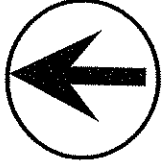


Date : 08/12/08

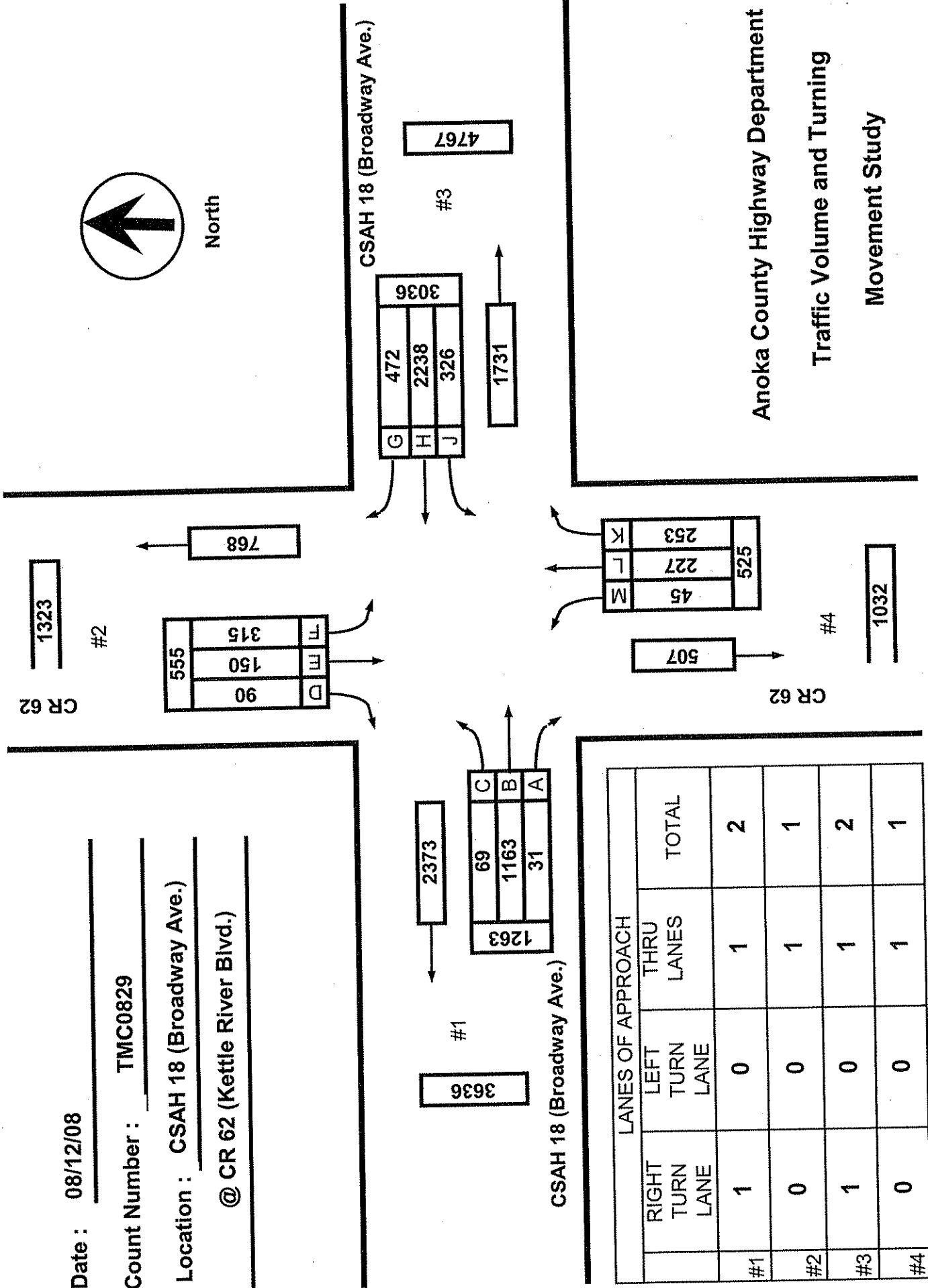
Count Number : TMC0829

Location : CSAH 18 (Broadway Ave.)

@ CR 62 (Kettle River Blvd.)



North



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date: 08/12/08

Count Number: TMC0829

Location: CSAH 18 (Broadway Ave.)

@ CR 62 (Kettle River Blvd.)

Hour: AM Peak 06:30 - 07:30

CR 62

103

#2

| | | |
|----|---|---|
| 91 | | |
| 63 | D | F |
| 17 | E | |
| 11 | | |

12



North

CSAH 18 (Broadway Ave.)

| | | |
|----|---|----|
| 5 | G | 95 |
| 76 | H | |
| 14 | J | |

306

#3

211

88

#1

229

| | | |
|-----|---|---|
| 141 | A | 2 |
| 136 | B | |
| 3 | C | |

CSAH 18 (Broadway Ave.)

