

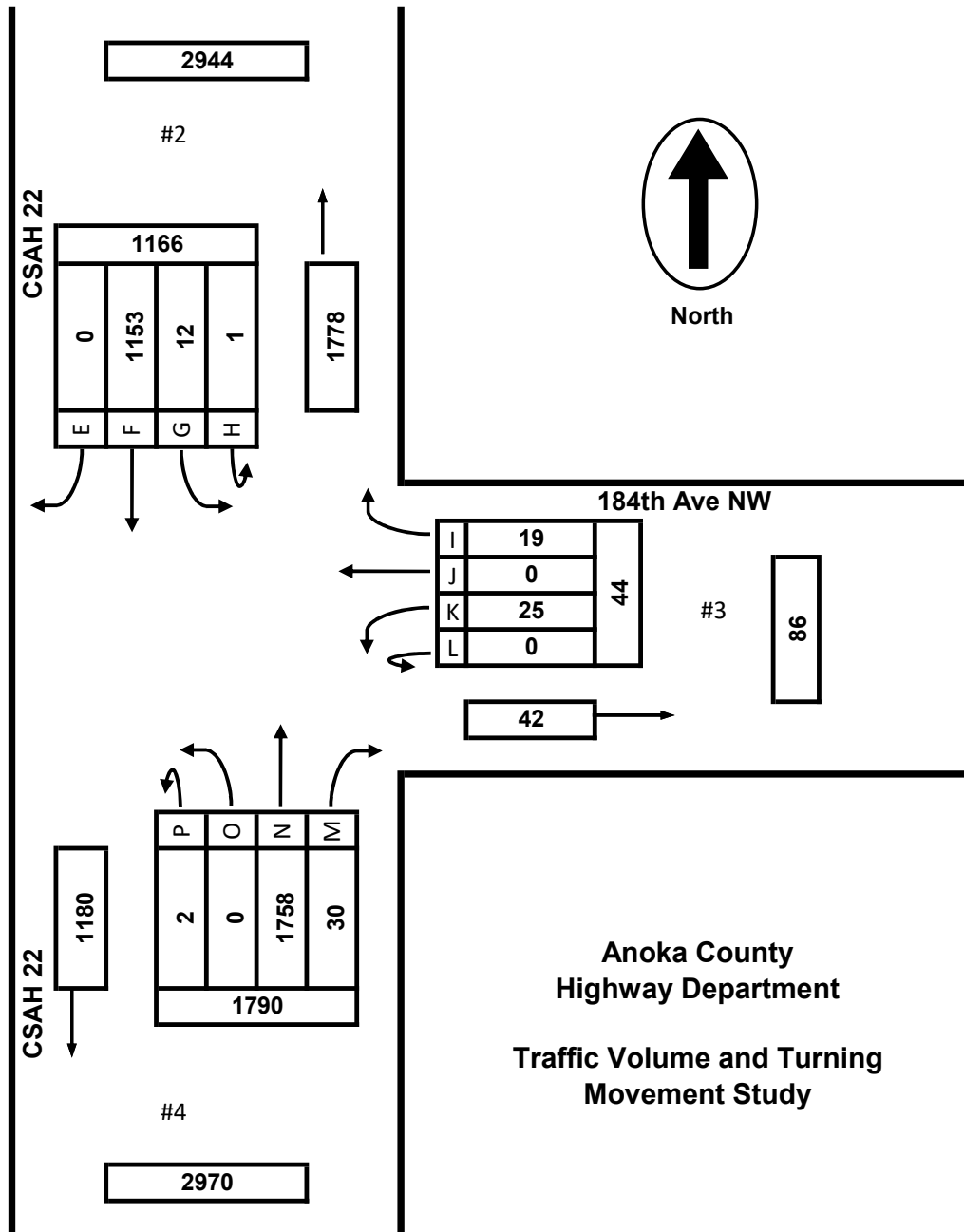
Date: 08/29/24

Count Number: TMC 2470

Location: CSAH 22
@ 184th Ave NW

Collection Period: 24 HR

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



Date: 08/29/24

Count Number: TMC 2470

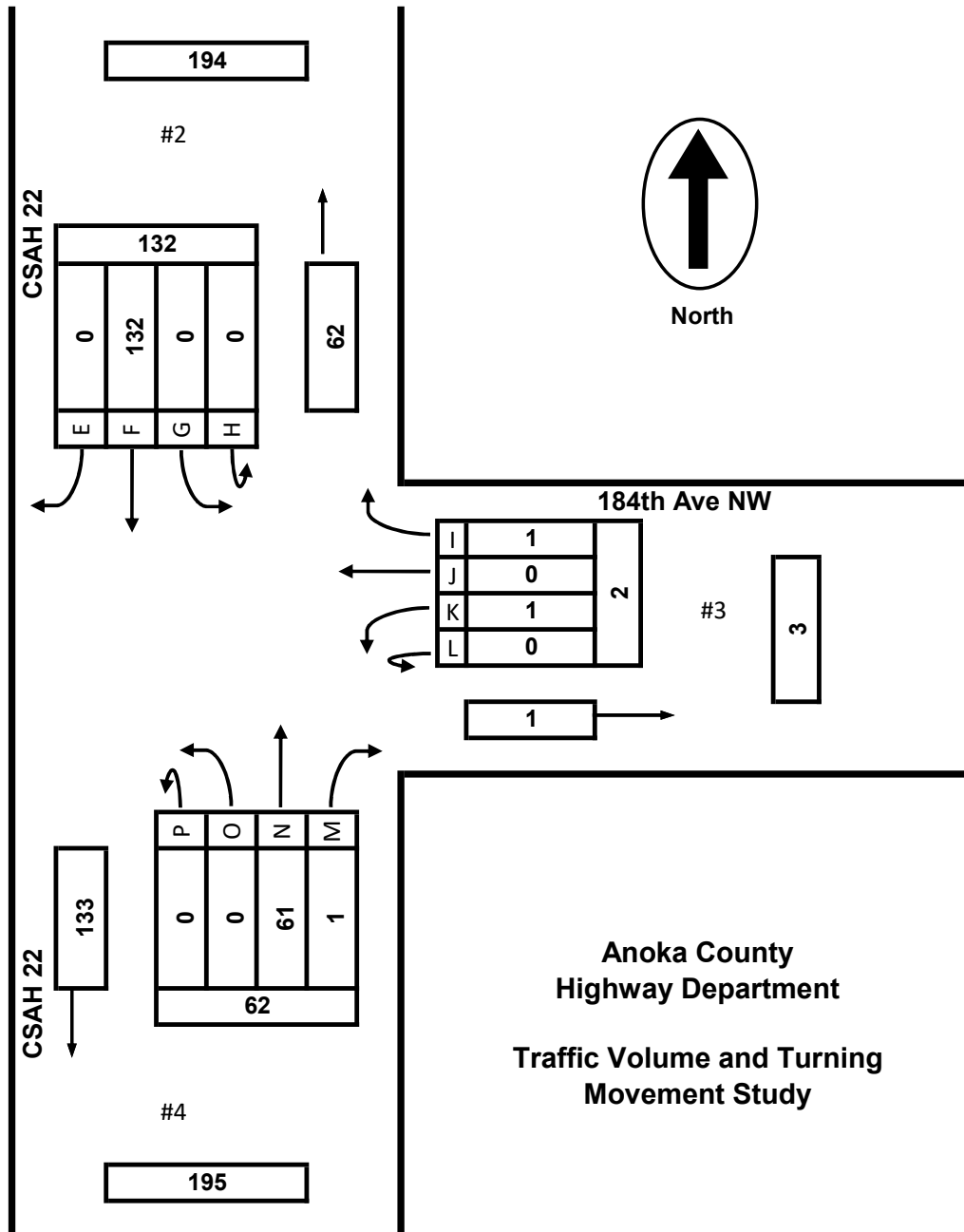
Location: CSAH 22

@ 184th Ave NW

Collection Period: 24 HR

Peak Hour: 7:15 - 8:15 AM

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



Date: 08/29/24

Count Number: TMC 2470

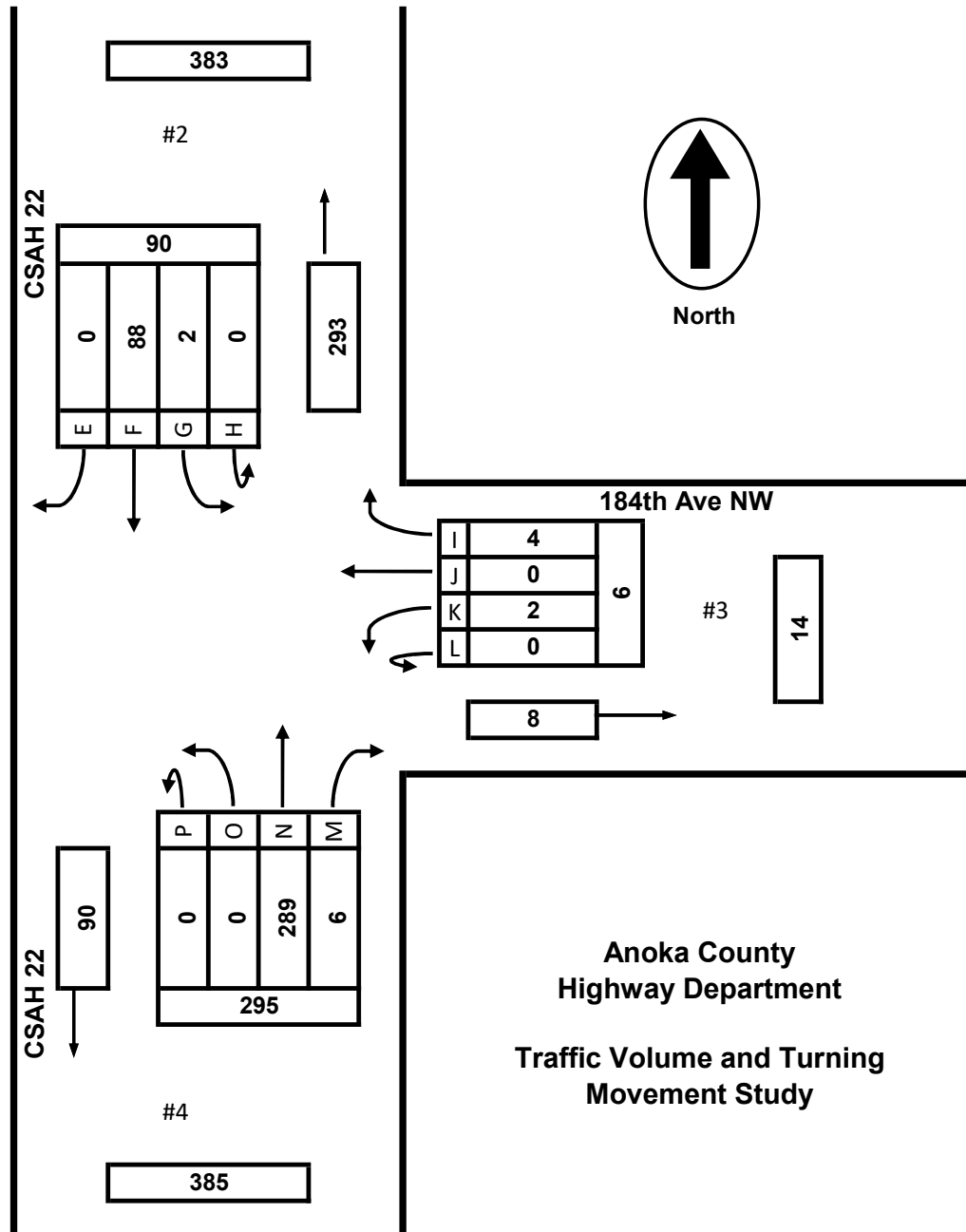
Location: CSAH 22

@ 184th Ave NW

Collection Period: 24 HR

Peak Hour: 3:30 - 4:30 PM

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



**TMC 2470 - CSAH 22 @ 184th Ave NW
Nowthen MN
Thursday, August 29, 2024**

Time	Southbound CSAH 22						Westbound 184th Ave NW						Northbound CSAH 22						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
12:00 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
12:30 AM	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
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
Hourly Total	0	0	3	0	0	3	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	7
