## SIGNAL TIMING

| INTERVAL | ø1 | ø2 | ø3 | ø4 | ø5 | ø6 |
|---|---|---|---|---|---|---|
| MINIMUM INITIAL | 7 | 27 | 10 | 10 | 7 | 27 |
| PASSAGE | 2.5 | 5.5 | 3.5 | 3.5 | 2.5 | 5.5 |
| YELLOW CLEAR | 3.1 | 3.6 | 3.6 | 3.6 | 3.1 | 3.6 |
| RED CLEAR | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| MAX I | 12 | 29 | 29 | 11 | 12 | 29 |
| MAX II | 12 | 29 | 29 | 11 | 12 | 29 |
| WALK | 0 | 7 | 5 | 0 | 0 | 7 |
| PEDESTRIAN CLEAR | 0 | 19 | 23 | 0 | 0 | 14 |
| RECALL | NONE | MIN | NONE | NONE | NONE | MIN |
| MEMORY | OFF | ON | OFF | ON | OFF | ON |

## SIGNAL DISPLAY CHART

| SIGNAL HEAD | ø1 + ø5 | | | ø1 + ø6 | | | ø2 + ø5 | | | ø2 + ø6 | | | | ø3 | | | | ø4 | | | | | FLASH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | R/W | CLEAR | | R/W | CLEAR | | R/W | CLEAR | | R/W | | CLEAR | | R/W | | CLEAR | | R/W | | CLEAR | | | |
| A | ⊖ R | ⊖ R① | R① | R | R | R | ⊖ G | ⊖ G | G | G | G | Y | R | R | R | R | R | R | R | R | R | R | Y |
| B | R | R | R | R | R | R | G | G | G | G | G | Y | R | R | R | R | R | R | R | R | R | R | Y |
| C | ⊖ R | ⊖ R② | R② | ⊖ G | ⊖ G | G | R | R | R | G | G | Y | R | R | R | R | R | R | R | R | R | R | Y |
| D | R | R | R | G | G | G | R | R | R | G | G | Y | R | R | R | R | R | R | R | R | R | R | Y |
| E | R | R | R | R | R | R | R | R | R | R | R | R | R | ⊖ G | ⊖ G | Y | R | R | R | R | R | R | R |
| F | R | R | R | R | R | R | R | R | R | R | R | R | R | G | G | Y | R | R | R | R | R | R | R |
| G | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | G | G | Y | R | R | R |
| H | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | G | G | Y | R | R | R |
| J | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | ⊖ G | ⊖ G | ⊖ G | Y | R | R |
| K | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | R | G | G | G | Y | R | R |
| W–W | DW | DW | DW | W | W | W | DW | DW | DW | W | FDW | DW | DW | DW | DW | DW | DW | DW | DW | DW | DW | DW | DARK |
| X–X | DW | DW | DW | DW | DW | DW | DW | DW | DW | DW | DW | DW | DW | W | FDW | DW | DW | DW | DW | DW | DW | DW | DARK |
| Y–Y | DW | DW | DW | DW | DW | DW | W | W | W | W | FDW | DW | DW | DW | DW | DW | DW | DW | DW | DW | DW | DW | DARK |
| | | | | | | | | | | | | | | | | | | | | | | | |

NOTES:

① REMAINS ⊖ R IF ø2+ø5 IS NEXT.
② REMAINS ⊖ R IF ø1+ø6 IS NEXT.

