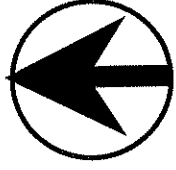


Date : 08/24/00

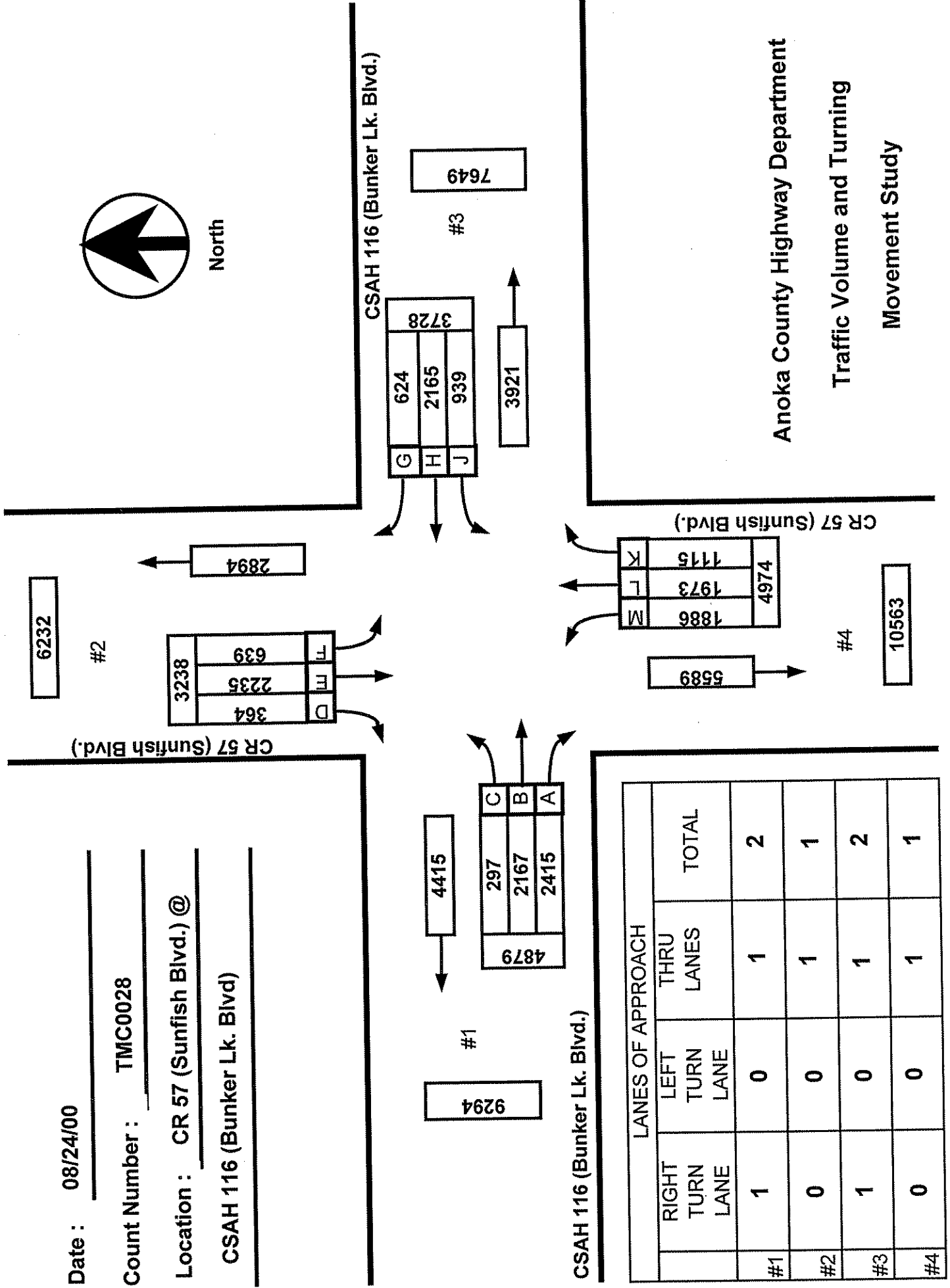
Count Number : TMC0028

Location : CR 57 (Sunfish Blvd.) @

CSAH 116 (Bunker Lk. Blvd)



