LETTING ITEM NO. 7A

CONSTRUCTION PLANS FOR

P0017 TOTAL SHEETS: 11

PONTIAC MUNICIPAL AIRPORT PONTIAC, ILLINOIS

ILLINOIS PROJECT NO. PNT-4340 AIP PROJECT NO. 3-17-SBGP-XX

INSTALL VISUAL NAVIGATIONAL AID (PAPI) SYSTEM

SUMMARY OF QUANTITIES

| ITEM NO. | ITEM DESCRIPTION | UNIT | TOTAL QUANTITY |
|----------|---------------------|------|-------------------|
| BASE BID | Language Control | | T |
| AR125615 | PAPI (L-880 SYSTEM) | E.A. | 2 |
| AR125910 | REMOVE PLASI | E.A. | 2 |
| AR901510 | SEEDING | AC. | 3 |
| AR908510 | MULCHING | AC. | 3 |

| SHEET LIST TABLE | | | | |
|------------------|----------------------------------------------|--|--|--|
| Sheet Number | Sheet Title | | | |
| 01 | COVER SHEET | | | |
| 02 | SITE PLAN | | | |
| 03 | CONSTRUCTION ACTIVITY PLAN NOTES AND DETAILS | | | |
| 04 | CONSTRUCTION ACTIVITY PLAN | | | |
| 05 | EXISTING CONDITIONS | | | |
| 06 | EXISTING SCHEMATIC | | | |
| 07 | PLASI REMOVAL DETAIL | | | |
| 08 | EXISTING VAULT | | | |
| 09 | NEW PAPI LAYOUT | | | |
| 10 | PAPI DETAILS 1 | | | |
| 11 | PAPI DETAILS 2 | | | |

UNICOM FREQUENCY 122.8

DESIGN DATA

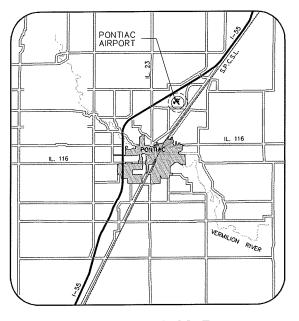
GEOMETRIC DESIGN DATA DESIGN GROUP - II WING SPAN - 49 FEET UP TO BUT NOT INCLUDING 79 FEET. DESIGN APPROACH CATEGORY - B STRUCTURAL DESIGN DATA AIRCRAFT GROSS WEIGHT - 30,000 LBS.

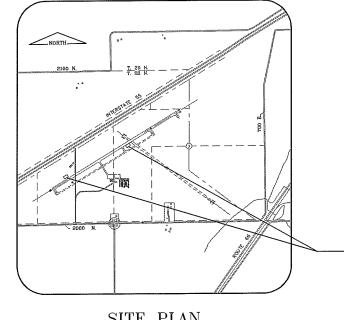
SINGLE WHEEL AIRCRAFT

CALL J.U.L.I.E. BEFORE EXCAVATING 1-800-892-0123

PONTIAC MUNICIPAL AIRPORT

TOWNSHIP: T28N RANGE: R5E COUNTY: LIVINGSTON TOWNSHIP: PONTIAC LOCATION: 1 MILE EAST OF RTE. 23 OVERPASS ON INTERSTATE 55 JANUARY 21, 2014





JASON E FRANK 062-054100 PROPOSED **IMPROVEMENTS**

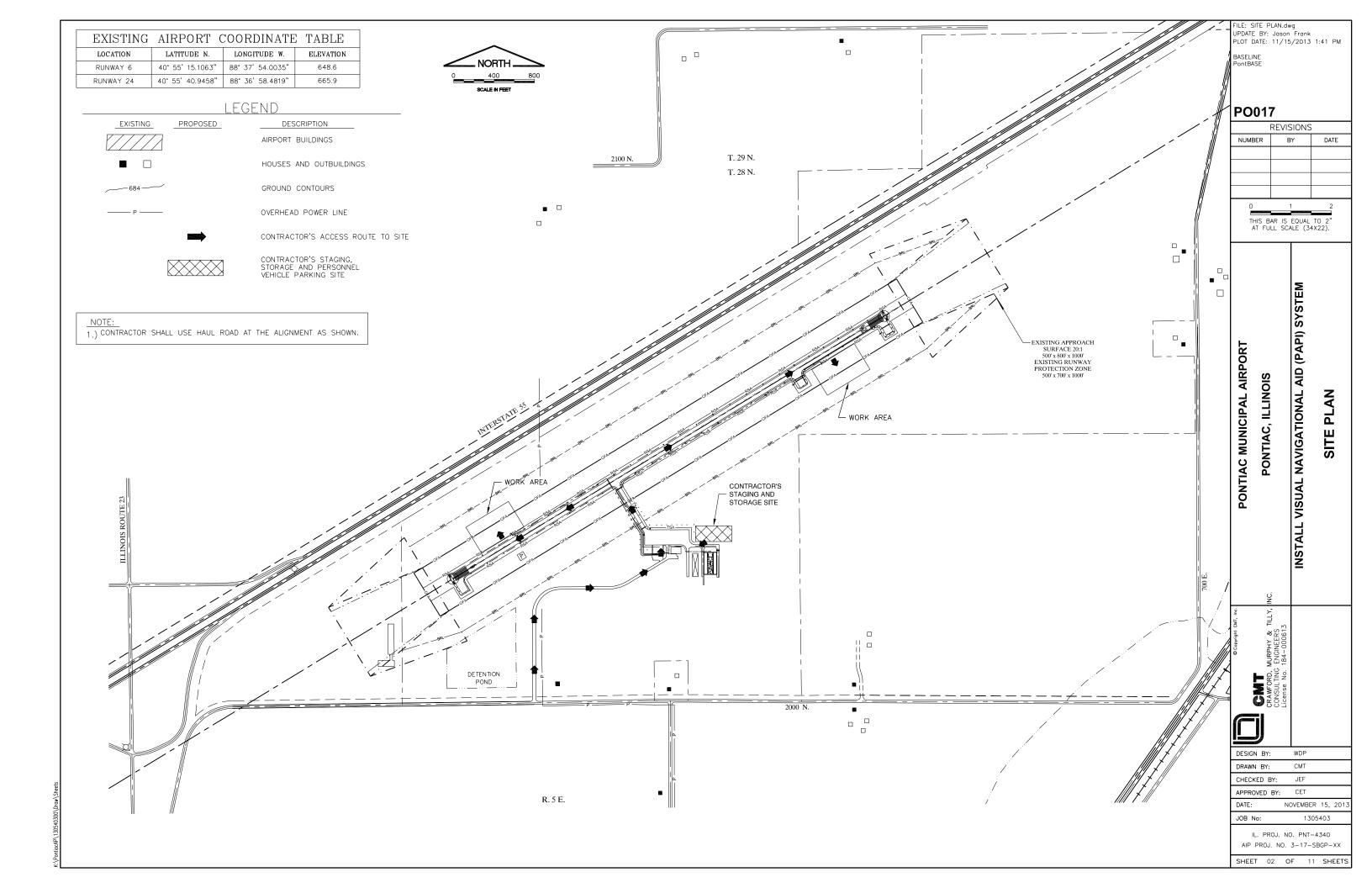
MAXIMUM EQUIPMENT HEIGHT



SITE PLAN

LOCATION MAP

CM&T JOB NUMBER 13054-03



GENERAL

- 1. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL FOLLOW THE REQUIREMENTS OF THE AIRPORT'S APPROVED CONSTRUCTION SAFETY AND PHASING PLAN (CSPP), FAA AC 150/5370-2F (LATEST EDITION), AND ALL AIRPORT SAFETY AND SECURITY REQUI
- PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE AIRPORT FOR APPROVAL A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) IN ACCORDANCE WITH FAA AC 150/5370-2F. NO CONSTRUCTION ACTIVITY SHALL BEGIN UNTIL THE AIRPORT HAS APPROVED THE SPCD.
- THE CSPP COVERS OPERATIONAL SAFETY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INDIVIDUAL SAFETY OF HIS/HER PERSONNEL AND MEETING OSHA REQUIREMENTS.
- A MINIMUM OF 10 DAYS PRIOR TO THE PRECONSTRUCTION MEETING THE CONTRACTOR SHALL PROVIDE A LIST OF SUBCONTRACTORS AND MATERIAL SUPPLIERS.
- ALL CONTRACTOR COSTS ASSOCIATED WITH THE REQUIREMENTS LISTED ON THIS SHEET SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNLESS A SPECIFIC PAY ITEM IS PROVIDED.

