0	0	0	803	49	53	
19:00	3	0	1	14	11	55	168	176	28	3	0	0	0	0	459	48	51	
20:00	2	0	2	7	21	47	144	85	18	0	0	0	0	0	326	48	50	
21:00	1	1	0	4	12	45	100	66	13	3	0	0	0	0	245	48	51	
22:00	2	0	1	0	14	18	51	36	10	1	0	0	0	0	133	48	52	
23:00	0	0	1	1	3	13	53	25	2	1	0	0	0	0	99	47	49	
Total	115	7	38	167	316	661	2603	2697	720	64	6	0	0	0	7394			
Percent	1.6%	0.1%	0.5%	2.3%	4.3%	8.9%	35.2%	36.5%	9.7%	0.9%	0.1%	0.0%	0.0%	0.0%				
AM Peak	11:00		11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00					11:00			
Vol.	7		7	17	32	39	205	190	38	4					539			
PM Peak	17:00	14:00	13:00	12:00	16:00	17:00	17:00	16:00	17:00	18:00	14:00				17:00			
Vol.	31	5	10	30	39	98	494	512	157	11	2				1338			

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6007
Site Code: 6007
Station ID: EB Hamlin Rd
West of Rochelle Park Dr

Latitude: 0' 0.0000 Undefined

EB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/16/16	0	0	0	1	2	3	19	11	5	0	0	0	0	0	41	49	52
01:00	0	0	0	0	1	7	13	3	1	0	0	0	0	0	25	45	49
02:00	0	0	0	0	1	2	4	4	1	0	0	0	0	0	12	48	51
03:00	0	0	0	1	1	2	4	7	1	0	0	0	0	0	16	48	50
04:00	0	0	4	1	5	3	8	5	3	0	0	0	0	0	29	48	52
05:00	0	0	5	4	15	26	50	22	3	0	0	0	0	0	125	46	49
06:00	5	1	15	23	48	43	119	79	8	2	1	0	0	0	344	47	49
07:00	2	0	11	21	34	48	140	109	31	1	0	0	0	0	397	48	51
08:00	7	1	11	30	20	44	141	116	35	5	0	0	0	0	410	49	52
09:00	6	0	8	14	32	42	137	132	37	3	1	0	0	0	412	49	52
10:00	0	1	11	7	22	29	112	114	50	8	0	0	0	0	354	50	54
11:00	7	0	5	14	25	42	148	177	49	4	1	0	0	0	472	49	53
12 PM	8	0	5	23	30	37	158	213	82	12	3	0	0	0	571	50	54
13:00	5	2	14	28	24	53	138	165	61	7	1	0	0	0	498	49	53
14:00	7	3	6	26	23	38	126	168	72	9	3	0	0	0	481	50	54
15:00	17	1	3	6	26	42	185	380	113	11	2	0	0	0	786	50	53
16:00	26	0	3	8	26	83	292	606	143	20	2	0	0	0	1209	49	53
17:00	27	1	11	17	55	114	378	534	132	18	0	0	0	0	1287	49	53
18:00	8	0	1	1	17	29	162	344	194	36	2	0	0	0	794	52	54
19:00	9	0	0	5	13	27	123	241	76	9	0	0	0	0	503	50	53
20:00	0	0	4	10	25	32	134	117	19	1	0	0	0	0	342	48	50
21:00	1	0	0	5	7	22	83	80	17	2	0	1	0	0	218	49	52
22:00	0	0	0	1	12	12	66	60	11	0	0	0	0	0	162	48	51
23:00	0	0	0	2	7	14	30	24	10	2	0	0	0	0	89	49	53
Total	135	10	117	248	471	794	2770	3711	1154	150	16	1	0	0	9577		
Percent	1.4%	0.1%	1.2%	2.6%	4.9%	8.3%	28.9%	38.7%	12.0%	1.6%	0.2%	0.0%	0.0%	0.0%			
AM Peak	08:00	06:00	06:00	08:00	06:00	07:00	11:00	11:00	10:00	10:00	06:00				11:00		
Vol.	7	1	15	30	48	48	148	177	50	8	1				472		
PM Peak	17:00	14:00	13:00	13:00	17:00	17:00	17:00	16:00	18:00	18:00	12:00	21:00			17:00		
Vol.	27	3	14	28	55	114	378	606	194	36	3	1			1287		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6007
Site Code: 6007
Station ID: EB Hamlin Rd
West of Rochelle Park Dr

Latitude: 0' 0.0000 Undefined

EB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/17/16	0	0	0	0	2	5	20	7	3	1	1	0	0	0	39	49	55
01:00	0	0	0	0	1	4	13	6	3	0	0	0	0	0	27	49	52
02:00	0	0	0	0	2	0	8	5	3	0	0	0	0	0	18	50	53
03:00	0	0	0	1	1	2	5	4	2	0	0	0	0	0	15	49	53
04:00	0	0	3	0	3	5	6	6	2	0	0	0	0	0	25	48	51
05:00	0	0	3	5	10	14	40	28	12	1	0	0	0	0	113	49	53
06:00	10	4	11	30	38	36	101	93	34	3	0	0	0	0	360	49	52
07:00	7	0	8	24	22	37	124	144	53	9	0	0	0	0	428	49	53
08:00	7	0	8	16	26	29	122	189	59	11	1	0	0	0	468	50	54
09:00	4	0	2	17	24	49	124	138	62	8	2	0	0	0	430	50	54
10:00	4	1	9	6	20	23	91	135	57	11	0	0	0	0	357	51	54
11:00	5	1	3	10	24	51	146	210	75	9	3	0	0	0	537	50	54
12 PM	8	0	9	28	27	33	157	214	80	6	0	0	0	0	562	50	53
13:00	1	1	11	21	30	35	122	199	74	9	0	0	0	0	503	50	53
14:00	11	2	2	10	40	43	129	217	89	12	1	0	0	0	556	51	54
15:00	14	0	3	11	22	59	207	277	134	11	0	0	0	0	738	51	54
16:00	28	0	1	10	23	58	284	607	183	27	0	0	0	0	1221	50	54
17:00	34	0	1	11	8	78	373	530	151	33	2	1	0	0	1222	50	54
18:00	16	0	1	4	17	34	176	361	147	27	6	0	0	0	789	52	54
19:00	4	0	4	8	26	27	129	177	90	17	3	0	0	0	485	52	54
20:00	5	0	0	5	16	26	139	129	27	5	0	0	0	0	352	49	52
21:00	3	0	0	4	13	28	103	68	22	2	0	0	0	0	243	49	52
22:00	0	0	0	4	10	12	70	60	8	3	0	0	0	0	167	48	51
23:00	0	0	1	4	7	13	55	28	5	1	0	0	0	0	114	48	50
Total	161	9	80	229	412	701	2744	3832	1375	206	19	1	0	0	9769		
Percent	1.6%	0.1%	0.8%	2.3%	4.2%	7.2%	28.1%	39.2%	14.1%	2.1%	0.2%	0.0%	0.0%	0.0%			
AM Peak	06:00	06:00	06:00	06:00	06:00	11:00	11:00	11:00	11:00	08:00	11:00						11:00
Vol.	10	4	11	30	38	51	146	210	75	11	3				537		
PM Peak	17:00	14:00	13:00	12:00	14:00	17:00	17:00	16:00	16:00	17:00	18:00	17:00					17:00
Vol.	34	2	11	28	40	78	373	607	183	33	6	1			1222		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6007
Site Code: 6007
Station ID: EB Hamlin Rd
West of Rochelle Park Dr

Latitude: 0' 0.0000 Undefined

EB	Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	999	Total	85th Percent	95th Percent
03/18/16		0	0	0	0	1	1	4	19	17	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	48	51	
	01:00	0	0	0	0	1	0	4	16	14	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	49	52	
	02:00	0	0	0	0	1	0	3	13	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	49	52		
	03:00	0	0	0	0	2	0	4	6	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	14	44	66		
	04:00	0	1	0	0	2	2	7	12	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	47	49		
	05:00	0	0	0	2	10	11	17	39	42	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	128	48	50		
	06:00	8	1	11	32	38	29	105	100	25	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	351	48	51		
	07:00	7	1	7	19	20	37	129	139	50	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	415	49	53		
	08:00	4	0	3	20	29	33	103	161	78	9	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	441	51	54		
	09:00	4	2	5	16	29	30	121	142	41	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	404	49	54		
	10:00	8	0	7	10	19	29	114	149	42	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	386	49	53		
	11:00	6	0	3	12	30	45	175	198	56	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	533	49	53		
	12 PM	8	0	5	24	27	40	188	194	77	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	572	50	53		
	13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Total	45	5	43	150	206	282	1040	1170	385	52	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3385				
	Percent	1.3%	0.1%	1.3%	4.4%	6.1%	8.3%	30.7%	34.6%	11.4%	1.5%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
	AM Peak	06:00	09:00	06:00	06:00	06:00	11:00	11:00	11:00	08:00	09:00	10:00	03:00															11:00			
	Vol.	8	2	11	32	38	45	175	198	78	14	2	1														533				
	PM Peak	12:00		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00																12:00			
	Vol.	8		5	24	27	40	188	194	77	8	1															572				
	Total	456	31	278	794	1405	2438	9157	11410	3634	472	46	4	0	0	0	0	0	0	0	0	0	0	0	0	0	30125				
	Percent	1.5%	0.1%	0.9%	2.6%	4.7%	8.1%	30.4%	37.9%	12.1%	1.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%					

15th Percentile : 38 MPH
50th Percentile : 45 MPH
85th Percentile : 49 MPH
95th Percentile : 53 MPH

Stats
10 MPH Pace Speed : 41-50 MPH
Number in Pace : 20567
Percent in Pace : 68.3%
Number of Vehicles > 55 MPH : 522
Percent of Vehicles > 55 MPH : 1.7%
Mean Speed(Average) : 44 MPH

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 5095
Site Code: 5095
Station ID: WB Hamlin Road
West of Rochelle Park Dr

Latitude: 0' 0.0000 Undefined

WB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/15/16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	11	9	20	5	15	64	158	134	32	3	2	0	0	0	453	48	52
12 PM	18	7	13	5	19	60	201	151	58	6	1	1	0	0	540	49	53
13:00	13	14	16	5	14	57	162	137	33	2	1	0	0	0	454	48	52
14:00	26	12	17	4	19	55	149	144	39	8	1	1	0	0	475	49	53
15:00	8	23	28	11	27	79	158	168	43	4	1	1	0	0	551	48	52
16:00	7	17	45	13	20	68	169	156	44	8	1	0	0	0	548	49	52
17:00	15	10	23	8	18	44	171	197	72	11	1	0	0	0	570	49	53
18:00	2	0	1	2	8	40	131	146	44	8	4	0	0	0	386	49	54
19:00	3	7	11	0	8	33	122	79	24	5	1	0	0	0	293	49	53
20:00	1	0	3	5	6	38	85	64	8	4	0	0	0	0	214	48	50
21:00	1	0	1	2	2	29	56	45	14	2	0	0	0	0	152	49	52
22:00	1	0	0	0	2	13	22	18	7	1	1	1	0	0	66	50	54
23:00	1	7	9	1	1	15	20	8	2	1	1	0	0	0	66	46	51
Total	107	106	187	61	159	595	1604	1447	420	63	15	4	0	0	4768		
Percent	2.2%	2.2%	3.9%	1.3%	3.3%	12.5%	33.6%	30.3%	8.8%	1.3%	0.3%	0.1%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00
Vol.	11	9	20	5	15	64	158	134	32	3	2				453		
PM Peak	14:00	15:00	16:00	16:00	15:00	15:00	12:00	17:00	17:00	17:00	18:00	12:00			17:00		
Vol.	26	23	45	13	27	79	201	197	72	11	4	1			570		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 5095
Site Code: 5095
Station ID: WB Hamlin Road
West of Rochelle Park Dr