North



**Anoka County Highway Department
Traffic Engineering
Traffic Volume and Turning Movement Stud**

Weather: Sunny
Counter TDC-8
Counted by: Ryan & Justin

File Name : TMC0028
Site Code : 00280101
Start Date : 08/24/2000
Page No : 1

Groups Printed- 1 - Unshifted

Start Time	CR 57 (Sunfish Blvd.) Southbound					CR 116 (Bunker Lk. Blvd.) Westbound					CR 57 (Sunfish Blvd.) Northbound					CR 116 (Bunker Lk. Blvd.) 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			
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
06:00	5	68	3	1	76	14	19	2	1	35	24	10	5	1	39	1	21	52	0	74	3	224	227
06:15	7	66	5	0	78	16	20	6	0	42	23	9	11	0	43	0	33	69	0	102	0	265	265
06:30	7	77	6	0	90	13	28	4	4	45	31	18	29	2	78	2	62	62	0	126	6	339	345
06:45	25	71	8	0	104	15	42	1	0	58	70	14	25	0	109	3	56	43	0	102	0	373	373
Total	44	282	22	1	348	58	109	13	5	180	148	51	70	3	269	6	172	226	0	404	9	1201	1210
07:00	20	48	7	1	75	19	39	2	1	60	38	26	14	1	78	7	42	36	0	85	3	298	301
07:15	25	54	4	3	83	18	30	6	2	54	24	15	31	0	70	4	43	57	2	104	7	311	318
07:30	8	51	3	0	62	23	30	3	0	56	33	12	26	0	71	1	56	40	1	97	1	286	287
07:45	16	65	3	1	84	20	21	4	0	45	46	18	4	1	68	7	84	64	2	155	4	352	356
Total	69	218	17	5	304	80	120	15	3	215	141	71	75	2	287	19	225	197	5	441	15	1247	1262
08:00	15	51	8	0	74	19	33	1	0	53	36	20	3	0	59	3	68	52	4	123	4	309	313
08:15	4	35	2	1	41	10	25	3	0	38	19	13	3	2	35	8	22	44	1	74	4	188	192
08:30	5	33	8	2	46	18	16	3	0	37	24	9	6	2	39	3	27	38	2	68	6	190	196
08:45	6	29	7	2	42	24	28	2	0	54	19	18	6	1	43	1	36	35	4	72	7	211	218
Total	30	148	25	5	203	71	102	9	0	182	98	60	18	5	176	15	153	169	11	337	21	898	919
09:00	10	25	7	1	42	14	28	6	1	48	17	13	6	0	36	4	24	37	2	65	4	191	195
09:15	8	32	7	3	47	19	24	2	2	45	18	9	15	2	42	8	31	31	0	70	7	204	211
09:30	7	20	7	2	34	11	29	2	2	42	14	7	14	3	35	1	28	49	0	78	7	189	196
09:45	8	28	3	0	39	19	13	4	0	36	18	22	11	2	51	4	27	36	1	67	3	193	196
Total	33	105	24	6	182	63	94	14	5	171	67	51	46	7	164	17	110	153	3	280	21	777	798
10:00	8	53	4	1	65	13	40	13	3	66	26	21	10	1	57	1	32	32	0	65	5	253	258
10:15	7	27	8	1	42	16	15	6	1	37	18	14	3	0	35	5	32	22	3	59	5	173	178
10:30	5	27	1	0	33	4	26	6	1	36	25	36	10	1	71	1	15	37	1	53	3	193	196
10:45	9	36	1	0	46	10	16	9	1	35	22	20	16	1	58	1	23	32	2	56	4	195	199