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2
1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
1:30 AM	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
1:45 AM	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
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3
2:00 AM	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
2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1
2:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2:45 AM	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
Hourly Total	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
3:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:30 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2
Hourly Total	0	0	4	0	0	4	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5
4:00 AM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	5
4:15 AM	0	0	9	0	0	9	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	11
4:30 AM	0	0	6	0	0	6	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	7
4:45 AM	0	0	6	0	0	6	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	8
Hourly Total	0	0	25	0	0	25	0	0	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	31
5:00 AM	0	0	5	0	0	5	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	7
5:15 AM	0	1	12	0	0	13	0	1	0	2	0	3	0	0	2	0	0	2	0	0	0	0	0	0	18
5:30 AM	0	0	12	0	0	12	0	0	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	16
5:45 AM	0	0	18	0	0	18	0	1	0	0	0	1	0	0	5	0	0	5	0	0	0	0	0	0	24
Hourly Total	0	1	47	0	0	48	0	2	0	2	0	4	0	0	13	0	0	13	0	0	0	0	0	0	65
6:00 AM	0	0	22	0	0	22	0	1	0	0	0	1	0	0	9	0	0	9	0	0	0	0	0	0	32
6:15 AM	0	0	26	0	0	26	0	1	0	0	0	1	0	0	8	0	0	8	0	0	0	0	0	0	35
6:30 AM	0	1	39	0	0	40	0	1	0	0	1	0	0	10	0	0	10	0	0	0	0	0	0	51	
6:45 AM	0	0	27	0	0	27	0	2	0	1	0	3	0	0	10	0	0	10	0	0	0	0	0	0	40
Hourly Total	0	1	114	0	0	115	0	5	0	1	0	6	0	0	37	0	0	37	0	0	0	0	0	0	158
7:00 AM	0	0	28	0	0	28	0	2	0	0	0	2	0	0	13	0	0	13	0	0	0	0	0	0	43
7:15 AM	0	0	32	0	0	32	0	1	0	0	0	1	0	0	14	1	0	15	0	0	0	0	0	0	48
7:30 AM	0	0	37	0	0	37	0	0	0	1	0	1	0	0	14	0	0	14	0	0	0	0	0	0	52
7:45 AM	0	0	31	0	0	31	0	0	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	46
Hourly Total	0	0	128	0	0	128	0	3	0	1	0	4	0	0	56	1	0	57	0	0	0	0	0	0	189

