

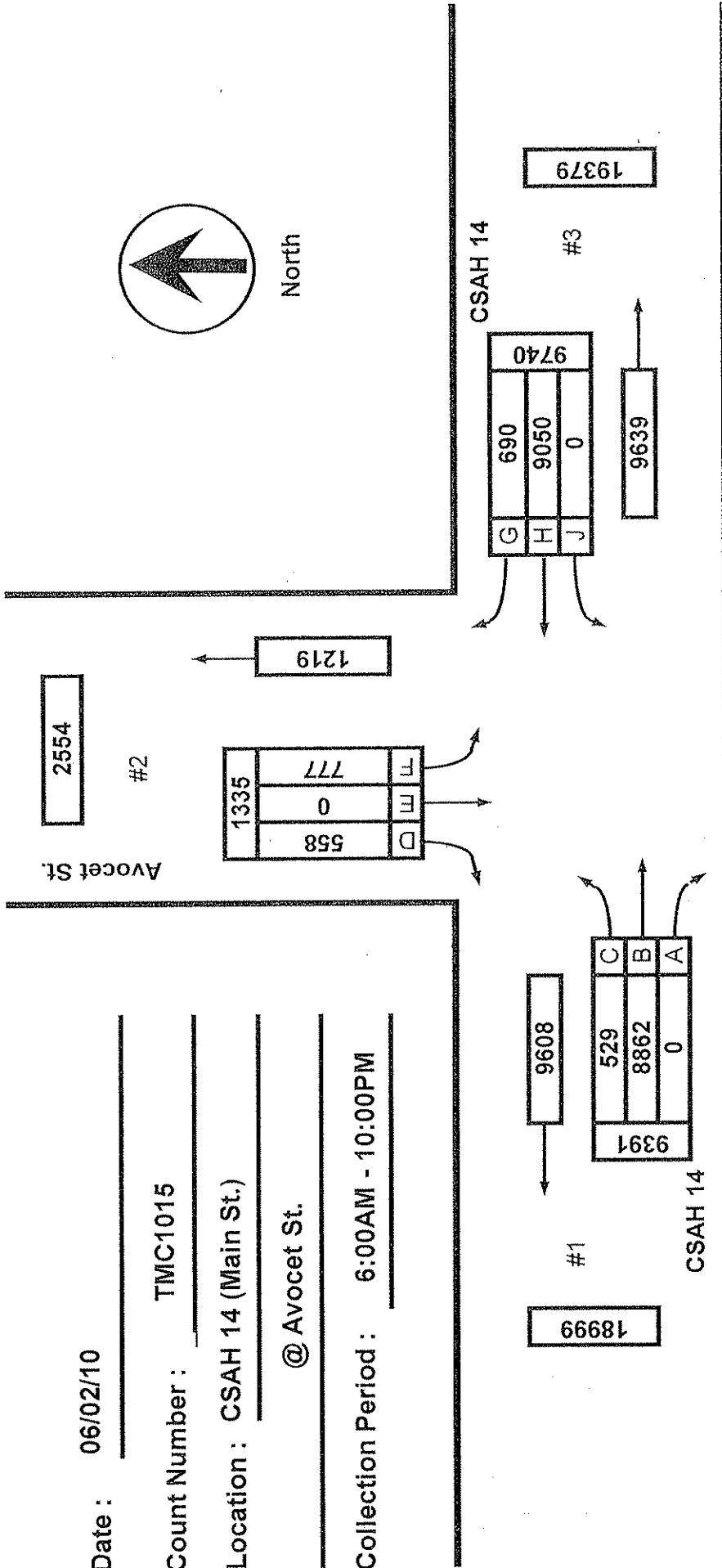
Date: 06/02/10

Count Number: TMC1015

Location: CSAH 14 (Main St.)

@ Avocet St.

