

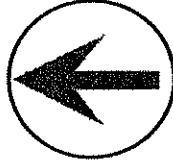
Date : 03/21/12

Count Number : TMC1205

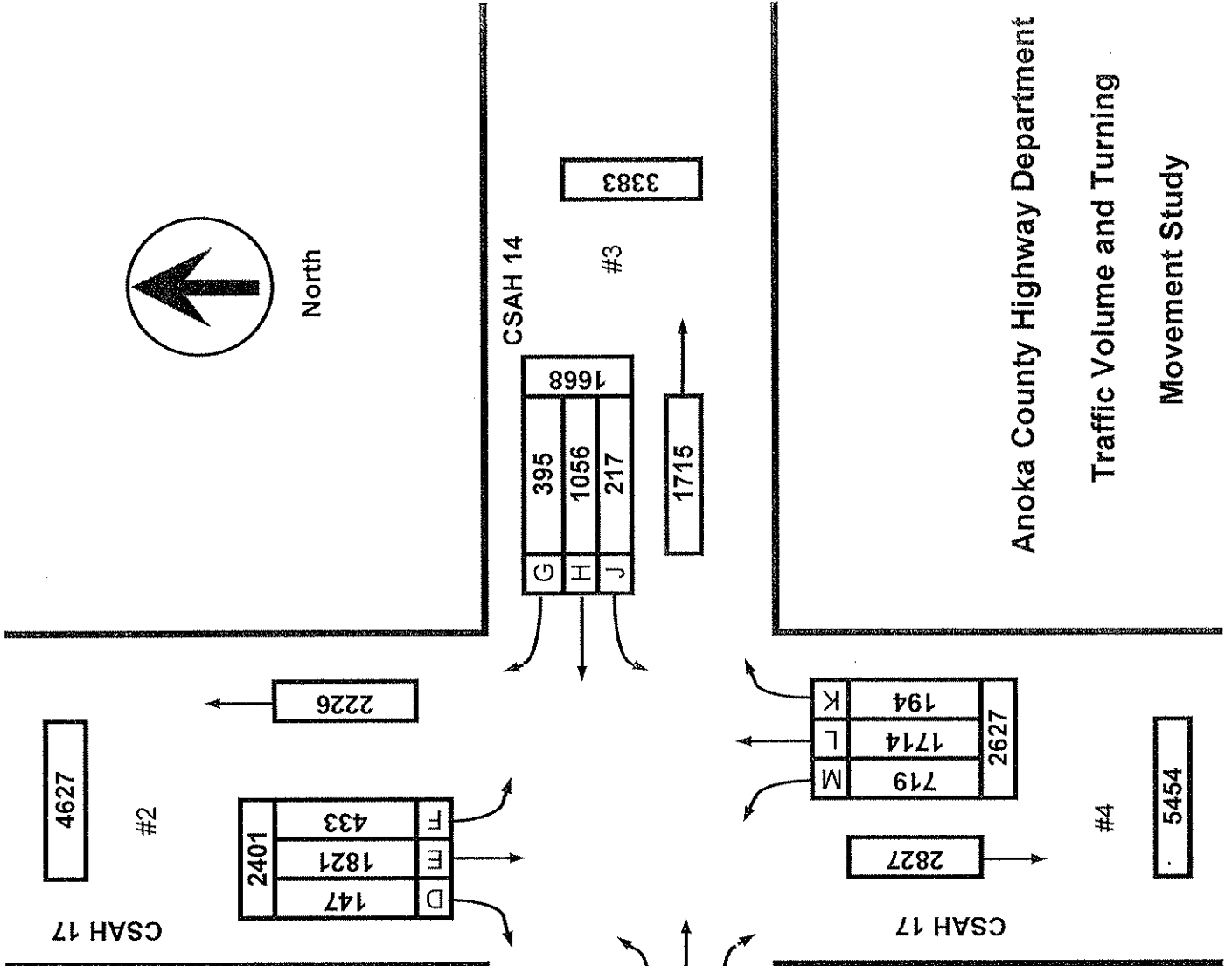
Location : CSAH 17 (Lexington Ave.)

