

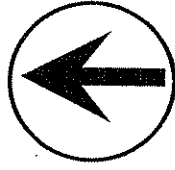
Date : 07/13/09

Count Number : TMC0923

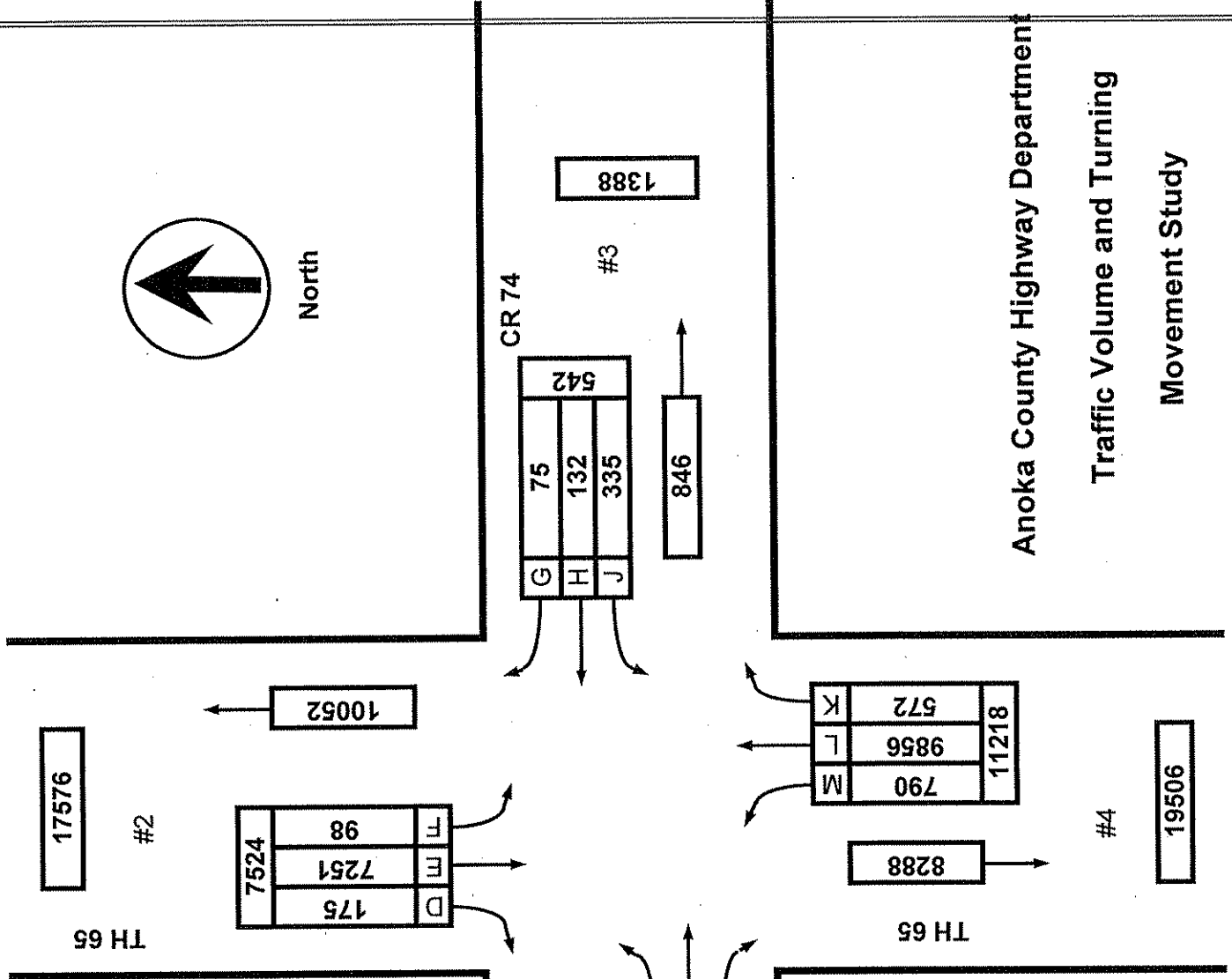
Location : TH 65 (CENTRAL AVE.)

@ CR 74 (221st Ave.)

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



North



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date : 07/13/09

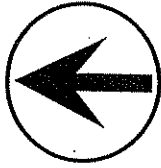
Count Number : TMC0923

Location : TH 65 (CENTRAL AVE.)