Latitude: 0' 0.0000 Undefined

WB	Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	85th Percent	95th Percent
03/16/16	0	0	2	1	2	4	14	6	0	0	0	0	0	0	0	29	46	48	
01:00	0	0	0	0	0	4	2	4	2	0	0	0	0	0	0	12	50	53	
02:00	0	1	0	0	0	0	5	2	1	1	0	0	0	0	0	10	52	57	
03:00	2	0	0	0	0	2	4	4	1	0	0	0	0	0	0	13	48	51	
04:00	2	0	0	1	5	8	9	6	2	0	0	0	0	0	0	33	47	50	
05:00	0	4	1	0	6	22	55	52	15	5	1	0	0	0	0	161	49	54	
06:00	33	10	13	2	14	47	205	188	32	6	1	0	1	0	0	552	48	51	
07:00	28	17	17	5	12	101	365	397	76	8	0	1	0	0	0	1027	49	52	
08:00	21	3	9	10	29	125	403	323	52	8	2	0	0	0	0	985	48	51	
09:00	17	6	37	10	17	65	202	187	29	3	1	0	0	0	0	574	48	50	
10:00	13	10	8	4	14	62	139	103	18	1	0	0	0	0	0	372	48	50	
11:00	14	10	13	9	26	64	143	143	46	7	0	0	0	0	0	475	49	53	
12 PM	11	10	22	13	21	67	153	152	49	6	0	0	0	0	0	504	49	53	
13:00	21	18	20	6	33	69	151	114	31	4	0	0	0	0	0	467	48	51	
14:00	24	12	14	9	13	66	148	101	22	2	1	1	0	0	0	413	48	51	
15:00	6	14	35	15	15	68	191	169	29	8	1	0	0	0	0	551	48	51	
16:00	10	7	49	12	21	52	185	147	46	9	0	0	0	0	0	538	49	53	
17:00	18	10	21	13	15	61	182	179	54	6	0	0	0	0	0	559	49	52	
18:00	3	1	3	2	15	37	116	143	58	3	0	0	0	0	0	381	50	53	
19:00	5	2	8	1	6	36	104	107	20	1	0	1	0	0	0	291	48	51	
20:00	0	1	3	2	15	52	112	49	11	1	0	0	0	0	0	246	47	49	
21:00	2	0	1	3	7	27	61	32	7	0	0	0	0	0	0	140	47	49	
22:00	0	0	0	0	5	22	30	25	5	2	1	0	0	0	0	90	48	53	
23:00	1	6	11	4	1	9	14	19	0	0	0	0	0	0	0	65	47	49	
Total	231	142	287	122	292	1070	2993	2652	606	81	8	3	1	0	0	8488			
Percent	2.7%	1.7%	3.4%	1.4%	3.4%	12.6%	35.3%	31.2%	7.1%	1.0%	0.1%	0.0%	0.0%	0.0%	0.0%				
AM Peak	06:00	07:00	09:00	08:00	08:00	08:00	08:00	07:00	07:00	07:00	08:00	07:00	06:00	07:00	07:00				
Vol.	33	17	37	10	29	125	403	397	76	8	2	1	1	1	1027				
PM Peak	14:00	13:00	16:00	15:00	13:00	13:00	15:00	17:00	18:00	16:00	14:00	14:00	14:00	14:00	17:00				
Vol.	24	18	49	15	33	69	191	179	58	9	1	1	1	1	559				

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 5095
Site Code: 5095
Station ID: WB Hamlin Road
West of Rochelle Park Dr

Latitude: 0' 0.0000 Undefined

WB	Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	85th Percent	95th Percent
03/17/16		0	0	1	1	1	7	12	5	3	0	0	0	0	0	0	30	48	52
	01:00	0	1	0	0	1	1	2	3	1	0	0	0	0	0	0	9	49	52
	02:00	0	0	1	0	3	5	4	2	0	1	0	0	0	0	0	16	46	55
	03:00	0	0	1	0	0	4	3	1	1	0	0	0	0	0	0	10	47	52
	04:00	0	0	0	1	1	9	11	5	1	3	0	0	0	0	0	31	49	57
	05:00	1	3	0	1	5	21	68	34	11	2	0	0	0	0	0	146	48	52
	06:00	35	13	15	3	8	65	189	160	28	5	3	0	0	0	0	524	48	51
	07:00	33	9	18	10	15	107	414	386	89	12	0	1	0	0	0	1094	49	52
	08:00	28	4	7	1	10	66	327	405	150	14	3	0	0	0	0	1015	50	53
	09:00	21	7	32	12	14	40	161	198	67	6	0	0	0	0	0	558	49	53
	10:00	11	3	13	7	22	39	119	140	36	2	0	0	0	0	0	392	49	52
	11:00	18	12	18	8	16	45	152	149	43	1	0	0	0	0	0	462	49	52
	12 PM	18	9	16	11	13	62	155	161	38	5	0	0	0	0	0	488	49	52
	13:00	19	11	21	6	19	71	157	121	27	3	0	0	0	0	0	455	48	51
	14:00	25	8	22	4	21	50	162	135	31	9	0	0	0	0	0	467	48	52
	15:00	11	9	51	12	20	91	161	170	31	8	0	0	0	0	0	564	48	51
	16:00	8	12	36	17	20	92	158	161	26	0	1	0	0	0	0	531	48	50
	17:00	12	9	14	5	10	44	174	172	43	11	1	0	0	0	0	495	49	53
	18:00	5	1	6	3	11	39	101	150	46	6	1	1	0	0	0	370	49	53
	19:00	0	0	10	4	10	31	90	101	24	0	1	0	0	0	0	271	49	52
	20:00	3	0	4	2	12	34	107	62	17	2	1	0	0	0	0	244	48	52
	21:00	0	0	0	0	10	25	67	39	8	1	0	0	0	0	0	150	48	50
	22:00	1	0	1	1	2	16	43	18	6	0	1	0	0	0	0	89	48	52
	23:00	0	7	11	1	2	19	22	11	2	1	0	0	0	0	0	76	46	49
	Total	249	118	298	110	246	983	2859	2789	729	92	12	2	0	0	0	8487		
	Percent	2.9%	1.4%	3.5%	1.3%	2.9%	11.6%	33.7%	32.9%	8.6%	1.1%	0.1%	0.0%	0.0%	0.0%	0.0%			
	AM Peak	06:00	06:00	09:00	09:00	10:00	07:00	07:00	08:00	08:00	08:00	06:00	07:00						
	Vol.	35	13	32	12	22	107	414	405	150	14	3	1				1094		
	PM Peak	14:00	16:00	15:00	16:00	14:00	16:00	17:00	17:00	18:00	17:00	16:00	18:00						
	Vol.	25	12	51	17	21	92	174	172	46	11	1	1				564		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 5095
Site Code: 5095
Station ID: WB Hamlin Road
West of Rochelle Park Dr

Latitude: 0' 0.0000 Undefined

WB	Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	85th Percent	95th Percent
03/18/16	0	0	1	1	4	13	6	12	0	1	0	0	0	0	0	38	48	49	
01:00	0	0	0	0	1	4	14	4	1	1	0	0	0	0	0	25	47	53	
02:00	0	1	0	0	1	4	8	7	0	0	0	0	0	0	0	21	47	49	
03:00	0	0	0	0	1	3	14	2	1	1	0	0	0	0	0	22	46	54	
04:00	1	0	1	0	1	6	7	7	3	0	0	0	0	0	0	26	49	52	
05:00	0	1	4	1	6	19	51	39	7	2	1	0	0	0	0	131	48	52	
06:00	36	11	9	3	7	46	156	167	46	7	0	0	0	0	0	488	49	53	
07:00	28	9	22	4	16	74	341	385	120	16	2	0	0	0	0	1017	49	53	
08:00	32	2	11	7	13	45	270	318	152	24	1	0	0	0	0	875	51	54	
09:00	17	9	24	6	24	41	154	203	83	12	2	0	0	0	0	575	50	54	
10:00	15	6	13	7	14	35	116	153	53	12	3	0	0	0	0	427	50	54	
11:00	7	5	23	6	19	54	159	147	53	7	1	1	0	0	0	482	49	53	
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	136	44	108	35	107	344	1296	1444	519	83	10	1	0	0	0	4127			
Percent	3.3%	1.1%	2.6%	0.8%	2.6%	8.3%	31.4%	35.0%	12.6%	2.0%	0.2%	0.0%	0.0%	0.0%	0.0%				
AM Peak	06:00	06:00	09:00	08:00	09:00	07:00	07:00	07:00	08:00	08:00	10:00	11:00					07:00		
Vol.	36	11	24	7	24	74	341	385	152	24	3	1				1017			
PM Peak																			
Vol.	723	410	880	328	804	2992	8752	8332	2274	319	45	10	1	0	0	25870			
Percent	2.8%	1.6%	3.4%	1.3%	3.1%	11.6%	33.8%	32.2%	8.8%	1.2%	0.2%	0.0%	0.0%	0.0%	0.0%				

15th Percentile : 36 MPH
50th Percentile : 43 MPH
85th Percentile : 49 MPH
95th Percentile : 52 MPH

Stats
10 MPH Pace Speed : 41-50 MPH
Number in Pace : 17084
Percent in Pace : 66.0%
Number of Vehicles > 55 MPH : 375
Percent of Vehicles > 55 MPH : 1.4%
Mean Speed(Average) : 43 MPH

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 503
Site Code: 503
Station ID: Hamlin Road
Between Livernois Rd and Rochester Rd
East of Cumberland Dr
Latitude: 0' 0.0000 Undefined