Total	29	143	14	2	186	43	97	34	6	174	91	91	39	3	221	8	102	123	6	233	17	814	831
11:00	9	38	1	1	48	25	16	10	0	51	25	21	15	3	61	9	24	31	0	64	4	224	228
11:15	5	37	2	0	44	18	17	6	0	41	15	26	6	0	47	8	31	32	2	71	2	203	205
11:30	12	27	3	0	42	14	25	8	0	47	18	34	7	2	59	14	49	43	3	106	5	254	259
11:45	16	27	8	1	51	6	30	7	1	43	11	11	8	1	30	4	37	23	1	64	4	188	192
Total	42	129	14	2	185	63	88	31	1	182	69	92	36	6	197	35	141	129	6	305	15	869	884
12:00	12	40	11	1	63	20	31	9	1	60	12	15	25	0	52	7	52	40	1	99	3	274	277
12:15	16	28	9	0	53	24	25	8	3	57	7	35	51	3	93	7	31	28	1	66	7	269	276
12:30	11	27	8	3	46	21	54	15	2	90	11	34	72	1	117	2	37	24	1	63	7	316	323
12:45	24	20	8	2	52	15	80	21	0	116	9	11	62	0	82	4	51	45	5	100	7	350	357
Total	63	115	36	6	214	80	190	53	6	323	39	95	210	4	344	20	171	137	8	328	24	1209	1233
13:00	18	27	4	3	49	11	49	31	3	91	41	42	22	1	105	11	35	25	5	71	12	316	328
13:15	4	43	12	1	59	8	30	13	0	51	31	36	25	1	92	1	35	32	1	68	3	270	273
13:30	7	27	3	4	37	18	37	12	3	67	27	34	33	1	94	8	38	33	1	79	9	277	286
13:45	16	29	1	0	46	20	43	14	3	77	24	31	21	2	76	4	35	36	0	75	5	274	279
Total	45	126	20	8	191	57	159	70	9	286	123	143	101	5	367	24	143	126	7	293	29	1137	1166
14:00	18	23	8	1	49	13	30	4	2	47	27	32	6	0	65	5	33	34	3	72	6	233	239
14:15	6	27	4	3	37	16	26	9	1	51	20	28	11	0	59	1	23	34	3	58	7	205	212
14:30	6	23	12	3	41	10	29	8	3	47	26	28	13	2	67	4	26	36	2	66	10	221	231
14:45	7	24	7	3	38	12	25	18	3	55	34	47	17	2	98	8	20	32	1	60	9	251	260
Total	37	97	31	10	185	51	110	39	9	200	107	135	47	4	289	18	102	136	9	256	32	910	942
15:00	4	31	10	1	45	13	33	15	3	61	30	45	21	0	96	6	25	44	0	75	4	277	281
15:15	12	32	7	1	51	17	36	19	1	72	41	46	15	1	102	12	18	34	2	64	5	289	294
15:30	18	64	7	2	89	13	48	14	1	75	32	46	16	1	94	2	57	63	2	122	6	380	386
15:45	5	28	14	1	47	14	51	13	1	78	51	49	18	1	118	12	37	37	2	86	5	329	334
Total	39	155	38	5	232	57	168	61	6	286	154	186	70	3	410	32	137	178	6	347	20	1275	1295
16:00	18	25	3	1	46	16	49	18	1	83	56	44	23	4	123	7	36	37	0	80	6	332	338
16:15	9	32	15	1	56	12	54	22	2	88	54	62	30	1	146	5	39	42	1	86	5	376	381
16:30	20	57	9	0	86	25	60	19	2	104	36	45	25	1	106	4	61	68	0	133	3	429	432
16:45	18	29	3	0	50	10	79	34	2	123	58	64	22	2	144	6	65	84	1	155	5	472	477
Total	65	143	30	2	238	63	242	93	7	398	204	215	100	8	519	22	201	231	2	454	19	1609	1628