Collection Period: 6:00AM - 10:00PM



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date : 06/04/10

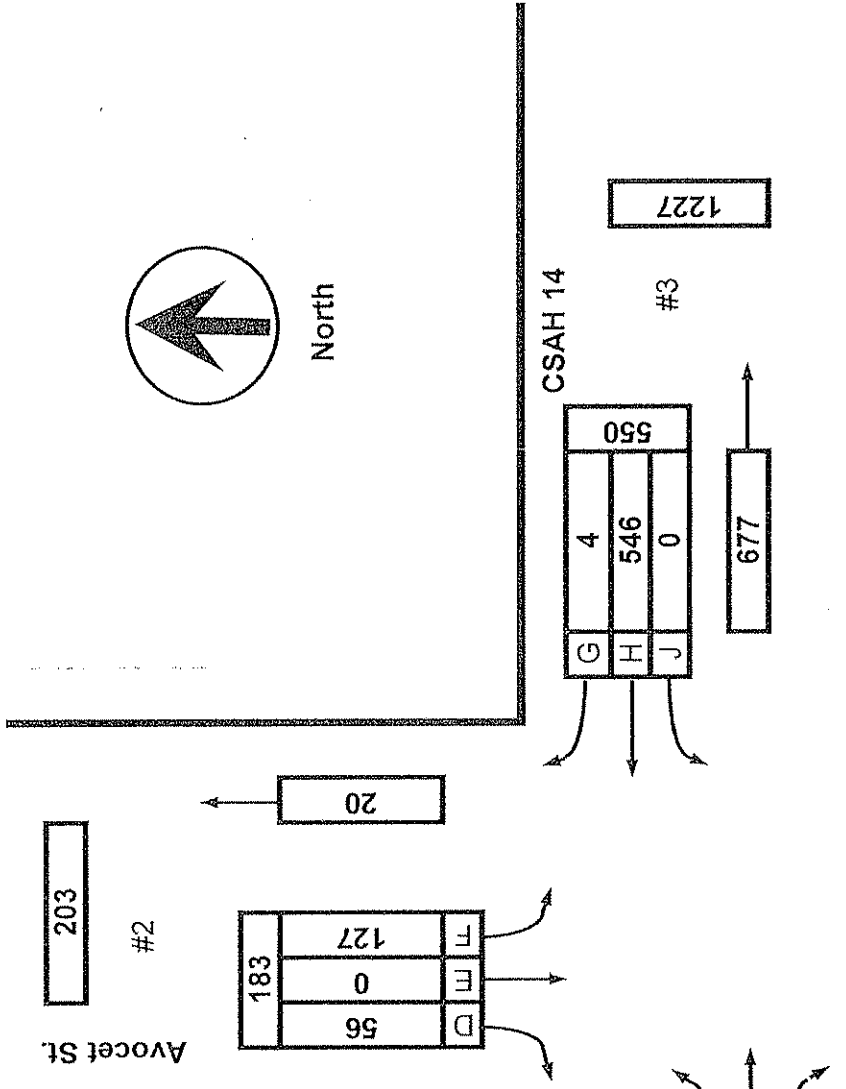
Count Number : TMC1015

Location : CSAH 14 (Main St.)

@ Avocet St.

