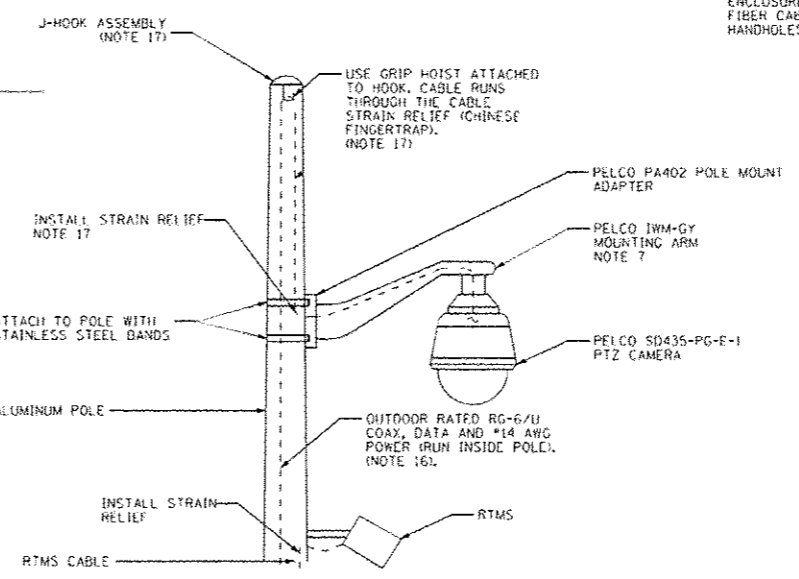


POLE MOUNTED CAMERA ASSEMBLY
NOT TO SCALE



POLE TOP DETAIL
NOT TO SCALE

NOTES:

- CAMERA POLES PROTECTED BY GUARDRAIL SHALL BE LOCATED A MINIMUM OF 5' TO A MAXIMUM OF 20' BEHIND THE GUARDRAIL POST. SEE TOLLWAY GUARD RAIL STANDARD SECTION C OF STANDARDS. FOR MORE INFORMATION, ALL OTHER POLES SHALL BE LOCATED OUTSIDE THE CLEAR ZONE, 47' FROM THE EDGE OF TRAVEL LANE, OR AS DIRECTED BY THE CONSTRUCTION MANAGER. FINAL LOCATION TO BE DETERMINED BY THE CONSTRUCTION MANAGER AND TOLLWAY ENGINEER.
- CONTRACTOR TO SEAL ENTRY WITH STEEL WOOL TO PREVENT RODENTS ENTERING.
- ALL EQUIPMENT MUST BE CONNECTED TO A COMMON GROUND. CONNECT A #2 AWG GROUND CABLE FROM THE EXTERNALLY POLE MOUNTED GROUND BUSS BAR TO THE GROUND BAR IN THE COMMUNICATIONS ENCLOSURE. ANY GROUND CABLES ROUTED INSIDE THE ENCLOSURE SHALL BE GREEN INSULATED TYPE RHW CONDUCTORS. ANY GROUND CONDUCTORS THAT ARE BURIED SHALL BE BARE COPPER TINNED. ANY GROUND CONNECTED TO THE EXTERNAL GROUND BUS BAR SHALL BE BARE COPPER TINNED. ANY GROUND CONNECTED TO THE EXTERNAL GROUND BUS BAR SHALL BE CAD WELDED TO THE BUS BAR. SEALTITE CONDUIT SHOULD BE CROMMETTED ON END GOING TO BUSS BARS TO PREVENT RODENTS AND INSECTS FROM ENTERING.
- NOT USED.
- PROVIDE A 1-1/2" ALUMINUM CONDUIT NIPPLE WITH LB FITTING FOR ROUTING CAMERA CABLES INSIDE THE POLE TO THE COMMUNICATIONS ENCLOSURE. DRILL AND TAP POLE FOR THE CONDUIT NIPPLE. COMMUNICATION CABLE SLACK SHALL BE PULLED AND FASTENED WITHIN THE TOP OF THE POLE. PROPER CABLE STRAIN RELIEF SHALL BE INSTALLED AND APPROVED BY THE CONSTRUCTION MANAGER. ALL CABLE RUN INSIDE THE POLE SHALL NOT HANG BELOW THE TOP OF THE HANDHOLE COVER ON THE POLE.
- FIBER OPTIC CABLE, GROUND AND POWER CABLES RUN OUTSIDE THE POLE. ALL CONDUITS ENTERING THE ENCLOSURE SHALL BE SEALED WITH DUCT SEAL PUTTY (RAINBOW TECHNOLOGY OR EQUIVALENT) TO PREVENT RODENTS OR INSECTS FROM ENTERING THE ENCLOSURE. THE LB FITTING FROM THE POLE TO THE ENCLOSURE SHALL BE SEALED ON THE POLE SIDE ALONG WITH THE ENCLOSURE SIDE.
- CONTRACTOR TO PROVIDE ALL POWER, COMMUNICATIONS AND GROUND WIRING REQUIRED FOR SYSTEM OPERATION. WORK IS INCIDENTAL TO ENCLOSURE INSTALLATION.
- CONTRACTOR TO SEAL THE CAMERA HOUSING PER THE MANUFACTURERS RECOMMENDATION USING RECTORSEAL DUCT SEAL. SEE SPECIFIC MANUFACTURER INSTRUCTIONS FOR MORE DETAILS. CONTRACTOR TO SECURE WITH A 1E-WRAP, A ULINE S-3902 DESICCANT PACK INSIDE THE CAMERA HOUSING TO ABSORB ANY MOISTURE.
- ATTACH SEALTITE CONDUIT TO POLE FOR SUPPORT. USE METAL BUSHING WHEN CONNECTING SEALTITE TO CABINET. USE GROMMETS AT BOTH ENDS OF CONDUIT TO SEAL CONDUIT BUT ALLOW GROUND CABLE TO RUN THROUGH BOTH ENDS.
- GROUND ROD SHALL BE PLACED A MINIMUM OF ELEVEN FEET FROM THE FOUNDATION. A GROUND WELL SHALL BE INCLUDED TO PERMIT ACCESS TO THE GROUND ROD CONNECTION. CONNECTION TO THE GROUND BUSS BAR AND THE GROUND ROD SHALL BE CADWELDED.
- UPON COMPLETION OF INSTALLATION, ALL OPEN CONDUITS SHALL BE FILLED WITH 4 INCHES OF STEEL WOOL AND 4 INCHES OF SPRAY FOAM SEALANT TO SEAL GAPS AND CRACKS, FOR RODENT PROTECTION. WORK IS INCIDENTAL TO CABINET INSTALLATION.
- A FLAT STEEL MESH PANEL ALONG WITH A COMMERCIALLY AVAILABLE HYDROPHOBIC LOW DENSITY COMPOSITE BACKFILL MATERIAL (KNOW AS O-SET 250) SHALL BE INSTALLED BETWEEN THE ANCHOR BASE AND THE POLE TO PREVENT THE ENTRY OF RODENTS INTO THE POLE. SEE SPECIAL PROVISIONS FOR MORE DETAILS.
- IN LOCATIONS WHERE CROSS SLOPES ARE GREATER THAN 4% AND AS NOTED IN THE PLANS, CONSTRUCT A PCC SIDEWALK, 5 INCH (USE 100T PAY ITEM 42400200, 4 FT x 4 FT) PAD TO BE PLACED AT THE SAME LEVEL AS THE TOP OF POLE BASE OR APPROVED EQUIVALENT.
- THIS CAMERA ENCLOSURE DETAIL WILL BE UTILIZED FOR POLE MOUNTED APPLICATIONS ONLY. IT CANNOT BE UTILIZED FOR TOWER MOUNTED APPLICATION.
- BACKFILL PER TOLLWAY STANDARD HI-00. BACKFILL SHALL BE TO THE TOP OF THE POLE BASE ON ALL SIDES.
- ALL CABLING (INCLUDING CABLING INSIDE THE ENCLOSURE) IS OUTDOOR RATED. CABLE PART NUMBERS ARE: #14 3/C CCTV POWER CABLE (BELDEN CATALOG NO. 9367), RS-422 CCTV CONTROL CABLE (BELDEN CATALOG NO. 9929) AND RG-6/U COAX CABLE (BELDEN CATALOG NO. 5339X5). THE GROUND WIRE (WHITE) IN THE 3/C #14 AWG POWER CABLE SHALL BE TAPED GREEN.
- THE J-HOOK SHALL BE WELDED IN PLACE TO THE SIDE OF THE POLE, NEAR THE TOP OF THE POLE. THE CONTRACTOR SHALL PROVIDE A CUSTOM FLAT TOP POLE CAP THAT WILL FIT THE POLE TOP WITH THE J-HOOK WELDED TO THE SIDE. THE POLE CAP SHALL BE SECURED TO THE POLE BY DRILLING AND INSERTING SET SCREWS.
- FIBER AND POWER HANDHOLES REQUIRED. PVC RGS ILLUSTRATED FROM HANDHOLES TO CAMERA ENCLOSURE. TYPICALLY CNC WILL ENTER HANDHOLES FROM POWER SOURCE WHILE ARMORED FIBER CABLE WILL TYPICALLY ENTER FROM FIBER SOURCE. ONCE POWER AND FIBER ENTER THEIR HANDHOLES, THERE SHOULD BE APPROXIMATELY 10 FEET OF CABLE SPOOLED IN THE HANDHOLES.

CAM/RTMS-1



POLE MOUNTED CO-LOCATED
CCTV AND RTMS ASSEMBLY

DATE	REVISIONS
11-16-2011	INITIAL VERSION
06-20-2012	REVISION 1

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FILE NAME	USER NAME	DESIGNED	REVISION
FILES	default	JMG	1-7/17/2012 JMG
		JMG	
		RGR	
		6/19/2012	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	TOTAL SHEET NO.
49-1-R-1	LAKE	677 431

SCALE: N/A SHEET NO. 3 OF 8 SHEETS STA. N/A TO STA. N/A

CONTRACT NO.
60L77