| | | |
|----|---|---|
| 17 | M | 1 |
| 4 | L | |
| 12 | K | |

33

#4

50

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

CR62

Anoka County Highway Department

Traffic Volume and Turning

Movement Study

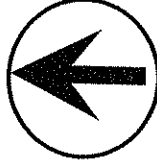
Date : 08/12/08

Count Number : TMC0829

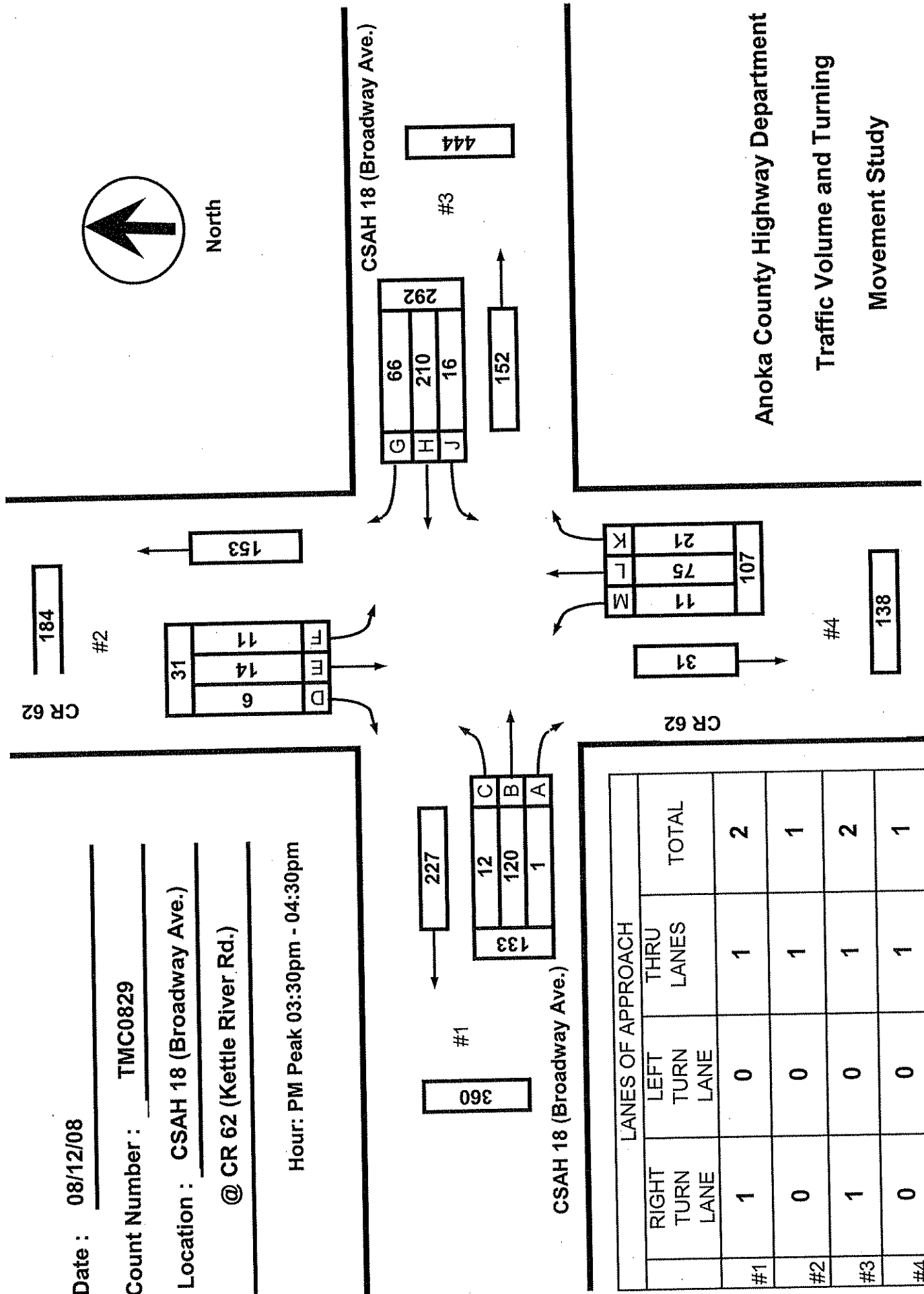
Location : CSAH 18 (Broadway Ave.)

@ CR 62 (Kettle River Rd.)

