

THE CITY OF MORRIS, ILLINOIS

MORRIS MUNICIPAL AIRPORT

JAMES R. WASHBURN FIELD

CONSTRUCTION PLANS FOR

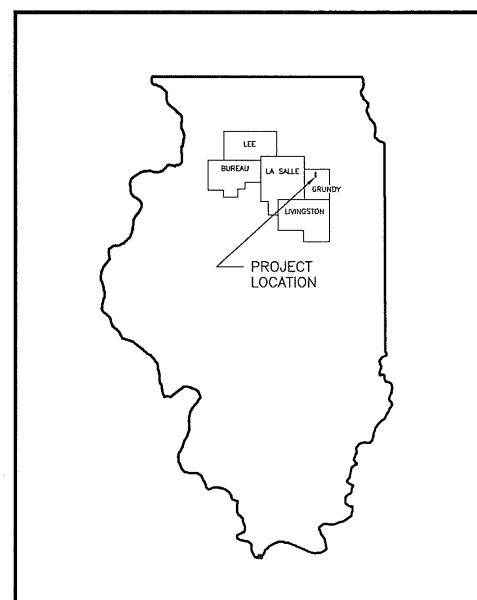
INSTALLATION OF PRECISION APPROACH PATH INDICATORS (PAPI) ILLINOIS PROJECT NO. C09-4442 AIP PROJECT NO. 3-17-SBGP-120

LATITUDE 41°-25'-31.8" LONGITUDE 88°-25'-7.2"
ELEVATION 585.01

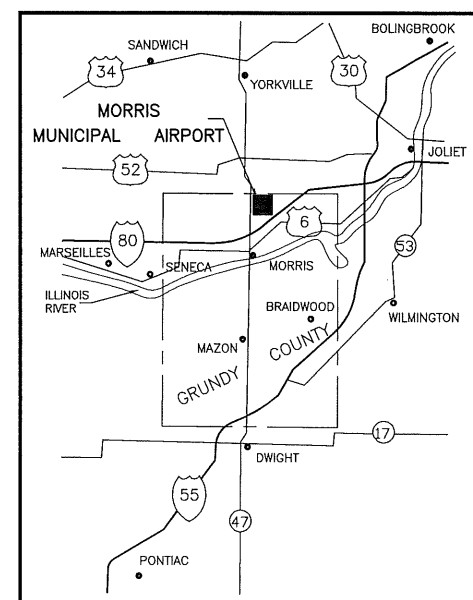
DATE: OCTOBER 27, 2017
RUNWAY CATEGORY B, GROUP II

INDEX OF SHEETS

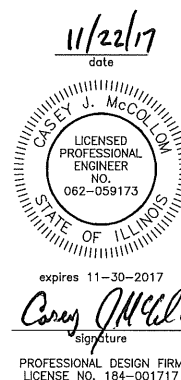
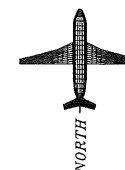
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1	COVER SHEET
2	GENERAL NOTES AND SUMMARY OF QUANTITIES
3	CONSTRUCTION SAFETY PLAN
4	PROPOSED PAPI LAYOUT AND ELECTRICAL PLAN
5	EXISTING ELECTRICAL VAULT
6	PROPOSED PAPI DETAILS 1
7	PROPOSED PAPI DETAILS 2



LOCATION MAP
NOT TO SCALE



VICINITY MAP



BENCHMARK DATA		
DESCRIPTION	ELEVATION METRIC	ELEVATION ENGLISH
S.E. CORNER OF CONCRETE BASE FOR OLD WIND SOCK AT OFFICE BLDG.	179.558	(589.10)
BRASS PLUG IN WEST WALL @ GRACE LUTH. CHURCH	179.783	(589.84)

DESCRIPTION	
MORRIS MUNICIPAL AIRPORT	
SECTIONS 10 & 15, TOWNSHIP 34N., RANGE 7E. OF 3RD P.M. GRUNDY COUNTY, SARATOGA TOWNSHIP	

UNDERGROUND UTILITY INFORMATION		
UTILITY SERVICE	PERSON TO CONTACT	TELEPHONE NO.
ELECTRIC - COMMONWEALTH EDISON	JULIE (JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS)	1-800-892-0123
TELEPHONE - AT&T	JULIE (JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS)	1-800-892-0123
NATURAL GAS - NICOR	JULIE (JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS)	1-800-892-0123

CITY OF MORRIS

APPROVED: *Casey J. McCollom* ENGINEER
DATE: November 22, 2017

CHAMLIN ASSOCIATES, INC. PERU MORRIS ILLINOIS

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	LEVEL	BY	DATE	DESCRIPTION
CHECKED BY: CJM				
DATE: 11/17				

100%	CURRENT AS OF: 11/24/17	SHEET 1
NOVEMBER 24, 2017	SCALE: AS NOTED	OF 7
	FILE NO.: 1206.00 Y-	

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Safety Plan

- The closure of Runway 18/36 and all taxiways will be required during construction. Each day before entering the AOA, the Contractor shall obtain clearance from the Resident Engineer. Under no circumstances shall the Contractor's equipment or personnel enter the AOA before this clearance is granted. The AOA shall be assumed to be any area that is within 200 feet of the centerline of a runway or within 66 feet of the centerline of a taxiway. Any delays in the Contractor's daily work due to a reasonable delay in receiving clearance to enter the AOA, as determined by the Resident Engineer, will not be compensated.
- The Contractor shall be responsible for familiarizing himself and comply with the requirements of FAA Advisory Circular 150/5370-2F. As part of this compliance, the Contractor shall prepare and submit a Safety Plan Compliance Document in accordance with AC 150/5370-2F. This document should be submitted to the Airport Manager for review. Once approved, the Airport Manager will submit the document to the Illinois Division of Aeronautics for final approval. The Contractor's Notice to Proceed will not occur until the Safety Plan Compliance Document has been approved.
- All material storage, equipment parking, and employee parking shall occur in the area designated on the plans or as defined by the Resident Engineer as the Parking and Staging Area. Stockpiled materials shall not violate FAA Part 77 Airport surfaces. The material storage, equipment and employee parking shall be clearly delineated in the field.
- The Contractor shall limit the height of all equipment and material storage stockpiles to a maximum of 30 feet above the ground.
- The Contractor shall identify all vehicles and equipment with 3' Square Checkered flags (International Orange and White) while on airport property.
- The Contractor shall limit the number of vehicles traversing the designated work area. Under no circumstances shall the Contractor's employees be allowed to operate personal vehicles with the AOA.
- The Contractor shall limit the use of construction equipment on pavements to remain or completed proposed pavements.
- Only rubber tired vehicles may be operated on airport pavement that is to remain or has been Completed.
- All trenches and excavations within the AOA shall be filled at the close of each work day. The work area shall be swept and free of dirt, gravel, or other loose materials. All runways and taxiways must be reopened each day by 1800 hours unless express authorization has been given by the Airport Manager.
- All barricades located in to AOA shall be low profile as provided in the plan details and shall be kept outside of the denoted Runway Safety Area (RSA) and Taxiway Safety Area (TSA).
- The Contractor shall provide a Safety Plan Compliance Document (SPCD) that details the Contractor's methods for compliance with the project safety plan and the requirements of the FAA Advisory Circular 150/5370-2F. The SPCD shall be provided with the proposed project schedule, both of which shall be provided a minimum of 5 business days prior to the preconstruction meeting. The SPCD shall include the following information:
 - Proposed Access Points and Storage Areas
 - Temporary Markings to be used
 - Location and type of Traffic Control Devices
 - Areas of construction operations and measures to prevent equipment and employees from entering restricted areas.
 - Any requested alternatives to the requirements of the plans and specifications.
- All Notice to Airmen (NOTAM) will be issued by the Airport Manager. A minimum of 72 Hours' notice to the Airport Manager will be required for the issuance of a NOTAM. No runway or taxiway shall be closed without authorization by the Airport Manager.