1. COORDINATION

- . PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL ATTEND A PRECONSTRUCTION CONFERENCE WITH THE AIRPORT, AND ENGINEER. THE COST OF PREPARING FOR AND ATTENDING THE PRECONSTRUCTION CONFERENCE SHALL BE INCIDENTAL TO THE CONTRACT.
- ON OR BEFORE THE PRECONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT A PROPOSED SCHEDULE FOR THE PROJECT. THE SCHEDULE SHALL INCLUDE A START AND COMPLETION DATE FOR EACH ITEM OF WORK. THE SCHEDULE SHALL BE UPDATED ON A WEEKLY BASIS. ALL COSTS ASSOCIATED WITH THE SCHEDULE SHALL BE INCIDENTAL TO THE CONTRACT.
- DURING CONSTRUCTION THE CONTRACTOR SHALL ATTEND A WEEKLY COORDINATION MEETING WITH THE AIRPORT AND RESIDENT ENGINEER. ALL COSTS ASSOCIATED WITH ATTENDING THE WEEKLY MEETING SHALL BE INCIDENTAL TO THE CONTRACT.

2. PHASING

- 1. TOTAL CONTRACT TIME SHALL BE 30 CALENDAR DAYS.
- THE PROJECT HAS ONLY ONE PHASE. WORK CONSISTS OF REMOVAL OF THE EXISTING PLASI SYSTEM ON RUNWAYS 6 AND 24. INSTALLATION OF NEW PAPI SYSTEMS ON RUNWAYS 6 AND 24. WORK SHALL INCLUDE ALL EXCAVATION GRADING, LABOR, CABLING, EQUIPMENT, TOOLS, AND OTHER MISCELLANEOUS ITEMS TO PROVIDE A COMPLETE OPERATIONAL PAPI SYSTEM.

3. AREAS AND OPERATIONS AFFECTED BY THE CONSTRUCTION ACTIVITY

- ALL RUNWAYS, TAXIWAYS AND APRONS SHALL BE KEPT OPEN TO AIRCRAFT TRAFFIC DURING CONSTRUCTION EXCEPT AS NOTED.
- WHEN CONFLICTS ARISE BETWEEN CONSTRUCTION ACTIVITIES AND AIRCRAFT OPERATIONS AND SAFETY, AIRCRAFT OPERATIONS AND SAFETY SHALL TAKE PRECEDENCE AND SHALL GOVERN. FINAL AUTHORITY IN THE APPROVAL OF CONSTRUCTION SEQUENCING LIES WITH THE AIRPORT.
- ALL CONSTRUCTION TRAFFIC SHALL IMMEDIATELY YIELD TO ONCOMING AIRCRAFT AT ALL TIMES.

4. PROTECTION OF NAVIGATION AIDS (NAVAIDS)

CONTRACTOR SHALL COORDINATE WITH THE AIRPORT A MINIMUM OF 10 DAYS PRIOR TO THE SHUT DOWN AND REMOVAL OF THE EXISTING PLASI SYSTEM.

CONTRACTOR ACCESS

- . CONTRACTOR ACCESS SHALL BE AS SHOWN ON THE SITE PLAN AND CONSTRUCTION ACTIVITY PLAN SHEETS.
- THE CONTRACTOR IS TO ACCESS THE SITE USING THE GATES SHOWN.
- THE TRUCK DRIVERS SHALL BE ESCORTED BY THE CONTRACTOR AT ALL TIMES.
- . CONTRACTOR WORK CREWS MUST MONITOR AIRFIELD RADIO FREQUENCY (122.80) AT ALL TIMES WHEN INSIDE THE AIRPORT OPERATIONS AREA (AOA).
- 5. THE CONTRACTORS STORAGE AND STAGING AREA WILL BE AS SHOWN IN THE SITE PLAN
- THE CONTRACTOR SHALL KEEP A RECORD OF THE NAMES OF ALL EMPLOYEES ENTERING THE JOB SITE ON A DAILY BASIS. A RECORD OF EACH SUBCONTRACTOR ENTERING THE JOB SITE SHALL ALSO BE KEPT BY THE CONTRACTOR.
- WHEN THE CONTRACTOR IS NOT WORKING, EQUIPMENT SHALL BE STORED AT THE STAGING AREA.
- 8. THE CONTRACTOR WILL BE PERMITTED TO STORE EQUIPMENT AND MATERIALS ONLY AT THE LOCATIONS SHOWN. PARKED EQUIPMENT AND MATERIAL STOCKPILES SHALL NOT PENETRATE SURFACES DEFINED BY F.A.R. TITLE 14 PART 77 OBJECTS AFFECTING NAVIGABLE AIRSPACE.
- 9. THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL CONSTRUCTION AREAS AND HAUL ROUTES, INCLUDING ALL COUNTY ROADS WHICH WILL BE OPEN TO TRAFFIC TO THE SATISFACTION OF AIRPORT OPERATIONS AND THE COUNTY ENGINEER. A POWER BROOM AND OPERATOR SHALL BE ON SITE AT ALL TIMES WHEN ACTIVE PAVEMENTS ARE UTILIZED FOR CONSTRUCTION TRAFFIC.
- 10. ALL PAVEMENTS, DRIVES, TURF AREAS, OR ANY OTHER AREAS UTILIZED BY THE CONTRACTOR FOR HAUL ROADS OR STORAGE AREAS SHALL BE MAINTAINED AND REPAIRED TO THE SAME CONDITION OR BETTER THAN THEY WERE PRIOR TO BEGINNING CONSTRUCTION, NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR THIS WORK.
- 11. ALL VEHICLE AND EQUIPMENT OPERATORS USED BY THE CONTRACTOR SHALL BE PROPERLY TRAINED BY THE CONTRACTOR.
- 12. THE CONTRACTOR SHALL NOTIFY THE AIRPORT IF CONSTRUCTION ACTIVITY WILL REQUIRE THE BLOCKAGE OF EMERGENCY ACCESS TO THE AIRPORT

6. WILDLIFE MANAGEMENT

- . THE CONTRACTOR SHALL NOTIFY AIRPORT OPERATIONS OR THE ENGINEER IF ANY WILDLIFE IS SEEN ENTERING THE AIRPORT.
- 2. CONTRACTOR ACCESS GATES SHALL REMAIN CLOSED WHEN THE
- 3. THE CONTRACTOR SHALL DISPOSE OF ALL TRASH INCLUDING FOOD SCRAPS IN APPROVED CONTRACTOR PROVIDED CONTAINERS.

7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

- THE CONTRACTOR SHALL PICK UP ANY FOREIGN OBJECT DEBRIS (FOD) SEEN ON THE AIRFIELD PAVEMENTS.
- THE CONTRACTOR SHALL SECURE ALL LOOSE ITEMS FROM VEHICLES PRIOR TO DRIVING ON AIRFIELD PAVEMENTS.

8. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

 THE CONTRACTOR SHALL DEVELOP A HAZMAT MANAGEMENT PLAN AND KEEP COPIES ON THE JOBSITE OF MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL MATERIALS HANDLED ON THE JOBSITE.

9. NOTIFICATION OF CONSTRUCTION ACTIVITIES

- THE CONTRACTOR SHALL PROVIDE A 24 HOUR EMERGENCY CONTACT PERSON AND PHONE NUMBER.
- THE CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE TO AIRPORT OPERATIONS PRIOR TO CLOSING ANY PAVEMENTS SO THAT PROPER NOTAMS MAY BE ISSUED BY THE AIRPORT.
- 3. FOR ANY EQUIPMENT USED BY THE CONTRACTOR WITH A HEIGHT GREATER THAN 25', THE CONTRACTOR SHALL PROVIDE TO THE AIRPORT THE TYPE OF EQUIPMENT, TOTAL HEIGHT, AND LOCATION WHERE THE EQUIPMENT WILL BE USED. THE AIRPORT WILL SUBMIT FAA FORM 7460-1 TO THE FAA FOR AN AIRSPACE STUDY. NO EQUIPMENT WITH A HEIGHT GREATER THAN 25' SHALL BE USED UNTIL A DETERMINATION FROM FAA IS RECEIVED.
- 4. IN THE EVENT OF AN EMERGENCY, THE CONTRACTOR SHALL CALL 911.
- . CONTACTS FOR THIS PROJECT ARE AS LISTED BELOW.