**Anoka County Highway Department
Traffic Engineering**

Traffic Volume and Turning Movement Stud

Weather: Sunny
Counter TDC-8
Counted by: Ryan & Justin

File Name : TMC0028
Site Code : 00280101
Start Date : 08/24/2000
Page No : 2

Groups Printed- 1 - Unshifted

Start Time	CR 57 (Sunfish Blvd.) Southbound					CR 116 (Bunker Lk. Blvd.) Westbound					CR 57 (Sunfish Blvd.) Northbound					CR 116 (Bunker Lk. Blvd.) 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			
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
17:00	13	34	14	3	61	14	53	14	2	81	59	54	37	1	150	9	48	48	1	105	7	397	404
17:15	10	33	6	0	49	18	66	18	1	102	47	64	25	2	136	15	44	69	1	128	4	415	419
17:30	10	25	11	1	46	26	57	16	0	99	48	64	26	0	138	8	31	38	2	77	3	360	363
17:45	7	46	8	0	61	13	42	21	0	76	44	43	32	0	119	5	37	30	0	72	0	328	328
Total	40	138	39	4	217	71	218	69	3	358	198	225	120	3	543	37	160	185	4	382	14	1500	1514
18:00	1	46	1	1	48	32	44	15	1	91	48	50	19	1	117	0	47	38	0	85	3	341	344
18:15	8	30	9	0	47	7	65	10	1	82	42	60	14	0	116	2	26	45	0	73	1	318	319
18:30	14	28	0	0	42	25	37	6	1	68	22	40	17	0	79	6	10	27	0	43	1	232	233
18:45	6	45	4	0	55	12	43	8	0	63	50	39	10	0	99	6	19	22	0	47	0	264	264
Total	29	149	14	1	192	76	189	39	3	304	162	189	60	1	411	14	102	132	0	248	5	1155	1160
19:00	10	49	2	0	61	3	27	9	0	39	24	33	3	0	60	4	16	27	0	47	0	207	207
19:15	4	24	3	0	31	20	25	8	0	53	44	52	21	3	117	3	31	47	0	81	3	282	285
19:30	2	17	7	0	26	7	28	4	0	39	22	32	16	0	70	1	14	31	0	46	0	181	181
19:45	6	16	5	0	27	12	33	4	0	49	25	35	14	0	74	0	20	23	0	43	0	193	193
Total	22	106	17	0	145	42	113	25	0	180	115	152	54	3	321	8	81	128	0	217	3	863	866
20:00	13	14	3	0	30	10	34	14	0	58	18	35	15	0	68	0	23	18	0	41	0	197	197
20:15	6	31	1	0	38	9	22	7	0	38	32	36	23	0	91	5	25	28	0	58	0	225	225
20:30	9	33	6	0	48	8	26	14	0	48	26	32	2	1	60	3	19	22	0	44	1	200	201
20:45	10	19	1	0	30	5	29	3	0	37	27	29	8	0	64	6	23	22	0	51	0	182	182
Total	38	97	11	0	146	32	111	38	0	181	103	132	48	1	283	14	90	90	0	194	1	804	805
21:00	4	18	11	0	33	12	18	6	0	36	22	24	2	0	48	3	27	17	0	47	0	164	164
21:15	5	20	1	0	26	7	13	4	0	24	23	16	6	0	45	1	17	19	0	37	0	132	132
21:30	1	21	0	0	22	9	10	8	0	27	11	26	9	0	46	3	15	18	0	36	0	131	131
21:45	4	25	0	0	29	4	14	3	0	21	11	19	4	0	34	1	18	21	0	40	0	124	124
Total	14	84	12	0	110	32	55	21	0	108	67	85	21	0	173	8	77	75	0	160	0	551	551
Grand Total	639	2235	364	57	3238	939	2165	624	63	3728	1886	1973	1115	58	4974	297	2167	2415	67	4879	245	16819	17064
Approch %	19.7	69.0	11.2			25.2	58.1	16.7			37.9	39.7	22.4			6.1	44.4	49.5			1.4	98.6	
Total %	3.8	13.3	2.2		19.3	5.6	12.9	3.7		22.2	11.2	11.7	6.6		29.6	1.8	12.9	14.4		29.0			

or Street Approaches:

Eastbound:

CR 116 (Bunker Lk. Blvd.)

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0028.war
 Count Type: IMC. Channel: 0. Count Date: 8/24/ 0
 Number of Lanes: 2
 Approach Speed: 50
 Total Approach Traffic: 4879

Westbound:

CR 116 (Bunker Lk. Blvd.)

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0028.war
 Count Type: IMC. Channel: 0. Count Date: 8/24/ 0
 Number of Lanes: 1
 Approach Speed: 50
 Total Approach Traffic: 3728

Minor Street Approaches:

Northbound:

CR 57 (Sunfish Blvd.)

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0028.war
 Count Type: IMC. Channel: 0. Count Date: 8/24/ 0
 Number of Lanes: 1
 Approach Speed: 45
 Total Approach Traffic: 4974

Southbound:

CR 57 (Sunfish Blvd.)

