

PRELIMINARY
CONSTRUCTION PLANS FOR
VERMILION COUNTY AIRPORT
VERMILION COUNTY AIRPORT AUTHORITY
DANVILLE, ILLINOIS

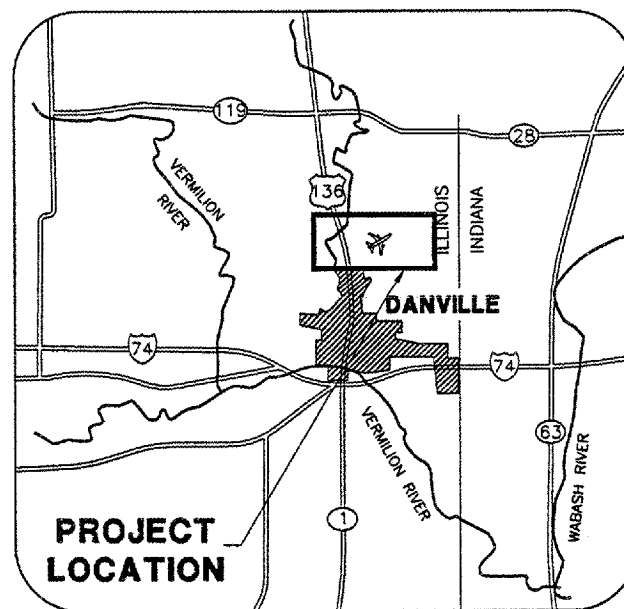
ILLINOIS PROJECT D-3684
AIP PROJECT 3-17-0032-B11

**RELOCATE AIRFIELD ELECTRICAL VAULT;
REMOVE ELECTRICAL EQUIPMENT
FROM TERMINAL BUILDING**

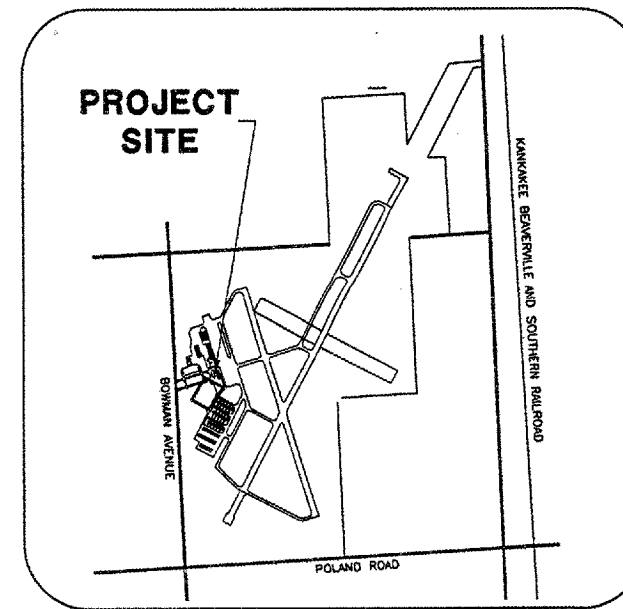
SUMMARY OF QUANTITIES			
Item No.	Item Description	Unit	Quantity
AR800250	2-1/C #8 5KV UG Cable in UD	LF	8140
AR800082	2-1/C #4 600V XLP-USE, 1-#8 GND in UD	LF	6567
AR800278	4-1/C #4 600V XLP-USE, 1-#8 GND in UD	LF	160
AR109100	Construct Electrical Vault	LS	1
AR109200	Install Electrical Equipment	LS	1
AR109331	15KW Regulator, Style 1	EA	4
AR109362	30KW Regulator, Style 1	EA	1
AR109902	Remove Electrical Equipment	LS	1
AR110504	4-Way Concrete Encased Duct	LF	196
AR110900	Remove Electrical Duct	LF	20
AR125565	Splice Can	EA	10
AR501512	12" PCC Pavement	SY	240
AR501530	PCC Test Batch	EA	1
AR754210	Concrete Curb	LF	75
AR401900	Remove Bituminous Pavement	SY	310

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JUNE 22, 2007



LOCATION MAP



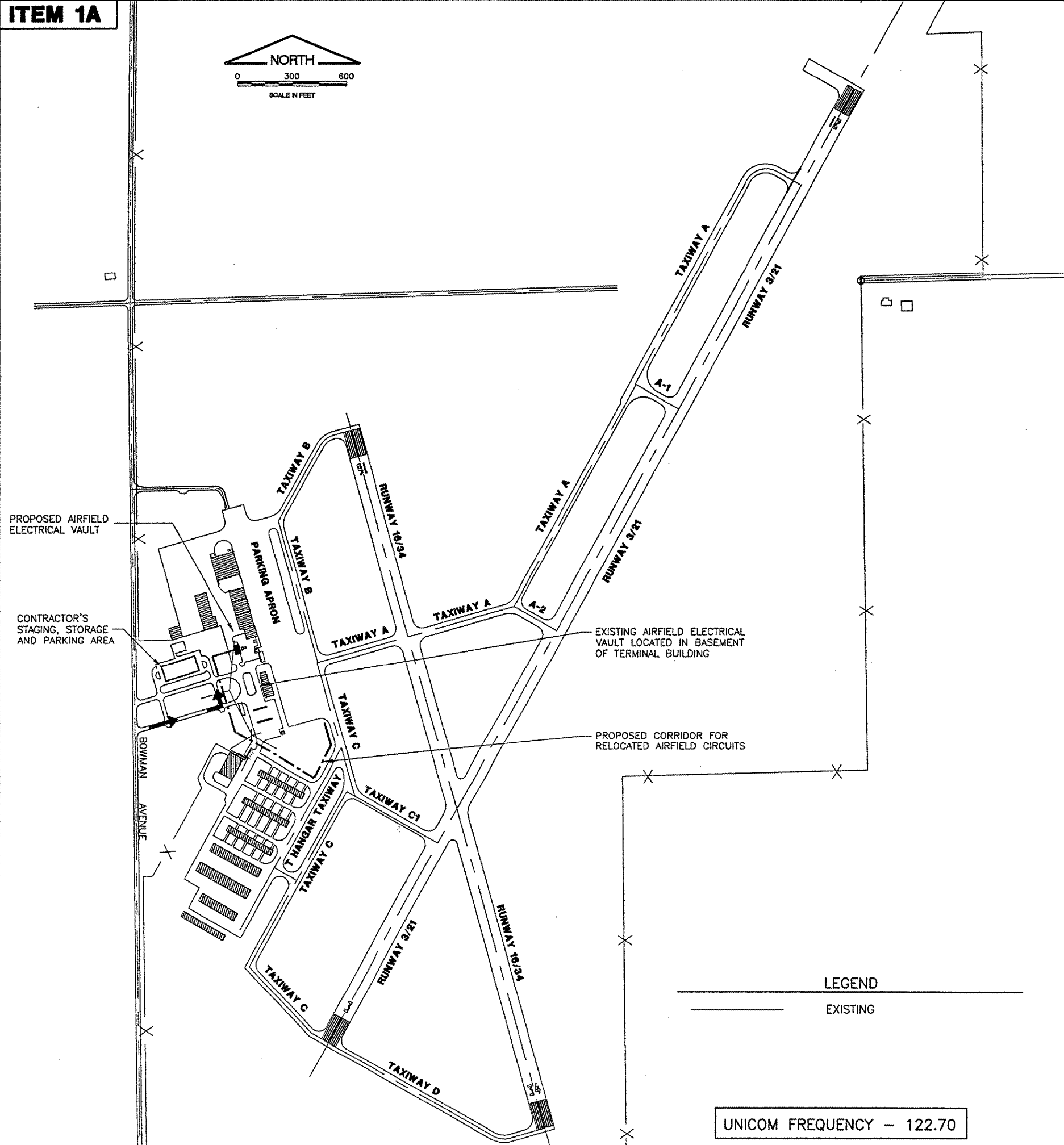
SITE PLAN

LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS
CHARLES E. TAYLOR
062-044080
6-25-07
E.T. 11.30.07

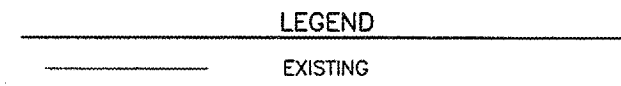
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TOWNSHIP: 20 NORTH
RANGE: 11 WEST
SECTION: 15
COUNTY: VERMILION
CIVIL TOWNSHIP:

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CONSULTING ENGINEERS
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SUBMITTED BY: *[Signature]*
DATE: 6-25-07
CMT JOB NUMBER 07042-02-00



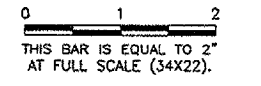
UNICOM FREQUENCY - 122.70



GENERAL NOTES

1. ALL RUNWAYS, TAXIWAYS, AND APRONS SHALL BE KEPT OPEN TO AIRCRAFT TRAFFIC DURING CONSTRUCTION EXCEPT AS NOTED IN THE CONSTRUCTION ACTIVITY PLAN.
2. ALL CONSTRUCTION TRAFFIC OPERATING ON OR CROSSING RUNWAYS, TAXIWAYS, AND APRONS OPEN TO AIRCRAFT SHALL BE UNDER CONTROL OF A FLAGMAN MONITORING THE UNICOM FREQUENCY 122.70 AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE HIS OWN RADIOS.
3. 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 MANAGER.
4. THE CONTRACTOR WILL BE PERMITTED TO STORE EQUIPMENT AND MATERIALS AT THE LOCATIONS SHOWN.
5. ELECTRICAL EQUIPMENT THAT HAS BEEN REMOVED, BROKEN CONCRETE AND CONSTRUCTION DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR OFF AIRPORT PROPERTY.
6. VEHICLES AND EQUIPMENT SHALL NOT BE ALLOWED WITHIN AREAS 59' FROM THE CENTERLINE OF ACTIVE TAXIWAYS OR 200' FROM THE CENTERLINE OF ACTIVE RUNWAYS.
7. ALL PAVEMENTS, DRIVES, OR ANY OTHER AREAS UTILIZED BY THE CONTRACTOR FOR HAUL ROADS OR STORAGE AREAS SHALL BE MAINTAINED AND REPAIRED IN KIND BY THE CONTRACTOR TO THE SATISFACTION OF THE AIRPORT. NO ADDITIONAL COMPENSATION SHALL BE MADE TO THE CONTRACTOR FOR THIS WORK.
8. EXISTING TURF AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY HIM AT HIS EXPENSE TO THE SATISFACTION OF THE AIRPORT.
9. THE CONTRACTOR SHALL CONTINUOUSLY CLEAN ALL CONSTRUCTION AREAS WHICH WILL BE OPENED TO AUTO OR AIR TRAFFIC.
10. 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 SO AS TO AVOID ANY DAMAGE. ANY UTILITY, INCLUDING AIRFIELD ELECTRICAL CABLE AND LIGHTS, DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY HIM AT HIS OWN EXPENSE IN A MANNER WHICH IS SATISFACTORY TO THE ENGINEER, THE AIRPORT AND TO THE OWNER OF THE UTILITY. ANY REPAIRS THAT MUST BE MADE BY THE OWNER OF THE UTILITY SHALL HAVE THE COST REIMBURSED TO THE UTILITY BY THE CONTRACTOR. AIRFIELD LIGHTING CABLES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY A QUALIFIED ELECTRICIAN WITH THE COSTS TO BE BORNE BY THE CONTRACTOR.
11. THE CONTRACTOR SHALL MAINTAIN A SECURE AIRFIELD PERIMETER, TEMPORARY THROUGHOUT THE DURATION OF THE PROJECT.
12. CONTRACTOR'S ACCESS SHALL BE AS FOLLOWS:
 - A. THE CONTRACTOR'S ACCESS TO THE WORK SHALL BE AS SHOWN IN THE PLANS.
 - B. THE CONTRACTOR SHALL COMPLETE A TEN YEAR CRIMINAL AND EMPLOYMENT BACKGROUND CHECK AND A SECURITY FORM FOR THE SUPERINTENDENTS AND SUPERVISING FOREMEN HE PROPOSES TO USE ON THE AIRPORT. THESE FORMS SHALL BE COMPLETED PRIOR TO THAT PERSON BEING ALLOWED ON THE AIRFIELD. A LIST OF PERSONNEL AUTHORIZED TO WORK ON THE AIRFIELD SHALL BE PROVIDED TO THE RESIDENT ENGINEER BY THE CONTRACTOR.
 - C. THE CONTRACTOR SHALL USE AN EXISTING GATE(S) FOR ACCESS TO THE AIRFIELD. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A HEAVY-DUTY PADLOCK ON THE ACCESS GATE. HE SHALL PROVIDE KEYS FOR THIS PADLOCK TO THE RESIDENT ENGINEER AND THE MAINTENANCE SUPERVISOR. NO ADDITIONAL KEYS ARE TO BE DISTRIBUTED UNLESS AUTHORIZED BY THE RESIDENT ENGINEER.
 - D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE ACCESS GATE(S) CLOSED DURING WORK HOURS. IF THE CONTRACTOR CHOOSES TO LEAVE THE GATE(S) OPEN, THEN HE SHALL POST A COMPETENT SECURITY GUARD TO PREVENT UNAUTHORIZED ENTRIES. THE CONTRACTOR SHALL REPLACE ANY UNSATISFACTORY SECURITY GUARDS IF SO DIRECTED.
 - E. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND TEMPORARY EASEMENTS FOR THE ACCESS ROAD(S) SHOWN AND SHALL COMPLY WITH ALL TRAFFIC CONTROL SIGNAGE REQUIRED BY THE CITY, COUNTY, TOWNSHIP, OR I.D.O.T..
 - F. DURING ADVERSE WEATHER THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE WORK AT NO ADDITIONAL COST TO THE CONTRACT. NO EXTENSION OF CONTRACT TIME WILL BE CONSIDERED FOR DELAYS DUE TO LACK OF ADEQUATE ACCESS TO THE WORK SITE.
 - G. THE CONTRACTOR WILL CLOSE AND LOCK THE ACCESS GATE(S) UPON LEAVING THE SITE.
 - H. ALL COSTS RELATING TO CONTRACTOR'S ACCESS AND SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - I. THE CONTRACTOR SHALL STORE EQUIPMENT AND MATERIALS IN SUCH A WAY AS TO NOT VIOLATE AIRSPACE SURFACES, OR RUNWAY AND TAXIWAY OBJECT FREE OR SAFETY AREAS.
 - J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ACTIVE AIRFIELD PAVEMENTS WHICH ARE CROSSED BY HIS VEHICLES ACCESSING THE WORK OR DEPARTING THE WORK IMMEDIATELY FOLLOWING SAID VEHICLE.
13. COST OF TEMPORARY EDGE LIGHTING AND CABLING IN ORDER TO MAINTAIN AIRFIELD CIRCUITS WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
14. CONTRACTOR'S VEHICLES AND EQUIPMENT SHALL BE MARKED AND FLAGGED PER SECTION 50-10 OF THE SUPPLEMENTAL SPECIFICATIONS. MAXIMUM HEIGHT OF CONTRACTOR'S EQUIPMENT WILL BE 25'.

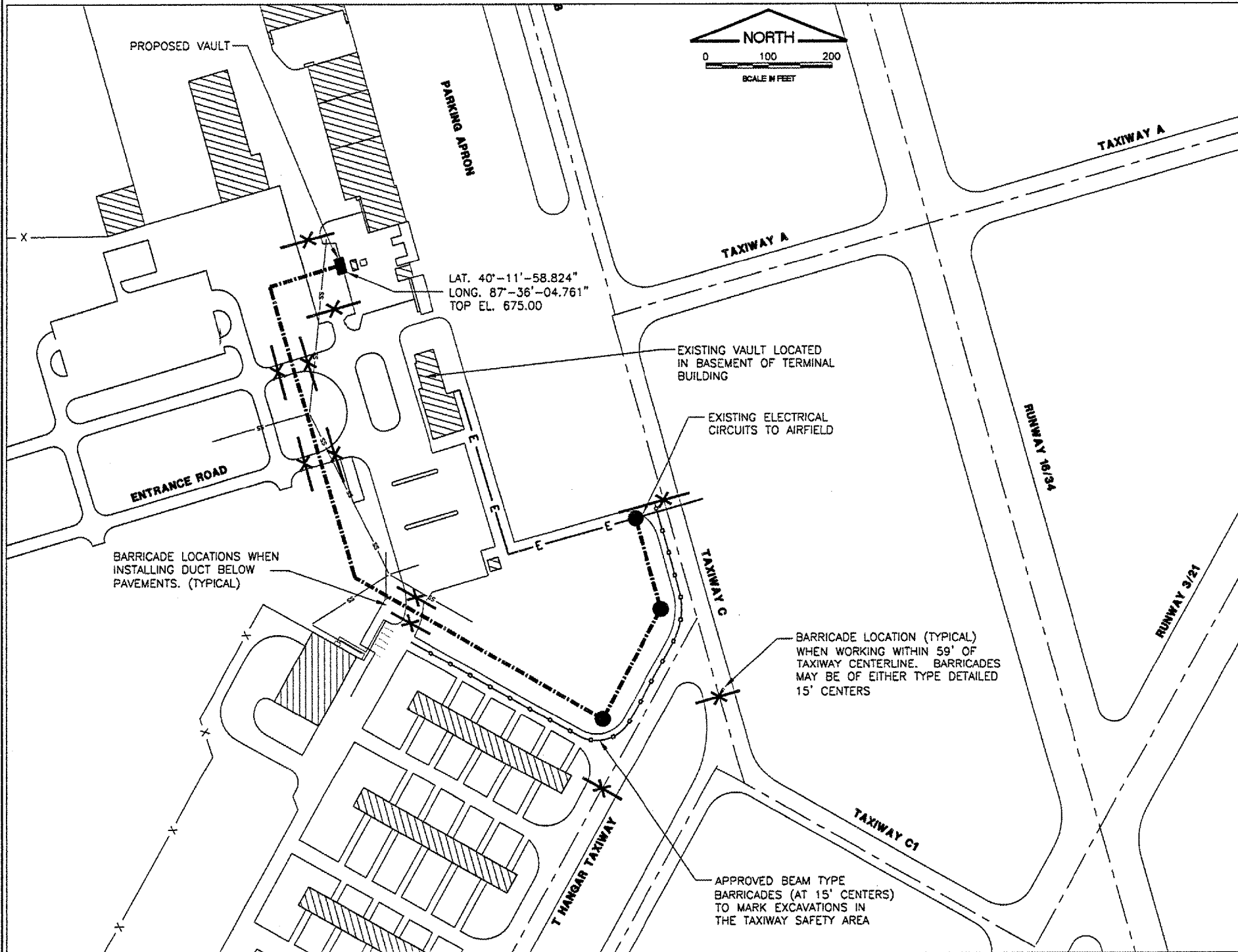
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VERMILION COUNTY AIRPORT
 DANVILLE, ILLINOIS
 RELOCATE AIRFIELD ELECTRICAL VAULT
 AIRPORT SITE PLAN

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ILLINOIS PROJECT DNV-3684	
A.I.P. PROJECT 3-17-0032-B11	
SHEET	2 OF 16 SHEETS



GENERAL

1. THE WORK WILL GENERALLY BE DIVIDED INTO THREE PHASES. PHASE 1 SHALL INCLUDE THE WORK NECESSARY TO CONSTRUCT THE NEW AIRFIELD ELECTRICAL VAULT AND DUCTS BELOW ROADWAYS. THIS WORK IS LOCATED OUTSIDE THE AOA AND SHOULD NOT IMPACT AIRFIELD OPERATIONS. PHASE 2 CONSISTS OF THE INSTALLATION OF DUCTS, CONDUIT, MANHOLES, SPLICE CANS AND UNDERGROUND CABLE INSIDE THE AOA. THE CRITICAL COMPONENTS OF THIS WORK INCLUDE THE LOCATING OF EXISTING CIRCUITS, DISABLING OF THESE CIRCUITS TO MAKE "SWITCH OVER" TO THE NEW VAULT AND WORK WITHIN 53' OF ACTIVE TAXIWAYS. PHASE 3 IS THE DEMOLITION OF THE EXISTING VAULT. THIS WORK IS LOCATED OUTSIDE THE AOA.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING THE AIRSPACE FOR THE CONSTRUCTION EQUIPMENT THAT IS TALLER THAN THAT SPECIFIED ON THE PLANS WITH THE FAA. THIS PROCESS MAY TAKE UP TO 12 WEEKS TO COMPLETE.
3. THE CONTRACTOR WILL NOT BE ALLOWED TO INTERRUPT SERVICE FOR ANY OF THE EXISTING CIRCUITS UNTIL THE NEW VAULT IS CONSTRUCTED AND READY FOR SERVICE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING ALL EXISTING CIRCUITS PRIOR TO CONSTRUCTION AND FOLLOWING CONSTRUCTION AS SPECIFIED IN THE CONTRACT DOCUMENTS.
5. THE CONTRACTOR SHALL COORDINATE SERVICE FOR THE NEW VAULT WITH THE UTILITY COMPANY.
6. WORK ON THE AIRFIELD SHALL BE CLOSELY COORDINATED WITH THE DELIVERY TIME/ CONSTRUCTION OF THE VAULT.
7. THE CONTRACTOR SHALL NOTE THAT WORK WILL BE ONGOING IN THE EXISTING TERMINAL AND IN THE VICINITY OF THE TERMINAL AND THE EXISTING CABLE RUNS. THIS WORK IS BEING COMPLETED BY A CONTRACTOR(S) FOR A TENANT OF THE AIRPORT. THE CONTRACTOR SHALL COORDINATE ALL OF HIS/HER OPERATIONS WITH THE CONTRACTOR THROUGH THE RESIDENT ENGINEER. CONFLICTS IN CONSTRUCTION OPERATIONS OR SCHEDULE SHALL BE RESOLVED BY THE AIRPORT AS SPECIFIED IN THE CONTRACT DOCUMENTS.

