

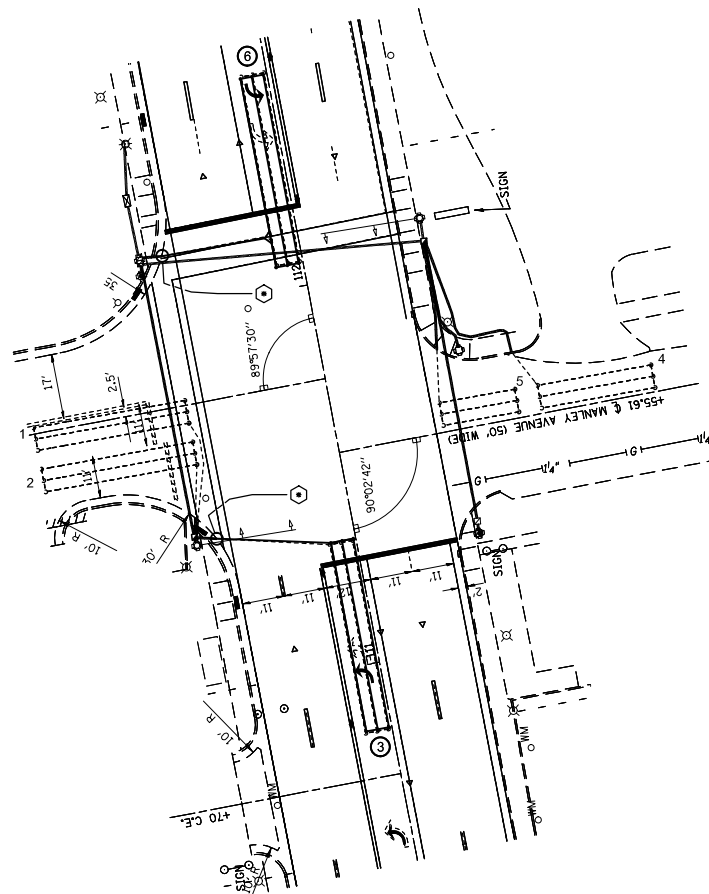
DETECTOR LOOP REQUIREMENTS AND CALCULATIONS  
FOR IL 203 & MANLEY AVE.

| LOOP#           | PHASE # | LOOP SIZE (FT. X FT.) | REQUIRED # OF TURNS | CALCULATED INDUCTANCE MICROHENRIES | CALCULATED RESISTANCE OHMS |
|-----------------|---------|-----------------------|---------------------|------------------------------------|----------------------------|
| 1. EB LT CD     | 4       | 6 X 40-Q              | 3-6-3               | 666.6                              | 2.0                        |
| 2. EB THRU CD   | 4       | 6 X 40-Q              | 3-6-3               | 663.9                              | 1.9                        |
| 3. NB THRU CD   | 1 & 6   | 6 X 50-Q              | 3-6-3               | 817.7                              | 2.3                        |
| 4. EB THRU CD A | 3       | 6 X 30-Q              | 3-6-3               | 522.1                              | 1.8                        |
| 5. EB THRU CD B | 3       | 6 X 20-Q              | 3-6-3               | 369.4                              | 1.5                        |
| 6. SB THRU CD   | 2 & 5   | 6 X 50-Q              | 3-6-3               | 800.1                              | 1.9                        |

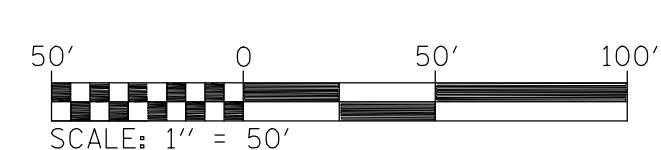
THE ABOVE VALUES ARE CALCULATED OF COMBINED LOOP AND LEAD-IN INDUCTANCE AND RESISTANCE. ACTUAL MEASURED VALUES SHOULD BE WITHIN +/- 20% OF THESE VALUES.

Q=QUADRAPOLE

⊙ =SEE DETAIL A



IL 203 & MANLEY AVE.



|   |                             |            |           |   |  |                         |         |             |                           |        |              |           |
|---|-----------------------------|------------|-----------|---|--|-------------------------|---------|-------------|---------------------------|--------|--------------|-----------|
| FILE NAME =   | USER NAME = prestonme       | DESIGNED - | REVISED - | <b>STATE OF ILLINOIS<br/>DEPARTMENT OF TRANSPORTATION</b> | <b>DETECTOR LOOP REPLACEMENT PLAN<br/>5 OF 5</b> |                         |         | F.A.P. RTE. | SECTION                   | COUNTY | TOTAL SHEETS | SHEET NO. |
| et:\pw\work\p\dot\prestonme\d0332003\d876g24-sht-TS.dgn |                             | DRAWN -    | REVISED - |   | 594  | (X-3,X-2)RS-1           | MADISON | 52          | 50                        |        |              |           |
|   | PLOT SCALE = 50.0000' / in. | CHECKED -  | REVISED - |   | CONTRACT NO. 76G24                               |                         |         |             |                           |        |              |           |
|   | PLOT DATE = 5/7/2014        | DATE -     | REVISED - |   | SCALE:   | SHEET NO. 2 OF 7 SHEETS | STA.    | TO STA.     | ILLINOIS FED. AID PROJECT |        |              |           |