EB	Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent	
		15	20	25	30	35	40	45	50	55	60	65	70	75	999				
03/15/16		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00		5	1	6	12	6	87	146	36	0	0	0	0	0	0	299	44	47	
10:00		8	0	10	11	19	89	128	36	1	0	0	0	0	0	302	44	48	
11:00		9	1	4	13	13	107	184	41	2	0	0	0	0	0	374	44	47	
12 PM		5	2	4	8	18	157	192	62	4	0	0	0	0	0	452	44	48	
13:00		5	0	10	7	25	95	151	57	8	0	1	0	0	0	359	46	49	
14:00		9	1	4	11	31	142	186	56	7	1	0	0	0	0	448	44	48	
15:00		15	26	112	105	57	98	113	25	2	0	0	0	0	0	553	42	44	
16:00		10	0	11	15	40	243	330	78	2	1	0	0	0	0	730	44	47	
17:00		18	10	18	34	74	317	364	58	3	0	0	0	0	0	896	43	46	
18:00		6	0	18	21	27	158	260	77	6	0	0	0	0	0	573	44	48	
19:00		13	2	12	11	14	94	130	56	2	0	0	0	0	0	334	45	48	
20:00		9	0	4	3	7	61	122	35	4	0	0	0	0	0	245	45	48	
21:00		6	0	4	4	4	45	68	22	0	0	0	0	0	0	153	44	48	
22:00		6	0	1	1	6	18	36	17	1	0	0	0	0	0	86	46	49	
23:00		1	0	0	0	3	16	22	12	1	0	0	0	0	0	55	46	49	
Total		125	43	218	256	344	1727	2432	668	43	2	1	0	0	0	5859			
Percent		2.1%	0.7%	3.7%	4.4%	5.9%	29.5%	41.5%	11.4%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%				
AM Peak	11:00	09:00	10:00	11:00	10:00	11:00	11:00	11:00	11:00	11:00						11:00			
Vol.	9	1	10	13	19	107	184	41	2							374			
PM Peak	17:00	15:00	15:00	15:00	17:00	17:00	17:00	16:00	13:00	14:00	13:00					17:00			
Vol.	18	26	112	105	74	317	364	78	8	1	1					896			

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 503
Site Code: 503
Station ID: Hamlin Road
Between Livernois Rd and Rochester Rd
East of Cumberland Dr
Latitude: 0' 0.0000 Undefined

EB	Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
		15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/16/16		0	0	1	0	0	6	13	6	2	0	0	0	0	0	28	48	51
01:00		1	0	0	1	0	2	4	1	0	0	0	0	0	0	9	44	47
02:00		0	0	1	0	0	2	3	1	0	0	0	0	0	0	7	44	48
03:00		0	0	1	0	0	2	2	5	0	0	0	0	0	0	10	48	49
04:00		0	0	0	0	1	3	3	1	1	0	0	0	0	0	9	48	52
05:00		0	0	2	0	5	19	17	4	0	0	0	0	0	0	47	44	47
06:00		4	0	3	5	13	26	36	13	2	0	0	0	0	0	102	44	48
07:00		7	10	47	52	31	68	57	12	0	1	0	0	0	1	286	42	44
08:00		8	4	34	30	39	86	63	20	5	0	0	0	0	0	289	43	47
09:00		8	0	5	8	16	104	101	36	2	0	0	0	0	0	280	44	48
10:00		7	0	5	5	9	79	135	39	7	0	0	0	0	1	287	45	49
11:00		6	0	9	9	18	79	173	76	15	1	0	0	0	0	386	47	49
12 PM		8	1	8	7	12	111	194	57	5	0	0	0	0	0	403	45	48
13:00		12	0	7	9	12	83	135	66	12	1	0	1	0	0	338	47	49
14:00		11	0	8	10	30	101	214	64	9	2	0	0	0	0	449	45	49
15:00		18	5	86	107	88	151	156	42	4	1	0	0	0	0	658	43	46
16:00		106	37	43	34	47	198	294	81	8	1	0	0	0	0	849	44	47
17:00		126	57	60	36	31	231	313	114	7	1	0	0	0	0	976	44	48
18:00		8	2	12	27	5	64	252	151	12	0	0	0	0	0	533	47	49
19:00		8	0	5	11	9	76	172	75	7	1	0	0	0	0	364	46	49
20:00		7	0	5	4	8	53	100	59	5	1	0	0	0	0	242	47	49
21:00		6	0	2	4	4	37	67	26	7	0	0	0	0	0	153	46	49
22:00		1	0	1	4	1	13	49	14	7	0	0	0	0	0	90	47	51
23:00		0	0	0	1	1	8	26	16	4	1	0	0	0	0	57	48	52
Total		352	116	345	364	380	1602	2579	979	121	11	0	1	0	2	6852		
Percent		5.1%	1.7%	5.0%	5.3%	5.5%	23.4%	37.6%	14.3%	1.8%	0.2%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	07:00	07:00	08:00	09:00	11:00	11:00	11:00	11:00	07:00				07:00	11:00		
Vol.	8	10	47	52	39	104	173	76	15	1					1	386		
PM Peak	17:00	17:00	15:00	15:00	15:00	17:00	17:00	18:00	13:00	14:00			13:00			17:00		
Vol.	126	57	86	107	88	231	313	151	12	2			1			976		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 503
Site Code: 503
Station ID: Hamlin Road
Between Livernois Rd and Rochester Rd
East of Cumberland Dr
Latitude: 0' 0.0000 Undefined

EB	Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	03/17/16	0	0	1	1	2	9	12	3	2	1	0	0	0	0	31	47	53
	01:00	0	0	0	0	0	3	4	3	1	0	0	0	0	0	11	48	52
	02:00	0	1	1	0	1	2	1	3	0	0	0	0	0	0	9	47	49
	03:00	0	0	0	0	0	3	2	1	1	0	0	0	0	0	7	49	53
	04:00	0	0	0	2	1	4	8	3	1	0	0	0	0	0	19	46	50
	05:00	2	0	1	1	0	8	18	7	0	0	0	0	0	0	37	46	48
	06:00	2	0	5	4	6	27	45	14	3	0	0	0	0	0	106	45	49
	07:00	16	10	50	41	31	66	84	17	3	0	0	0	0	0	318	43	46
	08:00	10	4	37	27	31	61	110	42	10	0	0	0	0	0	332	45	49
	09:00	9	0	6	11	7	82	122	49	9	0	0	0	0	0	295	46	49
	10:00	7	0	7	7	10	64	125	58	16	1	1	0	0	0	296	47	51
	11:00	11	1	10	16	9	94	175	67	10	3	0	0	0	0	396	46	49
	12 PM	6	0	5	5	10	89	206	102	20	1	0	0	0	0	444	47	49
	13:00	5	0	16	10	10	54	152	88	21	3	0	0	0	0	359	48	51
	14:00	2	0	10	11	23	131	229	84	10	0	0	0	0	0	500	46	49
	15:00	23	15	79	102	72	130	124	37	2	0	0	0	0	0	584	43	46
	16:00	12	0	10	13	14	194	416	102	10	2	0	0	0	0	773	44	48
	17:00	10	2	9	15	28	283	414	112	10	0	0	0	0	0	883	44	48
	18:00	11	1	10	18	18	102	266	100	15	3	0	0	0	0	544	46	49
	19:00	12	0	5	10	6	81	154	59	12	0	0	0	0	0	339	46	49
	20:00	13	0	3	4	2	59	107	48	7	0	0	0	0	0	243	46	49
	21:00	6	0	7	7	5	57	75	25	5	0	0	0	0	0	187	45	49
	22:00	6	0	3	2	4	26	50	13	4	0	0	0	0	0	108	45	49
	23:00	2	0	1	2	2	19	33	16	2	1	0	0	0	0	78	47	49
	Total	165	34	276	309	292	1648	2932	1053	174	15	1	0	0	0	6899		
	Percent	2.4%	0.5%	4.0%	4.5%	4.2%	23.9%	42.5%	15.3%	2.5%	0.2%	0.0%	0.0%	0.0%	0.0%			
	AM Peak	07:00	07:00	07:00	07:00	07:00	11:00	11:00	11:00	10:00	11:00	10:00						11:00
	Vol.	16	10	50	41	31	94	175	67	16	3	1				396		
	PM Peak	15:00	15:00	15:00	15:00	15:00	17:00	16:00	17:00	13:00	13:00							17:00
	Vol.	23	15	79	102	72	283	416	112	21	3					883		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 503
Site Code: 503
Station ID: Hamlin Road
Between Livernois Rd and Rochester Rd
East of Cumberland Dr
Latitude: 0' 0.0000 Undefined

EB	Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
03/18/16	15	2	0	1	1	0	4	11	5	2	0	0	0	0	0	26	48	51
01:00		2	0	2	0	0	6	15	4	2	0	0	0	0	0	31	46	51
02:00		0	0	2	0	0	3	7	3	1	0	0	0	0	0	16	47	50
03:00		0	0	1	0	1	2	6	2	0	0	0	1	0	0	13	47	66
04:00		0	0	1	0	1	0	6	2	0	0	0	0	0	0	10	46	48
05:00		0	0	1	0	1	13	17	9	2	0	0	0	0	0	43	47	49
06:00		3	1	9	9	3	39	27	13	5	0	0	0	0	0	109	45	49
07:00		10	11	43	43	25	59	74	13	1	0	0	0	0	0	279	43	45
08:00		9	21	26	23	22	81	90	29	4	0	0	0	0	0	305	44	48
09:00		6	0	5	7	4	66	107	60	10	0	0	0	0	0	265	47	49
10:00		8	0	6	10	9	79	159	58	7	1	0	0	0	0	337	46	49
11:00		4	0	7	9	14	106	224	45	5	0	0	0	0	0	414	44	48
12 PM		10	0	5	7	13	99	165	55	7	0	0	0	0	0	361	45	48
13:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total		54	33	109	109	93	557	908	298	46	1	0	1	0	0	2209		
Percent		2.4%	1.5%	4.9%	4.9%	4.2%	25.2%	41.1%	13.5%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	07:00	07:00	07:00	07:00	11:00	11:00	09:00	09:00	10:00	03:00						11:00
Vol.	10	21	43	43	25	106	224	60	10	1	1					414		
PM Peak	12:00		12:00	12:00	12:00	12:00	12:00	12:00	12:00									12:00
Vol.	10		5	7	13	99	165	55	7							361		
Total	696	226	948	1038	1109	5534	8851	2998	384	29	2	2	0	2	21819			
Percent	3.2%	1.0%	4.3%	4.8%	5.1%	25.4%	40.6%	13.7%	1.8%	0.1%	0.0%	0.0%	0.0%	0.0%				

15th Percentile : 31 MPH
50th Percentile : 40 MPH
85th Percentile : 45 MPH
95th Percentile : 48 MPH

Stats 10 MPH Pace Speed : 36-45 MPH
 Number in Pace : 14385
 Percent in Pace : 65.9%
Number of Vehicles > 55 MPH : 35
Percent of Vehicles > 55 MPH : 0.2%
Mean Speed(Average) : 39 MPH

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6008
Site Code: 6008
Station ID: Hamlin Road
Livernois Rd to Rochester Rd
East of Cumberland Dr
Latitude: 0' 0.0000 Undefined

