

ITEM NO. 8A

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NOTICE TO CONTRACTORS AND BIDDERS

THESE CONSTRUCTION PLANS RELY UPON THE SPECIAL PROVISIONS AND THE SPECIFICATIONS TO PROVIDE FOR A COMPLETE DESCRIPTION OF THE WORK AND CONSTRUCTION REQUIREMENTS. THE PLANS SHALL ONLY BE USED IN COMBINATION WITH ALL CONTRACT DOCUMENTS.

IDA LETTING DATE: AUGUST 04, 2006

CONSTRUCTION PLANS

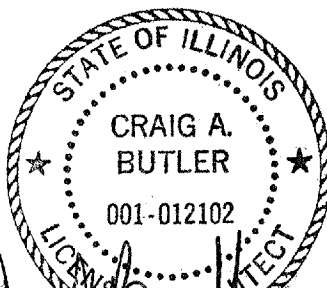
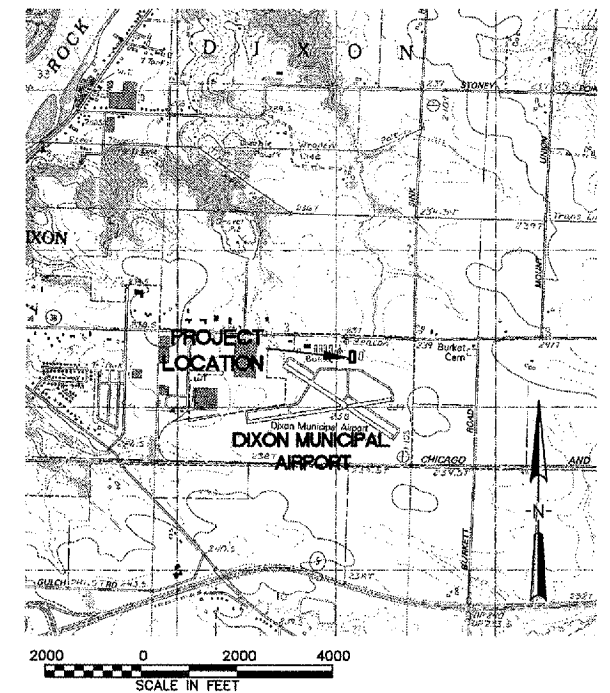
CONSTRUCT REPLACEMENT AIRFIELD ELECTRICAL VAULT

DIXON MUNICIPAL AIRPORT (C73) CHARLES R. WALGREEN FIELD CITY OF DIXON, LEE COUNTY, ILLINOIS

AIP PROJECT NO. 3-17-0036-B8 IDA PROJECT NO. C73-3548

CONTRACT NO. D1022 TOTAL SHEETS = 36

VICINITY MAP



EXPIRES 11/30/06



FOR ELECTRICAL DESIGN EXPIRES 11/30/2007



For Sheets S0.1, S1.1 and S5.1 expires 11/30/06

SHEET NO. 1 OF 36



HANSON PROFESSIONAL SERVICES INC. 815 Commerce Drive, Suite 200 Oak Brook, Illinois 60523 Telephone: 630.990.3800 Fax: 630.990.3801

Seal Date of Plans Craig Butler, Licensed Architect JUNE 23, 2006

Seal Date of Plans Kevin N. Lightfoot, P.E. JUNE 23, 2006

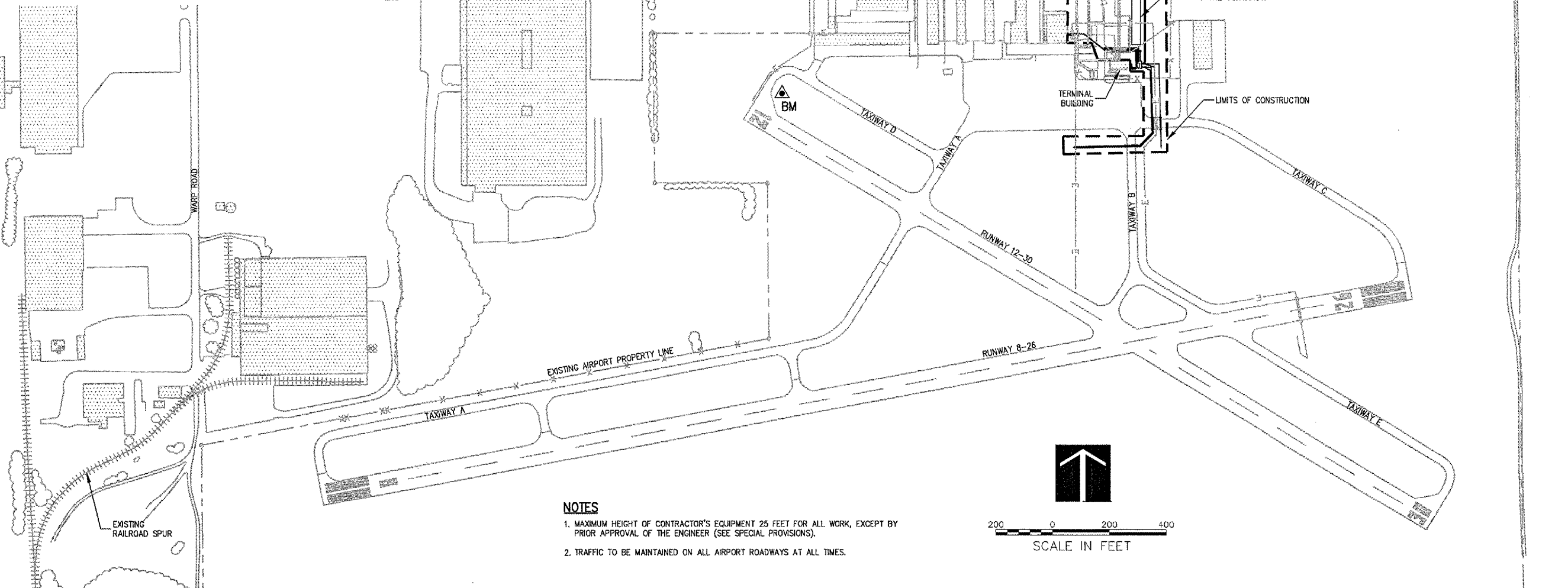
Seal Date of Plans Gary Clack, P.E., S.E. JUNE 23, 2006

No.	Issue/Description	Sheets Changed	Date	By

S:\DANGROCK\DIXON AIRPORT ELECTRICAL VAULT\101-COVERLING JUN 22, 2006 1:46PM HAE



PROJECT IS LOCATED IN SECTION 3,
TOWNSHIP 21 NORTH,
RANGE 9 EAST,
LEE COUNTY, ILLINOIS



NOTES

1. MAXIMUM HEIGHT OF CONTRACTOR'S EQUIPMENT 25 FEET FOR ALL WORK, EXCEPT BY PRIOR APPROVAL OF THE ENGINEER (SEE SPECIAL PROVISIONS).
2. TRAFFIC TO BE MAINTAINED ON ALL AIRPORT ROADWAYS AT ALL TIMES.

GENERAL NOTES

PROJECT DESCRIPTION

THIS PROJECT IS TO CONSTRUCT THE AIRFIELD ELECTRICAL VAULT AT DIXON MUNICIPAL AIRPORT, INCLUDING, AMONG OTHER INCIDENTAL WORK, THE FOLLOWING ITEMS:

CONSTRUCT AIRFIELD ELECTRICAL VAULT

- TOPSOIL REMOVAL (UNCLASSIFIED EXCAVATION) FOR SIDEWALK AND BUILDING CONSTRUCTION.
- CONSTRUCT NEW ELECTRICAL VAULT BUILDING.
- INSTALL NEW ELECTRICAL EQUIPMENT IN NEW BUILDING.
- REPLACE EXISTING ELECTRIC SERVICES TO EXISTING VAULT AND AIRCRAFT MAINTENANCE BUILDING.
- UPGRADE ELECTRICAL EQUIPMENT AT EXISTING ROTATING BEACON.
- REMOVE EXISTING ELECTRICAL VAULT STRUCTURE.
- CONSTRUCT NEW CONCRETE ENCASED DUCT AND PLACE DIRECTIONAL BORE DUCT.
- CONSTRUCT NEW ELECTRICAL HANDHOLES AND CONCRETE UTILITY PAD.
- INSTALL NEW CABLE IN UNIT DUCT AND DIRECTIONAL BORE DUCT.
- CONSTRUCT NEW AND REMOVE AND REPLACE EXISTING PCC SIDEWALK.
- PLACE TOPSOIL AND SOD.

THE NEW VAULT BUILDING AND EQUIPMENT SHALL BE OPERATIONAL BEFORE THE EXISTING AIRFIELD LIGHTING CIRCUITS AND VAULT/EQUIPMENT ARE INTERRUPTED/REMOVED.

PROTECTION OF EXISTING AIRPORT FACILITIES

THE CONTRACTOR IS TO BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND LIGHTING EQUIPMENT; DRIVEWAY AND ROAD PAVEMENT AND SHOULDERS; RUNWAY, TAXIWAY AND APRON PAVEMENTS AND SHOULDERS; RUNWAY, TAXIWAY AND AIRPORT LIGHTING EQUIPMENT; AND SEEDED AND TURFED AREAS THAT ARE UTILIZED IN OR AFFECTED BY THE CONTRACTOR'S ACTIVITIES. ITEMS DAMAGED BY THE CONTRACTOR ARE TO BE REPAIRED AT CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE AIRPORT OWNER AND THE RESIDENT ENGINEER.

IN ADDITION WHEN CONDITIONS DICTATE OR AS DETERMINED BY THE AIRPORT OWNER OR THE RESIDENT ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO USE A PICK-UP TYPE SWEEPER IN ALL ACTIVE CONSTRUCTION AIRFIELD PAVEMENT AREAS AND ROADS USED AS HAUL ROUTES. THE CONTRACTOR WILL BE REQUIRED TO HAVE A SWEEPER AVAILABLE FOR USE AT ALL TIMES. THE COST OF SWEEPING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

CONTRACTOR'S ACCESS AND TEMPORARY FACILITIES

CONTRACTOR'S ACCESS TO THE PROJECT WHEN ON AIRPORT PROPERTY IS SHOWN ON THIS SHEET. CONTRACTOR'S ACCESS TO THE AIRPORT ITSELF IS TO BE PROVIDED BY PUBLIC RIGHTS-OF-WAY. THE CONTRACTOR IS TO SECURE ALL NECESSARY PERMITS FOR THE USE OF ANY PUBLIC RIGHTS-OF-WAY AND IS TO MAINTAIN TRAFFIC ON THESE PUBLIC ROADS AT ALL TIMES, WITH THE COSTS OF PERMITTING, CLEANING AND REPAIRING OF PAVEMENT DAMAGED BY CONTRACTOR'S ACTIVITIES INCIDENTAL TO THE CONTRACT. USE OF AND REPAIRS TO ANY PUBLIC FACILITIES ARE TO BE COMPLETED TO THE SATISFACTION OF THE FACILITY'S OWNER.

THE CONTRACTOR IS TO PROVIDE TEMPORARY HAUL ROUTE AT THE LOCATION SHOWN ON THIS SHEET AND AS DETAILED. THE HAUL ROUTE WILL BE PAID UNDER ITEM ARI90540. OTHER TEMPORARY CONSTRUCTION ROADS WITHIN THE CONSTRUCTION LIMIT LINES AS MAY BE REQUIRED BY HIS ACTIVITIES AT HIS OWN EXPENSE AND DISCRETION, SUBJECT TO THE APPROVAL OF THE RESIDENT ENGINEER. HEAVY VEHICLES SHALL NOT CROSS EXISTING OR NEW PAVEMENT SURFACES EXCEPT AS APPROVED BY THE AIRPORT OWNER AND THE RESIDENT ENGINEER. ANY DAMAGE TO PAVEMENTS THAT MAY OCCUR BY THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE AIRPORT OWNER AND THE RESIDENT ENGINEER.

THE CONTRACTOR IS TO PROVIDE CONTRACTOR'S EQUIPMENT STORAGE AND PARKING AREAS AT THE LOCATIONS SHOWN ON THIS SHEET. THE CONTRACTOR WILL BE UTILIZING AN EXISTING GATED ENTRANCE ON THE AIRPORT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE CONSTRUCTION ENTRANCE AND ACCESS, ROADS AND THE STORAGE AREA DURING CONSTRUCTION AND TO RESTORE THE AREAS AT PROJECT COMPLETION TO CONDITIONS SUITABLE TO THE AIRPORT OWNER AND THE RESIDENT ENGINEER. AT THE AIRPORT OWNER'S DISCRETION, THE TEMPORARY FACILITIES MAY REMAIN, BUT THEY MUST BE LEFT IN CONDITIONS SUITABLE TO THE AIRPORT OWNER. THE COST OF PROVIDING, MAINTAINING AND RESTORING THE TEMPORARY FACILITIES IS INCIDENTAL TO THE CONTRACT.

RESPONSIBILITY FOR EXISTING UTILITIES

THE LOCATION, SIZE AND/OR TYPE OF MATERIAL OF EXISTING UNDERGROUND OR OVERHEAD UTILITIES AS MAY BE INDICATED ON THESE CONSTRUCTION PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE PROJECT ENGINEER HAVE INDEPENDENTLY VERIFIED THIS INFORMATION AND NEITHER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY, SUFFICIENCY OR COMPLETENESS OF THE INFORMATION AND GIVE NO EXPRESSED OR IMPLIED GUARANTEE THAT ANY CONDITIONS INDICATED ARE REPRESENTATIVE OF ACTUAL CONDITIONS TO BE ENCOUNTERED.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND AGENCIES OF HIS CONSTRUCTION PLANS AND SHALL OBTAIN FROM EACH PARTY DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF ALL UTILITIES AND THE WORKING SCHEDULE OF ANY REMOVALS OR ADJUSTMENTS REQUIRED OF THE UTILITY. THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (PHONE 800-892-0123) TO ASSIST IN THE ABOVE.

THE CONTRACTOR SHALL PROTECT ANY FACILITIES TO THE SATISFACTION OF THE UTILITY OR OWNING-AGENCY WITH THE COST OF ANY REQUIRED PROTECTION TO BE INCIDENTAL TO THE CONTRACT. IN THE EVENT A UTILITY LINE OR SERVICE IS UNEXPECTEDLY ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE RESIDENT ENGINEER AND THE UTILITY COMPANY OR AGENCY OF JURISDICTION. ANY SUCH UTILITIES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO SERVICE AT ONCE.

EXISTING BENCHMARK

BENCHMARK IS AS FOLLOWS:

▲ ELEVATION: 772.78 (NAVD 88)
BM CUT SQUARE ON RIM OF INLET NEAR WEST END OF RUNWAY 12 NORTH OF CENTERLINE.
N: 1883684.499
E: 2492285.44

OTHER TEMPORARY BENCHMARKS ARE LOCATED ON-FIELD BUT THEIR USE MUST BE FIELD-VERIFIED.

No.	Drawing Issue Description	Date	By

Date
JUNE 23, 2006
Sheet Title

SITE PLAN AND GENERAL NOTES

843-05C8010
Project Number
LDH 06/19/06
Layout By Date
LDH 06/19/06
Designed By Date
RMH 06/23/06
Reviewed By Date
Drawn By



A: 1054051100843105C8010 [DRA] MWS: 105-SITE PLAN AND NOTES.DWG JUN 23, 2006 1:42PM LDH

CONSTRUCTION AND SAFETY NOTES

SEQUENCE OF CONSTRUCTION

TO MINIMIZE DISRUPTIONS TO AIRPORT OPERATIONS, CONSTRUCTION OPERATIONS MUST BE CONTROLLED THROUGHOUT THE PROJECT'S DURATION AND WORK MUST BE COMPLETED EXPEDITIOUSLY. THE CONTRACTOR SHALL EXPEDITE WORK AT THOSE STAGES OR PORTIONS OF STAGES WHEN ACTIVE TAXIWAYS, APRONS, ROADWAYS OR PARKING LOTS MUST BE CLOSED OR REDUCED IN SIZE TO MINIMIZE THE LENGTH OF TIME THAT AIRPORT OPERATIONS ARE RESTRICTED.

TEMPORARY BARRICADES ON AIRFIELD

THE PROJECT WILL ALSO REQUIRE THE OCCASIONAL, TEMPORARY CLOSING OF SEGMENTS OF ACTIVE TAXIWAYS. AIRFIELD BARRICADES WILL BE REQUIRED FOR ALL TAXIWAY CLOSURES. TO MINIMIZE DISRUPTION TO AIRCRAFT OPERATIONS ASSOCIATED WITH THESE REQUIREMENTS, CONSTRUCTION WORK MUST BE COMPLETED EXPEDITIOUSLY. AT NO TIME SHALL MORE THAN ONE TAXIWAY BE CLOSED TO AIRCRAFT TRAFFIC.

OPEN TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL AT THE CONSTRUCTION SITE SHALL ALSO BE DELINEATED WITH THE USE OF BARRICADES DURING HOURS OF RESTRICTED VISIBILITY AND/OR DARKNESS.

IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH, PLACE AND MAINTAIN BARRICADES AS SHOWN IN THE SAFETY PLAN, AND DETAIL A, THIS SHEET, AND AS DIRECTED BY THE RESIDENT ENGINEER AND AIRPORT OWNER. THE COST OF THESE ITEMS, AND THEIR MAINTENANCE, IS TO BE INCIDENTAL TO THE CONTRACT.

AIRFIELD OPERATIONAL SAFETY DURING CONSTRUCTION

ALL CONSTRUCTION TRAFFIC AND PERSONNEL SHALL REMAIN WITHIN THE CONSTRUCTION LIMIT LINE SHOWN ON THE STAGING PLAN FOR THE STAGE CURRENTLY UNDER CONSTRUCTION. CONTRACTOR'S PERSONNEL AND EQUIPMENT MUST REMAIN AT LEAST 125 FEET FROM THE CENTERLINE OF ACTIVE RUNWAYS, 700 FEET FROM THE END OF ACTIVE RUNWAYS (500 FEET IF STAGED CONSTRUCTION DISPLACEMENT IS IMPLEMENTED), 50 FEET FROM THE CENTERLINE OF ACTIVE TAXIWAYS, AND 10 FEET FROM THE EDGE OF ACTIVE APRONS.

WHEN IT IS NECESSARY FOR CONSTRUCTION VEHICLES TO OPERATE ON OR WITHIN THESE LIMITS, THE RUNWAY, TAXIWAYS OR APRON MUST BE CLOSED. THE CONTRACTOR WILL PROVIDE POSITIVE CONTROL OF CONSTRUCTION VEHICLES USING RADIO-EQUIPPED FLAGGERS. ALL CONTRACTOR'S EQUIPMENT USED IN ACTIVE AIRPORT OPERATIONS AREAS SHALL BE EQUIPPED WITH A FAA-STANDARD FLAG, AS REFERENCED IN FAA AC 150/5370-2, CURRENT ISSUE. AIRCRAFT SHALL HAVE THE RIGHT-OF-WAY. CONSTRUCTION VEHICLES SHALL NOT CROSS AN ACTIVE RUNWAY. THE COST OF ALL TRAFFIC CONTROL, BOTH WITHIN AND OUTSIDE OF AIRPORT OPERATIONS AREAS, IS TO BE INCIDENTAL TO THE CONTRACT.

WHEN NOT IN USE AND DURING NONWORKING HOURS, CONTRACTOR'S EQUIPMENT SHALL BE PARKED WITHIN THE CONTRACTOR'S EQUIPMENT STORAGE AND PARKING AREAS. THE EQUIPMENT STORAGE AND PARKING AREAS ARE TO BE LOCATED AS SHOWN ON THE STAGING PLAN. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING THE CONSTRUCTION ENTRANCE IN GOOD CONDITION. THE COST OF MAINTAINING THE CONSTRUCTION ENTRANCE IS TO BE INCIDENTAL TO THE CONTRACT.

AT NO TIME SHALL THE CONTRACTOR OPERATE OR PARK EQUIPMENT SO AS TO OBSTRUCT AN ACTIVE RUNWAY APPROACH SURFACE.

BEFORE REOPENING TEMPORARILY CLOSED RUNWAYS, TAXIWAYS OR ROADWAYS, THE CONTRACTOR SHALL INSPECT AND CLEAN, AS NECESSARY, THE PAVEMENT TO ASSURE THAT NO MATERIALS OR OBJECTS THAT MAY DAMAGE AIRCRAFT OR VEHICLES REMAIN. ANY REQUIRED CLEANING SHALL BE TO THE SATISFACTION OF THE RESIDENT ENGINEER AND AIRPORT OWNER AND IS INCIDENTAL TO THE CONTRACT.

VEHICLE SAFETY DURING CONSTRUCTION

TEMPORARY BARRICADES SHALL BE PLACED BY THE CONTRACTOR TO DELINEATE SEGMENTS OF ROADWAYS AND AUTO PARKING AREAS CLOSED TO VEHICLE USE DURING CONSTRUCTION. BARRICADES SHALL BE PLACED ON THE PAVEMENT WHEN WORKING WITHIN 15 FEET OF THE PAVEMENT EDGE. THE COST OF ERECTING, MAINTAINING AND REMOVING THE BARRICADES SHALL BE INCIDENTAL TO THE CONTRACT.

NOTIFICATIONS BY CONTRACTOR

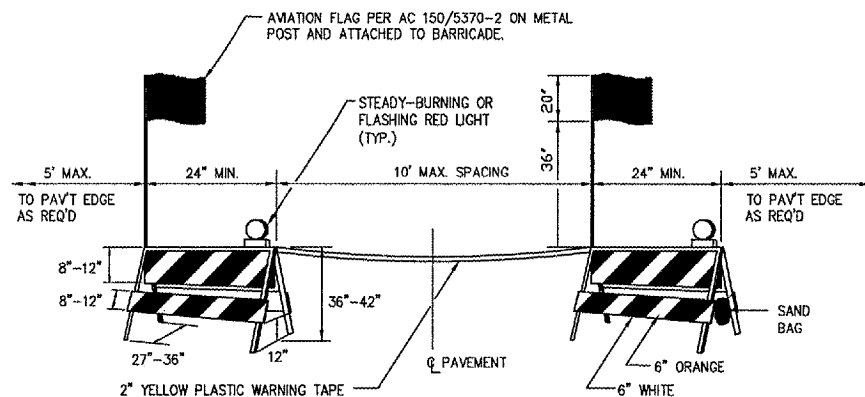
THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT OWNER 7 DAYS IN ADVANCE OF THE CONTRACTOR'S CLOSING OF ACTIVE RUNWAYS, TAXIWAYS AND APRONS. THE DATE, TIME AND SCHEDULED DURATION OF THE CLOSING MUST BE APPROVED BY THE RESIDENT ENGINEER AND THE AIRPORT OWNER. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AND AIRPORT OWNER 72 HOURS IN ADVANCE OF THE CONTRACTOR'S CLOSING OF OTHER ACTIVE ROADWAYS, AIRFIELD OR ROADWAY LIGHTING CIRCUITS, OR OTHER AIRPORT FACILITIES.

CONTRACTOR'S USE OF SITE

THE CONTRACTOR SHALL NOT OPERATE WITHIN, ENCROACH UPON OR OBSTRUCT AIRPORT OPERATIONAL AREAS, INCLUDING ACTIVE RUNWAY, TAXIWAYS AND APRON SAFETY AREAS, OBJECT AND OBSTACLE FREE ZONES, RUNWAY PROTECTION ZONES AND AIRPORT IMAGINARY SURFACES AS DEFINED IN FEDERAL AVIATION REGULATIONS (FAR) PART 77, "OBJECTS AFFECTING NAVIGABLE AIRSPACE".