Collection Period : AM PEAK

Hour : 7:00-8:00 AM



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date : 06/02/10

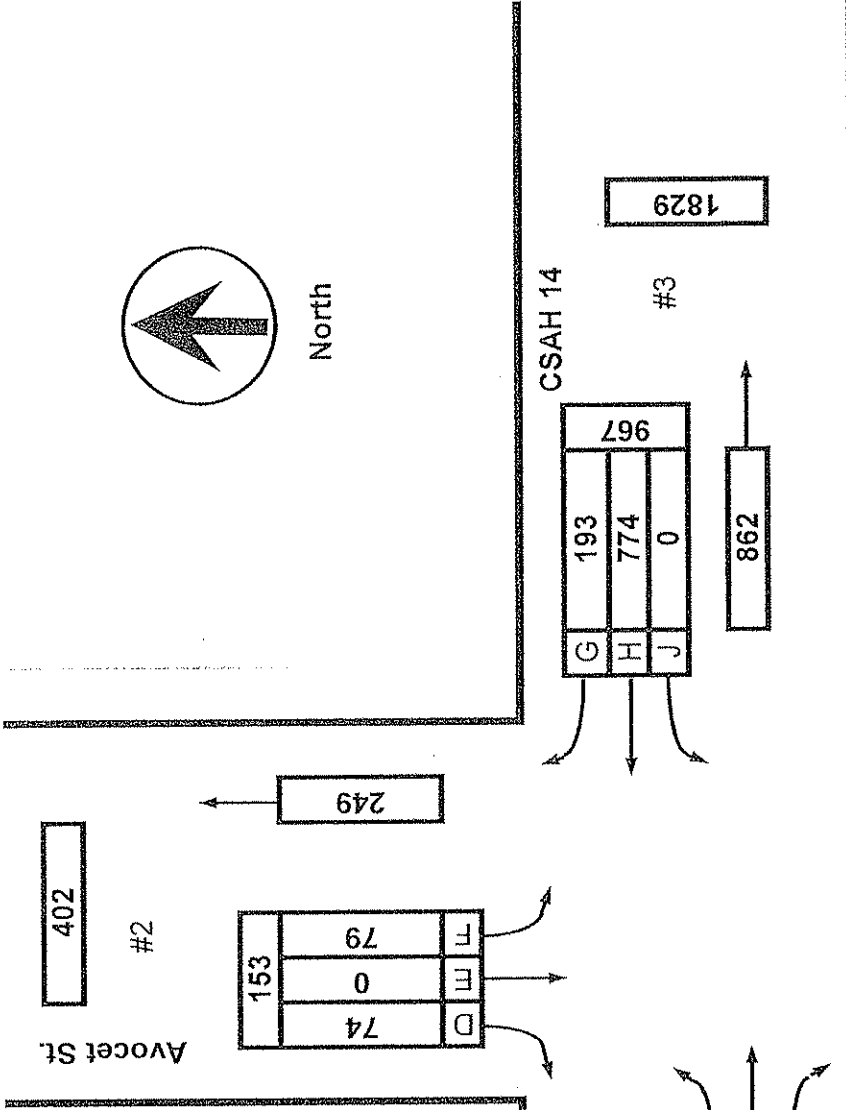
Count Number : TMC1015

Location : CSAH 14 (Main St.)

@ Avocet St.

Collection Period : PM PEAK

Hour : 5:00-6:00 PM



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study



Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Weather: Warm and Sunny
 Counter: DB-400
 Counted by: Andy/Brett

File Name : TMC1015
 Site Code : 10150202
 Start Date : 6/2/2010
 Page No : 2

Groups Printed- Unshifted

Start Time	Avocet St Southbound					CSAH 14 Westbound					None Northbound					CSAH 14 Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total	Left	Thru	Right	Heavy	App. Total			
18:00	13	0	18	0	31	0	191	34	1	225	0	0	0	0	0	14	193	0	1	207	2	463	465
18:15	8	0	7	0	15	0	157	9	1	166	0	0	0	0	0	12	139	0	1	151	2	332	334
18:30	8	0	8	0	16	0	162	7	2	169	0	0	0	0	0	9	133	0	1	142	3	327	330
18:45	16	0	8	0	24	0	171	8	1	179	0	0	0	0	0	11	156	0	2	167	3	370	373
Total	45	0	41	0	86	0	681	58	5	739	0	0	0	0	0	46	621	0	5	667	10	1492	1502
19:00	5	0	10	0	15	0	179	9	1	188	0	0	0	0	0	11	132	0	0	143	1	346	347
19:15	11	0	3	0	14	0	129	12	1	141	0	0	0	0	0	8	164	0	0	172	1	327	328
19:30	11	0	9	1	20	0	144	10	2	154	0	0	0	0	0	7	156	0	5	163	8	337	345
19:45	8	0	8	0	16	0	113	11	1	124	0	0	0	0	0	12	109	0	1	121	2	261	263
Total	35	0	30	1	65	0	565	42	5	607	0	0	0	0	0	38	561	0	6	599	12	1271	1283
20:00	14	0	6	0	20	0	127	15	0	142	0	0	0	0	0	6	122	0	0	128	0	290	290
20:15	5	0	0	0	5	0	121	13	4	134	0	0	0	0	0	17	143	0	0	160	4	299	303
20:30	3	0	3	0	6	0	138	13	0	151	0	0	0	0	0	18	132	0	0	150	0	307	307
20:45	7	0	5	0	12	0	131	8	0	139	0	0	0	0	0	17	137	0	0	154	0	305	305
Total	29	0	14	0	43	0	517	49	4	566	0	0	0	0	0	58	534	0	0	592	4	1201	1205
21:00	7	0	3	0	10	0	125	7	0	132	0	0	0	0	0	6	137	0	0	143	0	285	285
21:15	0	0	2	0	2	0	102	7	0	109	0	0	0	0	0	4	128	0	0	132	0	243	243
21:30	4	0	1	0	5	0	90	6	0	96	0	0	0	0	0	4	93	0	1	97	1	198	199
21:45	5	0	4	0	9	0	91	5	0	96	0	0	0	0	0	4	90	0	0	94	0	199	199
Total	16	0	10	0	26	0	408	25	0	433	0	0	0	0	0	18	448	0	1	466	1	925	926
Grand Total	777	0	558	20	1335	0	9050	690	284	9740	0	0	0	0	0	529	8862	0	340	9391	644	20466	21110
Approch %	58.2	0	41.8			0	92.9	7.1			0	0	0			5.6	94.4	0					
Total %	3.8	0	2.7		6.5	0	44.2	3.4		47.6	0	0	0			2.6	43.3	0		45.9	3.1	96.9	