FIRE AND PUBLIC SAFETY

PONTIAC AIRPORT

RESIDENT ENGINEER

TBD

(815) 844-2707

10. INSPECTION REQUIREMENTS

- THE CONTRACTOR SHALL INSPECT THE JOBISTE DAILY TO ENSURE COMPLIANCE WITH THE CSPP. THE CHECKLIST FOUND IN APPENDIX 3 OF FAA AC 150/5370-2F MAY BE USED TO AID IN THE INSPECTIONS.
- THE CONTRACTOR SHALL ATTEND A FINAL INSPECTION OF EACH PHASE WORK AREA PRIOR TO OPENING THE AREA TO AIRPORT OPERATIONS.

11. UNDERGROUND UTILITIES

- IT WILL BE NECESSARY FOR THE CONTRACTOR TO MAKE HIS OWN FIELD INVESTIGATION TO DETERMINE THE EXACT LOCATION OF THE UNDERGROUND UTILITIES AT CRITICAL POINTS. THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY IN RESPECT TO THE ACCURACY, COMPLETENESS OR SUFFICIENCY OF THE INFORMATION.
- BEFORE INITIATING ANY DIGGING, DRILLING OR EXCAVATING ON THE AIRPORT PROPERTY, THE CONTRACTOR SHALL CALL J.U.L.I.E. AND CONTACT THE LOCAL FAA OFFICE TO ARRANGE FOR UTILITY LOCATES.

12. PENALTIES

NONCOMPLIANCE BY THE CONTRACTOR WITH AIRPORT RULES AND REGULATIONS OR FAILURE TO COMPLY WITH THE AIRPORT'S APPROVED CSPP AND THE CONTRACTOR'S APPROVED SPCD MAY RESULT IN FINES AS ALLOWED BY LAW.

13. SPECIAL CONDITIONS

CONTRACTOR SHALL COORDINATE WITH COUNTY ENGINEER FOR ACCESS AND EGRESS ON ALL COUNTY ROADS. ANY DAMAGE TO COUNTY ROADS FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED IN KIND AT THE CONTRACTOR'S EXPENSE.

14. RUNWAY AND TAXIWAY VISUAL AIDS

 RUNWAY AND/OR TAXIWAY CLOSURES ARE REQUIRED FOR THIS PROJECT. ALL RUNWAY OR TAXIWAY CLOSURES REQUESTED BY THE CONTRACTOR AND APPROVED BY THE AIRPORT, THE CONTRACTOR SHALL USE MARKING, LIGHTING AND SIGNS THAT FOLLOWING THE REQUIREMENTS OF FAA AC 150/5370-2F.

15. MARKING AND SIGNS FOR ACCESS ROUTES

CONTRACTOR SHALL CLEARLY MARK ALL ACCESS AND HAUL ROUTES.

16. HAZARD MARKING AND LIGHTING

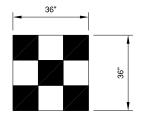
- THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN MARKINGS AND ASSOCIATED LIGHTING OF OPEN TRENCHES, EXCAVATIONS, TEMPORARY STOCKPILES, AND HIS/HER CONSTRUCTION EQUIPMENT.
- 2. ALL CONSTRUCTION EQUIPMENT SHALL BE FLAGGED AND/OR LIGHTED IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5370-2F AND 150/5210-5C AT ALL TIMES WHILE OPERATING ON AIRPORT PROPERTY. THE MAXIMUM EQUIPMENT HEIGHT IS 25' UNLESS OTHERWISE COORDINATED WITH THE AIRPORT.
- BARRICADES SHALL BE PLACED AT THE LOCATIONS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN SHEET OR AS DIRECTED BY THE FAIGHFULL.
- THE CONTRACTOR SHALL INSPECT THE BARRICADES ONCE DURING EACH WORK DAY TO INSURE PROPER PLACEMENT AND PROPER OPERATION OF THE RED LIGHTS.

17. PROTECTION

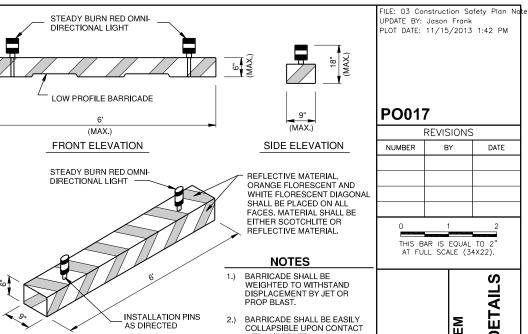
- ALL WORK WITHIN THE SAFETY AREA OF THE RUNWAY WILL REQUIRE THE RUNWAY TO BE CLOSED. THE CONTRACTOR MAY CLOSE THE RUNWAY ON A DAILY BASIS WITH COORDINATION AND APPROVAL OF THE AIRPORT. THE CONTRACTOR SHALL PLACE RUNWAY CLOSURE MARKERS OVER THE NUMERALS AT EACH END OF THE RUNWAY. THE CONTRACTOR WILL ALSO BE REQUIRED TO PLACE BARRICADES AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL ALSO TAKE CONTROL AND LOCKOUT ALL AIRPIELD LIGHTING PRIOR TO CLOSURE OF THE RUNWAY. AT THE END OF EACH WORKDAY THE THESE MARKERS AND BARRICADES SHALL BE REMOVED AND THE RUNWAY REOPENED. THE CONTRACTOR SHALL ALSO RETURN CONTROL OF THE AIRPIELD LIGHTING TO THE AIRPIELD LIGHTING TO THE AIRPORT. COST OF RUNWAY CLOSURE MARKERS, BARRICADES, LOCKOUT OF ELECTRICAL SYSTEM, SET UP/TAKE DOWN OF RUNWAY CLOSURE MARKERS, BARRICADES AND LOCKOUT OF ELECTRICAL SYSTEM.
- NO OPEN TRENCHES WILL BE ALLOWED WITHIN THE SAFETY AREA OF THE RUNWAY WHILE THE RUNWAY IS OPEN.

18. OTHER LIMITATIONS ON CONSTRUCTION

- IF, DURING CONSTRUCTION, AN EMERGENCY IS DECLARED BY THE AIRPORT, THE CONTRACTOR SHALL IMMEDIATELY CLEAR THE PAVEMENT OF ALL VEHICLES, PERSONNEL AND EQUIPMENT.
- 2. BROKEN CONCRETE, BROKEN ASPHALT, AND OTHER MISCELLANEOUS DEBRIS SHALL BE DISPOSED OF OFF AIRPORT PROPERTY, UNLESS OTHERWISE SPECIFIED.



CONSTRUCTION EQUIPMENT AND TRUCK SIGNAL FLAG



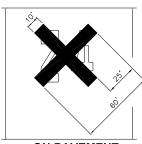
BEAM BARRICADE DETAILS N.T.S.

3.) PLACE AT 10' INTERVALS.

4.) NO SEPARATE PAYMENT WILL

BE MADE FOR THIS ITEM. COSTS

SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

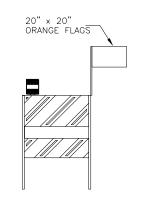


ISOMETRIC

ON PAVEMENT CLOSED RUNWAY MARKER DETAIL

NOTES

- 1. MARKERS SHALL BE SOLID YELLOW.
- 2. MARKERS SHALL BE PAINTED PLYWOOD OR OTHER APPROVED SOLID MATERIALS.
- 3. CONTRACTOR SHALL MAINTAIN MARKERS.
- 4. COST OF FURNISHING, INSTALLING, MAINTAINING, RELOCATING AND REMOVING MARKERS SHALL BE INCIDENTAL TO THE CONTRACT.
- 5. MARKERS SHALL BE PLACED OVER EXISTING RUNWAY NUMERALS.