WB	Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	85th Percent	95th Percent
03/15/16		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00		1	0	4	5	13	78	153	52	16	2	0	0	0	0	324	47	50
10:00		1	2	5	4	13	61	116	48	7	0	0	0	0	0	257	46	49
11:00		1	0	4	11	16	75	155	53	13	0	0	0	0	0	328	46	49
12 PM		0	2	3	8	24	115	203	82	11	0	1	0	0	0	449	46	49
13:00		0	3	3	3	16	88	179	65	12	0	0	0	0	0	369	46	49
14:00		1	2	4	18	48	138	157	75	13	1	0	0	0	0	457	46	49
15:00		3	7	44	92	107	101	74	26	7	0	1	0	0	0	462	42	47
16:00		1	0	9	15	17	71	168	68	14	2	0	0	0	0	365	47	49
17:00		2	0	5	18	25	89	175	114	19	1	1	0	0	0	449	47	49
18:00		9	0	4	14	13	77	182	75	20	0	0	1	0	0	395	47	50
19:00		1	0	7	14	14	71	121	55	10	2	0	0	0	0	295	47	49
20:00		0	4	11	17	6	47	107	46	5	0	0	1	0	0	244	46	49
21:00		1	0	4	4	7	29	60	36	7	1	0	0	0	0	149	48	50
22:00		0	0	3	6	6	7	31	19	1	2	0	1	0	0	76	48	50
23:00		0	0	0	1	2	7	14	13	0	0	1	0	0	0	38	48	49
Total		21	20	110	230	327	1054	1895	827	155	11	4	3	0	0	4657		
Percent		0.5%	0.4%	2.4%	4.9%	7.0%	22.6%	40.7%	17.8%	3.3%	0.2%	0.1%	0.1%	0.0%	0.0%			
AM Peak	09:00	10:00	10:00	11:00	11:00	09:00	11:00	11:00	11:00	09:00	09:00					11:00		
Vol.	1	2	5	11	16	78	155	53	16	2					328			
PM Peak	18:00	15:00	15:00	15:00	15:00	14:00	12:00	17:00	18:00	16:00	12:00	18:00			15:00			
Vol.	9	7	44	92	107	138	203	114	20	2	1	1			462			

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6008
Site Code: 6008
Station ID: Hamlin Road
Livernois Rd to Rochester Rd
East of Cumberland Dr
Latitude: 0' 0.0000 Undefined

WB	Start Time	15	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	85th Percent	95th Percent
03/16/16		0	0	0	0	0	3	3	6	2	1	0	0	0	0	0	15	51	56
01:00		0	0	0	1	0	3	6	5	1	0	0	0	0	0	0	16	48	50
02:00		0	0	0	0	0	2	3	3	3	0	0	0	0	0	0	11	52	54
03:00		0	0	0	0	0	0	5	2	0	1	0	0	0	0	0	8	49	57
04:00		0	0	0	0	0	3	9	6	2	0	0	0	0	0	0	20	49	52
05:00		0	0	0	0	0	19	60	25	8	2	0	0	0	0	0	114	48	52
06:00		0	0	0	0	1	58	159	65	10	1	2	1	0	0	0	297	47	49
07:00		7	2	34	75	109	161	168	49	7	0	1	0	0	0	0	613	43	47
08:00		4	5	51	68	81	190	162	17	3	0	0	0	0	0	0	581	42	44
09:00		2	0	3	6	16	65	148	52	5	0	0	0	0	0	0	297	46	49
10:00		1	2	3	7	11	67	114	46	11	1	0	0	0	0	0	263	47	49
11:00		2	0	0	14	15	70	167	64	9	4	0	0	0	0	0	345	46	49
12 PM		1	2	3	8	8	75	178	89	16	2	0	0	0	0	0	382	47	49
13:00		0	2	8	20	27	109	159	59	4	0	0	0	0	0	0	388	45	48
14:00		2	1	3	11	19	92	145	59	13	1	0	0	0	0	0	346	46	49
15:00		3	5	27	76	108	131	77	21	7	0	0	0	0	0	0	455	42	46
16:00		2	0	4	11	21	86	175	94	13	2	0	0	0	0	0	408	47	49
17:00		2	0	7	14	20	63	171	128	25	1	0	0	0	0	0	431	48	50
18:00		13	0	2	18	8	74	119	99	22	0	1	0	0	0	0	356	48	51
19:00		2	2	7	23	17	70	163	66	8	2	0	0	0	0	0	360	46	49
20:00		1	0	15	10	12	73	113	53	7	0	0	0	0	0	0	284	46	49
21:00		2	1	5	7	9	32	61	36	6	1	0	0	0	0	0	160	47	49
22:00		1	0	1	3	5	19	42	20	6	0	2	0	0	0	0	99	48	52
23:00		0	1	0	0	1	7	19	15	2	1	0	0	0	0	0	46	48	51
Total		45	23	173	372	488	1472	2426	1079	190	20	6	1	0	0	0	6295		
Percent		0.7%	0.4%	2.7%	5.9%	7.8%	23.4%	38.5%	17.1%	3.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	08:00	08:00	07:00	07:00	08:00	07:00	07:00	06:00	10:00	07:00	11:00	06:00	06:00					
Vol.	7	5	51	75	109	190	168	65	11	4	2	1					613		
PM Peak	18:00	15:00	15:00	15:00	15:00	15:00	15:00	12:00	17:00	17:00	12:00	22:00							
Vol.	13	5	27	76	108	131	178	128	25	2	2						455		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6008
Site Code: 6008
Station ID: Hamlin Road
Livernois Rd to Rochester Rd
East of Cumberland Dr
Latitude: 0' 0.0000 Undefined

WB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/17/16	0	0	2	0	0	6	7	9	1	0	0	0	0	0	25	48	49
01:00	0	0	0	0	2	2	6	3	0	1	0	0	0	0	14	48	56
02:00	0	0	0	1	0	3	5	4	1	0	0	0	0	0	14	48	51
03:00	1	0	0	1	0	0	1	2	1	0	0	0	0	0	6	50	53
04:00	1	0	0	0	0	1	14	4	3	0	0	0	0	0	23	49	53
05:00	0	0	0	0	1	12	48	30	5	2	0	0	0	0	98	48	52
06:00	0	0	0	0	1	52	150	67	10	1	0	0	0	0	281	47	49
07:00	4	1	13	116	82	143	199	50	9	1	0	0	0	0	618	44	47
08:00	4	1	17	40	103	165	195	73	10	2	0	0	0	0	610	44	48
09:00	2	0	4	15	7	45	133	85	12	3	0	0	0	0	306	48	49
10:00	0	0	4	5	3	54	129	71	16	0	0	0	0	0	282	48	50
11:00	0	0	4	15	11	41	170	65	14	0	0	0	0	0	320	47	49
12 PM	0	0	7	7	11	84	168	56	13	1	0	0	0	0	347	46	49
13:00	0	0	4	8	8	91	142	88	14	1	0	0	0	0	356	47	49
14:00	1	0	1	10	19	78	146	81	9	3	0	0	0	0	348	47	49
15:00	3	6	37	75	115	99	83	22	6	0	0	0	0	0	446	42	46
16:00	2	0	3	13	19	87	176	64	15	1	0	0	0	0	380	46	49
17:00	4	1	8	16	21	83	193	87	15	1	0	0	0	0	429	47	49
18:00	8	1	1	13	21	61	143	90	14	4	0	0	0	0	356	48	50
19:00	0	0	11	13	10	59	109	65	14	3	0	0	0	0	284	48	50
20:00	2	1	8	20	21	68	110	39	10	0	0	0	0	0	279	45	49
21:00	0	2	4	7	11	30	44	34	4	0	0	0	0	0	136	47	49
22:00	0	1	4	4	6	11	41	29	5	2	1	0	0	0	104	48	52
23:00	1	0	0	4	1	5	29	8	2	0	0	0	0	0	50	46	49
Total	33	14	132	383	473	1280	2441	1126	203	26	1	0	0	0	6112		
Percent	0.5%	0.2%	2.2%	6.3%	7.7%	20.9%	39.9%	18.4%	3.3%	0.4%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	08:00	07:00	08:00	08:00	07:00	09:00	10:00	09:00							07:00
Vol.	4	1	17	116	103	165	199	85	16	3							618
PM Peak	18:00	15:00	15:00	15:00	15:00	15:00	17:00	18:00	16:00	18:00	22:00						15:00
Vol.	8	6	37	75	115	99	193	90	15	4	1						446

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6008
Site Code: 6008
Station ID: Hamlin Road
Livernois Rd to Rochester Dr
East of Cumberland Dr
Latitude: 0' 0.0000 Undefined

WB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/18/16	0	0	2	1	2	10	12	9	1	0	0	0	0	0	37	47	49
01:00	0	0	0	3	1	5	9	7	4	0	0	0	0	0	29	49	53
02:00	0	0	0	1	2	4	9	10	0	1	0	0	0	0	27	48	49
03:00	0	0	0	1	0	2	9	2	1	0	0	0	0	0	15	46	51
04:00	1	0	0	0	0	0	9	4	4	1	0	0	0	0	19	52	55
05:00	0	0	0	0	0	7	43	23	6	1	1	0	0	0	81	49	53
06:00	0	0	0	1	4	46	126	73	15	1	0	0	0	0	266	48	50
07:00	2	1	8	29	97	182	211	55	7	0	0	0	0	0	592	44	47
08:00	1	1	10	68	94	123	199	60	13	0	0	0	0	0	569	44	48
09:00	0	0	2	10	11	21	160	96	14	5	0	0	0	0	319	48	51
10:00	0	0	3	5	18	38	146	83	17	2	0	0	0	0	312	48	50
11:00	1	0	5	6	9	65	176	73	9	2	0	0	0	0	346	47	49
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	5	2	30	125	238	503	1109	495	91	13	1	0	0	0	2612		
Percent	0.2%	0.1%	1.1%	4.8%	9.1%	19.3%	42.5%	19.0%	3.5%	0.5%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	08:00	08:00	07:00	07:00	07:00	09:00	10:00	09:00	05:00				07:00		
Vol.	2	1	10	68	97	182	211	96	17	5	1				592		
PM Peak																	
Vol.	104	59	445	1110	1526	4309	7871	3527	639	70	12	4	0	0	19676		
Percent	0.5%	0.3%	2.3%	5.6%	7.8%	21.9%	40.0%	17.9%	3.2%	0.4%	0.1%	0.0%	0.0%	0.0%			

15th Percentile : 34 MPH
50th Percentile : 41 MPH
85th Percentile : 46 MPH
95th Percentile : 49 MPH

Stats
10 MPH Pace Speed : 36-45 MPH
Number in Pace : 12180
Percent in Pace : 61.9%
Number of Vehicles > 55 MPH : 86
Percent of Vehicles > 55 MPH : 0.4%
Mean Speed(Average) : 41 MPH

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6015
Site Code: 6015
Station ID: EB Hamlin Rd
East of West Cemetery Dr