@ CSAH 14 (Main St.)

Collection Period : 6-9 AM, 4-7 PM



North



EXISTING LANES OF APPROACH				TOTAL
RIGHT TURN LANE	LEFT TURN LANE	THRU LANES		
1	1	2		4
0	1	2		3
1	1	2		4
0	1	2		3

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date : 03/22/12

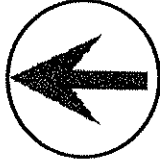
Count Number : TMC1205

Location : CSAH 17 (Lexington Ave.)

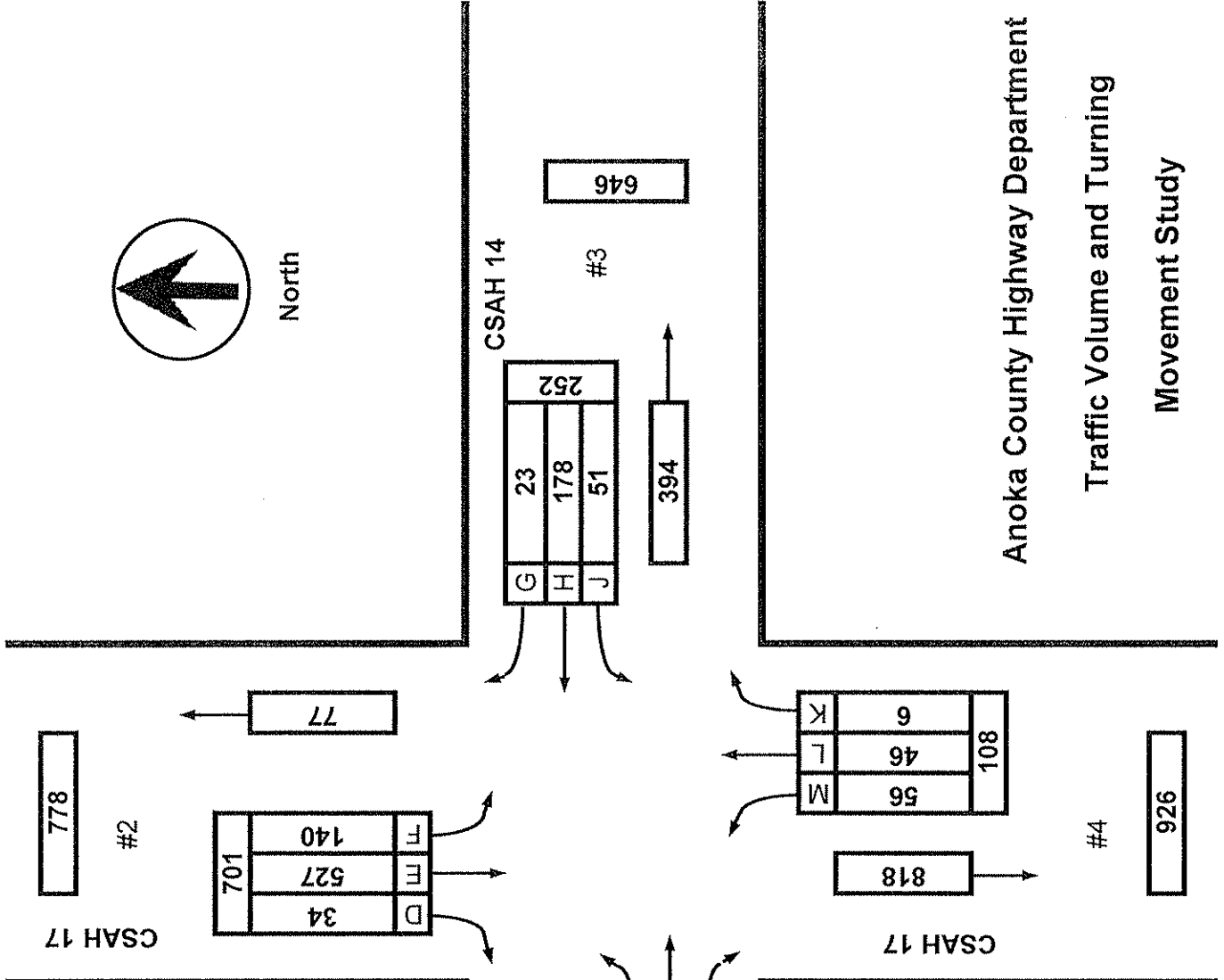
@ CSAH 14 (Main St.)