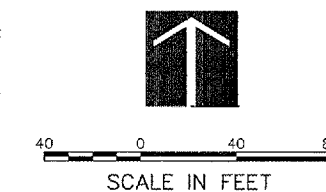
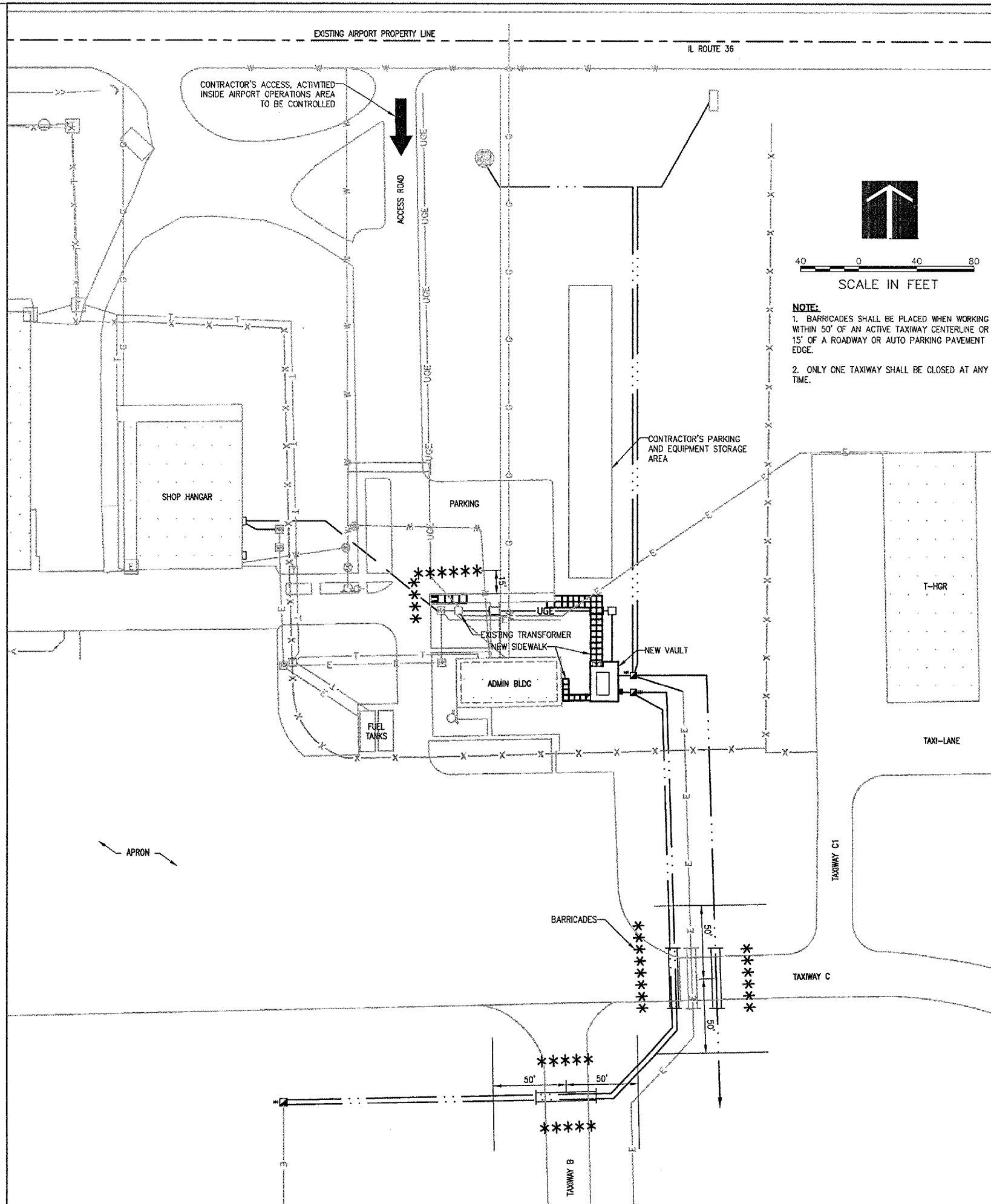
UTILITY OUTAGES AND SHUTDOWNS

THE CONTRACTOR SHALL PROVIDE 72 HOURS PRIOR NOTICE OF ANY OUTAGES OR SHUTDOWNS TO THE OWNER AND THE AGENCY OWNING THE AFFECTED UTILITY. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY CONNECTIONS OR OTHER MEASURES AS MAY BE REQUIRED TO MAINTAIN SERVICE AS MAY BE REQUIRED BY THE OWNING AGENCY AT NO COST TO THE OWNER.



BARRICADES ARE TO BE OF IDOT TYPE I. A STEADY-BURNING OR FLASHING RED LIGHT FACING PASSING TRAFFIC IS TO BE MOUNTED ABOVE THE TOP OF EACH BARRICADE FRAME. THE BARRICADE IS TO BE STABILIZED FROM WIND BY SANDBAGS PLACED ON THE FRAME OR OTHER METHODS APPROVED BY THE RESIDENT ENGINEER. NO PART OF THE REFLECTORIZED PORTION OF THE BARRICADE IS TO BE OBSTRUCTED IN ANY MANNER. COST OF FURNISHING, INSTALLING, RELOCATING, MAINTAINING AND REMOVING BARRICADES IS TO BE INCIDENTAL TO THE CONTRACT.

**DETAIL A
PAVEMENT BARRICADES**



NOTE:
1. BARRICADES SHALL BE PLACED WHEN WORKING WITHIN 50' OF AN ACTIVE TAXIWAY CENTERLINE OR 15' OF A ROADWAY OR AUTO PARKING PAVEMENT EDGE.
2. ONLY ONE TAXIWAY SHALL BE CLOSED AT ANY TIME.

D1022



HANSON PROFESSIONAL SERVICES INC.

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CITY OF DIXON, ILLINOIS

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Dixon, Illinois 61021
Telephone: 815.288.1485

DIXON MUNICIPAL AIRPORT
CHARLES R. WALGREEN FIELD

CONSTRUCT REPLACEMENT
AIRFIELD ELECTRICAL VAULT

AIP PROJECT NO. 3-17-0036-B8
IDA PROJECT NO. C73-3548

No.	Drawing Issue Description	Date	By

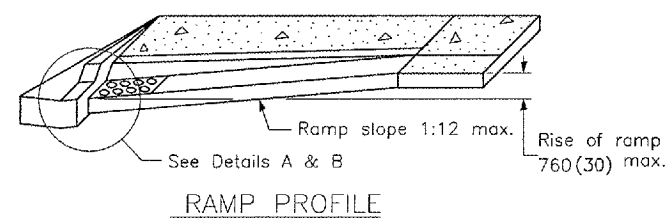
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Sheet Title

SAFETY PLAN AND NOTES

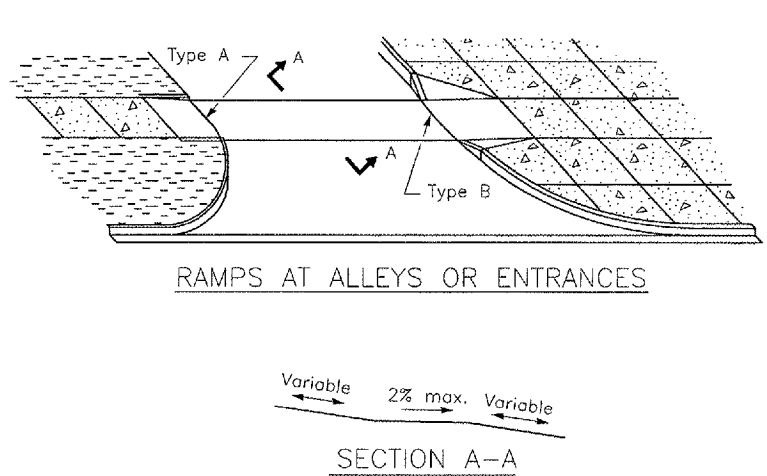
843-05C8010
Project Number
LDH 06/20/06
Layout By Date
LDH 06/20/06
Designed By Date
RMH 06/23/06
Reviewed By Date

Drawn By Sheet No. **G4**
SHEET 4 OF 36

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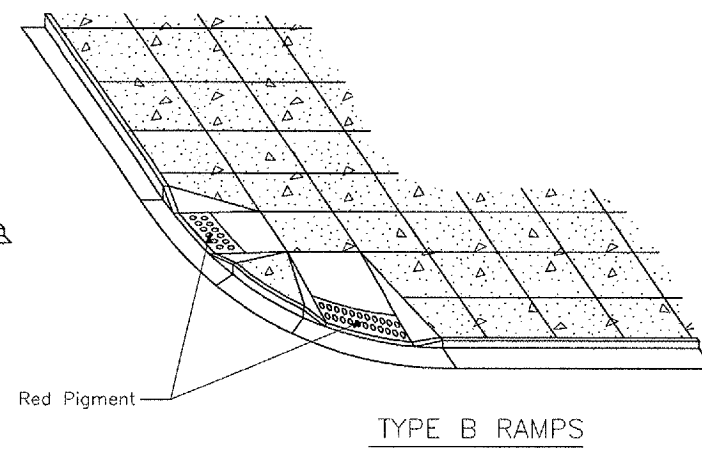


RAMP PROFILE

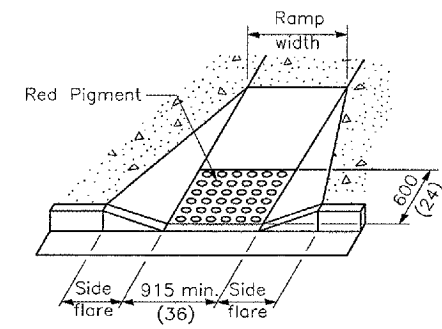


RAMP AT ALLEYS OR ENTRANCES

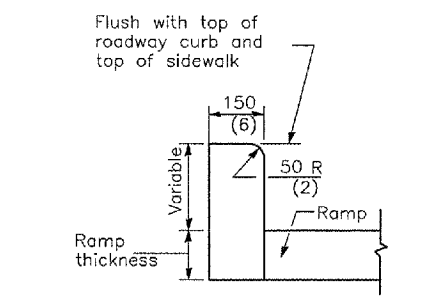
SECTION A-A



TYPE B RAMPS

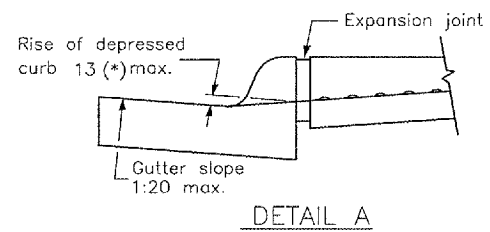


TYPE B DETAILS

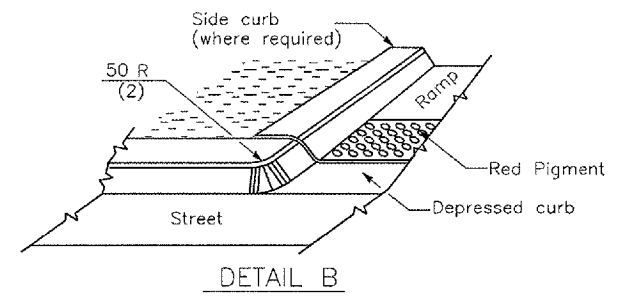


DETAIL OF SIDE CURB

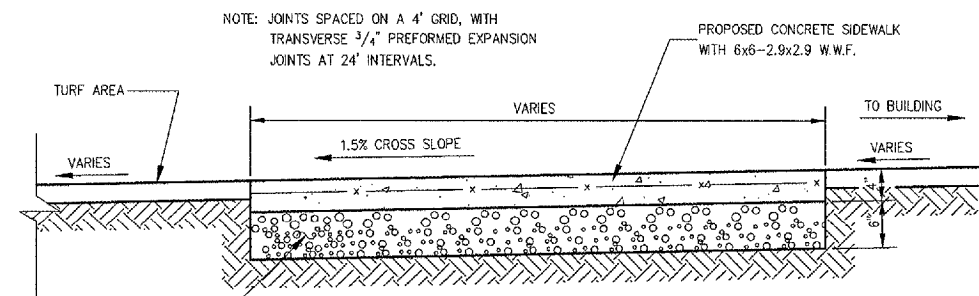
(Side curb may be constructed monolithically with ramp)



DETAIL A



DETAIL B

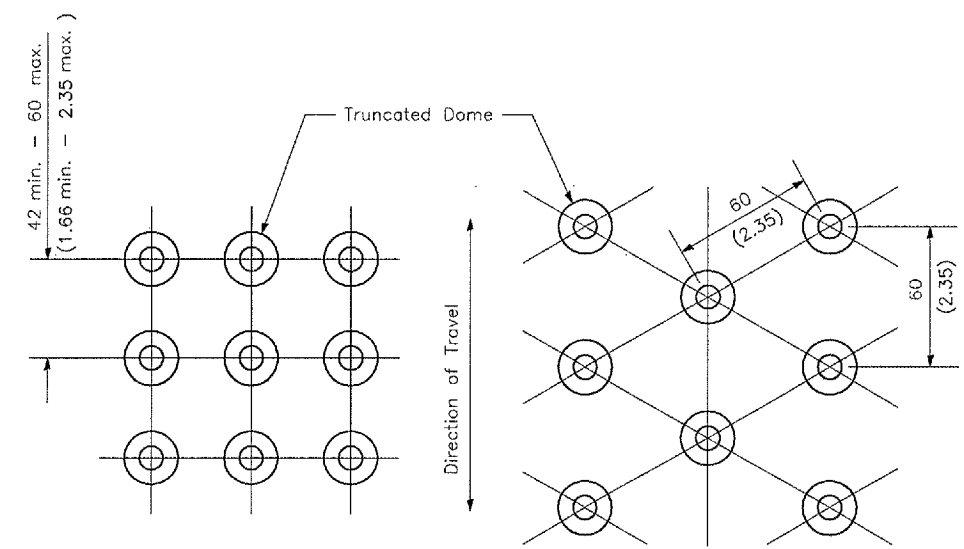


SIDEWALK CROSS SECTION DETAIL

NOTE: JOINTS SPACED ON A 4' GRID, WITH TRANSVERSE 3/4" PREFORMED EXPANSION JOINTS AT 24" INTERVALS.

NOTES
3/4" PREFORMED JOINT FILLER TO BE USED IN ALL LOCATIONS WHERE SIDEWALK IS ADJACENT TO CONCRETE CURB AND GUTTER OR EXISTING P.C.C. PAVEMENT.

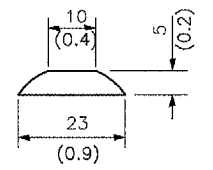
CRUSHED AGG. BASE COURSE ITEM AR208606



SQUARE PATTERN
(Parallel Alignment)

TRIANGULAR PATTERN

DETECTABLE WARNINGS DETAIL



TRUNCATED DOME DETAIL

- LEGEND**
- Sidewalk
 - Ramp
 - Detectable Warnings
 - Non walking area

GENERAL NOTES

Detectable warnings shall be installed at curb ramps, medians and pedestrian refuge islands, at-grade railroad crossings, transit platform edges, and other locations where pedestrians are required to cross a hazardous vehicular way. Detectable warnings shall also be installed at alleys and commercial entrances when permanent traffic control devices are present.

The maximum slope of the side flare for Type B ramps shall be 1:10; however, if the width of the landing area between the top of the ramp and an obstruction is less than 1.2 m (4'-0") then the maximum slope shall be 1:12.

DETAILS SHOWN ARE NOT TO SCALE

No.	Drawing Issue	Description	Date	By

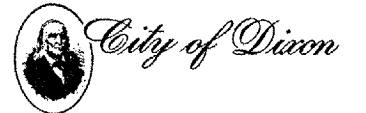
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JUNE 23, 2006
Sheet Title

CIVIL DETAILS

843-05C8010
Project Number

LDH	06/19/06
Layout By	Date
LDH	06/19/06
Designed By	Date
RMH	06/23/06
Reviewed By	Date
Drawn By	

C2

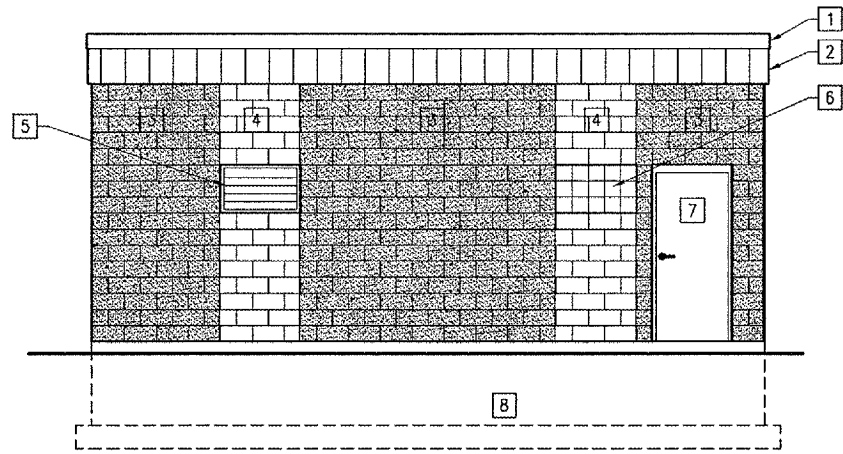


CITY OF DIXON, ILLINOIS
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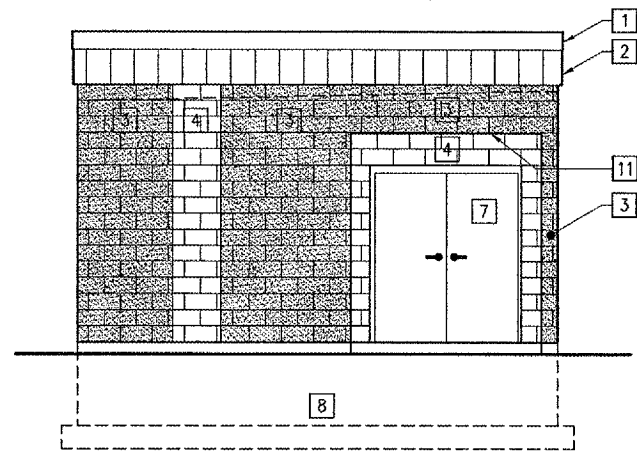
DIXON MUNICIPAL AIRPORT
CHARLES R. WALGREEN FIELD

CONSTRUCT REPLACEMENT
AIRFIELD ELECTRICAL VAULT

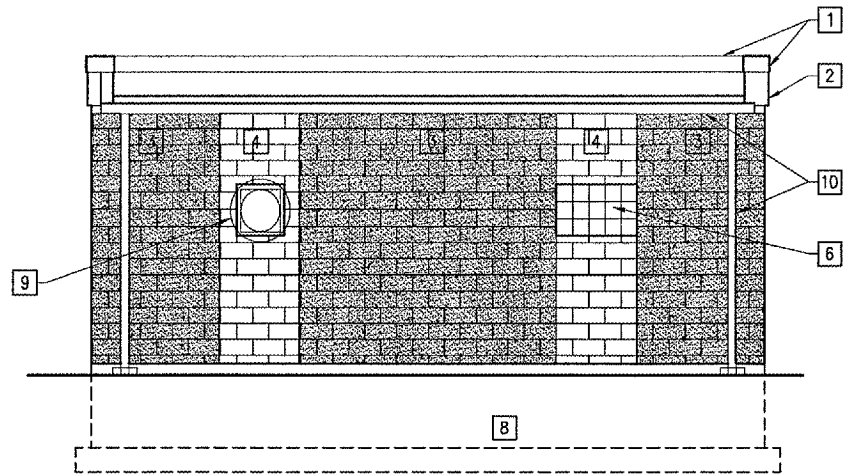
AIP PROJECT NO. 3-17-0036-B8
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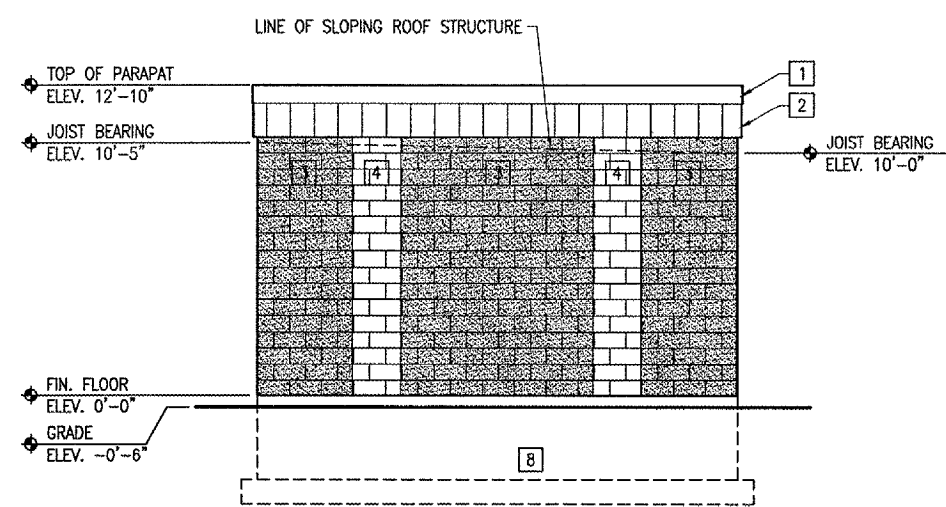
A WEST ELEVATION
A2.1 SCALE 1/4"=1'-0"
2 0 4 8 FEET



B NORTH ELEVATION
A2.1 SCALE 1/4"=1'-0"
2 0 4 8 FEET



C EAST ELEVATION
A2.1 SCALE 1/4"=1'-0"
2 0 4 8 FEET



D SOUTH ELEVATION
A2.1 SCALE 1/4"=1'-0"
2 0 4 8 FEET

- 1 18 GA. PREFINISHED METAL COPING; COLOR TO MATCH TERMINAL BUILDING ("BLUE")
- 2 24 GA. PREFINISHED METAL WALL PANEL; PANELS TO BE McELROY METAL "MINI-RIB" OR EQUAL; COLOR = WHITE
- 3 8" X 16" X 8" SPLIT-FACE CONCRETE BLOCK; COLOR = WHITE
- 4 8" X 16" X 8" SMOOTH-FACE CONCRETE BLOCK; COLOR = WHITE
- 5 24" X 40" W WALL OPENING W/ LOUVER
- 6 24" X 40" W WALL OPENING W/ 8" X 8" GLASS BLOCK
- 7 INSULATED HOLLOW METAL DOOR AND FRAME (PAINT = WHITE)
- 8 CONCRETE FOUNDATION - SEE STRUCTURAL DRAWINGS
- 9 WALL-MOUNTED EXHAUST FAN; CENTERLINE OF WALL OPENING TO BE AT 6'-4" ABOVE FLOOR SLAB
- 10 GALV. METAL GUTTER & DOWNSPOUTS (PAINTED "WHITE" TO MATCH METAL FASCIA PANELS). PROVIDE CONCRETE SPLASH BLOCKS (2)
- 11 PRE-FINISHED METAL SOFFIT AT ENTRY

No.	Drawing Issue Description	Date	By

Date
JUNE 23, 2006
Sheet Title

VAULT ELEVATIONS

843-05C8010	Project Number
CAB	06/13/06
CAB	06/13/06
RMH	//06
MV	---

A2.1

GENERAL:

G-1. DESIGN LOADS AND GOVERNING CODES - 2003 INTERNATIONAL BUILDING CODE.

DESIGN DEAD LOADS:

STEEL JOIST / METAL DECK - 15 P.S.F.
ALLOWANCE FOR SUSPENDED CEILINGS, M.E.P. - 10 P.S.F.

FLOOR LIVE LOADS:

FIRST FLOOR SLAB ON GRADE - 100 P.S.F.

ROOF LOADS:

CODE PRESCRIBED SNOW LOAD WITH DRIFT EFFECTS
MINIMUM ROOF LIVE LOAD - 30 P.S.F.

LATERAL LOADS:

WIND:
BASIC WIND SPEED - 90 M.P.H. (3 SECOND GUST)
EXPOSURE - C
IMPORTANCE CATEGORY III

SEISMIC:

SEISMIC USE GROUP II
S_s = 17.5%
S_i = 6.4%
SITE CLASS = D
SEISMIC DESIGN CATEGORY = D
LATERAL LOAD RESISTING SYSTEM = LOAD BEARING C.M.U. SHEAR WALLS
RESPONSE MODIFICATION FACTOR = 2/3

ROOF DECK DESIGN LOADS:

GROSS UPLIFT = 20 P.S.F.
GROSS UPLIFT AT EDGE ZONES = 20 P.S.F.
GROSS UPLIFT AT CORNER ZONES = 52 P.S.F.
DIAPHRAGM DESIGN LOAD = 250 P.L.F.

G-2. ASSUMED ALLOWABLE SOIL BEARING PRESSURE - 1,500 P.S.F.

G-3. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE RESIDENT ENGINEER OF ANY DISCREPANCY IMMEDIATELY.

G-4. COORDINATE STRUCTURAL SHEETS WITH ALL OTHER SHEETS FOR PIPE SIZES AND LOCATIONS, BEAM POCKETS, GRATING LEDGES, BLOCK OUTS, ELECTRICAL REQUIREMENTS AND ANCHOR BOLTED ATTACHMENTS.

G-5. CONTRACTOR IS RESPONSIBLE FOR ADEQUACY OF TEMPORARY SHORING INCLUDING MASONRY WALL SHORING TO RESIST LATERAL LOADS DURING CONSTRUCTION.

G-6. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR ADDITIONAL SLEEVES, INSERTS, ETC.

G-7. ALL SUBTERRANEAN STRUCTURES, UTILITIES, PIPING, ETC. IN THE AREA OF ALL EXCAVATIONS TO BE LOCATED AND MARKED BY CONTRACTOR PRIOR TO EARTH REMOVAL WORK. PIN FLAGS OR PAINT ARE ACCEPTABLE METHODS. CONTRACTOR TO MAINTAIN MARKERS UNTIL ALL EXCAVATION ACTIVITIES HAVE CEASED. COORDINATE WITH UTILITY OWNER.

G-8. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL SITE SAFETY AND ALL ACCIDENTS WHICH RESULT IN DEATH, PERSONAL INJURY OR DAMAGE TO PROPERTY ARISING OUT OF OR IN CONNECTION WITH PERFORMANCE OF THE WORK, WHETHER ADJACENT TO OR AT THE SITE.

G-9. NO PIPES OR SLEEVES FOR MECHANICAL TRADES SHALL PASS THROUGH STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.