**TMC 2470 - CSAH 22 @ 184th Ave NW
Nowthen MN
Thursday, August 29, 2024**

Time	Southbound CSAH 22						Westbound #REF!						Northbound CSAH 22						Eastbound 184th Ave NW						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
8:00 AM	0	0	32	0	0	32	0	0	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	0	50
8:15 AM	0	0	14	0	0	14	0	0	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	0	31
8:30 AM	0	0	14	0	0	14	0	1	0	0	0	1	0	0	10	1	0	11	0	0	0	0	0	0	26
8:45 AM	0	0	16	0	0	16	0	0	0	1	0	1	0	0	9	0	0	9	0	0	0	0	0	0	26
Hourly Total	0	0	76	0	0	76	0	1	0	1	0	2	0	0	54	1	0	55	0	0	0	0	0	0	133
9:00 AM	0	0	18	0	0	18	0	0	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	0	36
9:15 AM	0	0	20	0	0	20	0	1	0	0	0	1	0	0	14	0	0	14	0	0	0	0	0	0	35
9:30 AM	0	0	15	0	0	15	0	0	0	1	0	1	0	0	10	0	0	10	0	0	0	0	0	0	26
9:45 AM	0	1	17	0	0	18	0	0	0	0	0	0	0	0	14	1	0	15	0	0	0	0	0	0	33
Hourly Total	0	1	70	0	0	71	0	1	0	1	0	2	0	0	56	1	0	57	0	0	0	0	0	0	130
10:00 AM	0	0	10	0	0	10	0	0	0	0	0	0	0	0	24	1	0	25	0	0	0	0	0	0	35
10:15 AM	0	0	19	0	0	19	0	0	0	0	0	0	0	0	21	0	0	21	0	0	0	0	0	0	40
10:30 AM	0	0	14	0	0	14	0	0	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	29
10:45 AM	0	0	23	0	0	23	0	2	0	0	0	2	0	0	23	0	0	23	0	0	0	0	0	0	48
Hourly Total	0	0	66	0	0	66	0	2	0	0	0	2	0	0	83	1	0	84	0	0	0	0	0	0	152
11:00 AM	0	0	14	0	0	14	0	0	0	0	0	0	1	0	21	0	0	22	0	0	0	0	0	0	36
11:15 AM	0	0	16	0	0	16	0	0	0	1	0	1	0	0	24	0	0	24	0	0	0	0	0	0	41
11:30 AM	0	0	15	0	0	15	0	0	0	0	0	0	0	0	23	0	0	23	0	0	0	0	0	0	38
11:45 AM	0	0	9	0	0	9	0	1	0	0	0	1	0	0	14	0	0	14	0	0	0	0	0	0	24
Hourly Total	0	0	54	0	0	54	0	1	0	1	0	2	1	0	82	0	0	83	0	0	0	0	0	0	139
12:00 PM	0	0	17	0	0	17	0	0	0	0	0	0	0	0	26	1	0	27	0	0	0	0	0	0	44
12:15 PM	0	0	12	0	0	12	0	0	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	0	30
12:30 PM	0	0	13	0	0	13	0	0	0	0	0	0	0	0	28	0	0	28	0	0	0	0	0	0	41
12:45 PM	1	0	19	0	0	20	0	0	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	0	36
Hourly Total	1	0	61	0	0	62	0	0	0	0	0	0	0	0	88	1	0	89	0	0	0	0	0	0	151
1:00 PM	0	0	16	0	0	16	0	0	0	0	0	0	0	0	24	0	0	24	0	0	0	0	0	0	40
1:15 PM	0	0	13	0	0	13	0	0	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	0	31
1:30 PM	0	0	11	0	0	11	0	0	0	0	0	0	0	0	22	0	0	22	0	0	0	0	0	0	33
1:45 PM	0	0	22	0	0	22	0	0	0	0	0	0	0	0	30	2	0	32	0	0	0	0	0	0	54
Hourly Total	0	0	62	0	0	62	0	0	0	0	0	0	0	0	94	2	0	96	0	0	0	0	0	0	158
2:00 PM	0	0	27	0	0	27	0	0	0	0	0	0	0	0	25	0	0	25	0	0	0	0	0	0	52
2:15 PM	0	0	23	0	0	23	0	1	0	0	0	1	0	0	36	1	0	37	0	0	0	0	0	0	61
2:30 PM	0	2	19	0	0	21	0	0	0	2	0	2	0	0	42	1	0	43	0	0	0	0	0	0	66
2:45 PM	0	0	23	0	0	23	0	0	0	0	0	0	0	0	39	2	0	41	0	0	0	0	0	0	64
Hourly Total	0	2	92	0	0	94	0	1	0	2	0	3	0	0	142	4	0	146	0	0	0	0	0	0	243
3:00 PM	0	0	20	0	0	20	0	0	0	1	0	1	0	0	61	2	0	63	0	0	0	0	0	0	84
3:15 PM	0	0	15	0	0	15	0	0	0	1	0	1	0	0	66	2	0	68	0	0	0	0	0	0	84
3:30 PM	0	0	22	0	0	22	0	0	0	2	0	2	0	0	68	2	0	70	0	0	0	0	0	0	94
3:45 PM	0	0	22	0	0	22	0	1	0	1	0	2	0	0	77	1	0	78	0	0	0	0	0	0	102
Hourly Total	0	0	79	0	0	79	0	1	0	5	0	6	0	0	272	7	0	279	0	0	0	0	0	0	364

**TMC 2470 - CSAH 22 @ 184th Ave NW
Nowthen MN
Thursday, August 29, 2024**

Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
7:15 AM	0	0	32	0	0	32	0	1	0	0	0	1	0	0	14	1	0	15	0	0	0	0	0	0	48
7:30 AM	0	0	37	0	0	37	0	0	0	1	0	1	0	0	14	0	0	14	0	0	0	0	0	0	52
7:45 AM	0	0	31	0	0	31	0	0	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	46
8:00 AM	0	0	32	0	0	32	0	0	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	0	50
Peak Hour Total PHF	0.000	0.000	0.892	0.000	0.000	0.892	0.000	0.250	0.000	0.250	0.000	0.500	0.000	0.000	0.847	0.250	0.000	0.861	0.000	0.000	0.000	0.000	0.000	0.000	0.942

