



BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024
LICENSE EXPIRES: 11/30/2025

**TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION**

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: G-003-SOW.DWG
DESIGN BY: JRH 1/16/2024
DRAWN BY: NLD 1/16/2024
REVIEWED BY: BSS 4/19/2024

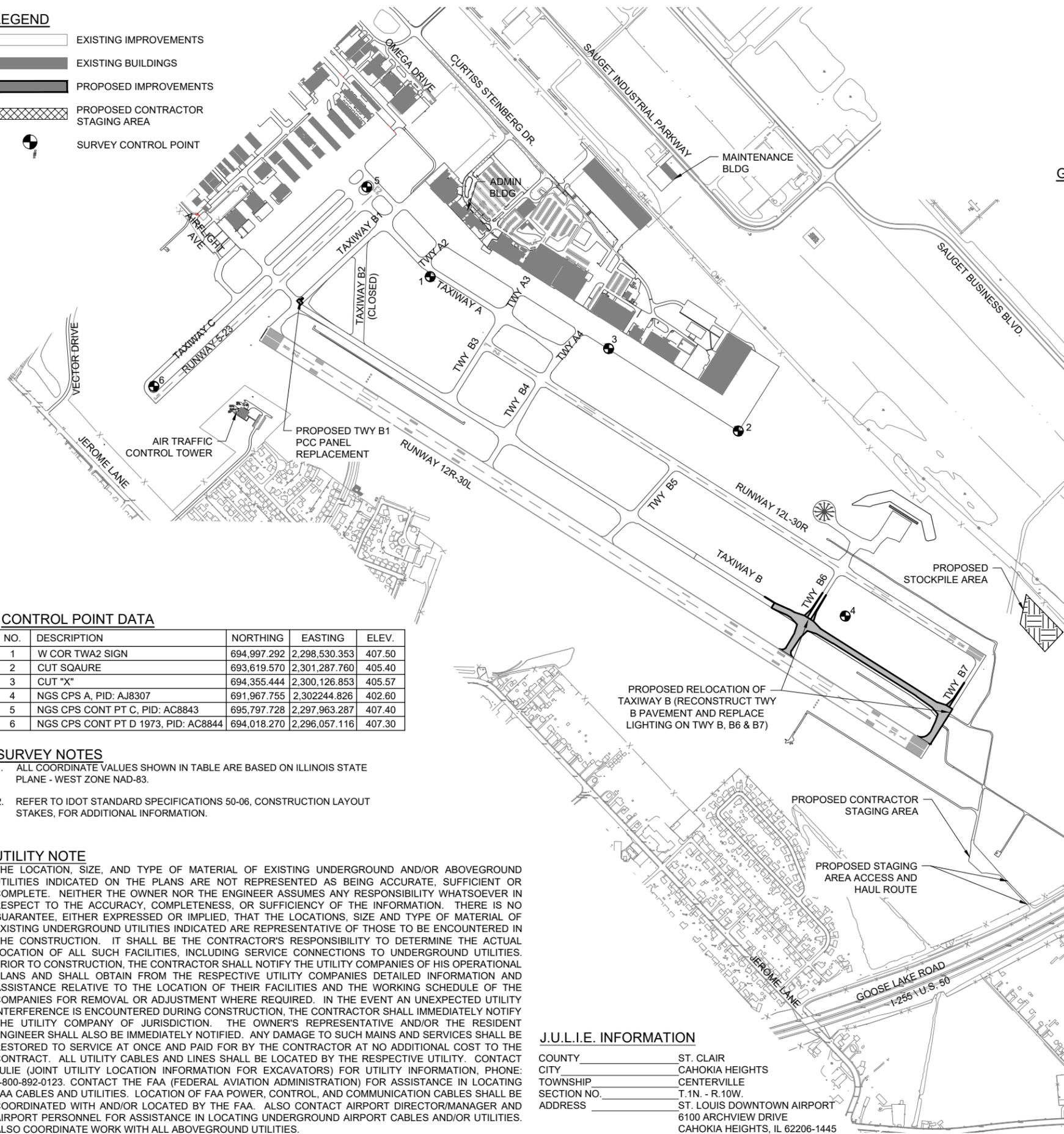
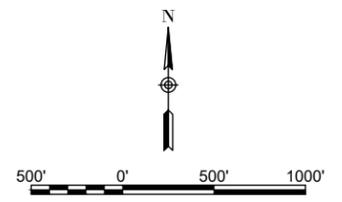
SHEET TITLE

SCOPE OF WORK

FOR BID

LEGEND

- EXISTING IMPROVEMENTS
- EXISTING BUILDINGS
- PROPOSED IMPROVEMENTS
- PROPOSED CONTRACTOR STAGING AREA
- SURVEY CONTROL POINT



GENERAL NOTES

1. THE SCOPE OF WORK SHEET IS INTENDED ONLY AS A GENERAL DESCRIPTION OF WORK ITEMS AND THEIR APPROXIMATE LOCATIONS AND LIMITS, FOR THE PURPOSE OF UNDERSTANDING THE SCOPE OF THE PROJECT. THIS SHEET SHALL NOT BE USED AS A CONSTRUCTION PLAN. REFER TO THE FOLLOWING PLAN SHEETS FOR DETAILED CONSTRUCTION REQUIREMENTS, LOCATIONS, AND ITEMS OF WORK.
2. WORK FOR THIS PROJECT SHALL CONSIST OF, BUT IS NOT LIMITED TO, THIS PROJECT CONSISTS OF RELOCATION/RECONSTRUCTION OF A PORTION OF TAXIWAY B AND ASSOCIATED TAXIWAY CONNECTORS. THE PROJECT INCLUDES PAVEMENT MILLING AND REMOVAL, EARTHWORK GRADING, AGGREGATE PLACEMENT, CONCRETE PAVING, BITUMINOUS PAVING, AIRFIELD LIGHTING AND SIGNAGE SYSTEMS INSTALLATION, PAVEMENT MARKING, EROSION CONTROL ITEMS AND INCIDENTALS.
3. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, EQUIPMENT, AND TRANSPORTATION NECESSARY TO CONSTRUCT ALL ELEMENTS OF THE PROJECT AS DESCRIBED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS. THE PROJECT PAY ITEMS ARE INTENDED TO BE INCLUSIVE OF ALL WORK TO BE PERFORMED AS SHOWN IN THESE PLANS. ALL INCIDENTAL WORK REQUIRED TO COMPLETE THE PROJECT TO THE SATISFACTION OF THE RESIDENT ENGINEER/ TECHNICIAN IS TO BE INCLUDED IN THE COSTS OF PERFORMING THESE ITEMS.
4. THE RULES, REGULATIONS, AND SPECIFICATIONS ENUMERATED HEREIN SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS. THEY SHALL NOT PROHIBIT THE CONTRACTOR FROM FURNISHING AND INSTALLING HIGHER GRADES OF MATERIAL THAN ARE SPECIFIED HEREIN.
5. THE CONTRACTOR IS NOT PERMITTED TO USE THE AIRPORT ENTRANCE DRIVE AND AUTO PARKING LOT FOR MATERIAL AND EQUIPMENT HAULING OR STORAGE. THE CONSTRUCTION ENTRANCE AS SHOWN ON THE SCOPE OF WORK AND/OR SAFETY PHASING PLAN ARE ONLY TO BE USED FOR THE PROJECT. ACCESS TO THE PROJECT FOR ALL HAULING OF MATERIALS AND EQUIPMENT SHALL BE RESTRICTED TO THE DESIGNATED CONSTRUCTION ENTRANCE.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT, PRESERVE AND REPAIR THE EXISTING AIRFIELD AND ROADWAY PAVEMENTS AT ALL TIMES. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING ELECTRICAL, DRAINAGE, AND PAVEMENT STRUCTURES AT NO ADDITIONAL COST TO THE CONTRACT.
7. NO EQUIPMENT SHALL BE PERMITTED TO CROSS OR USE ANY EXISTING PAVEMENT OUTSIDE THE CONSTRUCTION LIMITS, GENERAL PROJECT AREA OR HAUL ROUTE.
8. CONTRACTOR IS REQUIRED TO PROVIDE THEIR OWN RESTROOM FACILITIES.
9. UNLESS OTHERWISE NOTED, ALL DISTURBED AREAS OUTSIDE OF THE PROPOSED CONSTRUCTION LIMITS SHALL BE GRADED, SEEDED AND/OR HYDROMULCH SEEDED AT NO ADDITIONAL COST TO THE CONTRACT.
10. ALL WASTE MATERIAL SHALL BE HAULED FROM THE AIRPORT AND PROPERLY DISPOSED OF UNLESS OTHERWISE SPECIFIED HEREIN.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING PERMITS FOR HAULING ON PUBLIC ROADS, AS APPLICABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY DAMAGES TO ANY PAVEMENTS (PUBLIC OR PRIVATE) CAUSED BY HIS/HER CONSTRUCTION EQUIPMENT OR PERSONNEL.
12. THE OWNER SHALL HAVE THE RIGHT OF FIRST REFUSAL FOR ALL SALVAGEABLE MATERIAL REMOVED ON THE PROJECT.
13. THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER/ TECHNICIAN SO THEY MAY DEVELOP ONE SET OF REDLINED AS-BUILT DRAWINGS AT THE COMPLETION OF THE PROJECT.
14. CONTRACTOR SHALL NOTE THAT ALL AREAS WITHIN THE AIRPORT PROPERTY LINE AND OUTSIDE THE CONSTRUCTION LIMITS MAY BE USED FOR AGRICULTURAL PURPOSES. THE CONSTRUCTION LIMITS SHALL BE RESTRICTED TO AREAS THAT ARE ABSOLUTELY NECESSARY TO DISTURB TO COMPLETE THE REQUIRED WORK ITEMS. LIMITS SHALL BE COORDINATED WITH THE RESIDENT ENGINEER PRIOR TO BEGINNING ANY WORK. ALL AREAS WHICH HAVE BEEN FARMED AND OR DESIGNATED TO BE FARMED AFTER THE PROJECT COMPLETION, AND HAVE BEEN DISTURBED BY CONSTRUCTION ACTIVITY, SHALL BE CHISEL PLOWED (36" MAX.) OR OTHERWISE SCARIFIED TO RETURN THE AREA TO A REASONABLE TILLABLE CONDITION (IF SO PERMITTED BY THE AIRPORT MANAGER.)
15. UNLESS OTHERWISE NOTED, CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITION ALL GRASS, STONE, OR PAVEMENT DISTURBED BY CONTRACTOR'S CONSTRUCTION OPERATIONS, STAGING, AND CONSTRUCTION ACCESS ROUTES. DISTURBED AREAS TO BE REPAIRED, GRADED, AND MULCHED SEEDED UNLESS OTHERWISE NOTED. STAGING AREA AND SITE ACCESS RESTORATION SHALL BE INCLUDED IN THE COST OF THE HAUL ROUTE.
16. APPROXIMATE LOCATIONS OF UNDERGROUND UTILITIES ARE SHOWN THROUGHOUT THESE PLANS. THE CONTRACTOR SHALL DETERMINE EXACT LOCATIONS AND PROTECT THESE UTILITIES DURING CONSTRUCTION. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL COORDINATE WITH THE PROPER PERSONS FOR THE PURPOSE OF LOCATING AND PROTECTING EXISTING UNDERGROUND UTILITIES.
17. THE CONTRACTOR MUST AT ALL TIMES MAINTAIN PROPER DRAINAGE FOR ALL AREAS AFFECTED BY HIS/HER WORK.

CONTROL POINT DATA

NO.	DESCRIPTION	NORTHING	EASTING	ELEV.
1	W COR TWA2 SIGN	694,997.292	2,298,530.353	407.50
2	CUT SQAURE	693,619.570	2,301,287.760	405.40
3	CUT "X"	694,355.444	2,300,126.853	405.57
4	NGS CPS A, PID: AJ8307	691,967.755	2,302,244.826	402.60
5	NGS CPS CONT PT C, PID: AC8843	695,797.728	2,297,963.287	407.40
6	NGS CPS CONT PT D 1973, PID: AC8844	694,018.270	2,296,057.116	407.30

SURVEY NOTES

1. ALL COORDINATE VALUES SHOWN IN TABLE ARE BASED ON ILLINOIS STATE PLANE - WEST ZONE NAD-83.
2. REFER TO IDOT STANDARD SPECIFICATIONS 50-06, CONSTRUCTION LAYOUT STAKES, FOR ADDITIONAL INFORMATION.

UTILITY NOTE

THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER 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 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 OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. CONTACT JULIE (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS) FOR UTILITY INFORMATION, PHONE: 1-800-892-0123. CONTACT THE FAA (FEDERAL AVIATION ADMINISTRATION) FOR ASSISTANCE IN LOCATING FAA CABLES AND UTILITIES. LOCATION OF FAA POWER, CONTROL, AND COMMUNICATION CABLES SHALL BE COORDINATED WITH AND/OR LOCATED BY THE FAA. ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.

J.U.L.I.E. INFORMATION

COUNTY _____ ST. CLAIR
CITY _____ CAHOKIA HEIGHTS
TOWNSHIP _____ CENTERVILLE
SECTION NO. _____ T.1N. - R.10W.
ADDRESS _____ ST. LOUIS DOWNTOWN AIRPORT
6100 ARCHVIEW DRIVE
CAHOKIA HEIGHTS, IL 62206-1445

NOV 22, 2024 5:36 PM STOLZ01547
I:\23\JOBS\23A0001D\CAD\AIRPORT\SHEET\2024 CPS-5078 SHEETS\G-003-SOW



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REVIEWED BY: BSS 4/19/2024

SHEET TITLE

**CONSTRUCTION
SAFETY AND
PHASING PLAN
OVERALL**

GENERAL NOTES

- AIRPORT SECURITY SHALL BE MAINTAINED THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL BE RESTRICTED TO THE DESIGNATED WORK AREAS. THE CONTRACTOR SHALL ENSURE THAT ACCESS POINTS USED BY CONSTRUCTION VEHICLES AND PERSONNEL ARE CLOSED WHEN NOT IN USE AND LOCKED AT THE END OF THE WORKING DAY TO PREVENT UNAUTHORIZED ACCESS TO THE AIRPORT MOVEMENT AREA.
- CLOSURE CROSSES AND BARRICADES SHALL BE IN PLACE PRIOR TO BEGINNING CONSTRUCTION.
- AT THE COMPLETION OF ALL CONSTRUCTION, THE HAUL ROUTE AND CONSTRUCTION EQUIPMENT PARKING AREA SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS PER THE SPECIFICATIONS.
- THE COSTS FOR PROVISION, PLACEMENT, MAINTENANCE AND REMOVAL OF BARRICADES, CLOSURE CROSSES, TRAFFIC CONTROL SIGNAGE, AND ALL ASSOCIATED INCIDENTALS SHALL BE PAID FOR UNDER TRAFFIC MAINTENANCE.
- THE COSTS FOR CONSTRUCTION, MAINTENANCE OF ACCESS GATE, HAUL ROUTE AND EQUIPMENT STAGING AREA, AND ALL ASSOCIATED INCIDENTALS SHALL BE PAID FOR UNDER MOBILIZATION.