Latitude: 0' 0.0000 Undefined

EB	Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	85th Percent	95th Percent
03/15/16		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00		1	0	0	1	7	47	118	26	2	0	0	0	0	0	202	44	48
10:00		0	0	1	0	9	53	102	21	2	0	0	0	0	0	188	44	48
11:00		0	0	1	1	10	75	155	44	3	0	0	0	0	0	289	45	48
12 PM		0	0	0	0	11	64	183	46	2	0	0	0	0	0	306	45	48
13:00		0	0	0	3	6	85	129	45	2	0	0	0	0	0	270	45	48
14:00		3	0	0	2	10	91	237	65	2	1	0	0	0	0	411	45	48
15:00		0	0	1	0	12	168	228	76	4	1	0	0	0	0	490	45	48
16:00		0	0	1	0	22	216	353	66	7	0	0	0	0	0	665	44	48
17:00		1	0	0	2	44	265	406	80	2	0	0	0	0	0	800	44	47
18:00		0	0	0	0	18	123	264	74	1	0	0	0	0	0	480	45	48
19:00		0	0	0	0	9	104	197	37	2	0	0	0	0	0	349	44	47
20:00		0	0	0	0	5	65	162	30	3	0	0	0	0	0	265	44	48
21:00		0	0	0	0	6	51	85	24	5	0	0	0	0	0	171	45	49
22:00		0	0	0	1	11	34	45	11	2	2	0	0	0	0	106	44	49
23:00		0	0	0	0	0	16	25	8	1	0	0	0	0	0	50	45	49
Total		5	0	4	10	180	1457	2689	653	40	4	0	0	0	0	5042		
Percent		0.1%	0.0%	0.1%	0.2%	3.6%	28.9%	53.3%	13.0%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	09:00			10:00	09:00	11:00	11:00	11:00	11:00	11:00						11:00		
Vol.	1			1	1	10	75	155	44	3						289		
PM Peak	14:00			15:00	13:00	17:00	17:00	17:00	17:00	16:00	22:00					17:00		
Vol.	3			1	3	44	265	406	80	7	2					800		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6015
Site Code: 6015
Station ID: EB Hamlin Rd
East of West Cemetery Dr

Latitude: 0' 0.0000 Undefined

EB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/16/16	0	0	0	0	2	6	19	5	0	0	0	0	0	0	32	45	48
01:00	0	0	0	0	1	2	4	1	0	0	0	0	0	0	8	44	47
02:00	0	0	0	0	2	3	3	1	1	0	0	0	0	0	10	47	52
03:00	0	0	0	0	0	1	6	1	0	0	0	0	0	0	8	44	48
04:00	0	0	0	0	1	2	4	1	0	0	0	0	0	0	8	44	47
05:00	0	0	0	0	4	15	11	7	0	0	0	0	0	0	37	46	48
06:00	0	0	0	0	1	31	24	10	1	0	0	0	0	0	67	45	48
07:00	1	0	0	0	5	73	84	20	4	2	0	0	0	0	189	44	49
08:00	0	0	0	0	2	50	123	26	5	0	0	0	0	0	206	45	48
09:00	0	0	0	0	3	48	81	24	1	0	0	0	0	0	157	45	48
10:00	0	0	0	1	2	33	106	38	1	0	0	0	0	0	181	46	48
11:00	1	0	0	0	2	20	140	70	14	1	0	0	0	0	248	48	50
12 PM	1	0	0	0	8	54	151	73	8	1	0	0	0	0	296	47	49
13:00	0	0	0	1	8	58	143	76	5	0	0	0	0	0	291	47	49
14:00	0	0	0	1	2	41	208	104	11	0	0	0	0	0	367	47	49
15:00	1	0	0	0	0	110	338	164	11	1	0	0	0	0	625	47	49
16:00	107	72	59	65	81	186	243	43	4	0	0	0	0	0	860	43	45
17:00	28	13	18	19	66	156	345	186	14	1	0	0	0	0	846	46	49
18:00	0	0	0	0	2	34	266	164	22	1	0	0	0	0	489	48	49
19:00	0	0	0	1	2	64	162	88	11	0	0	0	0	0	328	47	49
20:00	0	0	0	0	2	68	146	74	5	0	0	0	0	0	295	47	49
21:00	0	0	0	0	7	43	108	36	6	0	0	0	0	0	200	46	49
22:00	0	0	0	0	6	19	55	25	4	0	0	0	0	0	109	47	49
23:00	0	0	0	0	2	13	36	17	1	0	2	0	0	0	71	47	49
Total	139	85	77	88	211	1130	2806	1254	129	7	2	0	0	0	5928		
Percent	2.3%	1.4%	1.3%	1.5%	3.6%	19.1%	47.3%	21.2%	2.2%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00			10:00	07:00	07:00	11:00	11:00	11:00	07:00							11:00
Vol.	1			1	5	73	140	70	14	2							248
PM Peak	16:00	16:00	16:00	16:00	16:00	16:00	17:00	17:00	18:00	12:00	23:00						16:00
Vol.	107	72	59	65	81	186	345	186	22	1	2						860

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 6015
Site Code: 6015
Station ID: EB Hamlin Rd
East of West Cemetery Dr

Latitude: 0' 0.0000 Undefined

EB	Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	85th Percent	95th Percent
03/17/16		0	0	0	0	0	5	24	7	2	1	0	0	0	0	39	47	52
01:00		0	0	0	0	0	4	12	2	0	0	0	0	0	0	18	44	47
02:00		0	0	0	0	0	5	2	2	0	0	0	0	0	0	9	46	48
03:00		0	0	0	0	0	1	7	3	0	0	0	0	0	0	11	47	49
04:00		0	0	0	0	0	3	5	3	0	0	0	0	0	0	11	47	49
05:00		0	0	0	0	2	9	13	10	2	0	0	0	0	0	36	48	50
06:00		0	0	0	0	3	14	43	17	2	0	0	0	0	0	79	47	49
07:00		0	0	0	6	4	47	103	34	3	0	0	0	0	0	197	46	48
08:00		0	0	0	0	0	29	106	65	8	1	0	0	0	0	209	48	49
09:00		0	0	0	0	1	19	116	57	5	0	0	0	0	0	198	47	49
10:00		0	0	0	0	1	21	109	64	6	0	0	0	0	0	201	48	49
11:00		0	0	0	1	5	39	153	76	9	0	0	0	0	0	283	47	49
12 PM		0	0	0	0	4	49	171	95	7	1	0	0	0	0	327	47	49
13:00		6	3	5	3	8	22	150	88	9	0	0	0	0	0	294	48	49
14:00		1	0	0	1	7	80	219	85	14	0	0	0	0	0	407	47	49
15:00		0	0	0	0	7	124	253	97	15	1	0	0	0	0	497	46	49
16:00		0	0	0	0	12	109	345	179	18	0	0	0	0	0	663	47	49
17:00		0	0	0	0	8	177	394	131	11	0	0	0	0	0	721	46	49
18:00		0	0	0	0	1	42	228	131	13	0	0	1	0	0	416	48	49
19:00		0	0	0	0	6	76	197	79	8	0	1	0	0	0	367	47	49
20:00		0	0	0	1	2	60	154	36	4	0	0	0	0	0	257	45	48
21:00		0	0	0	0	11	56	122	29	2	0	0	0	0	0	220	44	48
22:00		0	0	0	0	4	39	54	18	3	0	0	0	0	0	118	45	49
23:00		0	0	0	1	3	15	40	11	0	1	0	0	0	0	71	45	48
Total		7	3	5	13	89	1045	3020	1319	141	5	1	1	0	0	5649		
Percent		0.1%	0.1%	0.1%	0.2%	1.6%	18.5%	53.5%	23.3%	2.5%	0.1%	0.0%	0.0%	0.0%	0.0%			
AM Peak					07:00	11:00	07:00	11:00	11:00	11:00	00:00					11:00		
Vol.					6	5	47	153	76	9	1					283		
PM Peak		13:00	13:00	13:00	13:00	16:00	17:00	17:00	16:00	16:00	12:00	19:00	18:00			17:00		
Vol.		6	3	5	3	12	177	394	179	18	1	1	1			721		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 618
Site Code: 618
Station ID: WB Hamlin Rd
East of Westerly Cemetery Dr

Latitude: 0' 0.0000 Undefined

WB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent	
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999				
03/15/16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	0	1	0	0	5	23	132	110	15	3	1	0	0	0	290	48	51	
10:00	4	0	2	6	2	19	124	87	5	1	0	0	0	0	250	48	49	
11:00	3	0	2	2	4	35	97	92	15	2	0	0	0	0	252	48	51	
12 PM	4	0	2	2	7	34	109	92	20	1	1	0	0	0	272	48	52	
13:00	15	8	8	6	7	26	95	68	13	0	0	0	0	0	246	48	50	
14:00	13	0	2	0	2	22	125	102	19	4	0	0	0	0	289	49	52	
15:00	1	0	1	4	1	31	133	105	29	0	0	0	0	0	305	49	52	
16:00	0	2	0	1	8	24	130	112	19	4	0	0	0	0	300	49	52	
17:00	1	0	0	1	4	29	131	134	27	0	1	0	0	0	328	49	52	
18:00	1	0	0	0	0	37	121	122	19	2	1	0	0	0	303	49	51	
19:00	0	0	0	0	5	23	94	90	19	1	1	0	0	0	233	49	52	
20:00	0	0	0	0	1	13	55	62	15	2	0	0	0	0	148	49	53	
21:00	0	0	0	0	0	9	52	36	14	0	0	0	0	0	111	49	53	
22:00	0	0	0	0	1	3	15	21	4	0	0	0	0	0	44	49	52	
23:00	0	0	0	0	1	1	5	12	5	0	0	0	0	0	24	51	53	
Total	42	11	17	22	48	329	1418	1245	238	20	5	0	0	0	3395			
Percent	1.2%	0.3%	0.5%	0.6%	1.4%	9.7%	41.8%	36.7%	7.0%	0.6%	0.1%	0.0%	0.0%	0.0%				
AM Peak	10:00	09:00	10:00	10:00	09:00	11:00	09:00	09:00	09:00	09:00	09:00	09:00	09:00	09:00				
Vol.	4	1	2	6	5	35	132	110	15	3	1				290			
PM Peak	13:00	13:00	13:00	13:00	16:00	18:00	15:00	17:00	15:00	14:00	12:00				17:00			
Vol.	15	8	8	6	8	37	133	134	29	4	1				328			

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 618
Site Code: 618
Station ID: WB Hamlin Rd
East of Westerly Cemetery Dr