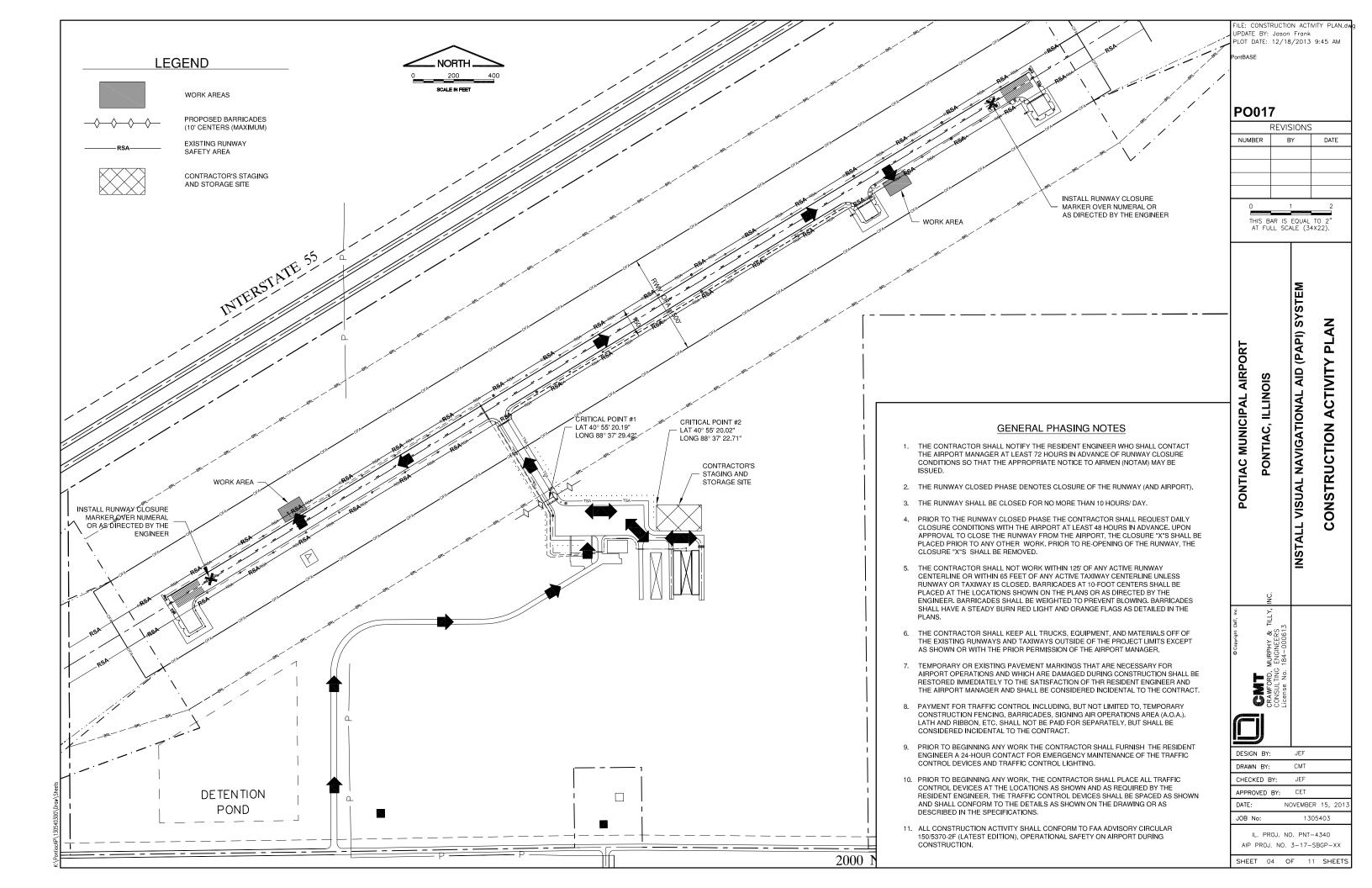
BARRICADE NOTES

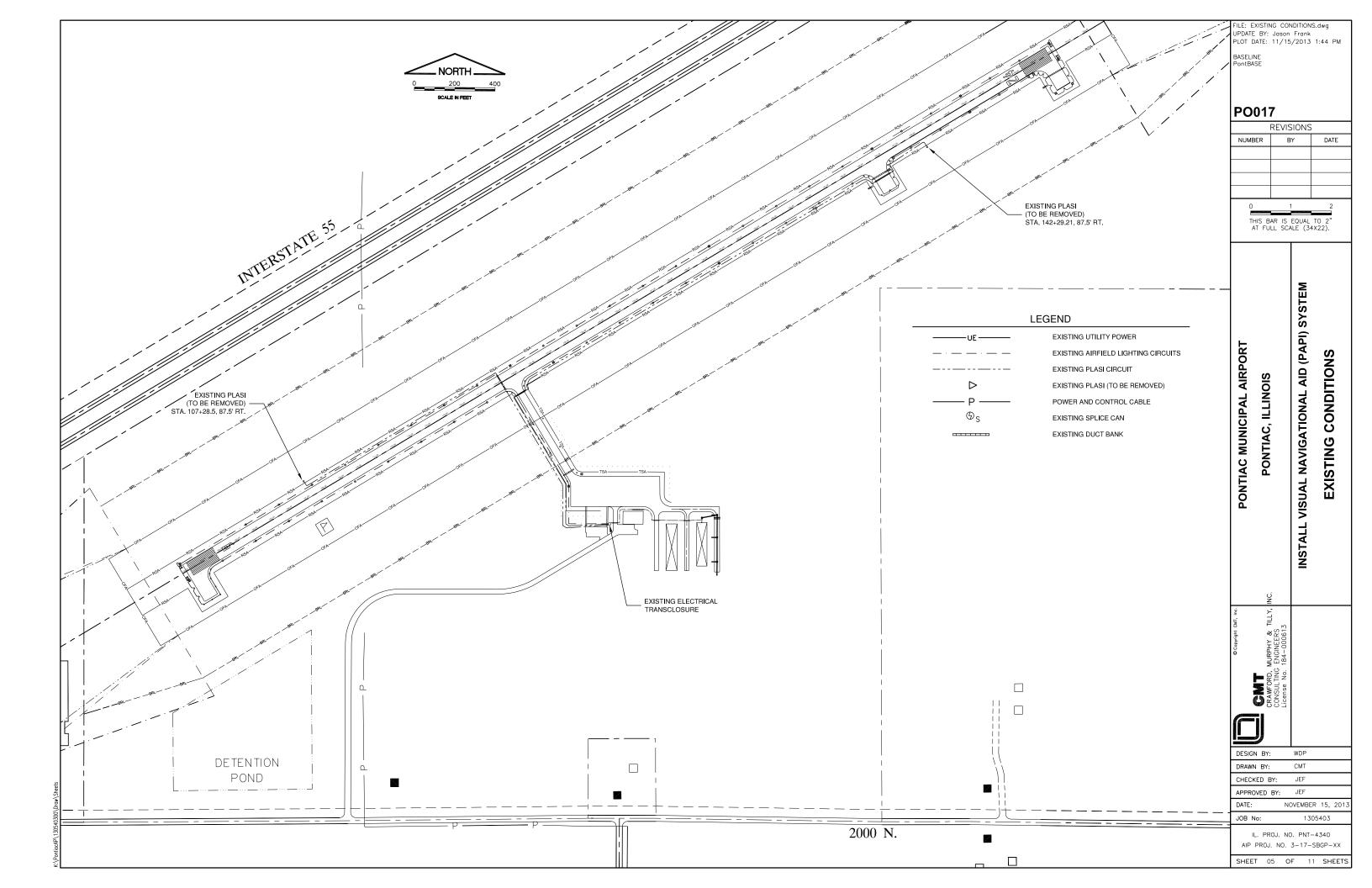
- RED LIGHTS TO BE BATTERY OPERATED. LIGHTS TO BE STEADY BURN RED OMNI-DIRECTIONAL.
- SANDBAGS TO BE PLACED ON EACH SUPPORT BRACE AS REQUIRED TO PREVENT DISPLACEMENT BY WIND, JET OR PROP BLAST.
- 3. NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- 4. PLACE AT 10' INTERVALS.

