

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	30-ITS-1	MADISON	17	13
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

ELECTRICAL GENERAL NOTES

- ALL VEHICLE AND PEDESTRIAN SIGNAL HEADS SHALL HAVE 12" SECTIONS. MOUNTING HARDWARE SHALL BE UNPAINTED ALUMINUM. ALL BOLTS, SCREWS, NUTS AND WASHERS SHALL BE STAINLESS STEEL. ANTI-SEIZE PASTE COMPOUND SHALL BE USED ON ALL MOUNTING HARDWARE FIELD CONNECTIONS.
- BACKPLATES SHALL BE ABS PLASTIC.
- THE CONTROLLER CABINET SHALL BE UNPAINTED ALUMINUM.
- THE LOCATION OF MAST ARM SUPPORTS SHALL BE APPROVED BY THE ENGINEER BEFORE FOUNDATIONS ARE CONSTRUCTED. MAST ARM POLES SHALL BE LOCATED A MINIMUM OF 10 FEET FROM THE EDGE OF PAVEMENT OR 2 FEET FROM THE EDGE OF SHOULDER, WHICHEVER DISTANCE IS GREATER. IN CURBED SECTIONS, THE MAST ARM POLES SHALL BE LOCATED A MINIMUM OF 10 FEET FROM THE EDGE OF PAVEMENT OR 2 FEET FROM THE EDGE OF SHOULDER, WHICHEVER DISTANCE IS GREATER. IN CURBED SECTIONS, THE MAST ARM POLES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM THE FACE OF THE CURB. THESE DISTANCES ARE TO THE NEAR FACE OF THE MAST ARM POLE.
- ALL TRAFFIC SIGNAL CABLES SHALL BE #14 AWG STRANDED COPPER UNLESS OTHERWISE SPECIFIED. TERMINAL ENDS SHALL HAVE CRIMPED-ON RING TONGUE CONNECTORS.
- THE LOCATION OF ALL DETECTOR LOOPS SHALL BE APPROVED BY THE ENGINEER BEFORE ANY SLOTS ARE SAWED IN THE PAVEMENT.
- DETECTOR LOOP LEAD-IN SPLICES SHALL BE MADE IN A HANDHOLE PER SECTION 873 OF THE STANDARD SPECIFICATIONS. CONDUCTORS SHALL BE SPLICED IN A RIGID MOLD FILLED WITH NON-HARDENING EPOXY FILLER. ROSIN-CORE SOLDER SHALL BE USED.
- CALL CARRY-OVER SHALL FUNCTION ONLY WHEN THE RELATED PHASES ARE IN THE GREEN MODE.
- ALL INDUCTIVE LOOP DETECTORS SUPPLIED FOR THIS PROJECT SHALL HAVE THE CAPACITY OF OPERATING WITH BOTH DELAY AND EXTENSION MODES ACTIVE, IF A TIME SETTING IS PROGRAMMED. THEY SHALL BE RACK MOUNTED.
- ALL HANDHOLES SHALL BE CAST-IN-PLACE PORTLAND CEMENT CONCRETE (PER ARTICLE 814.03(B)). THE CAST IN PLACE LEGEND IN THE COVER SHALL BE "TRAFFIC SIGNALS". SLOPE HANDHOLE COVERS TO MATCH PROPOSED GRADE ELEVATIONS.
- FINAL DEPTHS OF THE CONCRETE FOUNDATIONS FOR THE MAST ARM SUPPORT POLES ARE AS FOLLOWS:
 -36" DIAMETER
 N-E CORNER: 11'-0" DEEP
 S-E CORNER: 11'-0" DEEP
 S-W CORNER: 13'-0" DEEP
 -30" DIAMETER
 N-W CORNER: 10'-0" DEEP
- THE CONTRACTOR SHALL FABRICATE, DELIVER AND INSTALL TWO (2) STREET NAME SIGNS AT THE SPECIFIED LOCATIONS. THE SIGNS AND INSTALLATION SHALL CONFORM TO SECTION 720 OF THE STANDARD SPECIFICATIONS AND STANDARDS 720016 AND 720001.
- THE CONTRACTOR SHALL INSTALL THE STREET NAME SIGNS ON THE MAST ARMS AS FOLLOWS:
 ONE SIGN, NE QUAD., VISIBLE TO NB TRAFFIC
 ONE SIGN, SW QUAD., VISIBLE TO SB TRAFFIC

