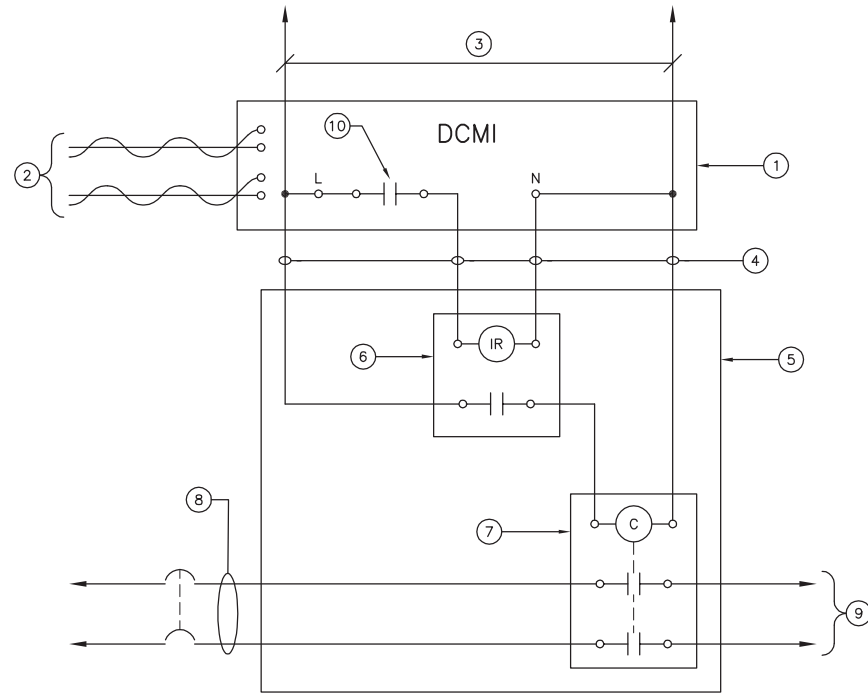


UN051

REVISIONS		
NUMBER	BY	DATE

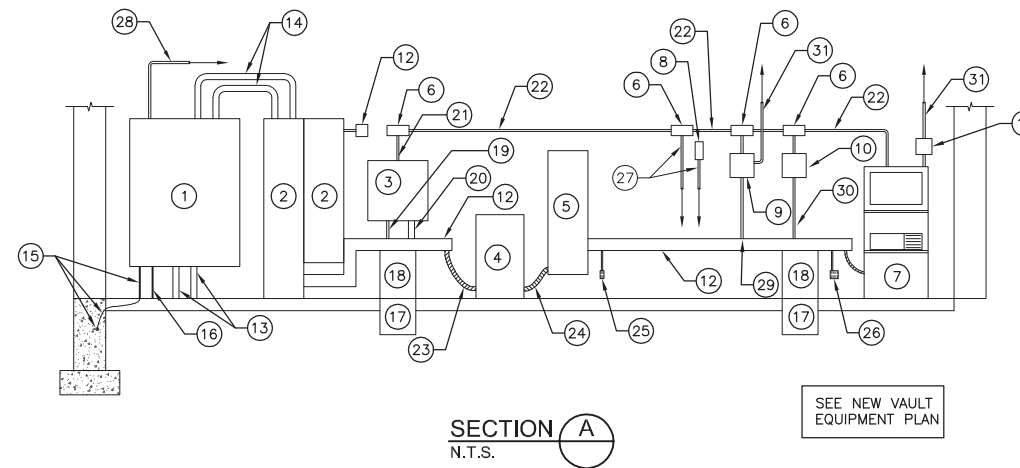
0 1 2
 THIS BAR IS EQUAL TO 2"
 AT FULL SCALE (34X22).