PHASE 1

1. NO WORK SHALL BEGIN ON THE VAULT UNTIL THE APPROPRIATE AIRSPACE APPROVALS HAVE BEEN ISSUED BY THE FAA.
2. THE CONTRACTOR MAY BEGIN WORK ON THE VAULT AND OTHER PARTS OF THE PROJECT THAT ARE LOCATED OUTSIDE THE AOA AS SOON AS THE BUILDING AND THE EQUIPMENT ARE AVAILABLE.
3. THE CONTRACTOR SHALL COORDINATE THE CLOSURE OF THE ROADWAYS WITH THE TENANTS THROUGH THE AIRPORT MANAGER. THE AIRPORT MANAGER MAY LIMIT THE NUMBER OF CLOSURES AVAILABLE AT A SINGLE TIME. THE CONTRACTOR SHALL HAVE FOUR DAYS TO COMPLETE THE CONSTRUCTION AND RE-OPEN THE ROADWAY.

PHASE 2

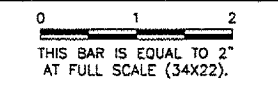
1. THE CONTRACTOR SHALL COORDINATE WORK LOCATED INSIDE THE AOA WITH THE DELIVERY / INSTALLATION SCHEDULE FOR THE VAULT. IT IS THE INTENTION TO NOT HAVE CONDUCTORS INACTIVE, UNCONNECTED AND BURIED FOR A SIGNIFICANT PERIOD OF TIME DURING THE PROJECT.
2. THE WORK IN PHASE TWO REQUIRES THE CLOSURE OF TAXIWAYS DURING WORKING HOURS. THE CONTRACTOR SHALL BE ABLE TO LEAVE EXCAVATIONS IN THE TAXIWAY SAFETY AREA OPEN DURING NON-WORKING HOURS IF THE CONTRACTOR LIGHTS THE EDGE OF THE TAXIWAY WITH APPROVED BEAM STYLE BARRICADES. NO EQUIPMENT OR STOCKPILES ARE ALLOWED IN THE TAXIWAY SAFETY AREA WHEN THE TAXIWAY IS OPEN.
3. THE CONTRACTOR SHALL COORDINATE THE CLOSURE OF THE TAXIWAYS WITH THE AIRPORT AND THE TENANTS THROUGH THE RESIDENT ENGINEER. THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE PRIOR TO CLOSING A TAXIWAY FOR COORDINATION WITH TENANTS AND THE ISSUANCE OF NOTAMS.
4. THE CONTRACTOR SHALL LOCATE EXISTING CIRCUITS AND DESIGNATE A LOCATION FOR CONNECTION OF THE EXISTING CIRCUIT TO THE NEW EXTENSION TO THE PROPOSED VAULT. WHEN THE EQUIPMENT IN THE NEW VAULT IS READY FOR OPERATION THE CONTRACTOR SHALL COORDINATE THE "SWITCH OVER" OF EACH CIRCUIT INDIVIDUALLY WITH THE AIRPORT. THE TIMING OF THE SWITCH OVER SHALL BE APPROVED BY THE AIRPORT SO AS TO MINIMIZE THE DISTURBANCE TO OPERATIONS AT THE AIRPORT. THE CONTRACTOR SHALL PROVIDE THE AIRPORT WITH A TIME THAT EACH CIRCUIT WILL BE DISABLED. IF NECESSARY THE CONTRACTOR SHALL BE REQUIRED TO MAKE THE SWITCH OVER DURING NON PEAK HOURS.

PHASE 3

1. THE CONTRACTOR SHALL DECOMMISSION THE VAULT FOLLOWING THE COMPLETION OF THE NEW VAULT AND AFTER THE EQUIPMENT IN THE EXISTING VAULT IS NO LONGER NEEDED.
2. THE CONTRACTOR SHALL REMOVE THE EXISTING EQUIPMENT FROM THE EXISTING VAULT AND DISPOSE OF THE EQUIPMENT FROM THE EQUIPMENT OFF OF AIRPORT PROPERTY. THE REMOVAL METHODS SHALL BE SUCH THAT THE EQUIPMENT MAY BE RE-USED IF DESIRED BY THE AIRPORT. PRIOR TO REMOVAL FROM THE SITE, THE CONTRACTOR SHALL COORDINATE WITH THE AIRPORT AND EQUIPMENT WHICH THE AIRPORT WISHES TO RETAIN SHALL BE STORED ON THE AIRPORT AT A LOCATION SPECIFIED BY THE AIRPORT MANAGER.

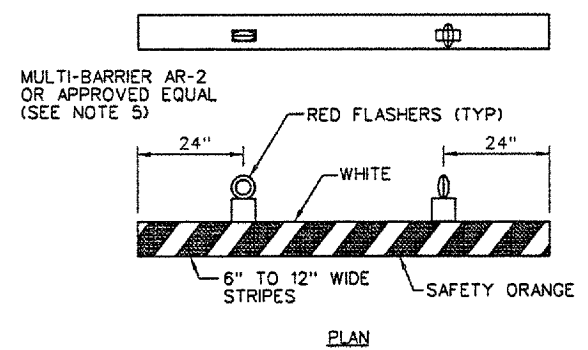
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VERMILION COUNTY AIRPORT
 DANVILLE, ILLINOIS
 RELOCATE AIRFIELD ELECTRICAL VAULT
 CONSTRUCTION ACTIVITY PLAN

CONSTRUCTION ACTIVITY PLAN

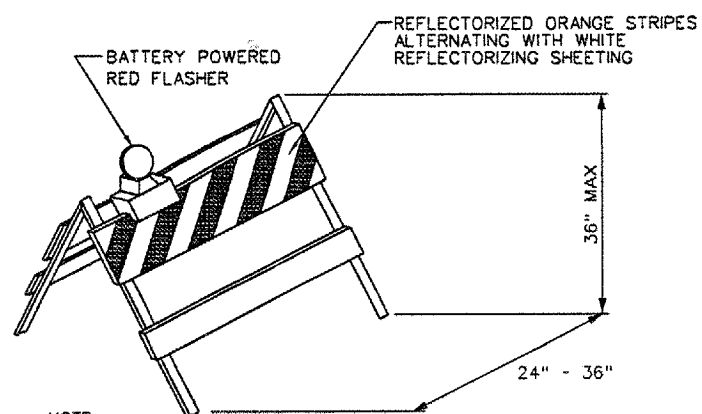


BARRICADE NOTES:

1. FLASHERS SHALL BE BATTERY OPERATED. LENS SHALL BE RED AND BE ABLE TO ROTATE 90°.
2. FACING OF BARRICADE SHALL BE COVERED WITH REFLECTIVE TAPE OR PAINT.
3. BARRICADES TO BE PLACED WITH A MAXIMUM OF 15' SPACING BETWEEN ENDS OF BARRICADES ALONG OPERATIONAL PAVEMENT ADJACENT TO CONSTRUCTION AS DIRECTED BY THE RESIDENT ENGINEER. ALTERNATE FLASHER LENSES SO THAT EVERY OTHER LENS IS ROTATED 90°.
4. FLASHERS SHALL BE SECURED TO THE BARRICADES, AS APPROVED BY THE RESIDENT ENGINEER.
5. BARRICADES SHALL BE OF LOW MASS, EASILY COLLAPSIBLE UPON CONTACT WITH AN AIRCRAFT OR ANY OF IT COMPONENTS, AND WEIGHTED OR STURDILY ATTACHED TO THE SURFACE. IF AFFIXED TO THE SURFACE, THE BARRICADE MUST BE FRANGIBLE AT GRADE LEVEL OR LOW AS POSSIBLE, BUT NOT TO EXCEED 3 INCHES ABOVE THE GROUND.

LOW PROFILE LIGHTED BARRICADE

NTS



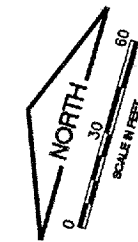
NOTE:
 BARRICADES SHALL BE PLACED AS SHOWN ON THE CONSTRUCTION ACTIVITY PLANS 15' ON CENTER AT DESIGNATED LOCATIONS. BARRICADE SHALL BE WEIGHTED WITH A MINIMUM OF 6 SAND BAGS TO PREVENT THEM FROM BEING BLOWN OVER.

ALTERNATE BARRICADE DETAIL

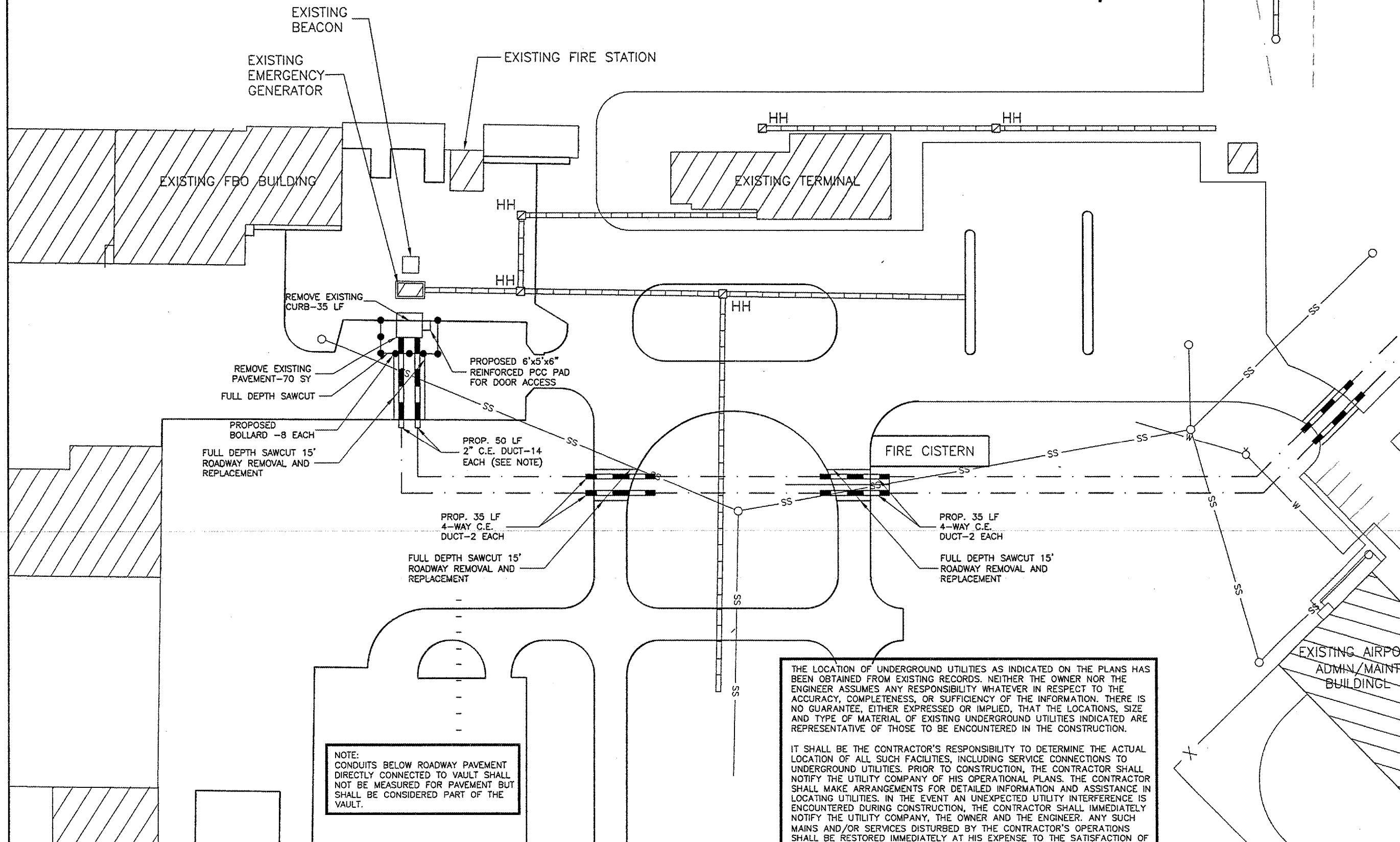
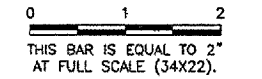
NOTE:
 WHERE NOT SPECIFIED, THE CONTRACTOR SHALL HAVE THE OPTION AS TO WHICH TYPE OF BARRICADE IS USED.

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SHEET 3 OF 16 SHEETS	



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NOTE:
CONDUITS BELOW ROADWAY PAVEMENT DIRECTLY CONNECTED TO VAULT SHALL NOT BE MEASURED FOR PAVEMENT BUT SHALL BE CONSIDERED PART OF THE VAULT.

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 WHATEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION.

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 COMPANY OF HIS OPERATIONAL PLANS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR DETAILED INFORMATION AND ASSISTANCE IN LOCATING UTILITIES. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY, THE OWNER AND THE ENGINEER. ANY SUCH MAINS AND/OR SERVICES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT HIS EXPENSE TO THE SATISFACTION OF THE OWNER AND THE ENGINEER.

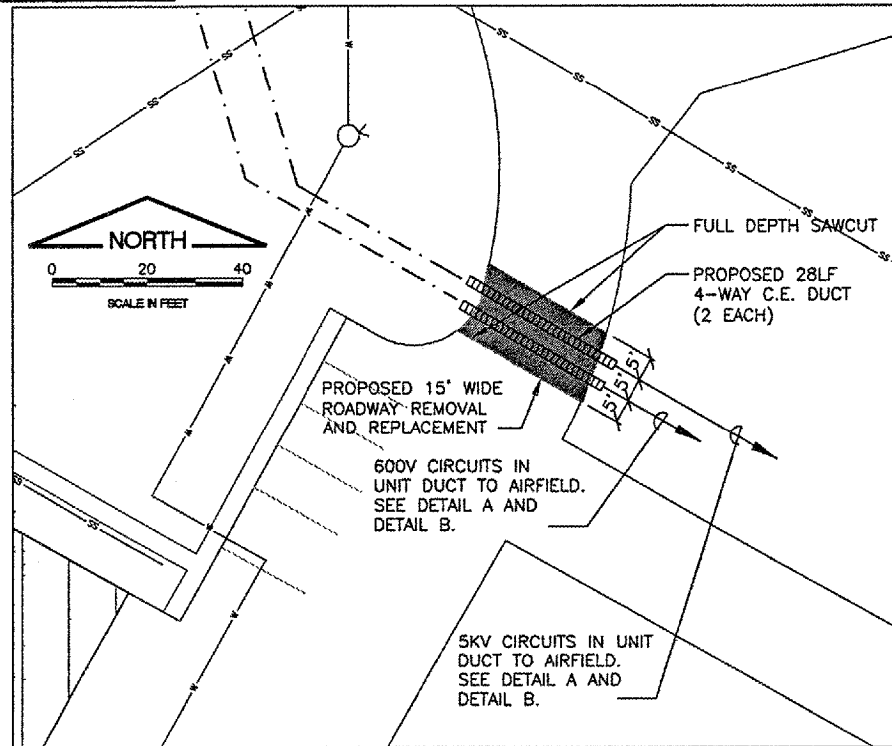
VERMILION COUNTY AIRPORT
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RELOCATE AIRFIELD ELECTRICAL VAULT

ELECTRICAL PLAN 1

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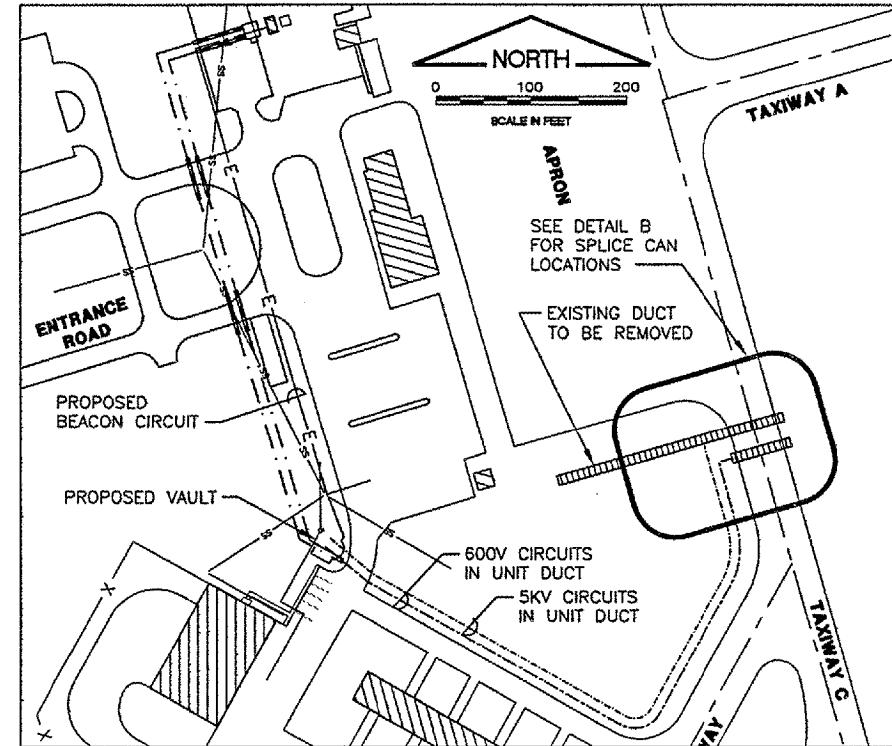
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SHEET 4 OF 16 SHEETS	



PROPOSED IMPROVEMENTS

PROPOSED IMPROVEMENTS NOTES

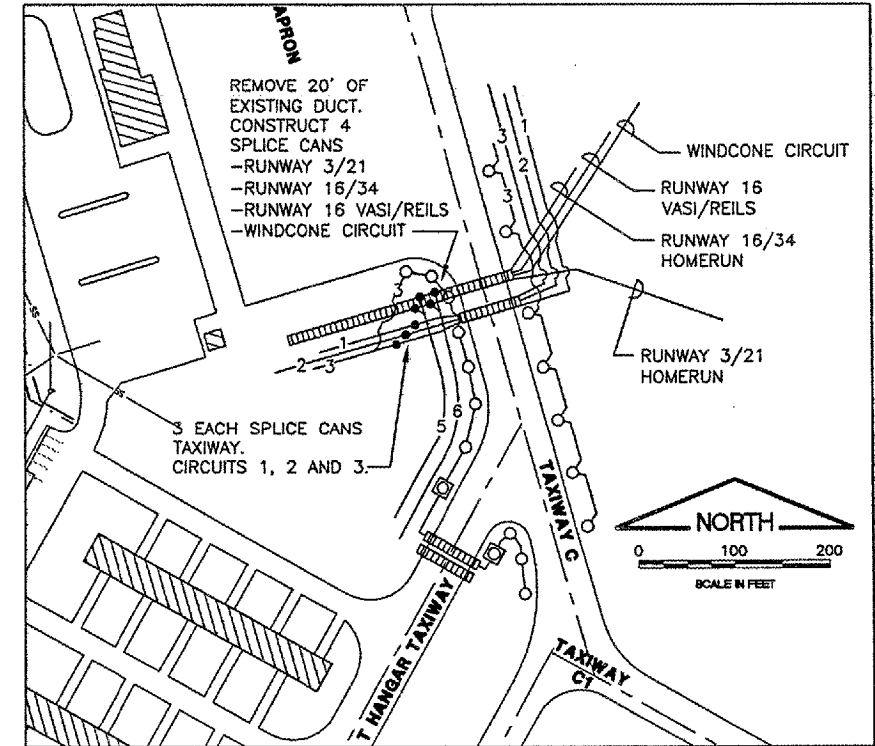
1. THE CONTRACTOR SHALL COORDINATE THE REMOVAL AND REPLACEMENT OF THE ROADWAY WITH THE AIRPORT MANAGER. THE CONTRACTOR SHALL HAVE TWO CONSECUTIVE WORKING DAYS TO CONSTRUCT THE DUCT CROSSINGS.
2. THE CONTRACTOR SHALL FULL DEPTH SAWCUT THE EDGES OF THE ROADWAY REMOVAL PRIOR TO REMOVING THE BITUMINOUS SURFACE.
3. THE CONTRACTOR SHALL PROVIDE BARRICADES AND TEMPORARY FENCING AROUND THE EXCAVATIONS FOR THE ROADWAY REMOVAL.
4. THE CONTRACTOR SHALL USE FLOWABLE ZERO SETTLEMENT BACKFILL FOR THE DUCT EXCAVATIONS UP TO THE BOTTOM OF THE EXISTING ROADWAY PAVEMENT STRUCTURE. AGGREGATE BASE SHALL BE REPLACED WITH MATERIAL MEETING THE REQUIREMENTS OF ITEM 209. A 6" BITUMINOUS SURFACE SHALL BE CONSTRUCTED IN TWO LIFTS OF 3". THE BITUMINOUS MATERIAL SHALL BE AN IDOT- HIGHWAYS APPROVED MIXTURE. THE CONTRACTOR SHALL SUBMIT THE MIX DESIGN TO THE ENGINEER FOR REVIEW PRIOR TO BEGINNING THE CONSTRUCTION OF THE DUCTS.