## ESTIMATED QUANTITIES

| ITEM | QUANT | UNIT | DESCRIPTION |
|---|---|---|---|
| 202 | 5.7 | SQ. METER | WALK REMOVED, AS PER PLAN |
| 608 | 5.7 | SQ. METER | 100mm CONCRETE WALK |
| 608 | 2 | EACH | CURB RAMP, TYPE 1 |
| 608 | 3 | EACH | CURB RAMP, TYPE 2 |
| 608 | 7.1 | SQ. METER | CURB RAMP, TYPE 1 |
| 608 | 6.9 | SQ. METER | CURB RAMP, TYPE 2 |
| 625 | 94.3 | METER | CONDUIT, 51 mm, 713.04 |
| 625 | 17.9 | METER | CONDUIT, 76 mm, 713.04 |
| 625 | 18.4 | METER | CONDUIT, 102 mm, 713.04 |
| 625 | 113.5 | METER | CONDUIT, JACKED OR DRILLED, SIZE: 76 mm |
| 625 | 124.7 | METER | TRENCH |
| 625 | 6 | EACH | PULLBOX, 713.08, 450 mm |
| 625 | 3 | EACH | PULLBOX, MISC.: 330 mm X 600 mm, AS PER PLAN |
| 625 | 7 | EACH | GROUND ROD |
| 632 | 6 | EACH | VEHICULAR SIGNAL HEAD, 3–SECT., 300 mm LENS, 1–WAY, AS PER PLAN |
| 632 | 2 | EACH | VEHICULAR SIGNAL HEAD, 4–SECT., 300 mm LENS, 1–WAY, AS PER PLAN |
| 632 | 2 | EACH | VEHICULAR SIGNAL HEAD, 5–SECT., 300 mm LENS, 1–WAY, AS PER PLAN |
| 632 | 6 | EACH | PEDESTRIAN SIGNAL HEAD, TYPE D2, AS PER PLAN |
| 632 | 10 | EACH | COVERING OF VEHICULAR SIGNAL HEAD |
| 632 | 6 | EACH | PEDESTRIAN PUSHBUTTON, AS PER PLAN |
| 632 | 9 | EACH | DETECTOR LOOP |
| 632 | 4 | EACH | LOOP DETECTOR UNIT, AS PER PLAN |
| 632 | 5 | EACH | LOOP DETECTOR UNIT, DELAY & EXTENSION TYPE, AS PER PLAN |
| 632 | 333.6 | METER | SIGNAL CABLE, 3 CONDUCTOR, NO. 14 AWG |
| 632 | 159 | METER | SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG |
| 632 | 519.9 | METER | SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG |
| 632 | 333.6 | METER | SIGNAL CABLE, MISC.: PREEMPT DETECTOR CABLE |
| 632 | 3 | EACH | SIGNAL SUPPORT FOUNDATION |
| 632 | 3 | EACH | PEDESTAL FOUNDATION |
| 632 | 1013.3 | METER | LOOP DETECTOR LEAD–IN CABLE |
| 632 | 18.0 | METER | POWER CABLE, 3 CONDUCTOR, NO. 6 AWG |
| 632 | 3 | EACH | CONDUIT RISER, 51mm DIAMETER |
| 632 | 1 | EACH | SIGNAL SUPPORT, TYPE TC–81.20M, DES. 3 |
| 632 | 1 | EACH | SIGNAL SUPPORT, TYPE TC–81.20M, DES. 12 |
| 632 | 1 | EACH | SIGNAL SUPPORT, TYPE TC–12.30M, DES. 6 |
| 632 | 3 | EACH | PEDESTAL, 2.4M, TRANSFORMER BASE |
| 632 | 1 | EACH | REMOVAL OF TRAFFIC SIGNAL INSTALLATION |
| 633 | 1 | EACH | CONTROLLER, ACTUATED, 8 PHASE, SOLID–STATE DIGITAL MICROPROCESSOR, AS PER PLAN |
| 633 | 1.4 | CU. METER | CONCRETE FOR CABINET FOUNDATION |
| 633 | 1.04 | SQ. METER | CONTROLLER WORK PAD |
| 633 | 5 | EACH | CONTROLLER ITEM, MISC.: PREEMPT DETECTORS |
| 633 | 2 | EACH | CONTROLLER ITEM, MISC.: PREEMPT PHASE SELECTOR |
| 633 | 5 | EACH | CONTROLLER ITEM, MISC.: CONFIRMATION LIGHT |
| 642 | 57.2 | METER | CROSSWALK LINE, TYPE 2 |
| | | | |