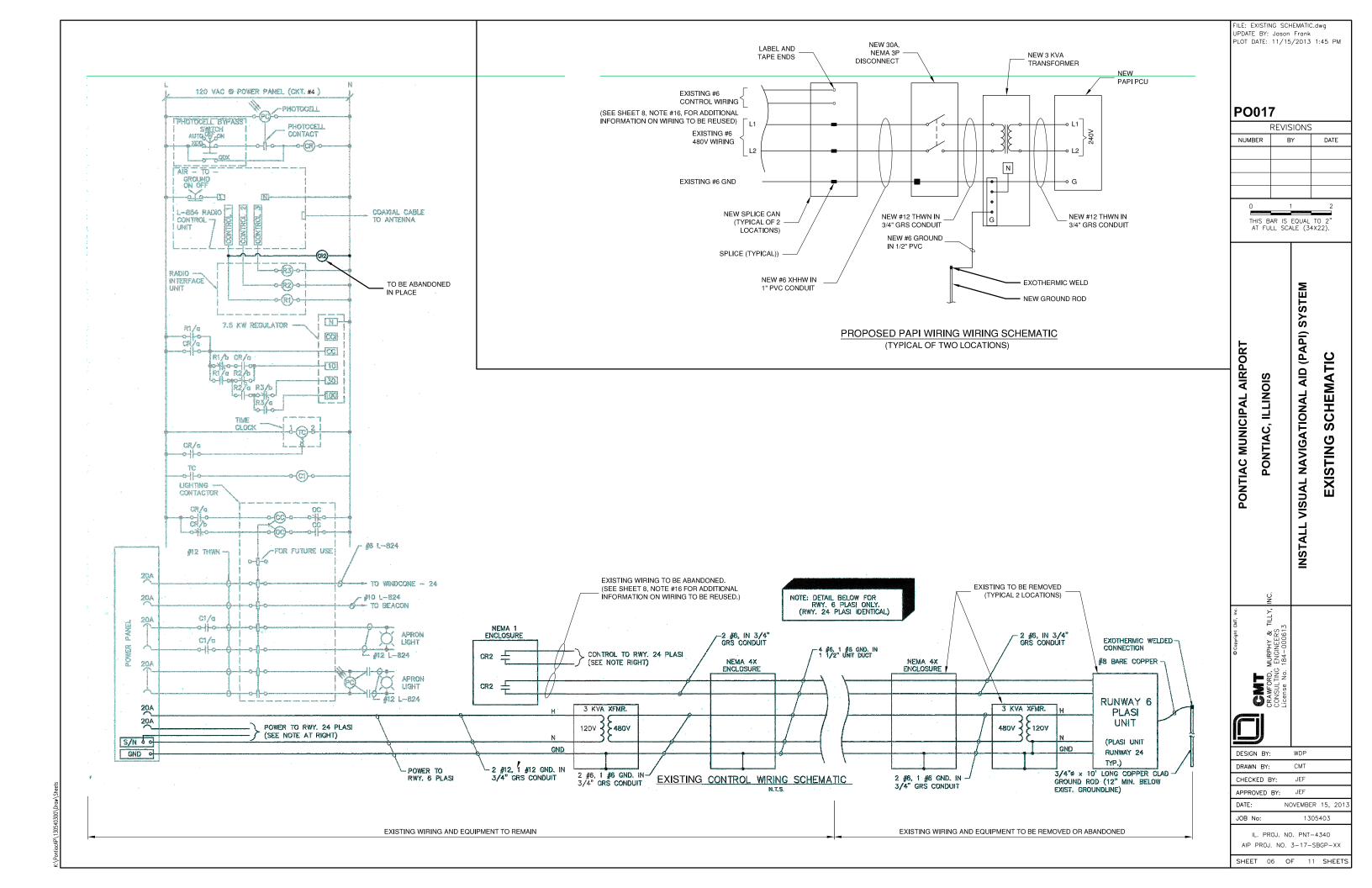
FLASHER BARRICADE DETAIL

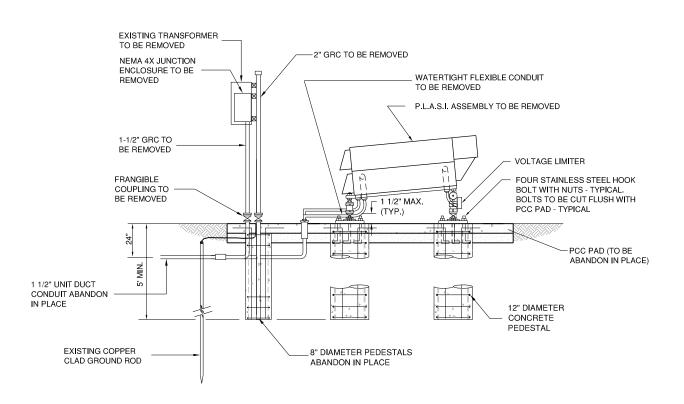
N.T.S.

PLOT DATE: 11/15/2013 1:42 PM PO017 **REVISIONS** BY NUMBER DATE THIS BAR IS EQUAL TO 2 AT FULL SCALE (34X22) S DET AND l≽ (API) NOTES AD Ą MUNICIPAL 7 ACTIVITY ONTIAC VISUAL STRUCTION ISTALL CRAWFO DESIGN BY: WDP CMT CHECKED BY APPROVED BY NOVEMBER 15, 201 JOB No: 1305403 IL. PROJ. NO. PNT-4340 AIP PROJ. NO. 3-17-SBGP-XX SHEET 03 OF 11 SHEETS

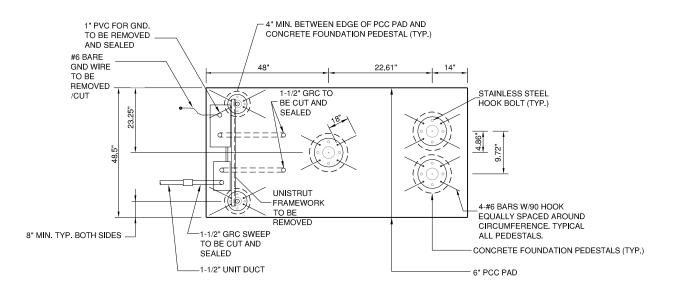








ELEVATION VIEW



PLAN VIEW

EXISTING PLASI DETAILS N.T.S.

FILE: PLASI REMOVAL DETAIL.dwg UPDATE BY: Jason Frank PLOT DATE: 11/15/2013 1:54 PM PO017 REVISIONS BY NUMBER DATE THIS BAR IS EQUAL TO 2' AT FULL SCALE (34X22). (PAPI) SYSTEM PONTIAC MUNICIPAL AIRPORT PLASI REMOVAL DETAIL AID PONTIAC, ILLINOIS VISUAL NAVIGATIONAL INSTALL CRAWFORD, N CONSULTING License No. DESIGN BY: JEF CMT DRAWN BY: JEF CHECKED BY: CET APPROVED BY: NOVEMBER 15, 2013 JOB No: 1305403 IL. PROJ. NO. PNT-4340 AIP PROJ. NO. 3-17-SBGP-XX