Latitude: 0' 0.0000 Undefined

WB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/16/16	0	0	0	0	1	2	2	3	3	0	0	0	0	0	11	52	54
01:00	0	0	0	0	1	1	2	2	0	0	0	0	0	0	6	47	49
02:00	0	0	0	0	0	0	4	4	0	1	0	0	0	0	9	49	57
03:00	0	0	0	0	0	0	4	2	0	0	0	0	0	0	6	47	49
04:00	0	0	0	0	0	2	9	13	2	0	0	0	0	0	26	49	51
05:00	0	0	0	1	0	5	33	38	7	3	0	0	0	0	87	49	54
06:00	0	0	0	0	5	28	131	107	20	0	0	0	0	0	291	48	51
07:00	2	0	2	3	29	84	220	109	19	3	0	0	0	0	471	47	49
08:00	0	0	1	1	14	76	212	101	17	3	0	0	0	0	425	47	49
09:00	1	0	0	0	4	38	116	97	11	4	0	0	0	0	271	48	50
10:00	1	0	0	1	2	25	105	96	12	0	0	0	0	0	242	48	49
11:00	3	0	0	3	2	30	113	96	17	0	1	0	0	0	265	48	51
12 PM	1	0	0	4	4	39	109	87	13	0	0	0	0	0	257	48	50
13:00	0	0	0	1	6	35	114	73	7	2	1	0	0	0	239	48	49
14:00	0	0	0	0	4	20	157	92	10	1	0	0	0	0	284	48	49
15:00	0	1	0	1	10	26	152	113	11	1	0	0	0	0	315	48	49
16:00	2	0	0	2	9	27	121	116	20	2	0	0	0	0	299	49	51
17:00	0	0	0	0	1	20	133	149	20	3	0	0	0	0	326	49	51
18:00	0	0	0	0	2	25	140	106	16	1	0	0	0	0	290	48	50
19:00	0	0	0	1	2	44	99	85	11	2	0	0	0	0	244	48	50
20:00	0	0	0	0	3	26	71	59	4	0	0	0	0	0	163	48	49
21:00	0	0	0	0	0	12	51	28	4	0	0	0	0	0	95	48	49
22:00	0	0	0	0	1	6	20	20	6	0	1	0	0	0	54	49	53
23:00	0	0	0	0	0	7	12	15	1	0	0	0	0	0	35	48	49
Total	10	1	3	18	100	578	2130	1611	231	26	3	0	0	0	4711		
Percent	0.2%	0.0%	0.1%	0.4%	2.1%	12.3%	45.2%	34.2%	4.9%	0.6%	0.1%	0.0%	0.0%	0.0%			
AM Peak	11:00		07:00	07:00	07:00	07:00	07:00	07:00	06:00	09:00	11:00				07:00		
Vol.	3		2	3	29	84	220	109	20	4	1				471		
PM Peak	16:00	15:00		12:00	15:00	19:00	14:00	17:00	16:00	17:00	13:00				17:00		
Vol.	2	1		4	10	44	157	149	20	3	1				326		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 618
Site Code: 618
Station ID: WB Hamlin Rd
East of Westerly Cemetery Dr

Latitude: 0' 0.0000 Undefined

WB	Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	03/17/16	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
	03/17/16	0	0	0	0	0	4	4	1	2	0	0	0	0	0	11	50	53
	01:00	1	0	0	0	1	3	6	1	0	0	0	0	0	0	12	44	46
	02:00	0	0	0	0	0	3	2	1	0	0	0	0	0	0	6	45	48
	03:00	0	0	0	0	0	2	1	4	0	0	0	0	0	0	7	48	49
	04:00	0	0	0	0	0	5	8	3	2	1	0	0	0	0	19	50	55
	05:00	0	0	0	0	0	5	39	39	8	1	0	0	0	0	92	49	52
	06:00	0	0	0	0	2	30	115	97	20	2	0	0	0	0	266	49	52
	07:00	1	0	0	0	15	127	250	138	19	1	0	0	0	0	551	47	49
	08:00	0	0	0	0	1	38	201	198	29	5	0	0	0	0	472	49	51
	09:00	1	0	0	3	3	24	142	133	20	2	0	0	0	0	328	48	51
	10:00	1	0	0	2	5	24	97	96	17	4	0	1	0	0	247	49	52
	11:00	1	0	0	1	1	24	135	115	10	3	1	0	0	0	291	48	49
	12 PM	1	0	0	1	2	54	127	85	11	2	0	0	0	0	283	48	49
	13:00	20	0	1	2	15	19	114	87	11	1	0	0	0	0	270	48	49
	14:00	4	0	2	15	17	43	149	112	13	0	0	0	0	0	355	48	49
	15:00	2	0	1	5	10	26	142	113	26	1	0	0	0	0	326	49	52
	16:00	0	0	0	0	4	35	130	121	23	1	0	0	0	0	314	49	51
	17:00	0	0	0	6	1	37	148	124	25	1	0	0	0	0	342	48	51
	18:00	0	0	0	1	0	42	144	81	12	1	0	0	0	0	281	48	49
	19:00	0	0	0	1	5	28	107	70	4	1	1	0	0	0	217	48	49
	20:00	0	0	0	1	3	27	58	57	6	2	0	0	0	0	154	48	50
	21:00	0	0	0	0	1	11	43	36	7	0	0	0	0	0	98	48	51
	22:00	0	0	0	0	1	6	27	27	2	1	0	0	0	0	64	48	49
	23:00	0	0	0	0	0	7	12	12	3	0	0	0	0	0	34	49	52
	Total	32	0	4	38	87	624	2201	1751	270	30	2	1	0	0	5040		
	Percent	0.6%	0.0%	0.1%	0.8%	1.7%	12.4%	43.7%	34.7%	5.4%	0.6%	0.0%	0.0%	0.0%	0.0%			
	AM Peak	01:00			09:00	07:00	07:00	07:00	08:00	08:00	08:00	11:00	10:00				07:00	
	Vol.	1			3	15	127	250	198	29	5	1	1			551		
	PM Peak	13:00		14:00	14:00	14:00	12:00	14:00	17:00	15:00	12:00	19:00				14:00		
	Vol.	20		2	15	17	54	149	124	26	2	1				355		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 618
Site Code: 618
Station ID: WB Hamlin Rd
East of Westerly Cemetery Dr

Latitude: 0' 0.0000 Undefined

WB	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
03/18/16	0	0	0	0	0	2	9	8	0	0	0	0	0	0	19	48	49
01:00	0	0	0	0	0	2	5	5	0	1	0	0	0	0	13	49	56
02:00	0	0	0	0	0	5	2	3	2	0	0	0	0	0	12	50	53
03:00	0	0	0	0	0	0	4	3	0	0	0	0	0	0	7	48	49
04:00	0	0	0	0	0	4	12	6	2	0	0	0	0	0	24	48	51
05:00	0	0	0	0	0	4	25	39	6	3	0	0	0	0	77	49	54
06:00	0	0	0	0	3	20	81	101	25	2	0	0	0	0	232	49	53
07:00	1	0	0	0	10	63	277	126	19	2	0	0	0	0	498	47	49
08:00	1	0	0	0	8	57	203	178	24	2	0	0	0	0	473	48	50
09:00	1	0	0	0	8	21	113	132	29	0	0	0	0	0	304	49	52
10:00	1	0	0	1	5	24	92	114	27	5	0	0	0	0	269	49	53
11:00	1	0	0	1	0	29	99	116	25	4	0	0	0	0	275	49	53
12 PM	15	0	1	2	0	34	80	60	7	1	0	0	0	1	201	48	49
13:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12	14
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	21	0	1	4	34	265	1002	891	166	20	0	0	0	1	2405		
Percent	0.9%	0.0%	0.0%	0.2%	1.4%	11.0%	41.7%	37.0%	6.9%	0.8%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00			10:00	07:00	07:00	07:00	08:00	09:00	10:00						07:00	
Vol.	1			1	10	63	277	178	29	5					498		
PM Peak	12:00		12:00	12:00		12:00	12:00	12:00	12:00	12:00				12:00	12:00		
Vol.	15		1	2		34	80	60	7	1				1	201		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 618
Site Code: 618
Station ID: WB Hamlin Rd
East of Westerly Cemetery Dr

Latitude: 0' 0.0000 Undefined

WB	Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
		15	20	25	30	35	40	45	50	55	60	65	70	75	999			
	03/21/16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
	09:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12	14
	10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	Total	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
	Percent	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
	AM Peak	09:00																
	Vol.	1																
	PM Peak																	
	Vol.	106	12	25	82	269	1796	6751	5498	905	96	10	1	0	1	15552		
	Percent	0.7%	0.1%	0.2%	0.5%	1.7%	11.5%	43.4%	35.4%	5.8%	0.6%	0.1%	0.0%	0.0%	0.0%			

15th Percentile : 40 MPH
50th Percentile : 44 MPH
85th Percentile : 48 MPH
95th Percentile : 51 MPH

Stats
10 MPH Pace Speed : 41-50 MPH
Number in Pace : 12249
Percent in Pace : 78.8%
Number of Vehicles > 55 MPH : 108
Percent of Vehicles > 55 MPH : 0.7%
Mean Speed(Average) : 44 MPH

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 5039
Site Code: 5039
Station ID: EB/WB Hamlin Road
West of Roundtree

Latitude: 0' 0.0000 Undefined

WB	1	36	41	46	51	56	61	66	71	76	81	86	91	96	Total	85th	95th
Start Time	35	40	45	50	55	60	65	70	75	80	85	90	95	999		Percent	Percent
03/15/16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	16	9	67	96	43	4	0	0	0	0	0	0	0	0	235	51	54
10:00	14	13	51	92	32	1	0	0	0	0	0	0	0	0	203	50	53
11:00	20	8	55	96	19	5	0	0	0	0	0	0	0	0	203	49	53
12 PM	19	7	46	82	30	0	1	0	0	0	0	0	0	0	185	50	53
13:00	54	10	50	88	25	6	3	1	0	0	0	0	0	0	237	49	54
14:00	19	3	62	108	46	11	0	0	0	0	0	0	0	0	249	52	54
15:00	27	9	62	142	43	6	0	0	0	0	0	0	0	0	289	50	54
16:00	33	16	76	119	54	6	0	0	0	0	0	0	0	0	304	51	54
17:00	35	12	70	163	65	5	1	0	1	0	0	0	0	0	352	51	54
18:00	30	8	64	147	37	4	1	0	0	0	0	0	0	0	291	49	53
19:00	11	4	40	77	31	3	0	0	0	0	0	0	0	0	166	51	54
20:00	7	7	28	52	18	5	1	1	0	0	0	0	0	0	119	51	56
21:00	3	1	27	48	16	1	0	0	0	0	0	0	0	0	96	50	53
22:00	1	1	5	21	6	2	1	0	0	0	0	0	0	0	37	52	57
23:00	1	1	9	12	7	1	0	0	0	0	0	0	0	0	31	52	54
Total	290	109	712	1343	472	60	8	2	1	0	0	0	0	0	2997		
Percent	9.7%	3.6%	23.8%	44.8%	15.7%	2.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	10:00	09:00	09:00	09:00	11:00										09:00	
Vol.	20	13	67	96	43	5									235		
PM Peak	13:00	16:00	16:00	17:00	17:00	14:00	13:00	13:00	17:00							17:00	
Vol.	54	16	76	163	65	11	3	1	1						352		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 5039
Site Code: 5039
Station ID: EB/WB Hamlin Road
West of Roundtree