Start Time	Avocet St Southbound					CSAH 14 Westbound					None 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	23	0	11	34	0	98	0	98	0	0	0	0	0	4	143	0	147	279			
07:15	37	0	12	49	0	131	1	132	0	0	0	0	0	1	136	0	137	318			
07:30	30	0	17	47	0	140	1	141	0	0	0	0	0	7	135	0	142	330			
07:45	37	0	16	53	0	177	2	179	0	0	0	0	0	4	136	0	140	372			
Total Volume	127	0	56	183	0	546	4	550	0	0	0	0	0	16	550	0	566	1299			
% App. Total	69.4	0	30.6		0	99.3	0.7		0	0	0		0	2.8	97.2	0					
PHF	.858	.000	.824	.863	.000	.771	.500	.768	.000	.000	.000	.000	.000	.571	.962	.000	.963	.873			

Start Time	Avocet St Southbound					CSAH 14 Westbound					None 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 12:00 to 21:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	16	0	14	30	0	218	36	254	0	0	0	0	0	9	210	0	219	503			
17:15	19	0	13	32	0	176	52	228	0	0	0	0	0	22	192	0	214	474			
17:30	29	0	23	52	0	183	58	241	0	0	0	0	0	8	190	0	198	491			
17:45	15	0	24	39	0	197	47	244	0	0	0	0	0	17	191	0	208	491			
Total Volume	79	0	74	153	0	774	193	967	0	0	0	0	0	56	783	0	839	1959			
% App. Total	51.6	0	48.4		0	80	20		0	0	0		0	6.7	93.3	0					
PHF	.681	.000	.771	.736	.000	.888	.832	.952	.000	.000	.000	.000	.000	.636	.932	.000	.958	.974			

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

Study Name : TMC1015
Study Date : 06/15/10
Page No. : 1

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 14
Number of Lanes: 2
Approach Speed: 55
Total Approach Volume: 9,391

Westbound: CSAH 14
Number of Lanes: 2
Approach Speed: 55
Total Approach Volume: 9,740