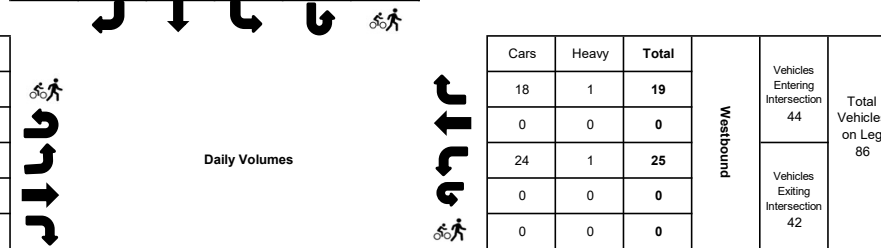
Time	Southbound						Westbound						Northbound						Eastbound						VEHICLE TOTAL
	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	U Turns	Left Turns	Straight Through	Right Turns	Crosswalk Crossings	Vehicle Approach Total	
3:30 PM	0	0	22	0	0	22	0	0	0	2	0	2	0	0	68	2	0	70	0	0	0	0	0	0	94
3:45 PM	0	0	22	0	0	22	0	1	0	1	0	2	0	0	77	1	0	78	0	0	0	0	0	0	102
4:00 PM	0	2	21	0	0	23	0	1	0	1	0	2	0	0	72	2	0	74	0	0	0	0	0	0	99
4:15 PM	0	0	23	0	0	23	0	0	0	0	0	0	0	0	72	1	0	73	0	0	0	0	0	0	96
Peak Hour Total PHF	0.000	0.250	0.957	0.000	0.000	0.978	0.000	0.500	0.000	0.500	0.000	0.750	0.000	0.000	0.938	0.750	0.000	0.946	0.000	0.000	0.000	0.000	0.000	0.000	0.958

Total Vehicles On Leg		2944	
Vehicles Entering Intersection	1166	Vehicles Exiting Intersection	1778
Southbound			
Cars	0	959	11
Heavy	0	194	1
Total	0	1153	12

Total Vehicles on Leg 0	Vehicles Entering Intersection 0	Eastbound	Cars	0	0	0
			Heavy	0	0	0
			Total	0	0	0
			Vehicles Exiting Intersection	0	0	0
			Total	0	0	0

Cars	18	1	19
Heavy	0	0	0
Total	24	1	25
Vehicles Entering Intersection	44	Total Vehicles on Leg 86	
Vehicles Exiting Intersection	42		

Cars	0	1	0	1553	29
Heavy	0	1	0	205	1
Total	0	2	0	1758	30
Northbound					
Vehicles Entering Intersection	1790	Vehicles Exiting Intersection	1180		
Total Vehicles On Leg		2970			



ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2470

Study Date : 09/03/2024

Signal Warrants - Summary

Major Street Approaches

Northbound: CSAH 22

Number of Lanes : 1

Total Approach Volume: 1,790

Southbound: CSAH 22

Number of Lanes : 1

Total Approach Volume: 1,166

Minor Street Approaches

Westbound: 184th Ave NW

Number of Lanes : 1

Total Approach Volume: 44

Warrant Summary (Rural Values Apply)

Warrant 1 - Eight Hour Vehicular Volumes.....Not Satisfied

Warrant 1A - Minimum Vehicular Volume.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1B - Interruption of Continuous Traffic.....Not Satisfied

Required volumes reached for 0 hours, 8 are needed

Warrant 1C - Combination of Warrants.....Not Satisfied

Required 1A volumes reached for 0 hours, 8 are needed

Required 1B volumes reached for 0 hours, 8 are needed

Warrant 2 - Four Hour Volumes.....Not Satisfied

Number of hours (0) volumes exceed minimum < minimum required (4).

Warrant 3 - Peak Hour.....Not Satisfied

Warrant 3A - Peak Hour Delay.....Not Satisfied

Approach volumes on minor street don't exceed minimums for any one hour period. Delay data not evaluated.

Warrant 3B - Peak Hour Volumes.....Not Satisfied

Volumes do not exceed minimums for any one hour period.