SAFETY PLAN COMPLIANCE DOCUMENT

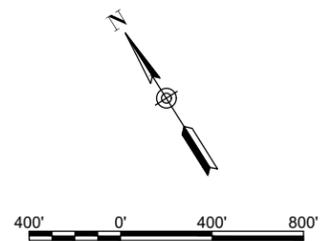
PRIOR TO THE ISSUANCE OF A CONSTRUCTION NOTICE-TO-PROCEED (NTP), THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING A SAFETY PLAN COMPLIANCE DOCUMENT IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5370-2G, PARAGRAPH 2.4.2, OR EQUIVALENT SECTION IN SUBSEQUENT/CURRENT ISSUE. THE AIRPORT DIRECTOR SHALL APPROVE THIS DOCUMENT AND SUBMIT TO THE AIRPORT FOR APPROVAL PRIOR TO THE NTP ISSUANCE.

SEQUENCE OF CONSTRUCTION

- THIS PROJECT WILL BE BROKEN INTO FOUR SEPARATE WORK AREAS IN AN EFFORT TO MINIMIZE IMPACTS TO AIRPORT OPERATIONS. THE CONTRACTOR SHALL EXPEDITE WORK TO ENSURE THE AIRCRAFT MOVEMENT AREAS ARE OPEN WHEN POSSIBLE.
 - TAXIWAY CONNECTORS B6 AND B7 SHALL BE CLOSED TO AIRCRAFT FOR THE DURATION OF THE PROJECT. A PORTION OF TAXIWAY B SHALL BE CLOSED FOR THE DURATION OF THE PROJECT, AND THE INTERSECTION OF TAXIWAY B AND B1 SHALL BE CLOSED FOR A PORTION OF THE PROJECT. DURING INSTALLATION OF THE AIRFIELD ELECTRICAL HOMERUN PORTIONS OF TAXIWAY B AND ASSOCIATED CONNECTOR TAXIWAYS WILL BE CLOSED.
 - THE CONTRACTOR IS REQUIRED TO COMPLETE ALL WORK AREAS, HOWEVER:
 - WORK AREAS 1 AND 3 MAY NOT BE PERFORMED SIMULTANEOUSLY.
 - WORK AREAS 2A AND 2B MAY NOT BE PERFORMED SIMULTANEOUSLY.
 - WORK AREA 4A SHALL BE PERFORMED WHILE WORK AREA 2A IS BEING PERFORMED TO MINIMIZE RUNWAY DOWNTIME.
 - WORK AREAS 4B THROUGH 4F SHALL BE PERFORMED CONSECUTIVELY TO MINIMIZE TAXIWAY B DOWNTIME.
- NO DEVIATION FROM THESE PROVISIONS WILL BE ALLOWED UNLESS THE CONTRACTOR CAN PROVIDE A SIGNIFICANT BENEFIT TO THE OWNER FOR.

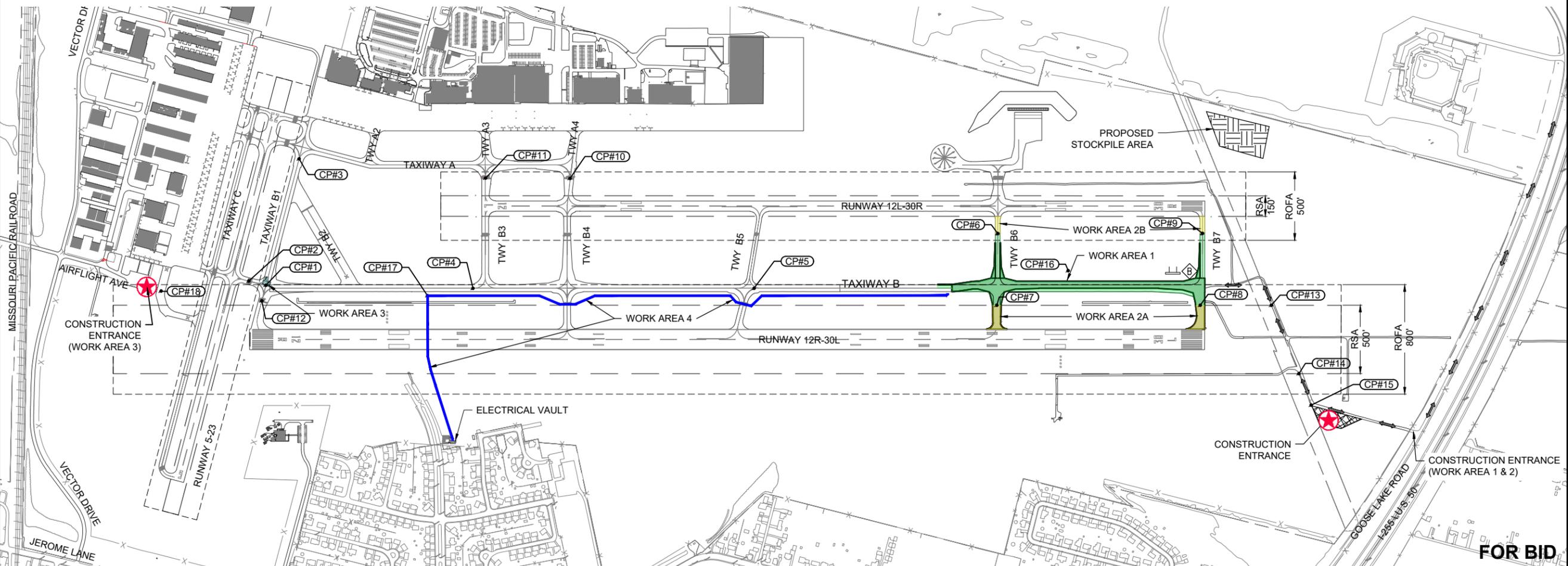
CRITICAL POINTS						
POINT #	LATITUDE	LONGITUDE	SE	AGL	AMSL	DESCRIPTION
1	038° 34' 29.09"	-090° 09' 50.30"	411'	25'	436'	EQUIPMENT
2	038° 34' 30.01"	-090° 09' 51.43"	405'	25'	430'	EQUIPMENT
3	038° 34' 35.53"	-090° 09' 41.50"	410'	2'	412'	BARRICADES
4	038° 34' 20.90"	-090° 09' 34.27"	411'	2'	413'	BARRICADES
5	038° 34' 10.04"	-090° 09' 12.32"	410'	2'	412'	BARRICADES
6	038° 34' 03.97"	-090° 08' 50.60"	404'	2'	406'	BARRICADES
7	038° 33' 59.63"	-090° 08' 54.20"	407'	25'	432'	EQUIPMENT
8	038° 33' 51.77"	-090° 08' 38.32"	406'	25'	431'	EQUIPMENT
9	038° 33' 56.08"	-090° 08' 34.61"	403'	2'	405'	BARRICADES
10	038° 34' 23.87"	-090° 09' 21.31"	401'	2'	403'	BARRICADES
11	038° 34' 27.15"	-090° 09' 27.88"	402'	2'	404'	BARRICADES
12	038° 34' 28.29"	-090° 09' 51.38"	411'	2'	413'	BARRICADES
13	038° 33' 49.02"	-090° 08' 32.76"	406'	25'	431'	HAUL ROUTE
14	038° 33' 43.77"	-090° 08' 33.97"	399'	25'	424'	HAUL ROUTE
15	038° 33' 41.37"	-090° 08' 34.55"	397'	25'	422'	STAGING AREA
16	038° 33' 58.98"	-090° 08' 46.93"	402'	25'	427'	WIND CONE
17	038° 34' 22.20"	-090° 09' 38.19"	410'	25'	435'	EQUIPMENT
18	038° 34' 32.78"	-090° 09' 58.77"	410'	25'	435'	STAGING AREA

DOWNTOWN GROUND FREQUENCY = 121.80



LEGEND

- EXISTING IMPROVEMENTS
- PROPOSED IMPROVEMENTS
- PROPOSED HAUL ROUTE
- PROPOSED EQUIPMENT PARKING AREA
- EXISTING FENCE
- PROPOSED BARRICADES
- PROPOSED CLOSURE CROSS
- CONSTRUCTION SIGN
- CRITICAL POINT
- RUNWAY SAFETY AREA
- RUNWAY OBJECT FREE AREA
- AIRFIELD SECURITY GATE



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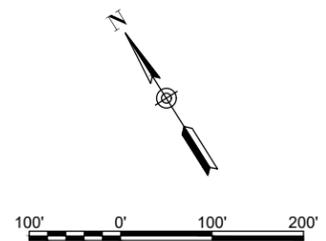
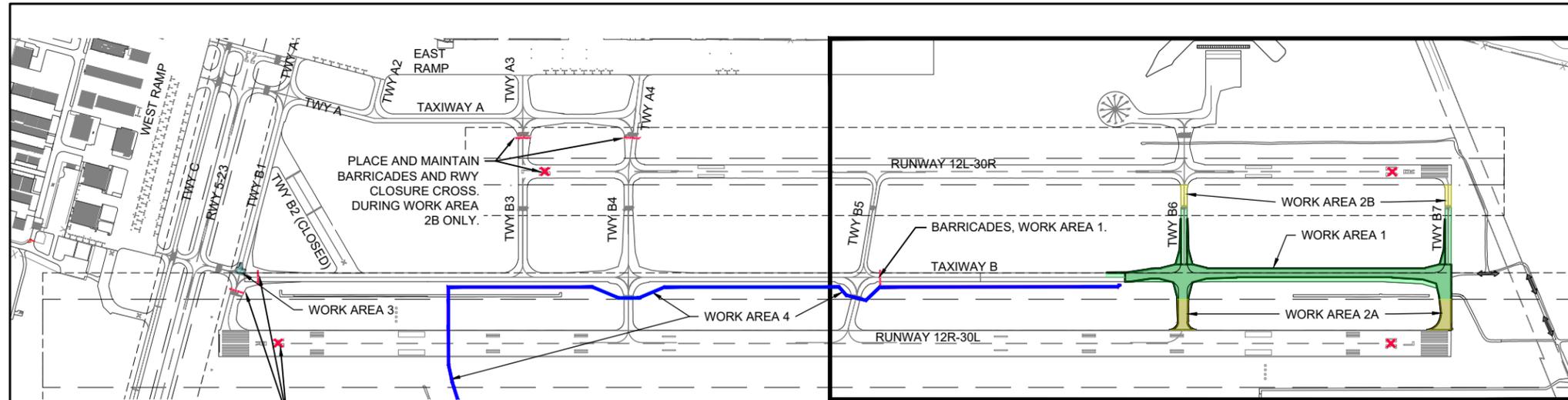
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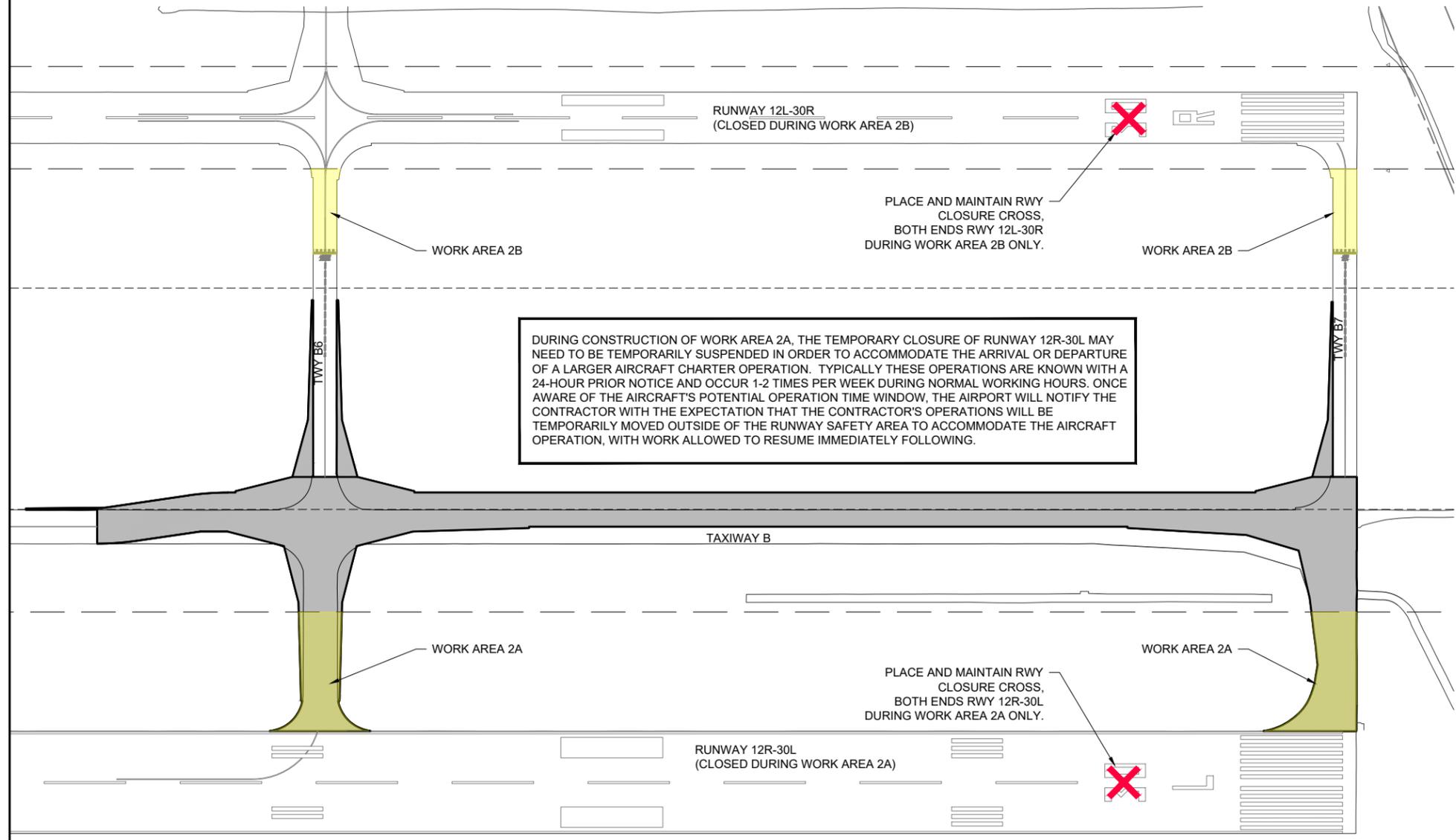
SHEET TITLE

**CONSTRUCTION
SAFETY AND
PHASING PLAN -
WORK AREA 2**



- LEGEND**
- EXISTING IMPROVEMENTS
 - PROPOSED IMPROVEMENTS
 - PROPOSED HAUL ROUTE
 - PROPOSED EQUIPMENT PARKING AREA
 - EXISTING FENCE
 - PROPOSED BARRICADES
 - PROPOSED CLOSURE CROSS
 - CONSTRUCTION SIGN
 - CRITICAL POINT
 - RUNWAY SAFETY AREA
 - RUNWAY OBJECT FREE AREA
 - AIRFIELD SECURITY GATE

PARALLEL RUNWAYS SHALL NOT BE SHUT DOWN AT THE SAME TIME. FOR EXAMPLE, WORK WITHIN RWY 12L-30R SAFETY AREA MUST BE COMPLETED AND RUNWAY OPENED FOR OPERATION BEFORE CLOSING AND WORKING WITHIN THE SAFETY AREA OF RWY 12R-30L.