DETAIL A

DETAIL A NOTES

1. THE WORK CONSISTS OF THE FOLLOWING CIRCUITS:
 A. RUNWAY 3-21 HOME RUN
 A. RUNWAY 16-34 HOME RUN
 B. TAXIWAY CIRCUIT 1 HOME RUN
 C. TAXIWAY CIRCUIT 2 HOME RUN
 D. TAXIWAY CIRCUIT 3 HOME RUN
 E. POWER FEED FOR RUNWAY 16 VASI AND REILS
 F. POWER FEED FOR BEACON
 G. POWER FEED FOR WIND CONE
 H. POWER FEED FOR OBSTRUCTION LIGHT
2. THE CONTRACTOR SHALL DOCUMENT THE ALIGNMENT OF EACH CIRCUIT BETWEEN THE VAULT AND THE AIRFIELD. THE CONTRACTOR SHALL INDICATE ON A MARKUP OF THE RECORD DRAWINGS DISTANCES FROM THE EDGE OF PAVEMENT TO EACH CIRCUIT ON A 25' MAXIMUM SPACING.
3. THE 600V CIRCUITS MAY BE PLACED IN A SINGLE TRENCH OR PLOWED IN AS DETAILED. THE 5KV CIRCUITS MAY BE PLACED IN A SINGLE TRENCH OR PLOWED IN AS DETAILED. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3' SEPARATION BETWEEN THE 600V CIRCUITS AND THE 5KV CIRCUITS EXCEPT AS DICTATED BY THE EXISTING CIRCUIT LOCATIONS AT THE SPLICE CANS SHOWN ON DETAIL B.

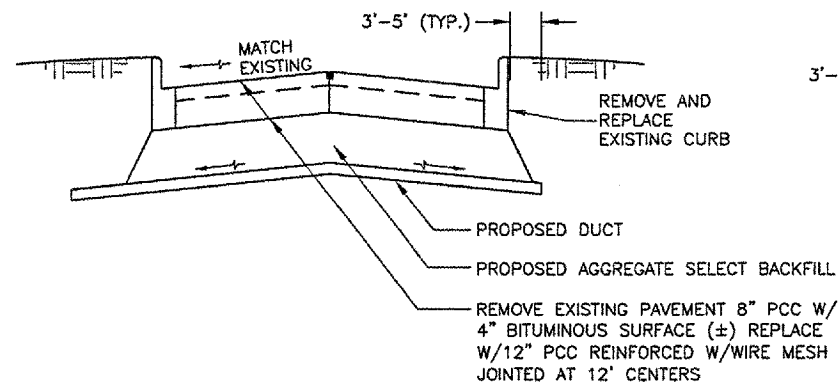


DETAIL B

DETAIL B NOTES

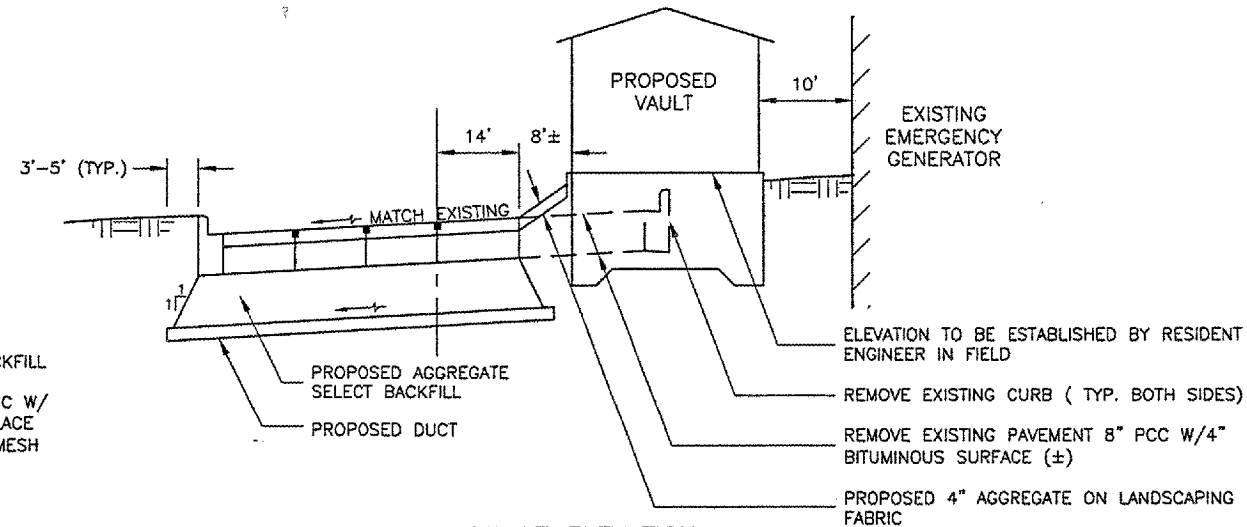
1. THE CONTRACTOR SHALL LOCATE EACH EXISTING CIRCUIT IN THE FIELD IMMEDIATELY FOLLOWING THE NTP. THE CONTRACTOR SHALL EXCAVATE THESE CIRCUITS TO DETERMINE ACTUAL LOCATION, DEPTH AND WIRE SIZE. THE CONTRACTOR SHALL REPORT TO THE ENGINEER ANY POTENTIAL CONFLICTS BETWEEN THE EXISTING CIRCUIT LOCATIONS OR WIRE SIZES WITH THE WORK SHOWN IN THE PLANS.
2. THE CONTRACTOR SHALL EXPOSE SUFFICIENT LENGTHS OF CABLE TO ALLOW THE CABLE TO BE ROUTED INTO THE PROPOSED SPLICE CANS AND TO PROVIDE SUFFICIENT SLACK.
3. THE CONTRACTOR SHALL REMOVE THE CABLES FROM THE DUCT TO BE REMOVED. AFTER THE CABLES HAVE BEEN REMOVED THE CONTRACTOR SHALL SAWCUT THE DUCT AT THE APPROXIMATE LOCATION SHOWN IN DETAIL B AND REMOVE 20' OF THE DUCT BETWEEN THE SAWCUT AND THE EXISTING VAULT.
4. THE CONTRACTOR SHALL CONNECT THE NEW CIRCUIT EXTENSIONS FROM THE NEW VAULT TO THE EXISTING CIRCUITS AT SPLICE CANS LOCATED AT THE APPROXIMATE LOCATIONS SHOWN.
5. THE CONTRACTOR SHALL SCHEDULE THE REMOVAL OF THE DUCT WITH THE AIRPORT IN ACCORDANCE WITH THE SCHEDULE ESTABLISHED ON THE CONSTRUCTION ACTIVITY PLAN.

- NOTES:
1. CONTRACTOR SHALL DRILL AND BOND DOWELS INTO EXISTING PCC PAVEMENT AT BOTH ENDS OF REMOVAL. 3/4" DOWELS AT 18" CENTERS.
 2. CONTRACTOR SHALL SAW AND SEAL JOINTS ON 12'x15' GRID OR AS SPECIFIED BY ENGINEER.
 3. PCC PAVEMENT SHALL BE REINFORCED W/WIRE MESH 6x6 W 4.4/W 4.4



PAVEMENT REMOVAL AND REPLACEMENT

NTS



VAULT ELEVATION

NTS

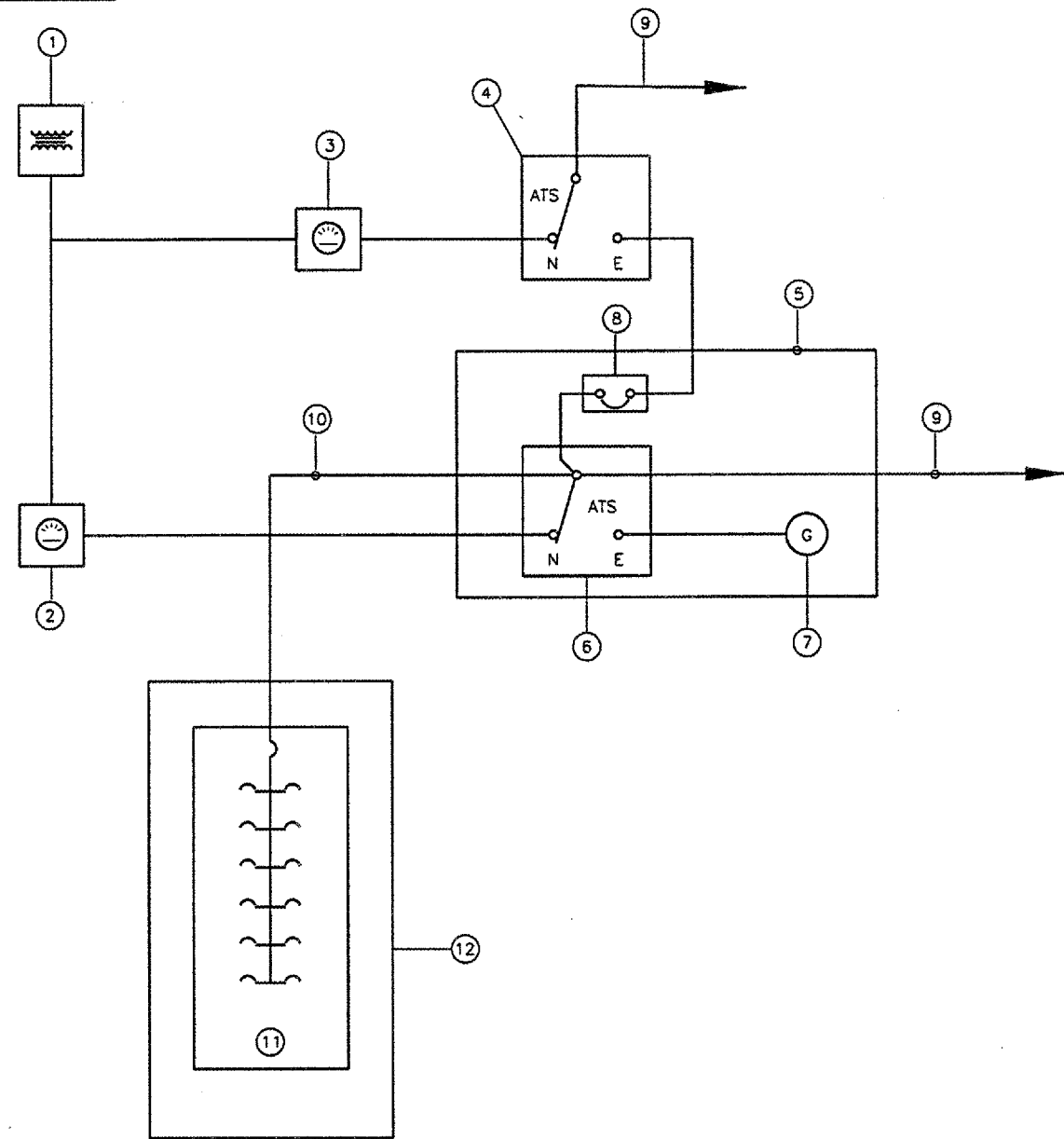
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0 1 2
 THIS BAR IS EQUAL TO 2"
 AT FULL SCALE (34x22).

VERMILION COUNTY AIRPORT
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 RELOCATE AIRFIELD ELECTRICAL VAULT
 ELECTRICAL PLAN 2

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APPROVED BY:	
DATE:	06-22-2007
JOB No:	0704202
ILLINOIS PROJECT DNV-3684 A.I.P. PROJECT 3-17-0032-B11	
SHEET 5 OF 16 SHEETS	

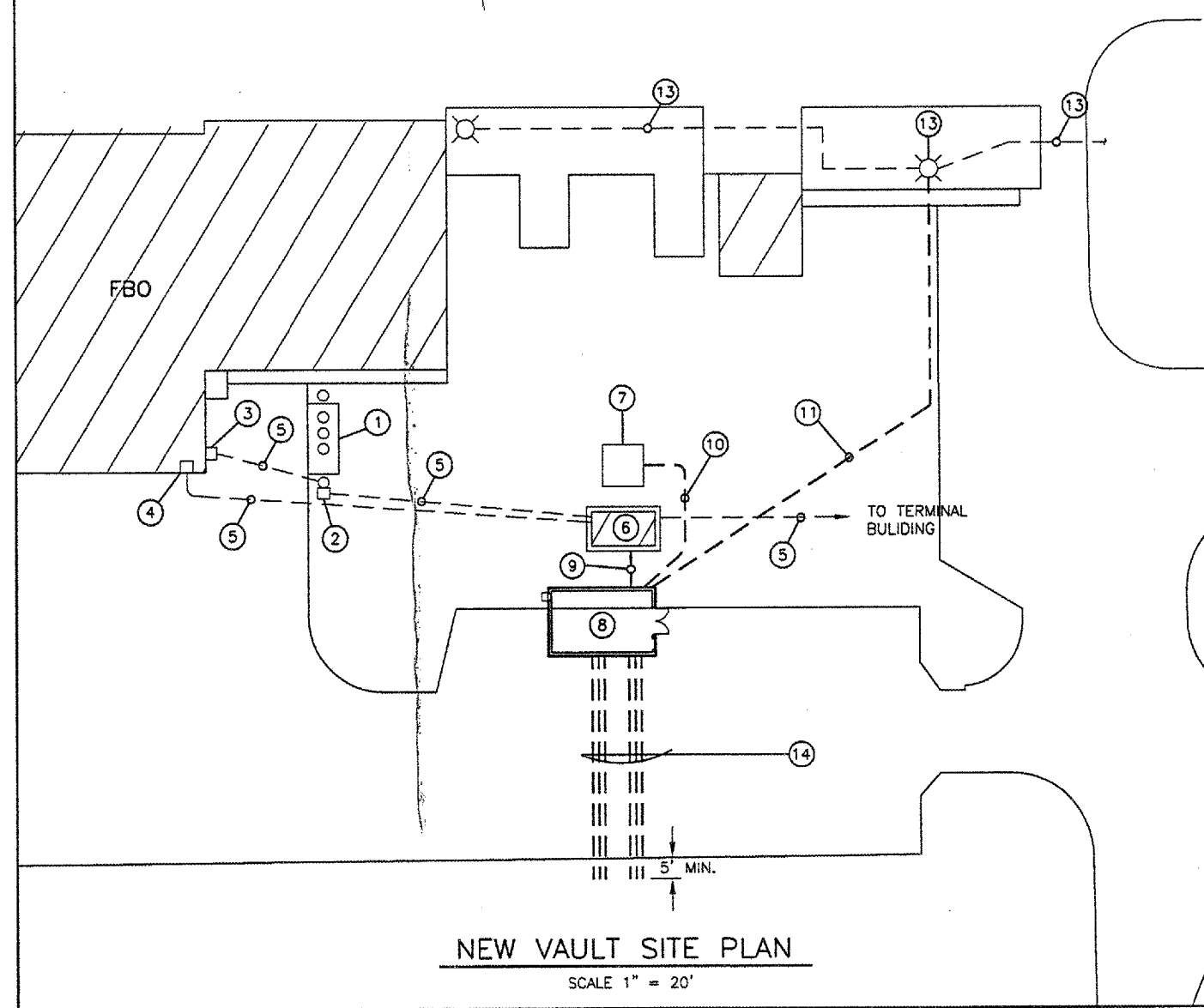


ONE-LINE DIAGRAM

NTS

ONE-LINE DIAGRAM NOMENCLATURE

- ① EXISTING UTILITY TRANSFORMER BANK.
- ② EXISTING METERING FOR TERMINAL BUILDING.
- ③ EXISTING METERING FOR FBO BUILDING
- ④ EXISTING FBO BUILDING AUTOMATIC TRANSFER SWITCH.
- ⑤ EXISTING STANDBY GENERATOR HOUSING.
- ⑥ EXISTING AUTOMATIC TRANSFER SWITCH.
- ⑦ EXISTING STANDBY GENERATOR, 185 KW.
- ⑧ 150A CIRCUIT BREAKER FOR FBO BUILDING STANDBY POWER.
- ⑨ EXISTING WIRING FOR FBO BUILDING AND TERMINAL BUILDING.
- ⑩ NEW VAULT BUILDING ELECTRICAL SERVICE, TWO #3/0 THWN PER PHASE, TWO #1/0 NEUTRAL, ONE #2 GROUND IN TWO 2" GRSC.
- ⑪ NEW VAULT BUILDING DISTRIBUTION PANELBOARD, 400A, 120/240V, 3-PHASE, 4-WIRE.
- ⑫ NEW VAULT BUILDING.



NEW VAULT SITE PLAN

SCALE 1" = 20'

VAULT SITE PLAN NOMENCLATURE

- ① EXISTING UTILITY TRANSFORMER BANK ON POLE MOUNTED PLATFORM.
- ② EXISTING METERING FOR TERMINAL BUILDING ELECTRICAL SERVICE.
- ③ EXISTING METERING FOR FBO BUILDING ELECTRICAL SERVICE.
- ④ EXISTING FBO BUILDING AUTOMATIC TRANSFER SWITCH.
- ⑤ EXISTING SERVICES (FOR INFORMATION ONLY).
- ⑥ EXISTING STANDBY GENERATOR HOUSING.
- ⑦ EXISTING BEACON.
- ⑧ NEW VAULT BUILDING.
- ⑨ NEW VAULT BUILDING ELECTRICAL SERVICE, TWO #3/0 USE PER PHASE, TWO #1/0 USE NEUTRAL, ONE #2 GROUND IN TWO 2" GRSC TO AUTOMATIC TRANSFER SWITCH IN GENERATOR HOUSING.
- ⑩ NEW TWO #12 USE, ONE #12 GROUND IN 3/4" TO BEACON
- ⑪ NEW TWO #4 USE (240V CIRCUIT), TWO #4 USE (240V CIRCUIT), ONE #6 GROUND IN 2"GRSC TO APRON LIGHT, SPLICE TO EXISTING WIRING AT POLE BASE.
- ⑫ EXISTING APRON LIGHT.
- ⑬ EXISTING APRON LIGHT WIRING.
- ⑭ 2" GRSC TO 5' MIN. BEYOND EDGE OF PAVEMENT. SEE VAULT DETAILS - 2, DETAIL E, FOR NUMBER OF CONDUITS AND CONTENTS.