General Notes

- The Contractor shall notify the Resident Engineer a minimum of 7 days prior to the start of Construction.
- The Contractor shall provide a Construction Superintendent. The Superintendent shall be present on the site at any time work is being performed. Additionally, the Superintendent shall be available by phone 24 hours a day, 7 days a week until the project has been deemed complete.
- The Contractor shall be responsible for the protection, preservation, and repair to any existing facilities that are to remain in place. The cost of this protection, preservation, and repair will not be paid for separately but should be included in the adjacent pay items.
- The Contractor shall be responsible to verify the existing conditions of the work area prior to beginning construction. Should discrepancies between the condition in the field and the information provided on the plan be discovered, the Contractor shall immediately notify the Resident Engineer.
- The Contractor shall maintain consistent coordination with the Resident Engineer, Airport Manager, and his subcontractors. Proposed work schedules shall be provided to and approved by the Resident Engineer. Updated schedules shall be provided to the Resident Engineer as the project progresses. The sequence of work shall closely follow the approved schedule unless written permission is given from the Resident Engineer to vary from the proposed schedule.
- The Contractor shall not enter the Airfield Operations Area (AOA) without expressed authorization from the Airport Manager. This authorization shall be obtained each day entry into the AOA is required.
- Prior to the request for final inspection, the Contractor shall have all waste, surplus materials, and non-critical equipment removed from the Airport Property. All areas disturbed by the contractor shall be regraded, topsoiled and seeded.
- The Contractor shall provide all necessary traffic control and maintenance as specified in the plans and as directed by the Resident Engineer. Traffic Control and Maintenance may have to be adjusted from time to time to accommodate operations of the Airport. These adjustments must be made as quickly as practicable. All work and equipment associated with traffic control and maintenance and adjustments thereof, shall not be paid for separately but shall be included in the cost of the contract.
- All grades provided on the plans are to finished grade unless indicated otherwise.
- The Contractor shall be responsible for maintaining positive drainage throughout the progress of work. Any damage resulting from improper drainage or sediment deposited by uncontrolled drainage shall be repaired by the Contractor at his expense.
- The Contractor shall be responsible for the protection of all prepared bases that have been inspected and approved. Any damage to occur to a previously inspected and approved base shall be repaired by the Contractor at his expense.
- The Contractor shall locate or cause existing utilities to be located. The Contractor shall coordinate with the Airport Manager to have all on-site utilities located prior to the start of excavations. The Contractor will be responsible for the protection of all identified utilities. Should damage occur, it shall be the responsibility of the Contractor to repair or cause to have repaired the damaged utility to the satisfaction of the utility owner. The cost of locating, protection, and/or repair shall be at the Contractor's expense.
- The Contractor shall be responsible for supplying As-Built drawings to the resident Engineer.
- The Calendar Days for this contract were determined based on an approximated number of working days required to complete the proposed improvements. The number of available working days per month has been assumed to be as follows:

Month	Days	Month	Days
January	0	July	17
February	0	August	17
March	0	September	16
April	0	October	16
May	15	November	14
June	17	December	0

SUMMARY OF QUANTITIES			
ITEM	DESCRIPTION	UNIT	ESTIMATE QUANTITY
AR108656	3/C #6 600 V UG CABLE IN UD	L.F.	6,650
AR109210	VAULT MODIFICATIONS	L.S.	1
AR110014	4" DIRECTIONAL BORE	L.F.	445
AR125615	PAPI (L-880 SYSTEM)	EACH	2

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DATE: 11/17				

CHAMLIN & ASSOCIATES, INC.
PERU MORRIS ILLINOIS

**MORRIS MUNICIPAL AIRPORT
ILLINOIS PROJECT NO. C09-4442
AIP PROJECT NO. 3-17-SBGP-120**

**GENERAL NOTES AND
SUMMARY OF QUANTITIES**

100%
NOVEMBER 24, 2017

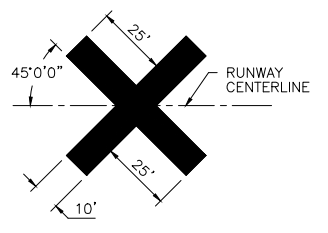
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BARRICADE NOTES:

BARRICADES TO BE HIGH IMPACT UV-RESISTANT POLYETHYLENE, LIQUID OR SAND BALLASTED TO WITHSTAND DISPLACEMENT BY WEATHER, JET OR PROP BLAST.

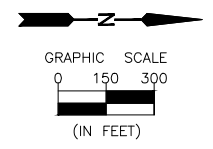
PLACE AT 12' INTERVALS (CENTER TO CENTER) UNLESS SPECIFIED OTHERWISE ON PLANS OR BY ENGINEER.

STEADY BURNING, RED OMNI-DIRECTIONAL LIGHTS MAY BE SUBSTITUTED.



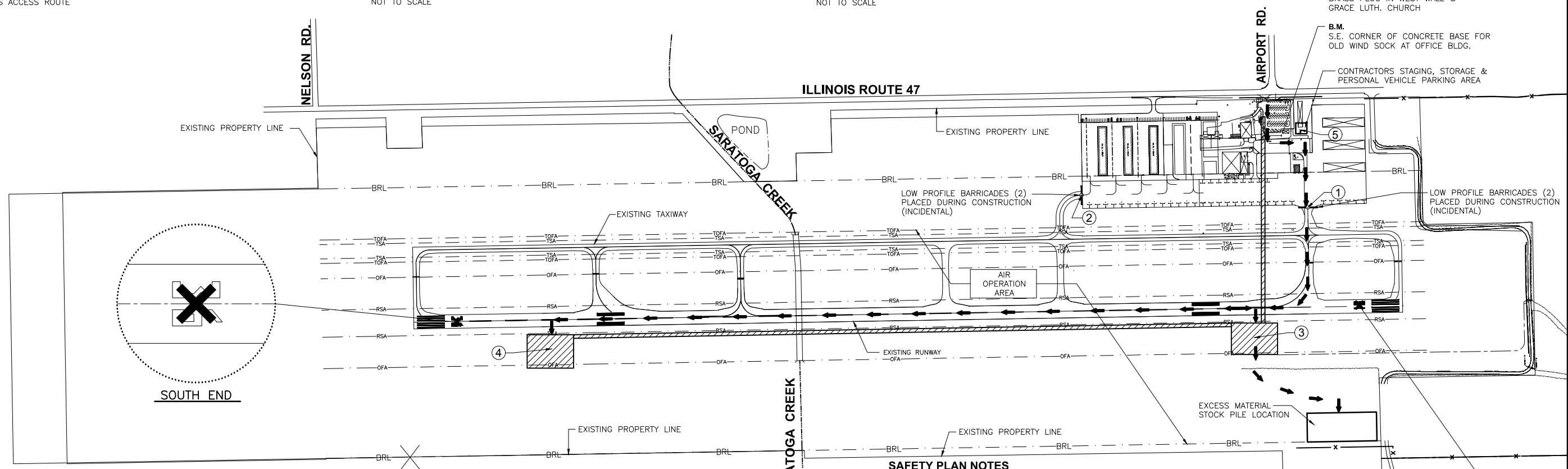
NOTE:

- 1.) CLOSED RUNWAY MARKERS SHALL BE YELLOW.
- 2.) MARKERS SHALL BE DOUBLE LAYERED PAINTED SNOW FENCE, COLORED PLASTIC, PAINTED PLYWOOD OR OTHER MATERIAL APPROVED BY THE ENGINEER.
- 3.) CONTRACTOR SHALL MAINTAIN MARKERS AS DIRECTED BY THE ENGINEER.
- 4.) MARKERS SHALL BE PLACED OVER EXISTING RUNWAY NUMERALS AND AS DIRECTED BY THE ENGINEER.
- 5.) COST OF FURNISHING, INSTALLING, MAINTAINING AND REMOVING MARKERS AND BARRICADES SHALL BE CONSIDERED INCIDENTAL TO CONTRACT.