Data File: C:\Program Files\JAMAR\PETRA\Data Files\TMC0028.war
 Count Type: IMC. Channel: 0. Count Date: 8/24/ 0
 Number of Lanes: 1
 Approach Speed: 55
 Total Approach Traffic: 3238

Analysis of 8-Hour Volume Warrants (Criteria refers to high volume side street for that hour):

Hour	Main (Total)	Side Vol.	Dir.	Rank	Warrant 1 Meets?	Warrant 1 Criteria	Warrant 2 Meets?	Warrant 2 Criteria	Warrant 3 Meets?	Warrant 3 Criteria
0	0	0	S	17		105		52		84
1	0	0	S	18		105		52		84
2	0	0	S	19		105		52		84
3	0	0	S	20		105		52		84
4	0	0	S	21		105		52		84
5	0	0	S	22		105		52		84
6	584	348	S	6	--BOTH--	105	SIDE	52	--BOTH--	84
7	656	304	S	9	--BOTH--	105	--BOTH--	52	--BOTH--	84
8	519	203	S	13	--BOTH--	105	SIDE	52	--BOTH--	84
9	451	164	N	16	--BOTH--	105	SIDE	52	SIDE	84
10	407	221	N	12	SIDE	105	SIDE	52	SIDE	84
11	487	197	N	14	--BOTH--	105	SIDE	52	SIDE	84
12	651	344	N	7	--BOTH--	105	--BOTH--	52	--BOTH--	84
13	579	367	N	5	--BOTH--	105	SIDE	52	--BOTH--	84
14	456	289	N	10	--BOTH--	105	SIDE	52	SIDE	84
15	633	410	N	4	--BOTH--	105	--BOTH--	52	--BOTH--	84
16	852	519	N	2	--BOTH--	105	--BOTH--	52	--BOTH--	84
17	740	543	N	1	--BOTH--	105	--BOTH--	52	--BOTH--	84
18	552	411	N	3	--BOTH--	105	SIDE	52	--BOTH--	84
19	397	321	N	8	SIDE	105	SIDE	52	SIDE	84
20	375	283	N	11	SIDE	105	SIDE	52	SIDE	84
21	268	173	N	15	SIDE	105	SIDE	52	SIDE	84
22	0	0	S	23		105		52		84
23	0	0	S	24		105		52		84

Warrant Summary:

Rural values apply.

Warrant 1 - Minimum Vehicular Volumes

SATISFIED for 12 hours. Criteria--Main St.: 420; Side St.: See Volume Summary.

Warrant 2 - Interruption of Continuous Traffic

NOT SATISFIED. Required values reached for 5 hours. Criteria--Main St.: 630; Side St.: See Volume Summary.

Warrant 3 - Minimum Pedestrian Volumes

NOT SATISFIED. 8th-High Hour--Pedestrians: 8; Vehicles: 633. Criteria--Pedestrians: 105; Vehicles: 420.

Warrant 4 - School Crossing

NOT APPLICABLE. Gap data has not been defined.

Warrant 5 - Progressive Movement

NOT SATISFIED. Adjacent signals closer than 1000 feet and/or not part of coordinated system.

Warrant 6 - Accident Experience

NOT SATISFIED. 0 correctable accidents is fewer than required 5.

Correctable Accidents: 0; Right Angle Accidents: 0; Left Turn Accidents: 0; Other Accidents: 0.

Warrant 7 - Systems Warrant

NOT SATISFIED. At least one street has no major approaches. Peak hour total entering volume: 1609.

- Approaches which are part of the principal through traffic roadway network.
- Approaches which connect areas of principal traffic generation.
- Approaches which include rural or suburban highways outside, entering or traversing a city.
- Approaches which have surface street freeway or expressway ramp terminals.
- Approaches which appear as a major route in an official transportation plan.

Warrant 8 - Combination of Warrants

SATISFIED for 9 hours. Criteria--Main: 504; Side: See Volume Summary.

Warrant 9 - Four Hour Volumes

SATISFIED for 14 hours.

