



AIRFIELD LIGHTING CONTROL WIRING SCHEMATIC

NOTES:

- RELAY INTERFACE CONTROL PANEL SHALL BE MANUFACTURED BY AN FAA APPROVED L-821 PANEL BUILDER OR A UL 508 INDUSTRIAL CONTROL PANEL BUILDER, AND SHALL BE MANUFACTURED IN THE UNITED STATES TO COMPLY WITH THE AIRPORT IMPROVEMENT PROGRAM BUY AMERICAN REQUIREMENT AND THE "BUY AMERICAN ACT". RELAY INTERFACE CONTROL PANEL SHALL BE A SEPARATE PANEL. DO NOT COMBINE WITH LIGHTING CONTACTOR PANEL.
- PANEL SHALL BE IN A NEMA 12 ENCLOSURE WITH HINGED COVER. DRILL HOLE IN BOTTOM OF ENCLOSURE TO ALLOW CONDENSATION TO ESCAPE.
- EXTERNAL CONTROL CABLE SHALL BE NO. 12 AWG COPPER, 600 VOLT CABLE. ALL PANEL INTERIOR CONTROL CABLE SHALL BE MINIMUM 16 AWG, COPPER, 600 VOLT CABLE.
- IN THE AUTOMATIC MODE OF OPERATION THE RUNWAY 9-27 CONSTANT CURRENT REGULATORS (PRIMARY UNIT & SPARE UNIT) SHALL BE CONTROLLED BY THE PHOTOCELL & THE L-854 RADIO CONTROL UNIT IN THE FOLLOWING MANNER:
 PHOTOCELL - 10% BRIGHTNESS & ACTIVATE RADIO CONTROL
 5 CLICKS - 30% BRIGHTNESS
 7 CLICKS - 100% BRIGHTNESS
- IN THE AUTOMATIC MODE OF OPERATION THE TAXIWAY CONSTANT CURRENT REGULATOR SHALL BE CONTROLLED BY THE PHOTOCELL & THE L-854 RADIO CONTROL UNIT IN THE FOLLOWING MANNER:
 PHOTOCELL -ACTIVATE RADIO CONTROL
 3 CLICKS -10% BRIGHTNESS
 5 CLICKS -30% BRIGHTNESS
 7 CLICKS -100% BRIGHTNESS
- THE RUNWAY 9-27 VADI CIRCUITS WILL BE CONTROLLED IN THE AUTOMATIC MODE BY THE L-854 RADIO CONTROL UNIT IN THE FOLLOWING MANNER.
 CONFIRM CONTROL WITH AIRPORT MANAGER.
 3 CLICKS - ON
 5 CLICKS - REMAIN ON
 7 CLICKS - REMAIN ON
- THE RADIO OVERRIDE SWITCH WILL ACTIVATE L-854 RADIO CONTROL 24 HOURS PER DAY IN THE "RADIO ON" POSITION. THE PHOTOCELL WILL ACTIVATE RADIO CONTROL IN THE "PHOTOCELL ACTIVATE RADIO" POSITION.
- IN THE AUTOMATIC MODE OF OPERATION THE AIRPORT ROTATING BEACON SHALL BE ACTIVATED BY THE PHOTOCELL OR PHOTOCELL BYPASS SWITCH.
- EQUIPMENT GROUND WIRES SHALL BE INCLUDED WITH EACH BRANCH CIRCUIT & EACH CONTROL CIRCUIT.
- INCLUDE PHOTOCELL BYPASS SWITCH, AND REMOTE PHOTOCELL BYPASS SWITCH TO BE LOCATED IN THE ADMINISTRATION BLDG.
- SURGE PROTECTOR SHALL BE UL LISTED PER UL 1449, SUITABLE FOR 120 VAC, 1 PH, 2 WIRE PLUS GROUND SYSTEM WITH SURGE CURRENT RATING OF 40 KA (MIN.), 8x20 MICROSECOND WAVE, AND STATUS INDICATION LIGHTS IN A WEATHERPROOF HOUSING, JOSLYN MODEL 1260-21, OR APPROVED EQUAL. MAINTAIN LEADS AS SHORT & AS STRAIGHT AS POSSIBLE. INCLUDE MOUNTING BRACKET.
- INCLUDE EQUIPMENT GROUND BAR, ILSCO D167-12 OR EQUAL
- CONTROL RELAYS SHALL HAVE 10 AMP CONTACT RATINGS AT 240 VAC WITH 120 VAC COILS. PROVIDE 3 SPARE RELAYS FOR EACH TYPE USED IN THE RELAY INTERFACE PANEL.
- COLOR CODING FOR THE CONTROL WIRING TO EACH CONSTANT CURRENT REGULATOR SHALL BE CONSISTENT FOR ALL REGULATORS. COLOR CODING SHALL BE AS FOLLOWS:
 CC -RED
 10% -ORANGE
 30% -YELLOW
 100% -BLUE
 NEUTRAL -WHITE
 EQUIPT. GND -GREEN
 ALSO TAG THE CONTROL WIRES WITH THE RESPECTIVE DESIGNATION (CC, 10%, 30%, 100%)
- "N" DESIGNATES NEUTRAL CONNECTION OR NEUTRAL CONDUCTOR.

TERMINAL BLOCKS SHALL BE NEMA RATED 40 AMP, 600 VOLT SUITABLE FOR THE FOLLOWING WIRE COMBINATIONS:
 1 #10 AWG
 1-2 #12 AWG
 1-2 #14 AWG
 1-4 #16 AWG
 TERMINAL BLOCKS SHALL BE SQUARE D CLASS 9080, TYPE GK6 OR APPROVED EQUAL (TYP.)
 IEC RATED TERMINALS ARE NOT ACCEPTABLE.

REMOTE PHOTOCELL BYPASS SWITCH LOCATED IN AIRPORT MANAGER'S OFFICE

REVISION	DATE	DESCRIPTION
06/12/13		REMOVED PAPER/SASIS TO REMAIN

MACOMB MUNICIPAL AIRPORT
 MACOMB, ILLINOIS
 BLOCK GRANT PROJ.: 3-17-0064-B21
 IL PROJ.: MGB-4206

Hanson Proj. No. 12A0053	Drawn	01/13/13
Filename E-602-SCM.dwg	TRR	11/14/12
Scale NOT TO SCALE	REVIEWED	02/04/13
Date 06/17/13		

HANSON
 Hanson Professional Services Inc. 2013
 1525 So. Main Street
 Springfield, Illinois 62703-2886

REPLACE VAULT, AIRFIELD LIGHTING AND GUIDANCE SIGNS
 AIRFIELD LIGHTING CONTROL WIRING SCHEMATIC

JUN 17, 2013 12:14 PM HARR01115
 p:\s\spi-svr306\hanson\Documents\12\jobs\12A0053\12A0053D\CAD\Airport\Sheet\E-602-SCM