Hour: PM Peak 03:30pm - 04:30pm



North



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC0829

Site Code : 08320201

Start Date : 08/12/200

Page No : 1

Weather: Warm and Sunny

Counter: DB-400

Counted by: Jake/Mike

Groups Printed- Unshifted - Bank 1

| Start Time | CR 62 (Kettle River Blvd.) Southbound | | | | | CSAH 18 (Broadway Ave.) Westbound | | | | | CR 62 (Kettle River Blvd.) Northbound | | | | | CSAH 18 (Broadway Ave.) Eastbound | | | | | Exclu. Total | Inclu. Total | Inl. 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 | | | |
| 06:00 | 7 | 5 | 0 | 1 | 12 | 3 | 12 | 1 | 0 | 16 | 0 | 1 | 0 | 0 | 1 | 0 | 10 | 0 | 1 | 10 | 2 | 39 | 41 |
| 06:15 | 19 | 14 | 3 | 1 | 36 | 2 | 14 | 0 | 2 | 16 | 0 | 1 | 5 | 0 | 6 | 0 | 29 | 0 | 1 | 29 | 4 | 87 | 91 |
| 06:30 | 15 | 7 | 5 | 1 | 27 | 3 | 18 | 1 | 1 | 22 | 0 | 1 | 3 | 0 | 4 | 0 | 34 | 0 | 4 | 34 | 6 | 87 | 93 |
| 06:45 | 27 | 5 | 4 | 0 | 36 | 6 | 13 | 0 | 0 | 19 | 0 | 0 | 1 | 0 | 1 | 3 | 38 | 0 | 0 | 41 | 0 | 97 | 97 |
| Total | 68 | 31 | 12 | 3 | 111 | 14 | 57 | 2 | 3 | 73 | 0 | 3 | 9 | 0 | 12 | 3 | 111 | 0 | 6 | 114 | 12 | 310 | 322 |
| 07:00 | 9 | 4 | 0 | 0 | 13 | 2 | 27 | 1 | 2 | 30 | 0 | 0 | 1 | 0 | 1 | 0 | 15 | 0 | 3 | 15 | 5 | 59 | 64 |
| 07:15 | 12 | 1 | 2 | 0 | 15 | 3 | 18 | 3 | 1 | 24 | 1 | 3 | 7 | 0 | 11 | 0 | 49 | 2 | 5 | 51 | 6 | 101 | 107 |
| 07:30 | 11 | 6 | 4 | 0 | 21 | 2 | 9 | 2 | 1 | 13 | 0 | 1 | 4 | 0 | 5 | 3 | 40 | 2 | 3 | 45 | 4 | 84 | 88 |
| 07:45 | 11 | 4 | 3 | 0 | 18 | 9 | 19 | 1 | 2 | 29 | 0 | 6 | 5 | 0 | 11 | 0 | 37 | 1 | 1 | 38 | 3 | 96 | 99 |
| Total | 43 | 15 | 9 | 0 | 67 | 16 | 73 | 7 | 6 | 96 | 1 | 10 | 17 | 0 | 28 | 3 | 141 | 5 | 12 | 149 | 18 | 340 | 358 |
| 08:00 | 11 | 1 | 3 | 0 | 15 | 3 | 12 | 0 | 2 | 15 | 0 | 1 | 5 | 0 | 6 | 4 | 20 | 0 | 3 | 24 | 5 | 60 | 65 |
| 08:15 | 8 | 2 | 1 | 0 | 11 | 1 | 9 | 1 | 1 | 11 | 0 | 0 | 2 | 0 | 2 | 1 | 28 | 0 | 0 | 29 | 1 | 53 | 54 |
| 08:30 | 7 | 4 | 2 | 0 | 13 | 4 | 11 | 5 | 2 | 20 | 0 | 0 | 9 | 0 | 9 | 1 | 16 | 1 | 1 | 18 | 3 | 60 | 63 |
| 08:45 | 7 | 7 | 1 | 0 | 15 | 5 | 18 | 0 | 3 | 23 | 0 | 1 | 5 | 0 | 6 | 0 | 24 | 1 | 2 | 25 | 5 | 69 | 74 |
| Total | 33 | 14 | 7 | 0 | 54 | 13 | 50 | 6 | 8 | 69 | 0 | 2 | 21 | 0 | 23 | 6 | 88 | 2 | 6 | 96 | 14 | 242 | 256 |
| 09:00 | 5 | 7 | 1 | 1 | 13 | 2 | 13 | 6 | 0 | 21 | 2 | 1 | 7 | 0 | 10 | 0 | 24 | 0 | 2 | 24 | 3 | 68 | 71 |
| 09:15 | 1 | 0 | 0 | 0 | 1 | 2 | 13 | 3 | 2 | 18 | 1 | 2 | 4 | 0 | 7 | 0 | 12 | 1 | 0 | 13 | 2 | 39 | 41 |
| 09:30 | 3 | 2 | 4 | 0 | 9 | 4 | 10 | 2 | 1 | 16 | 0 | 0 | 5 | 1 | 5 | 0 | 9 | 1 | 0 | 10 | 2 | 40 | 42 |
| 09:45 | 2 | 0 | 0 | 0 | 2 | 4 | 12 | 1 | 2 | 17 | 0 | 3 | 1 | 0 | 4 | 0 | 17 | 3 | 0 | 20 | 2 | 43 | 45 |
| Total | 11 | 9 | 5 | 1 | 25 | 12 | 48 | 12 | 5 | 72 | 3 | 6 | 17 | 1 | 26 | 0 | 62 | 5 | 2 | 67 | 9 | 190 | 199 |
| 10:00 | 0 | 2 | 0 | 0 | 2 | 4 | 22 | 5 | 3 | 31 | 1 | 1 | 1 | 1 | 3 | 0 | 14 | 0 | 3 | 14 | 7 | 50 | 57 |
| 10:15 | 2 | 0 | 0 | 0 | 2 | 11 | 22 | 3 | 3 | 36 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 5 | 40 | 45 |
| 10:30 | 2 | 0 | 2 | 0 | 4 | 3 | 9 | 1 | 3 | 13 | 0 | 0 | 1 | 0 | 1 | 0 | 11 | 0 | 1 | 11 | 4 | 29 | 33 |
| 10:45 | 0 | 2 | 0 | 0 | 2 | 3 | 26 | 5 | 0 | 34 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 38 | 38 |
| Total | 4 | 4 | 2 | 0 | 10 | 21 | 79 | 14 | 9 | 114 | 1 | 2 | 4 | 3 | 7 | 0 | 26 | 0 | 4 | 26 | 16 | 157 | 173 |
| 11:00 | 5 | 0 | 0 | 0 | 5 | 0 | 15 | 3 | 2 | 18 | 0 | 0 | 2 | 0 | 2 | 0 | 20 | 0 | 0 | 20 | 2 | 45 | 47 |
| 11:15 | 3 | 6 | 0 | 0 | 9 | 3 | 14 | 0 | 1 | 17 | 0 | 0 | 9 | 0 | 9 | 0 | 18 | 0 | 2 | 18 | 3 | 53 | 56 |
| 11:30 | 7 | 4 | 1 | 1 | 12 | 9 | 17 | 3 | 4 | 29 | 0 | 1 | 6 | 1 | 7 | 2 | 21 | 1 | 2 | 24 | 8 | 72 | 80 |
| 11:45 | 8 | 5 | 1 | 3 | 14 | 6 | 17 | 4 | 0 | 27 | 0 | 1 | 6 | 0 | 7 | 0 | 23 | 0 | 3 | 23 | 6 | 71 | 77 |
| Total | 23 | 15 | 2 | 4 | 40 | 18 | 63 | 10 | 7 | 91 | 0 | 2 | 23 | 1 | 25 | 2 | 82 | 1 | 7 | 85 | 19 | 241 | 260 |