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

Warrant 9 - Intersection Near a Grade Crossing.....Not Evaluated

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2470

Study Date : 09/03/2024

Warrant 1A - Minimum Volumes

Description

Intended for sites where the volume of intersecting traffic is the principal reason for consideration of a signal installation.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **350**

Veh/Hr Minor = **105**

Time	Major Road				Total	Minor EB	Minor Road		Met?
	Major NB	+	Major SB	=			Minor WB		
							CSAH 22		
							184th Ave NW		
15:45 - 16:45	304	+	81	=	385	0	4		No
15:30 - 16:30	295	+	90	=	385	0	6		No
16:00 - 17:00	296	+	78	=	374	0	2		No
15:15 - 16:15	290	+	82	=	372	0	7		No
16:15 - 17:15	289	+	70	=	359	0	1		No
15:00 - 16:00	279	+	79	=	358	0	6		No
16:30 - 17:30	259	+	66	=	325	0	2		No
14:45 - 15:45	242	+	80	=	322	0	4		No
14:30 - 15:30	215	+	79	=	294	0	4		No
16:45 - 17:45	226	+	62	=	288	0	4		No
14:15 - 15:15	184	+	87	=	271	0	4		No
17:00 - 18:00	194	+	55	=	249	0	4		No
14:00 - 15:00	146	+	94	=	240	0	3		No
13:45 - 14:45	137	+	93	=	230	0	3		No
17:15 - 18:15	161	+	52	=	213	0	3		No
13:30 - 14:30	116	+	83	=	199	0	1		No
17:30 - 18:30	146	+	50	=	196	0	5		No
07:15 - 08:15	62	+	132	=	194	0	2		No
07:00 - 08:00	57	+	128	=	185	0	4		No
17:45 - 18:45	123	+	56	=	179	0	3		No
07:30 - 08:30	64	+	114	=	178	0	1		No
06:45 - 07:45	52	+	124	=	176	0	7		No
06:30 - 07:30	48	+	127	=	175	0	7		No
13:15 - 14:15	97	+	73	=	170	0	0		No
06:15 - 07:15	41		121		162	0	7		No

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2470

Study Date : 09/03/2024

Warrant 1B - Interruption of Continuous Traffic

Description

Intended for sites where the volume of the major street is so heavy that traffic on the minor street suffers excessive delay or hazard.

Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Rural Factor of 70 % applied
Veh/Hr Major = **525**

Veh/Hr Minor = **52**

Time	Major Road				Total	Minor Road		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
	CSAH 22					184th Ave NW		
15:45 - 16:45	304	+	81	=	385	0	4	No
15:30 - 16:30	295	+	90	=	385	0	6	No
16:00 - 17:00	296	+	78	=	374	0	2	No
15:15 - 16:15	290	+	82	=	372	0	7	No
16:15 - 17:15	289	+	70	=	359	0	1	No
15:00 - 16:00	279	+	79	=	358	0	6	No
16:30 - 17:30	259	+	66	=	325	0	2	No
14:45 - 15:45	242	+	80	=	322	0	4	No
14:30 - 15:30	215	+	79	=	294	0	4	No
16:45 - 17:45	226	+	62	=	288	0	4	No
14:15 - 15:15	184	+	87	=	271	0	4	No
17:00 - 18:00	194	+	55	=	249	0	4	No
14:00 - 15:00	146	+	94	=	240	0	3	No
13:45 - 14:45	137	+	93	=	230	0	3	No
17:15 - 18:15	161	+	52	=	213	0	3	No
13:30 - 14:30	116	+	83	=	199	0	1	No
17:30 - 18:30	146	+	50	=	196	0	5	No
07:15 - 08:15	62	+	132	=	194	0	2	No
07:00 - 08:00	57	+	128	=	185	0	4	No
17:45 - 18:45	123	+	56	=	179	0	3	No
07:30 - 08:30	64	+	114	=	178	0	1	No
06:45 - 07:45	52	+	124	=	176	0	7	No
06:30 - 07:30	48	+	127	=	175	0	7	No
13:15 - 14:15	97	+	73	=	170	0	0	No
06:15 - 07:15	41		121		162	0	7	No

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2470

Study Date : 09/03/2024

Warrant 1C Combination of Warrants

Description

Intended for sites where the traffic volumes don't meet individual warrants but where Warrants 1A and 1B are both met to 80% of their stated values.

Summary

Only 0 hours meet 1A minimums.
Only 0 hours meet 1B minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
Number of Major Lanes = **1**
Number of Minor Lanes = **1**

Volume Requirements

Rural Factor of 70% applied
Warrant 1A 1B
Veh/Hr Major = **280 420**

Veh/Hr Minor = **84 42**

Major Road CSAH 22

Minor Road 184th Ave NW

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1A?
15:30 - 16:30	295	+	90	=	385	0	6	No
15:45 - 16:45	304	+	81	=	385	0	4	No
16:00 - 17:00	296	+	78	=	374	0	2	No
15:15 - 16:15	290	+	82	=	372	0	7	No
16:15 - 17:15	289	+	70	=	359	0	1	No
15:00 - 16:00	279	+	79	=	358	0	6	No
16:30 - 17:30	259	+	66	=	325	0	2	No
14:45 - 15:45	242	+	80	=	322	0	4	No
14:30 - 15:30	215	+	79	=	294	0	4	No
16:45 - 17:45	226	+	62	=	288	0	4	No
14:15 - 15:15	184	+	87	=	271	0	4	No
17:00 - 18:00	194		55		249	0	4	No

Time	Major NB	+	Major SB	=	Total	Minor EB	Minor WB	Met1B?
15:30 - 16:30	295	+	90	=	385	0	6	No
15:45 - 16:45	304	+	81	=	385	0	4	No
16:00 - 17:00	296	+	78	=	374	0	2	No
15:15 - 16:15	290	+	82	=	372	0	7	No
16:15 - 17:15	289	+	70	=	359	0	1	No
15:00 - 16:00	279	+	79	=	358	0	6	No
16:30 - 17:30	259	+	66	=	325	0	2	No
14:45 - 15:45	242	+	80	=	322	0	4	No
14:30 - 15:30	215	+	79	=	294	0	4	No
16:45 - 17:45	226	+	62	=	288	0	4	No
14:15 - 15:15	184	+	87	=	271	0	4	No
17:00 - 18:00	194		55		249	0	4	No

ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2470

Study Date : 09/03/2024

Warrant 2 - Four Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during any four hours of the day is the principal reason for consideration of a signal installation.