REVISIONS		
NUMBER	BY	DATE

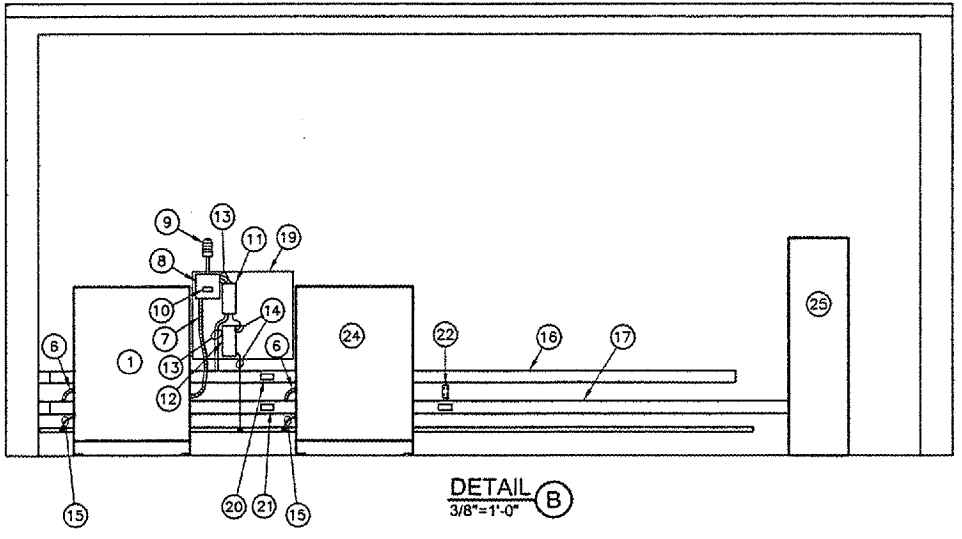
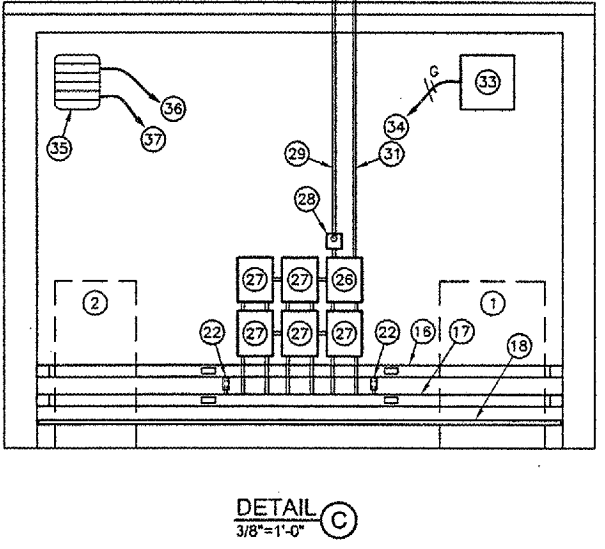
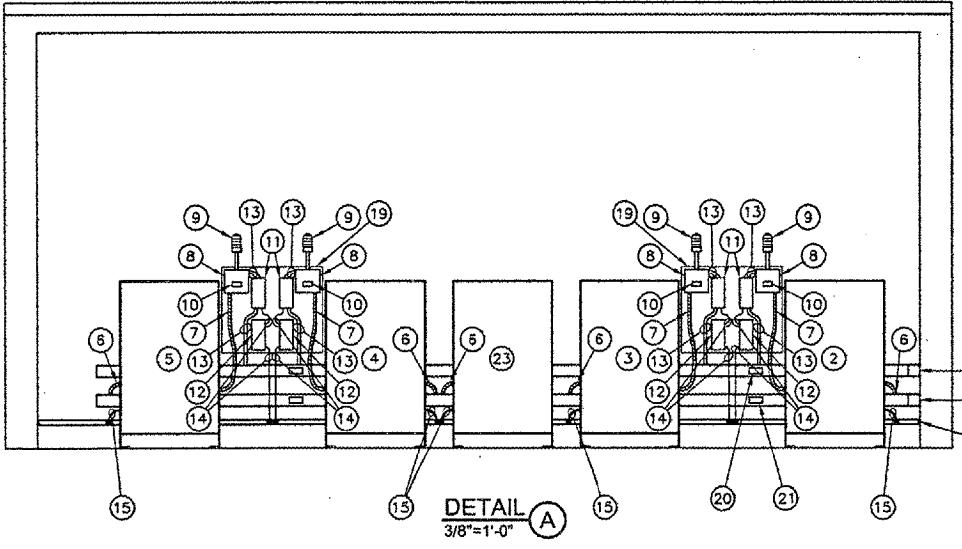
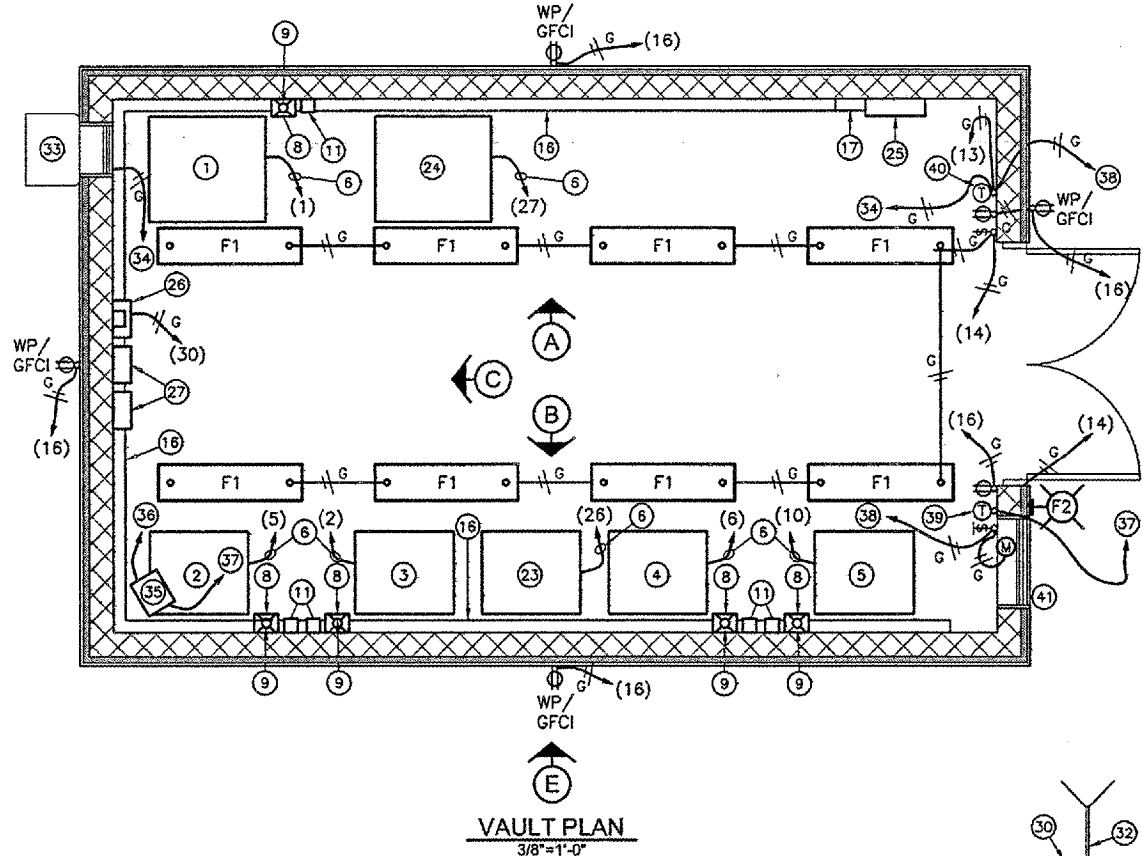
0 1 2
 THIS BAR IS EQUAL TO 2"
 AT FULL SCALE (34X22).

VERMILION COUNTY AIRPORT
 DANVILLE, ILLINOIS

RELOCATE AIRFIELD ELECTRICAL VAULT
 NEW VAULT SITE PLAN

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ILLINOIS PROJECT DNV-3684 A.I.P. PROJECT 3-17-0032-811	
SHEET 6 OF 16 SHEETS	



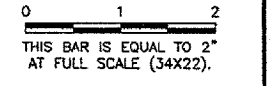
SPARE REGULATOR WIRING NOTE
 PROVIDE SUFFICIENT LENGTH OF SERIES CIRCUIT CABLE AT THE SPARE REGULATORS TO REACH THE L-823 CONNECTORS ON THE SERIES CIRCUIT HOMERUN CABLES OF THE FURTHEST REGULATOR OF SAME KW SIZE AS SPARE REGULATOR. PROVIDE L-823 CONNECTORS FOR THESE CABLES TO PERMIT CONNECTION TO SERIES CIRCUIT HOMERUN CABLES.

NOMENCLATURE

- ① 30KW RUNWAY 03/21 REGULATOR, L-828, 5-STEP, 240V INPUT, 6.6A OUTPUT, FLIGHT LIGHT (HEVI-DUTY) 30-LB28-R-5-D-6-IA, OR EQUIVALENT. PROVIDE ENGRAVED NAMEPLATE READING: "RUNWAY 03/21"
- ② 15KW RUNWAY 16/34 AND TAXIWAY D REGULATOR, L-828, 3-STEP, 240V INPUT, 6.6A OUTPUT, FLIGHT LIGHT (HEVI-DUTY) 15-LB28-A-5-D-6-IA, OR EQUIVALENT. PROVIDE ENGRAVED NAMEPLATE READING: "RUNWAY 16/34" "TAXIWAY D"
- ③ 15KW TAXIWAY A, A-1, A-2 (CIRCUIT #1) REGULATOR, L-828, 3-STEP, 240V INPUT, 6.6A OUTPUT, FLIGHT LIGHT (HEVI-DUTY) 15-LB28-A-5-D-6-IA, OR EQUIVALENT. PROVIDE ENGRAVED NAMEPLATE READING: "CIRCUIT #1" "TAXIWAY A, A-1, A-2"
- ④ 15KW TAXIWAY C, C1 (CIRCUIT #2) REGULATOR, L-828, 3-STEP, 240V INPUT, 6.6A OUTPUT, FLIGHT LIGHT (HEVI-DUTY) 15-LB28-A-5-D-6-IA, OR EQUIVALENT. PROVIDE ENGRAVED NAMEPLATE READING: "CIRCUIT #2" "TAXIWAY C, C1"
- ⑤ 15KW TAXIWAY B (CIRCUIT #3) REGULATOR, L-828, 3-STEP, 240V INPUT, 6.6A OUTPUT, FLIGHT LIGHT (HEVI-DUTY) 15-LB28-A-5-D-6-IA, OR EQUIVALENT. PROVIDE ENGRAVED NAMEPLATE READING: "CIRCUIT #3" "TAXIWAY B"
- ⑥ 240V WIRING FROM PANEL #1 AS FOLLOWS:
 - RUNWAY 03/21 REGULATOR AND SPARE 30KW REGULATOR: TWO #2/0 THWN, ONE #6 GROUND IN 1-1/2" FLEX.
 - ALL OTHER REGULATORS: TWO #3 THWN, ONE #8 GROUND IN 1" FLEX.
- ⑦ TWO 1/C #8, 5KV, L-824 TYPE C SERIES CIRCUIT CABLES IN 1" FLEX.
- ⑧ HINGED NEMA 1 ENCLOSURE SIZED AS REQUIRED TO HOUSE ISOLATION TRANSFORMER AND L-823 CONNECTORS.
- ⑨ RUNWAY OR TAXIWAY EDGE LIGHT MOUNTED TO TOP OF NEMA 1 ENCLOSURE.
- ⑩ ENGRAVED NAMEPLATE MATCHING ASSOCIATED REGULATOR NAMEPLATE.
- ⑪ SERIES CUTOUT, SIEMENS SCO, ORDER #1475.92.030. THE FOLLOWING WIRING IS REQUIRED, BUT NOT SHOWN FOR CLARITY:
 - INSTALL REGULATOR ON/OFF INTERLOCK WIRING FROM REGULATOR TO SERIES CUTOUT MICROSWITCH. (SEE SCO WORKING DIAGRAMS FOR ADDITIONAL INFORMATION.)
- ⑫ PLUG CUTOUT USED AS GROUNDING DISCONNECT, CROUSE-HINDS TYPE S-1, CATALOG #30775. (SEE SCO WORKING DIAGRAMS FOR ADDITIONAL INFORMATION.)
- ⑬ TWO 1/C #8, 5KV, L-824 TYPE C SERIES CIRCUIT CABLES. PROVIDE L-823 CONNECTORS ON HOMERUN SIDE OF SCO. (SEE SPARE REGULATOR WIRING NOTE FOR WIRING INFORMATION FOR THESE REGULATORS.)
- ⑭ 1/C #8, 5KV, L-824 TYPE C CABLE. ROUTE BEHIND BOTH WIREWAYS AND CLAMP TO VAULT GROUND BUS.
- ⑮ #8 GROUND WIRE. CLAMP TO VAULT GROUND BUS.
- ⑯ 5KV SERIES CIRCUIT WIRING WIREWAY, 4" X 4", NEMA 1, HINGED COVER. STAND-OFF MOUNT FROM WALL AS REQUIRED TO PERMIT CONDUIT INSTALLATION BEHIND WIREWAY TO WIREWAY BELOW.
- ⑰ 240V, 120V AND CONTROL WIRING WIREWAY, 4" X 4", NEMA 1, HINGED COVER.
- ⑱ 1/8" X 3/4" COPPER GROUND BUS, ALL AROUND INSIDE OF VAULT. MOUNT AT LEAST 6" ABOVE FLOOR. STAND-OFF MOUNT 1/4" FROM WALL.
- ⑲ 3/4" A-C PLYWOOD MOUNTING PANEL, SIZED AS REQUIRED TO MOUNT EQUIPMENT. PAINT WITH MINIMUM OF TWO COATS OF WHITE EPOXY PAINT.
- ⑳ ADHESIVE WARNING LABEL READING: "SERIES CIRCUIT WIRING". (TYPICAL)
- ㉑ ADHESIVE WARNING LABEL READING: "240V, 120V AND CONTROL WIRING". (TYPICAL)
- ㉒ DUPLEX RECEPTACLE.
- ㉓ EXISTING 15KW REGULATOR RELOCATED FROM EXISTING VAULT. PROVIDE ENGRAVED NAMEPLATE READING "SPARE".
- ㉔ EXISTING 30KW REGULATOR RELOCATED FROM EXISTING VAULT. PROVIDE ENGRAVED NAMEPLATE READING "SPARE".
- ㉕ PANEL #1, 42-POLE, 120/240V, 3-PHASE, 4-WIRE, SQUARE D I-LINE OR EQUIVALENT. PROVIDE ENGRAVED NAMEPLATE READING: "PANEL #1" "120/240V 3PH, 4W" "400A"
- ㉖ L-854 RADIO CONTROLLER. PROVIDE ENGRAVED NAMEPLATE READING "RADIO CONTROLLER".
- ㉗ RADIO INTERFACE UNIT, ONE FOR EACH REGULATOR (EXCEPT SPARES). PROVIDE ENGRAVED NAMEPLATE MATCHING ASSOCIATED REGULATOR NAMEPLATE. PROVIDE CONDUITS AND POWER AND CONTROL WIRING AS DETAILED IN SCHEMATICS AND AS REQUIRED BY L-854 EQUIPMENT SUPPLIER. ROUTE CONDUITS BEHIND SERIES CIRCUIT WIREWAY.
- ㉘ PHOTOCELL BYPASS SWITCH, CONTROL RELAYS AND TIME CLOCK IN NEMA 1 HINGED COVER ENCLOSURE. PROVIDE ENGRAVED NAMEPLATE READING: "PHOTOCELL BYPASS & TIME CLOCK".
- ㉙ TWO #12 THWN (2-WIRE PHOTOCELL CONTROL), ONE #12 GROUND IN 3/4" CONDUIT.
- ㉚ PHOTOCELL, SUPPLIED WITH TIME CLOCK.
- ㉛ ANTENNA CABLE IN 1" CONDUIT (OR AS REQUIRED BY L-854 EQUIPMENT SUPPLIER).
- ㉜ RADIO CONTROLLER ANTENNA. INSTALL AS REQUIRED BY L-854 EQUIPMENT SUPPLIER.
- ㉝ EXHAUST FAN, GREENHECK MODEL CW-98-A, 120V, 1/4 HP, 1.017 CFM, OR EQUIVALENT. PROVIDE WALL-MOUNT THERMOSTAT WITH AUTO-OFF-FAN SUB-BASE.
- ㉞ WIRING BETWEEN EXHAUST FAN AND THERMOSTAT AT DOOR IN 3/4" CONDUIT (CKT. #13).
- ㉟ 5KW 240V SINGLE-PHASE UNIT HEATER, CHROMALOX LUH-05-21, OR EQUIVALENT, WITH THE FOLLOWING ACCESSORIES:
 - 40A DISCONNECT SWITCH
 - UNIVERSAL WALL MOUNT BRACKET
 - REMOTE WALL-MOUNT THERMOSTAT
- ㊱ TWO #10 THWN, ONE #10 GROUND IN 3/4" CONDUIT (CIRCUIT #9).
- ㊲ WIRING BETWEEN HEATER AND WALL-MOUNTED THERMOSTAT AS REQUIRED IN 3/4" CONDUIT.
- ㊳ WIRING BETWEEN INTAKE LOUVER AND THERMOSTAT AT DOOR IN 3/4" CONDUIT.
- ㊴ HEATER THERMOSTAT, SUPPLIED WITH HEATER. INSTALL 4' ABOVE FLOOR PER MANUFACTURER'S REQUIREMENTS.
- ㊵ EXHAUST FAN THERMOSTAT, SUPPLIED WITH FAN. INSTALL 4' ABOVE FLOOR PER MANUFACTURER'S REQUIREMENTS.
- ㊶ INTAKE LOUVER, RUSKIN MODEL ELF3750, 30"W X 30" H, MIN. FREE AREA: 2.97 SQ. FT., WITH CD35 MOTORIZED DAMPER (POWER-OPEN/SPRING-CLOSE), OR EQUIVALENT.

REVISIONS

NUMBER	BY	DATE



VERMILION COUNTY AIRPORT
 DANVILLE, ILLINOIS
 RELOCATE AIRFIELD ELECTRICAL VAULT
 VAULT DETAILS - 1

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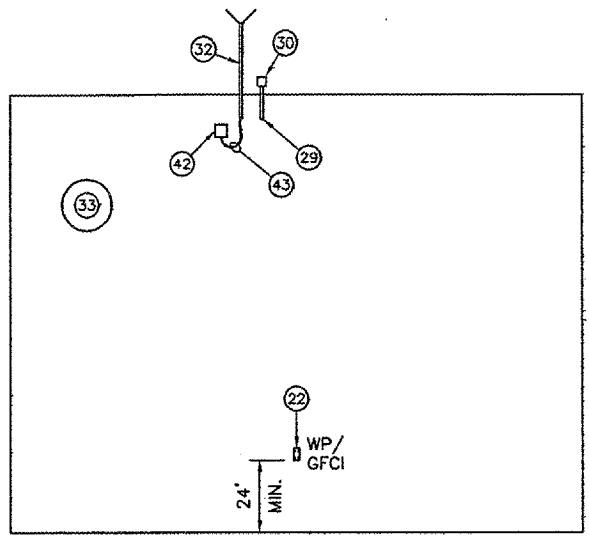
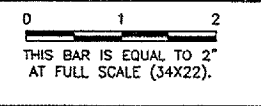
DESIGN BY:	WDP
DRAWN BY:	DLB
CHECKED BY:	
APPROVED BY:	
DATE:	06-22-2007
JOB No:	0704202
ILLINOIS PROJECT DNV-3684	
A.I.P. PROJECT 3-17-0032-B11	
SHEET 7 OF 16 SHEETS	

NOMENCLATURE

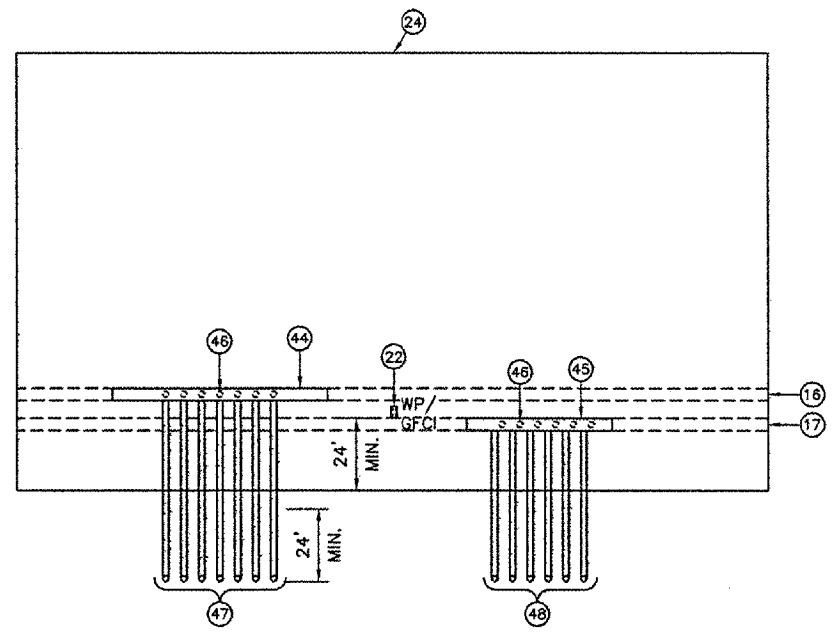
- 16 5KV SERIES CIRCUIT WIRING WIREWAY, INSIDE BUILDING.
- 17 240V, 120V AND CONTROL WIRING WIREWAY, INSIDE BUILDING.
- 22 WEATHERPROOF, GFCI DUPLEX RECEPTACLE.
- 29 TWO #12 THWN (PHOTOCELL CONTROL), ONE #12 GROUND IN 3/4" CONDUIT.
- 30 PHOTOCELL, SUPPLIED WITH TIME CLOCK.
- 32 RADIO CONTROLLER ANTENNA. INSTALL AS REQUIRED BY L-854 EQUIPMENT SUPPLIER.
- 33 EXHAUST FAN
- 42 4" X 4" X 4" NEMA 4 JUNCTION BOX.
- 43 RADIO CONTROLLER COAXIAL CABLE. EXIT BOTTOM OF JUNCTION BOX THROUGH WATERPROOF GROMMET.
- 44 4" X 4" NEMA 3R WIREWAY. MOUNT AT SAME HEIGHT AS INTERIOR WIREWAY. PROVIDE WEATHERPROOF ADHESIVE LABEL READING: "SERIES CIRCUIT WIRING".
- 45 4" X 4" NEMA 3R WIREWAY. MOUNT AT SAME HEIGHT AS INTERIOR WIREWAY. PROVIDE WEATHERPROOF ADHESIVE LABEL READING: "240V, 120V WIRING".
- 46 2" CONDUIT NIPPLES BETWEEN INTERIOR AND EXTERIOR WIREWAYS (TYP.).
- 47 2" CONDUITS ACROSS PAVEMENT TO MINIMUM OF 5' FROM EDGE OF PAVEMENT (SEE NEW VAULT SITE PLAN FOR ADDITIONAL INFORMATION). INSTALL THE FOLLOWING CIRCUITS:
 - TWO 1/C #8 5KV, L-824, TYPE C CABLES IN UNIT DUCT.
 (NEW RUNWAY 03/21 HOMERUN. SEE PLANS FOR ADDITIONAL INFORMATION.)
 - TWO 1/C #8 5KV, L-824, TYPE C CABLES IN UNIT DUCT.
 (NEW RUNWAY 16/34 HOMERUN. SEE PLANS FOR ADDITIONAL INFORMATION.)
 - TWO 1/C #8 5KV, L-824, TYPE C CABLES IN UNIT DUCT.
 (NEW CKT. #1, TAXIWAY A, A-1, A-2 HOMERUN. SEE PLANS FOR ADDITIONAL INFORMATION.)
 - TWO 1/C #8 5KV, L-824, TYPE C CABLES IN UNIT DUCT.
 (NEW CKT. #2, TAXIWAY C, C1 HOMERUN. SEE PLANS FOR ADDITIONAL INFORMATION.)
 - TWO 1/C #8 5KV, L-824, TYPE C CABLES IN UNIT DUCT.
 (NEW CKT. #3, TAXIWAY B HOMERUN. SEE PLANS FOR ADDITIONAL INFORMATION.)
 - UNUSED CONDUITS SHALL BE CAPPED.
- 48 2" CONDUITS ACROSS PAVEMENT TO MINIMUM OF 5' FROM EDGE OF PAVEMENT (SEE NEW VAULT SITE PLAN FOR ADDITIONAL INFORMATION). INSTALL THE FOLLOWING CIRCUITS:
 - TWO #4 USE (240V), ONE #6 GROUND IN UNIT DUCT TO REIL 16. SEE PLANS FOR ADDITIONAL INFORMATION.
 - TWO #4 USE (240V), ONE #6 GROUND IN UNIT DUCT TO VASI 16. SEE PLANS FOR ADDITIONAL INFORMATION.
 - TWO #4 USE (120V), ONE #6 GROUND IN UNIT DUCT TO WIND TEE. SEE PLANS FOR ADDITIONAL INFORMATION.
 - TWO #4 USE (120V), ONE #6 GROUND IN UNIT DUCT TO WIND CONE. SEE PLANS FOR ADDITIONAL INFORMATION.
 - UNUSED CONDUITS SHALL BE CAPPED.