SHEET 07 OF 11 SHEETS

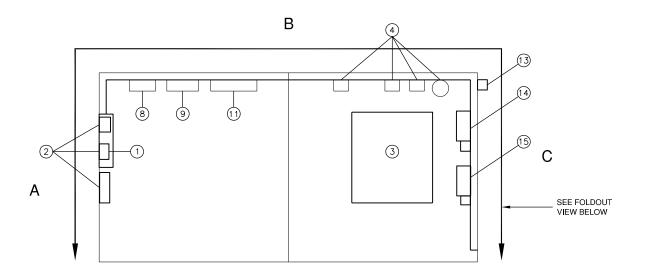
EXISTING VAULT KEYED NOTES

- 1 EXISTING PANELBOARD, 12-CIRCUIT, 120/240V, SINGLE-PHASE, 3-WIRE. PROVIDE REVISED PANEL SCHEDULE AS DETAILED ON THIS SHEET.
- 2 EXISTING AWOS FEEDER CIRCUIT BREAKER, STEP-UP TRANSFORMER AND DISCONNECT.
- 3 EXISTING RUNWAY 06/24 REGULATOR, 7.5 KW, 240V INPUT, 3-STEP, 6.6A OUTPUT.
- 4 EXISTING RUNWAY INDICATING LIGHT, ISOLATION TRANSFORMER, PLUG CUTOUT AND GROUNDING DISCONNECT.
- 5 EXISTING INTERIOR LIGHTS TOGGLE SWITCH.
- 6 EXISTING GFCI RECEPTACLE.
- 7 EXISTING TIME CLOCK.
- 8 EXISTING APRON LIGHTS LIGHTING CONTACTOR.
- 9 EXISTING L-854 RADIO CONTROLLER (PCAL).
- 10 EXISTING RADIO INTERFACE UNIT (RIU).
- 11 EXISTING CONTROL RELAYS AND CONTACTOR.
- 12 EISTING BEACON LIGHTING CONTROLS.
- 13 EXISTING PHOTOCELL BYPASS SELECTOR SWITCH.
- 14 EXISTING PLASI 06 STEP-UP TRANSFORMER (TOP) AND JUNCTION BOX (BOTTOM). REPLACE EXISTING ENGRAVED NAMEPLATES WITH NEW NAMEPLATES, WITH SAME WORDING, EXCEPT "PAPI 06" REPLACES "PLASI 6".
- 15 EXISTING PLASI 24 STEP-UP TRANSFORMER (TOP) AND JUNCTION BOX (BOTTOM). REPLACE EXISTING ENGRAVED NAMEPLATES WITH NEW NAMEPLATES, WITH SAME WORDING, EXCEPT "PAPI 24" REPLACES "PLASI 24".
- 16 EXISTING #6 480V POWER, CONTROL AND GROUND WIRING TO EXISTING PLASI 06 & PLASI 24 TO BE RE-USED TO POWER NEW PAPI 06 & PAPI 24. CONTRACTOR SHALL MEGGER THE EXISTING WIRING WITH A DIGITAL (NOT ANALOG) INSULATION RESISTANCE TESTER AT 500 VOLTS. THE RECOMMENDED MINIMUM INSULATION RESISTANCE IS 25 MEGOHMS. THE THREE EXISTING #6 WIRES OUT OF FIVE #6 WIRES TO EACH PLASI THAT MEGGER THE BEST (HIGHEST)" SHALL BE USED FOR THE NEW 480V POWER AND GROUND WIRING TO THE NEW

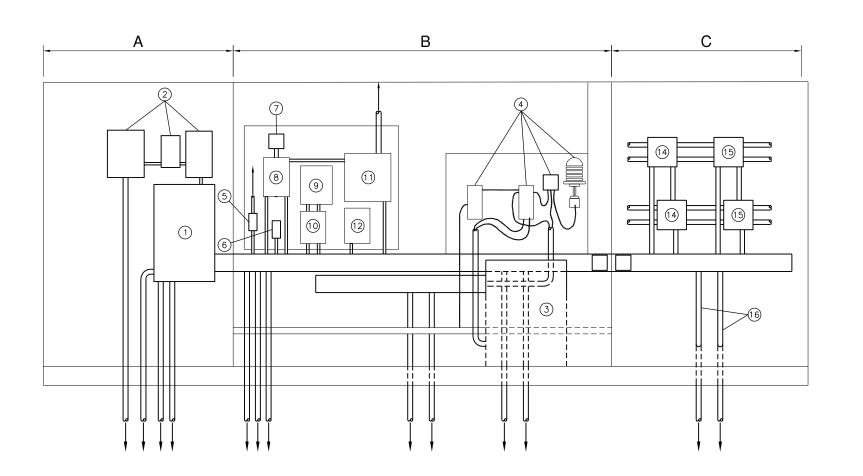
| PANEL SCHEDULE | | | |
|----------------|-------------------------|------------------|----|
| 1 | PAPI 06 | VAULT LTS/RECEPT | 2 |
| 3 | PAPI 24 | CONTROL CIRCUIT | 4 |
| 5 | WIND SOCK | EAST APRON LIGHT | 6 |
| 7 | BEACON | EAST APRONLIGHT | 8 |
| 9 | DIAN/ 00/04 DEOLII ATOD | WEST APRON LIGHT | 10 |
| 11 | RWY 06/24 REGULATOR | | 12 |

NOTE: REPLACE THE EXISTING PANEL SCHEDULE WITH THE ABOVE TYPED PANEL SCHEDULE. A HAND WRITTEN SCHEDULE SHALL NOT BE PERMITTED.

NEW PANEL SCHEDULE



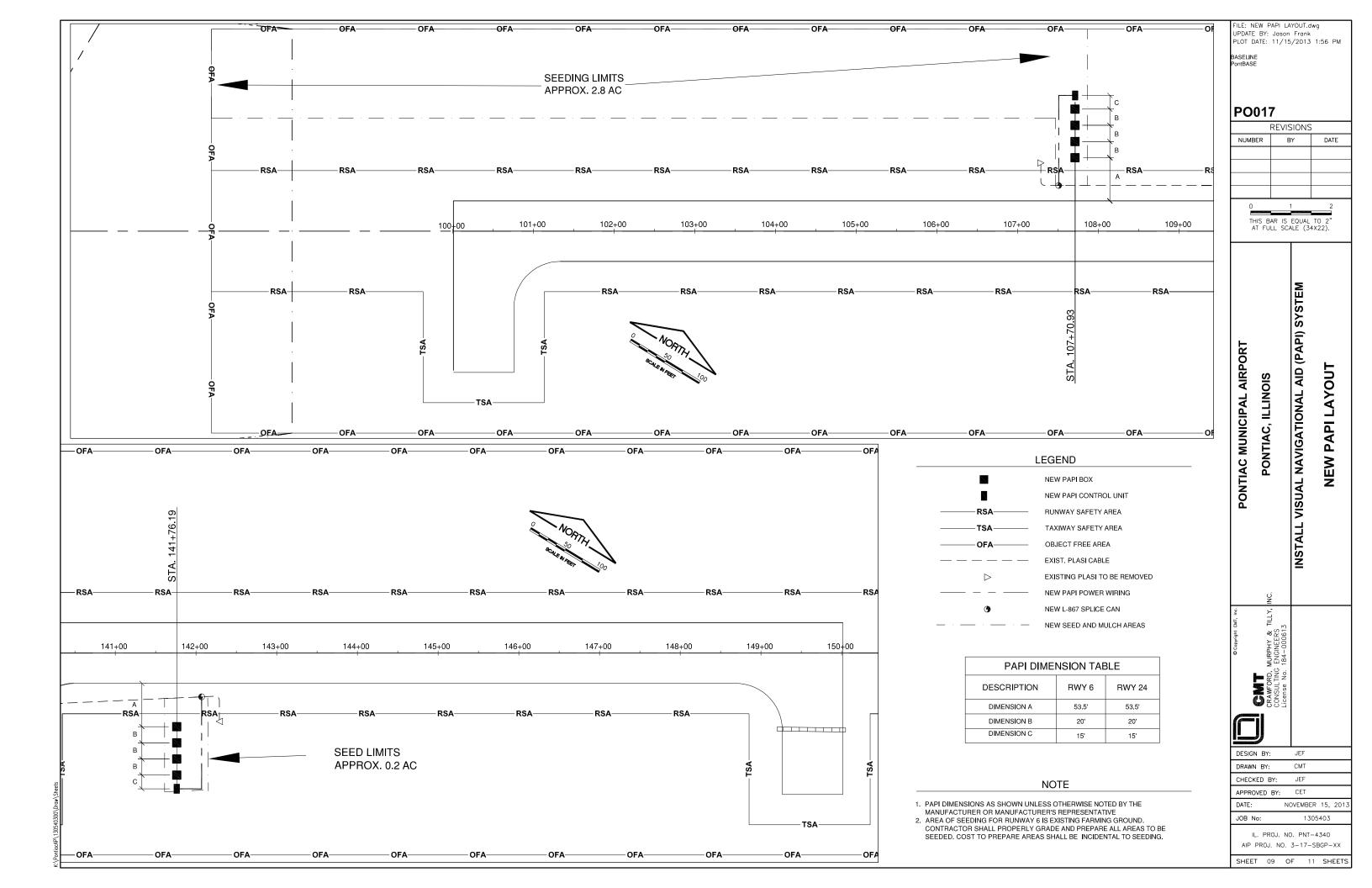
EXISTING VAULT PLAN VIEW N.T.S.