G-10. ALL SECTIONS, DETAILS AND NOTES SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS OTHERWISE SHOWN.

G-11. SHOP DRAWINGS PREPARED BY SUPPLIERS AND SUBCONTRACTORS SHALL BE REVIEWED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTING TO ENGINEER. STRUCTURAL ENGINEER'S REVIEW SHALL BE FOR SIZES AND GENERAL ARRANGEMENT ONLY. NO WORK SHALL BE STARTED WITHOUT SUCH REVIEW.

G-12. ALL ASTM DESIGNATIONS SHALL BE THE LATEST UNLESS NOTED OTHERWISE.

FOUNDATION:

F-1. ALL FOOTING EXCAVATIONS SHALL BE CLEAN AND FREE OF DEBRIS, STANDING WATER AND LOOSE SOIL AND BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO PLACEMENT OF CONCRETE.

F-2. IN STRUCTURAL AREAS (WHERE STRUCTURES DERIVE SOME OR ALL SUPPORT FROM FILL-SUPPORTED FOUNDATIONS) AND SLABS-ON-GRADE, FILL SHALL BE COMPACTED TO 98 PERCENT OF STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D-698).

F-3. ALL FILL MATERIAL SHALL BE APPROVED FOR USE IN ADVANCE OF PLACEMENT BY THE RESIDENT ENGINEER. NO FILL SHALL BE PLACED OVER FROZEN, MUDDY OR OTHER DELETERIOUS MATERIAL. LIFT THICKNESS SHALL BE MINIMIZED TO ALLOW EFFICIENT COMPACTION. NO FILL MAY BE PLACED OVER A PREVIOUS LIFT THAT HAS NOT BEEN ADEQUATELY COMPACTIONED AND HAS BEEN ACCEPTED BY THE RESIDENT ENGINEER.

F-4. BACKFILL AGAINST FOUNDATION WALLS SHALL BE PLACED EVENLY ON EACH SIDE OF THE STRUCTURE TO ACHIEVE GENERALLY BALANCED LOADINGS.

CONCRETE:

C-1. ALL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I. AND SHALL BE AIR-ENTRAINED AS SPECIFIED.

C-2. MATERIAL SUPPLIER SHALL CERTIFY FULL COMPLIANCE OF CONCRETE MIXES WITH ALL SPECIFIED REQUIREMENTS.

C-3. PITCH CONCRETE AS REQUIRED TO ALL FLOOR DRAINS.

C-4. ALL INTERIOR SLABS-ON-GRADE TO BE EXPOSED TO VIEW IN THE FINISHED WORK SHALL RECEIVE A SMOOTH TROWEL FINISH UNLESS OTHERWISE NOTED. ALL EXTERIOR CONCRETE SURFACES (E.G. SIDEWALKS) SHALL BE ROUGHENED BY BROOMING IN THE DIRECTION PERPENDICULAR TO THE MAIN TRAFFIC ROUTE IMMEDIATELY AFTER TROWEL FINISHING IS COMPLETED.

C-5. ALL REINFORCEMENT BARS SHALL CONFORM TO ASTM-A615 GRADE 60.

C-6. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.

C-7. PROTECTIVE COVERING FOR REINFORCEMENT BARS SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS:
FOOTINGS 3"
SLABS 1"
WALLS 1 1/2"

C-8. ALL REINFORCEMENT BARS SHALL BE FABRICATED IN ACCORDANCE WITH THE LATEST CRSI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES AND SHALL BE CLEAN AND FREE OF GREASE AND SCALING RUST.

C-9. ALL CONCRETE WORK SHALL CONFORM TO: ACI 318, STANDARD BUILDING CODE FOR REINFORCED CONCRETE AND ACI 301, SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS.

C-10. FOR SLABS ON GRADE, UNLESS OTHERWISE DETAILED, PROVIDE 1/2" THICK PREMOLDED JOINT FILLER AND SEALANT TO ISOLATE THE SLAB FROM CONTACT WITH THE STRUCTURES ALONG ITS PERIMETER. SEE FOUNDATION DETAILS.

C-11. PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLAB ON GRADE AS SHOWN ON THE FOUNDATION PLAN.

C-12. A LEAN CONCRETE MUD SLAB 3" TO 4" THICK SHALL BE USED IN THE EXCAVATION IF THE BOTTOM OF THE EXCAVATION TENDS TO BECOME MUDDY AND SOFT DUE TO CONSTRUCTION ACTIVITY. LEAN CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,000 P.S.I.

C-13. ALL CONTROL JOINTS SHALL BE TOOLED OR SAWN, AND FILLED WITH SEALANT.

C-14. LAP ALL BARS AS FOLLOWS UNLESS OTHERWISE NOTED (CLASS B):

Table with 3 columns: Bar Size, Length, Bar Size. #3 1'-4", #4 1'-4", #5 1'-10", #6 2'-7", #7 4'-2", #8 5'-2", #9 6'-4", #10 7'-8", #11 9'-0"

STRUCTURAL STEEL:

S-1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE NOTED: PLATE & ANGLE STEEL: Fy=36 ksi, ASTM A36.

S-2. ALL DETAILING, FABRICATION, AND ERECTION OF STRUCTURAL STEEL MEMBERS SHALL BE IN ACCORDANCE WITH THE AISC-ASD "MANUAL OF STEEL CONSTRUCTION", NINTH EDITION.

S-3. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE LATEST "AWS" SPECIFICATIONS BY CERTIFIED WELDERS. ALL WELDS SHALL BE MADE WITH E70XX ELECTRODES UNLESS NOTED OTHERWISE.

S-4. ANCHOR BOLTS FOR INSTALLED EQUIPMENT SHALL BE IN ACCORDANCE WITH EQUIPMENT SUPPLIER'S REQUIREMENTS.

S-5. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO STRUCTURAL STEEL FABRICATION

S-6. THE CONTRACTOR SHALL FURNISH AND INSTALL MISCELLANEOUS STEEL (CURBS, HANGERS, BRACING, ETC.) AS CALLED FOR OR AS NECESSARY PER ARCHITECTURAL AND MECHANICAL/ELECTRICAL DRAWINGS.

S-7. WHENEVER CONSTRUCTION SCHEDULING REQUIRES THE ERECTION OF STRUCTURAL MEMBERS WHICH BY THEMSELVES WOULD BE CONSIDERED Laterally UNSTABLE, ADEQUATE TEMPORARY BRACING SHALL BE PROVIDED

S-8. ALL HEADED STUDS SHALL CONFORM TO ASTM SPECIFICATION A108.

NOTE: THE IMPLIED PRESENCE OR ABSENCE OF UTILITIES IS NOT TO BE CONSTRUED BY THE OWNER, ENGINEER, CONTRACTOR, OR SUBCONTRACTORS TO BE AN ACCURATE AND COMPLETE REPRESENTATION OF UTILITIES THAT MAY OR MAY NOT EXIST ON THE CONSTRUCTION SITE. BURIED AND ABOVE-GROUND UTILITY LOCATION, IDENTIFICATION, AND MARKING ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. REROUTING, DISCONNECTION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. SITE SAFETY, INCLUDING THE AVOIDANCE OF HAZARDS ASSOCIATED WITH BURIED AND ABOVE-GROUND UTILITIES, REMAINS THE RESPONSIBILITY OF THE CONTRACTOR.

MASONRY:

M-1. PROVIDE DOWELS BETWEEN FOUNDATIONS AND MASONRY WALLS EQUAL TO SIZE AND SPACING OF THE VERTICAL WALL REINFORCING, UNLESS OTHERWISE NOTED.

M-2. BOND BEAM LINTELS ARE REQUIRED AT ALL MASONRY WALL OPENINGS WITHOUT EXCEPTION.

M-3. SUBMIT REINFORCING SHOP DRAWINGS FOR MASONRY PRIOR TO FABRICATION IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

M-4. SEE ARCHITECTURAL DRAWINGS FOR ALL MASONRY CONTROL JOINT REQUIREMENTS. PROVIDE CONTROL JOINTS IN MASONRY WALLS AT 20 FEET ON CENTER MAXIMUM UNLESS OTHERWISE NOTED ON THE ARCHITECTURAL DRAWINGS. CONTROL JOINTS SHALL BE LOCATED AT LEAST 32 INCHES FROM THE EDGE OF OPENINGS.

M-5. ALL CONCRETE MASONRY UNITS SHALL HAVE A NET AREA COMPRESSIVE STRENGTH OF 1,900 P.S.I. (MIN.). CONTRACTOR SHALL SUBMIT MATERIAL CERTIFICATES FOR APPROVAL.

M-6. ALL GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,500 P.S.I.

M-7. ALL CELLS WITH VERTICAL REINFORCEMENT SHALL BE GROUTED SOLID.

M-8. ALL LINTEL BEARINGS SHALL BE GROUTED TO THE FOUNDATION.

M-9. REINFORCEMENT TO BE AS CALLED FOR ON THE DRAWINGS AND SCHEDULES, ALL REINFORCEMENT BARS SHALL CONFORM TO ASTM-A615 GRADE 60.

M-10. MASONRY UNITS TO BE PLACED IN ONE - HALF RUNNING BOND, UNLESS OTHERWISE NOTED.

M-11. MASONRY DESIGN BASED ON INSPECTED WORKMANSHIP, f'm = 1,500 P.S.I.

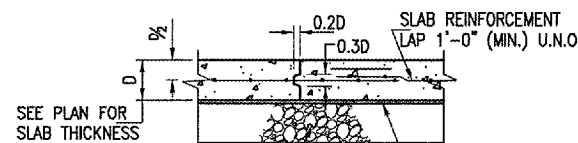
M-12. PROVIDE 10 GAGE BENT PLATES 4" x 4" x 1'-0" LONG @ 3'-0" O.C. EACH SIDE OF THE TOP OF ALL NON-STRUCTURAL MASONRY WALLS. ATTACH TO UNDERSIDE OF METAL ROOF DECK WITH 3 (MIN.) SELF DRILLING, SELF THREADING SCREWS (#12) AS REQUIRED BY THICKNESS OF BASE METAL. MAINTAIN 1" (MIN.) GAP BETWEEN TOP OF MASONRY WALL AND BOTTOM OF STRUCTURE.

M-13. UNLESS OTHERWISE SCHEDULED FOR ADDITIONAL REINFORCEMENT, EXTERIOR WALLS SHALL BE REINFORCED AS FOLLOWS: REINFORCE WITH #5 VERTICAL BARS AT 32" O.C., AND #4 HORIZONTAL BARS AT 48" O.C. WHERE WALL SECTION BETWEEN OPENINGS IS 32" OR LESS, REINFORCE EACH VERTICAL CELL WITH 2-#5 BARS, FULL HEIGHT OF WALL. REINFORCE FIRST VERTICAL CELL ADJACENT TO ANY WALL OPENING WITH 2-#5 BARS, FULL HEIGHT OF WALL. WHERE BOND BEAM LINTELS BEAR ON CMU, REINFORCE BEARING CELL(S) WITH 2-#5 BARS TO LINTEL BEARING AND REINFORCE FIRST VERTICAL CELL AT END OF LINTEL WITH 2-#5 BARS.

METAL DECK:

MD-1. THE MANUFACTURING, DETAILING AND ERECTION OF METAL DECK SHALL BE IN ACCORDANCE WITH THE STEEL DECK INSTITUTE SPECIFICATION.

MD-2. STRUCTURAL DIAPHRAGM ACTION SHALL BE PROVIDED BY THE METAL DECK AND ITS ATTACHMENTS. METAL DECK SHALL BE CONTINUOUS OVER AT LEAST 3 SPANS WITH JOINTS OVER SUPPORTING MEMBERS.



SLAB NOTES:
1. CONSTRUCTION OR CONTRACTION JOINTS SHALL BE PLACED AS INDICATED.
2. CONTRACTION JOINTS MAY BE SAWED JOINTS OR GROOVED JOINTS (25D MIN. DEPTH). FILL ALL JOINTS WITH SEALANT. SAWING TO BE COMPLETED WITHIN THE FIRST 12 HOURS.

TYPICAL SLAB ON GRADE DETAIL

1 SO.1

SCALE: NONE

KEYED NOTES

1 - 4" CONCRETE SLAB ON GRADE WITH 6x6-W5.0xW5.0 WELDED WIRE FABRIC ON VAPOR BARRIER ON 6" FREE-DRAINING COMPACTED GRANULAR FILL. SEE PLAN FOR TOP OF SLAB ELEVATION. SEE DETAIL 1/SO.1 FOR TYPICAL SLAB CONSTRUCTION JOINT.

2 - 1/2" PREFORMED JOINT MATERIAL AND SEALANT.

3 - OPEN WEB STEEL JOIST. SEE DETAIL 3/SO.1 FOR LOADING DIAGRAM. WELD TO SUPPORTS WITH 3/8" FILLET WELD 2" LONG TYPICAL EACH SIDE. PROVIDE CONTINUOUS TOP AND BOTTOM BRACING / BRIDGING AS REQUIRED PER JOIST SUPPLIER AND S.J.I.

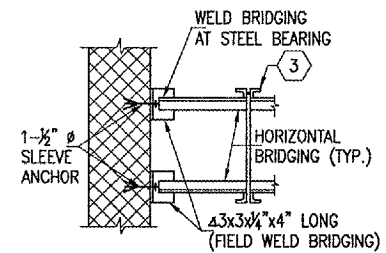
4 - 8" CONCRETE MASONRY UNIT WITH #5@32" (VERTICAL) AND STANDARD #9 TRUSS TYPE JOINT REINFORCEMENT AT 16" CENTERS AND BOND BEAMS AT 48" CENTERS PER NOTE M-13 (HORIZONTAL).

5 - 8" CONCRETE MASONRY UNIT BOND BEAM WITH 2-#5 BARS CONTINUOUS.

6 - 1 1/2" WIDE RIB METAL DECK, 20 GAGE, GALVANIZED. SEE DETAIL 4/SO.1 FOR TYPICAL ROOF DECK ATTACHMENT.

7 - SLAB CONSTRUCTION OR CONTRACTION JOINT SEE DETAIL 1/SO.1

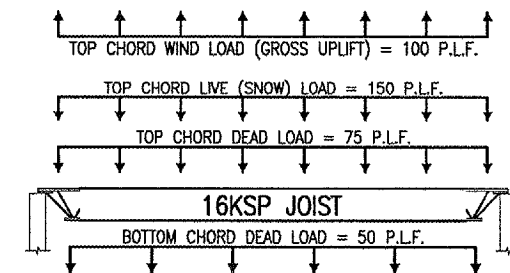
8 - 10" CONCRETE EQUIPMENT PAD WITH #5@12" (CENTERED).



TYPICAL JOIST BRIDGING ATTACHMENT

2 SO.1

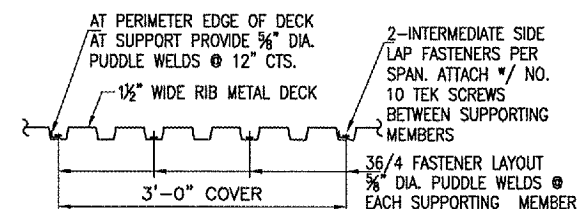
SCALE: NONE



16KSP JOIST LOADING DIAGRAM

3 SO.1

SCALE: NONE



TYPICAL ROOF DECK ATTACHMENT

4 SO.1

SCALE: NONE

DIO22



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DIXON MUNICIPAL AIRPORT
CHARLES R. WALGREEN FIELD

CONSTRUCT REPLACEMENT
AIRFIELD ELECTRICAL VAULT

AIP PROJECT NO. 3-17-0036-B8
IDA PROJECT NO. C73-3548

Table with columns: No., Drawing Issue Description, Date, By

Date: JUNE 23, 2006
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GENERAL NOTES AND TYPICAL DETAILS

843-05C8010
Project Number
MAE 06/19/06
Layout By Date
GLC 06/19/06
Designed By Date
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SO.1

SHEET 11 OF 36



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ELECTRICAL LEGEND - ONE-LINE DIAGRAM	
	CABLE TERMINATOR/LUG
	TRANSFORMER
	DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	CIRCUIT BREAKER
	THERMAL MAGNETIC CIRCUIT BREAKER
	FUSE
	TRANSIENT VOLTAGE SURGE SUPPRESSOR OR SURGE PROTECTOR DEVICE
	GROUND - GROUND ROD, GROUNDING ELECTRODE, OR AT EARTH POTENTIAL
	INDICATING LIGHT
	MOTOR
	LOAD, MOTOR, # = HORSEPOWER
	ELECTRIC UTILITY METER BASE
	JUNCTION BOX WITH SPLICE
	EQUIPMENT, XXX = DEVICE DESCRIPTION
	GROUND BUS OR TERMINAL
	NEUTRAL BUS
	PANELBOARD WITH MAIN LUGS
	PANELBOARD WITH MAIN BREAKER
	FUSE PANEL WITH MAIN FUSE PULLOUT
	DUPLEX RECEPTACLE 120V SINGLE PHASE GROUNDING TYPE
	CONTROL STATION
	TRANSFER SWITCH
	ENGINE GENERATOR SET

ELECTRICAL LEGEND - SCHEMATIC	
	NORMALLY OPEN (N.O.) CONTACT
	NORMALLY CLOSED (N.C.) CONTACT
	STARTER COIL, * = STARTER NUMBER
	OVERLOAD RELAY CONTACT
	CONTROL RELAY, * = CONTROL RELAY NUMBER
	RELAY, * = RELAY NUMBER
	TOGGLE SWITCH / 2 POSITION SWITCH
	2-POSITION SELECTOR SWITCH
	3-POSITION SELECTOR SWITCH (H-D-A SHOWN)
	2 POLE DISCONNECT SWITCH
	3 POLE DISCONNECT SWITCH
	PHOTOCELL
	TERMINAL BLOCK, * = TERMINAL NUMBER
	DEVICE TERMINAL, * = DEVICE TERMINAL NUMBER
	INTERNAL PANEL WIRING
	FIELD WIRING
	FUSE
	GROUND BUS OR TERMINAL
	NEUTRAL BUS
	GROUND, GROUND ROD
	INDUSTRIAL CONTROL RELAY OR LIGHTING CONTACTOR
	S1 CUTOUT HANDLE REMOVED
	S1 CUTOUT HANDLE INSERTED
	N.O. THERMAL SWITCH
	N.C. THERMAL SWITCH

ELECTRICAL ABBREVIATIONS	
A.F.F.	ABOVE FINISHED FLOOR
A, AMP	AMPERES
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CR	CONTROL RELAY
CU	COPPER
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EP	EXPLOSION PROOF
ES	EMERGENCY STOP
ETL	INTERTEK - ELECTRICAL TESTING LABS
ETM	ELAPSE TIME METER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GRSC	GALVANIZED RIGID STEEL CONDUIT
HID	HIGH INTENSITY DISCHARGE
HOA	HAND OFF AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
J	JUNCTION BOX
KVA	KILOVOLT AMPERE(S)
KW	KILOWATTS
LC	LIGHTING CONTACTOR
LTFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT (UL LISTED)
LTC	LIGHTING
LP	LIGHTING PANEL
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCLUAR MIL
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRICAL CODE (NFPA 70)
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC
OL	OVERLOAD

ELECTRICAL ABBREVIATIONS (CONTINUED)	
PB	PULL BOX
PC	PHOTO CELL
PDB	POWER DISTRIBUTION BLOCK
PNL	PANEL
RCPT	RECEPTACLE
R	RELAY
S	STARTER
SPD	SURGE PROTECTION DEVICE
SPST	SINGLE POLE SINGLE THROW
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITER'S LABORATORIES
V	VOLTS
W/	WITH
W/O	WITHOUT
WP	WEATHER PROOF
XFER	TRANSFER
XFMR	TRANSFORMER

AIRPORT EQUIPMENT ABBREVIATIONS	
CCR	CONSTANT CURRENT REGULATOR
MRL	MEDIUM INTENSITY RUNWAY LIGHT
MTL	MEDIUM INTENSITY TAXIWAY LIGHT
NDB	NON-DIRECTIONAL BEACON
PAPI	PRECISION APPROACH PATH INDICATOR
PLAS	PULSE LIGHT APPROACH SLOPE INDICATOR
REIL	RUNWAY END IDENTIFIER LIGHT
VADI	VISUAL APPROACH DESCENT INDICATOR
VASI	VISUAL APPROACH SLOPE INDICATOR
WC	WIND CONE

ELECTRICAL LEGEND - PLANS	
	CONDUIT (EXPOSED)
	CONDUIT OR UNIT DUCT (CONCEALED OR BURIED)
	DUCT
	BURIED/UNDERGROUND ELECTRIC
	UNDERGROUND ELECTRIC
	OVERHEAD ELECTRIC
	POLE MOUNTED HID FIXTURE
	DUPLEX CONVENIENCE RECEPTACLE, 120V, SINGLE PHASE, GROUNDING TYPE, 48" A.F.F. EXCEPT AS NOTED
	WALL OR CEILING MTD. JUNCTION BOX. CONFIGURATION VARIES WITH USE
	SINGLE THROW DISCONNECT SWITCH
	SINGLE THROW, FUSIBLE DISCONNECT SWITCH
	ENCLOSED CIRCUIT BREAKER
	CONTROL PANEL
	MOTOR. ESTIMATED H.P. AS INDICATED.
	MOTOR
	TRANSFORMER
	ELECTRIC UTILITY METER
	ENCLOSURE
	CIRCUIT BREAKER PANEL-SEE SCHEDULES
	GROUND ROD
	LONG SLASHES INDICATE NEUTRAL. SHORT SLASHES INDICATE HOT OR SWITCHED LEG. G = SEPARATE GROUND WIRE. U=INDICATES AN UNSWITCHED HOT LEG FOR POWER LOSS DETECTION USED TO ACTIVATE EMERGENCY LIGHTING BALLASTS.
	HOMERUN TO PANEL PNL A INDICATES PANEL 1,3,5 INDICATES CIRCUIT NUMBERS
	SINGLE POLE SWITCH
	FRACTIONAL HP STARTER
	CONTACTOR
	SURFACE MOUNTED OR CHAIN HUNG FLUORESCENT FIXTURE
	WALL OR CEILING MTD. INCANDESCENT OR HID FIXTURE.
	FIRE ALARM LOCAL PULL STATION
	FIRE ALARM HORN & VISUAL UNIT WITH CANDELA INTENSITY INDICATED
	OUTDOOR RATED BELL & STROBE
	HEAT DETECTOR
	IONIZATION TYPE SMOKE DETECTOR
	PHOTOELECTRIC TYPE SMOKE DETECTOR

NOTES:

- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (MOST CURRENT ISSUE IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED.
- CONTRACTOR SHALL COORDINATE WORK AND ANY POWER OUTAGES WITH THE RESPECTIVE FACILITY OWNER PERSONNEL AND THE AIRPORT MANAGER.
- COLOR CODE PHASE AND NEUTRAL CONDUCTOR INSULATION FOR NO. 6 AWG OR SMALLER. PROVIDE COLORED INSULATION OR COLORED MARKING TAPE FOR PHASE AND NEUTRAL CONDUCTORS FOR NO. 4 AWG AND LARGER. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR AWG AND/OR KCMIL. STANDARD COLORS FOR POWER WIRING AND BRANCH CIRCUITS SHALL BE AS FOLLOWS:

120/240 VAC, 1 PHASE, 3 WIRE
 PHASE A BLACK
 PHASE B RED
 NEUTRAL WHITE
 GROUND GREEN

No.	Drawing Issue Description	Date	By

Date: JUNE 23, 2006
 Sheet Title: ELECTRICAL LEGEND AND ABBREVIATIONS

ELECTRICAL LEGEND AND ABBREVIATIONS

843-05C8010
 Project Number
 KNL 03/02/05
 Layout By Date
 KNL 03/02/05
 Designed By Date
 RMH 06/23/06
 Reviewed By Date
 MV
 Drawn By