REVISIONS

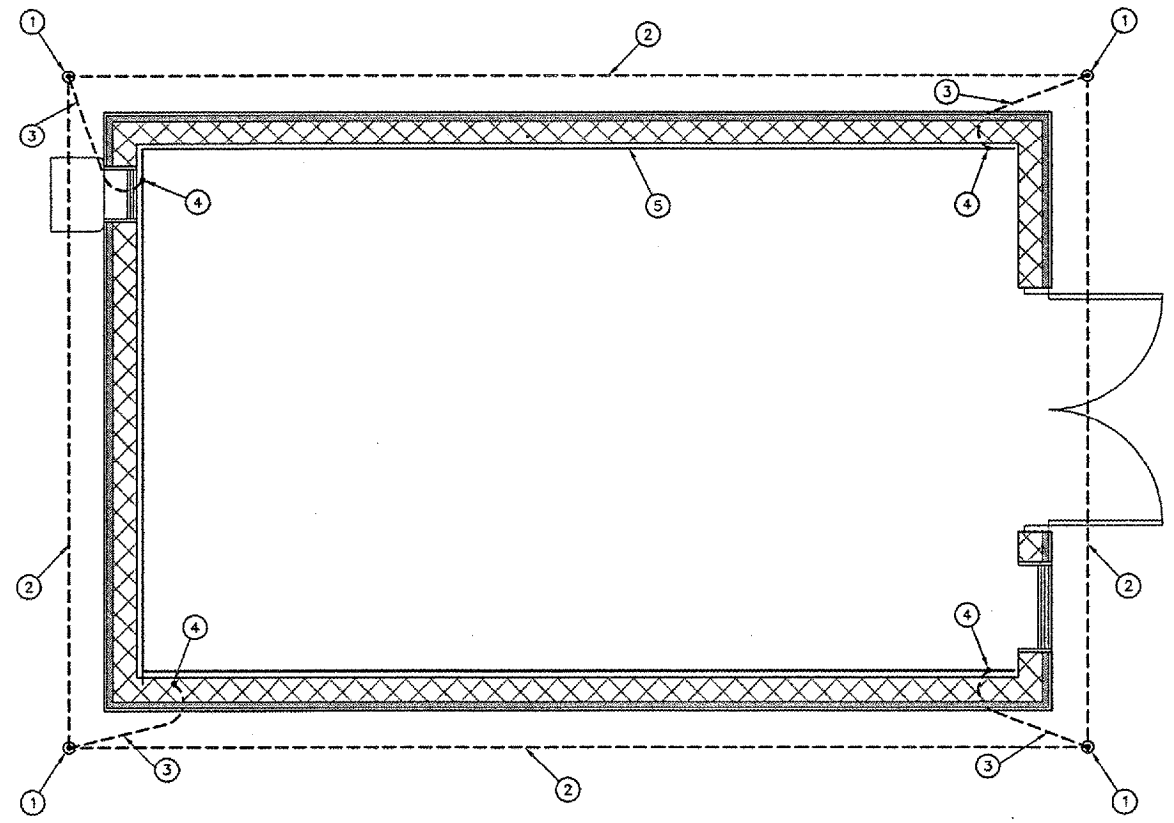
NUMBER	BY	DATE



DETAIL D
 3/8"=1'-0"



DETAIL E
 3/8"=1'-0"



VAULT GROUNDING & BONDING PLAN
 3/8"=1'-0"

VAULT GROUNDING & BONDING NOTES

- 1 3/4" DIAMETER x 10' LONG COPPERCLAD GROUND ROD. BOND GROUND WIRES TO GROUND ROD USING EXOTHERMIC WELD, CADWELD, OR EQUIVALENT. CLAMPED CONNECTIONS SHALL NOT BE ACCEPTABLE.
- 2 #2/0 BARE COPPER GROUND WIRE.
- 3 #2 INSULATED GROUND WIRE. INSTALL IN 1/2" PVC CONDUIT TO 1'-0" BELOW GRADE.
- 4 CLAMP # 2 INSULATED GROUND WIRE TO VAULT GROUND BUS.
- 5 VAULT GROUND BUS, 1/2"x3/4" COPPER BUS BAR. STAND-OFF MOUNT, 6" MINIMUM ABOVE VAULT FLOOR ON ALL SIDES.

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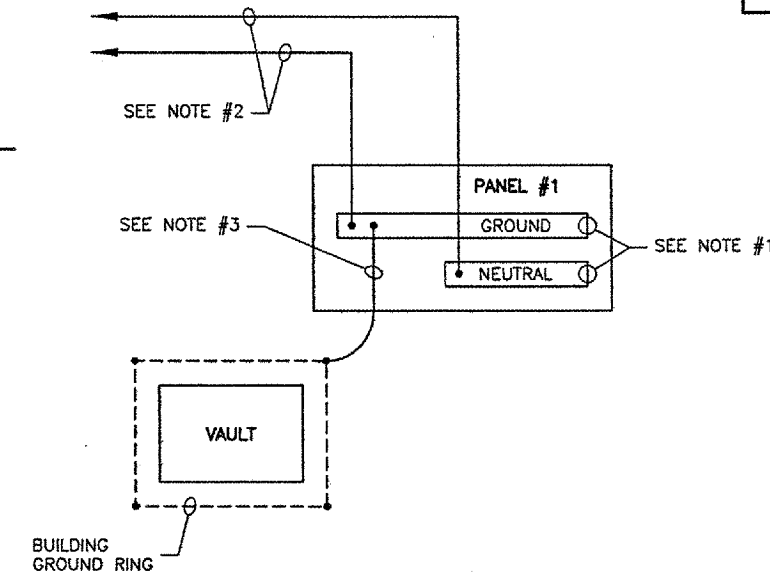
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APPROVED BY:	
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ILLINOIS PROJECT DMV-3684 A.I.P. PROJECT 3-17-0032-B11	
SHEET 8 OF 16 SHEETS	

VERMILION COUNTY AIRPORT
 DANVILLE, ILLINOIS
 RELOCATE AIRFIELD ELECTRICAL VAULT
 VAULT DETAILS - 2

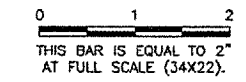
GROUNDING AND NEUTRAL WIRING NOTES

1. DO NOT BOND NEUTRAL AND GROUND BARS IN PANEL.
2. TO EXISTING ATS IN GENERATOR SHELTER.
3. #2 IN 1/2" PVC CONDUIT.



SYSTEM GROUNDING AND NEUTRAL WIRING

REVISIONS		
NUMBER	BY	DATE



PANEL SCHEDULE																	
PANEL DESIGNATION:		PANEL #1		BOND NEUTRAL AND GROUND BAR: NO						TYPE: CROUSE-HINDS I-LINE							
LOCATION:		VAULT		SHORT CIRCUIT RATING: 10,000 A						POLE: 30							
VOLTS: 240 / 120				WIRE: 4				AMPS: 400									
PHASE: THREE				MOUNTING: SURFACE				MAIN CIRCUIT BREAKER: 400A									
CKT NO.	LOAD	BREAKER SIZE	LOAD AMPS	USAGE FACTOR	PHASE AMPS (USAGE)			POLE NO.	PHASE AMPS (USAGE)			USAGE FACTOR	LOAD AMPS	BREAKER SIZE	LOAD	CKT NO.	
					A	B	C		A	B	C						
1	RWY 03/21 REGULATOR, 30KW	175A-2P	137	0.75	102.75			1	2	35			0.5	70	90A-2P	TXY CKT #1 REGULATOR, 15KW	2
5	RWY 18/34 REGULATOR, 15KW	90A-2P	70	0.75				3	4		35		0.5	70	90A-2P	TXY CKT #2 REGULATOR, 15KW	6
9	5KW UNIT HEATER	30A-2P	21	1				7	8	35			0.5	70	90A-2P	TXY CKT #3 REGULATOR, 15KW	10
13	EXHAUST FAN	20A-1P	8	0	0			9	10		35		0.5	70	90A-2P		14
15	WIND TEE & WIND CONE	20A-1P	10	1				11	12				1	8	20A-1P	LIGHTING	16
17	BEACON	20A-1P	4	1				13	14	8			0.25	15	20A-1P	RECEPTACLES	18
19	APRON LIGHTS	20A-2P	12	1	12			15	16		3.75		1	12.5	20A-2P	REL 16	22
23	APRON LIGHTS	20A-2P	12	1	12			17	18		12.5		1	12.5	20A-2P	VASI 16	28
27	SPARE 30KW REGULATOR	175A-2P	137	0				19	20	12.5			1	12.5	20A-2P	SPARE 15KW REGULATOR	30
31	SPARE	20A-1P						21	22		12.5		1	12.5	20A-2P	L-854 RADIO CONTROLLER	32
33	SPARE	20A-1P						23	24				0	70	90A-2P	SPARE	34
35	SPARE	20A-1P						25	26	0			0	70	90A-2P	SPARE	36
37	SPARE	20A-1P						27	28	0			0	70	90A-2P	SPARE	38
39	SPARE	20A-1P						29	30	0			0	70	90A-2P	SPARE	40
41	SPARE	20A-1P											1	2	20A-1P	SPARE	42
SECTION TOTAL:					179.25	145.75	89.5				90.5	86.25	95	TOTAL USAGE LOAD:			82350 VA
MIN. MAIN CIRCUIT BREAKER CAPACITY: 310					PHASE TOTAL AMPS:			A B C			299.75 232 184.5			MIN. XFMR VA:			102938 VA
					PHASE TOTAL VA:			A B C			32370 27840 22140						

PROVIDE TRANSIENT VOLTAGE SURGE SUPPRESSOR (TVSS). TVSS SHALL COMPLY WITH U.L. 1449 2ND EDITION AND NEMA LS-1 - LOW VOLTAGE SURGE PROTECTION DEVICES. MINIMUM TOTAL SURGE CURRENT AND WITHSTAND CAPABILITY SHALL BE 120 KA PER PHASE, 60 KA PER MODE.

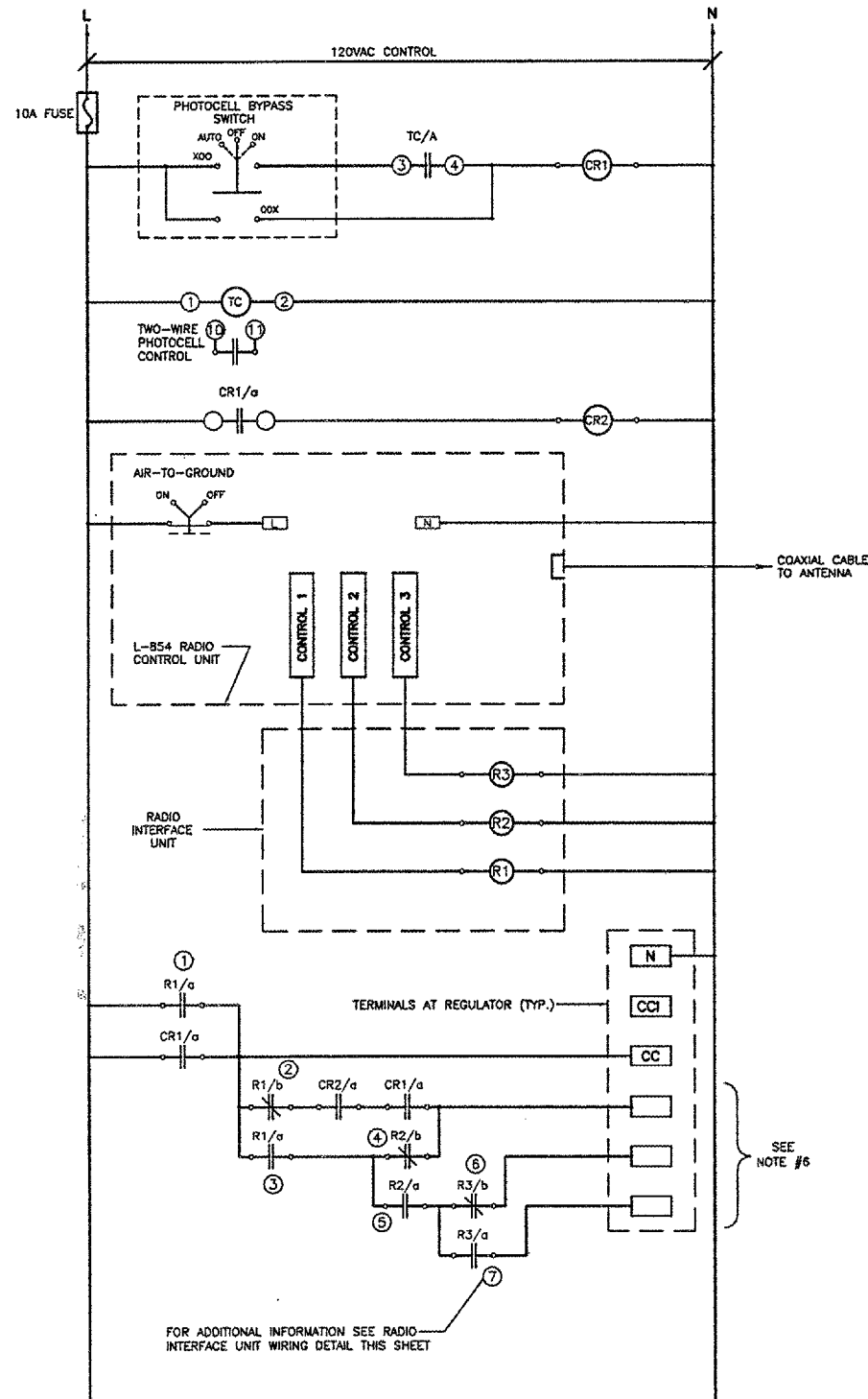
LIGHT FIXTURE SCHEDULE

FIXTURE NO.	MANUFACTURER OR EQUAL	MAKE OR MODEL #	LAMP	LOCATION & MOUNTING
F1	LITHONIA	DM-2-32-120-GEB10IS	2 - 32W FLUOR.	CEILING
F2	LITHONIA	TWH-70S-120-PE-LPI	70W HPS	EXTERIOR WALL MOUNT

VERMILION COUNTY AIRPORT
 DANVILLE, ILLINOIS
 RELOCATE AIRFIELD ELECTRICAL VAULT
 SCHEDULES AND DETAILS

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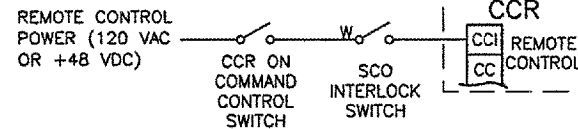
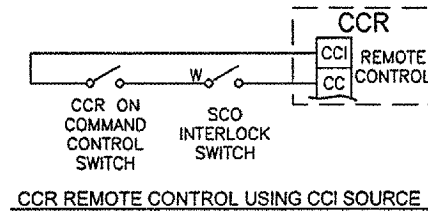
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 ILLINOIS PROJECT DNV-3684
 A.I.P. PROJECT 3-17-0032-B11
 SHEET 9 OF 16 SHEETS



CONTROL WIRING SCHEMATIC
 N.T.S.

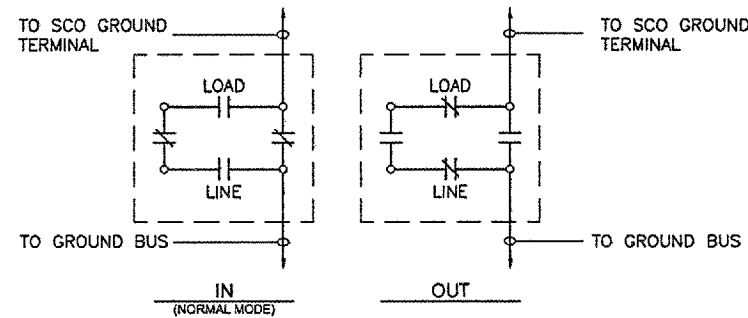
NOTES

- PHOTOCELL (PC) AT TRANSCLOSURE SUPPLIED WITH TIME CLOCK.
- TIME CLOCK TO BE GRASSLIN, MODEL PC2-DIGI 30, TWO CHANNEL PHOTO ELECTRIC/TIME SWITCH, OR EQUIVALENT. TIME CLOCK TO OPERATE AT 120VAC.
- CONTROL RELAYS (CR1 & CR2) TO BE HEAVY DUTY, 10A, 4PDT, P&B #KUP-17A19-120, OR EQUIVALENT WITH SOCKET.
- PHOTOCELL BYPASS SWITCH TO BE SQUARE D #SKS43BH2, OR EQUIVALENT, WITH PADLOCK ATTACHMENT IN NEMA 1 ENCLOSURE.
- ALL CONTROL WIRING TO BE #12 THWN UNLESS OTHERWISE NOTED.
- RWY 03/21 REGULATOR, USE TERMINALS: 3,4,5
 ALL OTHER REGULATORS, USE TERMINALS: 10,30,100

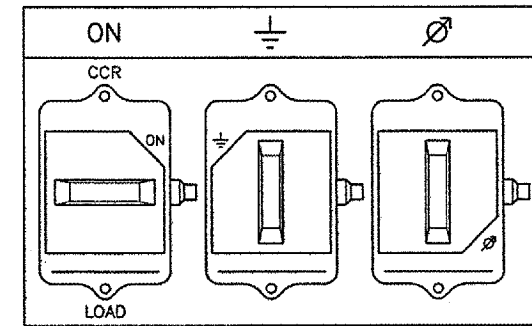


CCR REMOTE CONTROL USING EXTERNAL POWER SOURCE

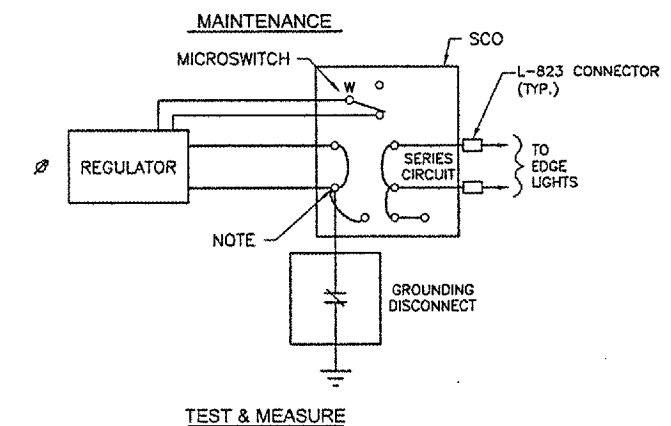
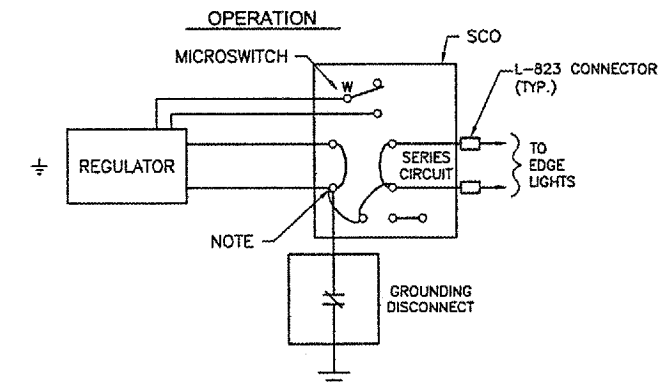
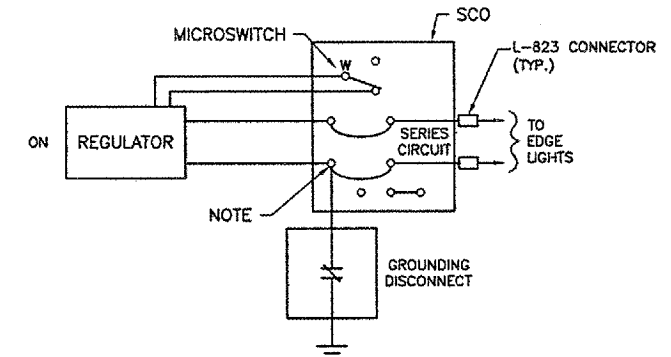
METHODS TO CONNECT SCO INTERLOCK SWITCH



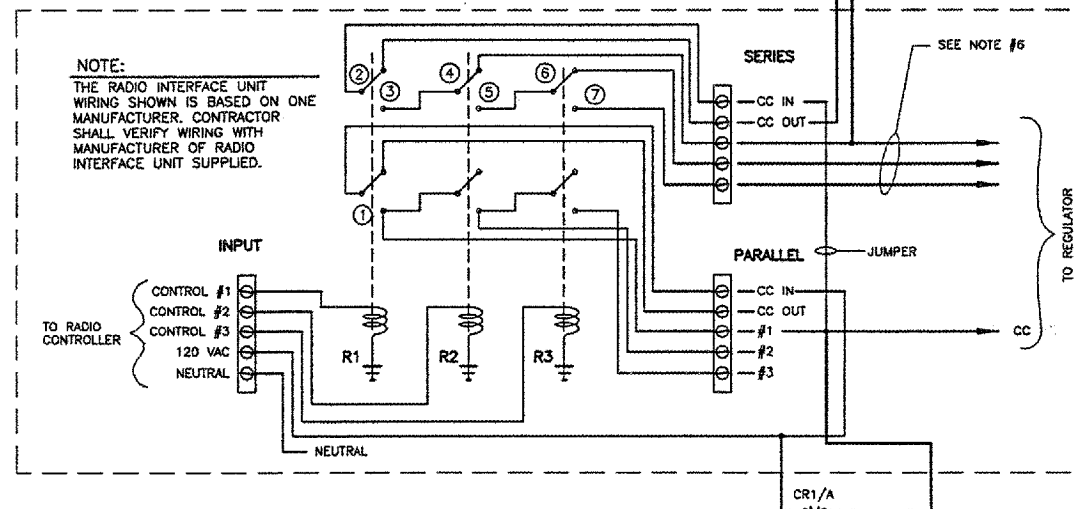
GROUNDING DISCONNECT CONFIGURATIONS



SERIES CUTOFF (SCO) CONFIGURATIONS



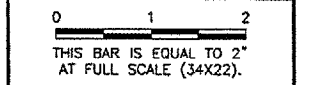
SCO WORKING DIAGRAMS



RADIO INTERFACE UNIT WIRING (TYP. OF 5)
 N.T.S.