| 12:00 | 2 | 4 | 6 | 1 | 12 | 8 | 26 | 6 | 0 | 40 | 0 | 0 | 7 | 2 | 7 | 0 | 19 | 0 | 1 | 19 | 4 | 78 | 82 |
| 12:15 | 2 | 2 | 1 | 0 | 5 | 7 | 25 | 6 | 0 | 38 | 0 | 0 | 13 | 0 | 13 | 5 | 35 | 0 | 3 | 40 | 3 | 96 | 99 |
| 12:30 | 1 | 0 | 0 | 0 | 1 | 0 | 24 | 6 | 1 | 30 | 0 | 1 | 8 | 0 | 9 | 1 | 7 | 0 | 1 | 8 | 2 | 48 | 50 |
| 12:45 | 2 | 1 | 0 | 0 | 3 | 4 | 25 | 8 | 3 | 37 | 2 | 3 | 6 | 0 | 11 | 4 | 10 | 0 | 0 | 14 | 3 | 65 | 68 |
| Total | 7 | 7 | 7 | 1 | 21 | 19 | 100 | 26 | 4 | 145 | 2 | 4 | 34 | 2 | 40 | 10 | 71 | 0 | 5 | 81 | 12 | 287 | 299 |
| 13:00 | 4 | 1 | 0 | 0 | 5 | 5 | 33 | 7 | 1 | 45 | 0 | 0 | 2 | 0 | 2 | 1 | 6 | 0 | 2 | 7 | 3 | 59 | 62 |
| 13:15 | 1 | 0 | 0 | 0 | 1 | 3 | 26 | 3 | 0 | 32 | 3 | 1 | 5 | 3 | 9 | 0 | 13 | 1 | 1 | 14 | 4 | 56 | 60 |
| 13:30 | 4 | 1 | 3 | 1 | 8 | 2 | 37 | 12 | 3 | 51 | 3 | 2 | 11 | 2 | 16 | 1 | 7 | 0 | 1 | 8 | 7 | 83 | 90 |
| 13:45 | 9 | 3 | 3 | 1 | 15 | 5 | 21 | 9 | 0 | 35 | 4 | 5 | 2 | 0 | 11 | 4 | 33 | 1 | 1 | 38 | 2 | 99 | 101 |
| Total | 18 | 5 | 6 | 2 | 29 | 15 | 117 | 31 | 4 | 163 | 10 | 8 | 20 | 5 | 38 | 6 | 59 | 2 | 5 | 67 | 16 | 297 | 313 |
| 14:00 | 8 | 0 | 5 | 0 | 13 | 8 | 33 | 11 | 1 | 52 | 0 | 7 | 5 | 1 | 12 | 0 | 27 | 0 | 3 | 27 | 5 | 104 | 109 |
| 14:15 | 3 | 5 | 0 | 1 | 8 | 8 | 42 | 8 | 3 | 58 | 2 | 3 | 6 | 0 | 11 | 1 | 14 | 1 | 1 | 16 | 5 | 93 | 98 |
| 14:30 | 2 | 2 | 0 | 0 | 4 | 2 | 38 | 11 | 3 | 51 | 1 | 2 | 7 | 0 | 10 | 0 | 20 | 0 | 2 | 20 | 5 | 85 | 90 |
| 14:45 | 6 | 0 | 0 | 1 | 6 | 2 | 45 | 8 | 0 | 55 | 0 | 2 | 5 | 0 | 7 | 4 | 27 | 0 | 3 | 31 | 4 | 99 | 103 |
| Total | 19 | 7 | 5 | 2 | 31 | 20 | 158 | 38 | 7 | 216 | 3 | 14 | 23 | 1 | 40 | 5 | 88 | 1 | 9 | 94 | 19 | 381 | 400 |
| 15:00 | 2 | 2 | 1 | 1 | 5 | 1 | 69 | 18 | 3 | 88 | 0 | 2 | 1 | 0 | 3 | 1 | 9 | 0 | 1 | 10 | 5 | 106 | 111 |
| 15:15 | 4 | 5 | 2 | 0 | 11 | 10 | 65 | 14 | 6 | 89 | 1 | 1 | 1 | 0 | 3 | 1 | 10 | 0 | 2 | 11 | 8 | 114 | 122 |
| 15:30 | 3 | 7 | 1 | 2 | 11 | 4 | 63 | 24 | 6 | 91 | 1 | 3 | 6 | 0 | 10 | 1 | 30 | 0 | 2 | 31 | 10 | 143 | 153 |
| 15:45 | 5 | 2 | 1 | 0 | 8 | 6 | 51 | 21 | 2 | 78 | 0 | 3 | 1 | 1 | 4 | 6 | 43 | 0 | 2 | 49 | 5 | 139 | 144 |
| Total | 14 | 16 | 5 | 3 | 35 | 21 | 248 | 77 | 17 | 346 | 2 | 9 | 9 | 1 | 20 | 9 | 92 | 0 | 7 | 101 | 28 | 502 | 530 |
| 16:00 | 3 | 1 | 1 | 1 | 5 | 5 | 77 | 18 | 2 | 100 | 5 | 3 | 5 | 0 | 13 | 4 | 27 | 1 | 4 | 32 | 7 | 150 | 157 |
| 16:15 | 0 | 4 | 3 | 1 | 7 | 1 | 19 | 3 | 2 | 23 | 5 | 66 | 9 | 4 | 80 | 1 | 20 | 0 | 1 | 21 | 8 | 131 | 139 |
| 16:30 | 10 | 1 | 1 | 0 | 12 | 5 | 37 | 18 | 0 | 60 | 0 | 24 | 8 | 1 | 32 | 1 | 21 | 2 | 0 | 24 | 1 | 128 | 129 |
| 16:45 | 2 | 0 | 0 | 0 | 2 | 2 | 104 | 10 | 0 | 116 | 0 | 6 | 6 | 0 | 12 | 2 | 15 | 1 | 0 | 18 | 0 | 148 | 148 |
| Total | 15 | 6 | 5 | 2 | 26 | 13 | 237 | 49 | 4 | 299 | 10 | 99 | 28 | 5 | 137 | 8 | 83 | 4 | 5 | 95 | 16 | 557 | 573 |
| 17:00 | 1 | 0 | 1 | 0 | 2 | 3 | 80 | 13 | 0 | 96 | 0 | 9 | 5 | 0 | 14 | 0 | 11 | 0 | 0 | 11 | 0 | 123 | 123 |
| 17:15 | 4 | 5 | 0 | 1 | 9 | 2 | 72 | 8 | 4 | 82 | 0 | 11 | 1 | 0 | 12 | 0 | 23 | 0 | 2 | 23 | 7 | 126 | 133 |
| 17:30 | 0 | 2 | 1 | 0 | 3 | 5 | 89 | 16 | 0 | 110 | 0 | 3 | 0 | 0 | 3 | 0 | 14 | 0 | 0 | 14 | 0 | 130 | 130 |
| 17:45 | 5 | 0 | 1 | 1 | 6 | 2 | 88 | 7 | 2 | 97 | 1 | 1 | 1 | 0 | 3 | 0 | 14 | 0 | 1 | 14 | 4 | 120 | 124 |
| Total | 10 | 7 | 3 | 2 | 20 | 12 | 329 | 44 | 6 | 385 | 1 | 24 | 7 | 0 | 32 | 0 | 62 | 0 | 3 | 62 | 11 | 499 | 510 |
| 18:00 | 6 | 2 | 0 | 0 | 8 | 8 | 65 | 15 | 2 | 88 | 0 | 8 | 6 | 1 | 14 | 1 | 20 | 0 | 0 | 21 | 3 | 131 | 134 |
| 18:15 | 2 | 0 | 2 | 0 | 4 | 5 | 61 | 25 | 1 | 91 | 2 | 6 | 6 | 1 | 14 | 0 | 24 | 0 | 0 | 24 | 2 | 133 | 135 |
| 18:30 | 3 | 1 | 2 | 0 | 6 | 13 | 67 | 14 | 1 | 94 | 1 | 5 | 9 | 0 | 15 | 0 | 22 | 0 | 1 | 22 | 2 | 137 | 139 |
| 18:45 | 8 | 2 | 2 | 0 | 12 | 18 | 59 | 20 | 0 | 97 | 0 | 1 | 2 | 1 | 3 | 0 | 17 | 1 | 0 | 18 | 1 | 130 | 131 |
| Total | 19 | 5 | 6 | 0 | 30 | 44 | 252 | 74 | 4 | 370 | 3 | 20 | 23 | 3 | 46 | 1 | 83 | 1 | 1 | 85 | 8 | 531 | 539 |

Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

File Name : TMC0829

Site Code : 08320201

Start Date : 08/12/200

Page No : 2

Weather: Warm and Sunny

Counter: DB-400

Counted by: Jake/Mike

Groups Printed- Unshifted - Bank 1

| Start Time | CR 62 (Kettle River Blvd.) Southbound | | | | | CSAH 18 (Broadway Ave.) Westbound | | | | | CR 62 (Kettle River Blvd.) Northbound | | | | | CSAH 18 (Broadway Ave.) Eastbound | | | | | Entr. Total | Inck. 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 | | | | |
| 19:00 | 1 | 0 | 0 | 0 | 1 | 4 | 35 | 4 | 0 | 43 | 0 | 1 | 3 | 0 | 4 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 61 | 61 |
| 19:15 | 3 | 0 | 1 | 0 | 4 | 4 | 56 | 6 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 3 | 19 | 0 | 0 | 22 | 0 | 0 | 92 | 92 |
| 19:30 | 3 | 0 | 1 | 0 | 4 | 14 | 45 | 10 | 0 | 69 | 0 | 0 | 2 | 0 | 2 | 1 | 7 | 0 | 0 | 8 | 0 | 0 | 83 | 83 |
| 19:45 | 6 | 0 | 0 | 0 | 6 | 19 | 31 | 13 | 0 | 63 | 1 | 0 | 2 | 0 | 3 | 1 | 16 | 2 | 1 | 19 | 1 | 0 | 91 | 92 |
| Total | 13 | 0 | 2 | 0 | 15 | 41 | 167 | 33 | 0 | 241 | 1 | 1 | 7 | 0 | 9 | 5 | 55 | 2 | 1 | 62 | 1 | 0 | 327 | 328 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 20:00 | 8 | 0 | 1 | 0 | 9 | 12 | 45 | 6 | 0 | 63 | 1 | 6 | 1 | 0 | 8 | 0 | 10 | 2 | 1 | 12 | 1 | 0 | 92 | 93 |
| 20:15 | 0 | 1 | 0 | 0 | 1 | 10 | 29 | 14 | 0 | 53 | 2 | 1 | 1 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 59 | 59 |
| 20:30 | 0 | 1 | 4 | 0 | 5 | 7 | 37 | 9 | 0 | 53 | 4 | 5 | 5 | 0 | 14 | 0 | 15 | 2 | 0 | 17 | 0 | 0 | 89 | 89 |
| 20:45 | 1 | 1 | 4 | 0 | 6 | 8 | 28 | 13 | 0 | 49 | 1 | 1 | 2 | 0 | 4 | 3 | 11 | 2 | 2 | 16 | 2 | 0 | 75 | 77 |
| Total | 9 | 3 | 9 | 0 | 21 | 37 | 139 | 42 | 0 | 218 | 8 | 13 | 9 | 0 | 30 | 4 | 36 | 6 | 3 | 46 | 3 | 0 | 315 | 318 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 21:00 | 0 | 1 | 1 | 0 | 2 | 2 | 27 | 6 | 0 | 35 | 0 | 1 | 1 | 0 | 2 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 46 | 46 |
| 21:15 | 0 | 3 | 3 | 0 | 6 | 4 | 25 | 0 | 0 | 29 | 0 | 0 | 1 | 0 | 1 | 4 | 6 | 0 | 1 | 10 | 1 | 0 | 46 | 47 |
| 21:30 | 1 | 0 | 1 | 0 | 2 | 3 | 48 | 0 | 0 | 51 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 60 |
| 21:45 | 8 | 2 | 0 | 0 | 10 | 1 | 21 | 1 | 0 | 23 | 0 | 2 | 0 | 0 | 2 | 3 | 11 | 2 | 0 | 16 | 0 | 0 | 51 | 51 |
| Total | 9 | 6 | 5 | 0 | 20 | 10 | 121 | 7 | 0 | 138 | 0 | 10 | 2 | 0 | 12 | 7 | 24 | 2 | 1 | 33 | 1 | 0 | 203 | 204 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 315 | 150 | 90 | 20 | 555 | 326 | 2238 | 472 | 84 | 3036 | 45 | 227 | 253 | 22 | 525 | 69 | 1163 | 31 | 77 | 1263 | 203 | 0 | 5379 | 5582 |
| Approch % | 56.8 | 27 | 16.2 | | | 10.7 | 73.7 | 15.5 | | | 8.6 | 43.2 | 48.2 | | | 5.5 | 92.1 | 2.5 | | | | | | |
| Total % | 5.9 | 2.8 | 1.7 | | 10.3 | 6.1 | 41.6 | 8.8 | | 56.4 | 0.8 | 4.2 | 4.7 | | 9.8 | 1.3 | 21.6 | 0.6 | | 23.5 | 3.6 | | 96.4 | |
| Unshifted | 315 | 150 | 90 | | 575 | 326 | 2238 | 472 | | 3120 | 45 | 227 | 253 | | 547 | 69 | 1163 | 31 | | 1340 | 0 | 0 | 5582 | |
| % Unshifted | 100 | 100 | 100 | | 100 | 100 | 100 | 100 | | 100 | 100 | 100 | 100 | | 100 | 100 | 100 | 100 | | 100 | 0 | 0 | 100 | |
| Bank 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |
| % Bank 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | |

| Start Time | CR 62 (Kettle River Blvd.) Southbound | | | | CSAH 18 (Broadway Ave.) Westbound | | | | CR 62 (Kettle River Blvd.) Northbound | | | | CSAH 18 (Broadway Ave.) 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 14:00 - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:30 | | | | | | | | | | | | | | | | | |
| 06:30 | 15 | 7 | 5 | 27 | 3 | 18 | 1 | 22 | 0 | 1 | 3 | 4 | 0 | 34 | 0 | 34 | 87 |
| 06:45 | 27 | 5 | 4 | 36 | 6 | 13 | 0 | 19 | 0 | 0 | 1 | 1 | 3 | 38 | 0 | 41 | 97 |
| 07:00 | 9 | 4 | 0 | 13 | 2 | 27 | 1 | 30 | 0 | 0 | 1 | 1 | 0 | 15 | 0 | 15 | 59 |
| 07:15 | 12 | 1 | 2 | 15 | 3 | 18 | 3 | 24 | 1 | 3 | 7 | 11 | 0 | 49 | 2 | 51 | 101 |
| Total Volume | 63 | 17 | 11 | 91 | 14 | 76 | 5 | 95 | 1 | 4 | 12 | 17 | 3 | 136 | 2 | 141 | 344 |
| % App. Total | 69.2 | 18.7 | 12.1 | | 14.7 | 80 | 5.3 | | 5.9 | 23.5 | 70.6 | | 2.1 | 96.5 | 1.4 | | |
| PHF | .583 | .607 | .550 | .632 | .583 | .704 | .417 | .792 | .250 | .333 | .429 | .386 | .250 | .694 | .250 | .691 | .851 |

| | | | | | | | | | | | | | | | | | |
|--|-------------|-------------|-------------|-----------|------------|-------------|-------------|------------|-------------|-------------|-------------|------------|-----------|-------------|------------|------------|------------|
| Peak Hour Analysis From 14:15 to 21:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 15:30 | | | | | | | | | | | | | | | | | |
| 15:30 | 3 | 7 | 1 | 11 | 4 | 63 | 24 | 91 | 1 | 3 | 6 | 10 | 1 | 30 | 0 | 31 | 143 |
| 15:45 | 5 | 2 | 1 | 8 | 6 | 51 | 21 | 78 | 0 | 3 | 1 | 4 | 6 | 43 | 0 | 49 | 139 |
| 16:00 | 3 | 1 | 1 | 5 | 5 | 77 | 18 | 100 | 5 | 3 | 5 | 13 | 4 | 27 | 1 | 32 | 150 |
| 16:15 | 0 | 4 | 3 | 7 | 1 | 19 | 3 | 23 | 5 | 66 | 9 | 80 | 1 | 20 | 0 | 21 | 131 |
| Total Volume | 11 | 14 | 6 | 31 | 16 | 210 | 66 | 292 | 11 | 75 | 21 | 107 | 12 | 120 | 1 | 133 | 563 |
| % App. Total | 35.5 | 45.2 | 19.4 | | 5.5 | 71.9 | 22.6 | | 10.3 | 70.1 | 19.6 | | 9 | 90.2 | 0.8 | | |
| PHF | .550 | .500 | .500 | .705 | .667 | .682 | .688 | .730 | .550 | .284 | .583 | .334 | .500 | .698 | .250 | .679 | .938 |

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

Study Name :
Study Date : 08/19/08
Page No. : 1

Signal Warrants - Summary

Major Street Approaches

Eastbound: CSAH 18 (Broadway Ave.)
Number of Lanes: 2
Approach Speed: 55
Total Approach Volume: 1,263

Westbound: CSAH 18 (Broadway Ave.)
Number of Lanes: 2
Approach Speed: 55
Total Approach Volume: 3,036

Minor Street Approaches

Northbound: CSAH 62 (Kettle River Blvd.)
Number of Lanes: 1

Total Approach Volume: 525

Southbound: CSAH 62 (Kettle River Blvd.)
Number of Lanes: 1

Total Approach Volume: 555

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 1 A&B - Combination of Warrants** Not Satisfied

Required 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 hour. Delay data not evaluated.
 - Warrant 3B - Peak Hour Volumes** Not Satisfied

Volumes do not exceed minimums for any hour.

- Warrant 4 - Pedestrian Volumes** Not Evaluated

- Warrant 5 - School Crossing** Not Evaluated

- Warrant 6 - Coordinated Signal System** Not Evaluated

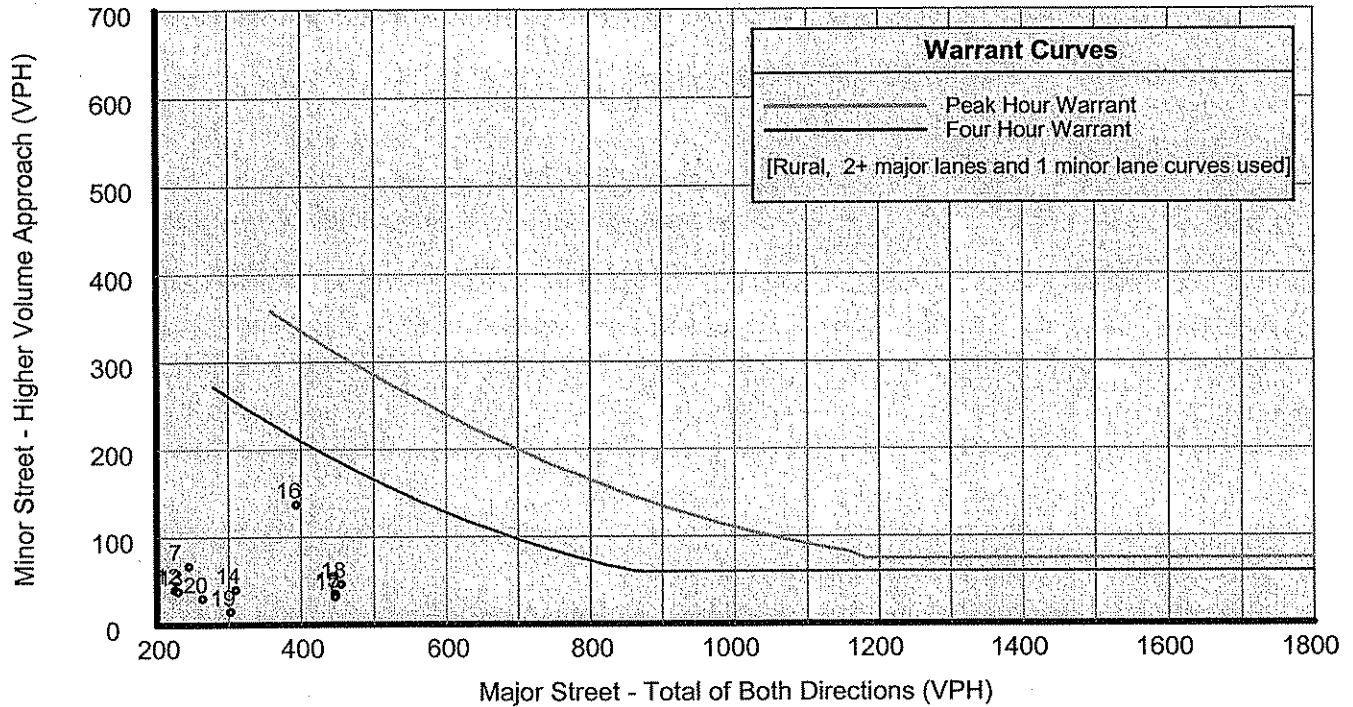
- Warrant 7 - Crash Experience** Not Evaluated