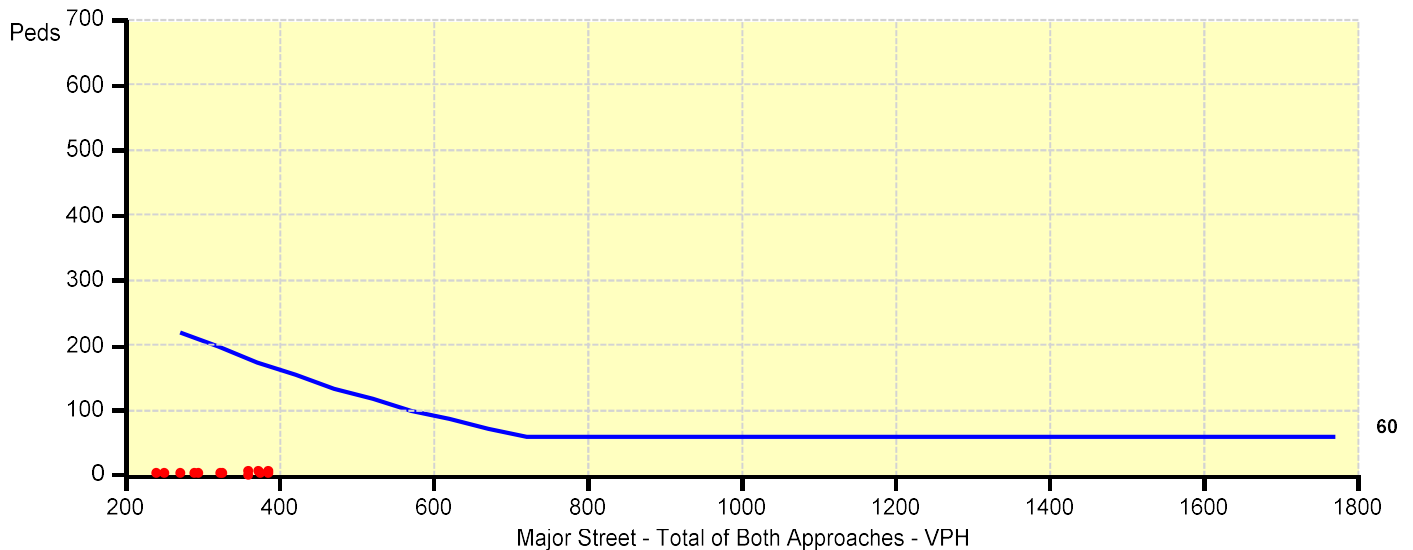
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
 Number of Major Lanes = **1**
 Number of Minor Lanes = **1**

Time	Major Road CSAH 22				Total	Minor Road 184th Ave NW		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
15:45 - 16:45	304	+	81	=	385	0	4	No
15:30 - 16:30	295	+	90	=	385	0	6	No
16:00 - 17:00	296	+	78	=	374	0	2	No
15:15 - 16:15	290	+	82	=	372	0	7	No
16:15 - 17:15	289	+	70	=	359	0	1	No
15:00 - 16:00	279	+	79	=	358	0	6	No
16:30 - 17:30	259	+	66	=	325	0	2	No
14:45 - 15:45	242	+	80	=	322	0	4	No
14:30 - 15:30	215	+	79	=	294	0	4	No
16:45 - 17:45	226	+	62	=	288	0	4	No
14:15 - 15:15	184	+	87	=	271	0	4	No
17:00 - 18:00	194		55		249	0	4	No



ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name: TMC 2470

Study Date : 09/03/2024

Warrant 3B - Peak Hour Volumes

Description

Intended for sites where the volume of intersecting traffic during one hour of the day is the principal reason for consideration of a signal installation.