Latitude: 0' 0.0000 Undefined

WB	1	36	41	46	51	56	61	66	71	76	81	86	91	96	Total	85th Percent	95th Percent
Start Time	35	40	45	50	55	60	65	70	75	80	85	90	95	999			
03/18/16	1	1	8	8	1	2	0	0	0	0	0	0	0	0	21	49	57
01:00	0	0	5	4	3	1	0	0	0	0	0	0	0	0	13	53	56
02:00	1	2	3	2	2	0	0	0	0	0	0	0	0	0	10	51	53
03:00	0	3	3	3	0	1	0	0	0	0	0	0	0	0	10	49	57
04:00	1	3	8	7	1	0	1	0	0	0	0	0	0	0	21	49	54
05:00	8	6	14	34	12	3	0	0	0	0	0	0	0	0	77	51	54
06:00	18	11	52	89	37	1	0	0	0	0	0	0	0	0	208	50	53
07:00	37	24	159	216	39	1	1	0	0	0	0	0	0	0	477	49	52
08:00	39	31	111	198	83	13	0	0	0	0	0	0	0	0	475	51	54
09:00	17	5	58	118	52	3	0	0	0	0	0	0	0	0	253	51	54
10:00	15	5	40	88	38	7	1	0	0	0	0	0	0	0	194	52	54
11:00	15	8	47	117	37	6	0	0	0	0	0	0	0	0	230	51	54
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	152	99	508	884	305	38	3	0	0	0	0	0	0	0	1989		
Percent	7.6%	5.0%	25.5%	44.4%	15.3%	1.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	07:00	07:00	08:00	08:00	04:00									07:00	
Vol.	39	31	159	216	83	13	1								477		
PM Peak																	
Vol.	1280	722	3670	5936	1980	241	31	4	3	0	0	0	0	0	13867		
Percent	9.2%	5.2%	26.5%	42.8%	14.3%	1.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 40 MPH
50th Percentile : 46 MPH
85th Percentile : 50 MPH
95th Percentile : 53 MPH

Stats
10 MPH Pace Speed : 41-50 MPH
Number in Pace : 9606
Percent in Pace : 69.3%
Number of Vehicles > 55 MPH : 279
Percent of Vehicles > 55 MPH : 2.0%
Mean Speed(Average) : 44 MPH

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 5039
Site Code: 5039
Station ID: EB/WB Hamlin Road
West of Roundtree

Latitude: 0' 0.0000 Undefined

EB	1	36	41	46	51	56	61	66	71	76	81	86	91	96	Total	85th Percent	95th Percent
Start Time	35	40	45	50	55	60	65	70	75	80	85	90	95	999			
03/15/16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	12	11	56	65	13	5	0	1	0	0	0	0	0	0	163	49	54
10:00	19	10	45	69	15	3	0	0	0	0	0	0	0	0	161	49	53
11:00	18	11	62	96	28	1	0	0	0	0	0	0	0	0	216	49	53
12 PM	19	16	54	105	35	6	1	0	0	0	0	0	0	0	236	50	54
13:00	15	14	67	79	44	6	0	0	0	0	0	0	0	0	225	51	54
14:00	29	10	77	143	62	8	0	0	0	0	0	0	0	0	329	51	54
15:00	43	24	119	213	68	9	0	0	0	0	0	0	0	0	476	50	53
16:00	54	64	154	266	71	11	0	0	0	0	0	0	0	0	620	49	53
17:00	57	51	216	362	105	10	1	0	0	0	0	0	0	0	802	49	53
18:00	45	29	102	188	73	14	0	0	0	0	0	0	0	0	451	51	54
19:00	29	21	106	120	24	7	0	0	0	0	0	0	0	0	307	49	53
20:00	29	10	66	89	28	5	0	0	0	0	1	0	0	0	228	49	54
21:00	21	7	42	50	23	3	1	0	0	0	0	0	0	0	147	51	54
22:00	4	4	20	29	23	4	2	0	0	0	0	0	0	0	86	53	57
23:00	5	0	4	19	15	1	1	0	1	0	0	0	0	0	46	53	58
Total	399	282	1190	1893	627	93	6	1	1	0	1	0	0	0	4493		
Percent	8.9%	6.3%	26.5%	42.1%	14.0%	2.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	09:00	11:00	11:00	11:00	09:00		09:00								11:00	
Vol.	19	11	62	96	28	5		1							216		
PM Peak	17:00	16:00	17:00	17:00	17:00	18:00	22:00		23:00		20:00				17:00		
Vol.	57	64	216	362	105	14	2		1		1			802			

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 5039
Site Code: 5039
Station ID: EB/WB Hamlin Road
West of Roundtree

Latitude: 0' 0.0000 Undefined

EB	Start Time	1	36	41	46	51	56	61	66	71	76	81	86	91	96	Total	85th Percent	95th Percent
		35	40	45	50	55	60	65	70	75	80	85	90	95	999			
03/16/16		0	1	4	12	8	2	1	0	0	0	0	0	0	0	28	54	59
01:00		3	0	2	5	3	0	0	0	0	0	0	0	0	0	13	51	53
02:00		2	0	1	5	0	0	0	0	0	0	0	0	0	0	8	48	49
03:00		0	0	2	5	2	0	0	0	0	0	0	0	0	0	9	51	53
04:00		0	2	2	3	1	0	0	0	0	0	0	0	0	0	8	49	52
05:00		4	0	15	19	4	1	0	0	0	0	0	0	0	0	43	49	53
06:00		20	6	20	33	9	1	0	0	0	0	0	0	0	0	89	49	53
07:00		14	16	62	75	19	3	0	0	0	0	0	0	0	0	189	49	53
08:00		25	11	39	102	19	8	0	0	0	0	0	0	0	0	204	49	54
09:00		11	10	32	57	23	1	2	0	0	0	0	0	0	0	136	51	54
10:00		10	4	26	58	29	10	1	0	0	0	0	0	0	0	138	53	57
11:00		21	12	39	93	47	7	0	0	0	0	0	0	0	0	219	52	54
12 PM		15	13	38	99	53	7	1	0	0	0	0	0	0	0	226	52	54
13:00		21	20	35	123	44	7	0	0	0	0	0	0	0	0	250	51	54
14:00		23	12	47	133	72	17	2	0	0	0	0	0	0	0	306	53	56
15:00		47	29	124	257	99	13	1	0	0	0	0	0	0	0	570	51	54
16:00		121	82	222	312	142	27	1	1	0	0	0	0	0	0	908	51	54
17:00		71	65	231	366	155	25	3	0	0	0	0	0	0	0	916	51	54
18:00		42	13	101	235	109	24	1	0	0	0	0	0	0	0	525	52	54
19:00		24	5	65	106	69	8	0	0	0	0	0	0	0	0	277	52	54
20:00		24	6	52	89	33	3	2	0	0	0	0	0	0	0	209	51	54
21:00		18	9	26	70	34	6	4	0	0	0	0	0	0	0	167	52	56
22:00		13	3	16	49	11	2	1	1	0	0	0	0	0	0	96	50	54
23:00		3	1	10	17	12	7	1	0	0	0	0	0	0	0	51	55	58
Total		532	320	1211	2323	997	179	21	2	0	0	0	0	0	0	5585		
Percent		9.5%	5.7%	21.7%	41.6%	17.9%	3.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	07:00	08:00	11:00	10:00	09:00									11:00		
Vol.	25	16	62	102	47	10	2									219		
PM Peak	16:00	16:00	17:00	17:00	17:00	16:00	21:00	16:00								17:00		
Vol.	121	82	231	366	155	27	4	1								916		

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 5039
Site Code: 5039
Station ID: EB/WB Hamlin Road
West of Roundtree

Latitude: 0' 0.0000 Undefined

Start Time	1	36	41	46	51	56	61	66	71	76	81	86	91	96	Total	85th Percent	95th Percent
03/18/16	1	0	6	20	8	2	0	0	0	0	0	0	0	0	37	52	55
01:00	0	0	2	4	2	2	0	0	0	0	0	0	0	0	10	56	58
02:00	1	0	2	10	4	1	0	0	0	0	0	0	0	0	18	52	55
03:00	1	0	1	6	2	1	0	1	1	0	0	0	0	0	13	65	71
04:00	1	0	0	2	3	1	0	0	0	0	0	0	0	0	7	54	58
05:00	2	0	3	26	8	2	2	0	0	0	0	0	0	0	43	53	59
06:00	8	0	17	42	23	2	2	0	0	0	0	0	0	0	94	52	54
07:00	23	4	18	74	32	7	2	1	0	0	0	0	0	0	161	52	56
08:00	31	6	38	83	54	12	0	0	0	0	0	0	0	0	224	52	55
09:00	13	4	29	71	36	3	1	0	0	0	0	0	0	0	157	52	54
10:00	20	5	51	66	29	6	0	0	0	0	0	0	0	0	177	51	54
11:00	17	8	40	114	28	9	0	1	0	0	0	0	0	0	217	50	54
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	118	27	207	518	229	48	7	3	1	0	0	0	0	0	1158		
Percent	10.2%	2.3%	17.9%	44.7%	19.8%	4.1%	0.6%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	11:00	10:00	11:00	08:00	08:00	05:00	03:00	03:00								
Vol.	31	8	51	114	54	12	2	1	1						224		
PM Peak																	
Vol.																	
Total	1476	852	3667	6900	2893	528	50	10	4	0	1	0	0	0	16381		
Percent	9.0%	5.2%	22.4%	42.1%	17.7%	3.2%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 40 MPH
50th Percentile : 46 MPH
85th Percentile : 51 MPH
95th Percentile : 54 MPH

Stats 10 MPH Pace Speed : 41-50 MPH
Number in Pace : 10567
Percent in Pace : 64.5%
Number of Vehicles > 55 MPH : 593
Percent of Vehicles > 55 MPH : 3.6%
Mean Speed(Average) : 45 MPH

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 5039
Site Code: 5039
Station ID: EB/WB Hamlin Road
West of Roundtree

Latitude: 0' 0.0000 Undefined

WB, EB	1	36	41	46	51	56	61	66	71	76	81	86	91	96	Total	85th Percent	95th Percent
Start Time	35	40	45	50	55	60	65	70	75	80	85	90	95	999			
03/15/16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	28	20	123	161	56	9	0	1	0	0	0	0	0	0	398	50	54
10:00	33	23	96	161	47	4	0	0	0	0	0	0	0	0	364	49	53
11:00	38	19	117	192	47	6	0	0	0	0	0	0	0	0	419	49	53
12 PM	38	23	100	187	65	6	2	0	0	0	0	0	0	0	421	50	53
13:00	69	24	117	167	69	12	3	1	0	0	0	0	0	0	462	51	54
14:00	48	13	139	251	108	19	0	0	0	0	0	0	0	0	578	51	54
15:00	70	33	181	355	111	15	0	0	0	0	0	0	0	0	765	50	53
16:00	87	80	230	385	125	17	0	0	0	0	0	0	0	0	924	50	53
17:00	92	63	286	525	170	15	2	0	1	0	0	0	0	0	1154	50	53
18:00	75	37	166	335	110	18	1	0	0	0	0	0	0	0	742	50	54
19:00	40	25	146	197	55	10	0	0	0	0	0	0	0	0	473	49	53
20:00	36	17	94	141	46	10	1	1	0	0	1	0	0	0	347	50	54
21:00	24	8	69	98	39	4	1	0	0	0	0	0	0	0	243	50	54
22:00	5	5	25	50	29	6	3	0	0	0	0	0	0	0	123	53	57
23:00	6	1	13	31	22	2	1	0	1	0	0	0	0	0	77	53	55
Total	689	391	1902	3236	1099	153	14	3	2	0	1	0	0	0	7490		
Percent	9.2%	5.2%	25.4%	43.2%	14.7%	2.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	10:00	09:00	11:00	09:00	09:00		09:00								11:00	
Vol.	38	23	123	192	56	9		1							419		
PM Peak	17:00	16:00	17:00	17:00	17:00	14:00	13:00	13:00	17:00		20:00				17:00		
Vol.	92	80	286	525	170	19	3	1	1		1			1154			