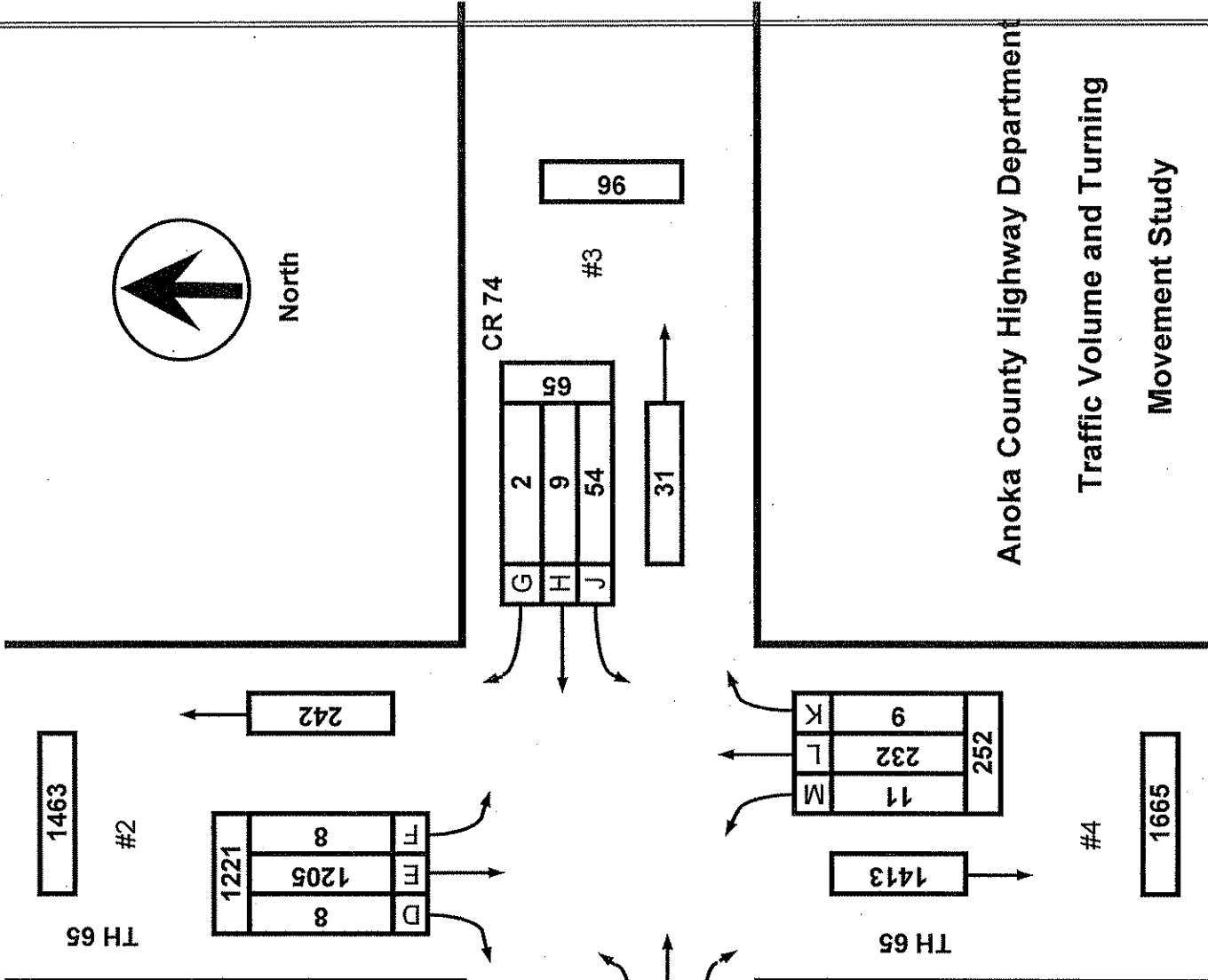
@ CR 74 (221st Ave.)

Collection Period : AM PEAK

Hour : 6:15 AM-7:15 AM



North



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

Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

Date : 07/13/09

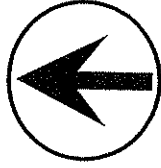
Count Number : TMC0923

Location : TH 65 (CENTRAL AVE.)

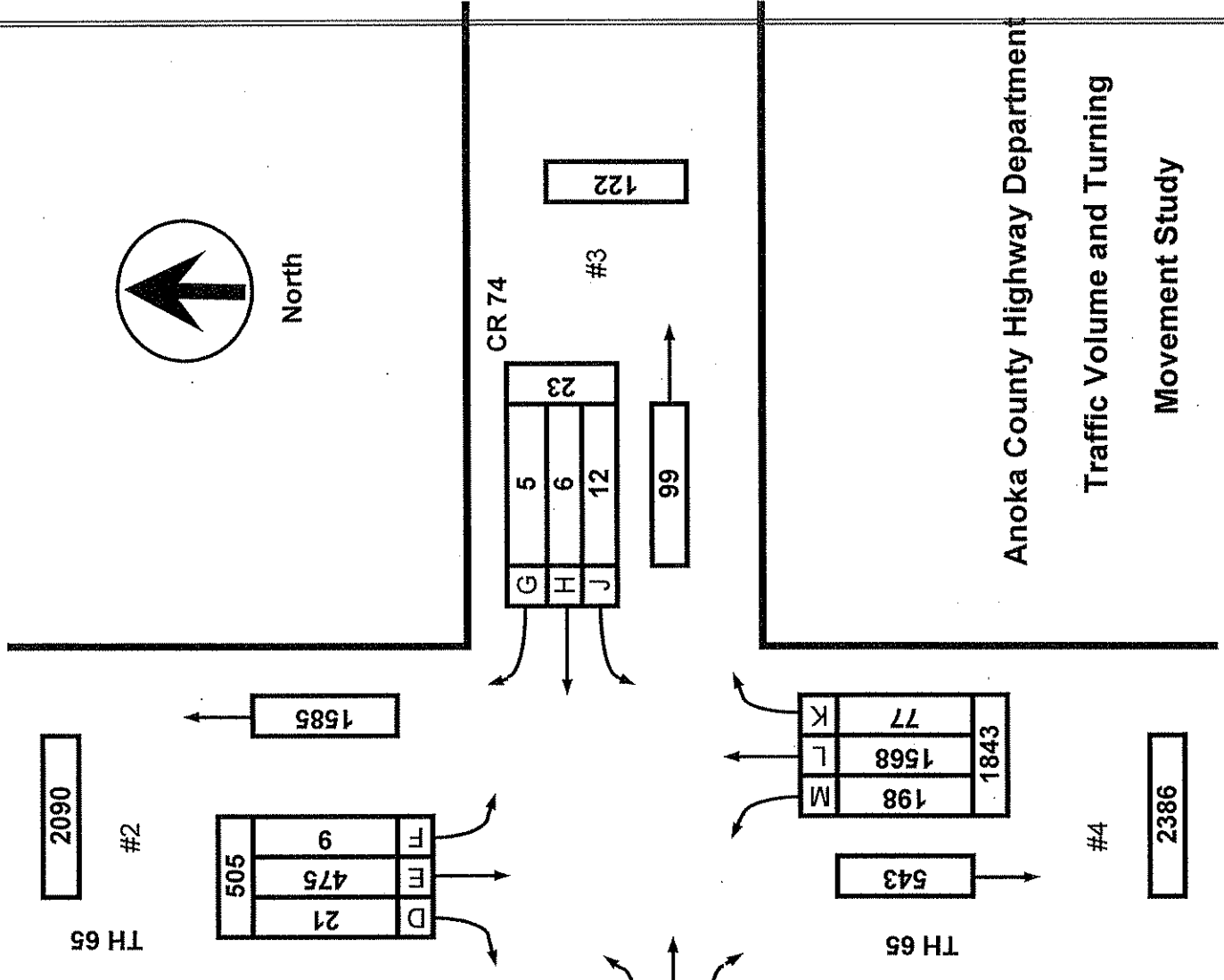
@ CR 74 (221st Ave.)