LEGEND

- RSA --- RUNWAY SAFETY AREA (RSA)
- OFA --- OBJECT FREE AREA (OFA)
- BRL --- BUILDING RESTRICTION LINE (BRL)
- >--- CONTRACTORS ACCESS ROUTE
- ▨ WORK AREA
- |— BARRICADE



LOW PROFILE BARRICADE
NOT TO SCALE

TEMPORARY CLOSED RUNWAY MARKER DETAIL
NOT TO SCALE

SAFETY PLAN NOTES

- 1.) THE SEQUENCE OF CONSTRUCTION SHOWN ON THIS SHEET IS INTENDED TO ALLOW ORDERLY AND SAFE CONSTRUCTION, AND TO AVOID LENGTHY TAXIWAY CLOSINGS.
- 2.) BARRICADES SHALL BE PLACED AND MAINTAINED AS SHOWN HEREIN, AS INDICATED IN THE SPECIAL PROVISIONS AND AS DIRECTED BY THE ENGINEER. PLACEMENT AND MAINTENANCE OF BARRICADES ARE INCIDENTAL TO CONTRACT.
- 3.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND INSTALLING CLOSED TAXIWAY MARKERS AS SHOWN ON THIS SHEET AND AS DIRECTED BY THE AIRPORT MANAGER AND THE ENGINEER. MARKERS SHALL BE PLACED AND REMOVED WHEN SO DIRECTED BY THE OWNER THROUGH THE ENGINEER. THE OWNER SHALL BE RESPONSIBLE FOR NOTIFYING THE FLIGHT SERVICE STATION REGARDING RUNWAY CLOSURE.
- 4.) ALL BARRICADES, MARKINGS, LATHE, FLAGGING, AND TRAFFIC CONTROL ITEMS ARE INCIDENTAL TO THE CONTRACT.
- 5.) ALL IDOT TYPE III BARRICADES SHALL HAVE FOUR STANDARD SIZE SAND BAGS PER LEG.
- 6.) **ALL EXCAVATIONS SHALL BE COMPLETELY FILLED AT THE CLOSE OF EACH WORK DAY AND RUNWAYS REOPENED. BARRICADES, DEBRIS, EQUIPMENT AND ANY OTHER OBJECTS SHALL BE CLEARED FROM THE RUNWAY PRIOR TO REOPENING.**
- 7.) WHEN THE CONTRACTORS VEHICLES AND EQUIPMENT ARE ON THE AIRPORT PROPERTY THEY SHALL CARRY A HAZARD IDENTIFICATION FLAG CONSISTING OF A 3 FOOT SQUARE INTERNATIONAL ORANGE AND WHITE CHECKERED FLAG.
- 8.) WHEN THE CONTRACTOR IS OPERATING IN AOA, HE/SHE SHALL CARRY A TWO WAY RADIO TUNED TO THE FREQUENCY SPECIFIED BY THE AIRPORT MANAGER IN ORDER TO HAVE CONSISTENT AND IMMEDIATE CONTACT WITH AIRPORT OPERATIONS STAFF.
- 9.) THE CONTRACTOR SHALL NOT UTILIZE EQUIPMENT WITH A HEIGHT GREATER THAN 25 FOOT WITHOUT PRIOR APPROVAL FROM THE RESIDENT ENGINEER.
- 10.) ALL COSTS INCURRED BY THE CONTRACTOR TO IMPEDMENT AND MAINTAIN THE SAFETY PLAN SHALL BE INCLUDED IN THE COST OF THE CONTRACT.
- 11.) RESTORATION OF AUL ROUTES AND STAGING AREAS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO MEASUREMENT FOR PAYMENT WILL BE MADE FOR THIS WORK AND SHALL BE INCLUDED IN THE COST OF THE CONTRACT.

CRITICAL POINT DATA

PNT. LOCATION	LATITUDE	LONGITUDE	GRND. ELEV.	HEIGHT (AMSL)
(N) TAXIWAY BARRICADE ①	N. 41° 25' 51.03"	W. 88° 25' 15.02"	585.50	588.00
(S) TAXIWAY BARRICADE ②	N. 41° 25' 38.60"	W. 88° 25' 15.88"	574.50	577.00
PAPI UNIT (N) LOCATION ③	N. 41° 25' 47.79"	W. 88° 25' 06.45"	580.64	584.64
PAPI UNIT (S) LOCATION ④	N. 41° 25' 09.09"	W. 88° 25' 05.53"	566.57	570.57
CONSTRUCTION STAGING AREA ⑤	N. 41° 25' 50.67"	W. 88° 25' 20.78"	587.71	612.71

* BARRICADES USED ON AIRPORT SURFACES SHALL BE LOW PROFILE WITH REFLECTIVE STRIPES & RED LIGHTS AS PER AC 150/5370-2F "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".

GENERAL NOTES AND SCOPE OF WORK

- 1.) SCOPE OF WORK: THE PROJECT WILL CONSIST OF INSTALLING PRECISION APPROACH PATH INDICATORS FOR RUNWAY 18 AND 36. THE SCOPE OF THE PROJECT IS TO INSTALL L-880 UNITS AT THE DESIGNATED LOCATIONS FOR RUNWAY 18 AND RUNWAY 36, APPROXIMATELY 7000 LINEAL FEET OF CONDUIT WITH WIRE AND MODIFY THE EXISTING ELECTRICAL VAULT, AND ALL OTHER NECESSARY APPURTENANCES.
- 2.) THE MAXIMUM ANTICIPATED CONSTRUCTION EQUIPMENT HEIGHT IS 30'-0".
- 3.) THE CONTRACTOR SHALL USE THE DESIGNATED ACCESS ROUTE AS SHOWN ON THIS SHEET. THE CONTRACTOR SHALL MAINTAIN THE ROUTE AND REMOVE ANY FOREIGN OBJECT DEBRIS FROM THE WORK AREA AND ACCESS ROUTE AT THE CLOSE OF EACH WORK DAY. THE CONTRACTOR IS RESPONSIBLE TO SWEEP THE ACCESS ROUTE PRIOR TO THE CLOSE OF WORK EACH DAY. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- 4.) PUMPING GROUND WATER AND OR STORM WATER FROM THE WORK AREA IS CONSIDERED INCIDENTAL TO THE PROJECT.
- 5.) DUE TO THE PROXIMITY TO AIRCRAFT OPERATIONS, THE CONTRACTOR IS REQUIRED TO STRICTLY ADHERE TO THE GUIDELINES REGARDING CONSTRUCTION SAFETY AS SET FORTH IN FAA ADVISORY CIRCULAR 150/5370-2F.

SEQUENCE OF CONSTRUCTION & SAFETY

PHASE I: (WORK OUTSIDE OF AIR OPERATION AREA)

- A. CONSTRUCT CONDUIT FROM ELECTRICAL CONTROL UP TO RSA.
- B. ISSUE N.O.T.A.M. FOR TEMPORARY DAILY CLOSURES OF RUNWAY 18/36 FROM 0600 TO 1800.

PHASE II: (DAILY WORK INSIDE AIR OPERATION AREA - EXCAVATION OPERATIONS)

- A. INSTALL TEMPORARY RUNWAY CLOSURE MARKERS, BARRICADES AND SIGNAGE.
- B. INSTALL CONDUIT AND FOUNDATIONS INSIDE DESIGNATED WORK AREAS.
- C. BACKFILL ALL OPEN EXCAVATIONS.
- D. REMOVE ALL CONSTRUCTION EQUIPMENT AND EXCESS MATERIALS.
- E. SWEEP AND CLEAN ALL PAVED SURFACES WITH RSA.
- F. REMOVE TEMPORARY BARRICADES, SIGNAGE AND RUNWAY CLOSURE MARKERS.