AREA 2 WORK TO BE ACCOMPLISHED

1. THE WORK ITEMS TO BE COMPLETED IN THIS PHASE ARE TO INCLUDE EARTH EXCAVATION, DRAINAGE IMPROVEMENTS, PAVEMENT REMOVAL, INSTALL NEW BASE AND PCC PAVEMENT, AIRFIELD LIGHTING AND SIGNAGE SYSTEM INSTALLATION, PAVEMENT MARKING, SEEDING/MULCHING AND EROSION CONTROL.
2. WORK AREAS 2A AND 2B MAY NOT BE PERFORMED SIMULTANEOUSLY.
3. WORK AREA 4A SHALL BE PERFORMED WHILE WORK AREA 2A IS BEING PERFORMED TO MINIMIZE RUNWAY DOWNTIME.
4. AT ALL TIMES, THE CONTRACTOR'S OPERATIONS SHALL BE SUCH AS TO MINIMIZE CLOSURES.
5. AT THE COMPLETION OF ALL WORK AREA CONSTRUCTION, THE HAUL ROUTE, EQUIPMENT PARKING AREA, AND GATE ARE TO BE LEFT IN PLACE IN THEIR PRE-CONSTRUCTION CONDITION.
6. ANY UTILITY DISCONNECTED OR DAMAGED SHALL BE RECONNECTED OR REPAIRED WITHIN NORMAL CONSTRUCTION HOURS SUCH THAT NO SINGLE UTILITY LINE IS OUT OF SERVICE OVERNIGHT, UNLESS APPROVAL IS OBTAINED FROM THE OWNER PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND RESIDENT TECHNICIAN/ENGINEER IN ADVANCE IN ORDER TO SHUTDOWN THE UTILITIES FOR REROUTING IF REQUIRED.
7. PAVEMENTS SHALL BE CLEAN AND LIGHTING CIRCUITS SHALL BE OPERATIONAL, TO THE OWNER'S SATISFACTION BEFORE REOPENING TO AIRCRAFT TRAFFIC.

OPERATIONAL SAFETY NOTES:

1. FLAGPERSONS AND OR ESCORT WITH RADIOS SHALL BE REQUIRED TO CONTROL VEHICLE TRAFFIC ACROSS ACTIVE AIRFIELD PAVEMENTS. NO CONSTRUCTION PERSONNEL/EQUIPMENT ALLOWED WITHIN THE RUNWAY SAFETY AREA (RSA) OR TAXIWAY SAFETY AREA (TSA) WHEN PAVEMENTS ARE OPEN TO AIRCRAFT TRAFFIC. PAVEMENTS ARE TO BE KEPT FREE OF DEBRIS AT ALL TIMES. ANY DAMAGE TO PAVEMENTS BY THE CONTRACTOR'S FORCES SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE CONTRACT.
2. CONTRACTOR SHALL DEMONSTRATE THE ABILITY TO ACCESS THE CONSTRUCTION SITE WHILE MAINTAINING AIRFIELD SECURITY DURING ALL PHASES OF CONSTRUCTION.
3. ALL NOTAMS TO BE ISSUED SHALL BE ISSUED BY AIRPORT REPRESENTATIVES.
4. AIRPORT AND CONTRACTOR SHALL COORDINATE THE LOCATION OF UNDERGROUND UTILITIES WITHIN WORK AREAS PRIOR TO THE START OF CONSTRUCTION.

FOR BID



ST. LOUIS DOWNTOWN AIRPORT
BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
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TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
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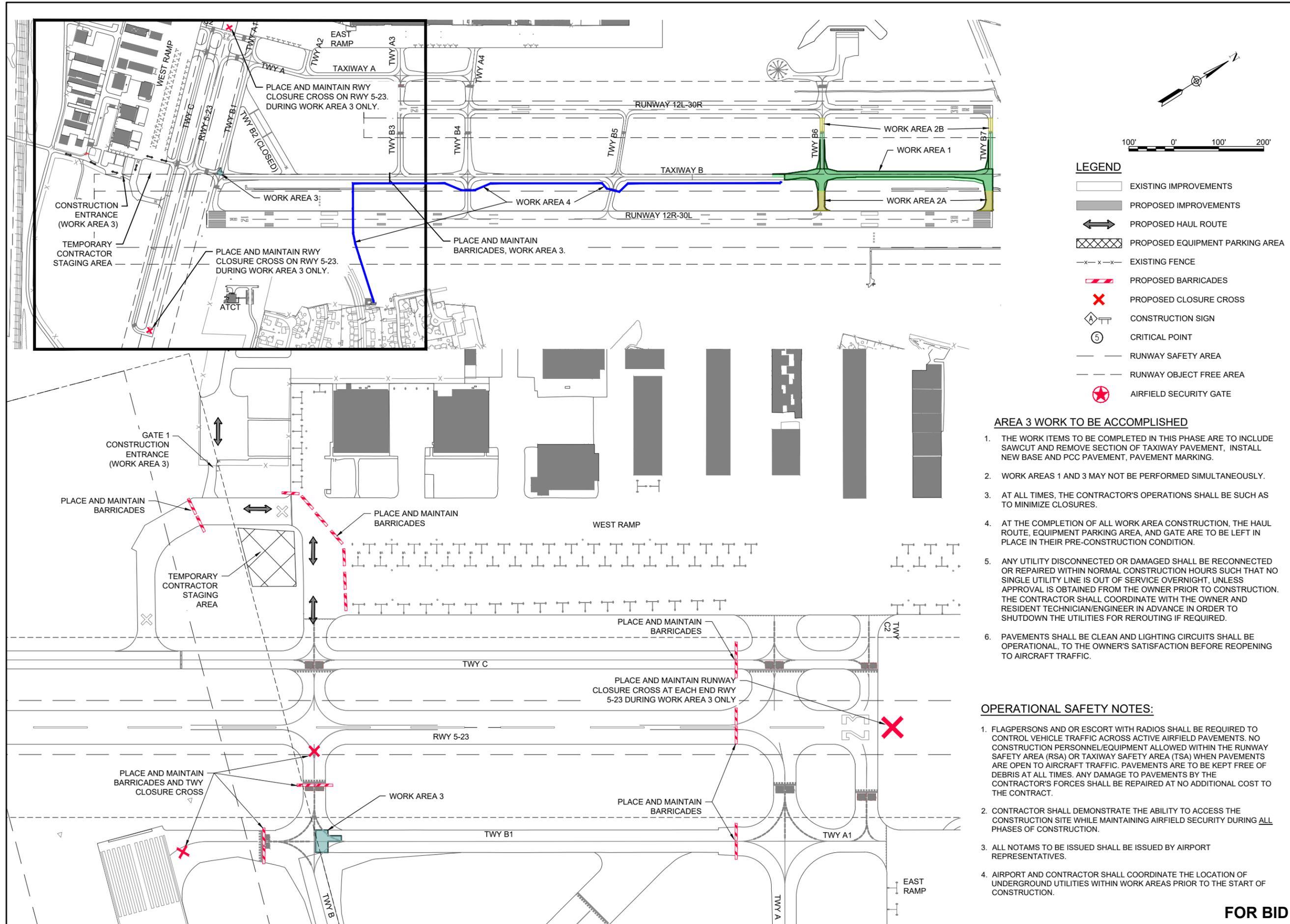
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SHEET TITLE

CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 3



- LEGEND**
- EXISTING IMPROVEMENTS
 - PROPOSED IMPROVEMENTS
 - PROPOSED HAUL ROUTE
 - PROPOSED EQUIPMENT PARKING AREA
 - EXISTING FENCE
 - PROPOSED BARRICADES
 - PROPOSED CLOSURE CROSS
 - CONSTRUCTION SIGN
 - CRITICAL POINT
 - RUNWAY SAFETY AREA
 - RUNWAY OBJECT FREE AREA
 - AIRFIELD SECURITY GATE

AREA 3 WORK TO BE ACCOMPLISHED

1. THE WORK ITEMS TO BE COMPLETED IN THIS PHASE ARE TO INCLUDE SAWCUT AND REMOVE SECTION OF TAXIWAY PAVEMENT, INSTALL NEW BASE AND PCC PAVEMENT, PAVEMENT MARKING.
2. WORK AREAS 1 AND 3 MAY NOT BE PERFORMED SIMULTANEOUSLY.
3. AT ALL TIMES, THE CONTRACTOR'S OPERATIONS SHALL BE SUCH AS TO MINIMIZE CLOSURES.
4. AT THE COMPLETION OF ALL WORK AREA CONSTRUCTION, THE HAUL ROUTE, EQUIPMENT PARKING AREA, AND GATE ARE TO BE LEFT IN PLACE IN THEIR PRE-CONSTRUCTION CONDITION.
5. ANY UTILITY DISCONNECTED OR DAMAGED SHALL BE RECONNECTED OR REPAIRED WITHIN NORMAL CONSTRUCTION HOURS SUCH THAT NO SINGLE UTILITY LINE IS OUT OF SERVICE OVERNIGHT, UNLESS APPROVAL IS OBTAINED FROM THE OWNER PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND RESIDENT TECHNICIAN/ENGINEER IN ADVANCE IN ORDER TO SHUTDOWN THE UTILITIES FOR REROUTING IF REQUIRED.
6. PAVEMENTS SHALL BE CLEAN AND LIGHTING CIRCUITS SHALL BE OPERATIONAL, TO THE OWNER'S SATISFACTION BEFORE REOPENING TO AIRCRAFT TRAFFIC.

OPERATIONAL SAFETY NOTES:

1. FLAGPERSONS AND OR ESCORT WITH RADIOS SHALL BE REQUIRED TO CONTROL VEHICLE TRAFFIC ACROSS ACTIVE AIRFIELD PAVEMENTS. NO CONSTRUCTION PERSONNEL/EQUIPMENT ALLOWED WITHIN THE RUNWAY SAFETY AREA (RSA) OR TAXIWAY SAFETY AREA (TSA) WHEN PAVEMENTS ARE OPEN TO AIRCRAFT TRAFFIC. PAVEMENTS ARE TO BE KEPT FREE OF DEBRIS AT ALL TIMES. ANY DAMAGE TO PAVEMENTS BY THE CONTRACTOR'S FORCES SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE CONTRACT.
2. CONTRACTOR SHALL DEMONSTRATE THE ABILITY TO ACCESS THE CONSTRUCTION SITE WHILE MAINTAINING AIRFIELD SECURITY DURING ALL PHASES OF CONSTRUCTION.
3. ALL NOTAMS TO BE ISSUED SHALL BE ISSUED BY AIRPORT REPRESENTATIVES.
4. AIRPORT AND CONTRACTOR SHALL COORDINATE THE LOCATION OF UNDERGROUND UTILITIES WITHIN WORK AREAS PRIOR TO THE START OF CONSTRUCTION.

FOR BID

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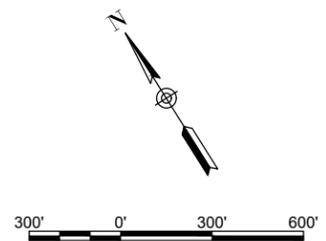
CONSTRUCTION
SAFETY AND
PHASING PLAN -
WORK AREA 4

AREA 4 WORK TO BE ACCOMPLISHED

1. THE WORK ITEMS TO BE COMPLETED IN THIS PHASE ARE TO INCLUDE INSTALLATION OF THE AIRFIELD LIGHTING HOMERUN FROM THE TAXIWAY B WORK AREA BACK TO THE AIRFIELD ELECTRICAL VAULT BUILDING.
2. WORK AREA 4A SHALL BE PERFORMED WHILE WORK AREA 2A IS BEING PERFORMED TO MINIMIZE RUNWAY DOWNTIME.
3. WORK AREAS 4B THROUGH 4F SHALL BE PERFORMED CONSECUTIVELY TO MINIMIZE TAXIWAY B DOWNTIME.
4. AT ALL TIMES, THE CONTRACTOR'S OPERATIONS SHALL BE SUCH AS TO MINIMIZE CLOSURES.
5. AT THE COMPLETION OF ALL WORK AREA CONSTRUCTION, THE HAUL ROUTE, EQUIPMENT PARKING AREA, AND GATE ARE TO BE LEFT IN PLACE IN THEIR PRE-CONSTRUCTION CONDITION.
6. ANY UTILITY DISCONNECTED OR DAMAGED SHALL BE RECONNECTED OR REPAIRED WITHIN NORMAL CONSTRUCTION HOURS SUCH THAT NO SINGLE UTILITY LINE IS OUT OF SERVICE OVERNIGHT, UNLESS APPROVAL IS OBTAINED FROM THE OWNER PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND RESIDENT TECHNICIAN/ENGINEER IN ADVANCE IN ORDER TO SHUTDOWN THE UTILITIES FOR REROUTING IF REQUIRED.
7. PAVEMENTS SHALL BE CLEAN AND LIGHTING CIRCUITS SHALL BE OPERATIONAL, TO THE OWNER'S SATISFACTION BEFORE REOPENING TO AIRCRAFT TRAFFIC.