Collection Period : PM PEAK

Hour : 4:30-5:30 PM



North



Anoka County Highway Department
 Traffic Volume and Turning
 Movement Study

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

Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Weather: SUNNY/ WARM

Counter: DB-400

inted by: Jake/Laura

File Name : TMC0923

Site Code : 09230202

Start Date : 7/13/2009

Page No : 1

Groups Printed- Unshifted - Bank 1

| Start Time | TH 65 Southbound | | | | | CR 74 Westbound | | | | | TH 65 Northbound | | | | | CR 74 Eastbound | | | | | Excl. Total | Incl. 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 | | | |
| 06:00 | 0 | 302 | 1 | 7 | 303 | 8 | 5 | 0 | 0 | 13 | 5 | 34 | 0 | 2 | 39 | 0 | 2 | 23 | 0 | 25 | 9 | 380 | 389 |
| 06:15 | 1 | 343 | 2 | 4 | 346 | 18 | 5 | 0 | 0 | 23 | 2 | 46 | 2 | 0 | 50 | 4 | 6 | 31 | 1 | 41 | 5 | 460 | 465 |
| 06:30 | 1 | 308 | 2 | 8 | 311 | 11 | 0 | 1 | 0 | 12 | 4 | 62 | 2 | 4 | 68 | 2 | 2 | 44 | 1 | 48 | 13 | 439 | 452 |
| 06:45 | 2 | 271 | 2 | 11 | 275 | 10 | 2 | 1 | 1 | 13 | 2 | 56 | 2 | 3 | 60 | 0 | 4 | 33 | 1 | 37 | 16 | 385 | 401 |
| Total | 4 | 1224 | 7 | 30 | 1235 | 47 | 12 | 2 | 1 | 61 | 13 | 198 | 6 | 9 | 217 | 6 | 14 | 131 | 3 | 151 | 43 | 1664 | 1707 |
| 07:00 | 4 | 283 | 2 | 8 | 289 | 15 | 2 | 0 | 0 | 17 | 3 | 68 | 3 | 6 | 74 | 2 | 2 | 46 | 3 | 50 | 17 | 430 | 447 |
| 07:15 | 0 | 234 | 2 | 4 | 236 | 14 | 2 | 2 | 0 | 18 | 7 | 92 | 0 | 7 | 99 | 1 | 0 | 31 | 1 | 32 | 12 | 385 | 397 |
| 07:30 | 0 | 267 | 4 | 9 | 271 | 13 | 0 | 1 | 1 | 14 | 3 | 97 | 2 | 4 | 102 | 3 | 5 | 26 | 3 | 34 | 17 | 421 | 438 |
| 07:45 | 3 | 162 | 9 | 5 | 174 | 5 | 29 | 2 | 3 | 36 | 12 | 94 | 5 | 11 | 111 | 2 | 1 | 17 | 0 | 20 | 19 | 341 | 360 |
| Total | 7 | 946 | 17 | 26 | 970 | 47 | 33 | 5 | 4 | 85 | 25 | 351 | 10 | 28 | 386 | 8 | 8 | 120 | 7 | 136 | 65 | 1577 | 1642 |
| 08:00 | 1 | 189 | 9 | 6 | 199 | 5 | 1 | 1 | 2 | 7 | 7 | 77 | 4 | 11 | 88 | 2 | 2 | 14 | 0 | 18 | 19 | 312 | 331 |
| 08:15 | 1 | 186 | 3 | 9 | 190 | 1 | 1 | 1 | 0 | 3 | 4 | 95 | 4 | 8 | 103 | 5 | 3 | 26 | 1 | 34 | 18 | 330 | 348 |
| 08:30 | 0 | 128 | 4 | 9 | 132 | 7 | 2 | 1 | 0 | 10 | 3 | 91 | 3 | 7 | 97 | 3 | 5 | 20 | 1 | 28 | 17 | 267 | 284 |
| 08:45 | 4 | 131 | 4 | 9 | 139 | 8 | 2 | 1 | 1 | 11 | 5 | 103 | 12 | 8 | 120 | 1 | 4 | 16 | 0 | 21 | 18 | 291 | 309 |
| Total | 6 | 634 | 20 | 33 | 660 | 21 | 6 | 4 | 3 | 31 | 19 | 366 | 23 | 34 | 408 | 11 | 14 | 76 | 2 | 101 | 72 | 1200 | 1272 |
| 09:00 | 2 | 118 | 1 | 6 | 121 | 1 | 0 | 0 | 0 | 1 | 4 | 112 | 2 | 12 | 118 | 5 | 3 | 13 | 1 | 21 | 19 | 261 | 280 |
| 09:15 | 2 | 138 | 3 | 10 | 143 | 2 | 2 | 0 | 0 | 4 | 5 | 85 | 4 | 6 | 94 | 3 | 1 | 12 | 2 | 16 | 18 | 257 | 275 |
| 09:30 | 1 | 127 | 7 | 10 | 135 | 5 | 2 | 0 | 3 | 7 | 2 | 136 | 8 | 7 | 146 | 0 | 3 | 9 | 1 | 12 | 21 | 300 | 321 |
| 09:45 | 3 | 114 | 4 | 5 | 121 | 13 | 3 | 2 | 3 | 18 | 5 | 128 | 10 | 11 | 143 | 4 | 5 | 13 | 3 | 22 | 22 | 304 | 326 |
| Total | 8 | 497 | 15 | 31 | 520 | 21 | 7 | 2 | 6 | 30 | 16 | 461 | 24 | 36 | 501 | 12 | 12 | 47 | 7 | 71 | 80 | 1122 | 1202 |
| 10:00 | 3 | 116 | 1 | 4 | 120 | 8 | 3 | 2 | 2 | 13 | 11 | 90 | 10 | 12 | 111 | 3 | 3 | 15 | 1 | 21 | 19 | 265 | 284 |
| 10:15 | 3 | 102 | 1 | 8 | 106 | 3 | 0 | 0 | 0 | 3 | 6 | 103 | 8 | 5 | 117 | 6 | 3 | 13 | 2 | 22 | 15 | 248 | 263 |
| 10:30 | 3 | 114 | 6 | 14 | 123 | 3 | 3 | 1 | 1 | 7 | 6 | 92 | 6 | 12 | 104 | 7 | 2 | 11 | 0 | 20 | 27 | 254 | 281 |
| 10:45 | 0 | 52 | 0 | 3 | 52 | 5 | 2 | 1 | 2 | 8 | 6 | 121 | 6 | 10 | 133 | 1 | 0 | 2 | 0 | 3 | 15 | 196 | 211 |
| Total | 9 | 384 | 8 | 29 | 401 | 19 | 8 | 4 | 5 | 31 | 29 | 406 | 30 | 39 | 465 | 17 | 8 | 41 | 3 | 66 | 76 | 963 | 1039 |
| 11:00 | 0 | 93 | 1 | 10 | 94 | 7 | 1 | 1 | 2 | 9 | 4 | 117 | 2 | 8 | 123 | 1 | 0 | 2 | 0 | 3 | 20 | 229 | 249 |
| 11:15 | 0 | 131 | 0 | 7 | 131 | 10 | 5 | 4 | 0 | 19 | 7 | 157 | 3 | 12 | 167 | 5 | 6 | 3 | 1 | 14 | 20 | 331 | 351 |
| 11:30 | 2 | 82 | 3 | 3 | 87 | 6 | 3 | 0 | 3 | 9 | 10 | 157 | 7 | 7 | 174 | 0 | 4 | 8 | 1 | 12 | 14 | 282 | 296 |
| 11:45 | 1 | 58 | 0 | 2 | 59 | 4 | 2 | 0 | 0 | 6 | 7 | 206 | 9 | 14 | 222 | 0 | 1 | 4 | 0 | 5 | 16 | 292 | 308 |
| Total | 3 | 364 | 4 | 22 | 371 | 27 | 11 | 5 | 5 | 43 | 28 | 637 | 21 | 41 | 686 | 6 | 11 | 17 | 2 | 34 | 70 | 1134 | 1204 |