E1



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AIRFIELD ELECTRICAL VAULT

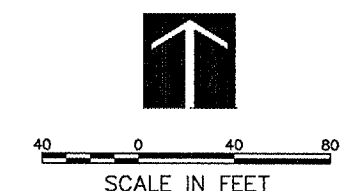
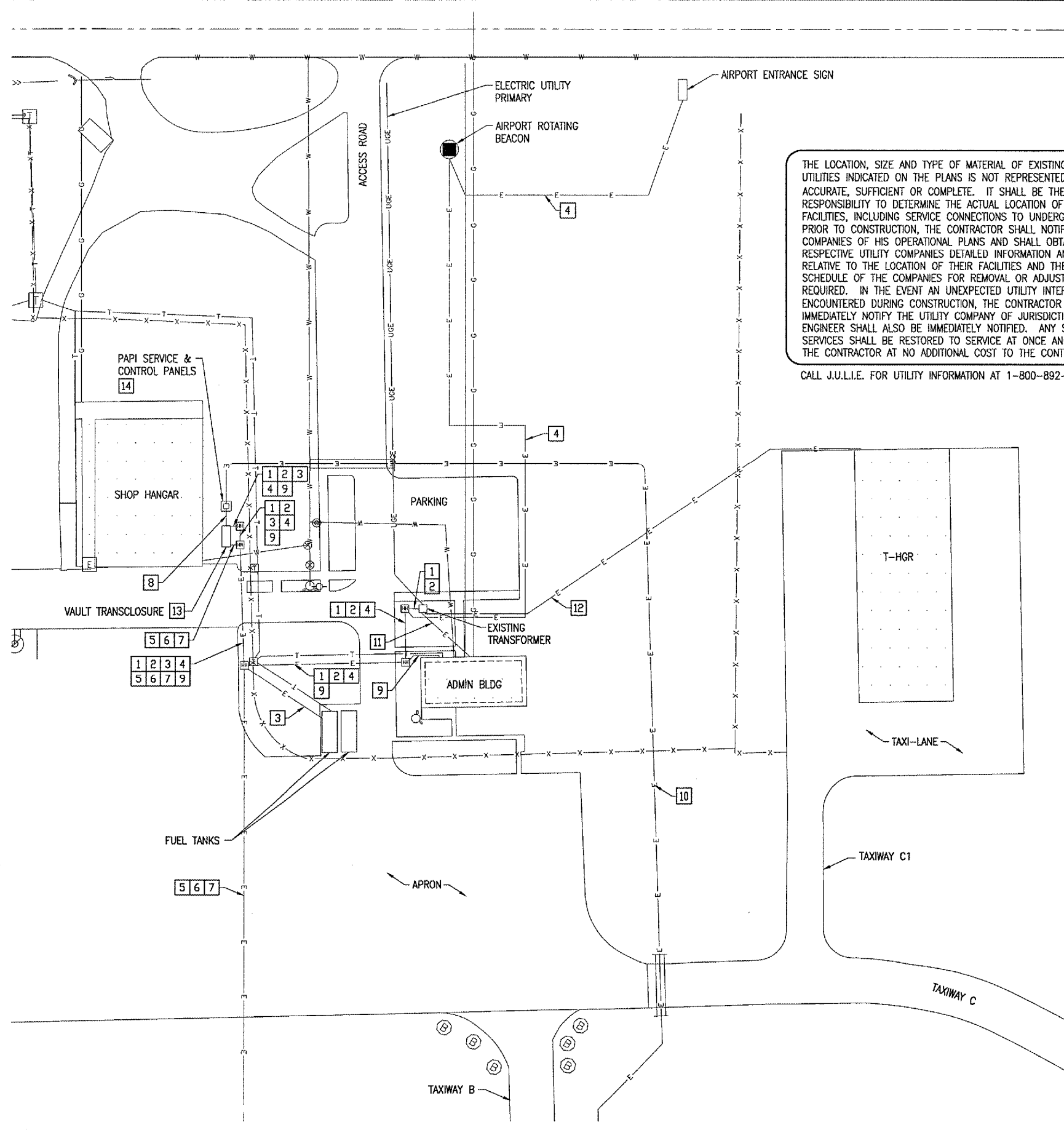
AIP PROJECT NO. 3-17-0036-B8
IDA PROJECT NO. C73-3548

KEYED NOTES

- 1 2 #4/0 ALUMINUM, 1 #2/0 ALUMINUM NEUTRAL (SERVICE CONDUCTORS FOR THE SHOP HANGAR FROM UTILITY TRANSFORMER TO THE UTILITY METER PEDESTAL AT THE VAULT). THESE SERVICE CONDUCTORS SHALL BE REMOVED & DISPOSED OF OFF SITE UPON COMPLETION OF THE NEW SERVICE TO THE SHOP HANGAR.
- 2 2 #6 XLP-USE, 1 #6 XLP-USE NEUTRAL (SERVICE CONDUCTORS FOR THE VAULT FROM UTILITY TRANSFORMER TO THE UTILITY METER FOR THE VAULT PANELBOARD). THESE SERVICE CONDUCTORS SHALL BE REMOVED & DISPOSED OF OFF SITE UPON COMPLETION OF THE NEW VAULT.
- 3 2/C #8 WITH #10 GND UF-B CABLE AND 2/C #10 WITH #10 GND UF-B CABLE (FUEL FARM PUMP CABLES). THESE CABLES SHALL BE INTERCEPTED, SPliced IN THE RESPECTIVE EXISTING HANDHOLE, & EXTENDED TO THE NEW SERVICE PANEL FOR THE SHOP HANGAR.
- 4 2 #8 RHH/RHW/USE (AIRPORT ROTATING BEACON/ENTRANCE SIGN CKT). THESE CABLES SHALL BE REPLACED WITH NEW CABLES FROM THE NEW VAULT.
- 5 2 #8 L-824, 5KV CABLES (RUNWAY 8-26). THESE CABLES SHALL BE SPliced IN A NEW HIGH VOLTAGE HANDHOLE ON THE AIRFIELD & REROUTED TO THE NEW VAULT.
- 6 2 #8 L-824, 5KV CABLES (RUNWAY 12-30). THESE CABLES SHALL BE SPliced IN A NEW HIGH VOLTAGE HANDHOLE ON THE AIRFIELD & REROUTED TO THE NEW VAULT.
- 7 2 #8 USE (WIND-TEE CKT). THESE CABLES SHALL BE REPLACED WITH NEW CABLES FROM THE NEW VAULT.
- 8 SERVICE CABLES FROM METER PEDESTAL TO PANELBOARD FOR PAPI'S. THESE SERVICE CONDUCTORS SHALL BE REMOVED & DISPOSED OF OFF SITE UPON COMPLETION OF THE NEW VAULT.
- 9 24/C #12 THWN TYPE TC CABLE (FROM VAULT TO THE L-821 CONTROL PANEL LOCATED IN THE ADMINISTRATION BUILDING). THESE CABLES SHALL BE REMOVED & DISPOSED OF OFF SITE UPON COMPLETION OF THE NEW VAULT.
- 10 3 #4 USE IN UD (RWY 26 PAPI CABLES). THESE CABLES SHALL BE REROUTED TO THE LOW VOLTAGE HANDHOLE AT THE NEW VAULT, SPliced, AND EXTENDED TO THE NEW VAULT.
- 11 SERVICE CABLES TO ADMIN BLDG.
- 12 SERVICE CABLES TO T-HANGAR.
- 13 EXISTING VAULT TRANSCLASURE & PAD SHALL BE REMOVED & DISPOSED OF OFF SITE UPON COMPLETION OF THE NEW VAULT, & NEW SERVICE TO SHOP HANGAR.
- 14 EXISTING PAPI SERVICE & CONTROL PANELS SHALL BE REMOVED & TURNED OVER TO THE AIRPORT UPON COMPLETION OF NEW VAULT. SUPPORT STRUCTURE & FOUNDATION SHALL BE REMOVED & DISPOSED OF OFF SITE.

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123.



- LEGEND**
- X — FENCE
 - G — GAS
 - T — TELEPHONE
 - E — ELECTRICAL
 - W — WATER
 - S — SANITARY SEWER
 - [] — CONCRETE ENCASED DUCT
 - [HH] ELECTRICAL HANDHOLE
 - [T] TELEPHONE PEDISTAL OR JUNCTION POINT

EXISTING SITE PLAN

No.	Drawing Issue	Description	Date	By

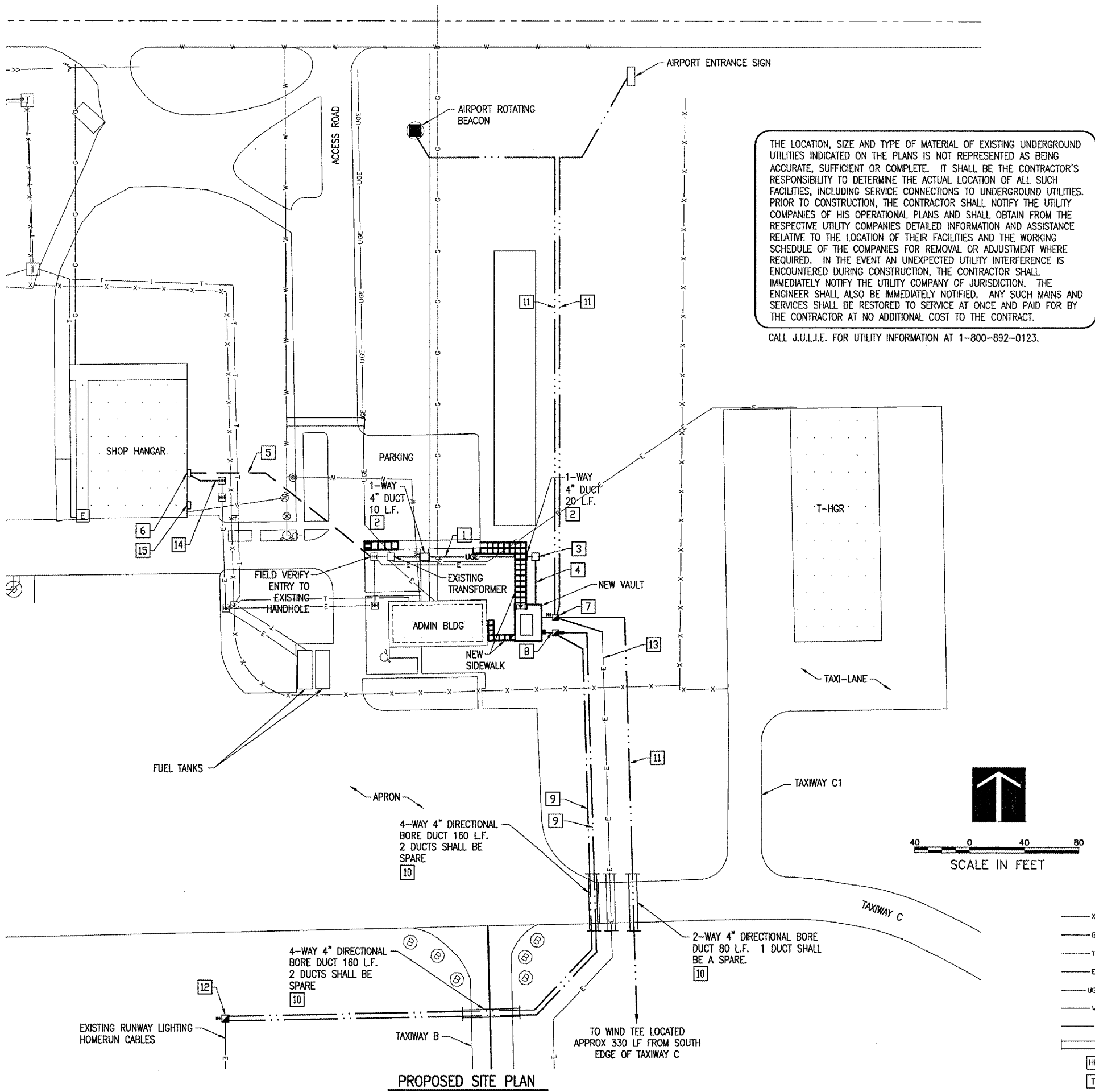
Date
JUNE 23, 2006
Sheet Title

EXISTING ELECTRICAL SITE PLAN

843-05C8010
Project Number
KNL 05/19/06
Layout By Date
KNL 05/19/06
Designed By Date
RMH 06/23/06
Reviewed By Date
MV
Drawn By

E2

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THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

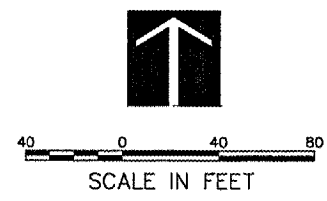
CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123.

KEYED NOTES

- 1 UNDERGROUND ELECTRIC UTILITY PRIMARY (BY SERVING ELECTRIC UTILITY).
- 2 NEW 4" SCHED 40 PVC DUCT INSTALLED BELOW SIDE WALK, FOR ELECTRIC UTILITY USE TO ACCOMMODATE INSTALLATION OF UTILITY PRIMARY CONDUCTORS. (AR110014)
- 3 NEW CONCRETE UTILITY PAD, PAID UNDER ITEM AR110600. (TRANSFORMER WITH 120/240 VAC, 1 PHASE, 3 WIRE SECONDARY BY UTILITY).
- 4 NEW 2-WAY 3" CONCRETE ENCASED DUCT (AR110502) WITH NEW SERVICE CONDUCTORS (AR109200) TO VAULT. SEE "NEW VAULT ELECTRICAL ONE LINE DIAGRAM."
- 5 NEW 3" SCHED 40 PVC DUCT INSTALLED BY DIRECTIONAL BORING METHOD, FOR NEW SERVICE TO SHOP HANGAR. COORDINATE INSTALLATION OF DUCT TO RESPECTIVE HANDHOLE AND/OR UTILITY XFMR WITH SERVING ELECTRIC UTILITY. EXTEND 3" SCHED 40 PVC DUCT TO NEW SERVICE PANEL FOR SHOP HANGAR, & INSTALL SERVICE CONDUCTORS. (AR800990)
- 6 NEW SERVICE PANEL FOR SHOP HANGAR. SEE "NEW ELECTRICAL ONE LINE DIAGRAM FOR SHOP HANGAR". (AR109924)
- 7 NEW LOW VOLTAGE HANDHOLE (AR110610). FURNISH & INSTALL 4-4" GRSC FROM HANDHOLE TO LOW VOLTAGE WIREWAY IN THE VAULT. INSTALL CIRCUITS FOR AIRPORT ROTATING BEACON, AIRPORT ENTRANCE SIGN, WIND TEE, & RWY 26 PAPI IN NO MORE THAN 2 CONDUITS AND DESIGNATE THE OTHERS AS SPARES. (AR109200)
- 8 NEW HIGH VOLTAGE HANDHOLE (AR110610). FURNISH & INSTALL 4-4" GRSC FROM HANDHOLE TO HIGH VOLTAGE PULL BOX IN THE VAULT. INSTALL HOMERUN CIRCUITS FOR RWY 8-26 & RWY 12-30 LIGHTING IN 2 CONDUITS AND DESIGNATE THE OTHERS AS SPARES. (AR109200)
- 9 NEW 2/C #8 5KV L-824 TYPE C CABLE IN UNIT DUCT (RWY LIGHTING HOME RUN CKT) (AR108258)
- 10 NEW 4" DIRECTIONAL BORE DUCT (AR110014)
- 11 NEW 3/C #6 XLP-USE, 600V UG CABLE IN UNIT DUCT (AR108656)
- 12 NEW HIGH VOLTAGE HANDHOLE (AR110610). INTERCEPT EXISTING HOMERUN CIRCUITS FOR RWY 8-26 & RWY 12-30 LIGHTING, SPLICE IN HANDHOLE, & REROUTE TO NEW VAULT.
- 13 LOCATE EXISTING RWY 26 PAPI CABLES AND REROUTE TO NEW LOW VOLTAGE HANDHOLE. SPLICE EXISTING CONDUCTORS TO NEW #4 AWG XLP-USE & EXTEND TO VAULT. (AR109200)
- 14 NEW FUEL FARM CABLES IN 2" GRSC FROM SERVICE PANEL FOR SHOP HANGAR TO EXISTING HANDHOLE. SPLICE TO EXISTING CABLES IN HANDHOLE. (AR109924)
- 15 NEW 200 AMP, 240 VAC, 2P FUSIBLE SAFETY SWITCH IN A NEMA 3R & 12 ENCLOSURE FOR FESTIVAL POWER. LOCATE ON SOUTH SIDE OF EAST WALL. (AR109924)

NOTES

- 1. COORDINATE ELECTRIC SERVICE WORK WITH THE SERVING ELECTRIC UTILITY COMPANY:
COM ED
ATTN. MR. MARK APPLEQUIST
919 WEST FIRST ST.
DIXON, IL 61021
PHONE: 815-284-5871
FAX: 815-284-5840
- 2. HIGH VOLTAGE AND LOW VOLTAGE CABLES SHALL NOT BE INSTALLED IN THE SAME HANDHOLE, WIREWAY, OR DUCT.



LEGEND

- X EXISTING FENCE
- G EXISTING GAS
- T EXISTING TELEPHONE
- E EXISTING ELECTRICAL
- UGE EXISTING ELECTRIC UTILITY PRIMARY
- W EXISTING WATER
- SS EXISTING SANITARY SEWER
- EC EXISTING CONCRETE ENCASED DUCT
- HH EXISTING ELECTRICAL HANDHOLE
- T EXISTING TELEPHONE PEDISTAL OR JUNCTION POINT
- PROPOSED 2/C #8 FAA L-824 5KV UG CABLE IN UD
- PROPOSED 3/C #6 XLP USE 600V UG CABLE IN UD
- PROPOSED ELECTRICAL CABLE IN CONDUIT. SEE PLAN FOR SIZE & TYPE
- PROPOSED ELECTRICAL HANDHOLE
- PROPOSED DUCT

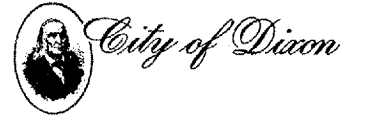
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No.	Drawing Issue Description	Date	By

Date
JUNE 23, 2006
Sheet Title

PROPOSED ELECTRICAL SITE PLAN

843-05C8010
Project Number
KNL 05/19/06
Logout By Date
KNL 05/19/06
Designed By Date
RMH 06/23/06
Reviewed By Date
MV
Drawn By
E4
SHEET 18 OF 36
Sheet No.

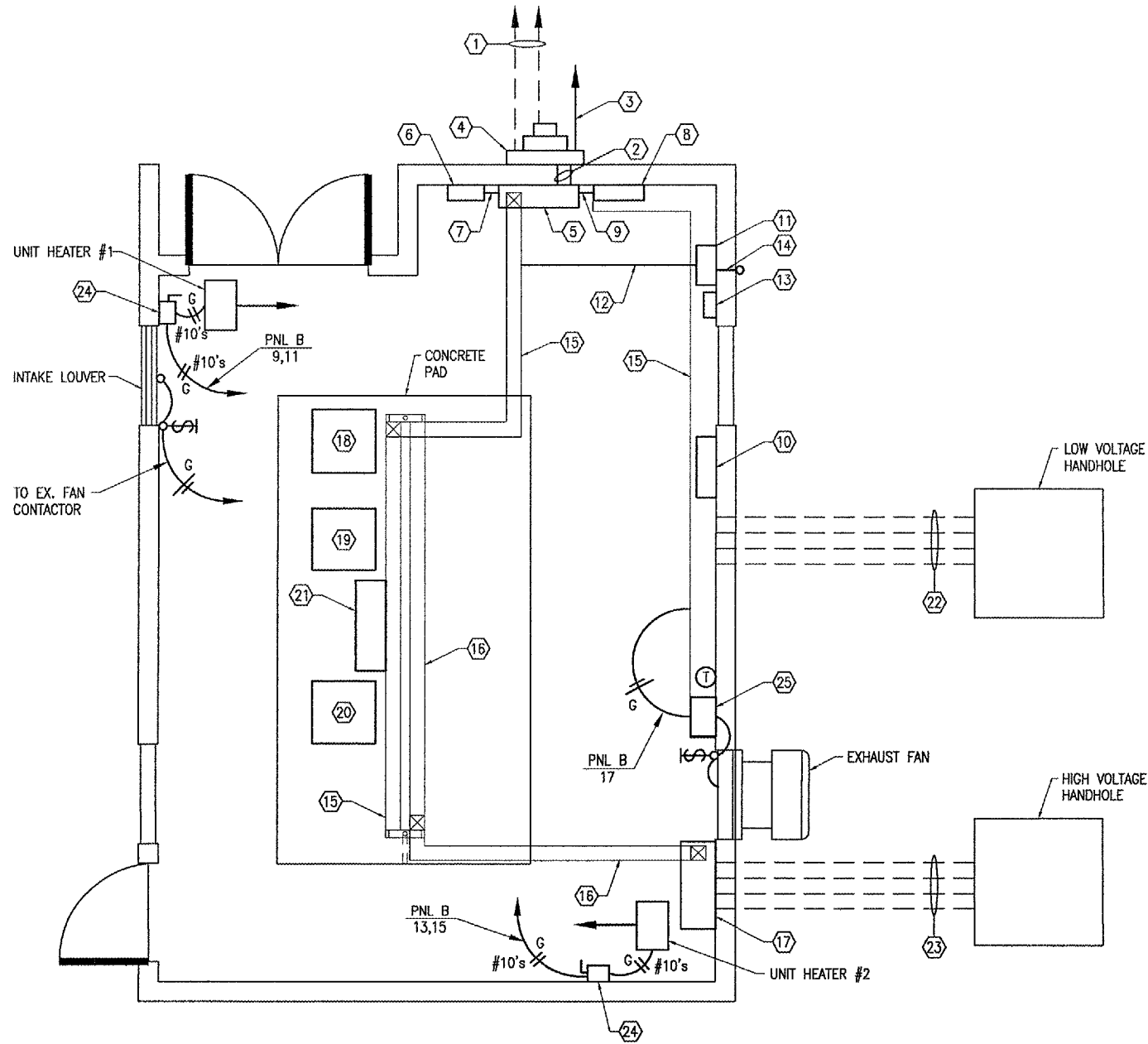


CITY OF DIXON, ILLINOIS
 Post Office Box 386
 Dixon, Illinois 61021
 Telephone: 815.288.1485

DIXON MUNICIPAL AIRPORT
 CHARLES R. WALGREEN FIELD

CONSTRUCT REPLACEMENT
 AIRFIELD ELECTRICAL VAULT

AIP PROJECT NO. 3-17-0036-B8
 IDA PROJECT NO. C73-3548



VAULT ELECTRICAL EQUIPMENT PLAN
 SCALE 3/8"=1'-0"
 2 0 2 4 FEET

GENERAL NOTES

- SEE "NEW VAULT ELECTRICAL ONE LINE DIAGRAM" FOR LOW VOLTAGE INPUT POWER WIRING REQUIREMENTS TO CCR'S (CONSTANT CURRENT REGULATORS). SEE "HIGH VOLTAGE WIRING SCHEMATIC" FOR CCR OUTPUT WIRING REQUIREMENTS. SEE "AIRFIELD LIGHTING CONTROL SCHEMATIC WIRING DIAGRAM" FOR CCR CONTROL WIRING REQUIREMENTS. PROVIDE 5 FEET MINIMUM CLEAR WORKING SPACE IN FRONT OF EACH CCR AND EACH SERIES PLUG CUTOUT.
- SEE ELEVATION VIEWS FOR ADDITIONAL INFORMATION ON PROPOSED EQUIPMENT LAYOUTS.
- COORDINATE CONDUIT & SLEEVE ENTRANCES THROUGH FLOOR SLAB AND WALLS.

KEYED NOTES

- 2 SETS OF 2-350MCM XHHW, 1-350 MCM NEUTRAL IN 2-WAY 3" SCHED 40 PVC CONCRETE ENCASED DUCT WITH LONG RADIUS GRSC ELBOWS FROM UTILITY TRANSFORMER TO CT CABINET.
- 2 SETS OF 2-350 MCM XHHW, 1-350 MCM NEUTRAL, 1 #2/0 GND IN 2-3" GRSC.
- #2/0 BARE STRANDED COPPER GROUNDING ELECTRODE CONDUCTOR IN 1" SCHED 40 PVC FROM CT CABINET NEUTRAL TO GND RING.
- STAINLESS STEEL CT CABINET WITH UTILITY METER PER SERVING ELECTRIC UTILITY COMPANY REQUIREMENTS.
- SERVICE PANEL "A" SEE SERVICE PANEL "A" SCHEDULE.
- SURGE PROTECTOR/TVSS DEVICE.
- SURGE PROTECTOR/TVSS WIRING IN CONDUIT. SEE "NEW VAULT ELECTRICAL ONE LINE DIAGRAM" FOR REQUIREMENTS.
- PANEL "B". SEE PANEL "B" SCHEDULE.
- 2 #4/0 THWN, 1 #4/0 NEUTRAL, 1 #4 GND IN 3" GRSC.
- LIGHTING CONTACTOR PANEL.
- RELAY INTERFACE PANEL. SEE "AIRFIELD LIGHTING CONTROL SCHEMATIC".
- CONTROL WIRING FOR CCR'S IN 1" GRSC.
- L-854 RADIO RECEIVER. EXTEND RADIO ANTENNA CABLE IN 1" GRSC AND MOUNT ANTENNA ABOVE THE ROOF LEVEL FOR PROPER OPERATION. BOND CONDUIT TO GND RING WITH PIPE CLAMP & #2 GND WIRE AT POINT OF ENTRY TO BUILDING.
- PHOTOCELL WIRING IN 3/4" GRSC. MOUNT PHOTOCELL ABOVE ROOF LEVEL FOR PROPER OPERATION. BOND CONDUIT TO GND RING WITH PIPE CLAMP & #2 GND WIRE AT POINT OF ENTRY TO BUILDING.
- 6" BY 6" LOW VOLTAGE WIREWAY. LABEL "LOW VOLTAGE" EVERY 8 FEET.
- 6" BY 6" HIGH VOLTAGE WIREWAY. LABEL "HIGH VOLTAGE" EVERY 8 FEET.
- 36"H x 36"W x 12"D NEMA 12 HIGH VOLTAGE PULL BOX.
- RUNWAY 8-26 CONSTANT CURRENT REGULATOR, (CCR #1).
- SPARE CONSTANT CURRENT REGULATOR, (CCR #2).
- RUNWAY 12-30 CONSTANT CURRENT REGULATOR (CCR #3).
- SERIES PLUG CUTOUTS IN NEMA 12 ENCL.
- 4-4" GRSC FROM LOW VOLTAGE WIREWAY TO LOW VOLTAGE HANDHOLE.
- 4-4" GRSC FROM HIGH VOLTAGE PULL BOX TO HIGH VOLTAGE HANDHOLE.
- 30A, 2P, HD SAFETY SWITCH FOR UNIT HEATER.
- CONTACTOR FOR EXHAUST FAN IN NEMA 1 ENCLOSURE WITH H-O-A SELECTOR SWITCH, T-STAT, & FRACTIONAL HP DISCONNECT. SEE EXHAUST FAN CONTROL SCHEMATIC.