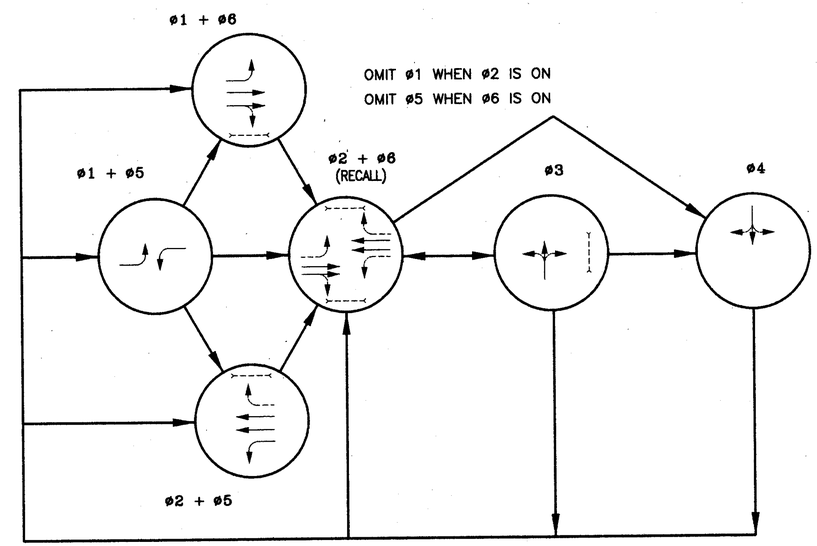
## COORDINATION TIMING

| | DIAL 1 | DIAL 2 | DIAL 3 |
|---|---|---|---|
| CYCLE LENGTH | 95 SEC. | 100 SEC. | 95 SEC. |
| PHASE 1 SPLIT | 13% | 17% | 13% |
| PHASE 2 SPLIT | 36% | 33% | 35% |
| PHASE 3 SPLIT | 35% | 34% | 35% |
| PHASE 4 SPLIT | 16% | 16% | 17% |
| PHASE 5 SPLIT | 13% | 17% | 13% |
| PHASE 6 SPLIT | 36% | 33% | 35% |
| PERMISSIVE | 5% | 5% | 5% |
| OFFSET | 5% | 100% | 100% |
| TIME OF DAY SCHEDULE | ALL OTHER TIMES | 6:30 AM TO 9:00 AM MON–SAT | 3:30 PM TO 6:30 PM MON–SAT |

NOTES:

1. PHASE SPLITS SHALL INCLUDE ALL GREEN PLUS YELLOW & ALL RED
2. PERMISSIVES SHALL START AT THE ZERO POINT OF THE CYCLE
3. OFFSETS SHALL BE REFERENCED TO THE BEGINNING OF PHASE 2 & 6 YELLOW

## PHASING DIAGRAM




## LOOP DETECTOR CHART

| LOOP # | SIZE | # TURNS | MODE | DELAY | AMP # | PHASE |
|---|---|---|---|---|---|---|
| L1 | 1.8m X 7.6m | 2–4–2 | PRESENCE | 0 | 1 | 1 |
| L2 | 2.4m X 12.2m | 2 | PRESENCE | 8 | 2 | 3 |
| L3 | 2.4m X 10.7m | 2 | PRESENCE | 8 | 3 | 4 |
| L4 | 1.8m X 7.6m | 2–4–2 | PRESENCE | 0 | 4 | 5 |
| S15 | 1.8m X 1.8m | 3 | PRESENCE | 0 | 5 | SYSTEM |
| S16 | 1.8m X 1.8m | 3 | PRESENCE | 0 | 6 | SYSTEM |
| S17 | 1.8m X 1.8m | 3 | PRESENCE | 0 | 7 | SYSTEM |
| S18 | 1.8m X 1.8m | 3 | PRESENCE | 0 | 8 | SYSTEM |

CALCULATED
CHECKED

TRAFFIC CONTROL PLAN
RICHMOND STREET & CHESTER STREET

LAKE COUNTY
LAK-20-14.35/VARIOUS