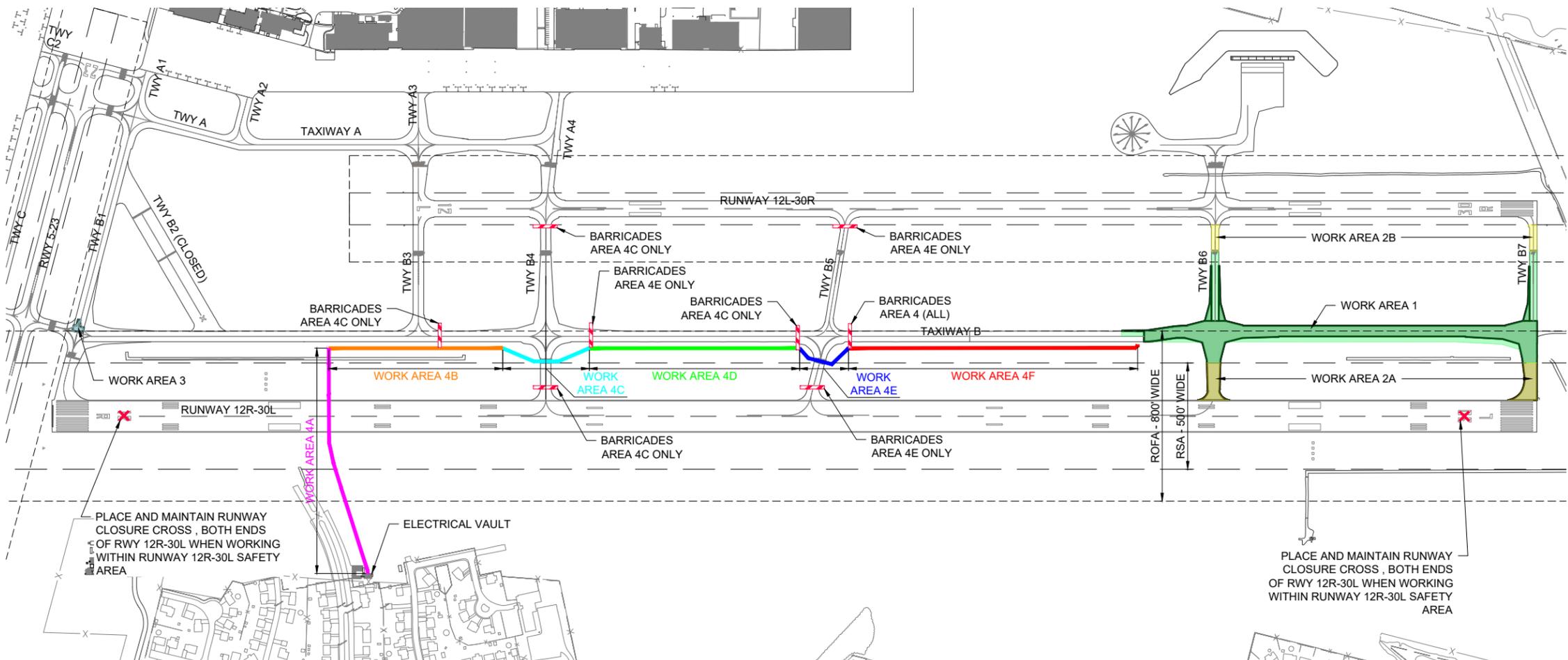
OPERATIONAL SAFETY NOTES:

1. FLAGPERSONS AND OR ESCORT WITH RADIOS SHALL BE REQUIRED TO CONTROL VEHICLE TRAFFIC ACROSS ACTIVE AIRFIELD PAVEMENTS. NO CONSTRUCTION PERSONNEL/EQUIPMENT ALLOWED WITHIN THE RUNWAY SAFETY AREA (RSA) OR TAXIWAY SAFETY AREA (TSA) WHEN PAVEMENTS ARE OPEN TO AIRCRAFT TRAFFIC. PAVEMENTS ARE TO BE KEPT FREE OF DEBRIS AT ALL TIMES. ANY DAMAGE TO PAVEMENTS BY THE CONTRACTOR'S FORCES SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE CONTRACT.
2. CONTRACTOR SHALL DEMONSTRATE THE ABILITY TO ACCESS THE CONSTRUCTION SITE WHILE MAINTAINING AIRFIELD SECURITY DURING ALL PHASES OF CONSTRUCTION.
3. ALL NOTAMS TO BE ISSUED SHALL BE ISSUED BY AIRPORT REPRESENTATIVES.
4. AIRPORT AND CONTRACTOR SHALL COORDINATE THE LOCATION OF UNDERGROUND UTILITIES WITHIN WORK AREAS PRIOR TO THE START OF CONSTRUCTION.



LEGEND

- EXISTING IMPROVEMENTS
- PROPOSED IMPROVEMENTS
- PROPOSED HAUL ROUTE
- PROPOSED EQUIPMENT PARKING AREA
- EXISTING FENCE
- PROPOSED BARRICADES
- PROPOSED CLOSURE CROSS
- CONSTRUCTION SIGN
- CRITICAL POINT
- RUNWAY SAFETY AREA
- RUNWAY OBJECT FREE AREA
- AIRFIELD SECURITY GATE



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FOR BID



DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: C-301-TYP.DWG

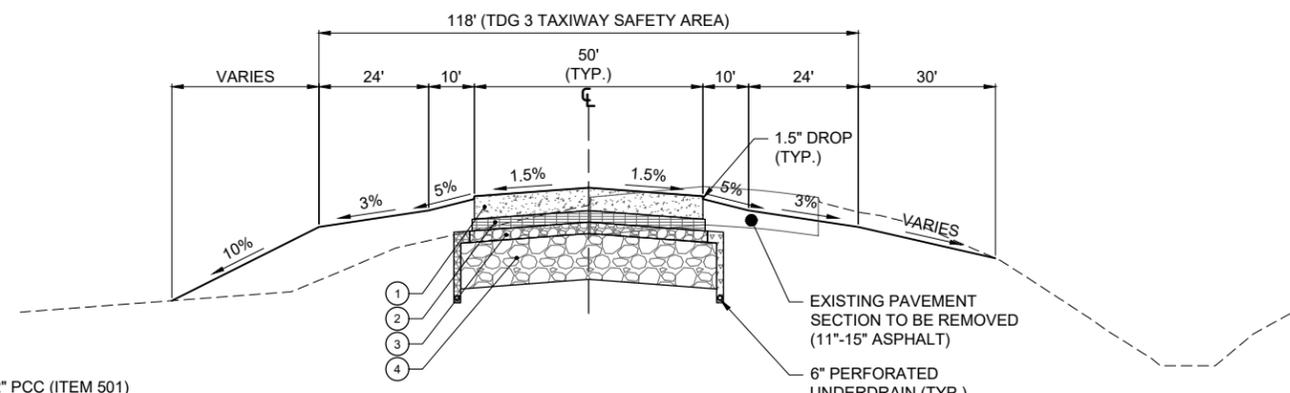
DESIGN BY: JRH 3/20/2024

DRAWN BY: JRH 3/22/2024

REVIEWED BY: BSS 4/19/2024

SHEET TITLE

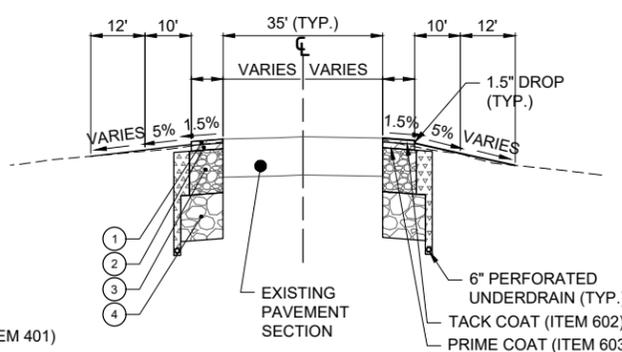
TYPICAL SECTIONS



- ① 12" PCC (ITEM 501)
- ② 6" LEAN CONCRETE (ITEM 306)
- ③ 6" CRUSHED AGGREGATE (ITEM 209)
- ④ 24" OVERSIZE AGGREGATE (ITEM 208)

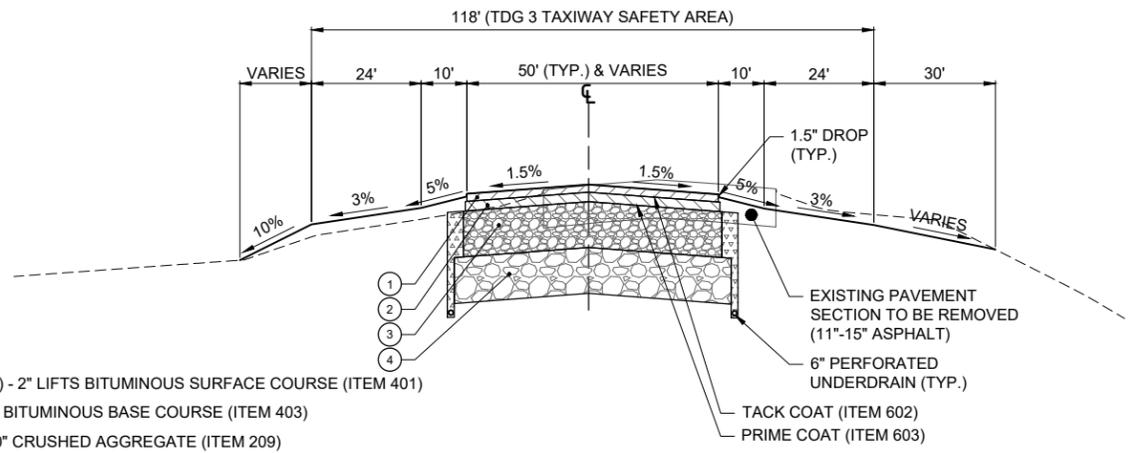
TYPICAL SECTION A-A - PROPOSED TAXIWAY B
NOT TO SCALE

THE CONTRACTOR MAY CHOOSE TO WIDEN THE LEAN CONCRETE BASE COURSE TO SUPPORT THE PAVING MACHINE TRACK IN ACCORDANCE WITH ITEM 501 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS; HOWEVER ANY WIDENING OF THE LEAN CONCRETE BASE COURSE BEYOND THE WIDTH SHOWN IN THE TYPICAL CROSS SECTION IN THE PLAN SET SHALL BE AT THE CONTRACTOR'S EXPENSE, AND NO ADDITIONAL PAYMENT SHALL BE MADE.



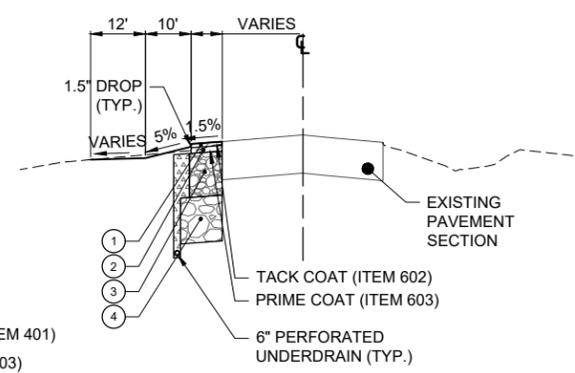
- ① 2" BITUMINOUS SURFACE COURSE (ITEM 401)
- ② 3" BITUMINOUS BASE COURSE (ITEM 403)
- ③ 23" CRUSHED AGGREGATE (ITEM 209)
- ④ 24" OVERSIZE AGGREGATE (ITEM 208)

TYPICAL SECTION D-D - PROPOSED TAXIWAY B6 NORTH - FILLETS
NOT TO SCALE



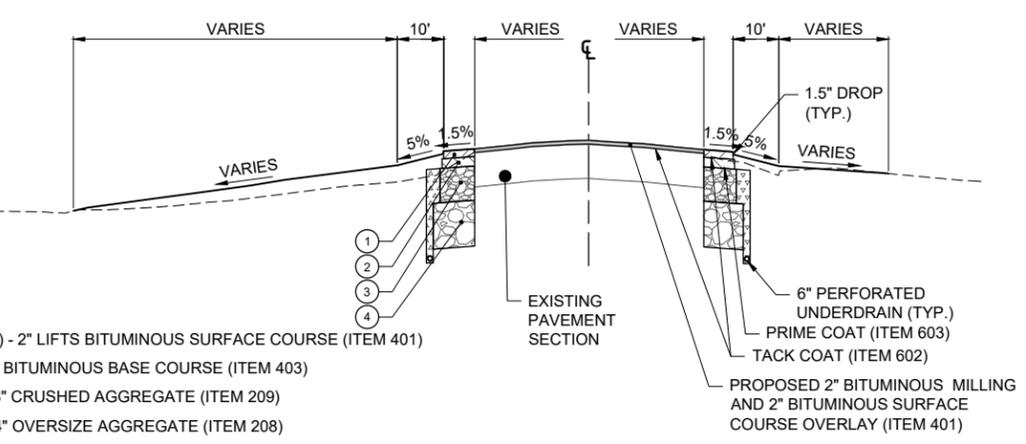
- ① (2) - 2" LIFTS BITUMINOUS SURFACE COURSE (ITEM 401)
- ② 5" BITUMINOUS BASE COURSE (ITEM 403)
- ③ 20" CRUSHED AGGREGATE (ITEM 209)
- ④ 24" OVERSIZE AGGREGATE (ITEM 208)

TYPICAL SECTION B-B - PROPOSED TAXIWAY B TRANSITION
NOT TO SCALE



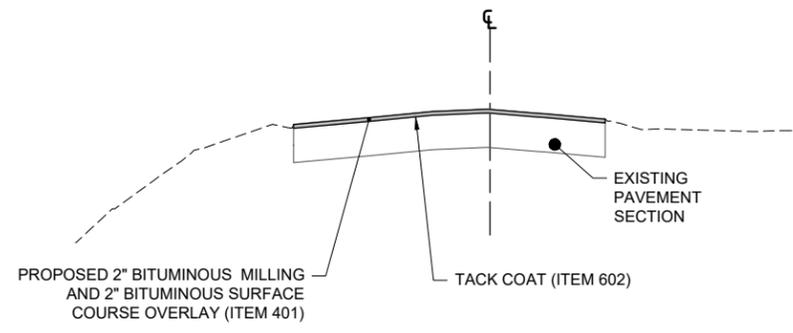
- ① 2" BITUMINOUS SURFACE COURSE (ITEM 401)
- ② 3" BITUMINOUS BASE COURSE (ITEM 403)
- ③ 23" CRUSHED AGGREGATE (ITEM 209)
- ④ 24" OVERSIZE AGGREGATE (ITEM 208)

TYPICAL SECTION E-E - PROPOSED TAXIWAY B7 NORTH - FILLET
NOT TO SCALE



- ① (2) - 2" LIFTS BITUMINOUS SURFACE COURSE (ITEM 401)
- ② 5" BITUMINOUS BASE COURSE (ITEM 403)
- ③ 18" CRUSHED AGGREGATE (ITEM 209)
- ④ 24" OVERSIZE AGGREGATE (ITEM 208)

TYPICAL SECTION C-C - PROPOSED TAXIWAY B6 SOUTH - FILLETS
NOT TO SCALE



TYPICAL SECTION F-F - PROPOSED TAXIWAY B7 SOUTH - MILL & OVERLAY
NOT TO SCALE

HMA MIXTURE REQUIREMENTS					
APPLICATION	DESIGN AIR VOIDS	AC / PG	AGG. QUALITY	MAX. RAP	DENSITY ACCEPTANCE
AR401613 BIT. SURF. COURSE-METHOD I, SUPERPAVE	3.0% @ Ndesign = 50	SBS PG 70-22	A	0%	MAT: NUCLEAR GAUGE PER 401-6.1 JOINT: CORES PER 401-6.1
AR403613 BIT. BASE COURSE-METHOD I, SUPERPAVE	3.0% @ Ndesign = 50	SBS PG 70-22	B OR BETTER	30% PER 403-3.4	MAT: NUCLEAR GAUGE PER 403-6.1 JOINT: CORES PER 403-6.1