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NUMBER	BY	DATE



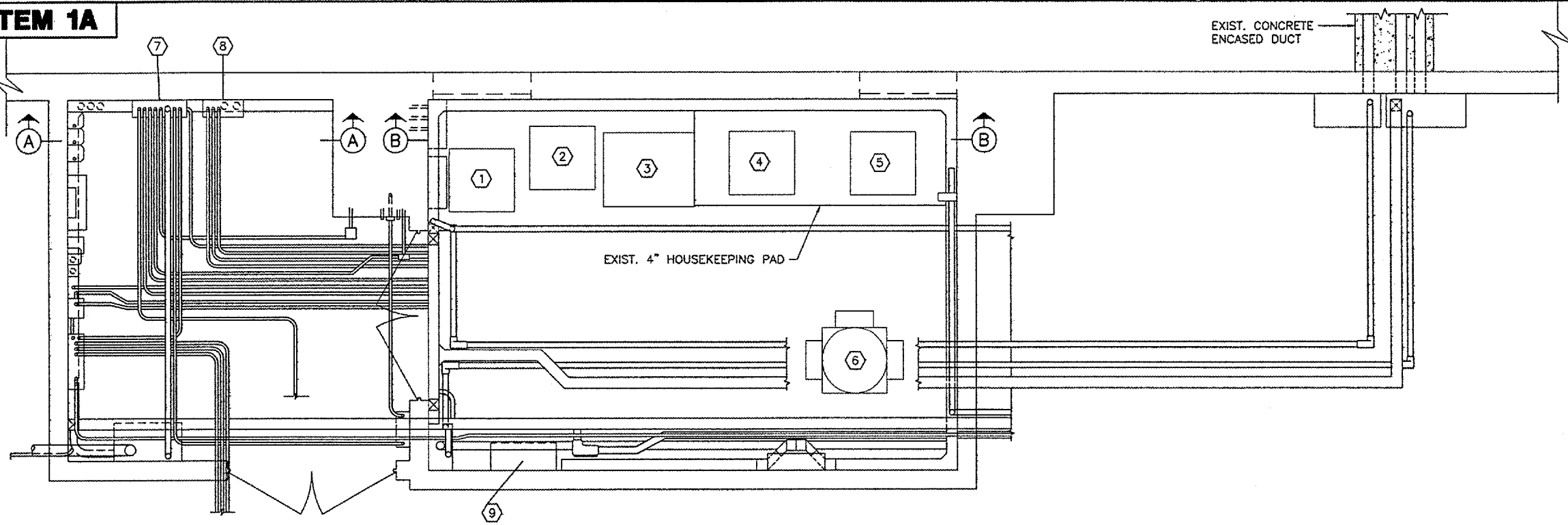
VERMILION COUNTY AIRPORT
 DANVILLE, ILLINOIS

RELOCATE AIRFIELD ELECTRICAL VAULT
 REGULATOR WIRING DETAILS

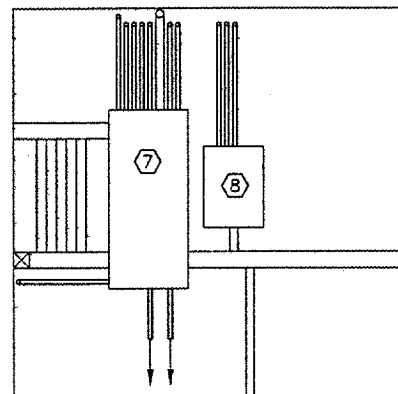
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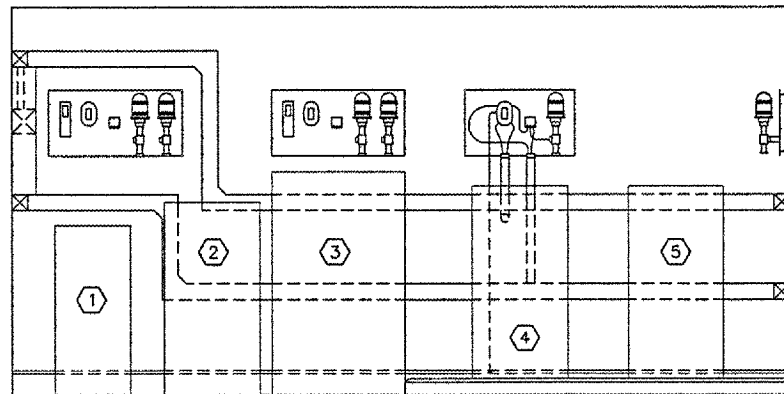
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ILLINOIS PROJECT	DNV-3684
A.I.P. PROJECT	3-17-0032-B11
SHEET	10 OF 16 SHEETS



BASEMENT OF TERMINAL BUILDING—EXISTING
 1/2"=1'-0"



SECTION A
 1/2"=1'-0"



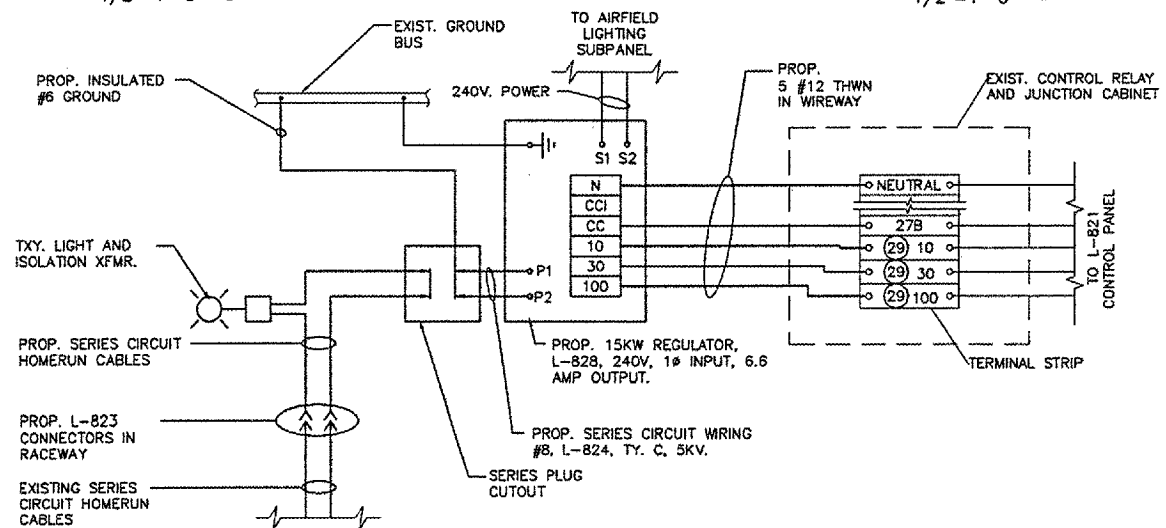
SECTION B
 1/2"=1'-0"

WIRING AND EQUIPMENT NOMENCLATURE

- ① EXISTING 10 KW REGULATOR FOR TAXIWAY A, A1 AND A2, 3-STEP, 240 VAC INPUT, 6.6 AMP OUTPUT.
- ② EXISTING 7-1/2 KW REGULATOR FOR RUNWAY 16/34 AND TAXIWAY D, 3-STEP, 240 VAC INPUT, 6.6 AMP OUTPUT.
- ③ EXISTING 15 KW REGULATOR FOR TAXIWAY C AND C1 (LIGHTING CIR #2), 3-STEP, 240 VAC INPUT, 6.6 AMP OUTPUT. RELOCATE TO NEW VAULT BUILDING WHERE IT WILL BECOME A "SPARE" REGULATOR.
- ④ EXISTING 7.5 KW REGULATOR FOR TAXIWAY B (LIGHTING CIR #3), 3-STEP, 240 VAC INPUT, 6.6 AMP OUTPUT.
- ⑤ SPARE 7.5 KW REGULATOR.
- ⑥ EXISTING 30 KW REGULATOR FOR RUNWAY 3/21, 5-STEP, 240 VAC INPUT, 6.6 AMP OUTPUT. RELOCATE TO NEW VAULT BUILDING WHERE IT WILL BECOME A "SPARE" REGULATOR.
- ⑦ EXISTING 225 AMP 120/ 240 VAC 3 PHASE, 4 WIRE, AIRFIELD LIGHTING POWER PANEL, GE CAT NO NLAB STYLE 5B. WITH 225 AMP MAIN BREAKER.
- ⑧ EXISTING AIRFIELD LIGHTING SUBPANEL, SIEMENS CAT NO. 11X18MC250A, TYPE S1.
- ⑨ EXISTING L-821 PANEL.

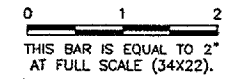
EXISTING VAULT REMOVAL NOTES

1. CONTRACTOR SHALL DISCONNECT ALL EXISTING REGULATORS. TWO REGULATORS SHALL BE RELOCATED TO NEW VAULT BUILDING AS INDICATED. THE OTHER REGULATORS SHALL BE REMOVED FROM THE BASEMENT AND STORED ON AIRPORT PROPERTY WHERE DIRECTED BY THE OWNER.
2. CONTRACTOR SHALL DISCONNECT AND REMOVE 240V POWER WIRING FROM EXISTING REGULATORS TO DISTRIBUTION PANELBOARD.
3. CONTRACTOR SHALL DISCONNECT AND REMOVE REGULATOR PLUG CUTOUPS, GROUNDING DISCONNECTS RWY & TXY INDICATING LIGHTS AND ISOLATION TRANSFORMERS AND TURN OVER TO THE OWNER.
4. CONTRACTOR SHALL DISCONNECT AND REMOVE EXISTING L-821 CONTROL PANEL AND CONTROL RELAY AND JUNCTION CABINET AND TURN OVER TO THE OWNER. REMOVE CONTROL WIRING TO REGULATORS.
5. CONTRACTOR SHALL DISCONNECT AND REMOVE WIRING AT DISTRIBUTION PANELBOARD FOR WIND TEE & WIND CONE, BEACON, REIL 16, VASI 16 AND APRON LIGHTS.



EXISTING REGULATOR WIRING (TYPICAL)

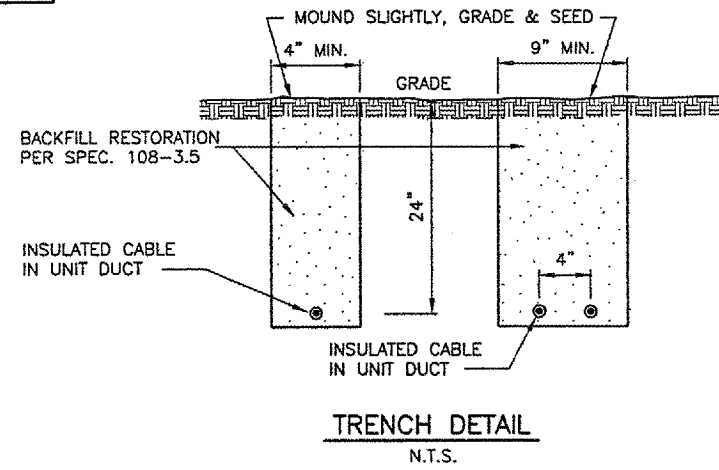
REVISIONS		
NUMBER	BY	DATE



VERMILION COUNTY AIRPORT
 DANVILLE, ILLINOIS
 RELOCATE AIRFIELD ELECTRICAL VAULT
 EXISTING VAULT

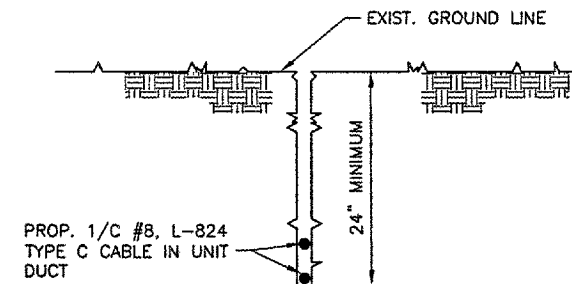
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JOB No:	0704202
ILLINOIS PROJECT DNV-3684	
A.I.P. PROJECT 3-17-0032-B11	
SHEET 11 OF 16 SHEETS	



- NOTES**
- TRENCHES WITH MORE THAN 2 CABLES SHALL BE INCREASED 3" IN WIDTH FOR EACH ADDITIONAL CABLE. IF SPECIFIED ON PLANS, TWO PARALLEL TRENCHES MAY BE CONSTRUCTED.
 - DEPTH OF TRENCHES SHALL BE AS SHOWN ABOVE UNLESS OTHERWISE SPECIFIED ON THE PLANS.
 - SAND BACKFILL SHALL BE USED IF THE EXISTING SOIL DOES NOT MEET THE BACKFILL REQUIREMENTS.
 - ALL DISTURBED SURFACES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST IS INCIDENTAL TO ITEM 108.

NOTE:
 AT CONTRACTOR'S OPTION, CABLE PLOWING MAY BE USED IN LIEU OF TRENCHING



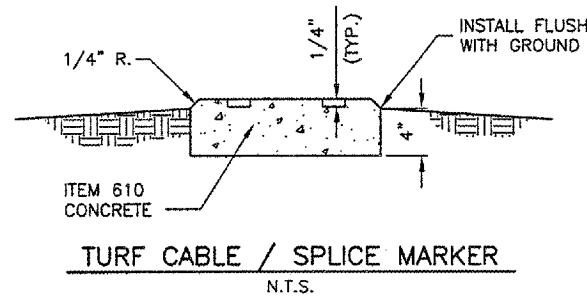
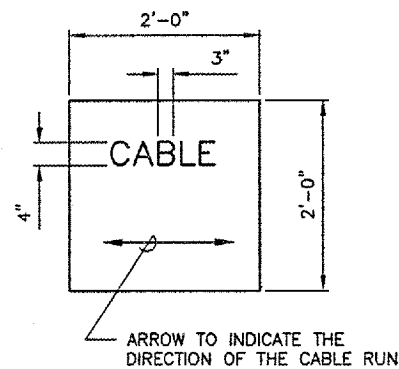
NOTE:
 WHERE TWO UNIT DUCTS ARE TO BE INSTALLED, CONTRACTOR MAY PLOW UNIT DUCTS SEPARATELY (SIDE BY SIDE)

CABLE IN UNIT-DUCT - PLOWED
 N.T.S.

REVISIONS

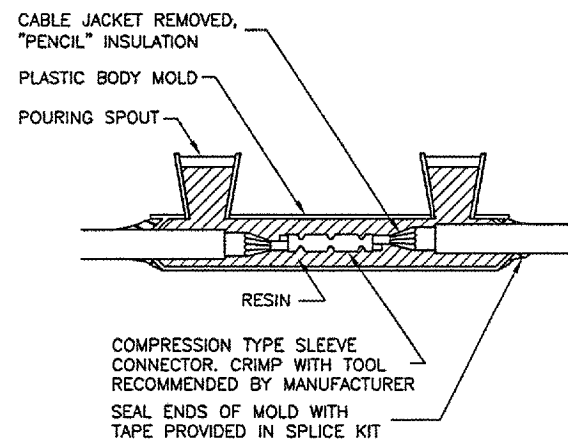
NUMBER	BY	DATE

0 1 2
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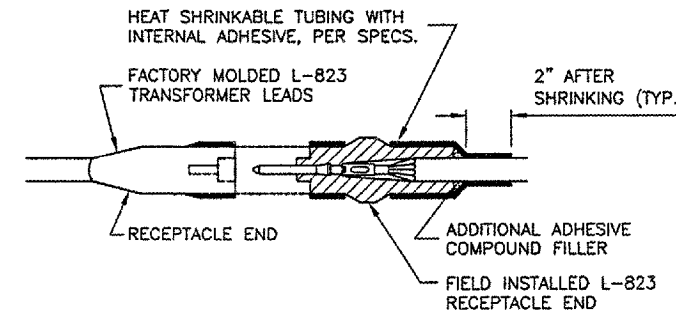
NOTES

- CABLE MARKERS SHALL BE INSTALLED AT ALL BENDS AND EVERY 200' ALONG THE HOMERUN.
- ITEM 610 CONCRETE SHALL BE USED.
- ALL EXPOSED EDGES SHALL BE EDGED WITH A 1/4" RADIUS TOOL.
- THE COST OF FURNISHING AND INSTALLING NEW MARKERS SHALL BE INCIDENTAL TO THE ASSOCIATED ITEMS.
- 0.049 CU. YD. CONCRETE PER MARKER.
- A MARKER CONFORMING TO THIS DETAIL MARKED "SPLICE" SHALL BE INSTALLED AT ALL SPLICE LOCATIONS NOT IN LIGHT CANS OR MANHOLES.



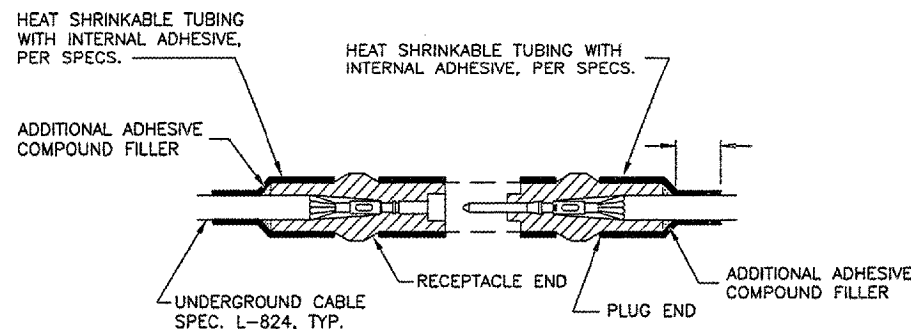
FOR IN-LINE CONNECTIONS OF EXISTING CABLES CUT DURING CONSTRUCTIONS.

TYPE A



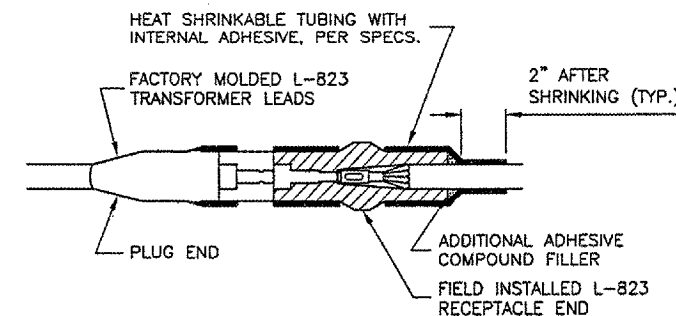
FOR SPLICES AT TAXIWAY LIGHTS AND SIGNS.