City of Rochester Hills

1000 Rochester Hills Drive
Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

Site Code: 5039
Site Code: 5039
Station ID: EB/WB Hamlin Road
West of Roundtree

Latitude: 0' 0.0000 Undefined

WB, EB	1	36	41	46	51	56	61	66	71	76	81	86	91	96	Total	85th Percent	95th Percent
Start Time	35	40	45	50	55	60	65	70	75	80	85	90	95	999			
03/17/16	0	5	7	26	8	0	0	0	0	0	0	0	0	0	46	50	53
01:00	2	1	3	10	7	1	0	0	0	0	0	0	0	0	24	53	54
02:00	1	2	3	3	5	0	0	0	0	0	0	0	0	0	14	52	54
03:00	1	4	2	7	2	0	0	0	0	0	0	0	0	0	16	49	52
04:00	2	4	4	16	3	2	0	0	0	0	0	0	0	0	31	50	56
05:00	13	4	32	66	20	4	0	0	0	0	0	0	0	0	139	50	54
06:00	34	14	82	150	54	6	0	0	0	0	0	0	0	0	340	50	53
07:00	53	41	265	283	73	16	1	0	0	0	0	0	0	0	732	49	53
08:00	60	13	164	315	145	18	1	0	0	0	0	0	0	0	716	51	54
09:00	28	18	91	198	56	16	3	0	0	0	0	0	0	0	410	51	54
10:00	39	20	114	143	61	12	0	0	1	0	0	0	0	0	390	51	54
11:00	35	15	105	201	83	17	0	0	0	0	0	0	0	0	456	51	54
12 PM	44	36	140	208	75	13	2	1	0	0	0	0	0	0	519	50	54
13:00	42	25	71	188	104	17	2	1	0	0	0	0	0	0	450	52	54
14:00	59	43	111	265	115	23	3	1	0	0	0	0	0	0	620	52	54
15:00	57	32	200	326	144	23	3	2	0	0	0	0	0	0	787	51	54
16:00	100	43	239	420	186	35	1	0	1	0	0	0	0	0	1025	51	54
17:00	81	37	249	493	160	18	1	0	0	0	0	0	0	0	1039	50	53
18:00	62	22	127	288	145	20	3	0	0	0	0	0	0	0	667	52	54
19:00	30	35	99	181	79	9	0	0	0	0	0	0	0	0	433	51	54
20:00	24	22	87	148	49	10	1	0	1	0	0	0	0	0	342	50	54
21:00	21	18	60	106	38	4	0	0	0	0	0	0	0	0	247	50	53
22:00	9	13	34	67	26	5	0	0	0	0	0	0	0	0	154	51	54
23:00	1	3	27	49	16	3	1	0	0	0	0	0	0	0	100	51	54
Total	798	470	2316	4157	1654	272	22	5	3	0	0	0	0	0	9697		
Percent	8.2%	4.8%	23.9%	42.9%	17.1%	2.8%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	07:00	07:00	08:00	08:00	08:00	09:00		10:00							07:00	
Vol.	60	41	265	315	145	18	3		1						732		
PM Peak	16:00	14:00	17:00	17:00	16:00	16:00	14:00	15:00	16:00							17:00	
Vol.	100	43	249	493	186	35	3	2	1						1039		

City of Rochester Hills

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Rochester Hills, MI 48309

Paul G. Shumejko, P.E., PTOE - Transportation Engineer

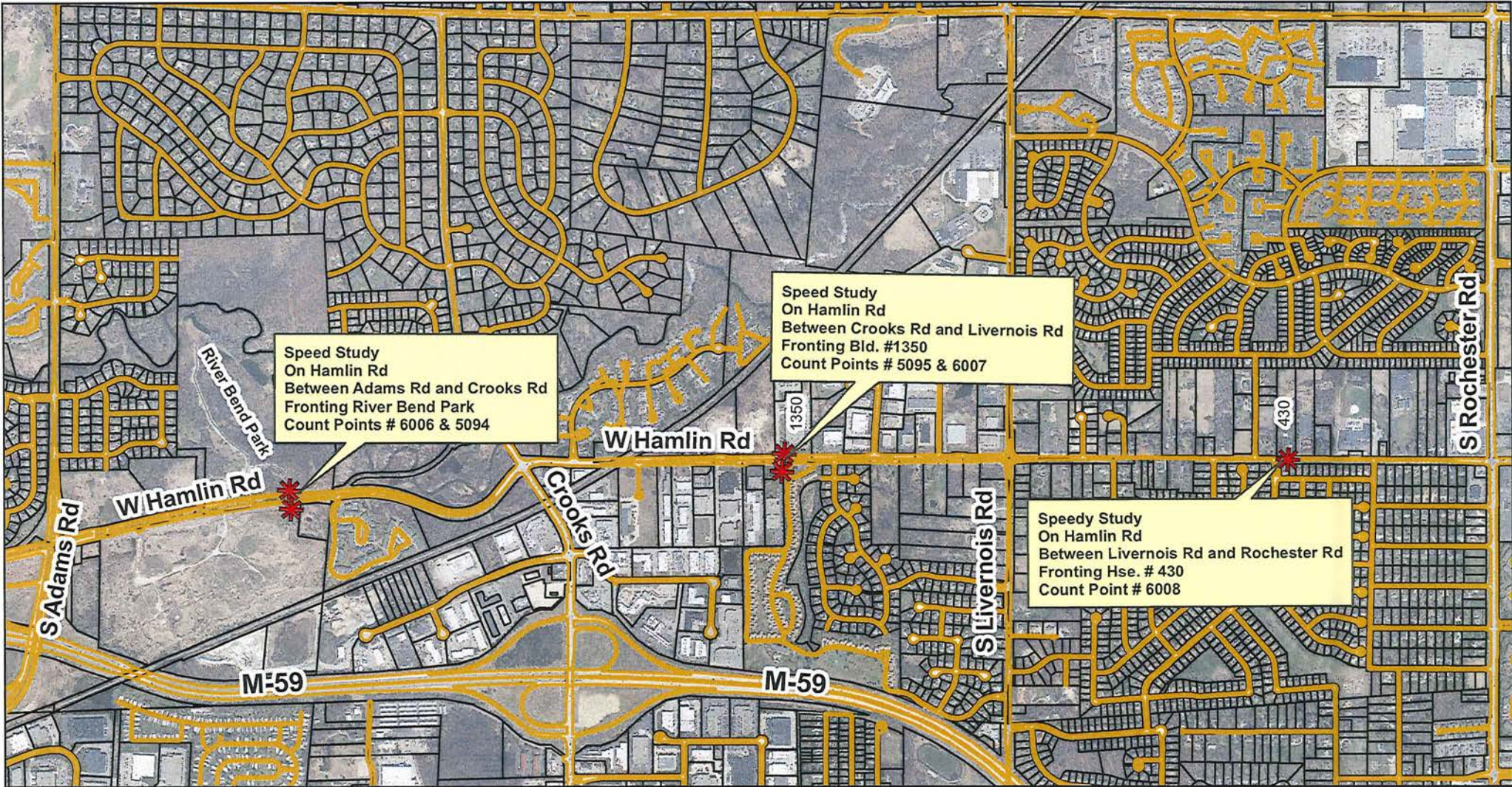
Site Code: 5039
Site Code: 5039
Station ID: EB/WB Hamlin Road
West of Roundtree

Latitude: 0' 0.0000 Undefined

WB, EB	1	36	41	46	51	56	61	66	71	76	81	86	91	96	Total	85th Percent	95th Percent
Start Time	35	40	45	50	55	60	65	70	75	80	85	90	95	999			
03/18/16	2	1	14	28	9	4	0	0	0	0	0	0	0	0	58	52	56
01:00	0	0	7	8	5	3	0	0	0	0	0	0	0	0	23	54	58
02:00	2	2	5	12	6	1	0	0	0	0	0	0	0	0	28	52	54
03:00	1	3	4	9	2	2	0	1	1	0	0	0	0	0	23	56	69
04:00	2	3	8	9	4	1	1	0	0	0	0	0	0	0	28	52	58
05:00	10	6	17	60	20	5	2	0	0	0	0	0	0	0	120	52	56
06:00	26	11	69	131	60	3	2	0	0	0	0	0	0	0	302	51	54
07:00	60	28	177	290	71	8	3	1	0	0	0	0	0	0	638	49	53
08:00	70	37	149	281	137	25	0	0	0	0	0	0	0	0	699	52	54
09:00	30	9	87	189	88	6	1	0	0	0	0	0	0	0	410	51	54
10:00	35	10	91	154	67	13	1	0	0	0	0	0	0	0	371	51	54
11:00	32	16	87	231	65	15	0	1	0	0	0	0	0	0	447	51	54
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	270	126	715	1402	534	86	10	3	1	0	0	0	0	0	3147		
Percent	8.6%	4.0%	22.7%	44.6%	17.0%	2.7%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	07:00	07:00	08:00	08:00	07:00	03:00	03:00								
Vol.	70	37	177	290	137	25	3	1	1						699		
PM Peak																	
Vol.																	
Total	2756	1574	7337	12836	4873	769	81	14	7	0	1	0	0	0	30248		
Percent	9.1%	5.2%	24.3%	42.4%	16.1%	2.5%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 40 MPH
50th Percentile : 46 MPH
85th Percentile : 51 MPH
95th Percentile : 54 MPH

Stats
10 MPH Pace Speed : 41-50 MPH
Number in Pace : 20173
Percent in Pace : 66.7%
Number of Vehicles > 55 MPH : 872
Percent of Vehicles > 55 MPH : 2.9%
Mean Speed(Average) : 45 MPH






Speed Study
On Hamlin Rd
Between Adams Rd and Crooks Rd
Fronting River Bend Park
Count Points # 6006 & 5094

Speed Study
On Hamlin Rd
Between Crooks Rd and Livernois Rd
Fronting Bld. #1350
Count Points # 5095 & 6007

Speedy Study
On Hamlin Rd
Between Livernois Rd and Rochester Rd
Fronting Hse. # 430
Count Point # 6008

**Speed Study
Hamlin Road
Between Adams Rd and Rochester Rd**

-  Road Edge
-  TaxParcel
-  Count Point



1 inch = 1,600 feet

