



DETECTOR LOOP REQUIREMENTS AND CALCULATIONS
FOR IL 003 AND PONTON RD.

LOOP#	PHASE #	LOOP SIZE (FT. X FT.)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES (μH)	CALCULATED RESISTANCE OHMS (Ω)
1.SB CCO A	2	6 X 6	7	462.8	2.6
2.SB CCO B	2	6 X 6	7	460.0	2.6
3.SB LT CD	5	6 X 50-Q	3-6-3	824.5	2.5
4.EB LT CD	4	6 X 50-Q	3-6-3	828.2	2.6
5.EB THRU CD	4	6 X 50-Q	3-6-3	819.9	2.4
6.EB RT CD A	4	6 X 50-Q	NA	NA	NA
7.EB RT CD B	4	6 X 50-Q	NA	NA	NA
8.NB CCO A	6	6 X 6	7	501.6	3.5
9.NB CCO B	6	6 X 6	7	504.9	3.6
10.NB LT CD	1	6 X 50-Q	3-6-3	834.8	2.7
11.WB CCO A	3	6 X 6	NA	NA	NA
12.WB CCO B	3	6 X 6	NA	NA	NA
13.WB LT CD	3	6 X 50-Q	NA	NA	NA
14.WB THRU CD	3	6 X 50-Q	NA	NA	NA
15.WB RT CD A	3	6 X 40-Q	3-6-3	690.1	2.5
16.WB RT CD B	3	6 X 50-Q	3-6-3	844.3	2.9

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

FILE NAME =	USER NAME = elyaskordio	DESIGNED -	REVISED -
et:\pw\work\p\dot\elyaskordio\d\0316383\076g06-sht-TSplan.dgn		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -
	PLOT DATE = 4/12/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETECTOR LOOP REPLACEMENT PLAN
IL003 AND PONTON RD.

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2	(101,102)RS-2, 202RS-4	MADISON	69	69
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 76G06	