TYPE C



NOT TO BE USED IN THIS PROJECT UNLESS OTHERWISE DIRECTED BY ENGINEER

TYPE B



FOR SPLICES AT TAXIWAY LIGHTS AND SIGNS.

TYPE D

CABLE SPLICES

N.T.S.

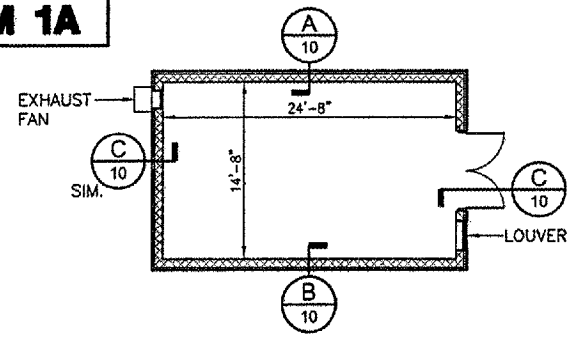
NOTES

- INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
- THE COST OF FURNISHING AND INSTALLING ALL SPLICE MATERIALS SHALL BE INCIDENTAL TO THE ASSOCIATED CABLE ITEMS.
- THE CONTRACTOR SHALL HAVE A MINIMUM OF TWO (2) TYPE A SPLICE KITS ON THE JOB SITE AT ALL TIMES FOR EMERGENCY REPAIRS.

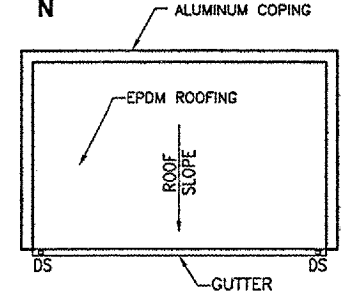
VERMILLION COUNTY AIRPORT
 DANVILLE, ILLINOIS
 RELOCATE AIRFIELD ELECTRICAL VAULT
 ELECTRICAL DETAILS SHEET 2

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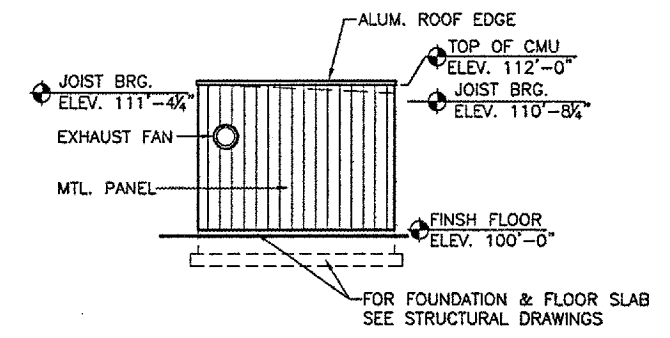
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A.I.P. PROJECT 3-17-0032-B11	
SHEET	13 OF 16 SHEETS



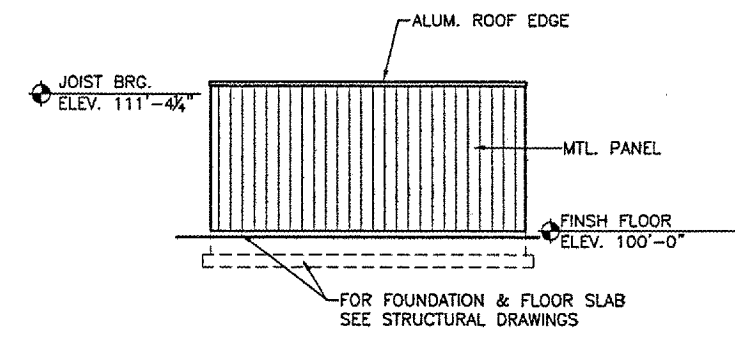
1 FLOOR PLAN
 SCALE: 1/8"=1'-0"



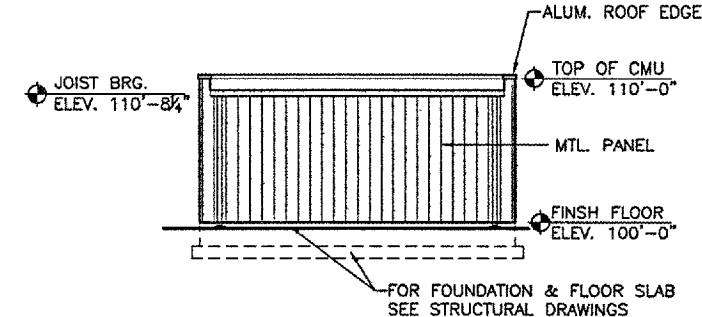
2 ROOF PLAN
 SCALE: 1/8"=1'-0"



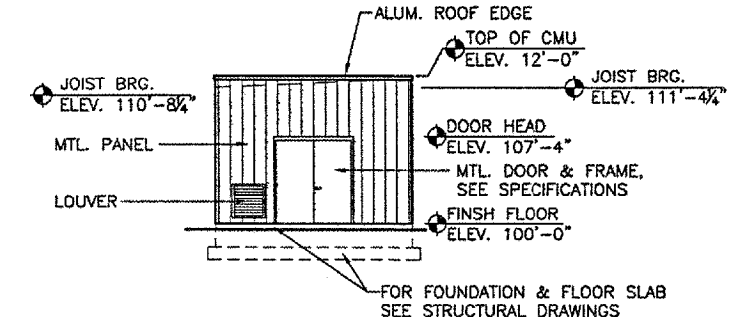
3 EXTERIOR ELEVATION - WEST
 SCALE: 1/8"=1'-0"



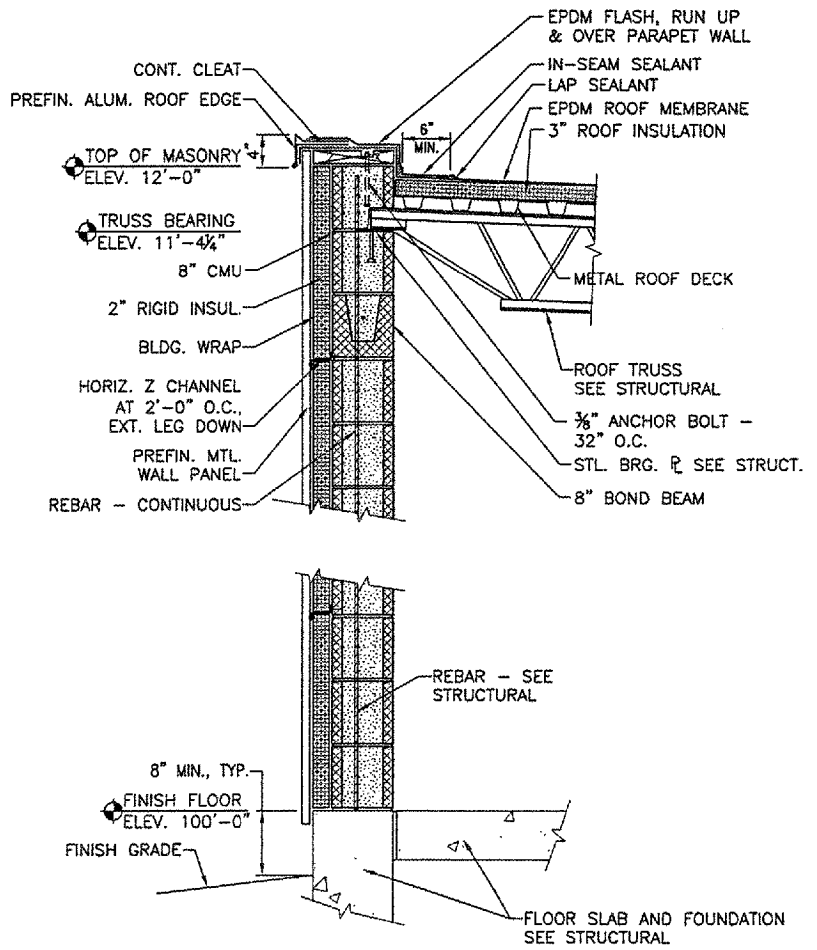
4 EXTERIOR ELEVATION - NORTH
 SCALE: 1/8"=1'-0"



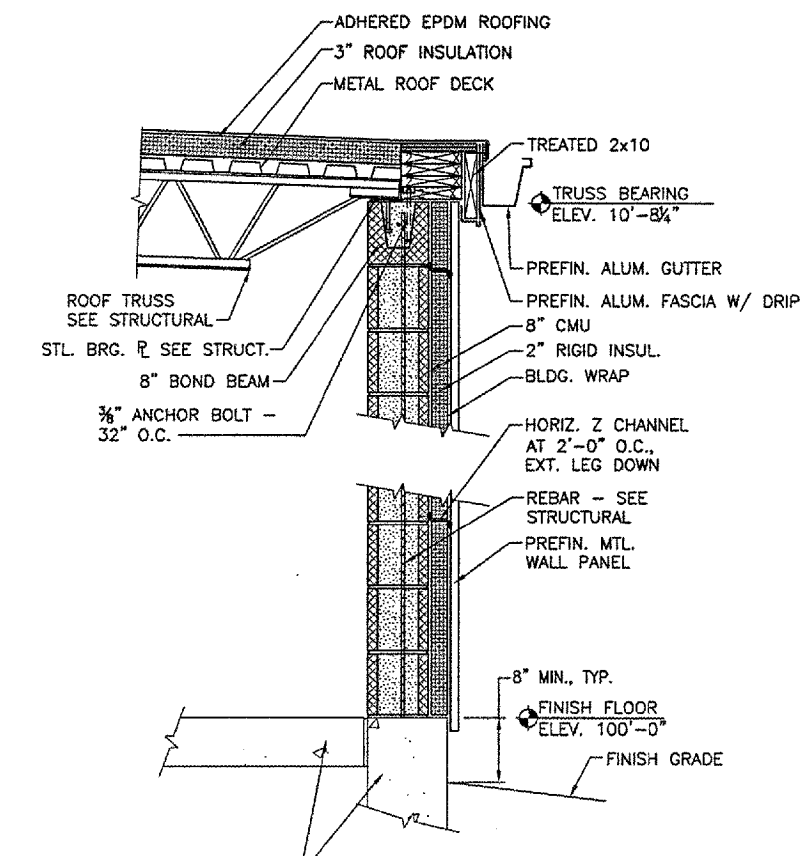
5 EXTERIOR ELEVATION - SOUTH
 SCALE: 1/8"=1'-0"



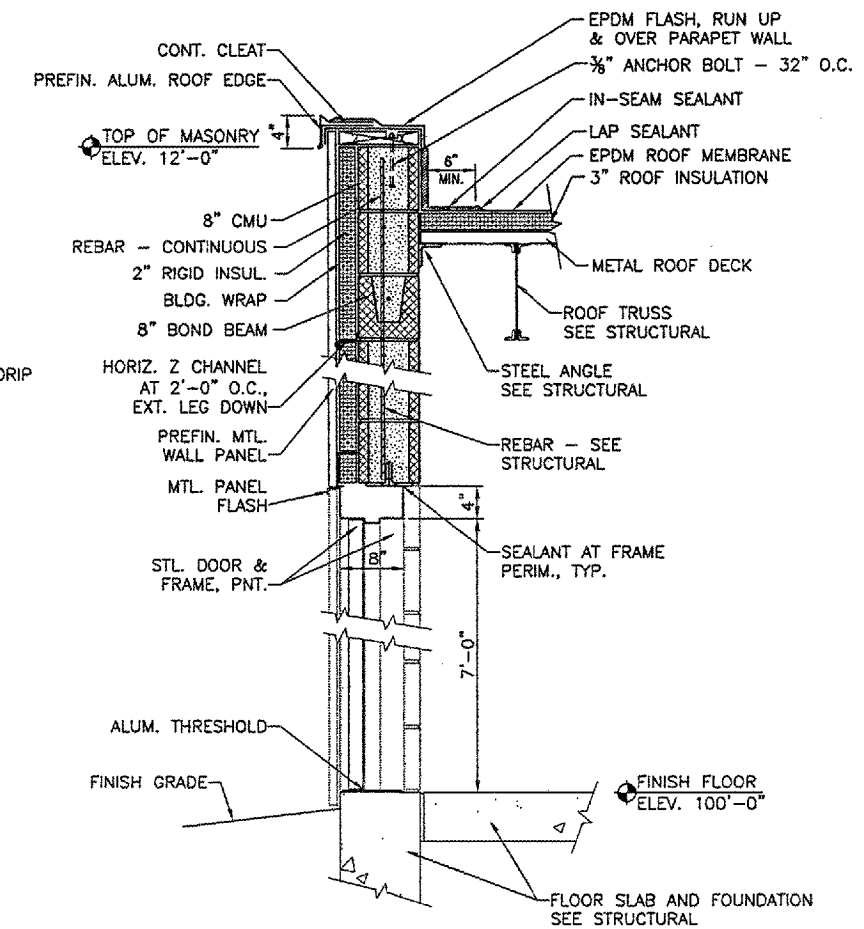
6 EXTERIOR ELEVATION - EAST
 SCALE: 1/8"=1'-0"



A WALL SECTION
 SCALE: 1"=1'-0"



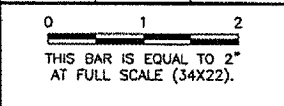
B WALL SECTION
 SCALE: 1"=1'-0"



C WALL SECTION
 SCALE: 1"=1'-0"

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NUMBER	BY	DATE

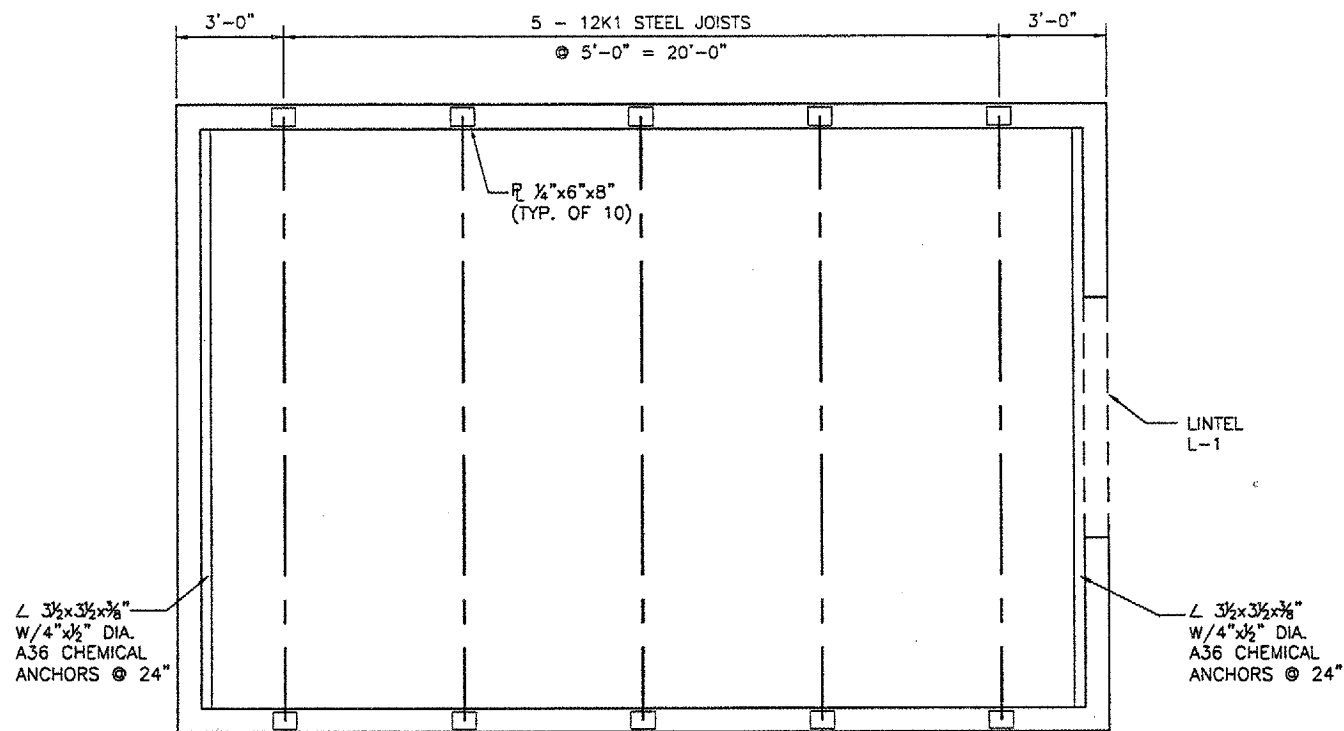
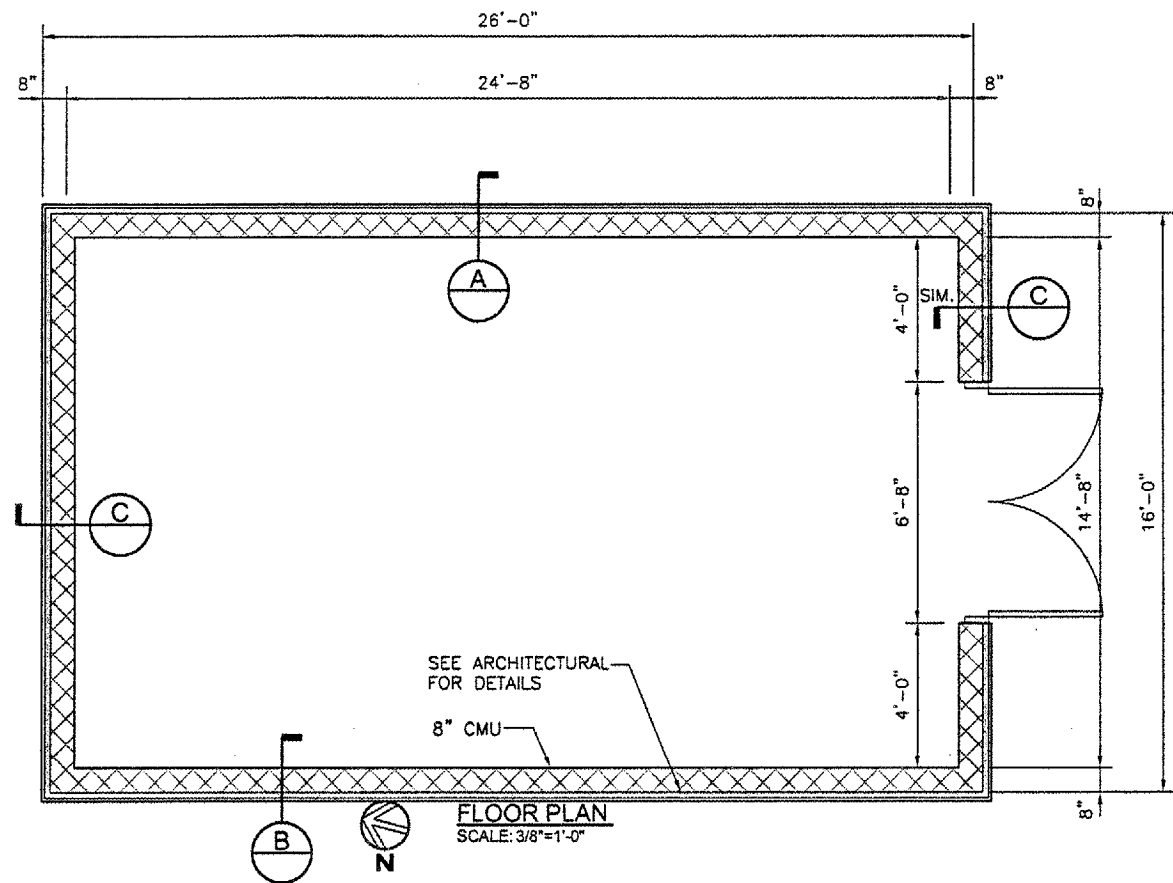


VERMILION COUNTY AIRPORT
DANVILLE, ILLINOIS
RELOCATE AIRFIELD ELECTRICAL VAULT
NEW ELECTRICAL VAULT
FLOOR PLAN, ROOF PLAN,
EXTERIOR ELEVATIONS & WALL SECTIONS