No.	Drawing Issue	Description	Date	By

Date
 JUNE 23, 2006
 Sheet Title

NEW VAULT ELECTRICAL EQUIPMENT PLAN

843-05C8010	Project Number
KNL	06/10/06
KNL	06/10/06
RMH	06/23/06
MV	---

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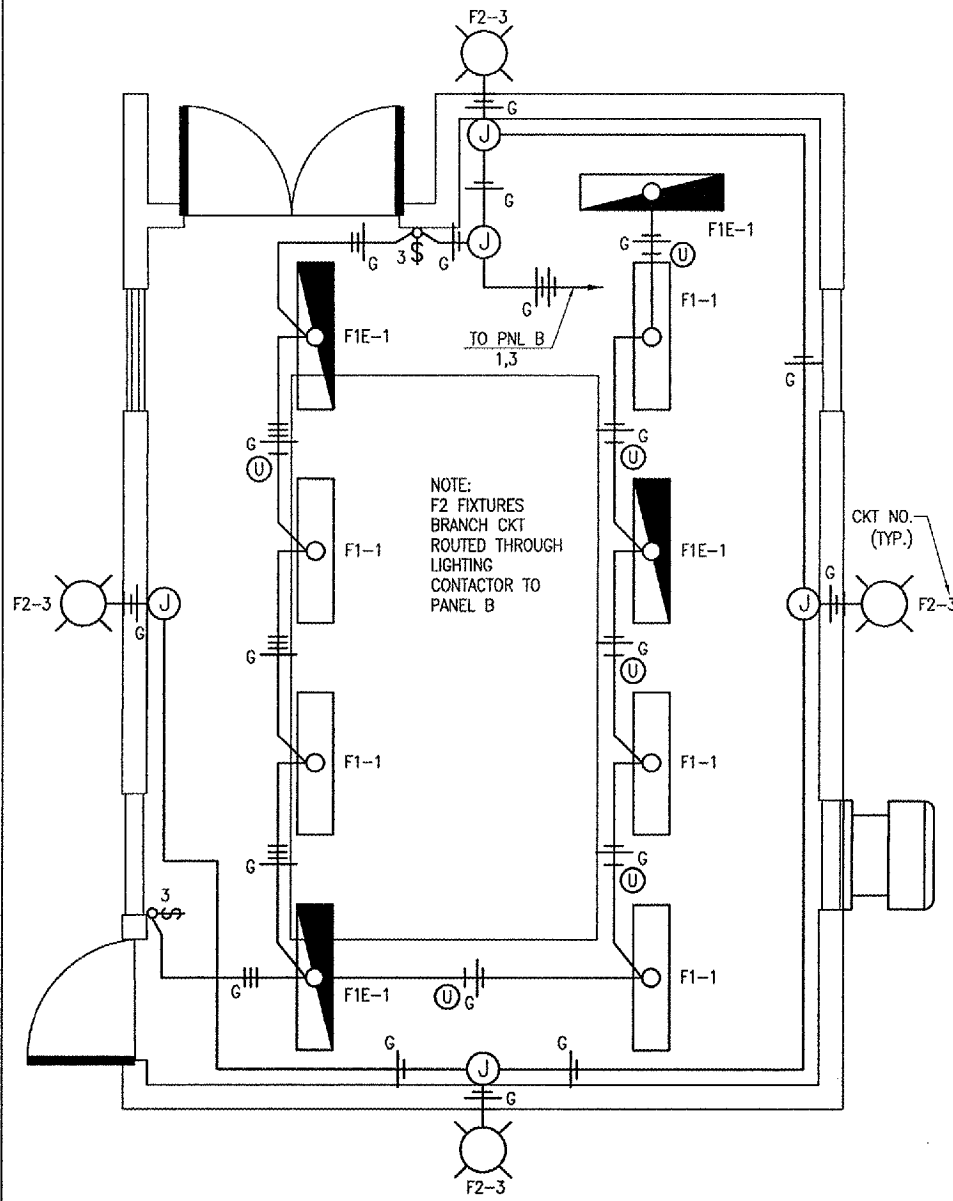


CITY OF DIXON, ILLINOIS
Post Office Box 386
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Telephone: 815.288.1485

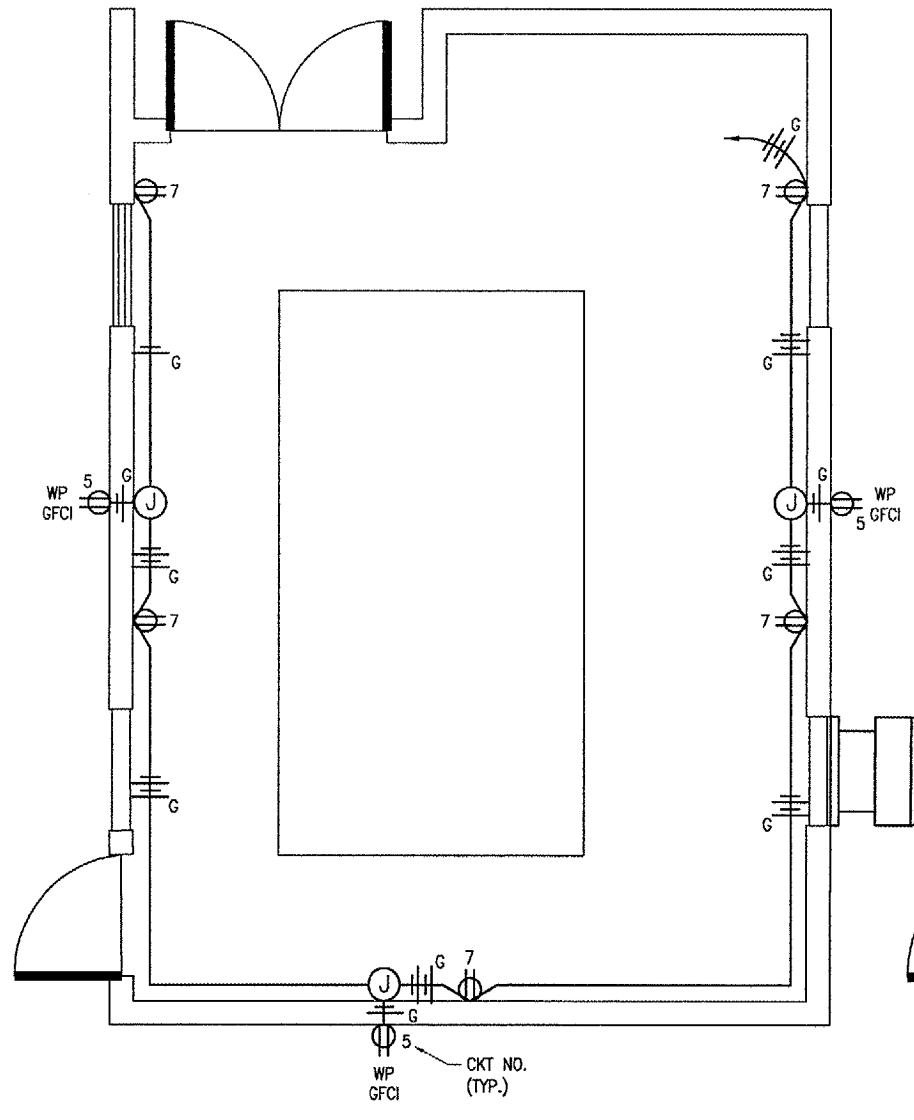
DIXON MUNICIPAL AIRPORT
CHARLES R. WALGREEN FIELD

CONSTRUCT REPLACEMENT
AIRFIELD ELECTRICAL VAULT

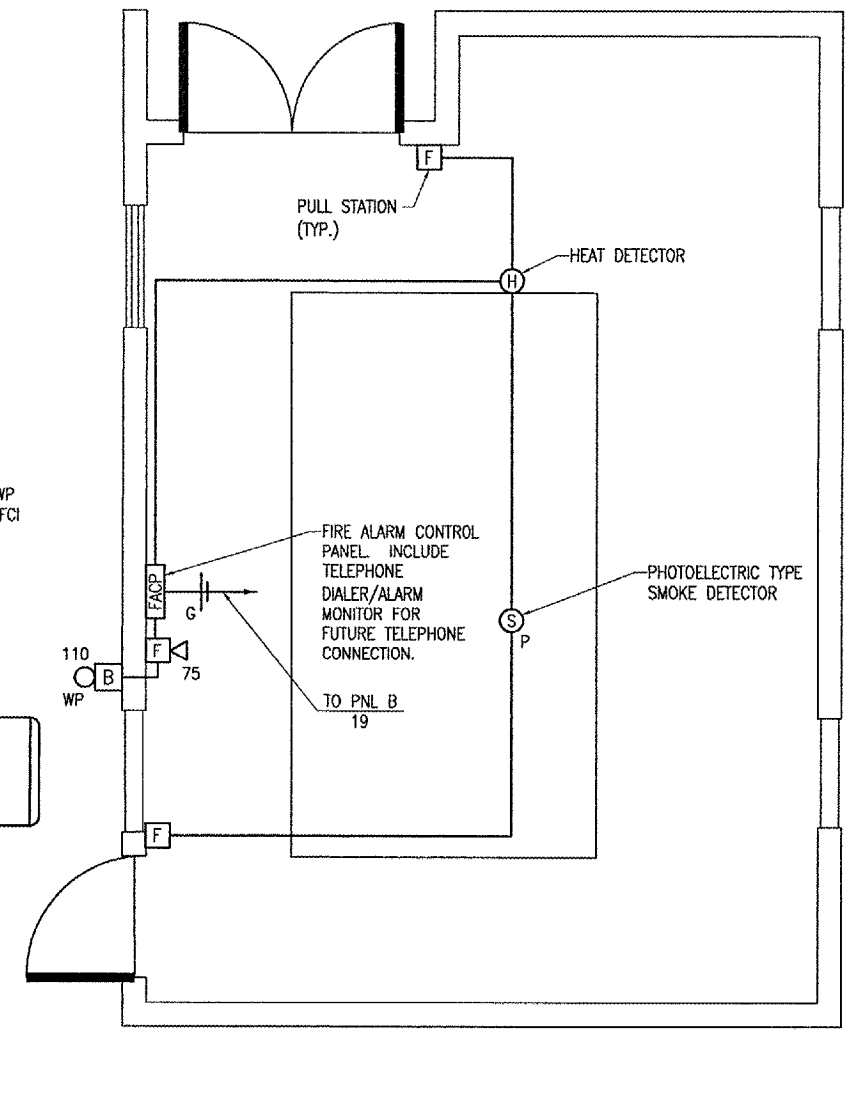
AIP PROJECT NO. 3-17-0036-B8
IDA PROJECT NO. C73-3548



LIGHTING PLAN
SCALE 3/8"=1'-0"
2 0 2 4 FEET

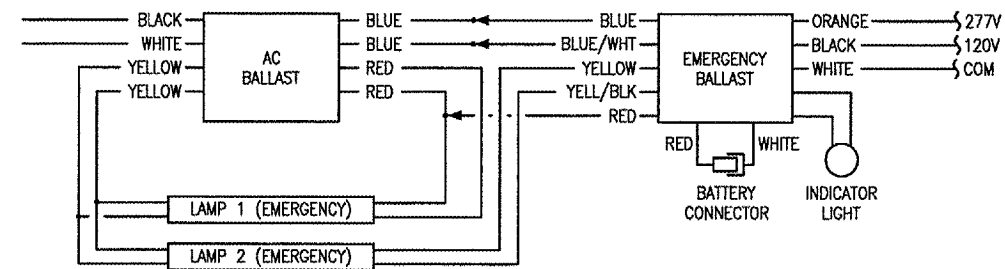


RECEPTACLE PLAN
SCALE 3/8"=1'-0"
2 0 2 4 FEET



FIRE ALARM DETECTION PLAN
SCALE 3/8"=1'-0"
2 0 2 4 FEET

LIGHTING FIXTURE SCHEDULE						
FIXT. TYPE	DESCRIPTION	MANUFACTURER & CATALOG NO.	LAMPS/WATTS	VOLTS	MOUNTING	REMARKS
F1	4 FT. ROUGH SERVICE WET LOCATION INDUSTRIAL LIGHTFIXTURE. IMPACT RESISTANT UV STABILIZED REINFORCED POLYESTER HOUSING, HIGH IMPACT ACRYLIC LENS, HIGH GLOSS BAKED WHITE ENAMEL HOUSING, UL LISTED FOR WET LOCATIONS, HPF ELECTRONIC BALLAST.	LITHONIA: VRI SERIES COLUMBIA: LUN SERIES METALUX: VT2 SERIES	2-F32 / T8 4100 K 58 TOTAL INPUT WATTS	120	CHAIN OR PENDANT MOUNT FROM STRUCTURE OR EQUIPMENT 9'-0" AFF.	PROVIDE EMERGENCY BALLASTS AS INDICATED ON THE PLANS BY HALF SHADED FIXTURES WITH F1E DESIGNATION, BODINE# B-30 SUITABLE FOR 2 LAMP OPERATION.
F2	HID WALL-PAK LUMINAIRE, CORROSION RESISTANT DIE CAST ALUMINUM HOUSING WITH DARK BRONZE BAKED ON POLYESTER POWDER COAT FINISH, FULLY GASKETED FOR WEATHER AND BUG TIGHTNESS, SPECULAR ANODIZED ALUMINUM REFLECTOR, PERCELAIN HORIZONTALLY MOUNTED MEDIUM BASE SOCKET, UL LISTED FOR WET LOCATIONS, HPF CORE AND COIL CWA TYPE HPF BALLAST.	LITHONIA: TWH SERIES LUMARK: WL SERIES HUBBELL OUTDOOR: PRS SERIES	1-150W METAL HALIDE ANSI CODE NO. M107 185 TOTAL INPUT WATTS	120	MOUNTED ON WALL 10'-0" ABOVE FINISHED GRADE.	VAULT EXTERIOR LIGHTS SHALL BE CONTROLLED BY THE PHOTOCELL FOR THE AIRFIELD LIGHTING & LIGHTING CONTACTOR



EMERGENCY BALLAST WIRING SCHEDULE

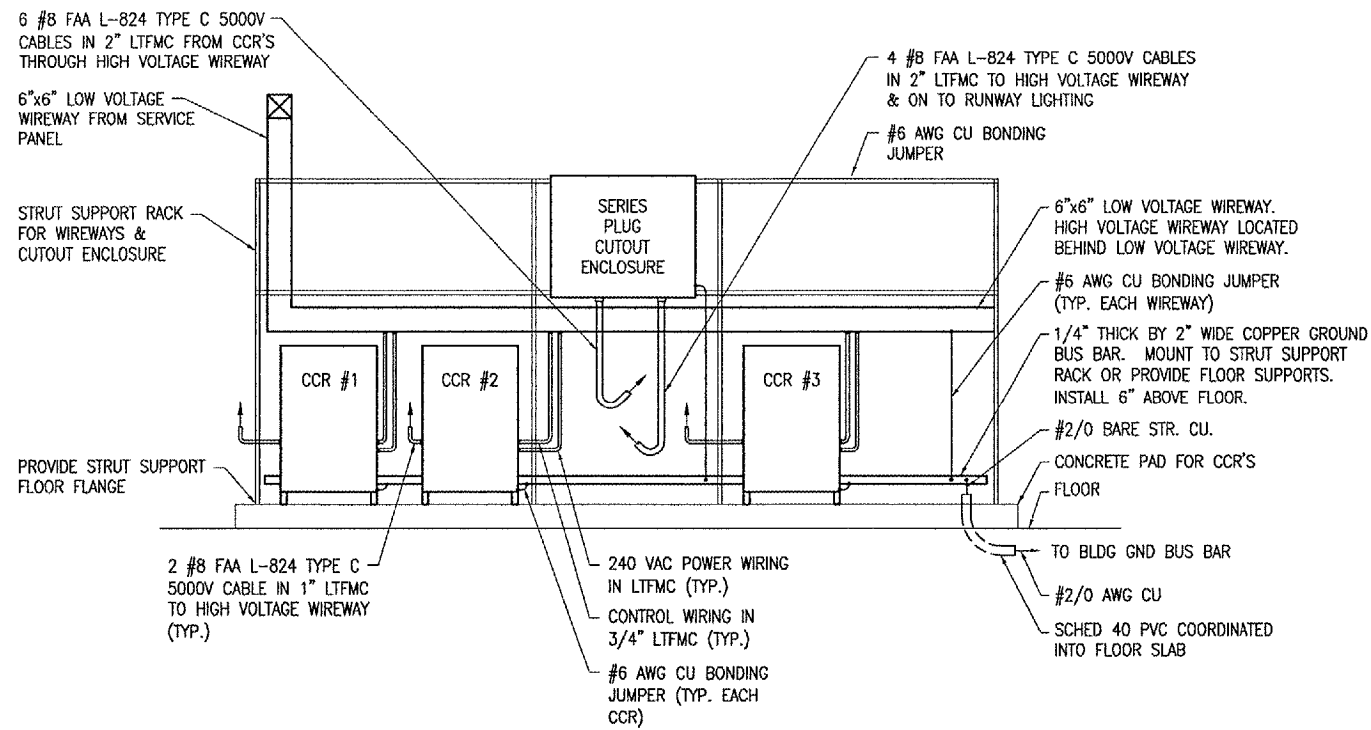
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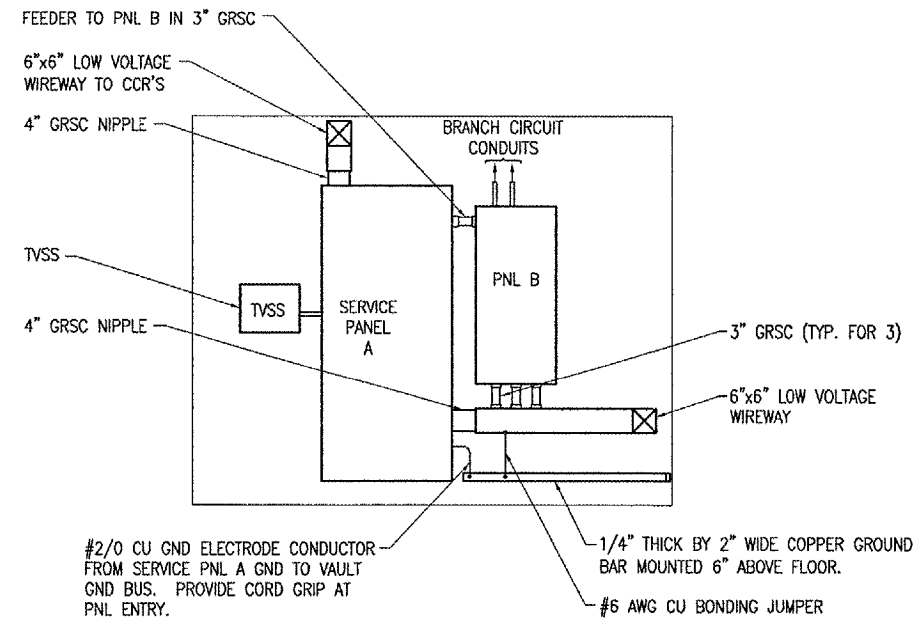
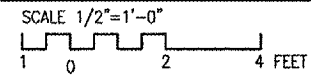
LIGHTING AND RECEPTACLE PLAN

843-05C8010
Project Number
KNL 06/08/06
Layout By Date
KNL 06/08/06
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RMH 06/23/06
Reviewed By Date
MV
Drawn By

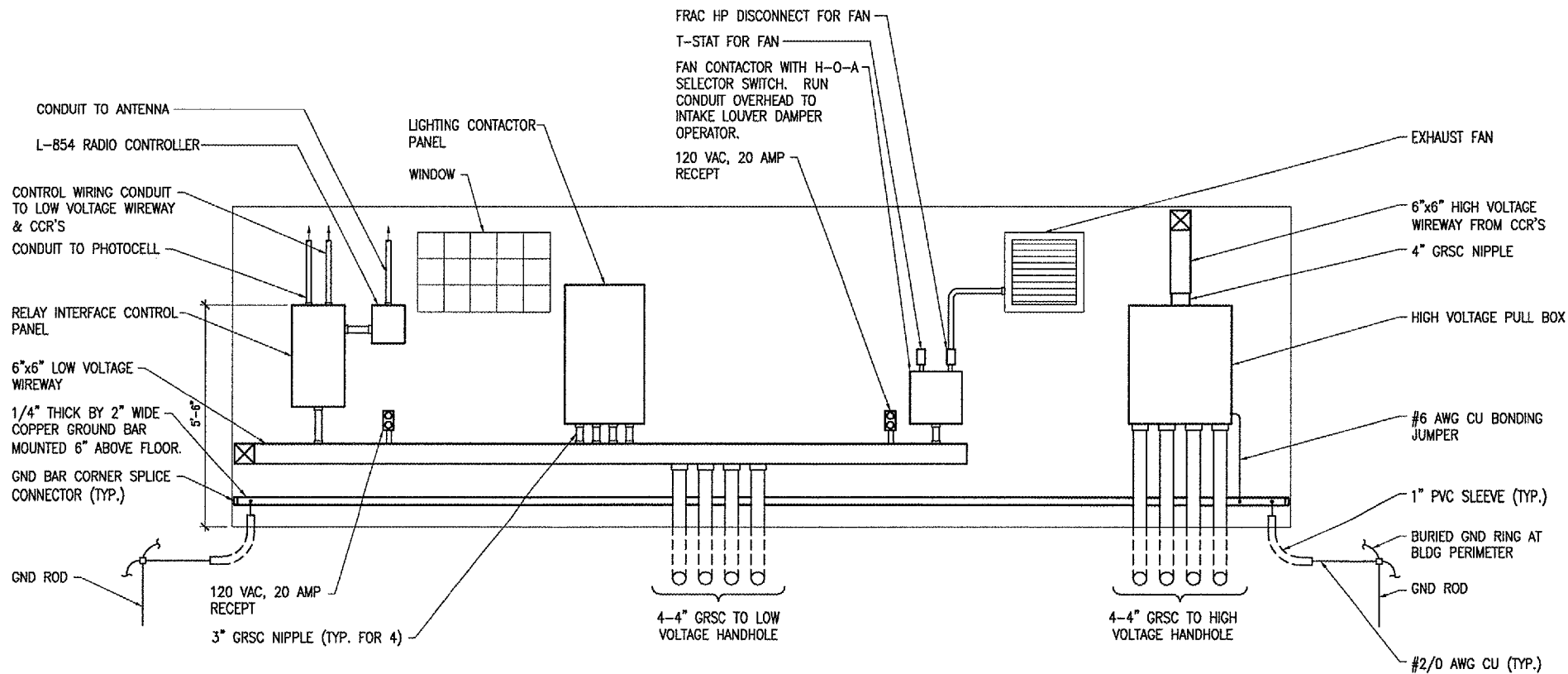
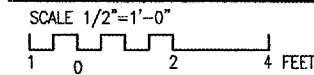
E6



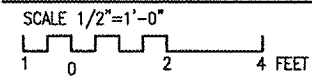
CCR ELEVATION



VAULT NORTH WALL ELEVATION



VAULT EAST WALL ELEVATION



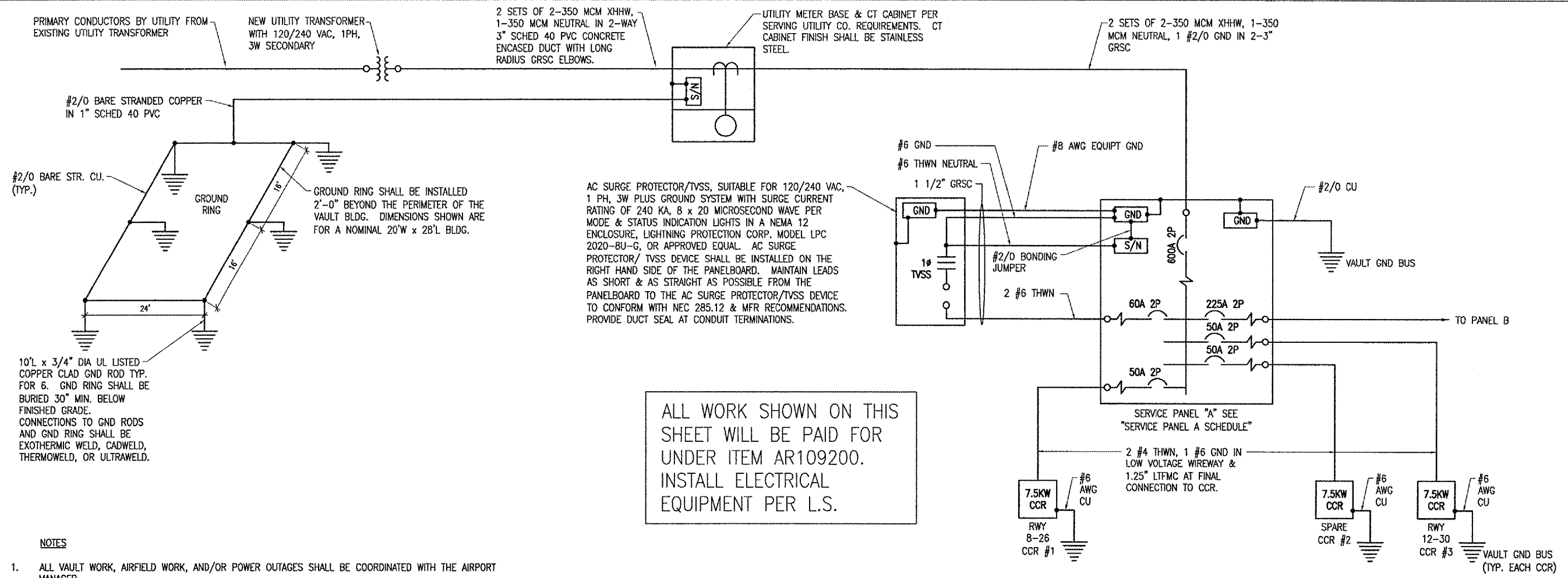
No.	Drawing	Issue	Description	Date	By

Date
JUNE 23, 2006
Sheet Title

VAULT ELECTRICAL ELEVATIONS

843-05C8010	
Project Number	
KNL	03/02/05
Layout By	Date
KNL	03/02/05
Designed By	Date
RMH	06/23/06
Reviewed By	Date
MV	
Drawn By	

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SHEET 23 OF 36

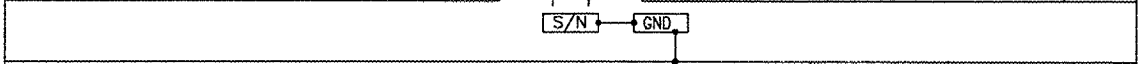


ALL WORK SHOWN ON THIS SHEET WILL BE PAID FOR UNDER ITEM AR109200. INSTALL ELECTRICAL EQUIPMENT PER L.S.