PHASE III: (DAILY WORK INSIDE AIR OPERATION AREA - ELECTRICAL OPERATIONS)

- A. INSTALL TEMPORARY RUNWAY CLOSURE MARKERS, BARRICADES AND SIGNAGE.
- B. INSTALL WIRING IN NECESSARY CONDUIT.
- C. INSTALL L-880 UNITS.
- D. COMPLETE NECESSARY CONNECTIONS.
- E. CONFIGURE AND AIM L-880 UNITS.
- F. CANCEL N.O.T.A.M. FOR TEMPORARY DAILY CLOSURES OF RUNWAY 18/36.
- G. GROUND TEST, FLIGHT CHECK PAPI SYSTEM.
- H. ISSUE N.O.T.A.M. FOR OPERATION OF PAPI SYSTEM.

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MORRIS MUNICIPAL AIRPORT
ILLINOIS PROJECT NO. C09-4442
AIP PROJECT NO. 3-17-SBGP-120

CONSTRUCTION SAFETY PLAN

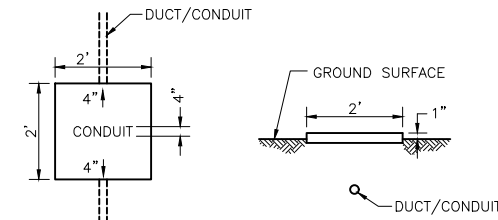
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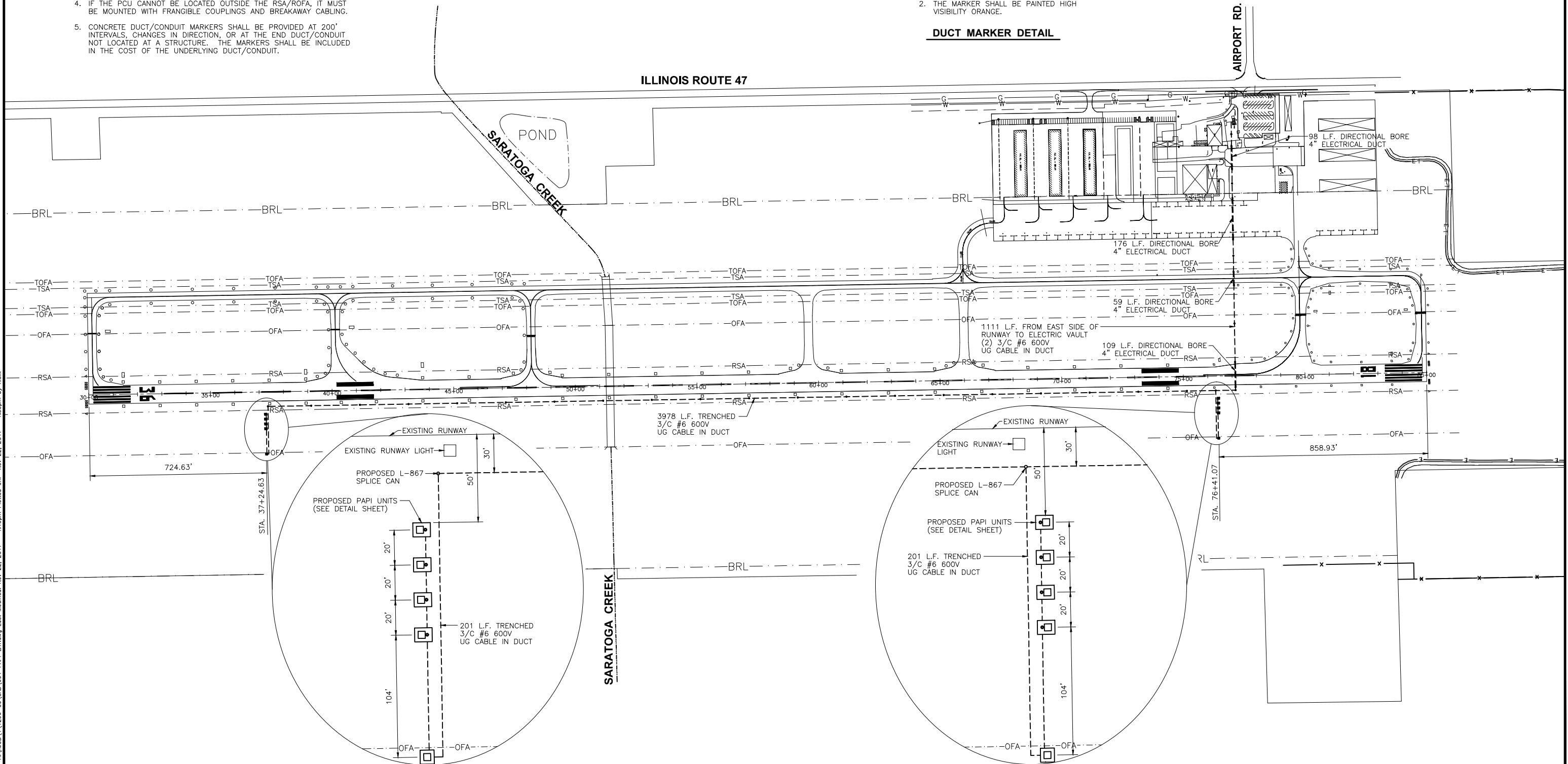
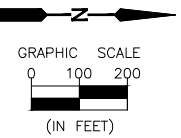
NOTE:

1. THE PCU SHALL BE LOCATED OUTSIDE OF THE OFA, UNLESS THE PROVIDED PAPI UNIT IS APPROVED FOR THE PCU TO BE LOCATED WITHIN THE OFA. THE CONTRACTOR MAY REQUEST A MODIFICATION TO STANDARDS IF DOCUMENTATION CAN BE PROVIDED FROM THE PAPI MANUFACTURER STATING THAT SYSTEM PERFORMANCE IS COMPROMISED WHEN THE PCU IS LOCATED OUTSIDE THE OFA.
2. 6" OF GRAVEL ON SOIL STABILIZING FABRIC SHALL BE PLACED UNDER EACH PAPI UNIT AND PCU. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF PAPI SYSTEM.
3. THE WIRE SIZES AND FOUNDATIONS SHOWN ARE THE ASSUMED SIZES REQUIRED TO ACCOMMODATE MOST PAPI SYSTEMS. SHOULD THE SYSTEM SELECTED BY THE CONTRACTOR REQUIRE UPSIZING OF WIRE OR FOUNDATION SIZE, NO ADDITIONAL COMPENSATION WILL BE MADE FOR SUCH UPSIZING.
4. IF THE PCU CANNOT BE LOCATED OUTSIDE THE RSA/ROFA, IT MUST BE MOUNTED WITH FRANGIBLE COUPLINGS AND BREAKAWAY CABLING.
5. CONCRETE DUCT/CONDUIT MARKERS SHALL BE PROVIDED AT 200' INTERVALS, CHANGES IN DIRECTION, OR AT THE END DUCT/CONDUIT NOT LOCATED AT A STRUCTURE. THE MARKERS SHALL BE INCLUDED IN THE COST OF THE UNDERLYING DUCT/CONDUIT.