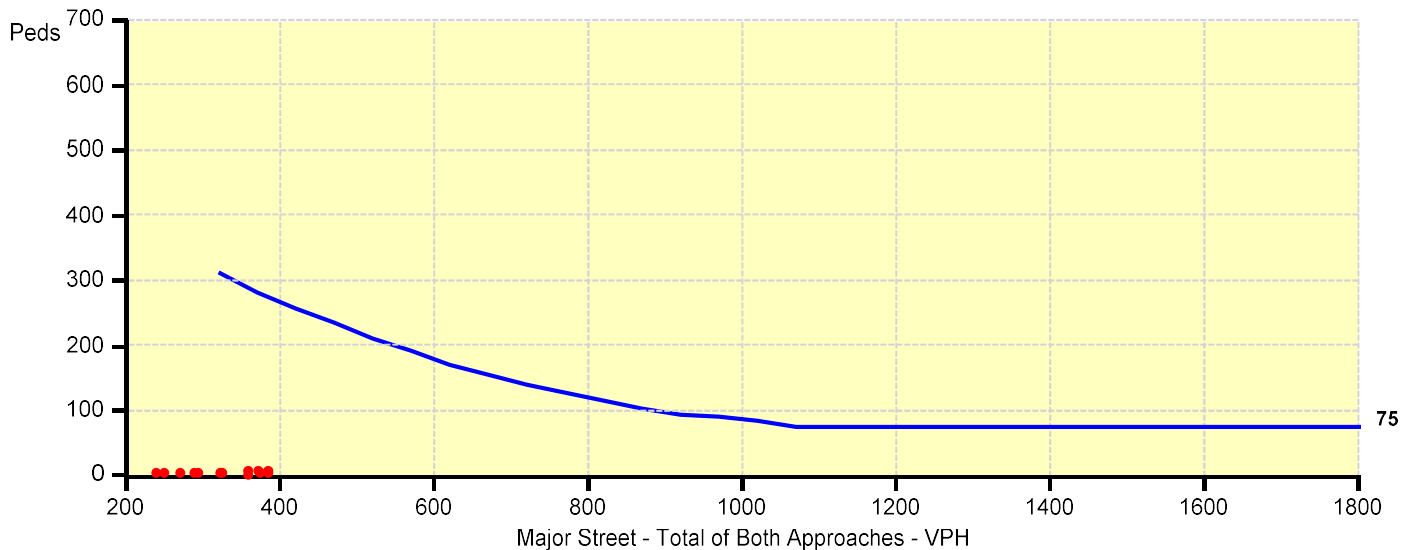
Summary

Only 0 one hour periods meet minimums.
Warrant is NOT met.

Site Data Required

Rural Settings Apply = **True**
 Number of Major Lanes = **1**
 Number of Minor Lanes = **1**

Time	Major Road CSAH 22				Total	Minor Road 184th Ave NW		Met?
	Major NB	+	Major SB	=		Minor EB	Minor WB	
15:45 - 16:45	304	+	81	=	385	0	4	No
15:30 - 16:30	295	+	90	=	385	0	6	No
16:00 - 17:00	296	+	78	=	374	0	2	No
15:15 - 16:15	290	+	82	=	372	0	7	No
16:15 - 17:15	289	+	70	=	359	0	1	No
15:00 - 16:00	279	+	79	=	358	0	6	No
16:30 - 17:30	259	+	66	=	325	0	2	No
14:45 - 15:45	242	+	80	=	322	0	4	No
14:30 - 15:30	215	+	79	=	294	0	4	No
16:45 - 17:45	226	+	62	=	288	0	4	No
14:15 - 15:15	184	+	87	=	271	0	4	No
17:00 - 18:00	194		55		249	0	4	No



ANOKA COUNTY HIGHWAY

PC - WARRANTS

TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name:

Study Date : 09/03/2024

Multiway Stop Warrants - Summary

Major Street Approaches

Northbound: CSAH 22

Number of Lanes : 1
Total Approach Volume: 1,790

Southbound: CSAH 22

Number of Lanes : 1
Total Approach Volume: 1,166

Minor Street Approaches

Eastbound:

Number of Lanes :2+
Total Approach Volume: 0

Westbound: 184th Ave NW

Number of Lanes :1
Total Approach Volume: 44

Warrant Summary (Rural Values Apply)

Criteria A - Interim Measure	Not Evaluated
If traffic signals are justified, stop signs can be installed as an interim measure.	
Criteria B - Crash Experience	Not Satisfied
Number of crashes (-1) is less than minimum required (5).	
Criteria C - Minimum Volumes and Delays	Not Satisfied
Average of 8 highest hours is less than volume criteria.	
Criteria D - 80% of Volumes, Delays, and Crashes	Not Satisfied
Number of crashes (-1) is less than minimum required (4). Average of 8 highest hours is less than volume criteria.	

Criteria C Volume Summary

Time	Major Total	Major Avg	Minor Total	Minor Avg	Major Crit	Minor Crit	Meets?
15:30 - 16:30	385	239.4	6	03.8	210	140	No
16:30 - 17:30	325		2				
14:30 - 15:30	294		4				
17:30 - 18:30	196		5				
13:30 - 14:30	199		1				
07:15 - 08:15	194		2				
06:15 - 07:15	162		7				
10:45 - 11:45	160		3				
12:00 - 13:00	151		0				
09:45 - 10:45	137		0				
08:30 - 09:30	120		3				
18:30 - 19:30	120		2				

Criteria D Volume Summary

Time	Major Total	Major Avg	Minor Total	Minor Avg	Major Crit	Minor Crit	Meets?
15:30 - 16:30	385	239.4	6	03.8	240	160	No
16:30 - 17:30	325		2				
14:30 - 15:30	294		4				
13:30 - 14:30	199		1				
17:30 - 18:30	196		5				
07:15 - 08:15	194		2				
06:15 - 07:15	162		7				
10:45 - 11:45	160		3				
12:00 - 13:00	151		0				
09:45 - 10:45	137		0				
08:30 - 09:30	120		3				
18:30 - 19:30	120		2				