Collection Period : AM PEAK

Hour : 7:00 AM-8:00 AM



North



	EXISTING LANES OF APPROACH			TOTAL
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	
#1	1	1	2	4
#2	0	1	2	3
#3	1	1	2	4
#4	0	1	2	3

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date : 03/21/12

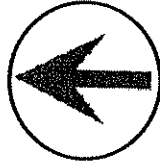
Count Number : TMC1205

Location : CSAH 17 (Lexington Ave.)

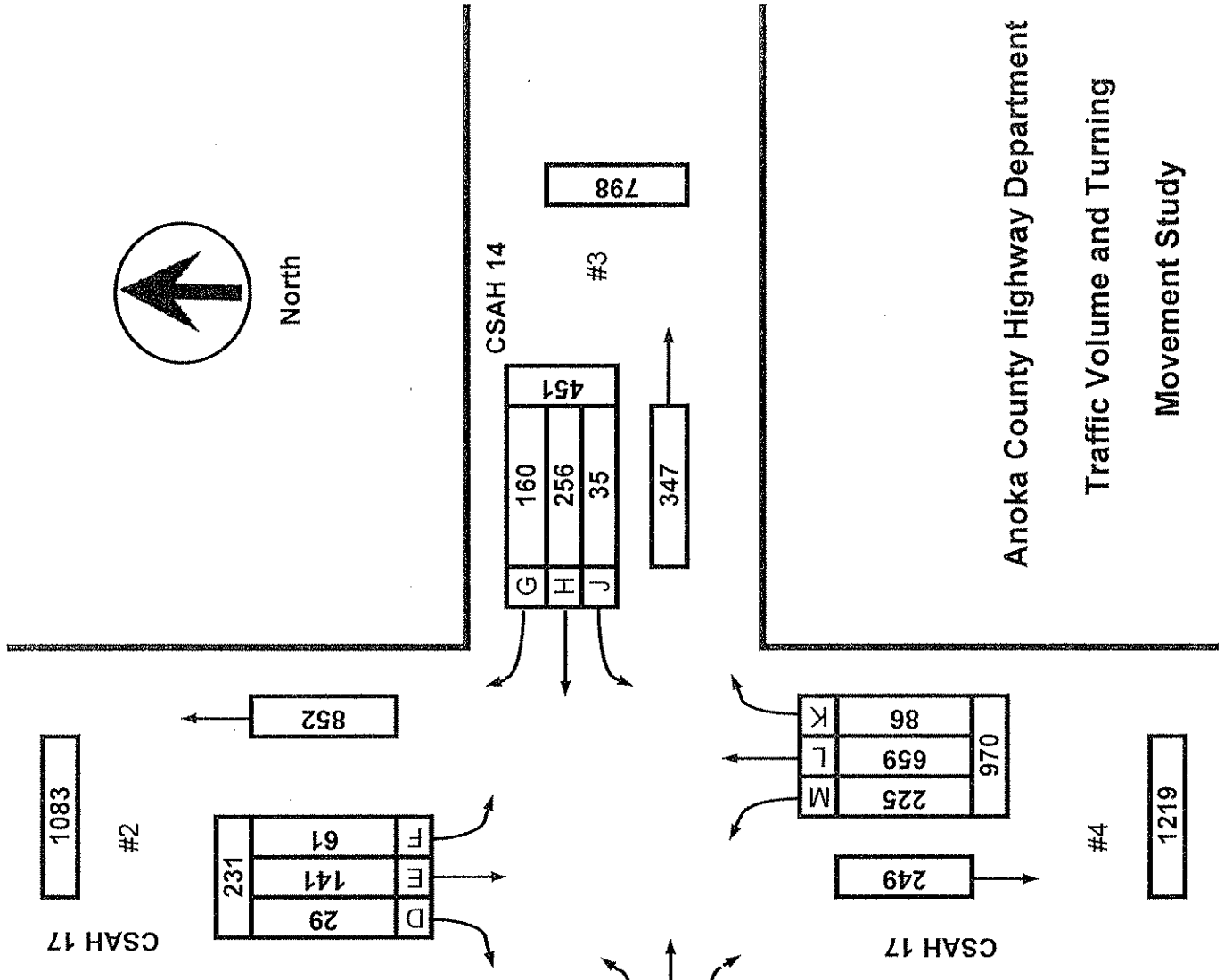
@ CSAH 14 (Main St.)