PAPI & WIND SOCK POWER WIRING

PAPI & WIND SOCK WIRING KEYED NOTES

- L-890 SYSTEM DISTRIBUTED CONTROL AND MONITORING INTERFACE (DCMI) UNIT. COORDINATE WITH L-890 SYSTEM SUPPLIER.
- REDUNDANT L-890 SYSTEM COMMUNICATION CABLES (TWISTED PAIRS). COORDINATE WITH L-890 SYSTEM SUPPLIER.
- L-890 SYSTEM UPS 120V POWER. COORDINATE WITH L-890 SYSTEM SUPPLIER.
- POWER AND CONTROL WIRING, NOMINAL 14 AWG. NOTE: #12 GROUND WIRING AND GROUND LUGS ARE REQUIRED, BUT NOT SHOWN FOR CLARITY.
- NEMA 1 HINGED COVER ENCLOSURE, SIZED AS REQUIRED TO HOUSE EQUIPMENT. PROVIDE ENGRAVED NAMEPLATE READING "PAPI CONTACTORS" OR "WIND SOCK CONTACTOR" AS NEEDED.
- INTERPOSING RELAY, 120V COIL, MIN. 5A CONTACTS. MOUNT INSIDE ENCLOSURE.
- RELOCATED CONTACTOR (PAPI 14L & PAPI 32R) OR NEW CONTACTOR (PAPI 14R, PAPI 32L & WIND SOCK). MOUNT INSIDE ENCLOSURE. NEW CONTACTORS SHALL BE 20 AMP, 2POLE, 600VAC, SQUARE D DPA12V02, OR EQUIVALENT. NOTE THAT ONLY ONE CONTACT SHALL BE USED FOR WIND SOCK ON/OFF CONTROL.
- POWER WIRING FROM PANELBOARDS AS REQUIRED (480V POWER FROM PANEL #1 FOR ONE OF THE FOUR PAPI'S IS SHOWN, WIND SOCK POWER WILL BE 120V FROM PANEL #2).
- WIRING TO REMOTE EQUIPMENT (FOUR PAPI'S OR WIND SOCK) AS REQUIRED.
- PAPI OR WIND SOCK ON/OFF CONTROL.



SECTION A
 N.T.S.