Minor Street Approaches

Northbound: None
Number of Lanes: 2

Total Approach Volume: 0

Southbound: Avocet St
Number of Lanes: 2

Total Approach Volume: 1,335

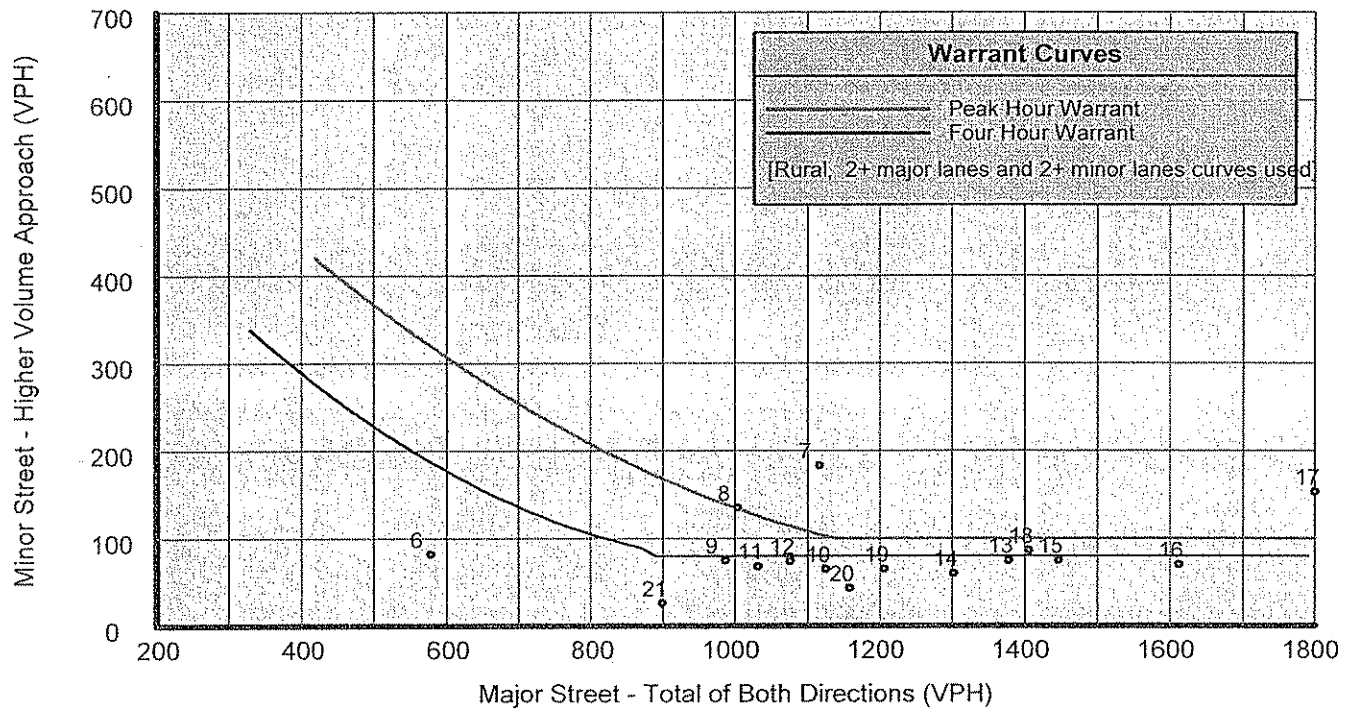
Warrant Summary (Rural values apply.)

Warrant 1 - Eight Hour Vehicular Volumes	Satisfied
Warrant 1A - Minimum Vehicular Volume Not Satisfied	
Required volumes reached for 2 hours, 8 are needed	
Warrant 1B - Interruption of Continuous Traffic Satisfied	
Required volumes reached for 9 hours, 8 are needed	
Warrant 1 A&B - Combination of Warrants Not Satisfied	
Required volumes reached for 3 hours, 8 are needed	
 Warrant 2 - Four Hour Volumes	 Satisfied
Number of hours (4) volumes exceed minimum >= minimum required (4).	
 Warrant 3 - Peak Hour	 Satisfied
Warrant 3A - Peak Hour Delay Satisfied	
Number of hours (6) 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 Evaluated
 Warrant 8 - Roadway Network	 Not Evaluated

ANOKA COUNTY HIGHWAY PC-WARRANTS TRAFFIC SIGNAL WARRANT ANALYSIS

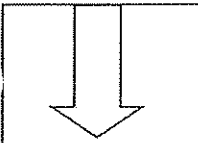
Study Name : TMC1015
Study Date : 06/15/10
Page No. : 2

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	NB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
01:00	0	0	NB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
02:00	0	0	NB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
03:00	0	0	NB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
04:00	0	0	NB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
05:00	0	0	NB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
06:00	578	82	SB	420-Yes	140-No	Major	630-No	70-Yes	Minor	504-Yes	112-No	Major
07:00	1,116	183	SB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
08:00	1,004	135	SB	420-Yes	140-No	Major	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
09:00	987	75	SB	420-Yes	140-No	Major	630-Yes	70-Yes	Both	504-Yes	112-No	Major
10:00	1,125	65	SB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
11:00	1,032	68	SB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
12:00	1,076	74	SB	420-Yes	140-No	Major	630-Yes	70-Yes	Both	504-Yes	112-No	Major
13:00	1,378	75	SB	420-Yes	140-No	Major	630-Yes	70-Yes	Both	504-Yes	112-No	Major
14:00	1,302	60	SB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
15:00	1,446	75	SB	420-Yes	140-No	Major	630-Yes	70-Yes	Both	504-Yes	112-No	Major
16:00	1,612	70	SB	420-Yes	140-No	Major	630-Yes	70-Yes	Both	504-Yes	112-No	Major
17:00	1,806	153	SB	420-Yes	140-Yes	Both	630-Yes	70-Yes	Both	504-Yes	112-Yes	Both
18:00	1,406	86	SB	420-Yes	140-No	Major	630-Yes	70-Yes	Both	504-Yes	112-No	Major
19:00	1,206	65	SB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
20:00	1,158	43	SB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
21:00	899	26	SB	420-Yes	140-No	Major	630-Yes	70-No	Major	504-Yes	112-No	Major
22:00	0	0	NB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---
23:00	0	0	NB	420-No	140-No	---	630-No	70-No	---	504-No	112-No	---