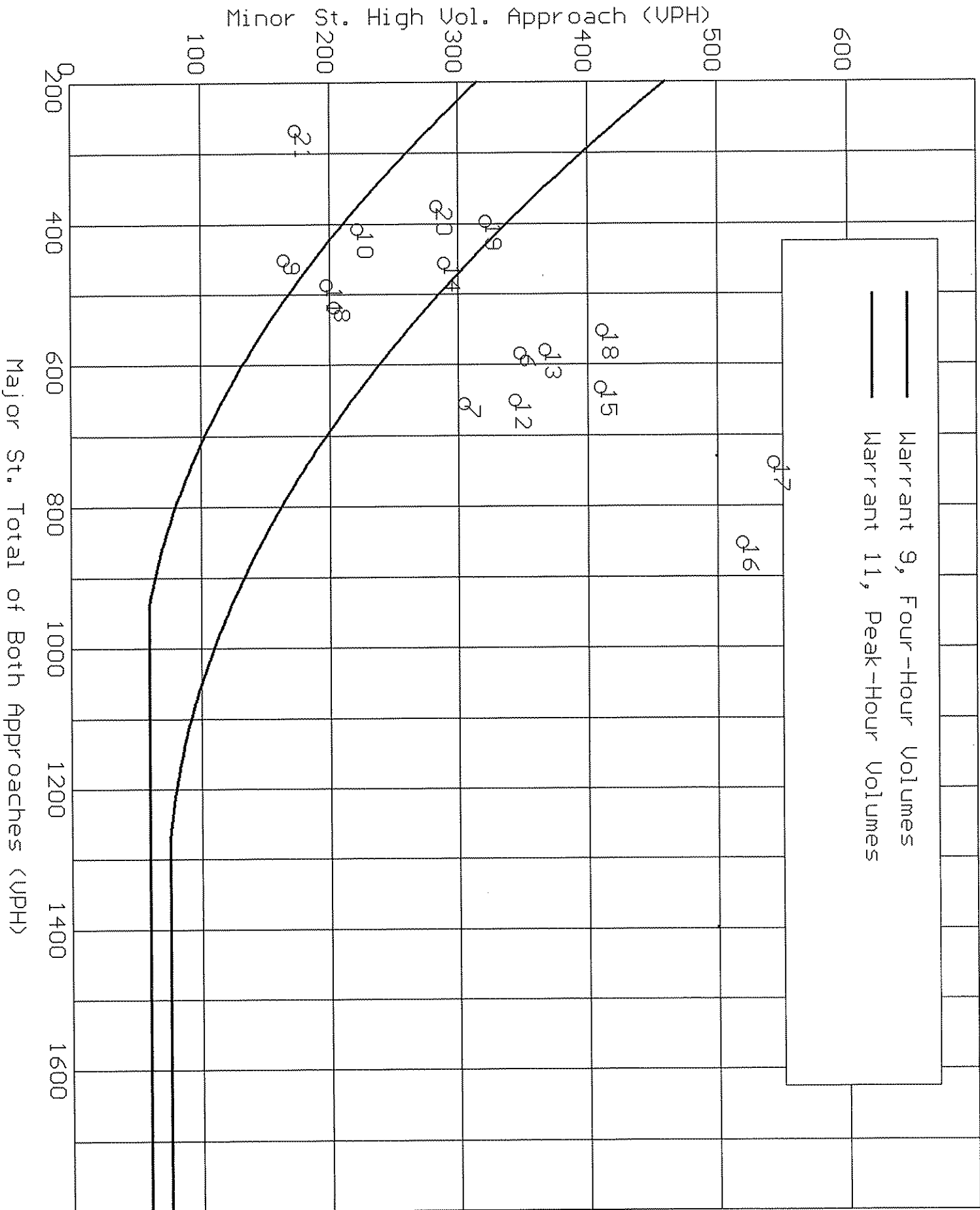
Warrant 10 - Peak Hour Delay

NOT APPLICABLE. Volume requirements satisfied, but side street peak hour delay not defined.

Criteria--Main St.: 800 (4 approaches), 650 (3 approaches); Side St.: 100.

Warrant 11 - Peak Hour Volume

SATISFIED for 8 hours.

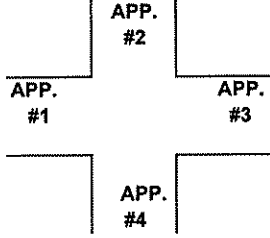




COUNT LOCATION: CR 57 (Sunfish Blvd.)@
 CR 116 (Bunker Lake Blvd.)