| 12:00 | 2 | 121 | 0 | 6 | 123 | 8 | 0 | 2 | 2 | 10 | 6 | 155 | 9 | 5 | 170 | 2 | 5 | 3 | 1 | 10 | 14 | 313 | 327 |
| 12:15 | 1 | 97 | 1 | 4 | 99 | 13 | 1 | 3 | 1 | 17 | 7 | 152 | 5 | 6 | 164 | 3 | 7 | 7 | 0 | 17 | 11 | 297 | 308 |
| 12:30 | 4 | 132 | 1 | 7 | 137 | 10 | 2 | 2 | 3 | 14 | 6 | 209 | 15 | 14 | 230 | 1 | 1 | 8 | 0 | 10 | 24 | 391 | 415 |
| 12:45 | 2 | 205 | 3 | 13 | 210 | 5 | 1 | 4 | 0 | 10 | 8 | 259 | 6 | 7 | 273 | 6 | 1 | 7 | 2 | 14 | 22 | 507 | 529 |
| Total | 9 | 555 | 5 | 30 | 569 | 36 | 4 | 11 | 6 | 51 | 27 | 775 | 35 | 32 | 837 | 12 | 14 | 25 | 3 | 51 | 71 | 1508 | 1579 |
| 13:00 | 1 | 140 | 2 | 5 | 143 | 8 | 5 | 1 | 1 | 14 | 10 | 242 | 7 | 13 | 259 | 0 | 1 | 10 | 1 | 11 | 20 | 427 | 447 |
| 13:15 | 1 | 95 | 2 | 8 | 98 | 9 | 1 | 2 | 0 | 12 | 6 | 229 | 6 | 10 | 241 | 0 | 4 | 14 | 0 | 18 | 18 | 369 | 387 |
| 13:30 | 0 | 136 | 1 | 8 | 137 | 4 | 5 | 0 | 1 | 9 | 8 | 173 | 8 | 9 | 189 | 0 | 1 | 9 | 0 | 10 | 18 | 345 | 363 |
| 13:45 | 1 | 49 | 0 | 3 | 50 | 4 | 1 | 2 | 0 | 7 | 4 | 100 | 3 | 11 | 107 | 1 | 1 | 2 | 1 | 4 | 15 | 168 | 183 |
| Total | 3 | 420 | 5 | 24 | 428 | 25 | 12 | 5 | 2 | 42 | 28 | 744 | 24 | 43 | 796 | 1 | 7 | 35 | 2 | 43 | 71 | 1309 | 1380 |
| 14:00 | 4 | 50 | 5 | 3 | 59 | 3 | 1 | 2 | 1 | 6 | 4 | 106 | 1 | 2 | 111 | 2 | 2 | 1 | 0 | 5 | 6 | 181 | 187 |
| 14:15 | 1 | 128 | 2 | 5 | 131 | 4 | 2 | 1 | 0 | 7 | 17 | 150 | 10 | 4 | 177 | 1 | 3 | 15 | 0 | 19 | 9 | 334 | 343 |
| 14:30 | 1 | 120 | 6 | 7 | 127 | 1 | 0 | 1 | 0 | 2 | 10 | 222 | 9 | 9 | 241 | 0 | 5 | 11 | 0 | 16 | 16 | 386 | 402 |
| 14:45 | 0 | 102 | 3 | 8 | 105 | 4 | 1 | 4 | 0 | 9 | 9 | 218 | 3 | 8 | 230 | 2 | 1 | 10 | 0 | 13 | 16 | 357 | 373 |
| Total | 6 | 400 | 16 | 23 | 422 | 12 | 4 | 8 | 1 | 24 | 40 | 696 | 23 | 23 | 759 | 5 | 11 | 37 | 0 | 53 | 47 | 1258 | 1305 |
| 15:00 | 2 | 131 | 1 | 3 | 134 | 3 | 1 | 0 | 1 | 4 | 10 | 276 | 19 | 6 | 305 | 1 | 2 | 6 | 0 | 9 | 10 | 452 | 462 |
| 15:15 | 0 | 117 | 4 | 6 | 121 | 5 | 4 | 1 | 1 | 10 | 20 | 283 | 10 | 11 | 313 | 0 | 5 | 7 | 0 | 12 | 18 | 456 | 474 |
| 15:30 | 0 | 124 | 7 | 9 | 131 | 3 | 0 | 0 | 0 | 3 | 23 | 355 | 14 | 8 | 392 | 3 | 8 | 12 | 2 | 23 | 19 | 549 | 568 |
| 15:45 | 1 | 103 | 5 | 5 | 109 | 13 | 2 | 3 | 0 | 18 | 28 | 292 | 15 | 6 | 335 | 0 | 2 | 5 | 0 | 7 | 11 | 469 | 480 |
| Total | 3 | 475 | 17 | 23 | 495 | 24 | 7 | 4 | 2 | 35 | 61 | 1206 | 58 | 31 | 1345 | 4 | 17 | 30 | 2 | 51 | 58 | 1926 | 1984 |
| 16:00 | 3 | 101 | 2 | 3 | 106 | 1 | 1 | 4 | 0 | 6 | 36 | 368 | 14 | 9 | 418 | 2 | 1 | 8 | 0 | 11 | 12 | 541 | 553 |
| 16:15 | 2 | 120 | 2 | 1 | 124 | 3 | 3 | 4 | 1 | 10 | 37 | 382 | 13 | 4 | 432 | 2 | 5 | 10 | 0 | 17 | 6 | 583 | 589 |
| 16:30 | 4 | 124 | 6 | 3 | 134 | 4 | 1 | 0 | 0 | 5 | 49 | 339 | 12 | 10 | 400 | 3 | 3 | 10 | 0 | 16 | 13 | 555 | 568 |
| 16:45 | 4 | 92 | 4 | 3 | 100 | 4 | 0 | 0 | 0 | 4 | 47 | 428 | 18 | 6 | 493 | 4 | 4 | 8 | 0 | 16 | 9 | 613 | 622 |
| Total | 13 | 437 | 14 | 10 | 464 | 12 | 5 | 8 | 1 | 25 | 169 | 1517 | 57 | 29 | 1743 | 11 | 13 | 36 | 0 | 60 | 40 | 2292 | 2332 |
| 17:00 | 0 | 106 | 3 | 4 | 109 | 2 | 3 | 4 | 0 | 9 | 52 | 450 | 21 | 6 | 523 | 3 | 3 | 28 | 1 | 34 | 11 | 675 | 686 |
| 17:15 | 1 | 153 | 8 | 5 | 162 | 2 | 2 | 1 | 0 | 5 | 50 | 351 | 26 | 2 | 427 | 2 | 3 | 10 | 0 | 15 | 7 | 609 | 616 |
| 17:30 | 1 | 92 | 9 | 2 | 102 | 14 | 5 | 3 | 0 | 22 | 37 | 307 | 38 | 3 | 382 | 5 | 5 | 5 | 0 | 15 | 5 | 521 | 526 |
| 17:45 | 5 | 104 | 5 | 4 | 114 | 4 | 3 | 4 | 0 | 11 | 34 | 272 | 32 | 2 | 338 | 6 | 7 | 9 | 0 | 22 | 6 | 485 | 491 |
| Total | 7 | 455 | 25 | 15 | 487 | 22 | 13 | 12 | 0 | 47 | 173 | 1380 | 117 | 13 | 1670 | 16 | 18 | 52 | 1 | 86 | 29 | 2290 | 2319 |
| 18:00 | 3 | 82 | 1 | 3 | 86 | 7 | 1 | 2 | 0 | 10 | 47 | 240 | 44 | 3 | 331 | 0 | 6 | 8 | 0 | 14 | 6 | 441 | 447 |
| 18:15 | 2 | 95 | 4 | 4 | 101 | 1 | 0 | 0 | 0 | 1 | 14 | 246 | 40 | 3 | 300 | 3 | 6 | 5 | 1 | 14 | 8 | 416 | 424 |
| 18:30 | 3 | 73 | 5 | 2 | 81 | 3 | 3 | 1 | 0 | 7 | 21 | 190 | 19 | 6 | 230 | 2 | 5 | 17 | 0 | 24 | 8 | 342 | 350 |
| 18:45 | 7 | 56 | 3 | 1 | 66 | 5 | 1 | 1 | 0 | 7 | 21 | 159 | 19 | 4 | 199 | 5 | 6 | 3 | 0 | 14 | 5 | 286 | 291 |
| Total | 15 | 306 | 13 | 10 | 334 | 16 | 5 | 4 | 0 | 25 | 103 | 835 | 122 | 16 | 1060 | 10 | 23 | 33 | 1 | 66 | 27 | 1485 | 1512 |