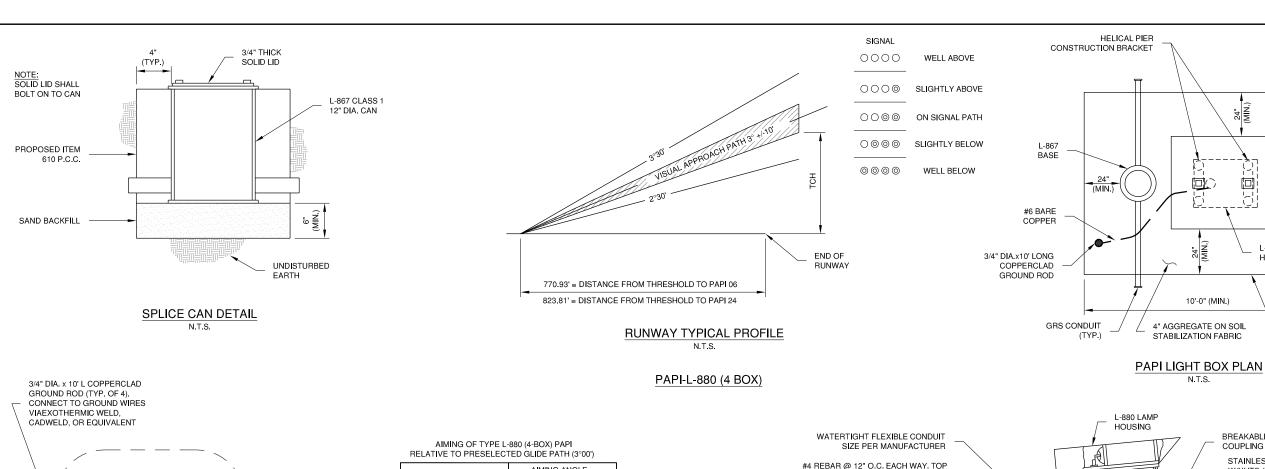


EXISTING VAULT FOLD OUT VIEW

N.T.S.

| FILE: ELECTRICAL ENCLOSURE MODIFIC UPDATE BY: Jason Frank PLOT DATE: 11/15/2013 1:56 PM | | | | |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------|-----------|---|--|
| PO017 | | | | |
| NUMBER | REVISIO BY | NS DAT | F | |
| | | | _ | |
| | | | | |
| | | | | |
| 0 | 1 | 2 | | |
| THIS B | AR IS EQU LL SCALE | JAL TO 2" | | |
| PONTIAC MUNICIPAL AIRPORT PONTIAC, ILLINOIS | NSTALL VISITAL NAVIGATIONAL AID (PAPI) SYSTEM | EXIS | | |
| CRAWERER MIRPHY & THIY INC | CONSULTING ENGINEERS Icense No. 184–000613 | | | |
| DESIGN BY: | | | | |
| | BY: JE | | | |
| | BY: CE | | | |
| DATE: NOVEMBER 15, 2013 | | | | |
| JOB No: 1305403 | | | | |
| | OJ. NO. F | | | |
| AIP PROJ. NO. 3-17-SBGP-XX SHEET 08 OF 11 SHEETS | | | | |





LIGHT BOX #2/0 BARE COPPER GROUND LIGHT BOX LIGHT BOX LIGHT BOX

#6 BARE COPPER GROUND TO

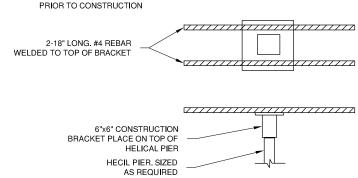
PAPI GROUND RING DETAIL

PAPI LIGHT BOX (TYP. OF 4)

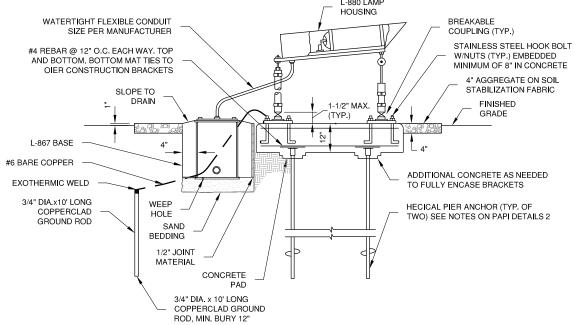
| LIGHT UNIT | AIMING ANGLE (IN MINUTES OF ARC) |
|---------------------|-------------------------------------|
| LIGHT ONLY | STANDARD INSTALLATION |
| UNIT NEAREST RUNWAY | 30' ABOVE GLIDE PATH |
| NEXT ADJACENT UNIT | 10' ABOVE GLIDE PATH |
| NEXT ADJACENT UNIT | 10' BELOW GLIDE PATH |
| NEXT ADJACENT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

| RUNWAY | 06 | 24 |
|------------------------------------|-------------|-------------|
| HEIGHT GROUP USED FOR SITING | 1 | 1 |
| THRESHOLD STATIONING | 100+00 | 150+00 |
| THRESHOLD ELEVATION | 648.58 | 665.85 |
| THRESHOLD CROSSING HEIGHT | 40.0' | 35.0' |
| STATION FOR MIDPOINT OF PROJECTORS | 107+70.93 | 141+76.19 |
| GLIDE PATH ANGLE * | 3° | 3° |
| ELEVATION QOF APERTURE ** | 650.47 | 660.07 |
| ELEVATION EXIST GROUND AT PAPI *** | 645.8 (+/-) | 656.0 (+/-) |

- * THE VISUAL GLIDE PATH ANGLE IS THE CENTER OF THE ON COURSE ZONE AND THE HORIZONTAL DATUM ESTABLISHED BY THE THRESHOLD ELEVATION, AND IS MEASURED FROM THE HORIZONTAL
- ** ELEVATION OF CENTER OF PAPILIGHTS
- *** CONTRACTOR SHALL VERIFY ALL ELEVATIONS AT NEW PAPI LOCATION



CONSTRUCTION BRACKET DETAIL



PAPI SIDE ELEVATION N.T.S.

ALL LIGHT BOXES SHALL BE FRANGIBLY MOUNTED TO THE PADS. CONCRETE PADS FOR MOUNTING LIGHT BOXES SHALL BE MADE OF ITEM 610 CONCRETE.

 $\frac{\text{AZIMUTHAL AIMING:}}{\text{EACH LIGHT UNIT SHALL BE AIMED OUTWARD INTO THE APPROACH ZONE ON A LINE PARALLEL TO THE RUNWAY CENTERLINE WITHIN TOLERANCE OF +/- <math>1/2$ DEGREE.

ELEVATION GIVEN IN THE TABLE.

TOLERANCE ALONG LINE PERPENDICULAR TO RUNWAY:

THE FRONT FACE OF EACH LIGHT UNIT IN A BAR SHALL BE LOCATED ON A LINE PERPENDICULAR TO THE RUNWAY CENTERLINE WITHIN +/- 6 INCHES.

THE DIFFERANCE IN LATERAL SPACING BETWEEN LIGHT UNITS SHALL NOT EXCEED 1'-0".

PAPI INSTALLATION DETAIL

N.T.S.

safety_areas surfaces prop_electric sketch_background 11017_2D PO017 **REVISIONS** NUMBER BY DATE THIS BAR IS EQUAL TO 2 AT FULL SCALE (34X22). SYST (PAPI) PONTIAC MUNICIPAL AIRPORT AID **DETAIL** PONTIAC, PAPI VISUAL INSTALL CRAWFOR DESIGN BY: JEF DRAWN BY CMT JEF CHECKED BY: CET APPROVED BY: NOVEMBER 15, 201 JOB No: 1305403 IL. PROJ. NO. PNT-4340 AIP PROJ. NO. 3-17-SBGP-XX SHEET 10 OF 11 SHEETS

FILE: PAPI DETAILS 1.dwg

PLOT DATE: 11/15/2013 1:59 PM

JPDATE BY: Jason Frank

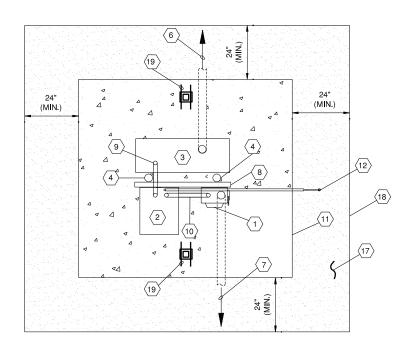
(MIN.)