Collection Period : PM PEAK

Hour : 4:30 PM-5:30 PM



North



	EXISTING LANES OF APPROACH			TOTAL
	RIGHT TURN LANE	LEFT TURN LANE	THRU LANES	
#1	1	1	2	4
#2	0	1	2	3
#3	1	1	2	4
#4	0	1	2	3

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

1083

#2

CSAH 17

231	D	29
61	F	141
	T	61

852

CSAH 14

#1

816

306	A	73
200	B	200
33	C	33

510

CSAH 14

#3

160	G	451
256	H	256
35	J	35

347

798

225	M	970
659	L	659
86	K	86

249

CSAH 17

#4

1219



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Weather: Rainy and Mild
 Counter: DB-400
 Counted by: Josie/Terri

File Name : tmc1205
 Site Code : 12050202
 Start Date : 03/21/2012
 Page No : 1

Groups Printed- Unshifted

Start Time	CSAH 17 Southbound					CSAH 14 Westbound					CSAH 17 Northbound					CSAH 14 Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Heavys	App. Total	Left	Thru	Right	Heavys	App. Total	Left	Thru	Right	Heavys	App. Total	Left	Thru	Right	Heavys	App. Total			
06:00	17	112	3	0	132	9	10	2	0	21	1	6	0	2	7	0	17	35	1	52	3	212	215
06:15	18	143	3	0	164	6	19	6	2	31	1	13	2	0	16	2	24	36	2	62	4	273	277
06:30	18	137	3	1	158	8	29	4	3	41	6	4	0	0	10	2	40	35	3	77	7	286	293
06:45	29	137	7	6	173	15	24	3	3	42	10	8	3	1	21	0	48	37	5	85	15	321	336
Total	82	529	16	7	627	38	82	15	8	135	18	31	5	3	54	4	129	143	11	276	29	1092	1121
07:00	30	137	7	5	174	12	38	8	2	58	10	7	3	1	20	1	57	52	2	110	10	362	372
07:15	40	124	10	2	174	12	38	0	2	50	10	14	0	1	24	3	68	54	2	125	7	373	380
07:30	41	138	7	2	186	14	58	7	4	79	23	12	2	0	37	2	62	67	1	131	7	433	440
07:45	29	128	10	2	167	13	44	8	5	65	13	13	1	1	27	2	61	67	1	130	9	389	398
Total	140	527	34	11	701	51	178	23	13	252	56	46	6	3	108	8	248	240	6	496	33	1557	1590
08:00	23	108	4	1	135	10	30	8	0	48	14	19	2	3	35	4	37	32	1	73	5	291	296
08:15	14	88	8	0	110	8	27	9	2	44	11	13	2	2	26	2	40	25	6	67	10	247	257
08:30	17	89	6	3	112	6	26	5	4	37	9	11	3	3	23	2	37	38	7	77	17	249	266
08:45	11	62	8	1	81	9	32	6	3	47	13	17	0	3	30	1	26	24	1	51	8	209	217
Total	65	347	26	5	438	33	115	28	9	176	47	60	7	11	114	9	140	119	15	268	40	996	1036