Anoka County Highway Department

Traffic Engineering Section

Traffic Volume and Turning Movement Study

Weather: SUNNY/ WARM
 Counter: DB-400
 Printed by: Jake/Laura

File Name : TMC0923
 Site Code : 09230202
 Start Date : 7/13/2009
 Page No : 2

Groups Printed- Unshifted - Bank 1

| Start Time | TH 65 Southbound | | | | | CR 74 Westbound | | | | | TH 65 Northbound | | | | | CR 74 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 | | | |
| 19:00 | 3 | 92 | 4 | 0 | 99 | 4 | 1 | 0 | 0 | 5 | 15 | 146 | 13 | 1 | 174 | 1 | 5 | 14 | 0 | 20 | 1 | 298 | 299 |
| 19:15 | 2 | 62 | 5 | 3 | 69 | 2 | 4 | 1 | 0 | 7 | 24 | 138 | 9 | 3 | 171 | 1 | 1 | 8 | 1 | 10 | 7 | 257 | 264 |
| Grand Total | 98 | 7251 | 175 | 309 | 7524 | 335 | 132 | 75 | 36 | 542 | 790 | 9856 | 572 | 378 | 11218 | 121 | 176 | 702 | 34 | 999 | 757 | 20283 | 21040 |
| Apprch % | 1.3 | 96.4 | 2.3 | | | 61.8 | 24.4 | 13.8 | | | 7 | 87.9 | 5.1 | | | 12.1 | 17.6 | 70.3 | | | | | |
| Total % | 0.5 | 35.7 | 0.9 | | 37.1 | 1.7 | 0.7 | 0.4 | | 2.7 | 3.9 | 48.6 | 2.8 | | 55.3 | 0.6 | 0.9 | 3.5 | | 4.9 | 3.6 | 96.4 | |
| Unshifted | 98 | 7251 | 175 | | 7833 | 335 | 132 | 75 | | 578 | 790 | 9856 | 572 | | 11596 | 121 | 176 | 702 | | 1033 | 0 | 0 | 21040 |
| % Unshifted | 100 | 100 | 100 | 100 | 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 | 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 | 0 | 0 | 0 | 0 |