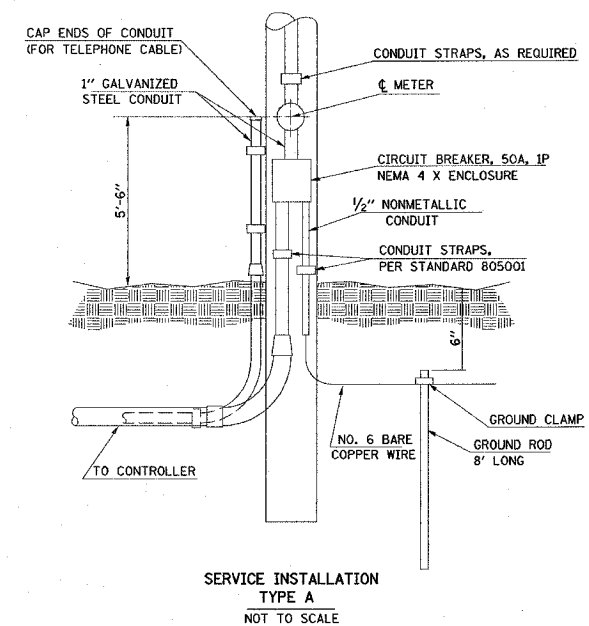
TRAFFIC SIGNALS LEGEND

- GSC GALVANIZED STEEL CONDUIT
- PVCC POLYVINYL CHLORIDE CONDUIT
- EXISTING TRAFFIC SIGNAL MAST ARM
- EXISTING HANDHOLE
- EXISTING DOUBLE HANDHOLE
- EXISTING DETECTOR LOOP
- EXISTING CONTROLLER
- EXISTING STREET NAME SIGN/TRAFFIC SIGN
- EXISTING SERVICE INSTALLATION
- EXISTING SIGNAL HEAD, PEDESTRIAN
- EXISTING PEDESTRIAN PUSHBUTTON DETECTOR
- EXISTING GALVANIZED STEEL CONDUIT
- PROPOSED SIGNAL HEAD WITH BACKPLATE, MAST ARM MOUNTED
- PROPOSED HANDHOLE
- PROPOSED DOUBLE HANDHOLE
- PROPOSED DETECTOR LOOP
- PROPOSED CONTROLLER
- PROPOSED PEDESTRIAN PUSHBUTTON DETECTOR
- PROPOSED SIGNAL HEAD, PEDESTRIAN
- PROPOSED CONDUIT: "T" TRENCH, "P" PUSH, SIZE SPECIFIED
- PROPOSED STREET NAME SIGN/TRAFFIC SIGN
- PROPOSED SERVICE INSTALLATION

DETECTOR LOOP REQUIREMENTS AND CALCULATIONS FOR IL 159 AND CAMELOT DRIVE

LOOP	PHASE (Ø)	LOOP SIZE (FT)	REQUIRED # OF TURNS	CALCULATED INDUCTANCE MICROHENRIES (µH)	CALCULATED RESISTANCE OHMS (Ω)
1. NB CCO A	6	6' X 6'	6	344.4	2.4
2. NB CCO B	6	6' X 6'	6	341.2	2.3
3. NB LT CD	1	6' X 50' Q	3-6-3	819.3	2.3
4. NB THRU CD A	6	6' X 50' Q	3-6-3	816.6	2.3
5. NB THRU CD B	6	6' X 50' Q	3-6-3	814.2	2.2
6. WB THRU LT CD	4	6' X 50' Q	3-6-3	825.8	2.5
7. SB CCO A	2	6' X 6'	6	338.4	2.3
8. SB CCO B	2	6' X 6'	6	335.4	2.2
9. SB LT CD	2	6' X 50' Q	3-6-3	812.1	2.2
10. SB THRU CD A	5	6' X 50' Q	3-6-3	809.0	2.1
11. SB THRU CD B	2	6' X 50' Q	3-6-3	805.7	2.0
12. EB LT CD	3	6' X 50' Q	3-6-3	796.7	1.8
13. EB THRU CD	3	6' X 50' Q	3-6-3	793.6	1.8

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



SERVICE INSTALLATION TYPE A NOT TO SCALE

REVISIONS		DATE
NAME		

ILLINOIS DEPARTMENT OF TRANSPORTATION
 ELECTRICAL GENERAL NOTES,
 LEGEND AND DETAILS
 FAP 600
 SECTION 30-ITS-1
 MADISON COUNTY

SCALE: VERT. _____
 HORIZ. _____
 DATE _____

DRAWN BY _____
 CHECKED BY _____

PLOT DATE = DATE
 FILE NAME = FILE#
 PLOT SCALE = SCALE#
 REFERENCE = REF#