NEW VAULT ELECTRICAL ONE-LINE DIAGRAM

- NOTES**
- ALL VAULT WORK, AIRFIELD WORK, AND/OR POWER OUTAGES SHALL BE COORDINATED WITH THE AIRPORT MANAGER.
 - ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (NEC MOST CURRENT ISSUE IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING, (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED.
 - ALL EQUIPMENT SHOWN IS NEW UNLESS NOTED OTHERWISE.
 - COORDINATE ELECTRIC SERVICE WORK WITH THE SERVING ELECTRIC UTILITY COMPANY: COMMONWEALTH EDISON COMPANY ATTN. MR. MARK APPLEQUIST 919 WEST FIRST ST. DIXON, IL 61021 PHONE 815-284-5871 FAX 815-284-5840
 - CONTRACTOR SHALL CONFIRM POWER REQUIREMENTS WITH THE ACTUAL NAMEPLATE ON EACH CONSTANT CURRENT REGULATOR, UNIT HEATER, FAN, OR OTHER EQUIPMENT, AND ADJUST CIRCUIT BREAKER, WIRE SIZES & CONDUIT SIZES TO CONFORM WITH NEC & MANUFACTURER'S RECOMMENDATIONS WHERE APPLICABLE. WIRE SIZES SHOWN ON THE PLANS ARE MINIMUM.
 - SEE PANELBOARD SCHEDULES FOR ADDITIONAL REQUIREMENTS FOR EACH RESPECTIVE PANEL.
 - HIGH VOLTAGE & LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME RACEWAY.
 - BRANCH CIRCUITS TO REGULATORS SHALL BE INSTALLED IN THE RESPECTIVE LOW VOLTAGE WIREWAY/DUCT, WITH GRSC AT TRANSITIONS AND UL LISTED LIQUID TIGHT FLEXIBLE METAL CONDUIT AT FINAL CONNECTIONS TO THE REGULATORS. CONDUITS SHALL BE SIZED IN ACCORDANCE WITH NEC.
 - BOND ALL REGULATORS TO THE RESPECTIVE VAULT GROUND BUS WITH A DEDICATED #6 AWG BONDING JUMPER FOR EACH REGULATOR.
 - LTFMC DENOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT UL LISTED, SUNLIGHT RESISTANT, & SUITABLE FOR GROUNDING. LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6. LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO CCR'S & TRANSFORMERS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. EXTERNAL BONDING JUMPERS USED WITH CCR INSTALLATIONS SHALL BE #6 AWG COPPER (MINIMUM). DO NOT INSTALL LTFMC THAT IS NOT UL LISTED.
 - FURNISH & INSTALL A WEATHERPROOF WARNING LABEL FOR EACH METER SOCKET, PANELBOARD, LOAD CENTER, DISCONNECT & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "FLASH PROTECTION".
 - ALL CONDUCTORS/WIRING SHALL BE COPPER.

SERVICE PANEL A			
CKT #	DUTY	SIZE	CKT #
1	TRANSIENT VOLTAGE SURGE SUPPRESSOR	60A, 2P	2
3	RUNWAY 8-26 CCR #1	50A, 2P	4
5	SPARE	50A, 2P	6
SPARE SPACE FOR ADDITIONAL BREAKERS			
SPARE SPACE FOR ADDITIONAL BREAKERS			



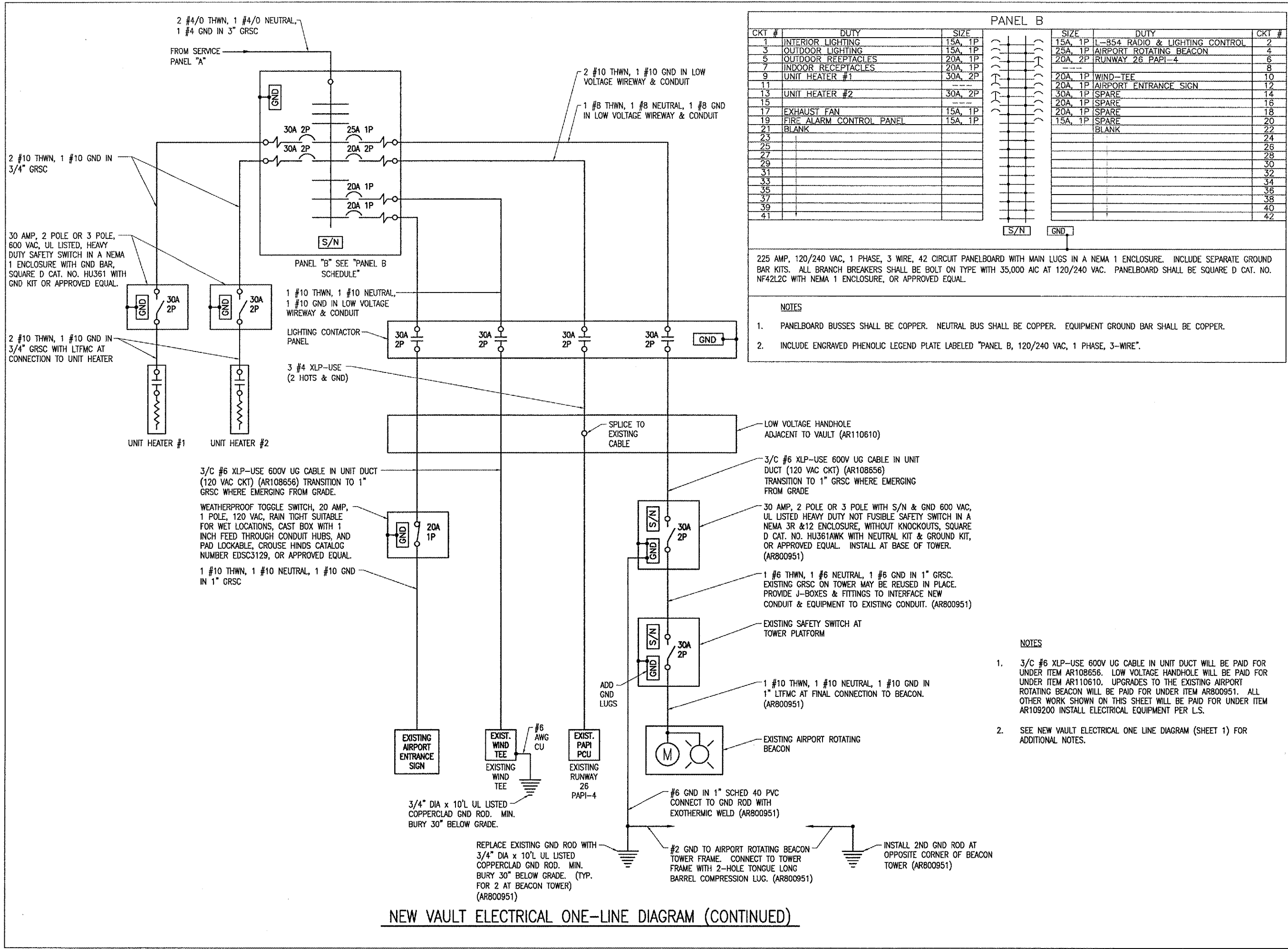
600 AMP, 120/240 VAC, 1 PHASE, SERVICE PANEL WITH A 600 AMP, 2 POLE MAIN BREAKER IN A NEMA 1 SURFACE MOUNT ENCLOSURE. PANELBOARD SHALL BE UL LISTED SUITABLE FOR SERVICE ENTRANCE. PANELBOARD SHALL HAVE 36" OF CIRCUIT BREAKER MOUNTING SPACE & ACCOMMODATE BRANCH/FEEDER BREAKERS UP TO 250 AMP FRAME SIZE. PANELBOARD SHALL BE SQUARE D I-LINE, HCM SERIES OR APPROVED EQUAL WITH BOX, TRIM, & DOOR.

- NOTES**
- PANELBOARD BUS SHALL BE BRACED FOR 42,000 AMPS SYMMETRICAL MINIMUM AT 240 VAC.
 - PANELBOARD BUSSES SHALL BE COPPER. NEUTRAL BUS SHALL BE COPPER, EQUIPMENT GROUND BAR SHALL BE COPPER.
 - MAIN BREAKER & ALL FEEDER & BRANCH BREAKERS SHALL HAVE AN INTERRUPTING RATING OF 42,000 AIC MINIMUM AT 240 VAC.
 - INCLUDE PHENOLIC ENGRAVED LEGEND PLATE FOR MAIN BREAKER LABELED "SERVICE DISCONNECT".
 - INCLUDE PHENOLIC ENGRAVED LEGEND PLATE LABELED "SERVICE PANEL A 120/240 VAC, 1 PHASE, 3-WIRE".

No.	Drawing Issue Description	Date	By

Date
 JUNE 23, 2006
 Sheet Title

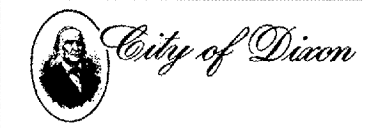
NEW VAULT ELECTRICAL ONE LINE DIAGRAM (SHEET 1)



NEW VAULT ELECTRICAL ONE-LINE DIAGRAM (CONTINUED)



815 Commerce Drive Suite 200
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CITY OF DIXON, ILLINOIS
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DIXON MUNICIPAL AIRPORT
CHARLES R. WALGREEN FIELD

CONSTRUCT REPLACEMENT
AIRFIELD ELECTRICAL VAULT

AIP PROJECT NO. 3-17-0036-B8
IDA PROJECT NO. C73-3548

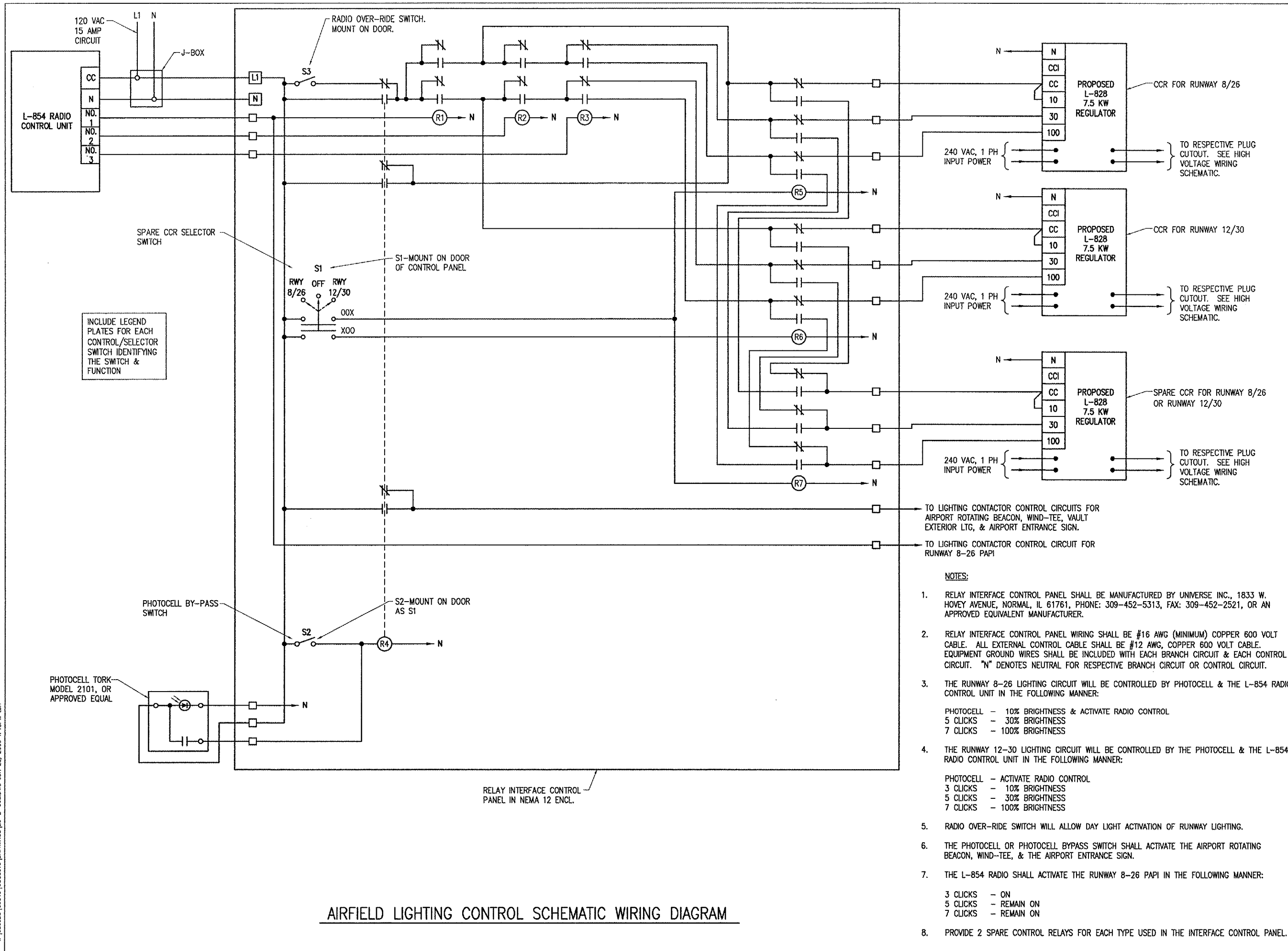
No.	Drawing Issue Description	Date	By

Date
JUNE 23, 2006
Sheet Title

NEW VAULT ELECTRICAL
ONE LINE DIAGRAM
(SHEET 2)

843-05C8010
Project Number
KNL 06/14/06
Layout By Date
KNL 06/14/06
Designed By Date
RMH 06/23/06
Reviewed By Date
MV
Drawn By

E11
SHEET 25 OF 36

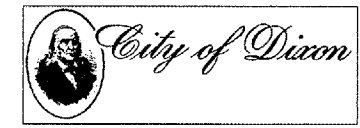


AIRFIELD LIGHTING CONTROL SCHEMATIC WIRING DIAGRAM

D1022



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DIXON MUNICIPAL AIRPORT
 CHARLES R. WALGREEN FIELD
 CONSTRUCT REPLACEMENT
 AIRFIELD ELECTRICAL VAULT
 AIP PROJECT NO. 3-17-0036-B8
 IDA PROJECT NO. C73-3548

- NOTES:**
- RELAY INTERFACE CONTROL PANEL SHALL BE MANUFACTURED BY UNIVERSE INC., 1833 W. HOVEY AVENUE, NORMAL, IL 61761, PHONE: 309-452-5313, FAX: 309-452-2521, OR AN APPROVED EQUIVALENT MANUFACTURER.
 - RELAY INTERFACE CONTROL PANEL WIRING SHALL BE #16 AWG (MINIMUM) COPPER 600 VOLT CABLE. ALL EXTERNAL CONTROL CABLE SHALL BE #12 AWG, COPPER 600 VOLT CABLE. EQUIPMENT GROUND WIRES SHALL BE INCLUDED WITH EACH BRANCH CIRCUIT & EACH CONTROL CIRCUIT. "N" DENOTES NEUTRAL FOR RESPECTIVE BRANCH CIRCUIT OR CONTROL CIRCUIT.
 - THE RUNWAY 8-26 LIGHTING CIRCUIT WILL BE CONTROLLED BY 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
 - THE RUNWAY 12-30 LIGHTING CIRCUIT WILL 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
 - RADIO OVER-RIDE SWITCH WILL ALLOW DAY LIGHT ACTIVATION OF RUNWAY LIGHTING.
 - THE PHOTOCELL OR PHOTOCELL BYPASS SWITCH SHALL ACTIVATE THE AIRPORT ROTATING BEACON, WIND-TEE, & THE AIRPORT ENTRANCE SIGN.
 - THE L-854 RADIO SHALL ACTIVATE THE RUNWAY 8-26 PAPI IN THE FOLLOWING MANNER:
 3 CLICKS - ON
 5 CLICKS - REMAIN ON
 7 CLICKS - REMAIN ON
 - PROVIDE 2 SPARE CONTROL RELAYS FOR EACH TYPE USED IN THE INTERFACE CONTROL PANEL.

No.	Drawing Issue	Description	Date	By

Date: JUNE 23, 2006
 Sheet Title: AIRFIELD LIGHTING CONTROL SCHEMATIC

843-05C8010
 Project Number: KNL 05/25/06
 Layout By: KNL 05/25/06
 Design By: RMH 06/23/06
 Reviewed By: MV
 Drawn By: MV
 SHEET 26 OF 36

E12

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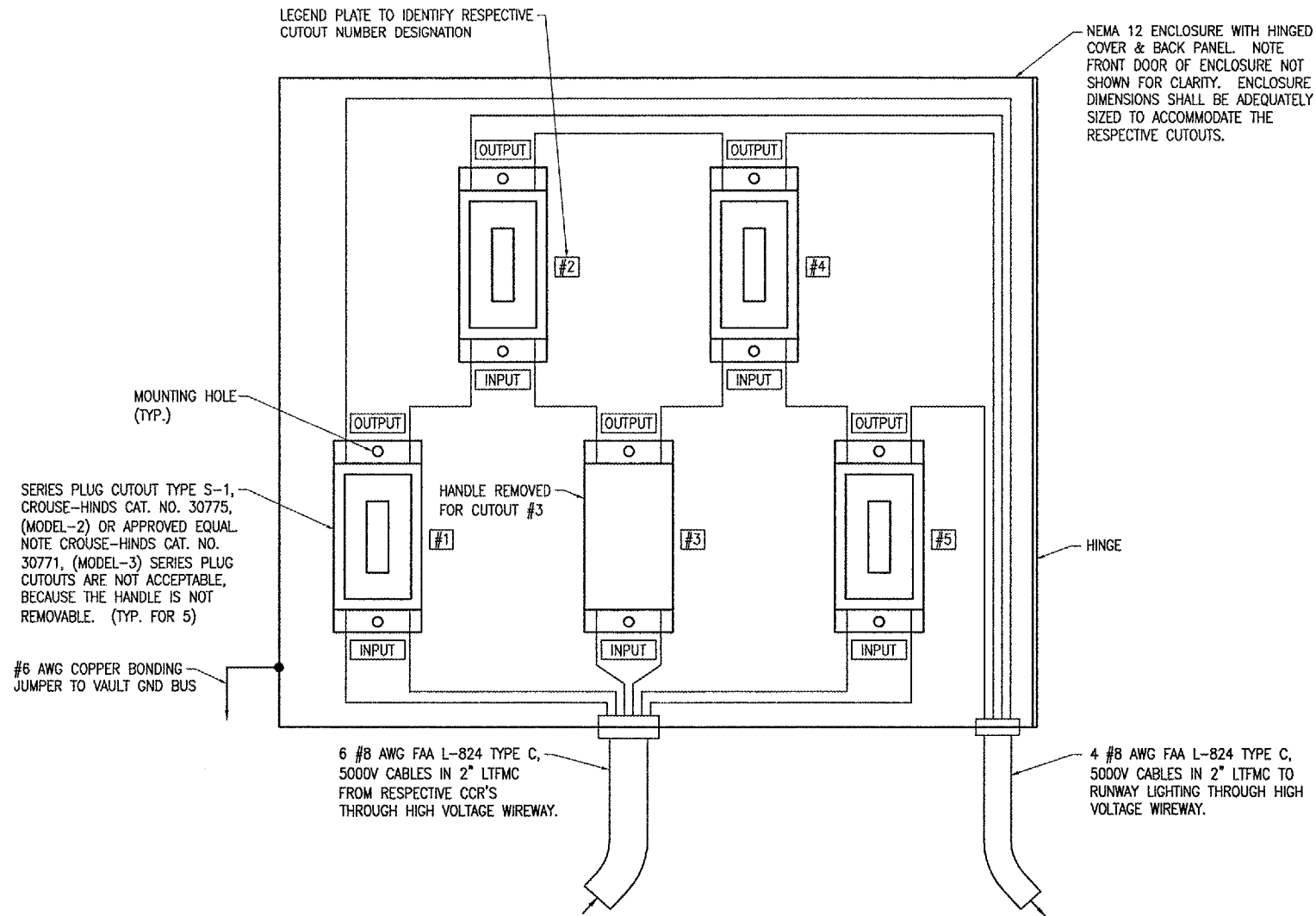
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Dixon, Illinois 61021
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DIXON MUNICIPAL AIRPORT
CHARLES R. WALGREEN FIELD

CONSTRUCT REPLACEMENT
AIRFIELD ELECTRICAL VAULT

AIP PROJECT NO. 3-17-0036-B8
IDA PROJECT NO. C73-3548



NOTES

1. SEE "HIGH VOLTAGE WIRING SCHEMATIC" SHEET FOR INFORMATION ON PROPOSED WIRING OF PLUG CUTOUTS.
2. PROVIDE LAMINATED COPY OF CUTOUT SCHEDULE, AND INSTALL INSIDE THE PLUG CUTOUT CABINET.