| Start Time | TH 65 Southbound | | | | CR 74 Westbound | | | | TH 65 Northbound | | | | CR 74 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 06:15 | | | | | | | | | | | | | | | | | |
| 06:15 | 1 | 343 | 2 | 346 | 18 | 5 | 0 | 23 | 2 | 46 | 2 | 50 | 4 | 6 | 31 | 41 | 460 |
| 06:30 | 1 | 308 | 2 | 311 | 11 | 0 | 1 | 12 | 4 | 62 | 2 | 68 | 2 | 2 | 44 | 48 | 439 |
| 06:45 | 2 | 271 | 2 | 275 | 10 | 2 | 1 | 13 | 2 | 56 | 2 | 60 | 0 | 4 | 33 | 37 | 385 |
| 07:00 | 4 | 283 | 2 | 289 | 15 | 2 | 0 | 17 | 3 | 68 | 3 | 74 | 2 | 2 | 46 | 50 | 430 |
| Total Volume | 8 | 1205 | 8 | 1221 | 54 | 9 | 2 | 65 | 11 | 232 | 9 | 252 | 8 | 14 | 154 | 176 | 1714 |
| % App. Total | 0.7 | 98.7 | 0.7 | | 83.1 | 13.8 | 3.1 | | 4.4 | 92.1 | 3.6 | | 4.5 | 8 | 87.5 | | |
| PHF | .500 | .878 | 1.000 | .882 | .750 | .450 | .500 | .707 | .688 | .853 | .750 | .851 | .500 | .583 | .837 | .880 | .932 |

| Start Time | TH 65 Southbound | | | | CR 74 Westbound | | | | TH 65 Northbound | | | | CR 74 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 19:15 - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:30 | | | | | | | | | | | | | | | | | |
| 16:30 | 4 | 124 | 6 | 134 | 4 | 1 | 0 | 5 | 49 | 339 | 12 | 400 | 3 | 3 | 10 | 16 | 555 |
| 16:45 | 4 | 92 | 4 | 100 | 4 | 0 | 0 | 4 | 47 | 428 | 18 | 493 | 4 | 4 | 8 | 16 | 613 |
| 17:00 | 0 | 106 | 3 | 109 | 2 | 3 | 4 | 9 | 52 | 450 | 21 | 523 | 3 | 3 | 28 | 34 | 675 |
| 17:15 | 1 | 153 | 8 | 162 | 2 | 2 | 1 | 5 | 50 | 351 | 26 | 427 | 2 | 3 | 10 | 15 | 609 |
| Total Volume | 9 | 475 | 21 | 505 | 12 | 6 | 5 | 23 | 198 | 1568 | 77 | 1843 | 12 | 13 | 56 | 81 | 2452 |
| % App. Total | 1.8 | 94.1 | 4.2 | | 52.2 | 26.1 | 21.7 | | 10.7 | 85.1 | 4.2 | | 14.8 | 16 | 69.1 | | |
| PHF | .563 | .776 | .656 | .779 | .750 | .500 | .313 | .639 | .952 | .871 | .740 | .881 | .750 | .813 | .500 | .596 | .908 |

ANOKA COUNTY HIGHWAY
PC-WARRANTS
TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name :
 Study Date : 07/17/09
 Page No. : 1

Signal Warrants - Summary

Major Street Approaches

Northbound: TH 65
 Number of Lanes: 2
 Approach Speed: 65
 Total Approach Volume: 11,218

Southbound: TH 65
 Number of Lanes: 2
 Approach Speed: 65
 Total Approach Volume: 7,524