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DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

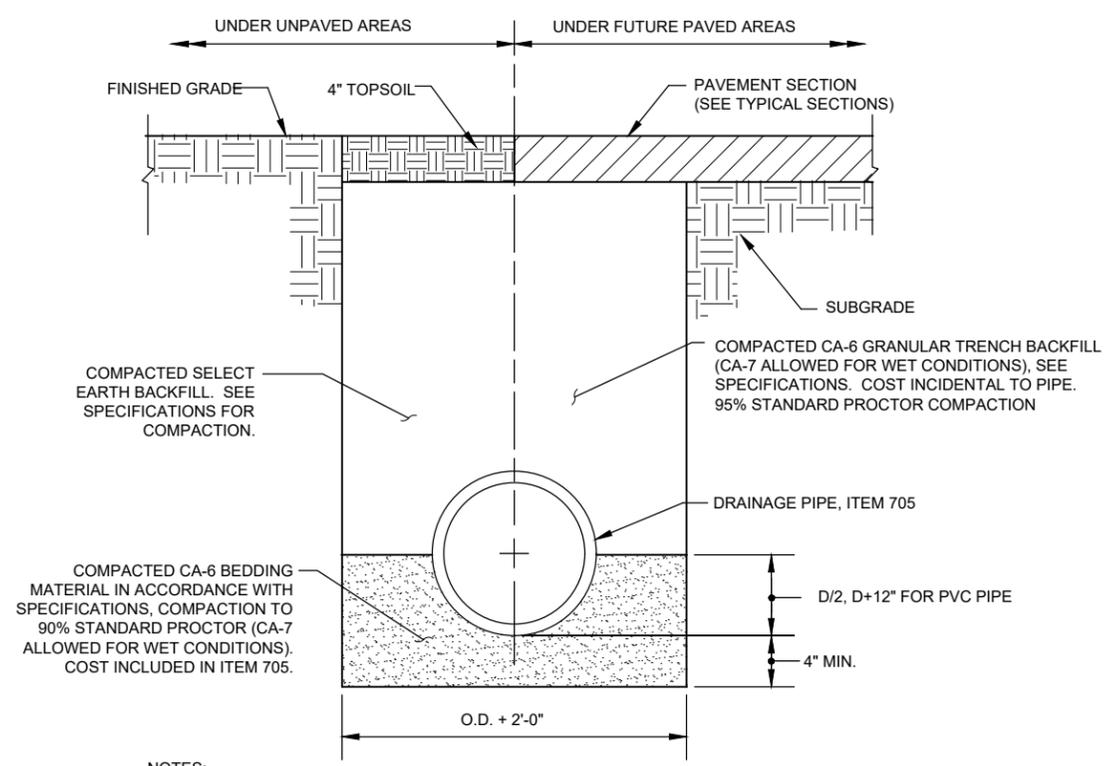
NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: C-301-TYP.DWG
DESIGN BY: JRH 3/26/2024
DRAWN BY: JRH 3/26/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

DRAINAGE DETAILS -
SHEET 1

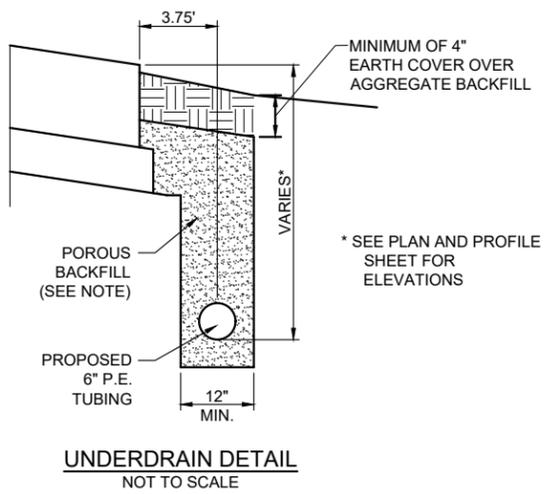
FOR BID



NOTES:

1. UNSUITABLE MATERIAL ENCOUNTERED DURING PLACEMENT OF BEDDING SHALL BE REMOVED AND REPLACED.
2. WITHIN 3 FEET OF PAVED AREA, GRANULAR BACKFILL IS TO BE USED INSTEAD OF EARTH BACKFILL.
3. AT CONTRACTOR'S OPTION IDOT CONTROLLED LOW STRENGTH MATERIAL WITH A HIGH EARLY STRENGTH, "FLASH FILL", MAY BE USED INSTEAD OF GRANULAR TRENCH BACKFILL UNDER PAVEMENTS AT NO ADDITIONAL COST TO THE CONTRACT.

PIPE TRENCH DETAIL
NOT TO SCALE

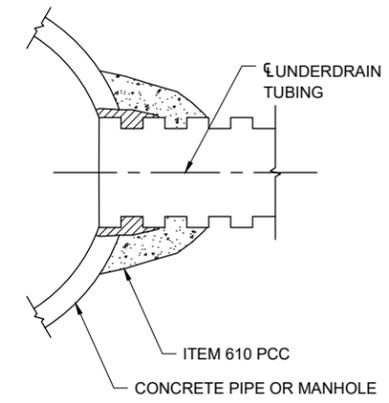


UNDERDRAIN DETAIL
NOT TO SCALE

NOTE:
POROUS BACKFILL SHALL CONFORM TO THE REQUIREMENTS FOR IDOT CA-14 OR IDOT CA-16 AND WILL BE CONSIDERED INCIDENTAL TO AR705506 6\"/>

UNDERDRAIN NOTES

1. THE CONTRACTOR SHALL INSTALL THE PROPOSED 6\"/>
- 2. THE 6\"/>
- 3. CONNECTING UNDERDRAINS TO EXISTING STRUCTURES SHALL BE INCLUDED IN THE COST OF THE UNDERDRAINS THEMSELVES, AND MAY INCLUDE CORING INTO THE EXISTING STRUCTURE WALL AND GROUTING THE UNDERDRAIN IN PLACE.
- 4. THE TRENCH SHALL BE BACKFILLED AND COMPACTED WITH POROUS BACKFILL NO. 1 MATERIAL. THE TRENCH LOCATED IN THE PROPOSED PAVEMENT AREAS WILL BE BACKFILLED AS SHOWN IN THE DETAIL ON THIS SHEET. THE TRENCH LOCATED IN TURF AREAS SHALL BE BACKFILLED UP TO WITHIN 12\"/>
- 5. POROUS BACKFILL SHALL CONFORM TO THE REQUIREMENTS FOR IDOT CA-14 OR IDOT CA-16 AND WILL BE CONSIDERED INCIDENTAL TO AR705506 6\"/>



STORM SEWER CONCRETE COLLAR AND GROUT CONNECTION
NOT TO SCALE

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DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

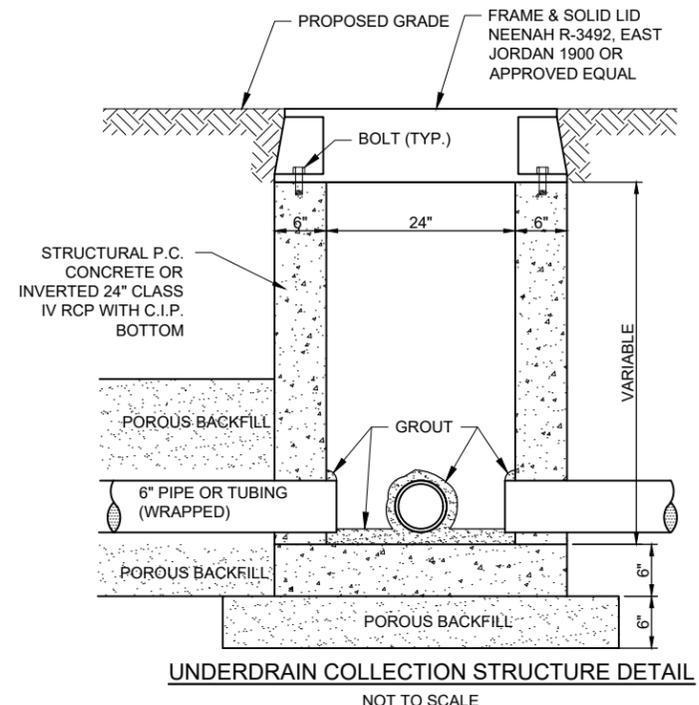
IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

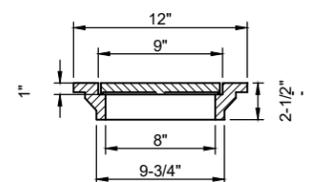
ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: C-301-TYP.DWG
DESIGN BY: JRH 3/26/2024
DRAWN BY: JRH 3/26/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

DRAINAGE DETAILS - SHEET 2



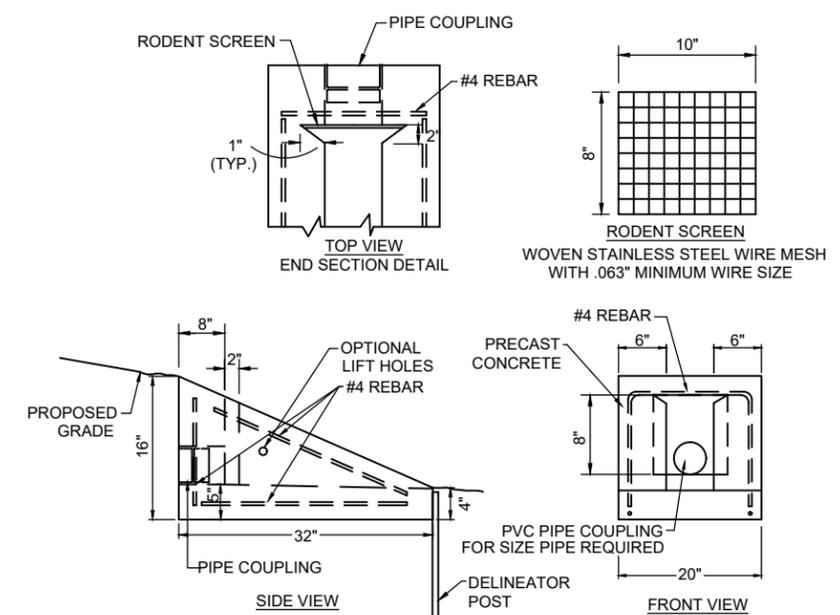
UNDERDRAIN COLLECTION STRUCTURE DETAIL
NOT TO SCALE



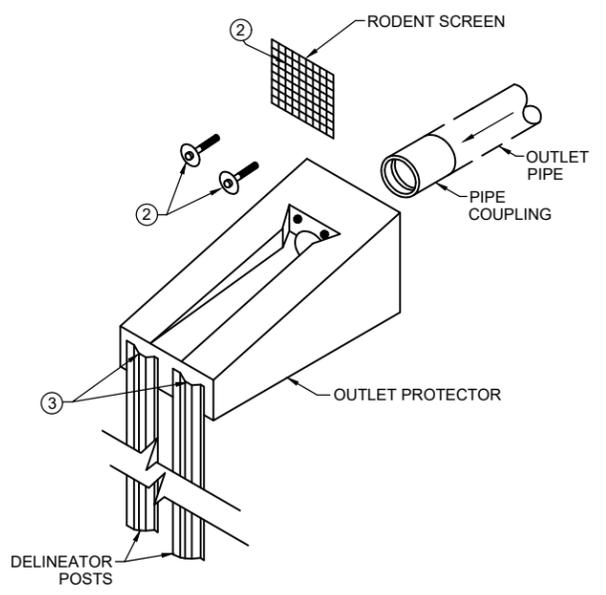
CAST IRON FRAME AND GRATE

NEENAH R-6450-AG,
EAST JORDAN 6206 DRAINAGE GRATE,
OR APPROVED EQUAL

NOTE: CONTRACTOR TO VERIFY
FRAME/GRATE WILL WORK WITH PROPOSED
PIPE PRIOR TO ORDERING.



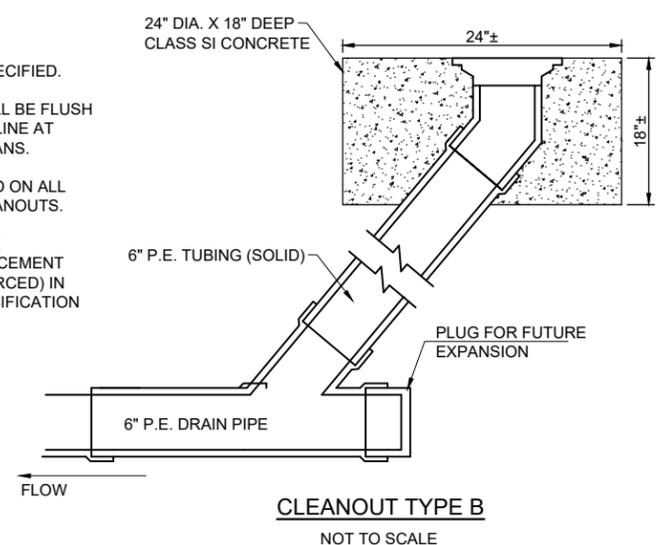
UNDERDRAIN END SECTION
NOT TO SCALE



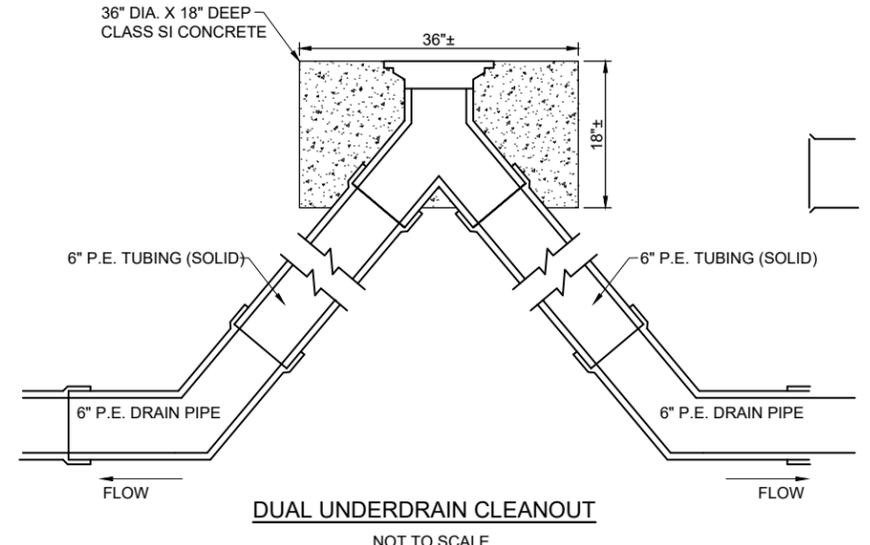
UNDERDRAIN END SECTION NOTES:

1. THE CONTRACTOR SHALL INSTALL THE PROPOSED UNDERDRAIN END SECTION AT THE LOCATION AND GRADE SHOWN ON THE PLANS. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
2. THE RODENT SCREEN SHALL BE 1/3\"/>

UNDERDRAIN END SECTION ISOMETRIC DETAIL
NOT TO SCALE



CLEANOUT TYPE B
NOT TO SCALE



DUAL UNDERDRAIN CLEANOUT
NOT TO SCALE

CLEANOUT NOTES

1. DIAMETER OF PIPE AS SPECIFIED.
2. TOP OF CLEANOUTS SHALL BE FLUSH WITH FINISHED GROUND LINE AT LOCATION SHOWN ON PLANS.
3. 1/2\"/>

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ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE: 11/22/2024 LICENSE: 11/30/2025
SIGNED: EXPIRES:

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

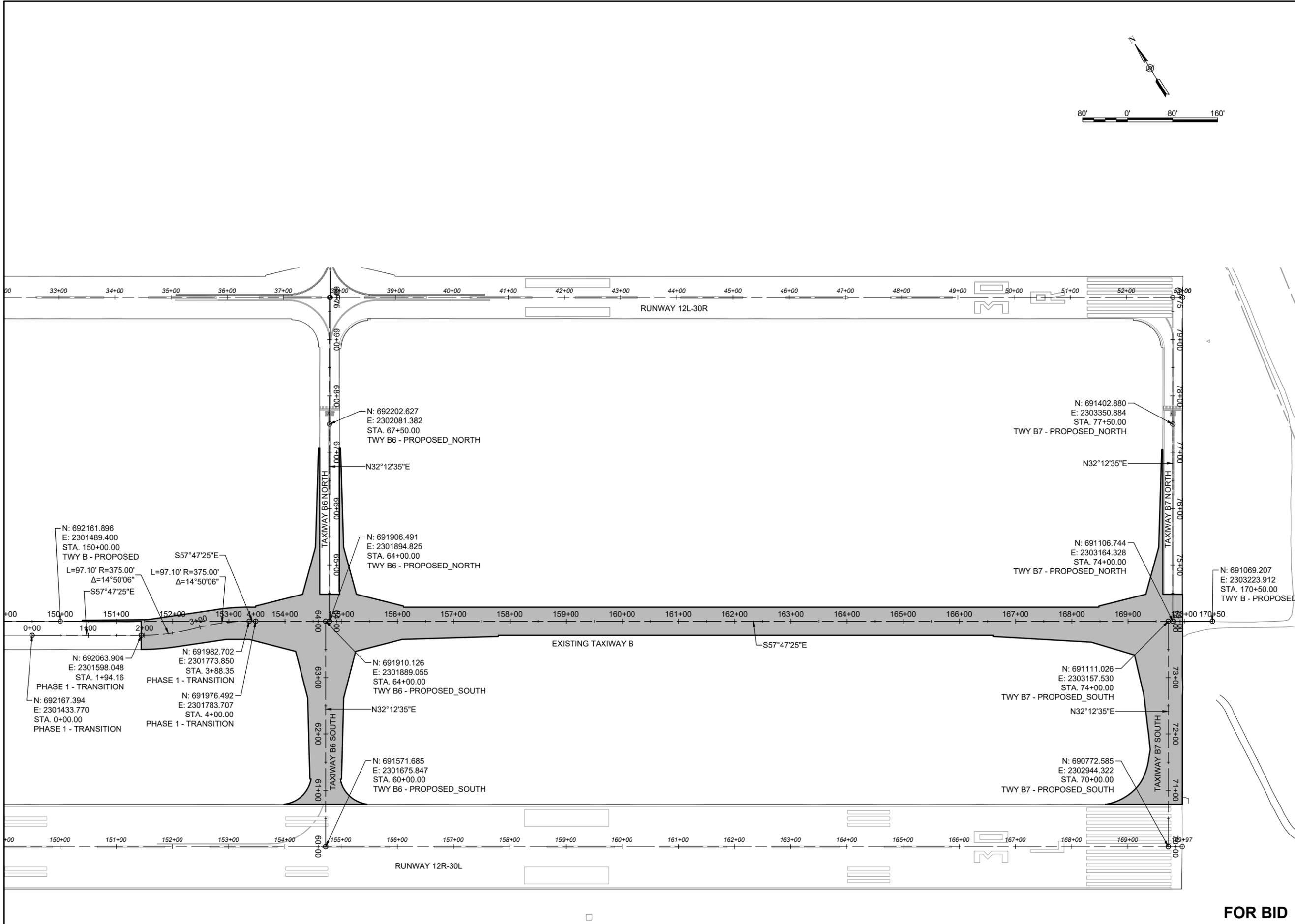
IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY
DESIGN BY: JRH 3/26/2024
DRAWN BY: JRH 3/26/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED
ALIGNMENT LAYOUT
PLAN



FOR BID

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ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE: 11/22/2024 LICENSE: 11/30/2025
SIGNED: 11/22/2024 EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

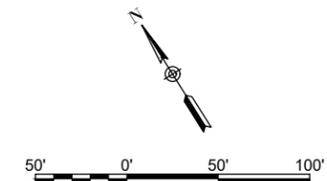
IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY
DESIGN BY: JRH 3/17/2024
DRAWN BY: AJL 3/25/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

DEMOLITION PLAN
STA. 100+00 TO STA.
109+00

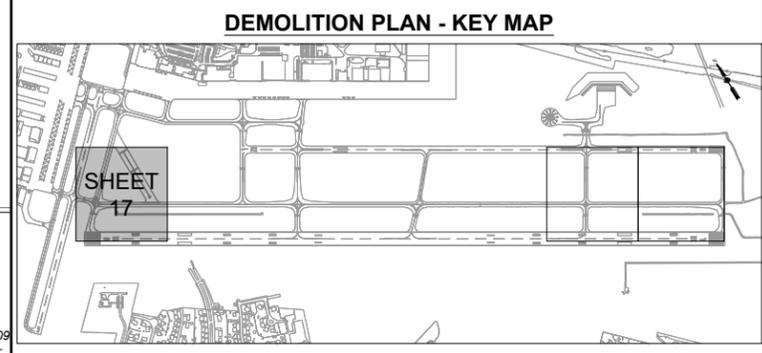


- LEGEND**
- EXISTING AIRPORT PROPERTY LINE
 - EXISTING FENCE
 - EXISTING PAVEMENT
 - EXISTING DITCH
 - EXISTING WATER
 - EXISTING STORM SEWER
 - EXISTING UNDERDRAIN
 - EXISTING FIBER OPTIC
 - EXISTING TELEPHONE
 - EXISTING COMMUNICATION
 - PROPOSED PAVEMENT
 - PROPOSED BITUMINOUS MILL & FILL
 - PROPOSED PAVEMENT REMOVAL

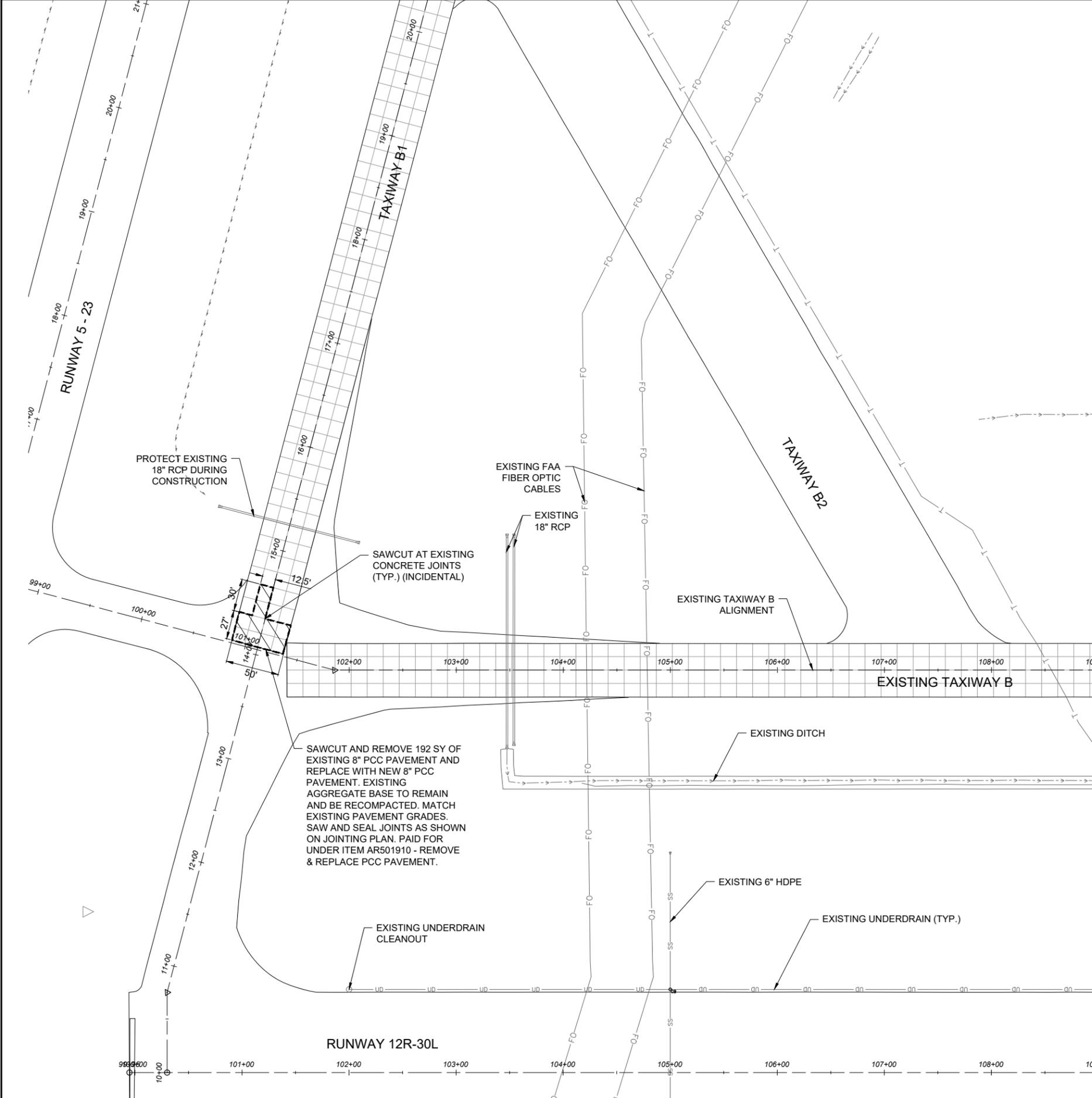
DEMOLITION NOTES:

- APPROXIMATE LOCATIONS OF KNOWN UTILITIES ARE SHOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO SATISFACTION OF THE UTILITY OWNER.
- EXISTING CONCRETE PAVEMENT TO BE REMOVED ON THIS SHEET CONSISTS OF 8" PCC ON 6" CRUSHED AGGREGATE. THE 8" PCC SHALL BE REMOVED; THE 6" CRUSHED AGGREGATE BASE SHALL REMAIN.

MATCH LINE - STA. 109+00



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**ST. LOUIS
DOWNTOWN AIRPORT**

**BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT**
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE: 11/22/2024 LICENSE: 11/30/2025
SIGNED: 11/22/2024 EXPIRES: 11/30/2025

**TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION**

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY

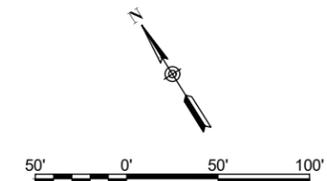
DESIGN BY: JRH 3/17/2024

DRAWN BY: AJL 3/24/2024

REVIEWED BY: BSS 4/19/2024

SHEET TITLE

**CONSTRUCTION
PLAN STA. 100+00 TO
STA. 109+00**



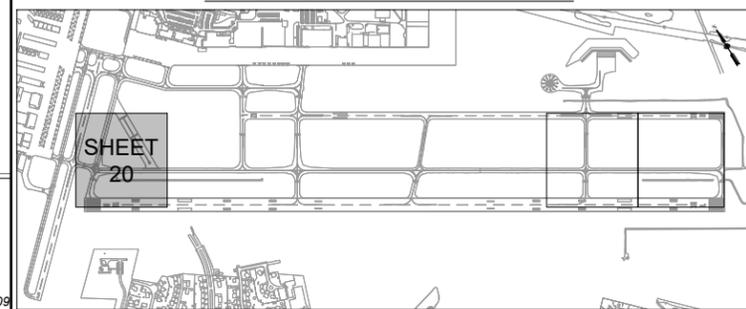
LEGEND

- EXISTING AIRPORT PROPERTY LINE
- EXISTING FENCE
- EXISTING PAVEMENT
- EXISTING DITCH
- EXISTING WATER
- EXISTING STORM SEWER
- EXISTING UNDERDRAIN
- EXISTING FIBER OPTIC
- EXISTING TELEPHONE
- EXISTING COMMUNICATION
- PROPOSED CONCRETE PAVEMENT
- PROPOSED BITUMINOUS PAVEMENT
- PROPOSED BITUMINOUS MILL & FILL