*** BREAK ***

16:00	14	27	3	2	44	10	54	23	0	87	40	153	14	2	207	9	42	21	3	72	7	410	417
16:15	12	28	9	0	49	6	71	41	5	118	50	152	10	4	212	11	54	23	4	88	13	467	480
16:30	10	30	7	1	47	8	61	34	1	103	53	161	24	0	238	11	53	14	3	78	5	466	471
16:45	16	44	6	2	66	5	67	42	0	114	69	169	28	1	266	12	59	15	2	86	5	532	537
Total	52	129	25	5	206	29	253	140	6	422	212	635	76	7	923	43	208	73	12	324	30	1875	1905
17:00	15	31	5	1	51	14	62	46	2	122	45	152	13	1	210	4	42	19	0	65	4	448	452
17:15	20	36	11	1	67	8	66	38	1	112	58	177	21	1	256	6	46	25	2	77	5	512	517
17:30	10	43	8	0	61	9	64	24	1	97	58	130	12	1	200	9	58	27	1	94	3	452	455
17:45	11	34	5	0	50	7	52	23	2	82	47	131	11	0	189	6	58	31	1	95	3	416	419
Total	56	144	29	2	229	38	244	131	6	413	208	590	57	3	855	25	204	102	4	331	15	1828	1843
18:00	9	35	3	2	47	7	50	19	1	76	52	90	19	0	161	9	48	25	0	82	3	366	369
18:15	9	38	7	1	54	9	47	14	1	70	48	104	9	1	161	7	53	40	0	100	3	385	388
18:30	11	41	1	1	53	7	54	16	0	77	44	95	9	3	148	4	37	21	1	62	5	340	345
18:45	9	31	6	1	46	5	33	9	0	47	34	63	6	0	103	8	21	26	0	55	1	251	252
Total	38	145	17	5	200	28	184	58	2	270	178	352	43	4	573	28	159	112	1	299	12	1342	1354
Grand Total	433	1821	147	35	2401	217	1056	395	44	1668	719	1714	194	31	2627	117	1088	789	49	1994	159	8690	8849
Approch %	18	75.8	6.1			13	63.3	23.7			27.4	65.2	7.4			5.9	54.6	39.6					
Total %	5	21	1.7		27.6	2.5	12.2	4.5		19.2	8.3	19.7	2.2		30.2	1.3	12.5	9.1		22.9	1.8	98.2	

Start Time	CSAH 17 Southbound				CSAH 14 Westbound				CSAH 17 Northbound				CSAH 14 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00																	
07:00	30	137	7	174	12	38	8	58	10	7	3	20	1	57	52	110	362
07:15	40	124	10	174	12	38	0	50	10	14	0	24	3	68	54	125	373
07:30	41	138	7	186	14	58	7	79	23	12	2	37	2	62	67	131	433
07:45	29	128	10	167	13	44	8	65	13	13	1	27	2	61	67	130	389
Total Volume	140	527	34	701	51	178	23	252	56	46	6	108	8	248	240	496	1557
% App. Total	20	75.2	4.9		20.2	70.6	9.1		51.9	42.6	5.6		1.6	50	48.4		
PHF	.854	.955	.850	.942	.911	.767	.719	.797	.609	.821	.500	.730	.667	.912	.896	.947	.899

Peak Hour Analysis From 12:00 to 18:45 - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 16:30																	
16:30	10	30	7	47	8	61	34	103	53	161	24	238	11	53	14	78	466
16:45	16	44	6	66	5	67	42	114	69	169	28	266	12	59	15	86	532
17:00	15	31	5	51	14	62	46	122	45	152	13	210	4	42	19	65	448
17:15	20	36	11	67	8	66	38	112	58	177	21	256	6	46	25	77	512
Total Volume	61	141	29	231	35	256	160	451	225	659	86	970	33	200	73	306	1958
% App. Total	26.4	61	12.6		7.8	56.8	35.5		23.2	67.9	8.9		10.8	65.4	23.9		
PHF	.763	.801	.659	.862	.625	.955	.870	.924	.815	.931	.768	.912	.688	.847	.730	.890	.920