Minor Street Approaches

Eastbound: CR 74
 Number of Lanes: 1
 Total Approach Volume: 999

Westbound: CR 74
 Number of Lanes: 1
 Total Approach Volume: 542

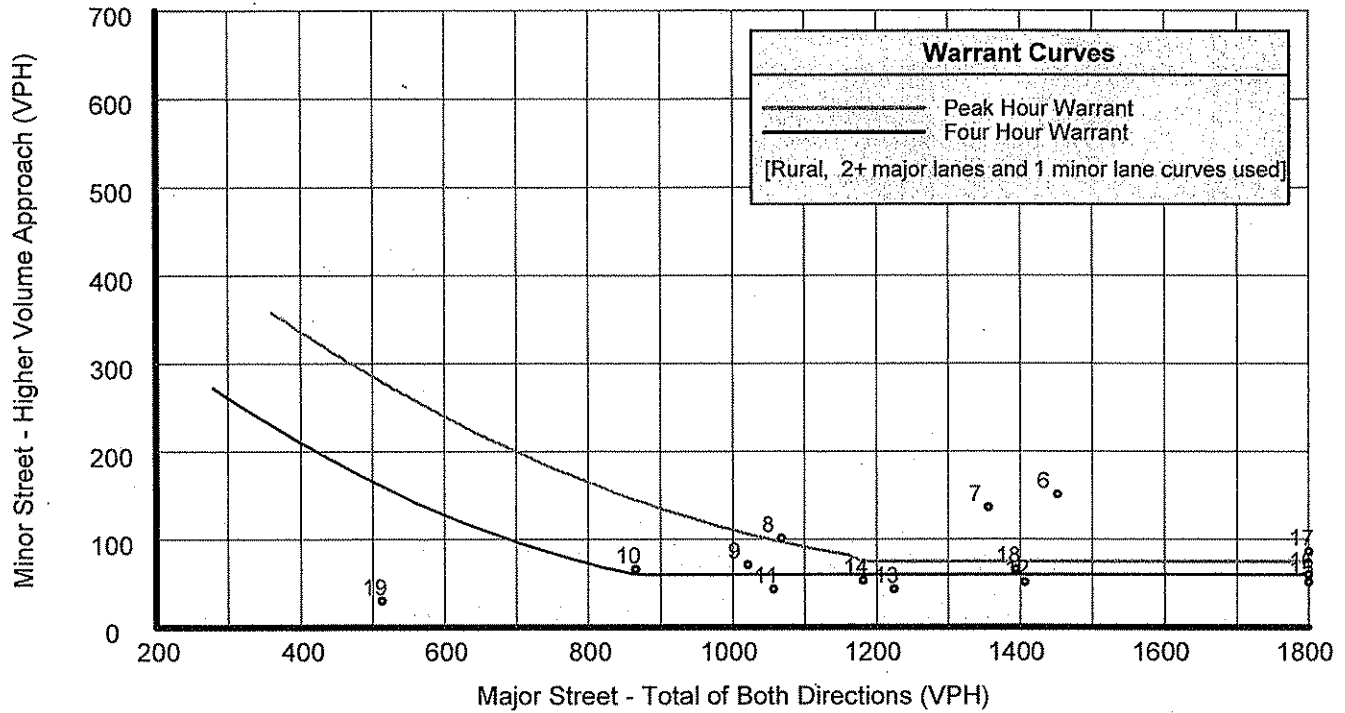
Warrant Summary (Rural values apply.)

| | |
|--|----------------------|
| 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 4 hours, 8 are needed | |
| Warrant 2 - Four Hour Volumes | Satisfied |
| Number of hours (8) volumes exceed minimum >= minimum required (4). | |
| Warrant 3 - Peak Hour | Satisfied |
| Warrant 3A - Peak Hour Delay | Satisfied |
| Number of hours (11) 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 :
Study Date : 07/17/09
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 | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 01:00 | 0 | 0 | EB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 02:00 | 0 | 0 | EB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 03:00 | 0 | 0 | EB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 04:00 | 0 | 0 | EB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 05:00 | 0 | 0 | EB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 06:00 | 1,452 | 151 | EB | 420-Yes | 105-Yes | Both | 630-Yes | 53-Yes | Both | 504-Yes | 84-Yes | Both |
| 07:00 | 1,356 | 136 | EB | 420-Yes | 105-Yes | Both | 630-Yes | 53-Yes | Both | 504-Yes | 84-Yes | Both |
| 08:00 | 1,068 | 101 | EB | 420-Yes | 105-No | Major | 630-Yes | 53-Yes | Both | 504-Yes | 84-Yes | Both |
| 09:00 | 1,021 | 71 | EB | 420-Yes | 105-No | Major | 630-Yes | 53-Yes | Both | 504-Yes | 84-No | Major |
| 10:00 | 866 | 66 | EB | 420-Yes | 105-No | Major | 630-Yes | 53-Yes | Both | 504-Yes | 84-No | Major |
| 11:00 | 1,057 | 43 | WB | 420-Yes | 105-No | Major | 630-Yes | 53-No | Major | 504-Yes | 84-No | Major |
| 12:00 | 1,406 | 51 | EB | 420-Yes | 105-No | Major | 630-Yes | 53-No | Major | 504-Yes | 84-No | Major |
| 13:00 | 1,224 | 43 | EB | 420-Yes | 105-No | Major | 630-Yes | 53-No | Major | 504-Yes | 84-No | Major |
| 14:00 | 1,181 | 53 | EB | 420-Yes | 105-No | Major | 630-Yes | 53-Yes | Both | 504-Yes | 84-No | Major |
| 15:00 | 1,840 | 51 | EB | 420-Yes | 105-No | Major | 630-Yes | 53-No | Major | 504-Yes | 84-No | Major |
| 16:00 | 2,207 | 60 | EB | 420-Yes | 105-No | Major | 630-Yes | 53-Yes | Both | 504-Yes | 84-No | Major |
| 17:00 | 2,157 | 86 | EB | 420-Yes | 105-No | Major | 630-Yes | 53-Yes | Both | 504-Yes | 84-Yes | Both |
| 18:00 | 1,394 | 66 | EB | 420-Yes | 105-No | Major | 630-Yes | 53-Yes | Both | 504-Yes | 84-No | Major |
| 19:00 | 513 | 30 | EB | 420-Yes | 105-No | Major | 630-No | 53-No | --- | 504-Yes | 84-No | Major |
| 20:00 | 0 | 0 | EB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 21:00 | 0 | 0 | EB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 22:00 | 0 | 0 | EB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |
| 23:00 | 0 | 0 | EB | 420-No | 105-No | --- | 630-No | 53-No | --- | 504-No | 84-No | --- |