SERIES PLUG CUTOUT CABINET DETAIL

SERIES CUTOUT POSITIONS FOR CONSTANT CURRENT REGULATOR TO POWER FOLLOWING CIRCUITS:

RUNWAY 8-26 LIGHTING CKT			
REGULATOR NO.	CUTOUT NO.	INSERTED	PULLED
1	1	X	
	2	X	
	3		X
RUNWAY 8-26 LIGHTING CKT			
REGULATOR NO.	CUTOUT NO.	INSERTED	PULLED
2 (SPARE)	1		X
	2		X
	3	X	
	4	X	
RUNWAY 12-30 LIGHTING CKT			
REGULATOR NO.	CUTOUT NO.	INSERTED	PULLED
2 (SPARE)	2	X	
	3	X	
	4		X
	5		X
	5		X
RUNWAY 12-30 LIGHTING CKT			
REGULATOR NO.	CUTOUT NO.	INSERTED	PULLED
3	3		X
	4	X	
	5	X	

LAMINATED CUTOUT SCHEDULE

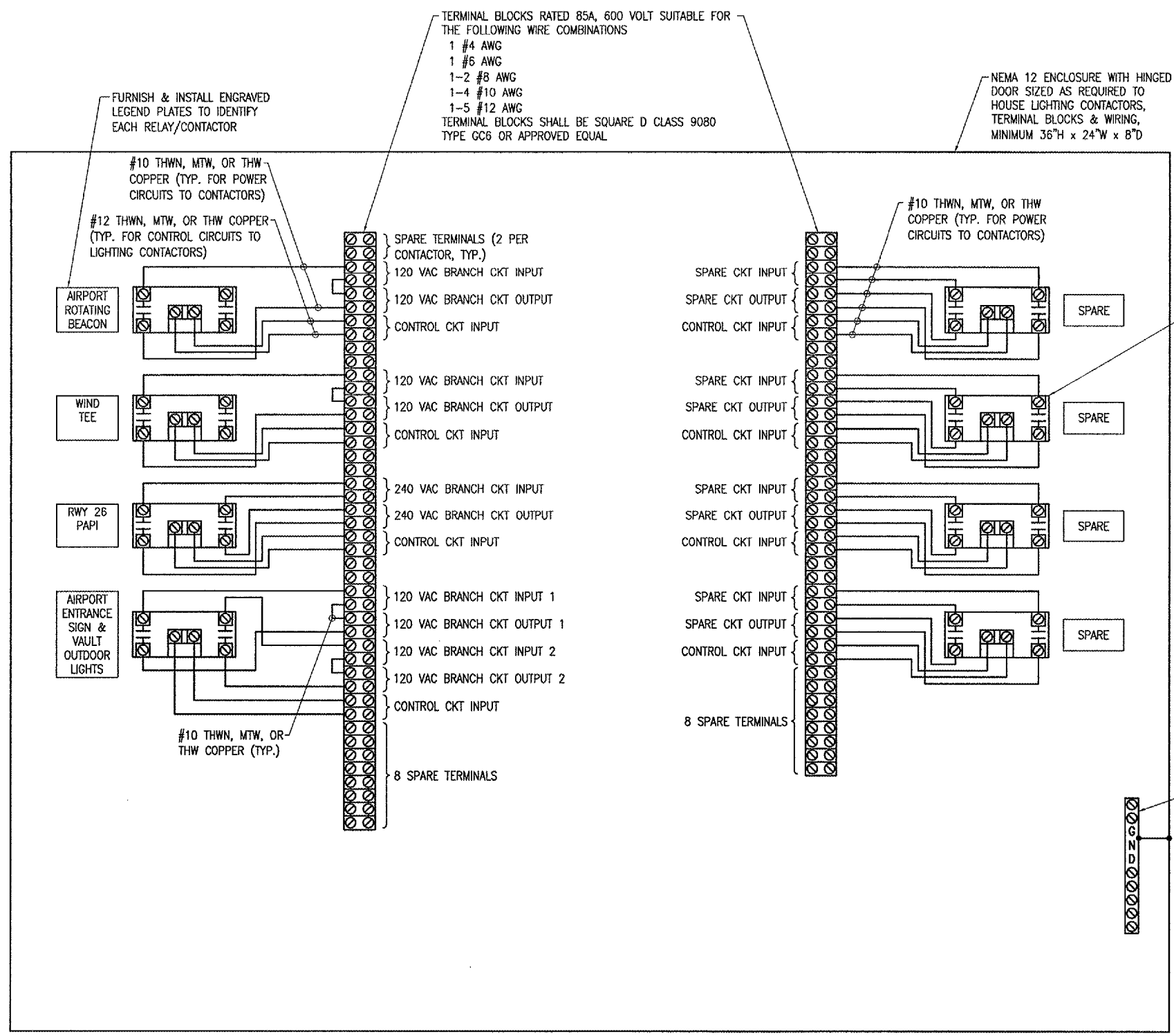
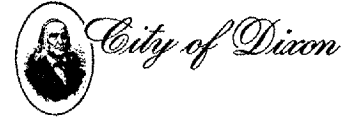
No.	Drawing Issue Description	Date	By

Date
JUNE 23, 2006
Sheet Title

SERIES PLUG CUTOUT DETAILS

843-05C8010	Project Number
KNL 05/23/06	Layout By Date
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MV	Drawn By

E14



NOTES

- 15 AMP & 20 AMP INPUT POWER/BRANCH CIRCUITS SHALL BE #10 AWG COPPER THWN FROM THE RESPECTIVE POWER SOURCE TO THE LIGHTING CONTACTOR PANEL. 30 AMP INPUT POWER/BRANCH CIRCUITS SHALL BE #8 AWG COPPER THWN (MIN.) FROM THE RESPECTIVE POWER SOURCE TO THE LIGHTING CONTACTOR PANEL.
- INPUT CONTROL CIRCUITS SHALL BE #12 AWG COPPER THWN.
- FOR 120 VAC BRANCH CIRCUITS THE NEUTRAL CONDUCTOR SHALL NOT BE SWITCHED THROUGH THE RELAY CONTACTS. USE TERMINAL BLOCKS TO TRANSITION FROM VAULT BRANCH CIRCUIT WIRING TO FIELD WIRING.
- PROVIDE #10 AWG COPPER BONDING JUMPER FROM PANEL ENCLOSURE FRAME TO ENCLOSURE DOOR.

No.	Drawing Issue Description	Date	By

Date
JUNE 23, 2006
Sheet Title

LIGHTING CONTACTOR
PANEL DETAILS

843-05C8010
Project Number
KNL 05/24/06
Layout By Date
KNL 05/24/06
Designed By Date
RMH 06/23/06
Reviewed By Date
MV
Drawn By

E15

VAULT LEGEND PLATE SCHEDULE	
DEVICE	LABEL
SERVICE PANELBOARD "A"	SERVICE PANEL "A" 120/240 VAC, 1 PH, 3 W
MAIN BREAKER IN SERVICE PANEL "A"	SERVICE DISCONNECT
PANEL A BKR FOR TVSS	TVSS
PANEL A FEEDER BKR FOR PANEL B	PANEL B
PANEL A BKR FOR CCR #1	RWY 8-26 CCR #1
PANEL A BKR FOR CCR #2	SPARE CCR #2
PANEL A BKR FOR CCR #3	RWY 12-30 CCR #3
SPARE BKR IN PANEL A	SPARE
PANELBOARD "B"	PANEL "B" 120/240 VAC, 1 PH, 3 W
RUNWAY 8-26 CCR #1	RUNWAY 8-26 CCR #1
SPARE CCR	SPARE CCR #2
RUNWAY 12-30 CCR	RUNWAY 12-30 CCR #3
CUTOUT ENCLOSURE	CUTOUTS
EACH CUTOUT INPUT SIDE CONNECTION	INPUT
EACH CUTOUT OUTPUT SIDE CONNECTION	OUTPUT
RELAY INTERFACE PANEL	RELAY INTERFACE PANEL
LIGHTING CONTACTOR	AIRFIELD LIGHTING CONTACTOR PANEL
UNIT HEATER #1 DISCONNECT	UNIT HEATER #1 240 VAC, 1 PH
UNIT HEATER #2 DISCONNECT	UNIT HEATER #2 240 VAC, 1 PH
DISCONNECT FOR BEACON	BEACON 120 VAC FED FROM VAULT
SERVICE PANEL IN SHOP HANGAR	SHOP HANGAR SERVICE PANEL 120/240 VAC, 1 PH, 3W
MAIN BREAKER IN SHOP HANGAR SERVICE PANEL	SERVICE DISCONNECT
SAFETY SWITCH FOR FESTIVAL POWER	FESTIVAL POWER 120/240VAC, 1PH, 3W
LOW VOLTAGE WIREWAY (PROVIDE 4 LEGEND PLATES 1/2" HIGH BLACK LETTERS WHITE BACKGROUND)	LOW VOLTAGE
HIGH VOLTAGE WIREWAY (PROVIDE 4 LEGEND PLATES 1/2" HIGH BLACK LETTERS WHITE BACKGROUND)	HIGH VOLTAGE
VAULT GROUND BUS (PROVIDE 4 LEGEND PLATES 1/2" HIGH WHITE LETTERS GREEN BACKGROUND)	VAULT GROUND BUS

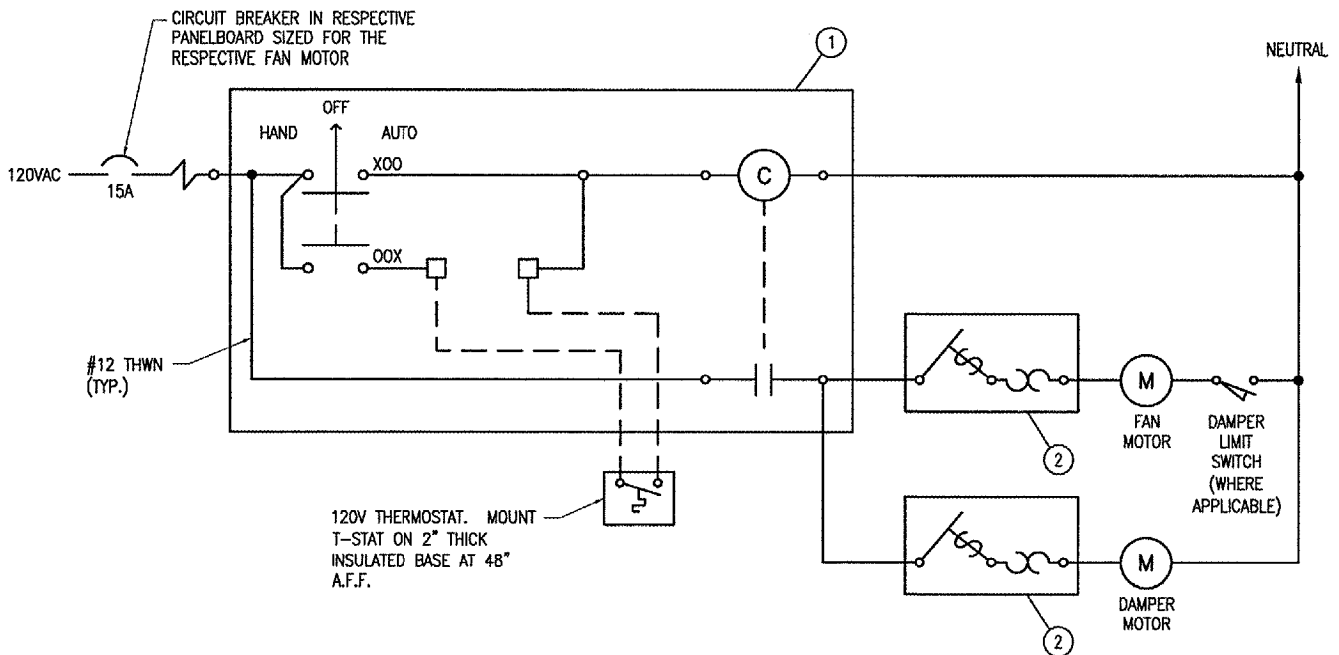
NOTE: LEGEND PLATES SHALL BE WEATHERPROOF ENGRAVED PLASTIC OR PHENOLIC MATERIAL, 1/4" HIGH BLACK LETTERS ON A WHITE BACKGROUND UNLESS NOTED OTHERWISE. SECURE WITH WEATHERPROOF ADHESIVE AND MACHINE SCREWS. FURNISH ADDITIONAL LEGEND PLATES WHERE REQUIRED BY CODE, FOR ADDITIONAL EQUIPMENT, AS DETAILED HEREIN ON THE PLANS, AND AS NOTED IN THE SPECIAL PROVISION SPECIFICATIONS.

NOTES

- GROUND WIRES REQUIRED BUT NOT SHOWN FOR CLARITY.
- ALL WIRING SHALL BE #12 THWN MINIMUM.
- PROVIDE A NEMA 1 ENCLOSURE SIZED AS REQUIRED TO INSTALL THE CONTACTOR, HOA SELECTOR SWITCH & TERMINALS.
- PROVIDE LEGEND PLATE FOR THE CONTACTOR AND FRACTIONAL HP MOTOR STARTER IDENTIFYING THE LOAD SERVED AND THE POWER SOURCE.
- VERIFY MOTOR HORSEPOWERS AND FULL LOAD AMPS WITH THE RESPECTIVE MANUFACTURER. CONTRACTOR SHALL COORDINATE MOTOR CIRCUIT BREAKER, CONTACTOR, FRACTIONAL HP STARTER, OVERLOADS, WIRE SIZES, CONDUIT SIZES, ETC. FOR THE RESPECTIVE EQUIPMENT FURNISHED, PER NEC & MANUFACTURER'S RECOMMENDATIONS. COORDINATE FAN & LOUVER INSTALLATION WITH BUILDING MFR.
- INTAKE LOUVERS SHALL OPEN AND EXHAUST FAN SHALL OPERATE WHEN SPACE TEMP EXCEEDS 85°F (ADJUSTABLE). EXHAUST FAN SHALL OPERATE ONLY WHEN DAMPER HAS PROVED "OPEN". IN MANUAL MODE DAMPER SHALL REMAIN OPEN AND FAN SHALL RUN CONTINUOUSLY.

LEGEND

- 120VAC, NEMA SIZE 0 (MINIMUM), 1 POLE, FULL VOLTAGE CONTACTOR IN A NEMA 1 ENCLOSURE WITH HINGED COVER, SQUARE D CLASS 8502, TYPE SBGSV02 OR APPROVED EQUAL. INCLUDE H-O-A SELECTOR SWITCH WITH EACH CONTACTOR.
- FRACTIONAL HORSEPOWER MOTOR MANUAL STARTER, SQUARE D MANUAL STARTER WITH HANDLE/GUARD/LOCK OFF, IN NEMA 1 ENCLOSURE CLASS 2510, TYPE FG5 OR APPROVED EQUAL. INCLUDE MELTING ALLOY TYPE THERMAL OVERLOADS SIZED AS REQUIRED TO PROTECT THE RESPECTIVE MOTOR. 120VAC MOTORS SHALL HAVE SINGLE POLE STARTERS.



EXHAUST FAN CONTROL SCHEMATIC



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**DIXON MUNICIPAL AIRPORT
CHARLES R. WALGREEN FIELD**

**CONSTRUCT REPLACEMENT
AIRFIELD ELECTRICAL VAULT**

**AIP PROJECT NO. 3-17-0036-B8
IDA PROJECT NO. C73-3548**

No.	Drawing Issue	Description	Date	By

Date: **JUNE 23, 2006**
Sheet Title:

**LEGEND PLATE
SCHEDULE AND FAN
CONTROL SCHEMATIC**

843-05C8010	Project Number
KNL 05/19/06	Layout By Date
KNL 05/19/06	Designed By Date
RMH 06/23/06	Reviewed By Date
MV	Drawn By
	Sheet No.

E16



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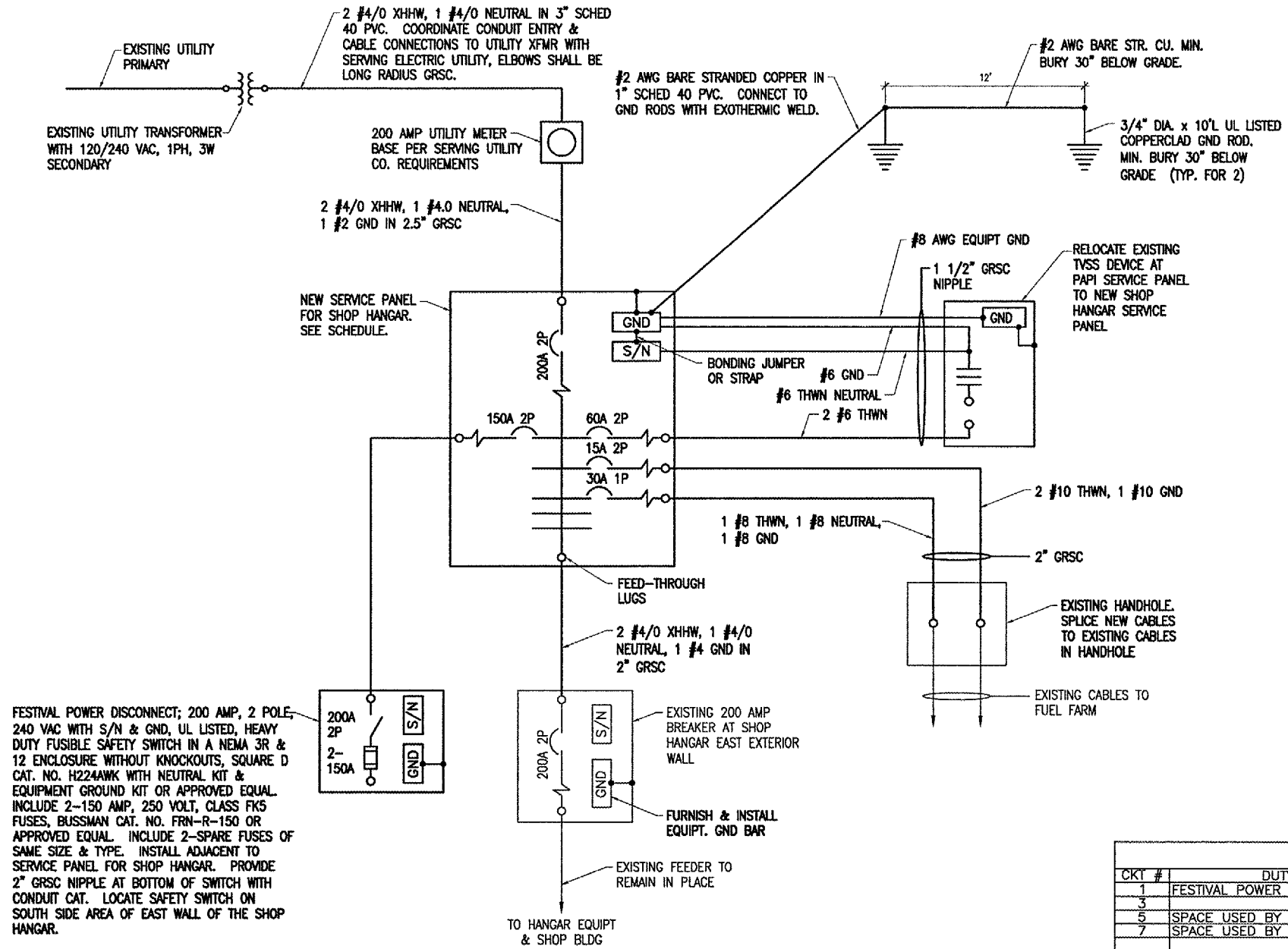
DIXON MUNICIPAL AIRPORT
CHARLES R. WALGREEN FIELD

CONSTRUCT REPLACEMENT
AIRFIELD ELECTRICAL VAULT

AIP PROJECT NO. 3-17-0036-B8
IDA PROJECT NO. C73-3548

NOTES

- ALL WORK AND/OR POWER OUTAGES SHALL BE COORDINATED WITH THE AIRPORT MANAGER.
- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (NEC MOST CURRENT ISSUE IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING, (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED.
- ALL EQUIPMENT SHOWN IS NEW UNLESS NOTED OTHERWISE, OR LABELED AS "EXISTING".
- COORDINATE ELECTRIC SERVICE WORK WITH THE SERVING ELECTRIC UTILITY COMPANY:
COMMONWEALTH EDISON COMPANY
ATTN. MR. MARK APPLEQUIST
919 WEST FIRST ST.
DIXON, IL 61021
PHONE 815-284-5871
FAX 815-284-5840
- FURNISH & INSTALL A WEATHERPROOF WARNING LABEL FOR EACH METER SOCKET, PANELBOARD, LOAD CENTER, DISCONNECT & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "FLASH PROTECTION".
- ALL CONDUCTOR/WIRING SHALL BE COPPER.
- 3/C #4/0 XHHW IN 3" SCHED 40 PVC FROM UTILITY TRANSFORMER TO UTILITY METER WILL BE PAID FOR UNDER ITEM AR800990 POWER CABLES IN DUCT PER L.F. ALL OTHER WORK SHOWN ON THIS SHEET WILL BE PAID FOR UNDER ITEM AR109924 REPLACE ELECTRIC SERVICES PER L.S.



FESTIVAL POWER DISCONNECT; 200 AMP, 2 POLE, 240 VAC WITH S/N & GND, UL LISTED, HEAVY DUTY FUSIBLE SAFETY SWITCH IN A NEMA 3R & 12 ENCLOSURE WITHOUT KNOCKOUTS, SQUARE D CAT. NO. H224AWK WITH NEUTRAL KIT & EQUIPMENT GROUND KIT OR APPROVED EQUAL. INCLUDE 2-150 AMP, 250 VOLT, CLASS FK5 FUSES, BUSSMAN CAT. NO. FRN-R-150 OR APPROVED EQUAL. INCLUDE 2-SPARE FUSES OF SAME SIZE & TYPE. INSTALL ADJACENT TO SERVICE PANEL FOR SHOP HANGAR. PROVIDE 2" GRSC NIPPLE AT BOTTOM OF SWITCH WITH CONDUIT CAT. LOCATE SAFETY SWITCH ON SOUTH SIDE AREA OF EAST WALL OF THE SHOP HANGAR.

NEW ELECTRICAL ONE-LINE DIAGRAM FOR SHOP HANGAR

SERVICE PANEL FOR SHOP HANGAR							
CKT #	DUTY	SIZE		SIZE	DUTY	CKT #	
1	FESTIVAL POWER	150A, 2P		60A, 2P	TVSS DEVICE	2	
3				15A, 2P	GAS PUMP AT FUEL FARM	6	
5	SPACE USED BY 150A BKR						8
7	SPACE USED BY 150A BKR						10
							12
					30A, 1P	GAS PUMP AT FUEL FARM	14
					20A, 1P	SPARE	16

225 AMP, 120/240 VAC, 1 PHASE, 3 WIRE, 42 CIRCUIT PANELBOARD WITH 200 AMP, 2 POLE MAIN BREAKER WITH 22,000 AIC AT 240 VAC & FEED THROUGH LUGS IN A NEMA 3R & 12 ENCLOSURE, WITH HINGED COVER, UL LISTED SUITABLE FOR SERVICE ENTRANCE. INCLUDE SEPARATE GROUND BAR KIT. ALL BRANCH BREAKERS SHALL BE BOLT-ON TYPE WITH 22,000 AIC AT 120/240 VAC. PANELBOARD SHALL BE SQUARE D CAT. NO. NQOD42L225CUTF WITH NQODQB MAIN BREAKER KIT & QDL22200 MAIN BREAKER IN NH56WP ENCLOSURE OR APPROVED EQUAL.

- NOTES
- PANELBOARD BUSSES SHALL BE COPPER. NEUTRAL BUS SHALL BE COPPER. EQUIPMENT GROUND BAR SHALL BE COPPER.
 - INCLUDE PHENOLIC ENGRAVED LEGEND PLATE FOR MAIN BREAKER LABELED "SERVICE DISCONNECT".
 - INCLUDE PHENOLIC ENGRAVED LEGEND PLATE LABELED "SHOP HANGAR SERVICE PANEL, 120/240 VAC, 1 PHASE, 3 WIRE".