1. THE IMPRESSED LETTERS SHALL BE 4" HIGH, 3" WIDE, & 1/4" DEEP.
2. THE MARKER SHALL BE PAINTED HIGH VISIBILITY ORANGE.

DUCT MARKER DETAIL



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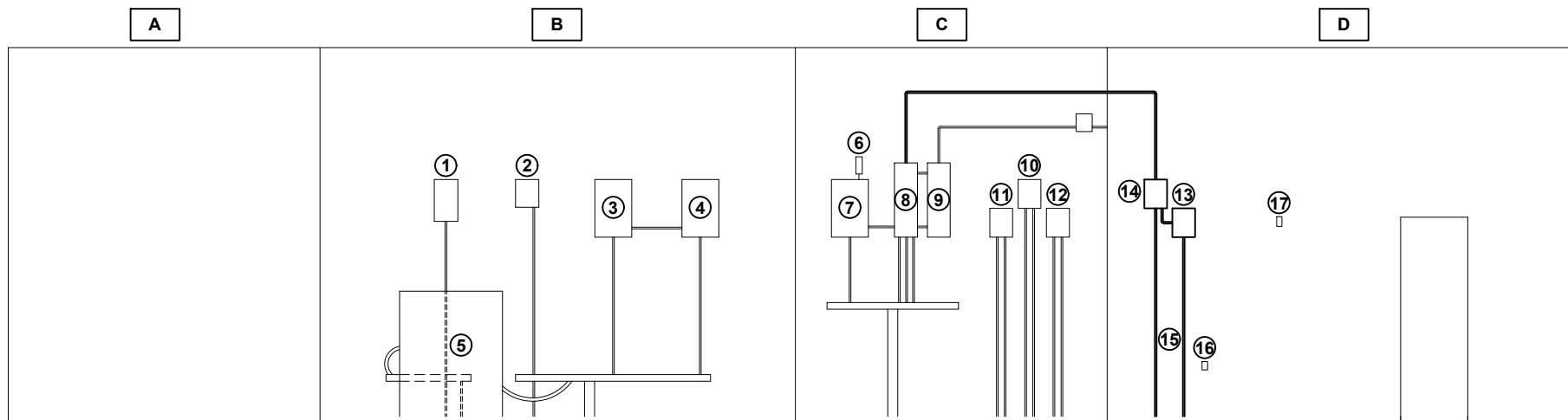
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MORRIS MUNICIPAL AIRPORT
ILLINOIS PROJECT NO. C09-4442
AIP PROJECT NO. 3-17-SBGP-120

PROPOSED PAPI LAYOUT
AND ELECTRICAL PLAN

100%
 NOVEMBER 24, 2017

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PANEL SCHEDULE

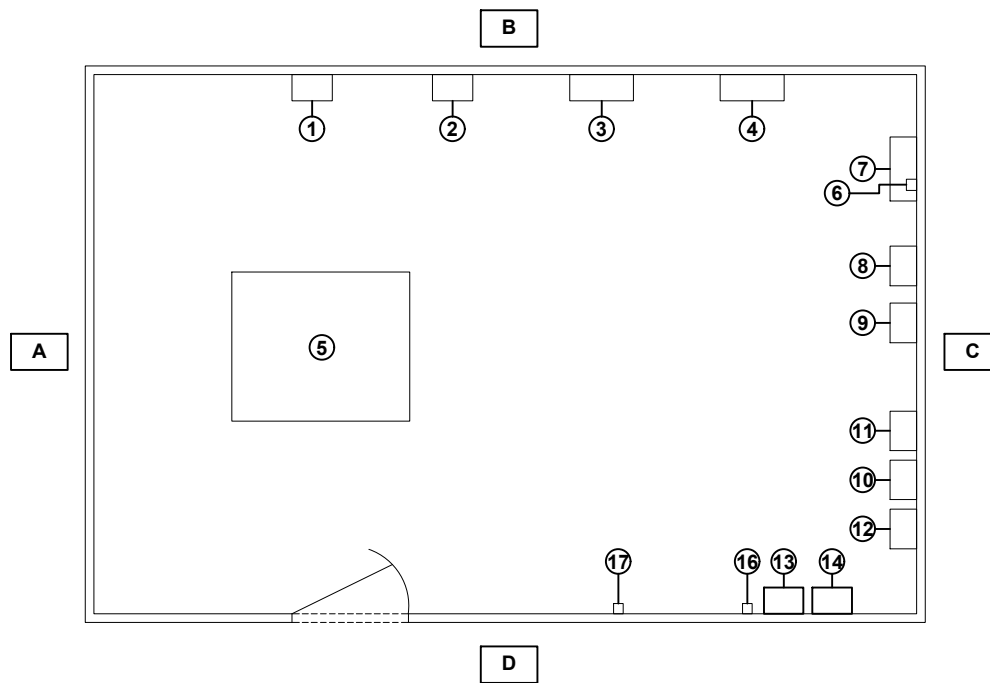
1	REGULATOR 7.5kw	WIND CONE	2
3	PHOTO CELL	BEACON	4
5	VAULT LIGHT/ RECEPTICAL	RADIO RECEIVER	6
7	HEATER VAULT	REELS	8
9	FAN VAULT	SOUTH PLANE PARK	10
11	LIGHTING - RAMP	LIGHT POLE RECEP.	12
13	PARK LOT LIGHTS	LIGHT POLE RECEP.	14
15	FUEL TANK LIGHTS	LIGHT POLE RECEP.	16
17		LIGHT POLE RECEP.	18
19		LIGHT POLE RECEP.	20
21		LIGHT POLE RECEP.	22
23		PAPI PCU 18	24
25		PAPI PCU 36	26
27			28
29			30

EXISTING VAULT LEGEND

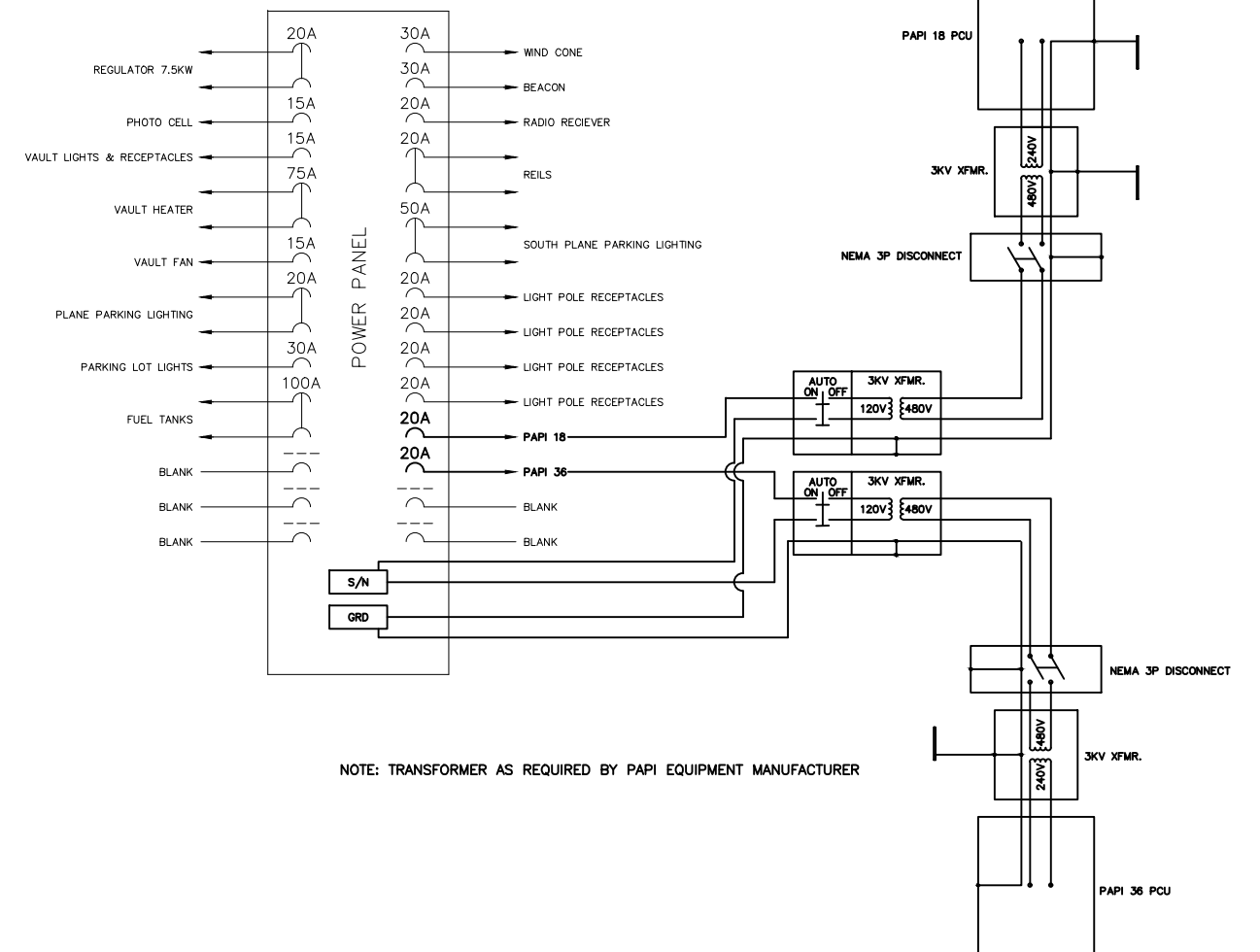
- EXISTING RUNWAY CUT OUT (SI)
- EXISTING SERVICE LUG
- EXISTING L 854 RADIO CONTROLLER
- EXISTING RADIO INTERFACE UNIT
- EXISTING RUNWAY 18/36 REGULATOR, 7.5kw, 240 INPUT, 3-STEP, 6.6A OUTPUT
- EXISTING PHOTO CELL BYPASS SWITCH
- EXISTING CONTROL RELAYS & CONTACTOR
- EXISTING PANEL BOARD, 30 CIRCUIT, 120/240V, SINGLE PHASE, 3-WIRE PROVIDE REVISED PANEL SCHEDULE AS DETAILED ON THIS SHEET
- EXISTING POWER DISCONNECT
- EXISTING RESTAURANT SERVICE LUG (ABANDONED)
- EXISTING SOUTH HANGAR SERVICE LUG
- EXISTING NORTH HANGAR SERVICE LUG
- PROPOSED RUNWAY 18 PAPI TRANSFORMER & JUNCTION BOX
- PROPOSED RUNWAY 36 PAPI TRANSFORMER & JUNCTION BOX
- PROPOSED #6 480V POWER, CONTROL & GROUNDING WIRE TO POWER NEW PAPI
- EXISTING GFI RECEPTICAL
- EXISTING INTERIOR LIGHTS TOGGLE SWITCH