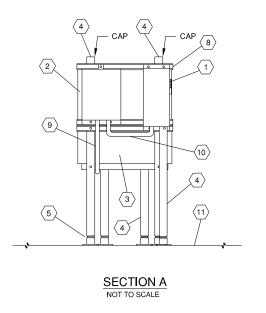
WOOD FRAME

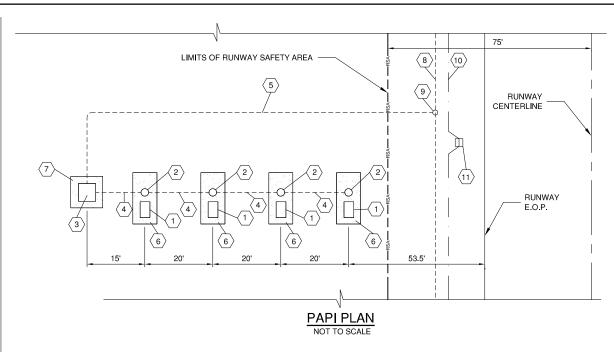
OF TREATED

1-880 LAMP

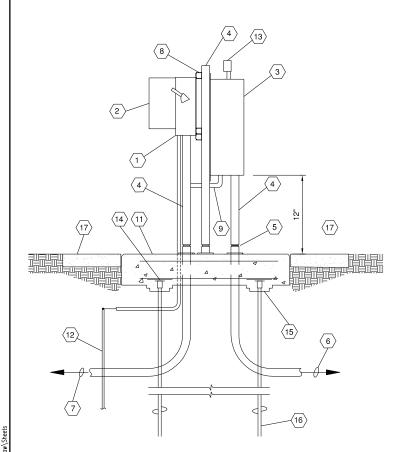
HOUSING







PAPI POWER UNIT PLAN NOT TO SCALE



PAPI POWER UNIT ELEVATION

PAPI POWER UNIT KEYED NOTES

- HEAVY DUTY UNFUSED DISCONNECT, 600VAC, 1PHASE, 30A, NEMA 3R. SQUARE D H361RB OR EQUAL.
- 3KVA, 240x480V-120/240V, 1PHASE, NEMA 3R GENERAL PURPOSE TRANSFORMER. SQUARE D 3S1F OR EQUAL. STEP DOWN 480V TO 120/240V.
- PAPI POWER & CONTROL UNIT, WITH PHOTOCELL
- 2" GALVANIZED EMT. (TYP.)
- FRANGIBLE COUPLINGS & FLOOR FLANGES. SEE PAPI INSTALLATION DETAILS FOR HOOK BOLT INSTALLATION IN FOOTING.
- GRS CONDUIT WITH PAPI POWER WIRING AND TILT SWITCH WIRING TO PAPI LIGHT BOXES.
- ONE 1" PVC CONDUIT WITH TWO #6 XHHW, ONE #6 GROUND (480V POWER FROM SPLICE CAN).
- 1-5/8" X 1-5/8" GALVANIZED UNISTRUT, P1000 OR EQUIVALENT.
- TWO #12 THWN & ONE #12 GND IN 3/4" GRS CONDUIT. FROM TRANSFORMER SECONDARY TO PAPI POWER & CONTROL UNIT.
- TWO #12 THWN & ONE #12 GND IN 3/4" GRS CONDUIT. FROM DISCONNECT TO TRANSFORMER PRIMARY.
- 4'X4'X12" THICK CONCRETE PAD MADE OF ITEM 610 CONCRETE
- 3/4" DIA. BY 10 FT. LONG COPPER CLAD GROUND ROD WITH #6 BARE COPPER GROUND CABLE ATTACHED BY EXOTHERMIC WELDING. OTHER END OF CABLE IN 1/2" PVC TERMINATES ON TRANSFORMER GROUND LUG.
- PHOTOCELL, TORK 2101 OR EQUIVALENT.
- #4 REBAR @12" O.C. EACH WAY, TOP AND BOTTOM. BOTTOM MAT TIED TO PIER CONSTRUCTION BRACKETS.
- ADDITIONAL CONCRETE AS NEEDED TO FULLY ENCASE BRACKETS.
- HELICAL PIER ANCHOR (TYP. OF TWO). SEE NOTES, THIS SHEET.
- AGGREGATE ON SOIL STABILIZATION FABRIC
- WOOD FRAME OF 2 X 4'S, ALL SIDES.
- HELICAL PIER CONSTRUCTION BRACKET.

THE AIRPORT HAS REQUESTED THAT THE NIGHTTIME BRIGHTNESS BE SEE AT 20%.

PAPI PLAN NOTES

- 1 PAPI LIGHT BOX.
- 2 L-867 CAN WITH SOLID LID.
- 3 PAPI PCU. SEE DETAILS, THIS SHEET.
- 4 PAPI LIGHT BOX POWER WIRING AND TILT SWITCH WIRING IN GRS CONDUIT, SIZED AS REQUIRED. NOTE: WIRE SIZES AND NUMBER OF CONDUCTORS WILL VARY BY PAPI MANUFACTURER. CONTRACTOR SHALL COORDINATE WITH SUPPLIED PAPI MANUFACTURER.
- 5 PAPI 480V POWER WIRING FROM SPLICE CAN, TWO #6 XHHW, ONE #6 GROUND IN 1" PVC CONDUIT
- 6 MIN. 8' x 10' x 4" DEEP AGGREGATE BASE ON SOIL STABILIZATION FABRIC.
- 7 MIN, 4' x 4' x 4" DEEP AGGREGATE BASE ON SOIL STABILIZATION FABRIC.
- 8 EXISTING PLASI 480V POWER WIRING AND CONTROL WIRING.
- NEW L-867 SPLICE CAN. INTERCEPT EXISTING PLASI 480V POWER WIRING AND EXTEND TO NEW PAPI PCU.
- 10 EXISTING RUNWAY SERIES CIRCUIT WIRING.
- 11 EXISTING RUNWAY EDGE LIGHT.

PAPI LIGHT BOX PAD & PAPI POWER UNIT PAD HELICAL PIER NOTES

- HELICAL PIER LEAD SECTIONS, EXTENSIONS, AND TERMINATION UNITS SHALL BE AS MANUFACTURED BY A. B. CHANCE, OR EQUIVALENT.
- HELICAL PIERS SHALL BE SUPPLIED AND INSTALLED BY A CONTRACTOR TRAINED AND CERTIFIED AS AN INSTALLER BY THE PIER MANUFACTURER.
- HELICAL PIERS SHALL BE SIZED AND INSTALLED TO RESIST AN UNFACTORED DESIGN LOAD OF 25,000 POUNDS (TENSION
- HELICAL PIERS SHALL BE INSTALLED NOMINALLY 6' TO 10' DEEP, OR AS REQUIRED TO ACHIEVE 2,500 POUNDS OF
- CENTRAL SHAFT OF PIERS AND EXTENSIONS SHALL BE ROUND CORNERED SQUARE STEEL, 1-1/2" SQUARE. PIERS AND ALL ACCESSORIES SHALL HAVE A CLASS B1 HOT DIPPED GALVANIZED COATING COMPLYING WITH ASTM-A153.
- HELICAL PIERS SHALL BE INSTALLED IN A SMOOTH, CONTINUOUS MANNER IN COMPLIANCE WITH MANUFACTURER'S
- HELICAL PIERS SHALL BE VERTICAL, WITH A MAXIMUM DEFLECTION OF 2 DEGREES.
- IF THE REQUIREMENTS FOR THE HELICAL PIER INSTALLATION CANNOT BE MET BECAUSE OF SOIL CONDITIONS, ROCKS, ETC., THEN A TRADITIONAL CONCRETE FOOTING PER PAPI MANUFACTURERUS DETAILS SHALL BE INSTALLED FOR PAPI LIGHT BOXES AND PAPI POWER UNIT AT NO ADDITIONAL COST TO THE CONTRACT.

PO017 **REVISIONS** NUMBER BY DATE THIS BAR IS EQUAL TO 2 AT FULL SCALE (34X22)

FILE: PAPI DETAILS 2.dwg JPDATE BY: Jason Fran PLOT DATE: 1/21/2014 3:18 PM

> (PAPI) PONTIAC, VISUAL

DETAIL

PAPI

PONTIAC MUNICIPAL AIRPORT

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CRAWFORD, CONSULTING

DESIGN BY: JEF CMT CHECKED BY: JEF CET APPROVED BY: NOVEMBER 15, 201

IL. PROJ. NO. PNT-4340 AIP PROJ. NO. 3-17-SBGP-XX

JOB No:

1305403

SHEET 11 OF 11 SHEETS