No.	Drawing Issue Description	Date	By

Date
JUNE 23, 2006

Sheet Title

NEW ELECTRICAL ONE LINE DIAGRAM FOR SHOP HANGAR

843-05C8010
Project Number
KNL 06/14/06
Layout By Date
KNL 06/14/06
Designed By Date
RMH 06/23/06
Reviewed By Date
MV
Sheet No. E17
SHEET 31 OF 36



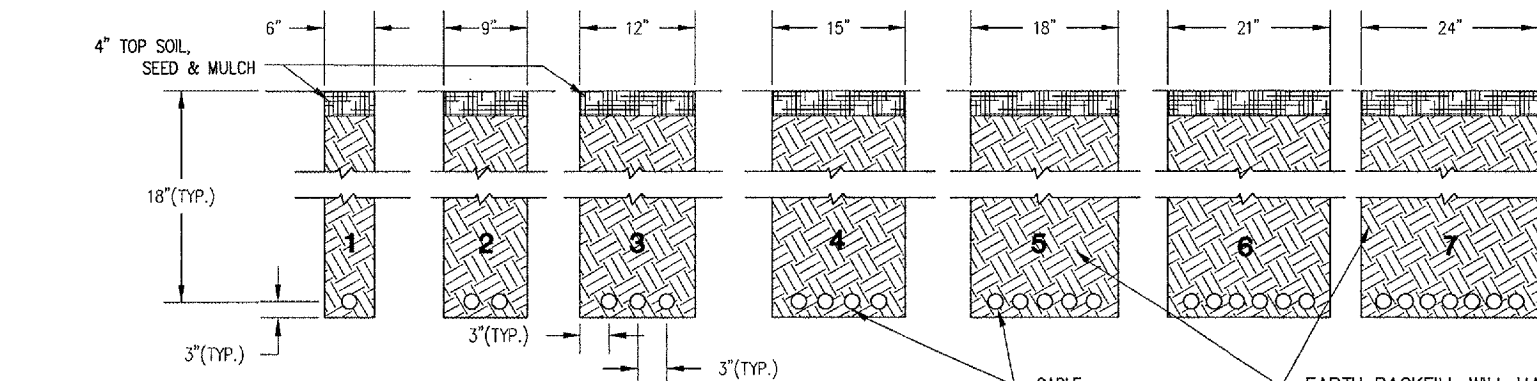
CITY OF DIXON, ILLINOIS

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DIXON MUNICIPAL AIRPORT
CHARLES R. WALGREEN FIELD

CONSTRUCT REPLACEMENT
AIRFIELD ELECTRICAL VAULT

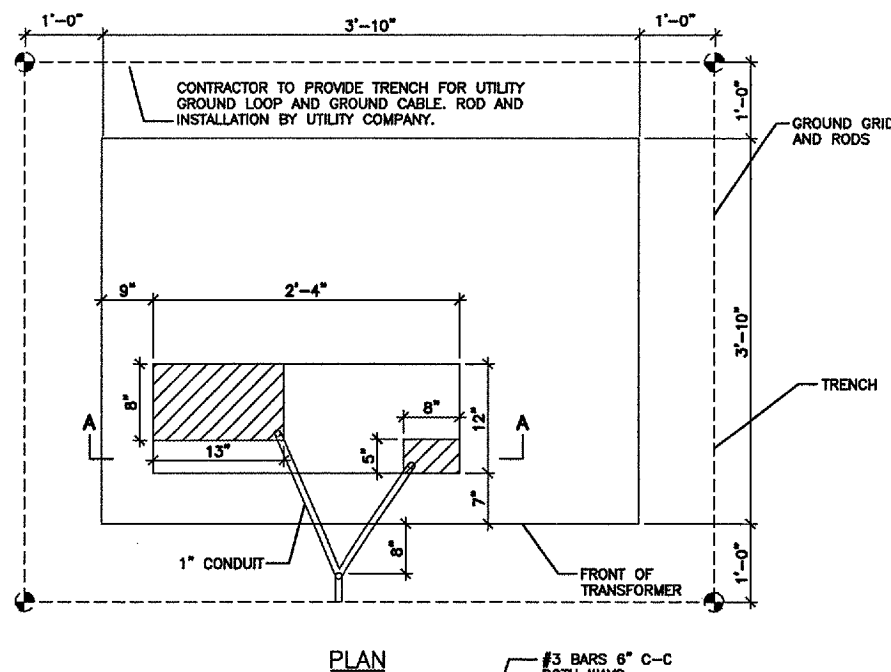
AIP PROJECT NO. 3-17-0036-B8
IDA PROJECT NO. C73-3548



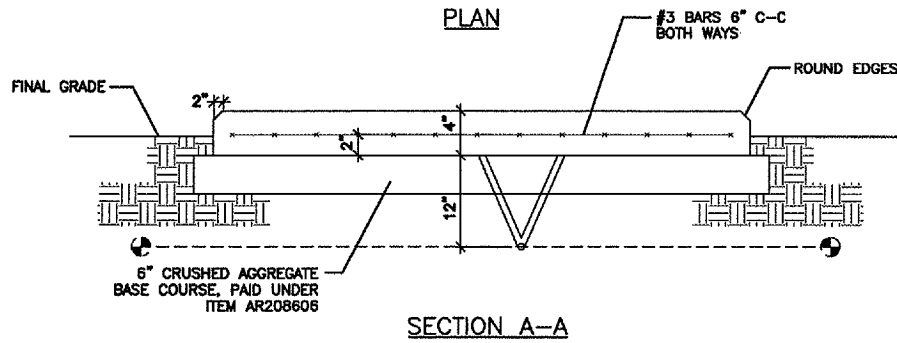
NOTES:

1. DETAIL NUMBERS INDICATE NO. OF CABLES.
2. TRENCHES WITH MORE THAN SEVEN CABLES SHALL BE INCREASED 3" IN WIDTH FOR EACH ADDITIONAL CABLE; IF SPECIFIED ON PLANS TWO PARALLEL TRENCHES MAY BE CONSTRUCTED.
3. DEPTH OF TRENCHES SHALL BE AS SHOWN ABOVE UNLESS OTHERWISE SPECIFIED ON THE PLANS.
4. ALL DISTURBED SURFACES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST IS INCIDENTAL TO TRENCH. RETURFING MATERIALS AND RATES MAY BE SHOWN ON THE PLANS.

CABLE TRENCHES
(NOT TO SCALE)



PLAN

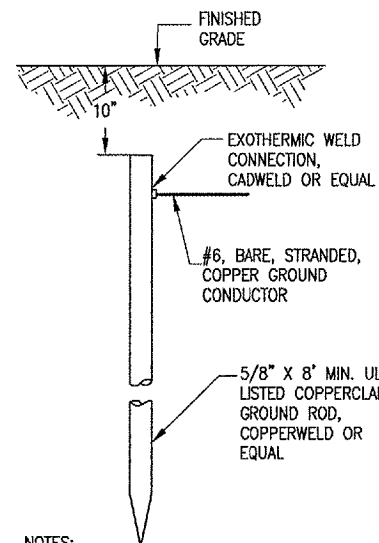


SECTION A-A

NOTES:

1. ALL WORK EXCEPT AGGREGATE BASE SHALL BE PAID UNDER ITEM AR110600. AGGREGATE BASE PAID UNDER ITEM AR208606.
2. CONCRETE PAD MAY BE CAST IN PLACE OR PRECAST.
3. SEE SPECIAL PROVISIONS.

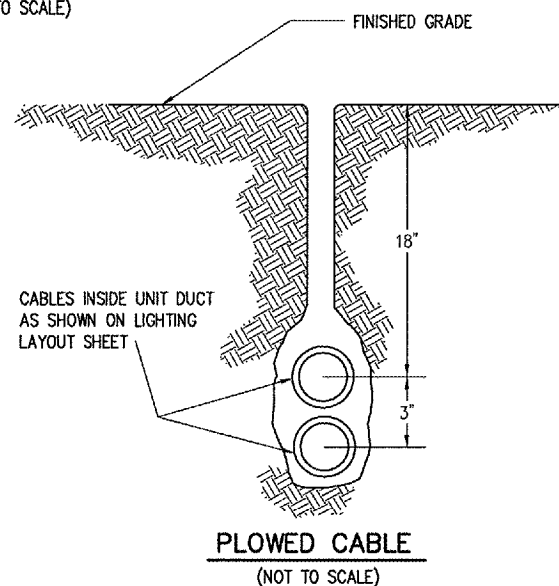
CONCRETE UTILITY PAD
AR110600



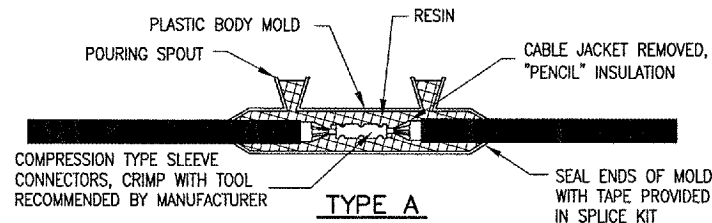
NOTES:

1. TYPE AND MINIMUM NUMBER OF GROUND RODS SHALL BE AS SPECIFIED ON THE PLAN.
2. THE RESISTANCE TO GROUND OF THE GROUNDING SYSTEM SHALL NOT EXCEED 25 OHMS.
3. COST OF GROUND RODS IS INCIDENTAL TO THE ASSOCIATED ITEMS REQUIRING GROUNDING UNLESS OTHERWISE SPECIFIED.
4. GROUND RODS SHALL NOT BE SPACED LESS THAN ONE ROD LENGTH APART.

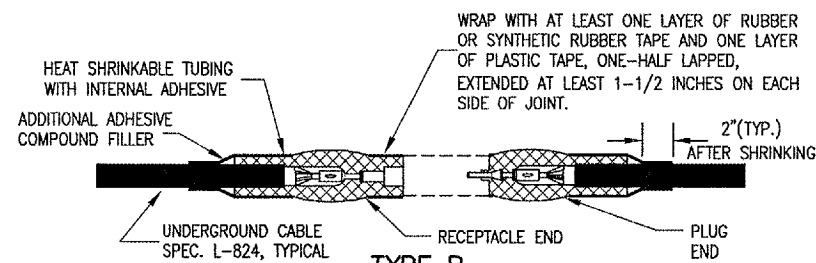
GROUND ROD
(NOT TO SCALE)



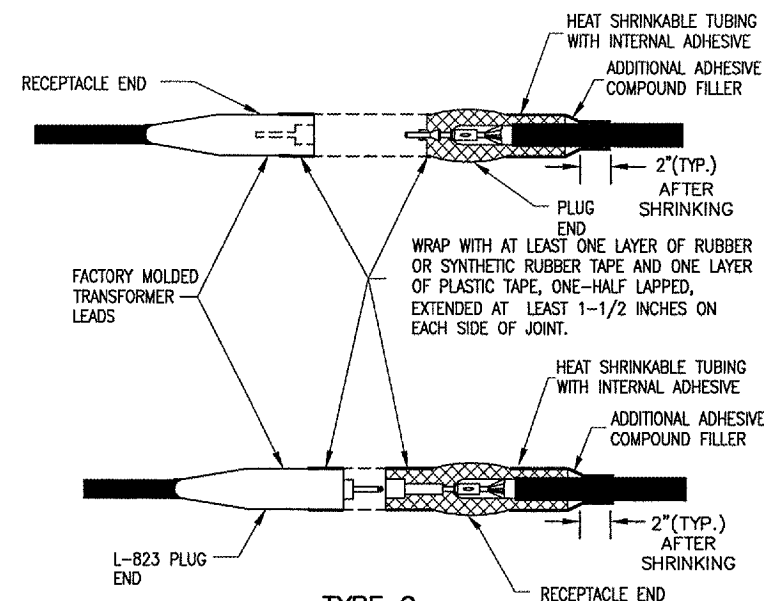
PLOWED CABLE
(NOT TO SCALE)



TYPE A
FOR SPLICES IN HOMERUNS FOR EXTENSIONS TO EXISTING CABLES ONLY



TYPE B
FOR SPLICES AT JUNCTION OF HOMERUN WITH LOOP CIRCUIT



TYPE C
FOR SPLICES AT RUNWAY LIGHTS

NOTES:

SEE LIGHTING LAYOUT SHEET(S) FOR SPLICE TYPE.

INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.

CABLE SPLICES
(NOT TO SCALE)

No.	Drawing Issue	Description	Date	By

Date
JUNE 23, 2006
Sheet Title

ELECTRICAL DETAILS
SHEET 2

843-05C8010
Project Number

KNL	05/22/06
Layout By	Date
KNL	05/22/06
Designed By	Date
RMH	06/23/06
Reviewed By	Date
MV	---
Drawn By	---

GENERAL

1. THE ELECTRICAL INSTALLATION, AS A MINIMUM, SHALL MEET THE NATIONAL ELECTRICAL CODE (LATEST RECOGNIZED VERSION) AND LOCAL REGULATIONS.
2. THE CONTRACTOR SHALL ASCERTAIN THAT ALL LIGHTING SYSTEM COMPONENTS FURNISHED BY HIM, INCLUDING FAA APPROVED EQUIPMENT, ARE COMPATIBLE IN ALL RESPECTS WITH EACH OTHER AND THE REMAINDER OF THE NEW/EXISTING SYSTEM. ANY NONCOMPATIBLE COMPONENTS FURNISHED BY THIS CONTRACTOR SHALL BE REPLACED BY HIM AT NO ADDITIONAL COST TO THE AIRPORT SPONSOR WITH A SIMILAR UNIT, APPROVED BY THE ENGINEER (DIFFERENT MODEL OR DIFFERENT MANUFACTURER) THAT IS COMPATIBLE WITH THE REMAINDER OF THE AIRPORT LIGHTING SYSTEM.
3. IN CASE THE CONTRACTOR ELECTS TO FURNISH AND INSTALL AIRPORT LIGHTING EQUIPMENT REQUIRING ADDITIONAL WIRING, TRANSFORMERS, ADAPTORS, MOUNTINGS, ETC., TO THOSE SHOWN ON THE DRAWINGS AND/OR LISTED IN THE SPECIFICATION, ANY COST FOR THESE ITEMS SHALL BE INCIDENTAL TO THE EQUIPMENT COST.
4. THE CONTRACTOR INSTALLED EQUIPMENT (INCLUDING FAA APPROVED) SHALL NOT GENERATE ANY ELECTROMAGNETIC INTERFERENCE IN THE EXISTING AND/OR NEW COMMUNICATIONS, WEATHER, AIR NAVIGATION, AND AIR TRAFFIC CONTROL EQUIPMENT. ANY EQUIPMENT GENERATING SUCH INTERFERENCE SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST WITH THE EQUIPMENT MEETING THE APPLICABLE SPECIFICATIONS AND NOT GENERATING ANY INTERFERENCE.
5. WHEN A SPECIFIC TYPE, STYLE, CLASS, ETC. OF FAA APPROVED EQUIPMENT IS SPECIFIED ONLY THAT TYPE, STYLE, CLASS, WILL BE ACCEPTABLE, EVEN THOUGH EQUIPMENT OF OTHER TYPES STYLES, CLASSES, ETC. MAY BE APPROVED.
6. ANY AND ALL INSTRUCTIONS FROM THE ENGINEER TO THE CONTRACTOR REGARDING CHANGES IN OR DEVIATIONS FROM THE PLANS AND SPECIFICATIONS SHALL BE IN WRITING WITH COPIES SENT TO THE AIRPORT SPONSOR AND THE FAA FIELD OFFICE (ADO/AFO). THE CONTRACTOR SHALL NOT ACCEPT ANY VERBAL INSTRUCTIONS FROM THE RESIDENT ENGINEER REGARDING ANY CHANGES FROM THE PLANS AND SPECIFICATIONS.
7. A MINIMUM OF THREE COPIES OF THE INSTRUCTION BOOK SHALL BE SUPPLIED WITH EACH DIFFERENT TYPE OF EQUIPMENT. THE BOOKS DESCRIBING A MORE SOPHISTICATED TYPE OF EQUIPMENT, SUCH AS REGULATORS, PAPI, REIL, ETC. AS A MINIMUM SHALL CONTAIN THE FOLLOWING:
 - A. A DETAILED DESCRIPTION OF THE OVERALL EQUIPMENT AND ITS INDIVIDUAL COMPONENTS.
 - B. THEORY OF OPERATION INCLUDING THE FUNCTION OF EACH COMPONENT.
 - C. INSTALLATION INSTRUCTIONS.
 - D. START-UP INSTRUCTIONS.
 - E. PREVENTATIVE MAINTENANCE REQUIREMENTS.
 - F. CHART FOR TROUBLE-SHOOTING.
 - G. COMPLETE POWER AND CONTROL DETAILED WIRING DIAGRAM(S), SHOWING EACH CONDUCTOR/CONNECTION/COMPONENT - "BLACK" BOXES ARE NOT ACCEPTABLE. THE DIAGRAM OF THE NARRATIVE SHALL SHOW VOLTAGE/CURRENTS/WAVE SHAPES AT STRATEGIC LOCATIONS TO BE USED WHEN CHECKING AND/OR TROUBLE-SHOOTING THE EQUIPMENT. WHEN THE EQUIPMENT HAS SEVERAL MODES OF OPERATION, SUCH AS SEVERAL BRIGHTNESS STEPS, THESE PARAMETERS SHALL BE INDICATED FOR ALL DIFFERENT MODES.
 - H. PARTS LIST WHICH WILL INCLUDE ALL MAJOR AND MINOR COMPONENTS SUCH AS RESISTORS, DIODES, ETC. IT SHALL INCLUDE A COMPLETE NOMENCLATURE OF EACH COMPONENT AND, IF APPLICABLE, THE NAME OF ITS MANUFACTURER AND THE CATALOG NUMBER.
 - I. SAFETY INSTRUCTIONS.

POWER AND CONTROL

1. STENCIL ALL ELECTRICAL EQUIPMENT TO IDENTIFY FUNCTION, CIRCUIT VOLTAGE AND PHASE. WHERE THE EQUIPMENT CONTAINS FUSES, ALSO STENCIL THE FUSE OR FUSE LINK AMPERE RATING. WHERE THE EQUIPMENT DOES NOT HAVE SUFFICIENT STENCILING AREA, THE STENCILING SHALL BE DONE ON THE WALL NEXT TO THE UNIT. THE LETTERS SHALL BE ONE INCH HIGH AND PAINTED IN WHITE OR BLACK TO PROVIDE THE HIGHEST CONTRAST WITH THE BACKGROUND.
2. COLOR CODE ALL PHASE WIRING BY THE USE OF COLORED WIRE INSULATION AND/OR COLORED TAPE. WHERE TAPE IS USED, THE WIRE INSULATION SHALL BE BLACK, BLACK AND RED SHALL BE USED FOR SINGLE-PHASE, THREE WIRE SYSTEMS AND BLACK, RED AND BLUE SHALL BE USED FOR THREE-PHASE SYSTEMS. NEUTRAL CONDUCTORS, SIZE NO. 6 AWG OR SMALLER, SHALL BE IDENTIFIED BY A CONTINUOUS WHITE OR NATURAL GRAY OUTER FINISH ALONG ITS ENTIRE LENGTH. NEUTRAL CONDUCTORS LARGER THAN NO. 6 AWG SHALL BE IDENTIFIED EITHER BY A CONTINUOUS WHITE OR NATURAL GRAY OUTER FINISH ALONG ITS ENTIRE LENGTH OR BY THE USE OF WHITE TAPE AT ITS TERMINATIONS AND INSIDE ACCESSIBLE WIREWAYS.
3. ALL BRANCH CIRCUIT CONDUCTORS CONNECTED TO A PARTICULAR PHASE SHALL BE IDENTIFIED WITH THE SAME COLOR. THE COLOR CODING SHALL BE EXTENDED TO THE POINT OF UTILIZATION.
4. IN CONTROL WIRING THE SAME COLOR SHALL BE USED THROUGHOUT THE SYSTEM FOR THE SAME FUNCTION, SUCH AS 10%, 30%, 100% BRIGHTNESS CONTROL, ETC.
5. LOW VOLTAGE (600 V.) AND HIGH VOLTAGE (5000 V.) CONDUCTORS SHALL BE INSTALLED IN SEPARATE WIREWAYS.
6. NEATLY LACE WIRING IN DISTRIBUTION PANELS, WIREWAYS, SWITCHES AND JUNCTION/PULL BOXES.
7. THE MINIMUM SIZE OF PULL/JUNCTION BOXES, REGARDLESS OF THE QUANTITY AND SIZE OF THE CONDUCTORS SHOWN, SHALL BE AS FOLLOWS:
 - A. IN STRAIGHT PULLS THE LENGTH OF THE BOX SHALL NOT BE LESS THAN EIGHT TIMES THE TRADE DIAMETER OF THE LARGER CONDUIT. THE TOTAL AREA (INCLUDING THE CONDUIT CROSS-SECTIONAL AREA) OF A BOX END SHALL BE AT LEAST 3 TIMES GREATER THAN THE TOTAL TRADE CROSS-SECTIONAL AREA OF THE CONDUITS TERMINATING AT THE END.
 - B. IN ANGLE PULLS OR 'U' PULLS THE DISTANCE BETWEEN EACH CONDUIT ENTRY INSIDE THE BOX AND THE OPPOSITE WALL OF THE BOX SHALL NOT BE LESS THAN SIX (6) TIMES THE TRADE DIAMETER OF THE LARGEST CONDUIT. THIS DISTANCE SHALL BE INCREASED FOR ADDITIONAL ENTRIES BY THE AMOUNT OF THE SUM OF THE DIAMETERS OF ALL OTHER CONDUIT ENTRIES ON THE SAME WALL AS THE BOX. THE DISTANCE BETWEEN CONDUIT ENTRIES ENCLOSING THE SAME CONDUCTOR SHALL NOT BE LESS THAN SIX TIMES THE TRADE DIAMETER OF THE LARGEST CONDUIT.
8. A RUN OF CONDUIT BETWEEN TERMINATIONS AT EQUIPMENT ENCLOSURES, SQUARE DUCTS AND PULL/JUNCTION BOXES, SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL), INCLUDING THOSE BENDS LOCATED IMMEDIATELY AT THE TERMINATIONS, CAST, CONDUIT TYPE OUTLETS SHALL NOT BE TREATED AS PULL/JUNCTION BOXES.
9. EQUIPMENT CABINETS SHALL NOT BE USED AS PULL/JUNCTION BOXES. ONLY WIRING TERMINATING AT THE EQUIPMENT SHALL BE BROUGHT INTO THESE ENCLOSURES.
10. SPLICES AND JUNCTION POINTS SHALL BE PERMITTED ONLY IN JUNCTION BOXES, DUCTS EQUIPPED WITH REMOVABLE COVERS, AND AT EASILY ACCESSIBLE LOCATIONS.
11. CIRCUIT BREAKERS IN POWER DISTRIBUTION PANEL(S) SHALL BE THERMAL-MAGNETIC MOLDED CASE, PERMANENT TRIP WITH 100 AMPERE, MINIMUM FRAME.

12. DUAL LUGS SHALL BE USED WHERE TWO (2) WIRES, SIZE NO. 6 OR LARGER, ARE TO BE CONNECTED TO THE SAME TERMINAL.
13. ALL WALL MOUNTED EQUIPMENT ENCLOSURES SHALL BE MOUNTED ON WOODEN MOUNTING BOARDS.
14. WOODEN EQUIPMENT MOUNTING BOARDS SHALL BE PLYWOOD, EXTERIOR TYPE, 3/4 INCH, MINIMUM, THICKNESS, BOTH SIDES PAINTED WITH ONE COAT OF PRIMER AND TWO COATS OF GRAY OIL-BASED PAINT.
15. RIGID STEEL CONDUIT SHALL BE USED THROUGHOUT THE INSTALLATION UNLESS OTHERWISE SPECIFIED. THE MINIMUM TRADE SIZE SHALL BE 3/4 INCH.
16. ALL RIGID CONDUIT SHALL BE TERMINATED AT CONSTANT CURRENT REGULATORS WITH A SECTION (10" MINIMUM) OF FLEXIBLE CONDUIT.
17. UNLESS OTHERWISE SHOWN, ALL EXPOSED CONDUITS SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES WITH THE LINES OF THE STRUCTURE.
18. ALL STEEL CONDUITS, FITTINGS, NUTS, BOLTS, ETC. SHALL BE GALVANIZED.
19. USE CONDUIT BUSHINGS AT EACH CONDUIT TERMINATION. WHERE NO. 4 AWG OR LARGER UNDERGROUND WIRE IS INSTALLED, USE INSULATED BUSHINGS.
20. USE DOUBLE LOCK NUTS AT EACH CONDUIT TERMINATION.
21. WRAP ALL PRIMARY AND SECONDARY POWER TRANSFORMER CONNECTIONS WITH SUFFICIENT LAYERS OF INSULATING TAPE AND COVER WITH INSULATING VARNISH FOR FULL VALUE OF CABLE INSULATION VOLTAGE.
22. UNLESS OTHERWISE NOTED, ALL INDOOR SINGLE CONDUCTOR CONTROL WIRING SHALL BE NO. 12 AWG. MINIMUM.
23. THE FOLLOWING SHALL APPLY TO RELAY/CONTACTOR PANELS/ENCLOSURES:
 - A. ALL COMPONENTS SHALL BE MOUNTED IN DUST PROOF ENCLOSURE(S) WITH VERTICALLY HINGED COVERS.
 - B. THE ENCLOSURE(S) SHALL HAVE AMPLE SPACE FOR THE CIRCUIT COMPONENTS, TERMINAL BLOCKS AND INCOMING AND INTERNAL WIRING.
 - C. ALL CONTROL CONDUCTOR TERMINATIONS SHALL BE OF THE OPEN-EYE CONNECTOR/SCREW TYPE. SOLDERED CLOSED-EYE TERMINATIONS, OR TERMINATIONS WITHOUT CONNECTORS ARE NOT ACCEPTABLE.
 - D. WHEN THE ENCLOSURE COVER IS OPENED, ALL CIRCUIT COMPONENTS, WIRING AND TERMINALS SHALL BE EXPOSED AND ACCESSIBLE WITHOUT REMOVAL OF ANY PANELS, COVERS, ETC., EXCEPT THOSE COVERING HIGH VOLTAGE COMPONENTS.
 - E. ACCESS TO, OR REMOVAL OF A CIRCUIT COMPONENT OR TERMINAL BLOCK WILL NOT REQUIRE THE REMOVAL OF ANY OTHER CIRCUIT COMPONENT OR TERMINAL BLOCK.
 - F. EACH CIRCUIT COMPONENT SHALL BE CLEARLY IDENTIFIED INDICATING ITS CORRESPONDING NUMBER SHOWN ON THE DRAWINGS AND ITS FUNCTION.
 - G. A COMPLETE WIRING DIAGRAM (NOT A SCHEMATIC DIAGRAM) SHALL BE MOUNTED ON THE INSIDE OF THE COVER. THE DIAGRAM SHALL REPRESENT EACH CONDUCTOR BY A SEPARATE LINE.
 - H. THE DIAGRAM SHALL IDENTIFY EACH CIRCUIT COMPONENT AN NUMBERING AND COLOR OF EACH TERMINAL CONDUCTOR AND TERMINAL.
 - I. ALL WIRING SHALL BE NEATLY TRAINED AND LACED.
 - J. MINIMUM WIRE SIZE SHALL BE NO. 12 AWG.

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CONSTRUCT REPLACEMENT
AIRFIELD ELECTRICAL VAULT

AIP PROJECT NO. 3-17-0036-B8
IDA PROJECT NO. C73-3548

No.	Drawing Issue	Description	Date	By

Date
JUNE 23, 2006
Sheet Title

**ELECTRICAL NOTES
SHEET 1**

843-05C8010
Project Number
KNL 03/02/05
Layout By Date
KNL 03/02/05
Designed By Date
RMH 06/23/06
Reviewed By Date
MV
Drawn By

E20