NOTE: ITEMS 13 & 14 (PAPI TRANSFORMER) SHALL BE PROVIDED AS REQUIRED BY PAPI EQUIPMENT MANUFACTURER

ELECTRIC VAULT FOLD OUT
NOT TO SCALE



ELECTRIC VAULT PLAN VIEW
NOT TO SCALE



NOTE: TRANSFORMER AS REQUIRED BY PAPI EQUIPMENT MANUFACTURER

ONE LINE SCHEMATIC DETAIL
NOT TO SCALE

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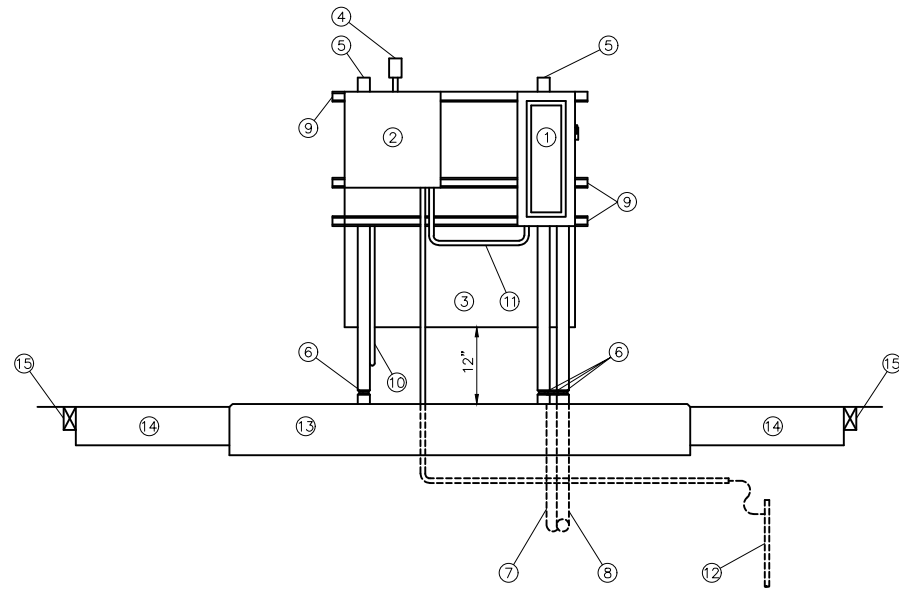
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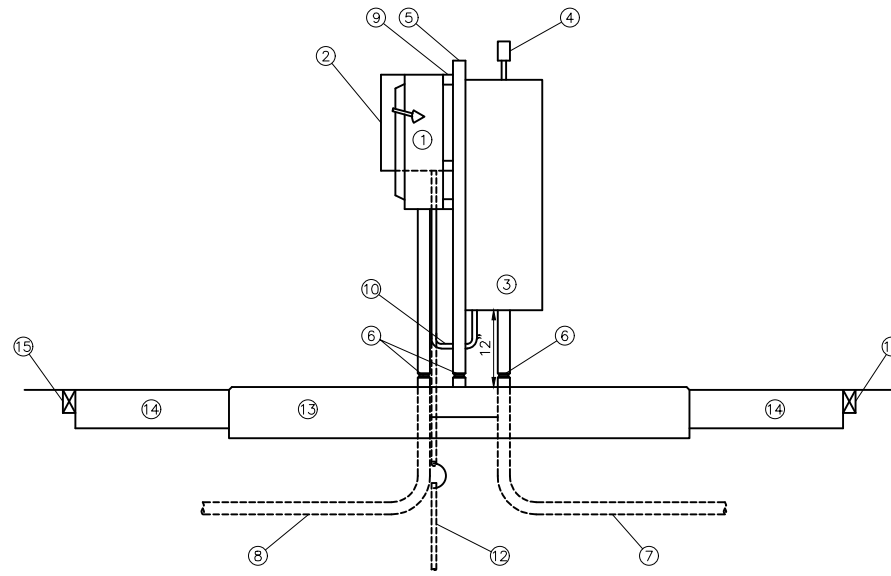
EXISTING ELECTRICAL VAULT