**ANOKA COUNTY HIGHWAY
PC-WARRANTS
TRAFFIC SIGNAL WARRANT ANALYSIS**

Study Name : TMC1205
Study Date : 03/22/12
Page No. : 1

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 17
Number of Lanes: 2
Approach Speed: 55
Total Approach Volume: 2,627

Southbound: CSAH 17
Number of Lanes: 2
Approach Speed: 55
Total Approach Volume: 2,401

Minor Street Approaches

Eastbound: CSAH 14
Number of Lanes: 2
Total Approach Volume: 1,994

Westbound: CSAH 14
Number of Lanes: 2
Total Approach Volume: 1,668

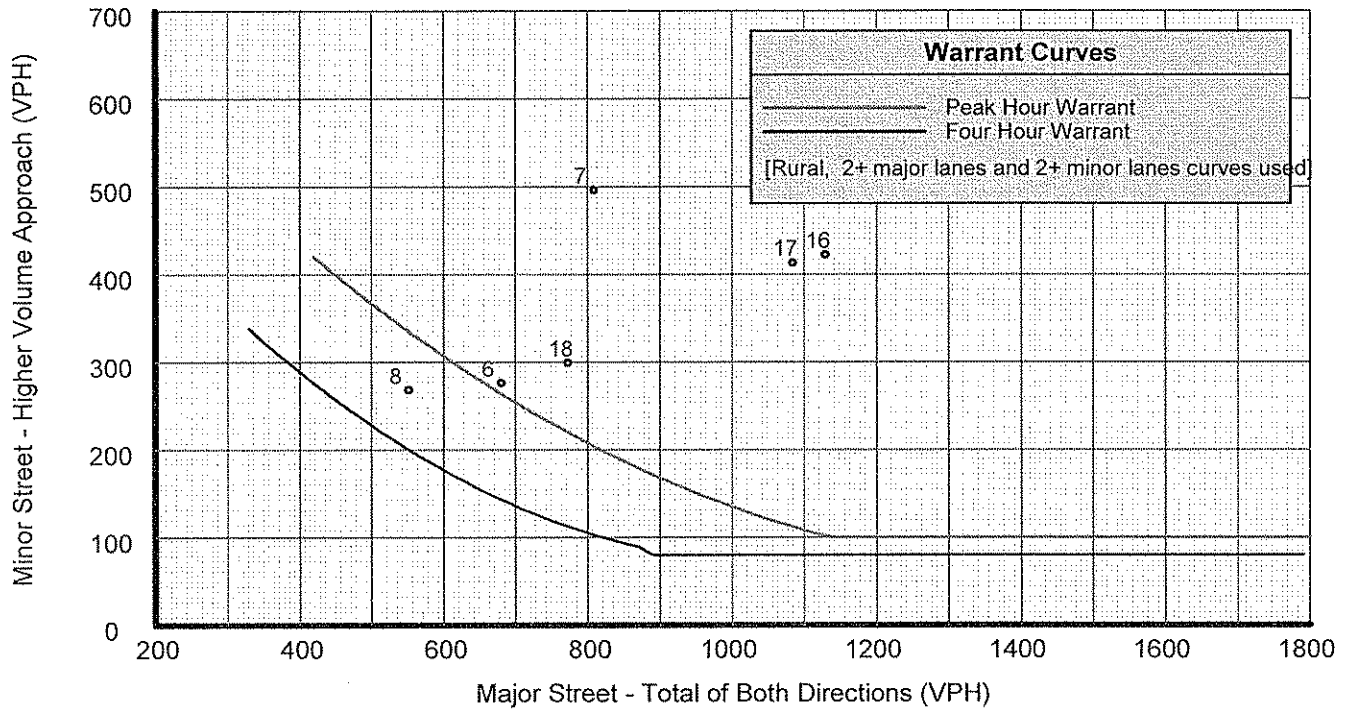
Warrant Summary (Rural values apply.)