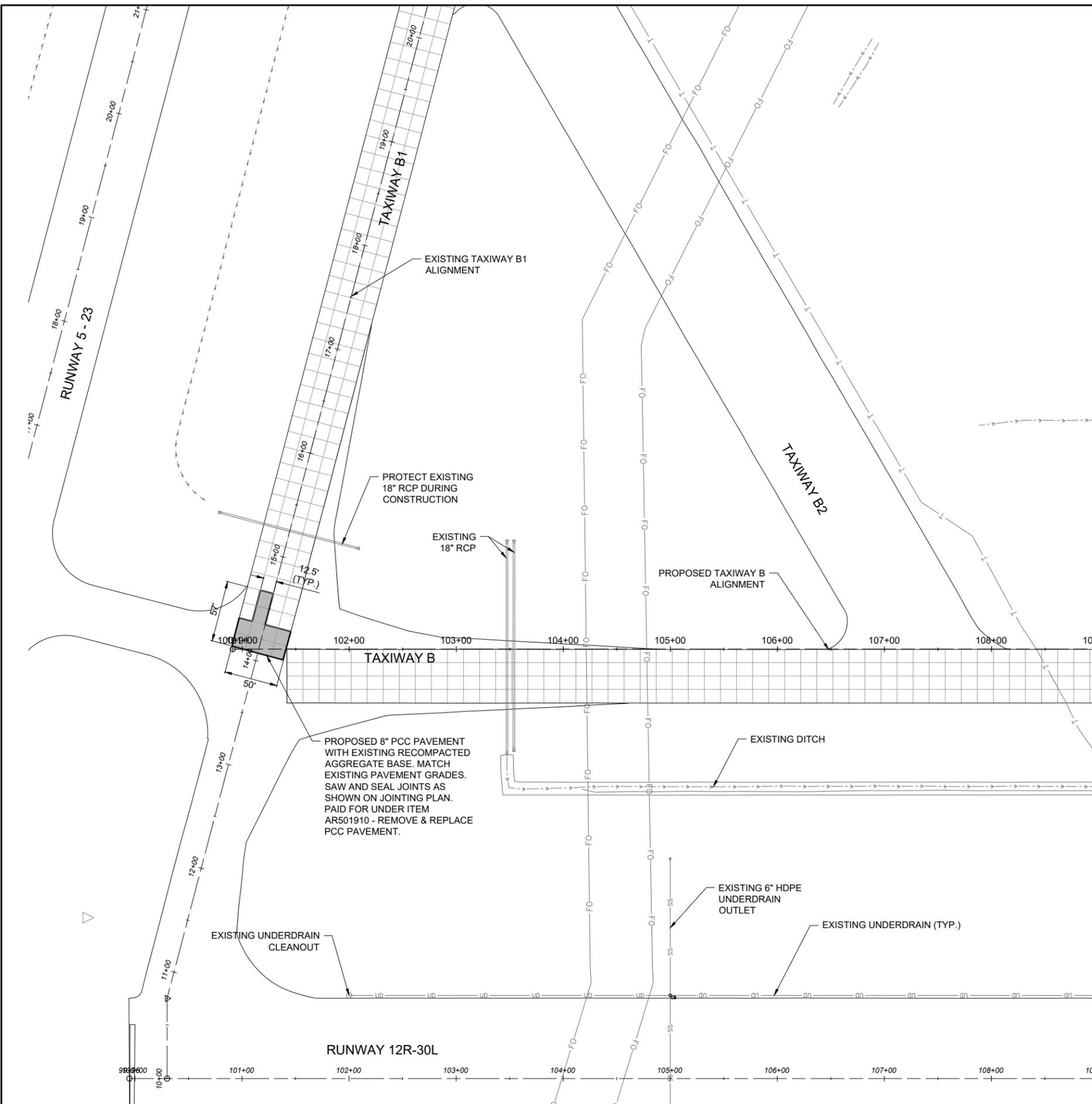
CONSTRUCTION NOTES:

1. APPROXIMATE LOCATIONS OF KNOWN UTILITIES ARE SHOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO SATISFACTION OF THE UTILITY OWNER.
2. THE PROPOSED PAVEMENT SHALL MATCH FLUSH WITH THE EXISTING PAVEMENT AND DRAINS WITHOUT CREATING PONDS. THE CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AT "MATCH" LOCATIONS PRIOR TO THE CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER/TECHNICIAN IMMEDIATELY TO DETERMINE IF ADJUSTMENTS ARE NECESSARY TO PROPOSED GRADES.

CONSTRUCTION PLAN - KEY MAP



FOR BID



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ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE: 11/22/2024 LICENSE: 11/30/2025
SIGNED: EXPIRES:

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
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IDA NO.: CPS-5078
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CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY

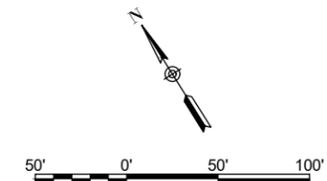
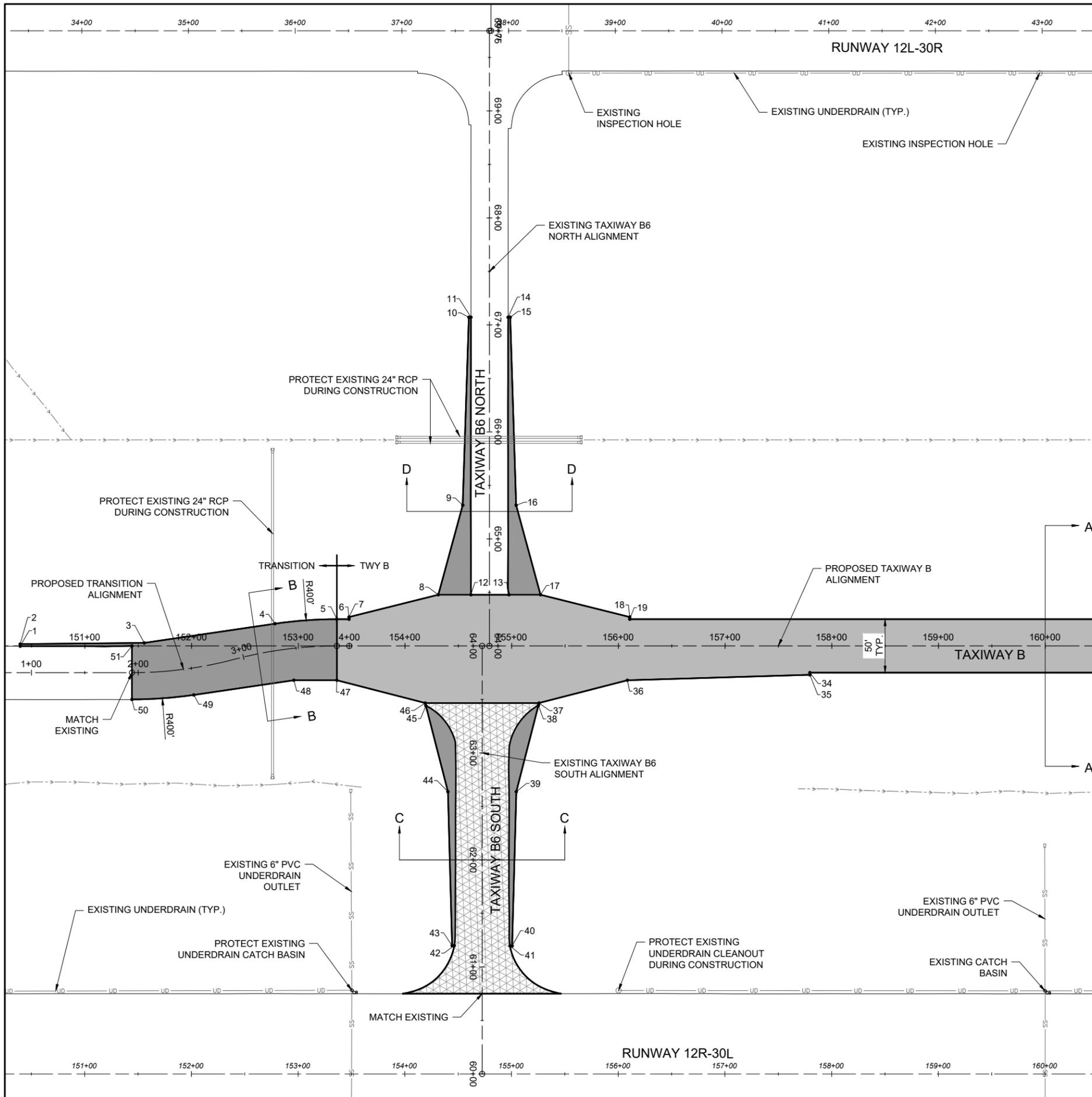
DESIGN BY: JRH 3/17/2024

DRAWN BY: AJL 3/24/2024

REVIEWED BY: BSS 4/19/2024

SHEET TITLE

CONSTRUCTION
PLAN STA. 150+50 TO
STA. 160+50

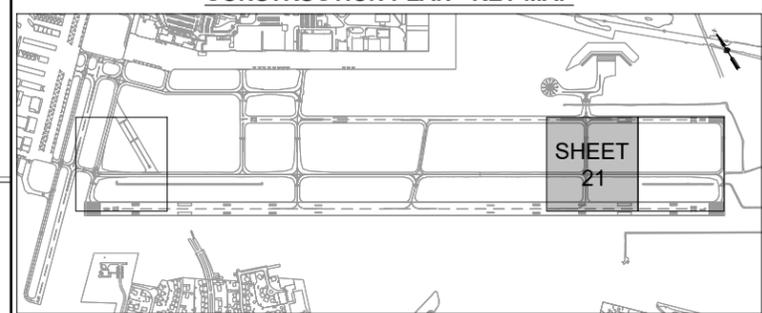


- LEGEND**
- EXISTING AIRPORT PROPERTY LINE
 - EXISTING FENCE
 - EXISTING PAVEMENT
 - EXISTING DITCH
 - EXISTING WATER
 - EXISTING STORM SEWER
 - EXISTING UNDERDRAIN
 - EXISTING FIBER OPTIC
 - EXISTING TELEPHONE
 - EXISTING COMMUNICATION
 - PROPOSED CONCRETE PAVEMENT
 - PROPOSED BITUMINOUS PAVEMENT
 - PROPOSED BITUMINOUS MILL & FILL

CONSTRUCTION NOTES:

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CONSTRUCTION PLAN - KEY MAP



FOR BID

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**ST. LOUIS
DOWNTOWN AIRPORT**

**BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT**
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE: 11/22/2024
LICENSE SIGNED: 11/22/2024 EXPIRES: 11/30/2025

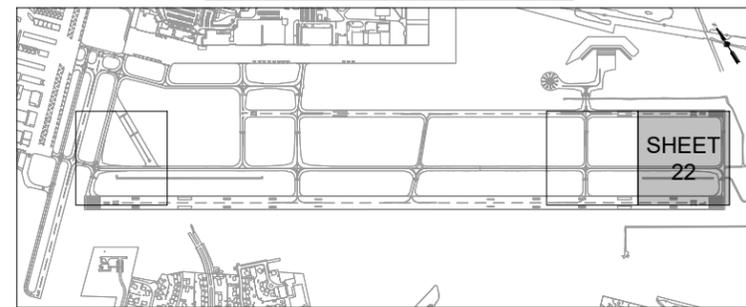
**TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION**

IDA NO.: CPS-5078
CONTRACT NO.: SD064

CONSTRUCTION NOTES:

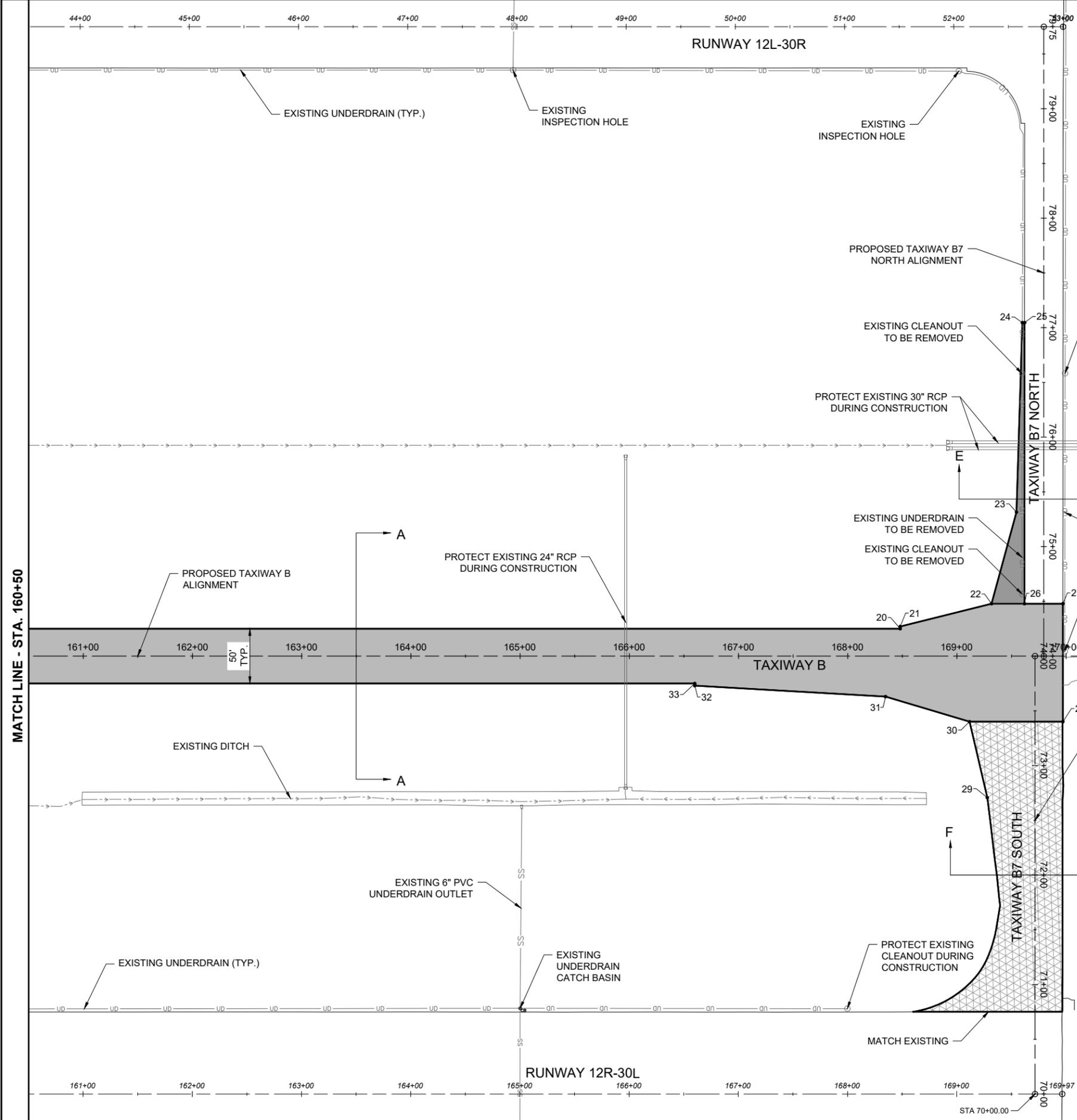
- APPROXIMATE LOCATIONS OF KNOWN UTILITIES ARE SHOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO SATISFACTION OF THE UTILITY OWNER.
- THE PROPOSED PAVEMENT SHALL MATCH FLUSH WITH THE EXISTING PAVEMENT AND DRAINS WITHOUT CREATING PONDS. THE CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AT "MATCH" LOCATIONS PRIOR TO THE CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER/TECHNICIAN IMMEDIATELY TO DETERMINE IF ADJUSTMENTS ARE NECESSARY TO PROPOSED GRADES.