- Warrant 8 - Roadway Network** Not Evaluated

ANOKA COUNTY HIGHWAY PC-WARRANTS TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name :
Study Date : 08/19/08
Page No. : 2

Signal Warrants - Summary



Analysis of 8-Hour Volume Warrants:

| Hour Begin | Major Total | Higher Minor | | War-1A | | | War-1B | | | War-1A&B | | |
|------------|-------------|--------------|-----|------------|------------|--------|------------|------------|--------|------------|------------|--------|
| | | Vol | Dir | Major Crit | Minor Crit | Meets? | Major Crit | Minor Crit | Meets? | Major Crit | Minor Crit | Meets? |
| 00:00 | 0 | 0 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 01:00 | 0 | 0 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 02:00 | 0 | 0 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 03:00 | 0 | 0 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 04:00 | 0 | 0 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 05:00 | 0 | 0 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 06:00 | 187 | 111 | SB | 420-No | 105-Yes | Minor | 630-No | 53-Yes | Minor | 504-No | 84-Yes | Minor |
| 07:00 | 245 | 67 | SB | 420-No | 105-No | --- | 630-No | 53-Yes | Minor | 504-No | 84-No | --- |
| 08:00 | 165 | 54 | SB | 420-No | 105-No | --- | 630-No | 53-Yes | Minor | 504-No | 84-No | --- |
| 09:00 | 139 | 26 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 10:00 | 140 | 10 | SB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 11:00 | 176 | 40 | SB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 12:00 | 226 | 40 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 13:00 | 230 | 38 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 14:00 | 310 | 40 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 15:00 | 447 | 35 | SB | 420-Yes | 105-No | Major | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 16:00 | 394 | 137 | NB | 420-No | 105-Yes | Minor | 630-No | 53-Yes | Minor | 504-No | 84-Yes | Minor |
| 17:00 | 447 | 32 | NB | 420-Yes | 105-No | Major | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 18:00 | 455 | 46 | NB | 420-Yes | 105-No | Major | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 19:00 | 303 | 15 | SB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 20:00 | 264 | 30 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 21:00 | 171 | 20 | SB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 22:00 | 0 | 0 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 23:00 | 0 | 0 | NB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |

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

Study Name :
Study Date : 08/19/08
Page No. : 1

Multi-Way Stop Warrant Report

Major Street Approaches

Eastbound: CSAH 18 (Broadway Ave.)
Total Approach Volume: 1,263
Approach Speed: 55

Westbound: CSAH 18 (Broadway Ave.)
Total Approach Volume: 3,036
Approach Speed: 55

Minor Street Approaches

Northbound: CR 62 (Kettle River Blvd)
Total Approach Volume: 525

Southbound: CR 62 (Kettle River Rd.)
Total Approach Volume: 555

Warrant Summary

Criteria A - Interim Measure Not Evaluated
If traffic signals are justified, stop signs can be installed as an interim measure.

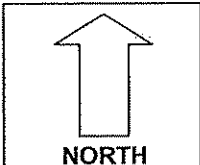
Criteria B - Crash Experience Not Evaluated

Criteria C - Minimum Volumes and Delays Not Satisfied
Delay data not evaluated
Required volumes reached for 1 hours, 8 are needed

Criteria D - 80% of Volumes, Delays, and Crashes Not Evaluated
Delay data not evaluated
Number of crashes (-1) is less than the minimum required (4).
Required volumes reached for 0 hours, 8 are needed

Analysis of 8 Hour Volume Warrants:

