

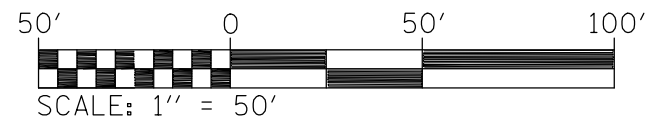
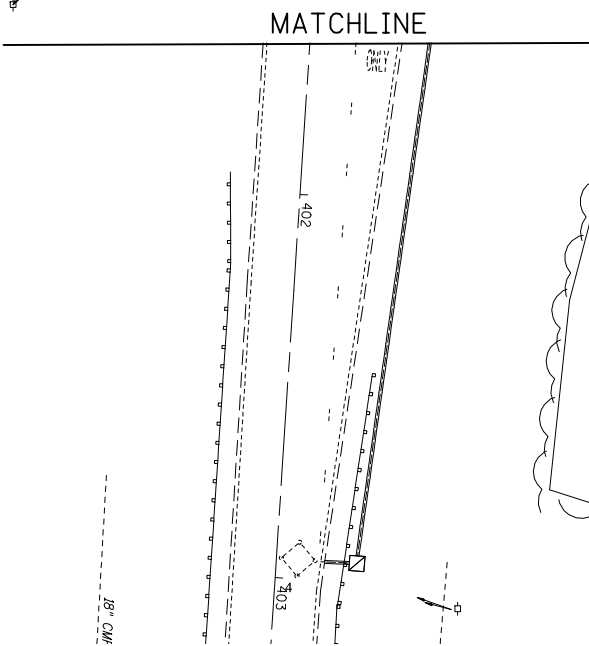
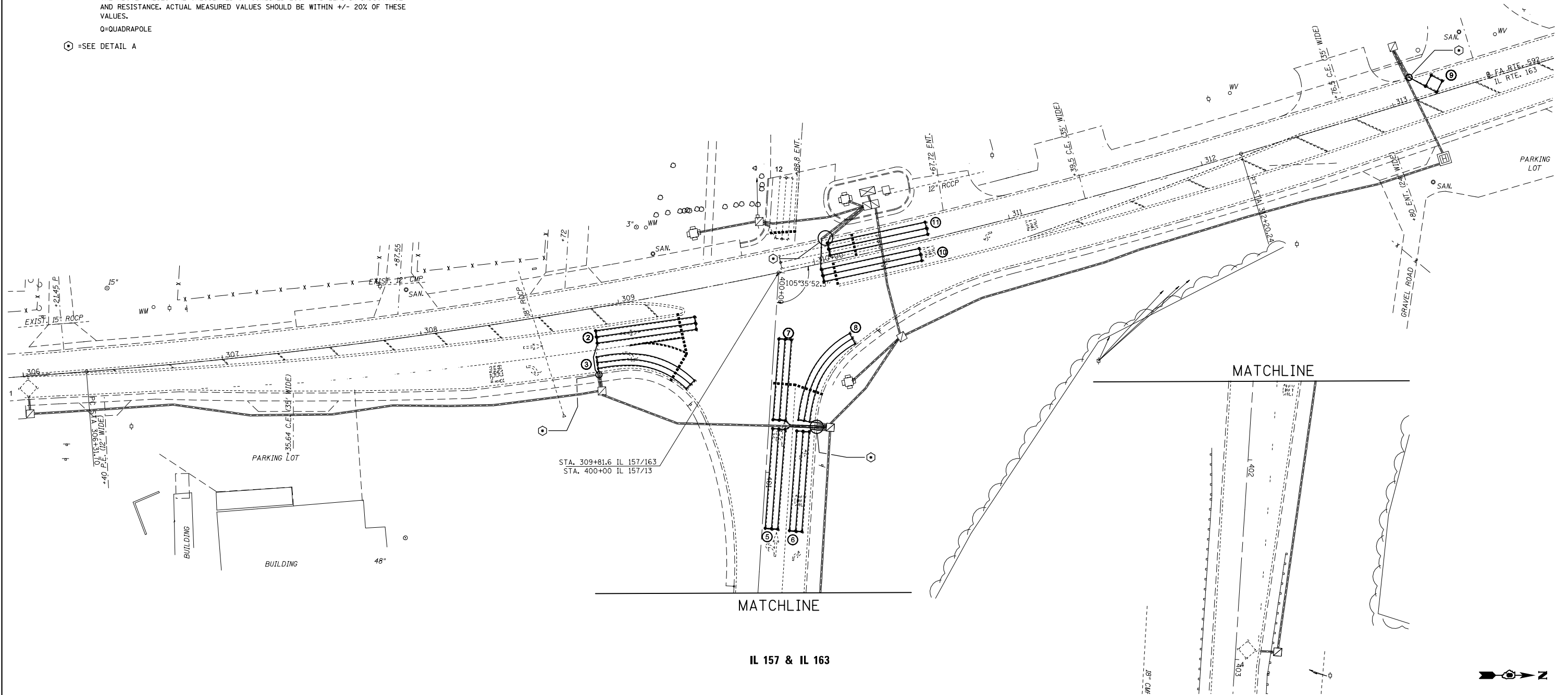
DETECTOR LOOP REQUIREMENTS AND CALCULATIONS  
FOR IL 157 & IL 163

LOOP#	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES	CALCULATED RESISTANCE OHMS
1. NB CCO	2	6 X 6	6	380.5	3.2
2. NB LT CD	2	6 X 50-Q	3-6-3	851.3	3.1
3. NB THRU CD	2	6 X 50-Q	3-6-3	848.5	3.0
4. WB CCO	3	6 X 6	6	339.4	2.3
5. WB LT CD A	3	6 X 50-Q	3-6-3	824.3	2.5
6. WB THRU CD A	3	6 X 50-Q	3-6-3	821.6	2.4
7. WB LT CD B	3	6 X 40-Q	3-6-3	674.5	2.2
8. WB THRU CD B	3	6 X 50-Q	3-6-3	821.6	2.4
9. SB CCO	6	6 X 6	6	357.8	2.7
10. SB LT CD	1	6 X 50-Q	3-6-3	799.9	1.9
11. SB THRU CD	6	6 X 50-Q	3-6-3	796.3	1.8
12. EB THRU CD	4	6 X 30-Q	3-6-3	505.8	1.4

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



FILE NAME =	USER NAME = prestonme	DESIGNED -	REVISED -
et:\pw\work\p\idot\prestonme\d0355955\d076g80-sh-t-TS.dgn		DRAWN -	REVISED -
	PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 6/4/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETECTOR LOOP REPLACEMENT PLAN**

SCALE: SHEET NO. \_ OF \_ SHEETS STA. TO STA.

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
121-IRS-1	ST. CLAIR	32	30
CONTRACT NO. 76G80			
ILLINOIS FED. AID PROJECT			