SEE NEW VAULT
 EQUIPMENT PLAN

SECTION A KEYED NOTES

- SERVICE ENTRANCE AUTOMATIC TRANSFER SWITCH, 600A, 277Y/480V, 3P, 4W IN NEMA 1 ENCLOSURE. BOND NEUTRAL AND GROUND BAR IN TRANSFER SWITCH.
- DISTRIBUTION PANELBOARD #1, SECTIONS #1 & #2, 600A, 480V, 3-PHASE, 4-WIRE (SECTION #1) & 480V, 3-PHASE, 3-WIRE (SECTION #2), WITH 600A, 3P MAIN CIRCUIT BREAKER, IN NEMA 1 ENCLOSURE. NOTE: NEUTRAL SHALL ONLY BE USED BY SURGE PROTECTIVE DEVICE, THERE ARE NO 277V LOADS. PROVIDE ENGRAVED NAMEPLATE READING "PANEL #1".
- NEMA 1 HINGED COVER ENCLOSURE, SIZED AS REQUIRED TO HOUSE THE INTERPOSING RELAYS AND CONTACTORS FOR PAPI 14L, PAPI 32R, PAPI 14R, PAPI 32L.
- 75 KVA TRANSFORMER, 240X480V PRIMARY, 120X240V SECONDARY, 1-PHASE, 3-WIRE, RELOCATED FROM EXISTING AIRFIELD LIGHTING VAULT.
 NOTE: AN "UFER" GROUND IS REQUIRED AT TRANSFORMER, BUT IS NOT SHOWN FOR CLARITY. SEE "NEW VAULT DETAILS 3" AND NOTE #15, BELOW, FOR ADDITIONAL INFORMATION.
- DISTRIBUTION PANELBOARD #2, 42-POLE, 400A, 120/240V, 1-PHASE, 3-WIRE, WITH 400A, 2P MAIN CIRCUIT BREAKER. PROVIDE ENGRAVED NAMEPLATE READING "PANEL #2".
- L-890 SYSTEM DCMI UNITS, OR AS REQUIRED BY L-890 SYSTEM SUPPLIER.
- L-890 SYSTEM VAULT COMPUTER CONSOLE.
- STANDBY GENERATOR NFPA 110 ANNUNCIATOR.
- L-854 RADIO CONTROLLER.
- NEMA 1 HINGED COVER ENCLOSURE, SIZED AS REQUIRED TO HOUSE THE INTERPOSING RELAY AND CONTACTOR FOR WIND SOCK.
- L-890 SYSTEM 2.4GHZ RADIO.
- 6" X 6" NEMA 1 HINGED COVER WIREWAY.
- TWO 4" SCHEDULE 40 PVC CONDUITS, EACH WITH THREE 350 MCM 600V THWN, ONE 350 MCM NEUTRAL. 277Y/480V POWER FROM 300 KVA TRANSFORMER. (277Y/480V POWER WIRING FROM STANDBY GENERATOR DISCONNECT ON VAULT BUILDING WALL, OPPOSITE TRANSFER SWITCH, IS NOT SHOWN.)
- TWO 4" GRS CONDUITS, EACH WITH THREE 350 MCM 600V THWN, ONE 350 MCM NEUTRAL, ONE #2/0 GROUND.
- ELECTRICAL CONTRACTOR SHALL INSTALL "UFER" GROUND IN BUILDING FOUNDATION AND CONNECT #2/0 GROUNDING ELECTRODE CONDUCTOR (GEC) TO "UFER" GROUND VIA EXOTHERMIC WELD. ROUTE GEC VIA SCHEDULE 40 PVC CONDUIT AND TERMINATE AT TRANSFER SWITCH NEUTRAL BAR.
 NOTE: THE ELECTRICAL CONTACTOR SHALL COORDINATE THE INSTALLATION OF THE "UFER" GROUND IN BUILDING FOUNDATION WITH THE BUILDING CONTRACTOR. THE FOUNDATION SHALL NOT BE POURED UNTIL THIS "UFER" GROUND IS INSTALLED.
- #2/0 BARE COPPER GROUND IN SCHEDULE 40 PVC CONDUIT FROM NEUTRAL BAR IN AUTOMATIC TRANSFER SWITCH TO VAULT BUILDING GROUND RING.
- IN-FLOOR CABLE TRENCH WITH REMOVABLE COVER.
- 18" WIDE NEMA 1 WALL DUCT.
- EIGHT #12 THWN (FOUR 480V PAPI CKTS), ONE #12 GROUND IN 1" GRS CONDUIT.
- 3" GRS CONDUIT WITH TWO #4 600V, TYPE USE, ONE #8 GROUND (PAPI 14L), TWO #4 600V, TYPE USE, ONE #8 GROUND (PAPI 32R), TWO #2 600V, TYPE USE, ONE #8 GROUND (PAPI 14R), TWO #2 600V, TYPE USE, ONE #8 GROUND (PAPI 32L).
- WIRING IN GRS CONDUIT AS NEEDED. (THIS NOTE ALSO APPLIES TO WIRING FROM DCMI TO L-854 RADIO CONTROLLER AND FROM DCMI TO WIND SOCK CONTACTOR.)
- REDUNDANT VAULT COMMUNICATION NETWORK (TWO TWISTED PAIR), TWO #12 THWN (UPS - 120V), ONE #12 GROUND, IN 1" GRS CONDUIT. (OR AS REQUIRED BY L-890 SUPPLIER.)
- THREE #4/0 THWN, ONE #8 GROUND IN 2" FLEXIBLE METAL CONDUIT.
- TWO 2" FLEXIBLE METAL CONDUITS, EACH WITH TWO #3/0 THWN, ONE #3 GROUND.
- DUPLEX RECEPTACLE.
- QUADRUPLUX RECEPTACLE. WIRE BOTH L-890 SYSTEM 120V CIRCUITS TO THIS RECEPTACLE.
- GRS CONDUIT WITH WIRING TO STANDBY GENERATOR AS REQUIRED.
- GRS CONDUIT WITH WIRING TO L-890 SYSTEM DCMI AS REQUIRED.
- TWO #12 THWN (L-854 RADIO CONTROLLER 120V POWER), ONE #12 GROUND IN 3/4" GRS CONDUIT.
- 1" GRS CONDUIT WITH TWO #12 (WIND SOCK 120V FROM PANEL #2) ONE #12 GROUND, AND TWO #8 600V TYPE USE (120V TO WIND SOCK), ONE #10 GROUND.
- ANTENNA CABLE IN 1" GRS CONDUIT TO ANTENNA MOUNTED AT ROOF.

WILLARD AIRPORT
 UNIVERSITY OF ILLINOIS

NEW AIRFIELD LIGHTING VAULT
 NEW VAULT DETAILS 6

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SHEET	56 OF 60 SHEETS