100%
NOVEMBER 24, 2017

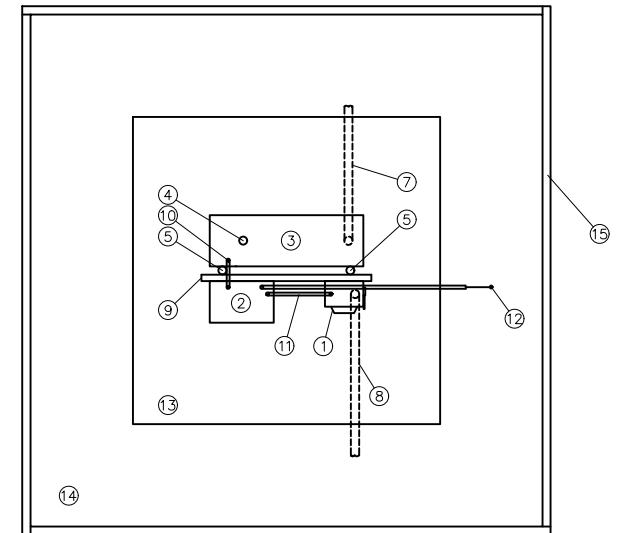
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SCALE: AS NOTED	SHEET 5
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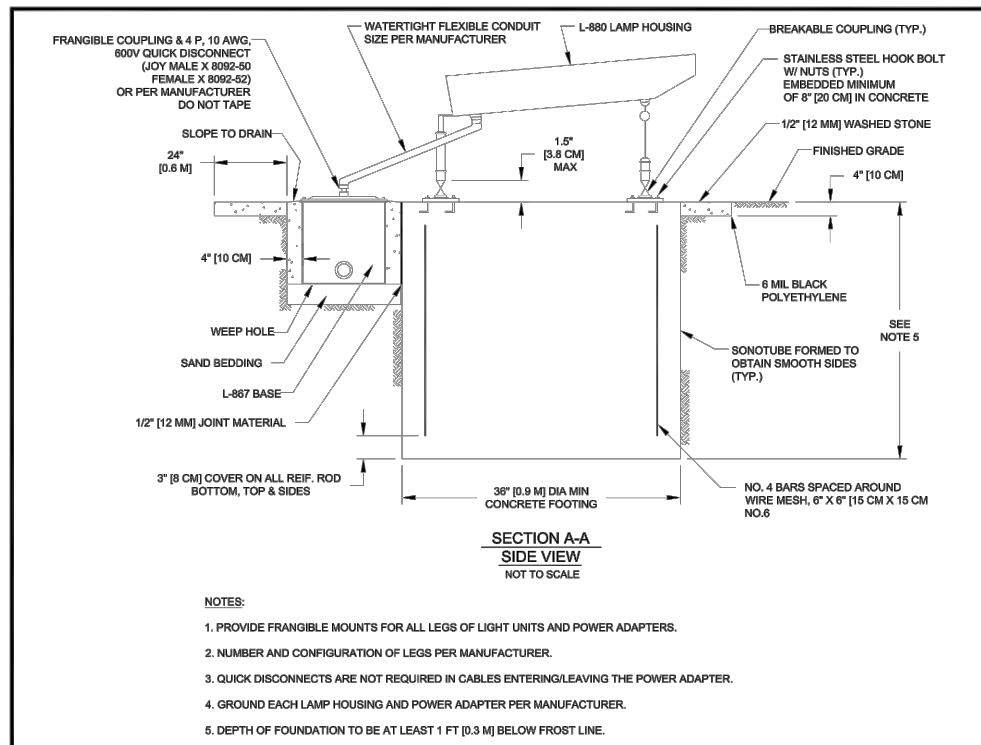
PAPI CONTROL UNIT FRONT ELEVATION
NOT TO SCALE



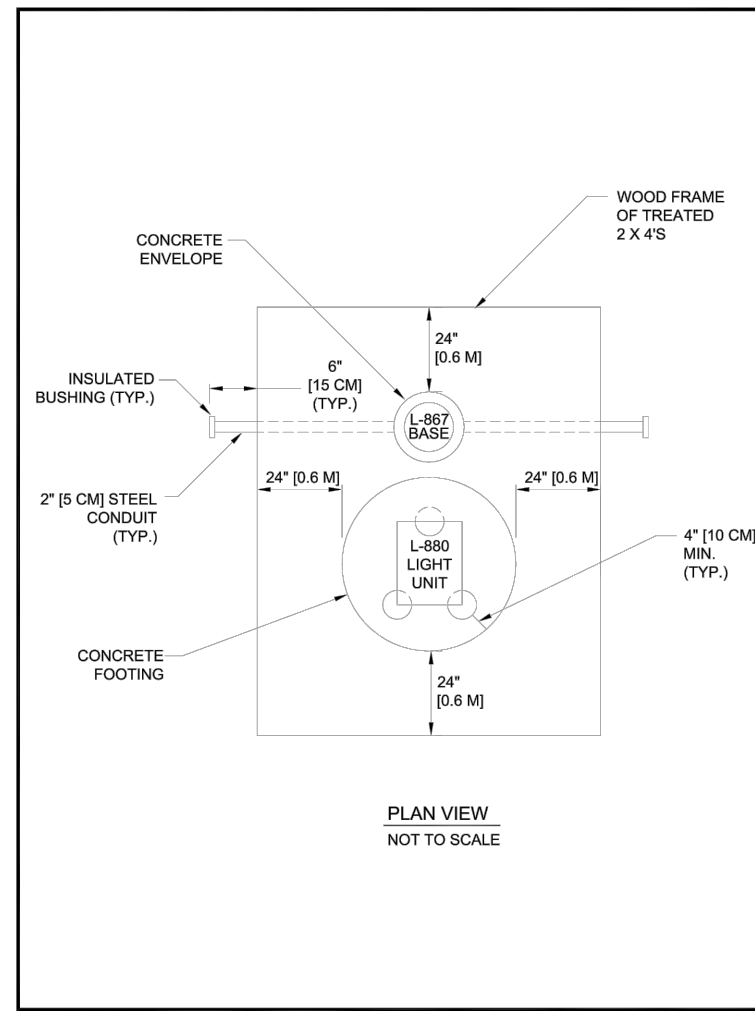
PAPI CONTROL UNIT SIDE ELEVATION
NOT TO SCALE



PAPI CONTROL UNIT PLAN VIEW
NOT TO SCALE



PRECISION APPROACH PATH INDICATORS (PAPI) SECTION A-A
NOT TO SCALE



PRECISION APPROACH PATH INDICATORS (PAPI) LIGHT UNITS LOCATION
NOT TO SCALE

LEGEND

- ① DISCONNECT, 600 VAC, 1 PHASE, 30A, NEMA 3R
- ② 3KV 240X480V-120/240V, 1 PHASE, NEMA 3R, TRANSFORMER
- ③ PAPI POWER AND CONTROL UNIT
- ④ PHOTOCELL
- ⑤ 2" GALVANIZED EMT.
- ⑥ FRANGIBLE COUPLINGS
- ⑦ GRS CONDUIT WITH PAPI POWER WIRING AND TILT SWITCH WIRING TO PAPI BOXES
- ⑧ INPUT POWER, 480V, 1" CONDUIT
- ⑨ GALVANIZED UNITSTRUT
- ⑩ (2)#12 THWN & (1)#12 GRD IN 3/4" GRS CONDUIT FROM TRANSFORMER TO PCU
- ⑪ (2)#12 THWN & (1)#12 GRD IN 3/4" GRS CONDUIT FROM DISCONNECT TO TRANSFORMER
- ⑫ 3/4" GROUND ROD WITH #6 BARE COPPER GROUND CABLE EXOTHERMICALLY CONNECTED TO ROD FROM GROUND LUG IN TRANSFORMER
- ⑬ 5' X 5' X 8" ITEM 610 CONCRETE PAD
- ⑭ AGGREGATE ON SOIL STABILIZING FABRIC
- ⑮ TREATED 2" X 4"

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DRAWN BY: ARR	REVISIONS			
CHECKED BY: CJM	LEVEL	BY	DATE	DESCRIPTION
DATE: 11/17				

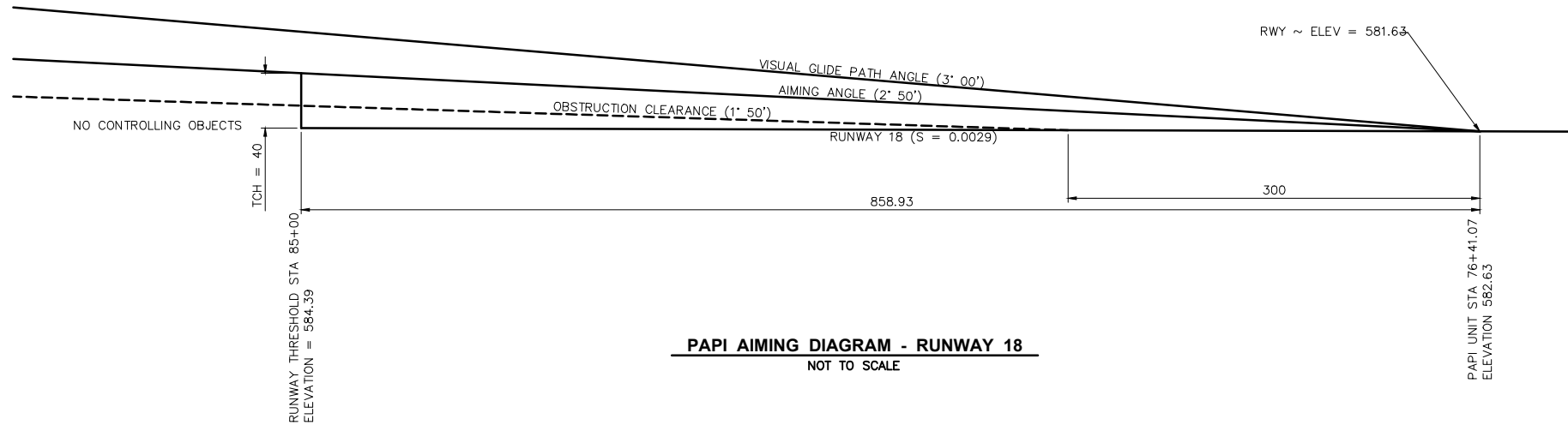
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MORRIS MUNICIPAL AIRPORT
ILLINOIS PROJECT NO. C09-4442
AIP PROJECT NO. 3-17-SBGP-120