| Time | Major Total | Minor Total | Crit C | | | Crit D | | |
|---------------|-------------|-------------|---------|------------|--------|------------|------------|--------|
| | | | Major | Minor Crit | Meets? | Major Crit | Minor Crit | Meets? |
| 00:00 - 01:00 | 0 | 0 | 210-No | 140-No | No | 240-No | 160-No | No |
| 01:00 - 02:00 | 0 | 0 | 210-No | 140-No | No | 240-No | 160-No | No |
| 02:00 - 03:00 | 0 | 0 | 210-No | 140-No | No | 240-No | 160-No | No |
| 03:00 - 04:00 | 0 | 0 | 210-No | 140-No | No | 240-No | 160-No | No |
| 04:00 - 05:00 | 0 | 0 | 210-No | 140-No | No | 240-No | 160-No | No |
| 05:00 - 06:00 | 0 | 0 | 210-No | 140-No | No | 240-No | 160-No | No |
| 06:00 - 07:00 | 187 | 123 | 210-No | 140-No | No | 240-No | 160-No | No |
| 07:00 - 08:00 | 245 | 95 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 08:00 - 09:00 | 165 | 77 | 210-No | 140-No | No | 240-No | 160-No | No |
| 09:00 - 10:00 | 139 | 51 | 210-No | 140-No | No | 240-No | 160-No | No |
| 10:00 - 11:00 | 140 | 17 | 210-No | 140-No | No | 240-No | 160-No | No |
| 11:00 - 12:00 | 176 | 65 | 210-No | 140-No | No | 240-No | 160-No | No |
| 12:00 - 13:00 | 226 | 61 | 210-Yes | 140-No | Major | 240-No | 160-No | No |
| 13:00 - 14:00 | 230 | 67 | 210-Yes | 140-No | Major | 240-No | 160-No | No |
| 14:00 - 15:00 | 310 | 71 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 15:00 - 16:00 | 447 | 55 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 16:00 - 17:00 | 394 | 163 | 210-Yes | 140-Yes | Both | 240-Yes | 160-Yes | Both |
| 17:00 - 18:00 | 447 | 52 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 18:00 - 19:00 | 455 | 76 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 19:00 - 20:00 | 303 | 24 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 20:00 - 21:00 | 264 | 51 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 21:00 - 22:00 | 171 | 32 | 210-No | 140-No | No | 240-No | 160-No | No |
| 22:00 - 23:00 | 0 | 0 | 210-No | 140-No | No | 240-No | 160-No | No |
| 23:00 - 00:00 | 0 | 0 | 210-No | 140-No | No | 240-No | 160-No | No |



COUNT LOCATION:

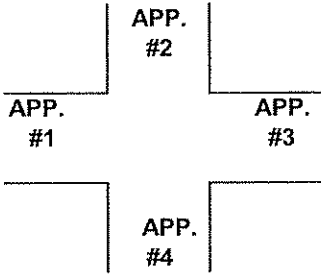
CSAH 18 Broadway Ave @

DATE:

08/12/2008

CSAH 62 Kettle River Blvd.

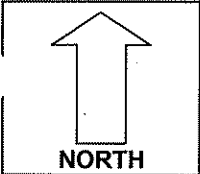
| |
|-----------------|
| APP. #1 = 18 |
| APP. #2 = 62 |
| APP. #3 = 18 |
| APP. #4 = 62 |



- 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 | | |
| 6:15-6:30 | | | | | | 4 | | |
| 6:30-6:45 | | | | | | 6 | | |
| 6:45-7:00 | | | | | | | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 12 |
| 7:00-7:15 | | | | | | 5 | | |
| 7:15-7:30 | | | | | | 6 | | |
| 7:30-7:45 | | | | | | 4 | | |
| 7:45-8:00 | | | | | | 3 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 18 |
| 8:00-8:15 | | | | | | 5 | | |
| 8:15-8:30 | | | | | | 1 | | |
| 8:30-8:45 | | | | | | 3 | | |
| 8:45-9:00 | | | | | | 5 | | 1 |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 15 |
| 9:00-9:15 | | | | | | 3 | | |
| 9:15-9:30 | | | | | | 2 | | |
| 9:30-9:45 | | | | | | 2 | | |
| 9:45-10:00 | | | | | | 2 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 9 |
| 10:00-10:15 | | | | | | 7 | | |
| 10:15-10:30 | | | | | | 5 | | |
| 10:30-10:45 | | | | | | 4 | 1 | |
| 10:45-11:00 | | | | | | | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 17 |
| 11:00-11:15 | | | | | | 2 | | |
| 11:15-11:30 | | | | | | 3 | | |
| 11:30-11:45 | | | | | | 8 | | |
| 11:45-12:00 | | | | | | 6 | 1 | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 20 |
| 12:00-12:15 | | | | | | 4 | | |
| 12:15-12:30 | | | | | | 3 | | |
| 12:30-12:45 | | | | | | 2 | | |
| 12:45-1:00 | | | | | | 3 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 12 |
| 1:00-1:15 | | | | | | 3 | | |
| 1:15-1:30 | | | | | | 4 | | |
| 1:30-1:45 | | | | | | 7 | | |
| 1:45-2:00 | | | | | | 2 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 16 |
| | | | | | TOTAL | | TOTAL | 119 |

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COUNT LOCATION:

CSAH 18 Broadway Ave @

DATE:

08/13/2008

CSAH 62 Kettle River Blvd.

| |
|-----------------|
| APP. #1 = 18 |
| APP. #2 = 62 |
| APP. #3 = 18 |
| APP. #4 = 62 |

| | |
|---------|---------|
| 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 |
| 2:00-2:15PM | | | | | | 5 | | 1 |
| 2:15-2:30 | | | | | | 5 | | |
| 2:30-2:45 | | | | | | 5 | | |
| 2:45-3:00 | | | | | | 4 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 20 |
| 3:00-3:15 | | | | | | 5 | | |
| 3:15-3:30 | | | | | | 8 | | |
| 3:30-3:45 | | | | | | 10 | | |
| 3:45-4:00 | | | | | | 5 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 28 |
| 4:00-4:15 | | | | | | 7 | | |
| 4:15-4:30 | | | | | | 8 | | |
| 4:30-4:45 | | | | | | 1 | | |
| 4:45-5:00 | | | | | | | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 16 |
| 5:00-5:15 | | | | | | | | |
| 5:15-5:30 | | | | | | 7 | | |
| 5:30-5:45 | | | | | | | | |
| 5:45-6:00 | | | | | | 4 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 11 |
| 6:00-6:15 | | | | | | 3 | | |
| 6:15-6:30 | | | | | | 2 | | |
| 6:30-6:45 | | | | | | 2 | | |
| 6:45-7:00 | | | | | | 1 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 8 |
| 7:00-7:15 | | | | | | | | |
| 7:15-7:30 | | | | | | | | |
| 7:30-7:45 | | | | | | | | |
| 7:45-8:00 | | | | | | 1 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 1 |
| 8:00-8:15 | | | | | | 1 | | |
| 8:15-8:30 | | | | | | | | |
| 8:30-8:45 | | | | | | | | |
| 8:45-9:00 | | | | | | 2 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 3 |
| 9:00-9:15 | | | | | | | | |
| 9:15-9:30 | | | | | | 1 | | |
| 9:30-9:45 | | | | | | | | |
| 9:45-10:00 | | | | | | | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 1 |
| | | | | | TOTAL | | TOTAL | 88 |

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