Warrant 1 - Eight Hour Vehicular Volumes	Not Satisfied
Warrant 1A - Minimum Vehicular Volume	Not Satisfied
Required volumes reached for 6 hours, 8 are needed	
Warrant 1B - Interruption of Continuous Traffic	Not Satisfied
Required volumes reached for 5 hours, 8 are needed	
Warrant 1 A&B - Combination of Warrants	Not Satisfied
Required volumes reached for 6 hours, 8 are needed	
Warrant 2 - Four Hour Volumes	Satisfied
Number of hours (6) volumes exceed minimum >= minimum required (4).	
Warrant 3 - Peak Hour	Satisfied
Warrant 3A - Peak Hour Delay	Satisfied
Number of hours (21) volumes exceed minimum >= required (1). Delay data not evaluated.	
Warrant 3B - Peak Hour Volumes	Satisfied
Volumes exceed minimums for at least one hour.	
Warrant 4 - Pedestrian Volumes	Not Evaluated
Warrant 5 - School Crossing	Not Evaluated
Warrant 6 - Coordinated Signal System	Not Evaluated
Warrant 7 - Crash Experience	Not Satisfied
Number of accidents (1) is less than minimum (5). Volume minimums are not met.	
Warrant 8 - Roadway Network	Not Evaluated

ANOKA COUNTY HIGHWAY PC-WARRANTS TRAFFIC SIGNAL WARRANT ANALYSIS

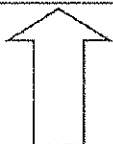
Study Name : TMC1205
Study Date : 03/22/12
Page No. : 2

Signal Warrants - Summary



Analysis of 8-Hour Volume Warrants:

Hour Begin	Major Total	Higher Minor Vol	Dir	War-1A			War-1B			War-1A&B		
				Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?	Major Crit	Minor Crit	Meets?
00:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
01:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
02:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
03:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
04:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
05:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
06:00	681	276	EB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
07:00	809	496	EB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
08:00	552	268	EB	420-Yes	140-Yes	Both	630-No	70-Yes	Minor	504-Yes	112-Yes	Both
09:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
10:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
11:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
12:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
13:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
14:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
15:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
16:00	1,129	422	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
17:00	1,084	413	WB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
18:00	773	299	EB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
19:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
20:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
21:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
22:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
23:00	0	0	EB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---



NORTH

COUNT LOCATION:

CSAH 17 (Lexington Ave.)

DATE:

03/21/2012

@ CSAH 14 (Main St.)

APP. #1 = CSAH 14

APP. #2 = CSAH 17

APP. #3 = CSAH 14

APP. #4 = CSAH 17

APP.
#2

APP.
#1

APP.
#3

APP.
#4

HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT

- A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
- B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
- C. BUSES- A HEAVY VEHICLE INVOLVED IN THE TRANSPORTATION OF GROUPS OF PEOPLE.

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
6:00-6:15AM						3		
6:15-6:30						2		1
6:30-6:45						2		5
6:45-7:00						11		3
HOURLY TOTAL						HOURLY TOTAL		27
7:00-7:15AM						8		2
7:15-7:30						7		1
7:30-7:45						6		2
7:45-8:00						4		4
HOURLY TOTAL						HOURLY TOTAL		34
8:00-8:15AM						4		
8:15-8:30						5		5
8:30-8:45						10		7
8:45-9:00						4		4
HOURLY TOTAL						HOURLY TOTAL		39
					TOTAL		TOTAL	100

TIME	PEDESTRIANS					HEAVY VEHICLES		
	APP. #1	APP. #2	APP. #3	APP. #4	15 MIN TOT	TRUCKS	RV	BUS
4:00-4:15PM						4		3
4:15-4:30						8		4
4:30-4:45						2		3
4:45-5:00						3		3
HOURLY TOTAL						HOURLY TOTAL		30
5:00-5:15PM						2		1
5:15-5:30						4		1
5:30-5:45						2		1
5:45-6:00						2		1
HOURLY TOTAL						HOURLY TOTAL		14
6:00-6:15PM								3
6:15-6:30						3		
6:30-6:45						4		1
6:45-7:00						1		
HOURLY TOTAL						HOURLY TOTAL		12
					TOTAL		TOTAL	56