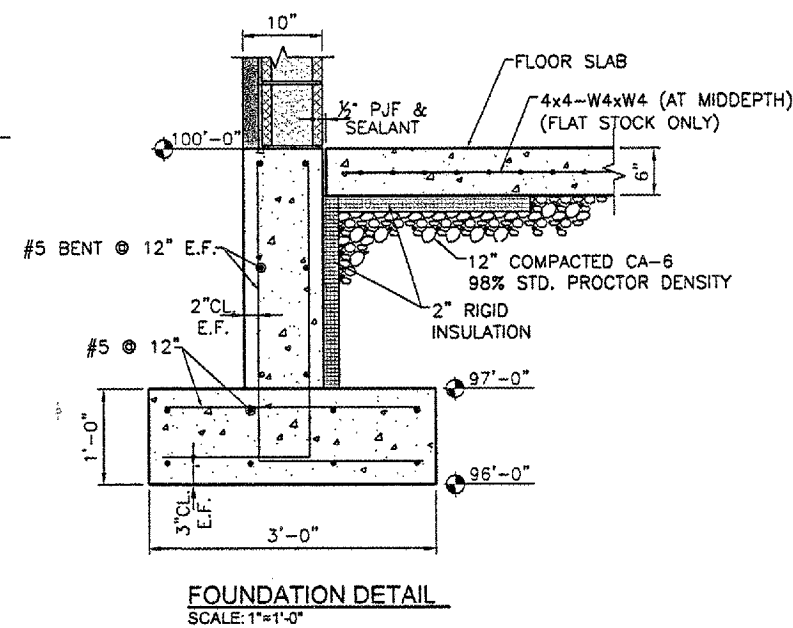
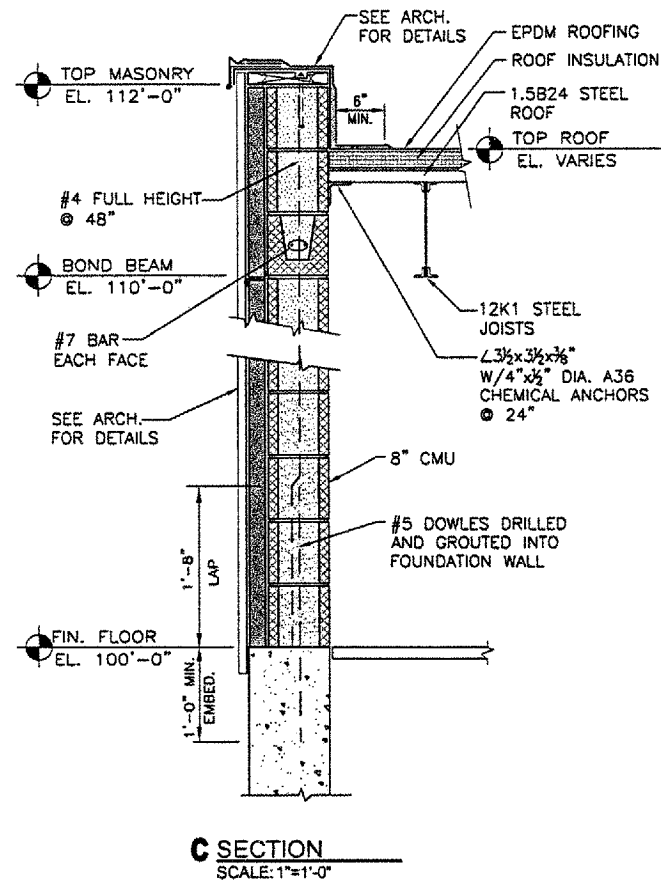
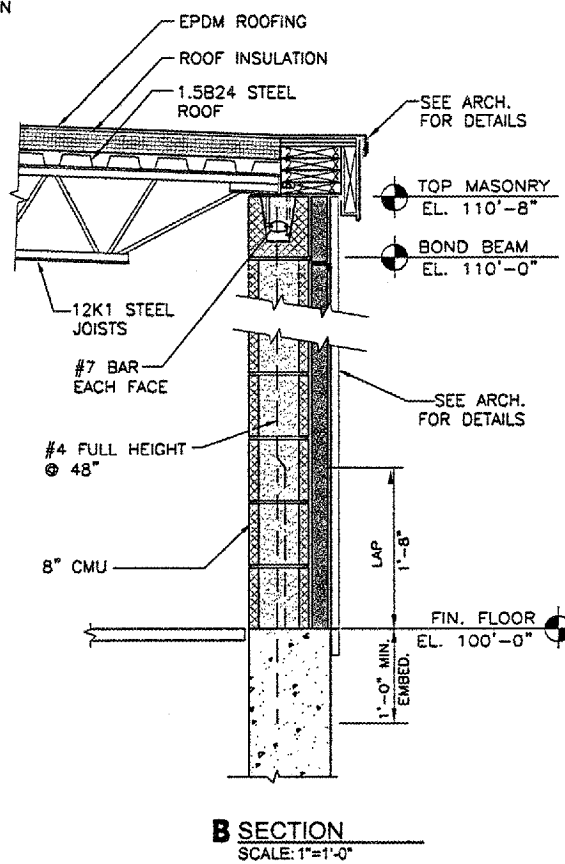
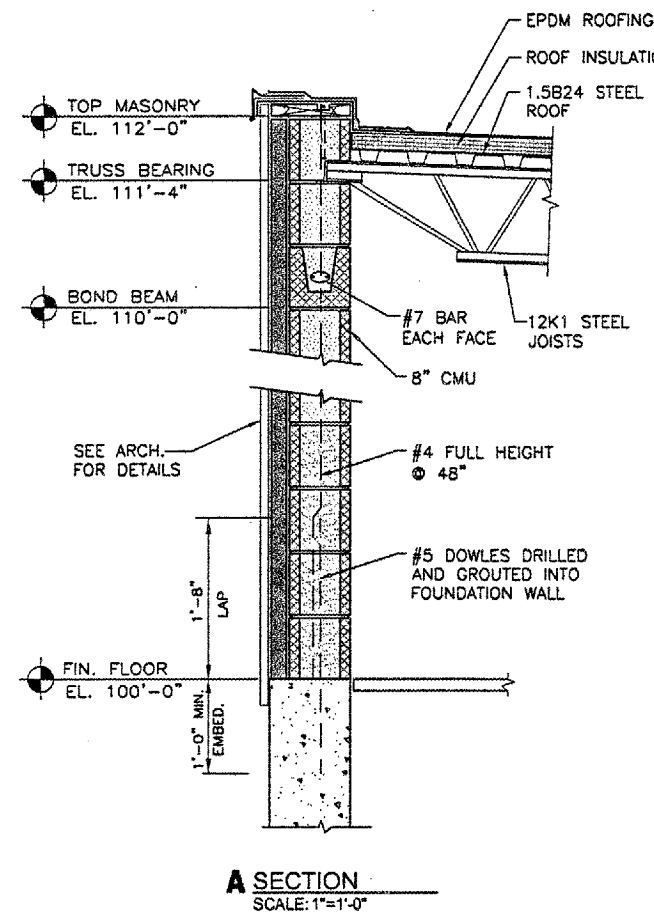
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ILLINOIS PROJECT DNV-3684	
A.I.P. PROJECT 3-17-0032-811	
SHEET 14 OF 16 SHEETS	



LINTEL SCHEDULE				
NO.	SIZE	SHAPE	M.O.	BRG. LENGTH (EACH END)
L-1	2- $\angle 3\frac{1}{2} \times 3\frac{1}{2} \times \frac{3}{8}$		6'-8"	8"



- NOTES**
- LOOSE LINTELS NOT SHOWN ON THESE DRAWINGS SHALL BE PROVIDED IN ACCORDANCE WITH SPECIFICATION SECTION 05500.
 - STEEL DECK SHALL BE FASTENED TO SUPPORTING MEMBERS IN ACCORDANCE WITH SPECIFICATION SECTION 05311.

REVISIONS

NUMBER	BY	DATE

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

VERMILION COUNTY AIRPORT
 DANVILLE, ILLINOIS

RELOCATE AIRFIELD ELECTRICAL VAULT
 NEW ELECTRICAL VAULT
 STRUCTURAL DETAILS

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ILLINOIS PROJECT DNV-3684	
A.I.P. PROJECT 3-17-0032-B11	
SHEET 15 OF 18 SHEETS	

GENERAL STRUCTURAL NOTES

- DESIGN LOADS - 2006 INTERNATIONAL BUILDING CODE (IBC)

ROOFS	LIVE LOAD - SNOW INCREASE FOR DRIFT PER 2006 IBC / ASCE 7 BASIC GROUND SNOW LOAD 30 P.S.F.	
ROOFS	DEAD LOAD	20 P.S.F.
WALKWAYS	LIVE LOAD	100 PSF
LATERAL LOAD	WIND	
	BASIC WIND SPEED	90 M.P.H.
	EXPOSURE C	1.00
	IMPORTANCE FACTOR	
SEISMIC	S _s	20%
	S ₁	8%
	OCCUPANCY CATEGORY	II
	SEISMIC DESIGN CATEGORY	B
	IMPORTANCE FACTOR	1.00
MASONRY WALL DEAD LOADS	8" C.M.U.	60 P.S.F.
	4" C.M.U.	35 P.S.F.
ALLOWABLE SOIL BEARING PRESSURE		1000 P.S.F. (NET)
- VERIFY DRAWINGS FOR LOCATION OF ALL OPENINGS IN WALLS AND SLABS.
- ALL ANCHOR BOLTS, NUTS, WASHERS, ETC. SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A-153 UNLESS OTHERWISE NOTED.
- ALL FILL OR BACKFILL WITHIN THE LIMITS OF A BUILDING OR A STRUCTURE SHALL BE COMPACTED ACCORDING TO THE SPECIFICATIONS.
- ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL BE COATED WITH UNTHINNED BITUMASTIC PAINT. ALL ALUMINUM SURFACES IN CONTACT WITH STEEL OR DISSIMILAR METAL SHALL BE ISOLATED BY 1/4" MIN. THICKNESS 60 DUROMETER NEOPRENE PADS.
- CONTRACTOR SHALL COORDINATE STRUCTURAL SHEETS WITH ALL OTHER SHEETS FOR PIPE SIZES AND LOCATIONS, BLOCK OUTS, ELECTRICAL REQUIREMENTS AND ANCHOR BOLTED ATTACHMENTS, AND SHALL COORDINATE THE INSTALLATION OF ELECTRICAL AND MECHANICAL EQUIPMENT WITH THE RESPECTIVE SUB-CONTRACTORS PRIOR TO THE REPLACEMENT OF THE CONCRETE. SEE HVAC, MECHANICAL, AND ELECTRICAL PLANS FOR SLEEVES, INSERTS, ETC.
- CONTRACTOR IS RESPONSIBLE FOR ADEQUACY OF TEMPORARY SHORING, TO RESIST ALL LOADING CONDITIONS DURING CONSTRUCTION.
- SHORING FOR ROOF AND FLOOR SLABS SHALL BE REMOVED IN SUCH A MANNER AS TO MAINTAIN A UNIFORM LOADING ON THE SLAB AT ALL TIMES. REMOVAL OF SHORING SHALL NOT BEGIN UNTIL THE CONCRETE HAS ATTAINED ITS SPECIFIED STRENGTH.
- UNLESS SPECIFICALLY DETAILED HEREIN, NO PIPES OR SLEEVES SHALL PASS THROUGH STRUCTURAL MEMBERS WITHOUT APPROVAL OF THE ENGINEER.
- ALL FOOTING EXCAVATIONS SHALL BE CLEAN AND FREE OF DEBRIS, STANDING WATER AND LOOSE SOIL AND SHALL BE INSPECTED BY THE ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
- 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 STD. PROCTOR MAXIMUM DRY DENSITY (ASTM D-698), UNLESS OTHERWISE SPECIFIED.
- PROTECT SUBGRADE AT ALL TIMES INCLUDING PROPER DRAINAGE OF CONSTRUCTION AREAS, PREVENTION OF STANDING WATER, MINIMIZING CONSTRUCTION TRAFFIC AND PLACING FOUNDATION CONCRETE AS SOON AS POSSIBLE AFTER EXCAVATING (PREFERABLY THE SAME DAY). SUBGRADE PROTECTION IS IMPORTANT CONSIDERING THE NATURE OF THE ON-SITE SOILS.
- ALL FILL MATERIAL SHALL BE ACCEPTABLE TO USE BY THE ENGINEER IN ADVANCE OF PLACEMENT. 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 NOT BEEN ACCEPTED BY THE ENGINEER. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- BACKFILL AGAINST GRADE WALLS SHALL BE PLACED EVENLY ON ALL SIDES, UNLESS OTHERWISE NOTED.
- DO NOT SCALE DIMENSIONS FOR CONSTRUCTION.

CONCRETE NOTES

- ALL CAST-IN-PLACE CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 P.S.I.
- ALL REINFORCEMENT BARS SHALL CONFORM TO ASTM-A615, GRADE 60.
- ALL WELDED WIRE REINFORCEMENT SHALL CONFORM TO ASTM-A185. (FLAT STOCK ONLY)
- ALL CONCRETE WORK SHALL CONFORM TO ACI 318-05 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE." ALL REINFORCING DETAILS NOT SHOWN SHALL CONFORM TO ACI 315 "DETAILING MANUAL," LATEST EDITION.
- REINFORCING BAR LAP SPLICES SHALL BE CLASS "B" SPLICES UNLESS SHOWN OTHERWISE ON THE DRAWINGS. MECHANICAL SPLICES MAY BE USED IN LIEU OF LAP SPLICES. MECHANICAL SPLICES SHALL DEVELOP IN TENSION OR COMPRESSION, AT LEAST 125 PERCENT OF THE SPECIFIED YIELD STRENGTH, F_y OF THE BAR. THE CONTRACTOR SHALL SUBMIT, TO THE ENGINEER, MANUFACTURER'S LITERATURE, PRODUCT SAMPLES AND CERTIFIED TEST REPORTS PRIOR TO RECEIVING APPROVAL OF THE MECHANICAL SPLICES. LOCATIONS OF THE MECHANICAL BAR SPLICES SHALL BE SHOWN ON THE REINFORCING STEEL SHOP DRAWINGS.
- AT CONSTRUCTION JOINTS SHOWN ON THE PLANS, WHERE DOWELS WILL PENETRATE CONSTRUCTION FORMWORK, THE CONTRACTOR MAY USE A MANUFACTURED DOWEL BAR SUBSTITUTION SYSTEM WHEN APPROVED IN WRITING BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT MANUFACTURER'S LITERATURE, PRODUCT SAMPLES AND CERTIFIED TEST REPORTS TO THE ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL ALSO INCLUDE INFORMATION ON WHERE HE PROPOSES TO USE THEM. TEST REPORTS SHALL SHOW YIELD AND ULTIMATE TENSILE LOAD CAPACITIES.
- CONCRETE PROTECTION (MINIMUM CONCRETE COVER) FOR REINFORCEMENT SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED: A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3" B. CONCRETE EXPOSED TO EARTH OR WEATHER 2" C. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND 3/4" 1. WALLS, BEAMS, COLUMNS, PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS 1-1/2"
- ALL REINFORCEMENT BARS SHALL BE CLEAN AND FREE OF GREASE, SCALING RUST, AND OTHER FOREIGN MATERIALS.
- UNLESS OTHERWISE INDICATED, FOR SLABS ON GRADE, USE 1/2" THICK PREMOLDED JOINT FILLER TO ISLOATE THE SLAB FROM CONTACT WITH THE STRUCTURES ALONG ITS PERIMETER AND APPLY TWO-COMPONENT POLYURETHANE SEALANT, 3/4" MINIMUM DEPTH.
- A LEAN CONCRETE MUD SLAB 3 TO 4 INCHES THICK SHALL BE USED IN THE FOOTING EXCAVATION IF THE BOTTOM OF THE EXCAVATION TENDS TO BECOME MUDDY AND SOFT. LEAN CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,000 P.S.I.
- ALL EXPOSED EDGES AND EQUIPMENT PADS SHALL BE CHAMFERED 3/4".
- TWO #5 BARS EACH FACE SHALL BE PROVIDED DIAGONALLY AT ALL CORNERS OF SLAB OR WALL OPENING. BARS SHALL BE EXTENDED 24 IN. MINIMUM BEYOND CORNERS OF THE OPENINGS.
- REINFORCEMENT BAR BENDING DIMENSIONS ARE OUT TO OUT.
- UNLESS NOTED OTHERWISE, PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS-ON-GRADE AT 15'-0" MAXIMUM SPACES EACH DIRECTION OR AS SHOWN ON DRAWINGS. CONTROL JOINTS TO BE SAW CUT 1 1/2" DEEP IN SLAB OR USE A PREFORMED CONTROL JOINT FORMER APPROVED BY THE ENGINEER.
- NO CONSTRUCTION JOINTS EXCEPT THOSE SHOWN ON THE PLANS WILL BE ALLOWED EXCEPT THOSE SUBMITTED BY THE CONTRACTOR IN WRITING AND APPROVED BY THE ENGINEER.
- EXPOSED CONCRETE SHALL RECEIVE A SCRUBBED FINISH TO 1'-0" MINIMUM BELOW FINISH GRADE. SEE SECTION 03300 OF SPECIFICATIONS FOR FINISHING REQUIREMENTS.

*CLASS "B" SPLICE				
f'c = 4,000 PSI fy = 60,000 PSI				
UNCOATED BARS		EPOXY COATED BARS		
SIZE	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS
#3	1'-7"	2'-1"	1'-11"	2'-5"
#4	2'-1"	2'-9"	2'-6"	3'-3"
#5	2'-7"	3'-5"	3'-1"	4'-1"
#6	3'-1"	4'-1"	3'-9"	4'-10"
#7	4'-6"	5'-11"	5'-5"	7'-1"
#8	5'-2"	6'-9"	6'-2"	8'-1"
#9	5'-10"	7'-7"	7'-0"	9'-1"
#10	6'-6"	8'-5"	7'-9"	10'-1"
#11	7'-1"	9'-3"	8'-6"	11'-1"
#14	9'-0"	11'-9"	10'-10"	14'-1"

NOTE: TOP BARS CONSIST OF HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE SPLICE.

PER ACI 318-05 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE. *

MASONRY NOTES

- ALL CONCRETE MASONRY UNITS SHALL BE GRADE N-1.
- ALL GROUT FOR MASONRY SHALL BE NON-SHRINK AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2500 P.S.I.
- ALL MASONRY CELLS WITH VERTICAL REINFORCEMENT SHALL BE GROUTED SOLID.
- ALL LINTEL BEARINGS SHALL BE GROUTED SOLID TO FOUNDATION AND SHALL CONTAIN 1 - #5 BAR FULL HEIGHT. LINTEL BEARING PLATES SHALL BE FULLY GROUTED WITH 1/2" MIN. THICKNESS NON-SHRINK GROUT.
- ANCHOR BOLTS SHALL BE PROVIDED AT ALL LINTEL MASONRY BEARINGS.
- CONCRETE MASONRY UNITS SHALL HAVE TWO CELLS AS SPECIFIED IN DIVISION (4) OF THE SPECIFICATIONS.
- MORTAR SHALL BE TYPE "S" WITH A MINIMUM COMPRESSIVE STRENGTH OF 1800 P.S.I. AT 28 DAYS.
- UNITS SHALL BE PLACED IN RUNNING BOND, UNLESS OTHERWISE NOTED.
- MASONRY CONSTRUCTION TO CONFORM TO THE REQUIREMENTS OF THE 2006 INTERNATIONAL BUILDING CODE AND ACI 530 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES.
- HORIZONTAL JOINT REINFORCEMENT IN MASONRY SHALL BE PLACED IN THE FIRST THREE MORTAR JOINTS ABOVE LINTELS AND BELOW OPENINGS. EXTEND THE REINFORCEMENT AT LEAST 24" PAST JAMBS. IN ADDITION, PROVIDE WIRE TIES ALTERNATING WITH REINFORCEMENT @ 16" CENTERS VERTICALLY AND WITHIN 12" OF OPENING JAMBS.
- REINFORCEMENT SHALL BE AS CALLED FOR ON THE DRAWINGS. ALL REINFORCEMENT BARS SHALL CONFORM TO ASTM - A615 GRADE 60.
- MASONRY DESIGN BASED ON INSPECTED WORKMANSHIP F'm = 1500 PSI.

STEEL JOIST NOTES

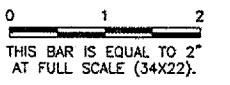
- THE MANUFACTURING, DETAILING AND ERECTING OF STEEL JOISTS SHALL BE ACCORDANCE WITH THE STEEL JOIST INSTITUTE (SJI). JOISTS SHALL BE IN ACCORDANCE WITH SJI K SERIES SPECIFICATIONS.
- JOIST BEARING SHALL BE STANDARD SJI BEARINGS UNLESS SHOWN OTHERWISE ON DRAWINGS.
- JOIST BRIDGING SHALL BE STANDARD SJI BRIDGING UNLESS SHOWN OTHERWISE ON DRAWINGS.
- BEARING CONNECTIONS SHALL BE DESIGNED TO RESIST A MINIMUM OF 1.0 KIPS LATERAL LOADS AND 2.0 KIPS VERTICAL UPLIFT LOADS FOR EACH BEARING.
- JOIST SPACING AND LAYOUT SHALL BE AS INDICTED ON THE DRAWINGS.

METAL DECK NOTES

- THE MANUFACTURING, DETAILING AND ERECTING OF METAL DECK SHALL BE ACCORDANCE WITH THE STEEL DECK INSTITUTE SPECIFICATION. STRUCTURAL DIAPHRAGM ACTION SHALL BE PROVIDED BY THE METAL DECK AND ITS WELDED ATTACHMENT.
- METAL DECK SHALL BE CONTINUOUS OVER AT LEAST 2 SPANS WITH JOINTS OVER SUPPORTING MEMBERS.

REVISIONS

NUMBER	BY	DATE



VERMILION COUNTY AIRPORT
DANVILLE, ILLINOIS

RELOCATE AIRFIELD ELECTRICAL VAULT
GENERAL STRUCTURAL NOTES



DESIGN BY:	CET
DRAWN BY:	CMT
CHECKED BY:	JJF
APPROVED BY:	CET
DATE:	06-22-2007
JOB No:	0704202
ILLINOIS PROJECT DNV-3684	
A.I.P. PROJECT 3-17-0032-B11	
SHEET	16 OF 16 SHEETS