COUNT LOCATION:

CSAH 14 (Main St.)

DATE:

6/4/2010

@ Avocet St.

NORTH

APP. #1 = CSAH 14
APP. #2 = None
APP. #3 = CSAH 14
APP. #4 = Avocet St.

APP. #2	APP. #3
APP. #1	APP. #4

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

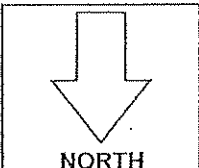
A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.

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								
6:15-6:30								2
6:30-6:45						5		3
6:45-7:00						3		19
HOURLY TOTAL						HOURLY TOTAL		32
7:00-7:15						7		8
7:15-7:30						5		18
7:30-7:45						9		12
7:45-8:00						7		11
HOURLY TOTAL						HOURLY TOTAL		77
8:00-8:15						12		10
8:15-8:30						10		10
8:30-8:45						13		10
8:45-9:00						9		9
HOURLY TOTAL						HOURLY TOTAL		83
9:00-9:15						7		11
9:15-9:30						6	1	12
9:30-9:45						13		9
9:45-10:00						5		
HOURLY TOTAL						HOURLY TOTAL		64
10:00-10:15						8		
10:15-10:30						8		3
10:30-10:45						3		2
10:45-11:00						7		1
HOURLY TOTAL						HOURLY TOTAL		32
11:00-11:15						12		2
11:15-11:30						11		2
11:30-11:45						10	1	2
11:45-12:00						8	1	1
HOURLY TOTAL						HOURLY TOTAL		50
12:00-12:15						10		
12:15-12:30						6		
12:30-12:45						15		4
12:45-1:00						7		1
HOURLY TOTAL						HOURLY TOTAL		43
1:00-1:15						8	1	2
1:15-1:30						7		1
1:30-1:45						8	1	
1:45-2:00	1		1		2	8	2	7
HOURLY TOTAL					2	HOURLY TOTAL		45
					TOTAL		TOTAL	426

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COUNT LOCATION:

CSAH 14 (Main St.)

DATE:

6/2/2010

@ Avocet St.

APP. #1 = CSAH 14
APP. #2 = None
APP. #3 = CSAH 14
APP. #4 = Avocet St.

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
2:00-2:15PM						6		18
2:15-2:30						6		19
2:30-2:45						3		12
2:45-3:00						8		6
HOURLY TOTAL						HOURLY TOTAL		78
3:00-3:15						11		1
3:15-3:30						10		6
3:30-3:45						6		5
3:45-4:00						7		1
HOURLY TOTAL						HOURLY TOTAL		47
4:00-4:15						11		8
4:15-4:30						3		11
4:30-4:45						3		4
4:45-5:00						7		1
HOURLY TOTAL						HOURLY TOTAL		48
5:00-5:15						7	1	4
5:15-5:30						3		1
5:30-5:45						3		
5:45-6:00						2		
HOURLY TOTAL						HOURLY TOTAL		21
6:00-6:15						2		
6:15-6:30						2		
6:30-6:45						3		
6:45-7:00						2	1	
HOURLY TOTAL						HOURLY TOTAL		10
7:00-7:15						1		
7:15-7:30						1		
7:30-7:45						7		
7:45-8:00						2		
HOURLY TOTAL						HOURLY TOTAL		11
8:00-8:15								
8:15-8:30						2		2
8:30-8:45								
8:45-9:00								
HOURLY TOTAL						HOURLY TOTAL		4
9:00-9:15								
9:15-9:30								
9:30-9:45						1		
9:45-10:00								
HOURLY TOTAL						HOURLY TOTAL		1
					TOTAL		TOTAL	646
				2				

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