DATE: 8/24/00

NORTH
 APP. #1 = SB CR 57
 (Sunfish Blvd.)
 APP. #2 = WB CR 116
 (Bunker Lake Blvd.)
 APP. #3 = NB CR 57
 (Sunfish Blvd.)
 APP. #4 = EB CR 116
 (Bunker Lake Blvd.)



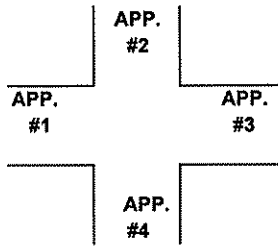
HEAVY VEHICLE- ANY VEHICLE HAVING MORE THAN FOUR TIRES TOUCHING THE PAVEMENT
 A. TRUCKS- A HEAVY VEHICLE INVOLVED PRIMARILY IN THE TRANSPORT OF GOODS OR IN THE DELIVERY OF A SERVICE.
 B. RV- A HEAVY VEHICLE OPERATED BY A PRIVATE MOTORIST AND INVOLVED IN THE TRANSPORT OF RECREATIONAL EQUIPMENT OR FACILITIES.
 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						2		1
6:15-6:30								
6:30-6:45						6		
6:45-7:00								
HOURLY TOTAL						HOURLY TOTAL		9
7:00-7:15						3		
7:15-7:30						7		
7:30-7:45						1		
7:45-8:00						4		
HOURLY TOTAL						HOURLY TOTAL		15
8:00-8:15						4		
8:15-8:30						4		
8:30-8:45						5		
8:45-9:00						6		1
HOURLY TOTAL						HOURLY TOTAL		20
9:00-9:15						4		
9:15-9:30						7		
9:30-9:45						8		
9:45-10:00						3		
HOURLY TOTAL						HOURLY TOTAL		22
10:00-10:15						5		
10:15-10:30						4		1
10:30-10:45						3		
10:45-11:00						4		
HOURLY TOTAL						HOURLY TOTAL		17
11:00-11:15						4		
11:15-11:30						2		
11:30-11:45						5		
11:45-12:00						4		
HOURLY TOTAL						HOURLY TOTAL		15
12:00-12:15						3		
12:15-12:30						7		
12:30-12:45						7		
12:45-1:00						5	1	1
HOURLY TOTAL						HOURLY TOTAL		24
1:00-1:15						11		
1:15-1:30						3		
1:30-1:45						9		
1:45-2:00						9		
HOURLY TOTAL						HOURLY TOTAL		32


NORTH
 APP. #1 = SB CR 57
 (Sunfish Blvd.)
 APP. #2 = WB CR 116
 (Bunker Lake Blvd.)
 APP. #3 = NB CR 57
 (Sunfish Blvd.)
 APP. #4 = EB CR 116
 (Bunker Lake Blvd.)

COUNT LOCATION: CR 57 (Sunfish Blvd.)@
 CR 116 (Bunker Lake Blvd.)

DATE: 8/22/00



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		
2:15-2:30						5		
2:30-2:45						10		
2:45-3:00						8	1	
HOURLY TOTAL						HOURLY TOTAL		30
3:00-3:15						4		
3:15-3:30						4	1	
3:30-3:45						6		
3:45-4:00						5		
HOURLY TOTAL						HOURLY TOTAL		20
4:00-4:15						6		
4:15-4:30						5		
4:30-4:45						3		
4:45-5:00						5		
HOURLY TOTAL						HOURLY TOTAL		19
5:00-5:15						7		
5:15-5:30						4		
5:30-5:45						3		
5:45-6:00								
HOURLY TOTAL						HOURLY TOTAL		14
6:00-6:15						3		
6:15-6:30						1		
6:30-6:45						1		
6:45-7:00								
HOURLY TOTAL						HOURLY TOTAL		5
7:00-7:15								
7:15-7:30						2	1	
7:30-7:45								
7:45-8:00								
HOURLY TOTAL						HOURLY TOTAL		3
8:00-8:15								
8:15-8:30								
8:30-8:45						1		
8:45-9:00								
HOURLY TOTAL						HOURLY TOTAL		1
9:00-9:15								
9:15-9:30								
9:30-9:45								
9:45-10:00								
HOURLY TOTAL						HOURLY TOTAL		