PROPOSED PAPI DETAILS 1

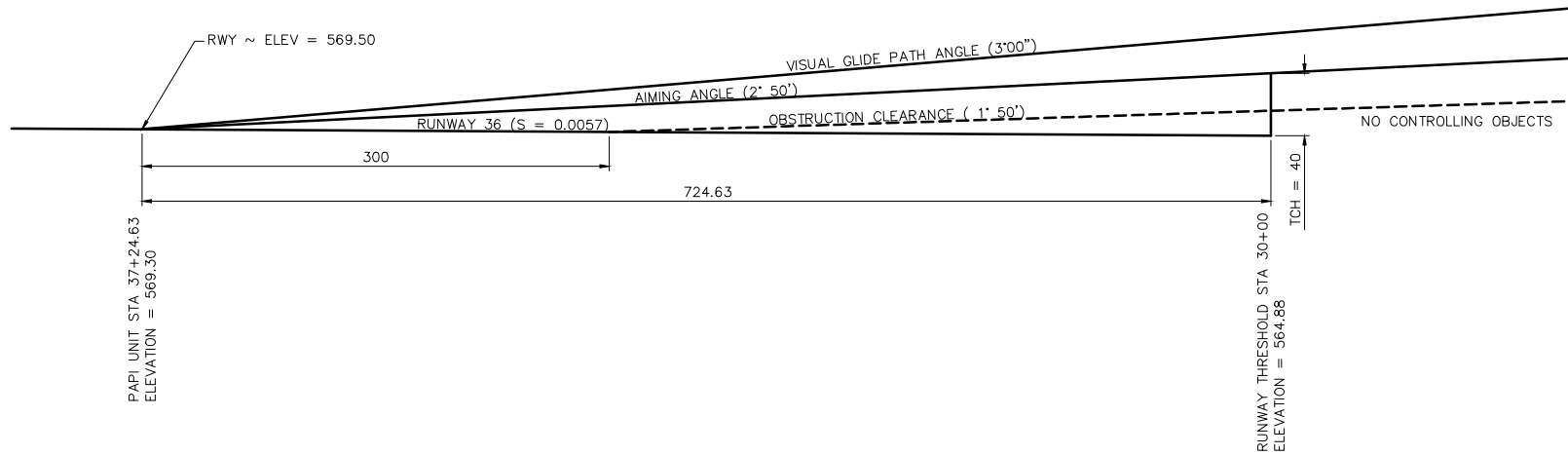
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NOVEMBER 24, 2017

CURRENT AS OF: 11/24/17	
SCALE: AS NOTED	SHEET 6
FILE NO.: 1206.00	OF 7



Runway	18	36
Height Group used for Siting	1	1
Threshold station	85+00	30+00
Threshold elevation	584.39	564.88
Threshold Crossing Height	40'	40'
Station for midpoint of projectors	76+41.07	37+24.63
Glide Path Angle	3°	3°
Elevation of CL of Apperature	582.63	569.3
Elevation of Existing Ground at Unit 1	580.33	566.2
Elevation of Existing Ground at Unit 2	580.35	566.04
Elevation of Existing Ground at Unit 3	580.52	565.46
Elevation of Existing Ground at Unit 4	580.87	564.72
Elevation of Existing Ground at PCU	581.15	561.91

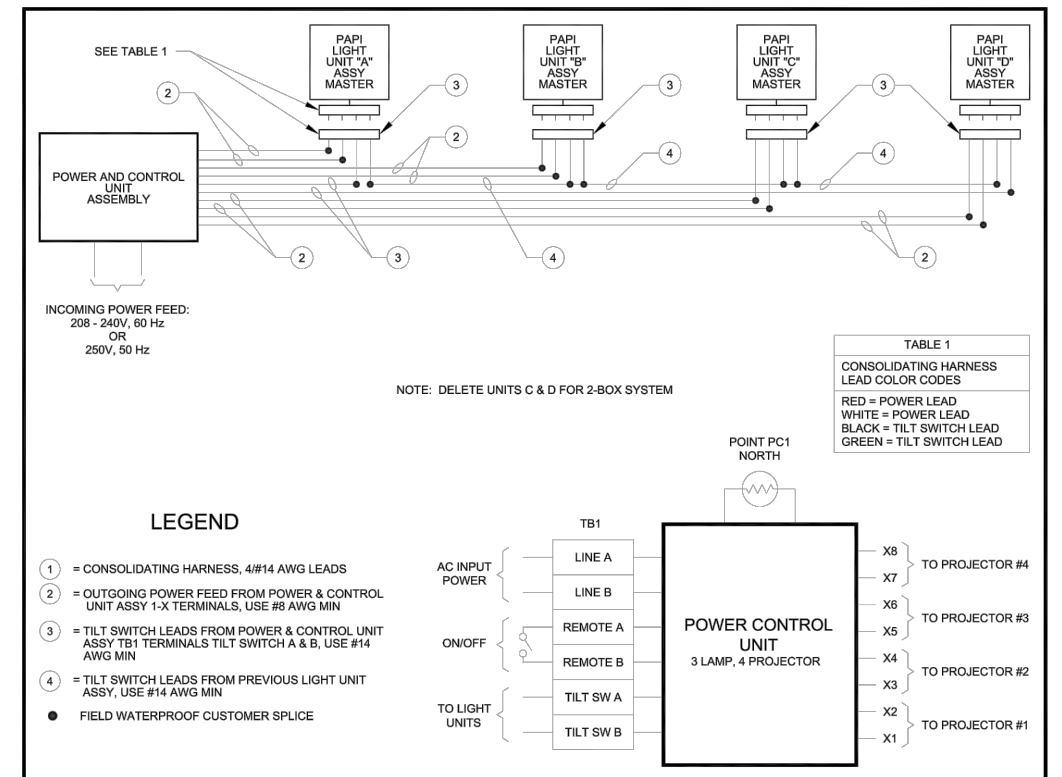
PAPI AIMING DIAGRAM - RUNWAY 18
NOT TO SCALE



PAPI AIMING DIAGRAM - RUNWAY 36
NOT TO SCALE

AIMING OF TYPE L-880 (4 BOX) PAPI
RELATIVE TO PRESELECTED GLIDE PATH (3°00')

LIGHT UNIT	AIMING ANGLE (IN MINUTES OF ARC)
	STANDARD INSTALLATION
UNIT NEAREST RUNWAY	30' ABOVE GLIDE PATH
NEXT ADJACENT UNIT	10' ABOVE GLIDE PATH
NEXT ADJACENT UNIT	10' BELOW GLIDE PATH
NEXT ADJACENT UNIT	30' BELOW GLIDE PATH



FAA L-880 STYLE A (CONSTANT VOLTAGE) SYSTEM WIRING DIAGRAM
NOT TO SCALE

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DRAWN BY: ARR	REVISIONS			
	LEVEL	BY	DATE	DESCRIPTION
CHECKED BY: CJM				
DATE: 11/17				

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ILLINOIS PROJECT NO. C09-4442
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PROPOSED PAPI DETAILS 2

100%
NOVEMBER 24, 2017

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