ANOKA COUNTY HIGHWAY
PC-WARRANTS
TRAFFIC SIGNAL WARRANT ANALYSIS

Study Name : TMC0923
 Study Date : 07/17/09
 Page No. : 1

Multi-Way Stop Warrant Report

Major Street Approaches

Northbound: TH 65
 Total Approach Volume: 11,218
 Approach Speed: 65

Southbound: TH 65
 Total Approach Volume: 7,524
 Approach Speed: 65

Minor Street Approaches

Eastbound: CR 74
 Total Approach Volume: 999

Westbound: CR 74
 Total Approach Volume: 542

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 3 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 | | Crit C | | | Crit D | | |
|---------------|-------|-------------|---------|------------|--------|------------|------------|--------|
| | Total | Minor Total | Major | Minor Crit | Meets? | Major Crit | Minor Crit | Meets? |
| 05:45 - 06:45 | 1,117 | 162 | 210-Yes | 140-Yes | Both | 240-Yes | 160-Yes | Both |
| 06:45 - 07:45 | 1,406 | 215 | 210-Yes | 140-Yes | Both | 240-Yes | 160-Yes | Both |
| 07:45 - 08:45 | 1,094 | 156 | 210-Yes | 140-Yes | Both | 240-Yes | 160-No | Major |
| 05:15 - 06:15 | 342 | 38 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 05:30 - 06:30 | 738 | 102 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 08:45 - 09:45 | 1,016 | 93 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 09:00 - 10:00 | 1,021 | 101 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 09:15 - 10:15 | 1,013 | 113 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 09:30 - 10:30 | 999 | 118 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 09:45 - 10:45 | 945 | 126 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 10:00 - 11:00 | 866 | 97 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 10:15 - 11:15 | 852 | 75 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 10:30 - 11:30 | 927 | 83 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 10:45 - 11:45 | 961 | 77 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 11:00 - 12:00 | 1,057 | 77 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 11:15 - 12:15 | 1,133 | 85 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 11:30 - 12:30 | 1,098 | 86 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 11:45 - 12:45 | 1,204 | 89 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 12:00 - 13:00 | 1,406 | 102 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 12:15 - 13:15 | 1,515 | 107 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 12:30 - 13:30 | 1,591 | 103 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 12:45 - 13:45 | 1,550 | 98 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 13:00 - 14:00 | 1,224 | 85 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |
| 13:15 - 14:15 | 992 | 71 | 210-Yes | 140-No | Major | 240-Yes | 160-No | Major |



COUNT LOCATION:

TH 65 (Central Ave.)

DATE:

7/16/2009

@ CR 74 (221st Ave.)

| |
|-----------------|
| APP. #1 = CR 74 |
| APP. #2 = TH 65 |
| APP. #3 = CR 74 |
| APP. #4 = TH 65 |

APP. #2

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

APP. #1

APP. #3

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

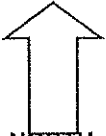
APP. #4

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 | | | | | | 8 | | |
| 6:15-6:30 | | | | | | 5 | | |
| 6:30-6:45 | | | | | | 11 | | 2 |
| 6:45-7:00 | | | | | | 15 | | 1 |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 42 |
| 7:00-7:15 | | | | | | 16 | | 1 |
| 7:15-7:30 | | | | | | 12 | | |
| 7:30-7:45 | | | | | | 16 | | 1 |
| 7:45-8:00 | | | | | | 19 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 65 |
| 8:00-8:15 | | | | | | 17 | | 1 |
| 8:15-8:30 | | | | | | 17 | | |
| 8:30-8:45 | | | | | | 16 | | 1 |
| 8:45-9:00 | | | | | | 16 | 1 | 1 |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 70 |
| 9:00-9:15 | | | | | | 19 | | |
| 9:15-9:30 | | | | | | 17 | | |
| 9:30-9:45 | | | | | | 20 | | 1 |
| 9:45-10:00 | | | | | | 20 | | 1 |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 78 |
| 10:00-10:15 | | | | | | 19 | | 1 |
| 10:15-10:30 | | | | | | 13 | 1 | |
| 10:30-10:45 | | | | | | 25 | | |
| 10:45-11:00 | | | | | | 18 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 77 |
| 11:00-11:15 | | | | | | 20 | | |
| 11:15-11:30 | | | | | | 19 | | |
| 11:30-11:45 | | | | | | 16 | | 1 |
| 11:45-12:00 | | | | | | 18 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 74 |
| 12:00-12:15 | | | | | | 14 | | 2 |
| 12:15-12:30 | | | | | | 11 | | |
| 12:30-12:45 | | | | | | 23 | | |
| 12:45-1:00 | | | | | | 21 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 71 |
| 1:00-1:15 | | | | | | 15 | 1 | 2 |
| 1:15-1:30 | | | | | | 18 | | |
| 1:30-1:45 | | | | | | 14 | 1 | |
| 1:45-2:00 | | | | | | 14 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 65 |
| | | | | | TOTAL | | TOTAL | 542 |

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NORTH
 APP. #1 = CR 74
 APP. #2 = TH 65
 APP. #3 = CR 74
 APP. #4 = TH 65

COUNT LOCATION:

TH 65 (Central Ave.)

DATE:

7/13/2009

@ CR 74 (221st Ave.)

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 | | | | | | 5 | | |
| 2:15-2:30 | | | | | | 10 | | |
| 2:30-2:45 | | | | | | 15 | | |
| 2:45-3:00 | | | | | | 13 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 43 |
| 3:00-3:15 | | | | | | 10 | | |
| 3:15-3:30 | | | | | | 18 | | |
| 3:30-3:45 | | | | | | 16 | | |
| 3:45-4:00 | | | | | | 12 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 56 |
| 4:00-4:15 | | | | | | 13 | | |
| 4:15-4:30 | | | | | | 5 | | |
| 4:30-4:45 | | | | | | 13 | | |
| 4:45-5:00 | | | | | | 7 | | 1 |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 39 |
| 5:00-5:15 | | | | | | 7 | | |
| 5:15-5:30 | | | | | | 7 | | 1 |
| 5:30-5:45 | | | | | | 5 | | |
| 5:45-6:00 | | | | | | 6 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 26 |
| 6:00-6:15 | | | | | | 6 | | |
| 6:15-6:30 | | | | | | 9 | | 1 |
| 6:30-6:45 | | | | | | 5 | 1 | |
| 6:45-7:00 | | | | | | 5 | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 27 |
| 7:00-7:15 | | | | | | 1 | | |
| 7:15-7:30 | | | | | | 5 | | |
| 7:30-7:45 | | | | | | | | |
| 7:45-8:00 | | | | | | | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | 6 |
| 8:00-8:15 | | | | | | | | |
| 8:15-8:30 | | | | | | | | |
| 8:30-8:45 | | | | | | | | |
| 8:45-9:00 | | | | | | | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | |
| 9:00-9:15 | | | | | | | | |
| 9:15-9:30 | | | | | | | | |
| 9:30-9:45 | | | | | | | | |
| 9:45-10:00 | | | | | | | | |
| HOURLY TOTAL | | | | | | HOURLY TOTAL | | |
| | | | | | TOTAL | | TOTAL | 739 |

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