CONSTRUCTION PLAN - KEY MAP



SHEET
22

FOR BID



LEGEND

- EXISTING AIRPORT PROPERTY LINE
- EXISTING FENCE
- EXISTING PAVEMENT
- EXISTING DITCH
- EXISTING WATER
- EXISTING STORM SEWER
- EXISTING UNDERDRAIN
- EXISTING FIBER OPTIC
- EXISTING TELEPHONE
- EXISTING COMMUNICATION
- PROPOSED CONCRETE PAVEMENT
- PROPOSED BITUMINOUS PAVEMENT
- PROPOSED BITUMINOUS MILL & FILL

MATCH LINE - STA. 160+50

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**CONSTRUCTION
PLAN STA. 160+50 TO
STA. 170+50**



**ST. LOUIS
DOWNTOWN AIRPORT**
BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

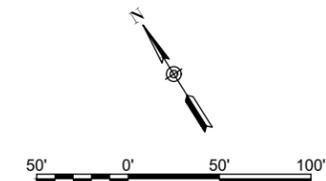
IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
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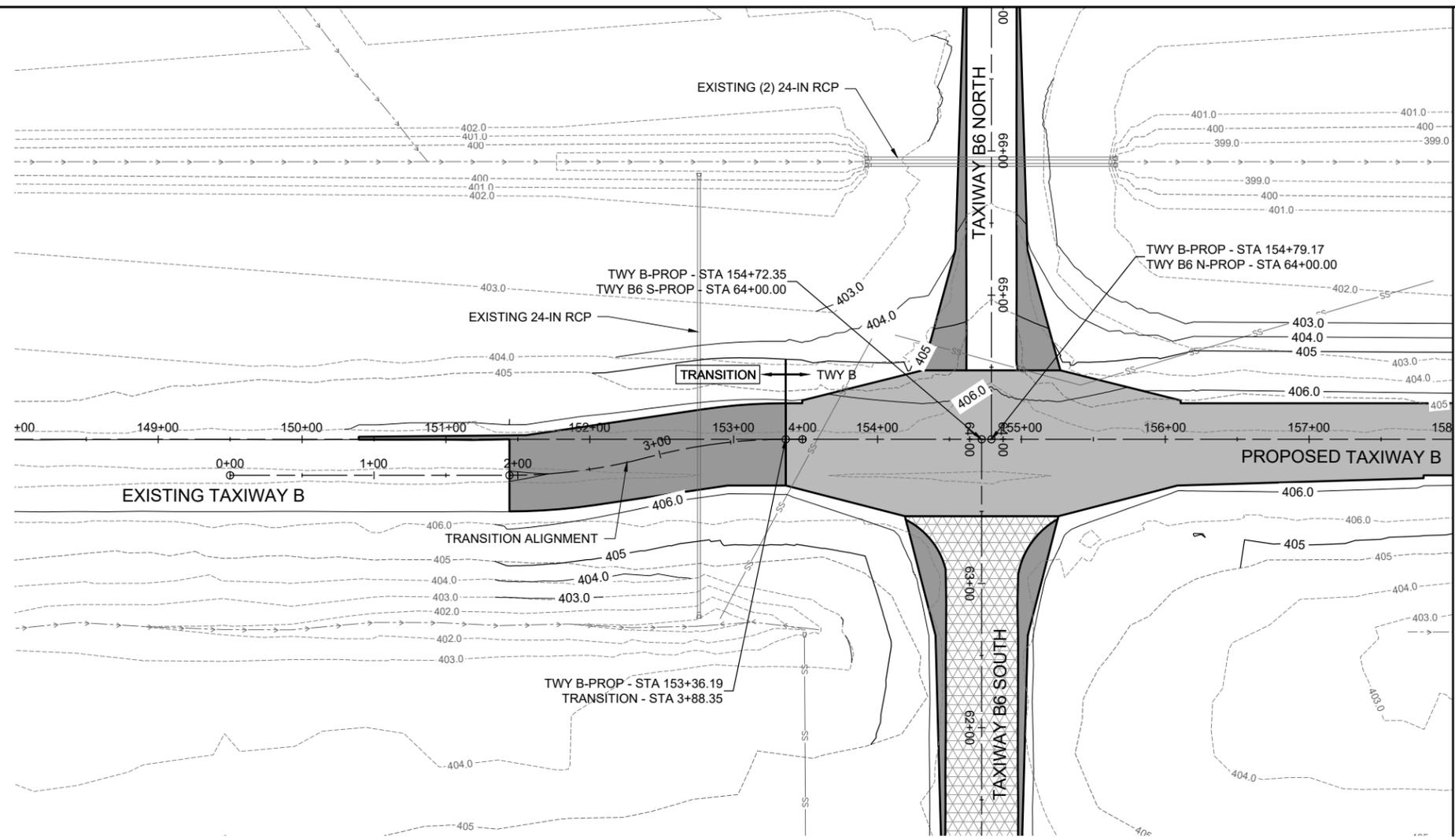
ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: XTRI_ALP2024_DS_P&P_RWS_E&F_CLIMB.DWG
DESIGN BY: JRH 3/17/2024
DRAWN BY: JRH 3/24/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

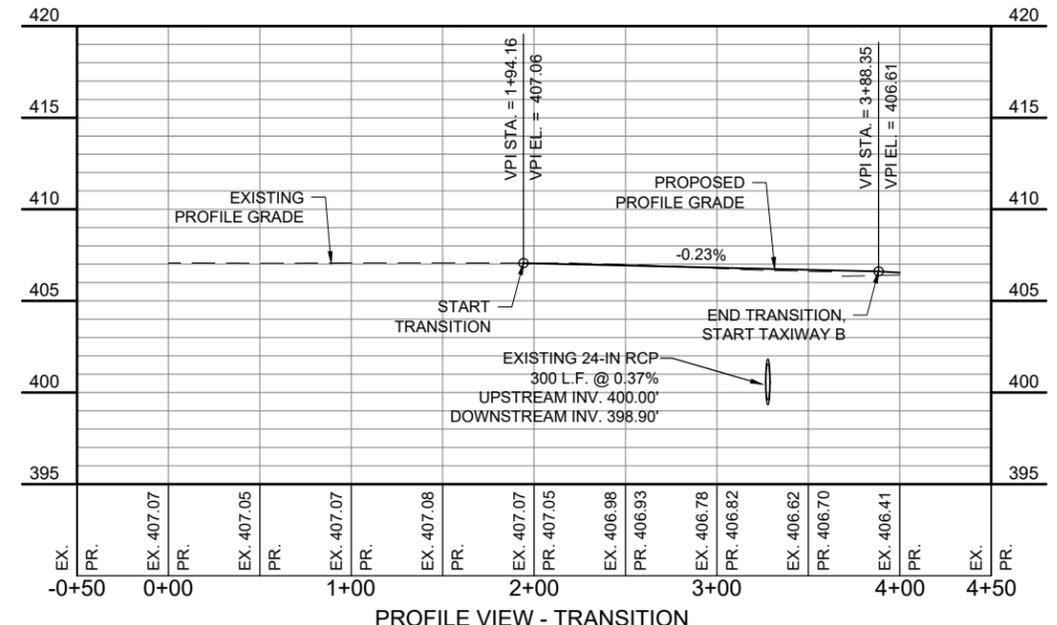
PROPOSED PLAN
AND PROFILE -
ALIGNMENT
TRANSITION



- LEGEND**
- EXISTING AIRPORT PROPERTY LINE
 - EXISTING FENCE
 - EXISTING PAVEMENT
 - EXISTING DITCH
 - EXISTING WATER
 - EXISTING STORM SEWER
 - EXISTING UNDERDRAIN
 - EXISTING FIBER OPTIC
 - EXISTING TELEPHONE
 - EXISTING COMMUNICATION
 - PROPOSED CONCRETE PAVEMENT
 - PROPOSED BITUMINOUS PAVEMENT
 - PROPOSED MILL & OVERLAY



PLAN VIEW - TRANSITION



PROFILE VIEW - TRANSITION

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FOR BID



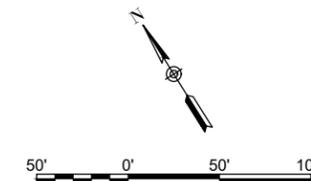
**ST. LOUIS
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6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024
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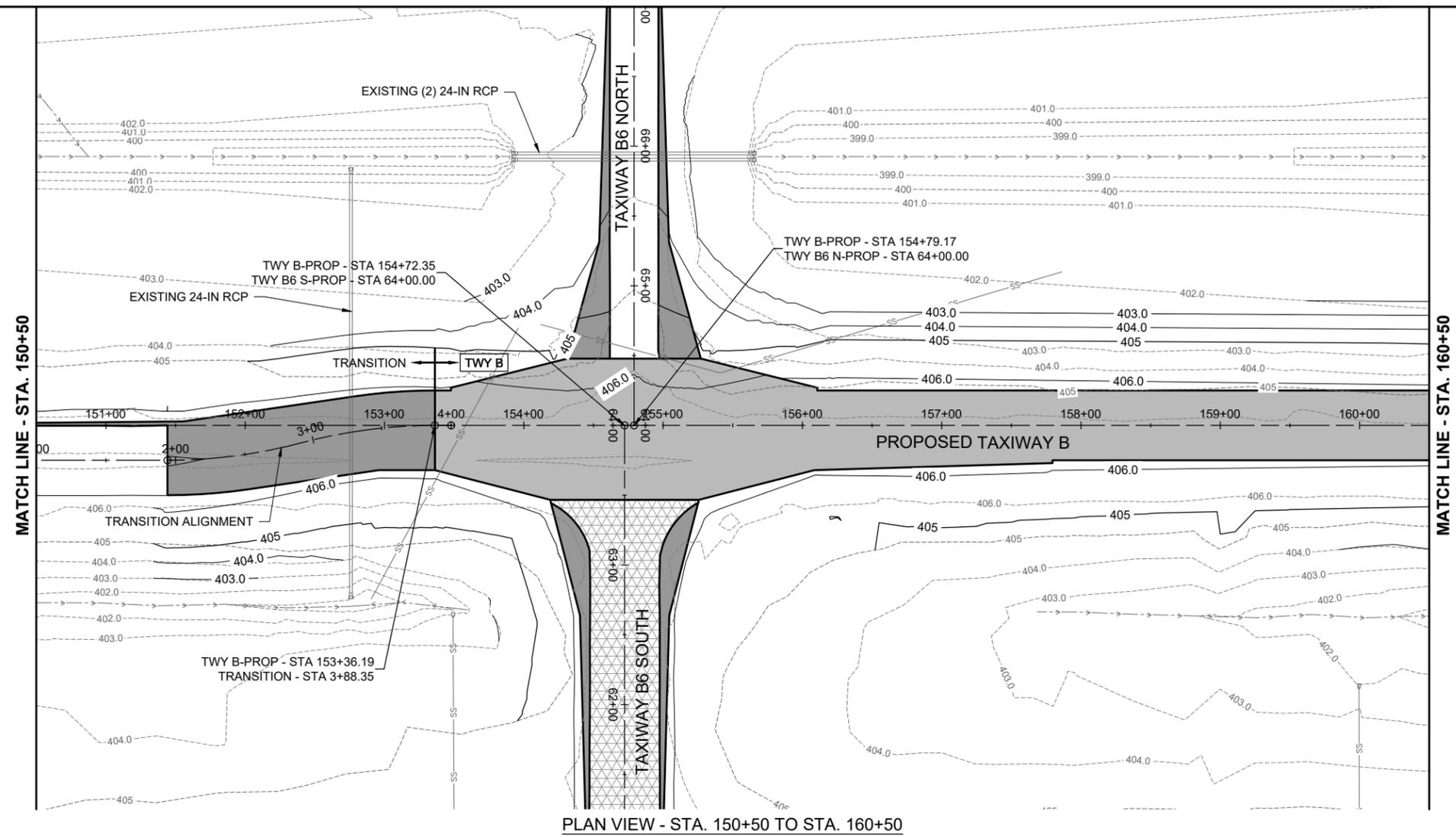
TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

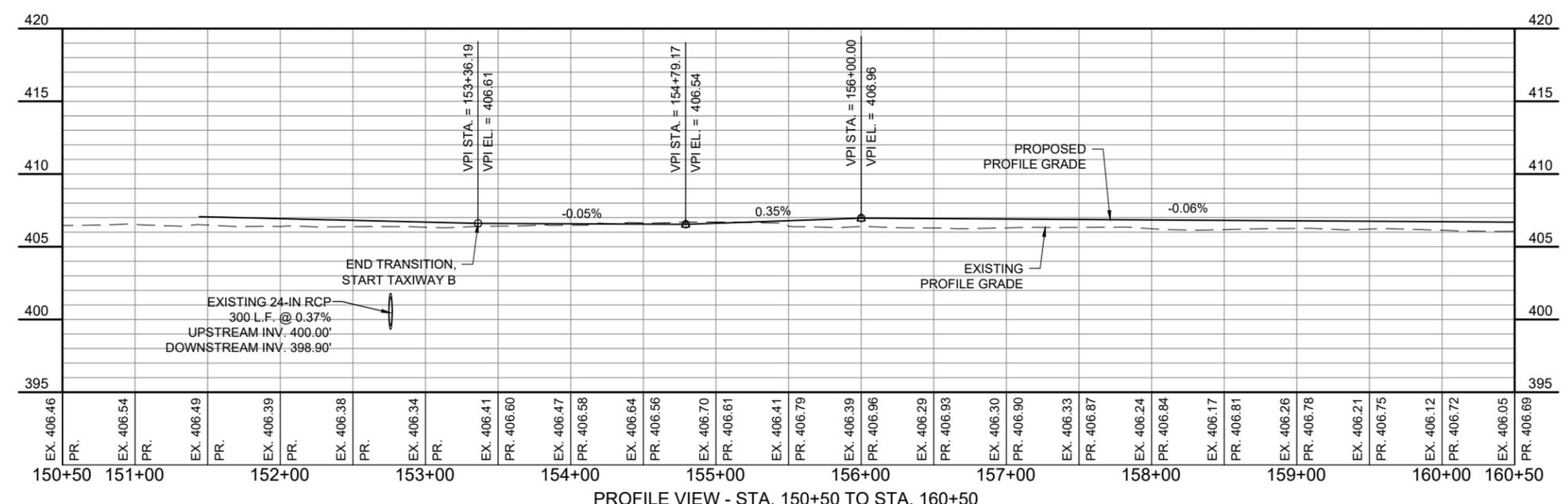


LEGEND

- EXISTING AIRPORT PROPERTY LINE
- EXISTING FENCE
- EXISTING PAVEMENT
- EXISTING DITCH
- EXISTING WATER
- EXISTING STORM SEWER
- EXISTING UNDERDRAIN
- EXISTING FIBER OPTIC
- EXISTING TELEPHONE
- EXISTING COMMUNICATION
- PROPOSED CONCRETE PAVEMENT
- PROPOSED BITUMINOUS PAVEMENT
- PROPOSED MILL & OVERLAY



PLAN VIEW - STA. 150+50 TO STA. 160+50



PROFILE VIEW - STA. 150+50 TO STA. 160+50

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NO.	DATE	DESCRIPTION		
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ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: XTRI_ALP2024_DS_P&P_RW5_E&F_CLIMB.DWG
DESIGN BY: JRH 3/17/2024
DRAWN BY: JRH 3/24/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED PLAN
AND PROFILE - STA.
150+50 TO STA.
160+50

FOR BID



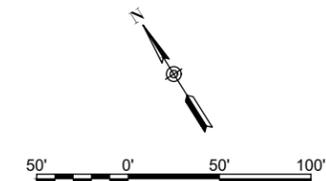
**ST. LOUIS
DOWNTOWN AIRPORT**
BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

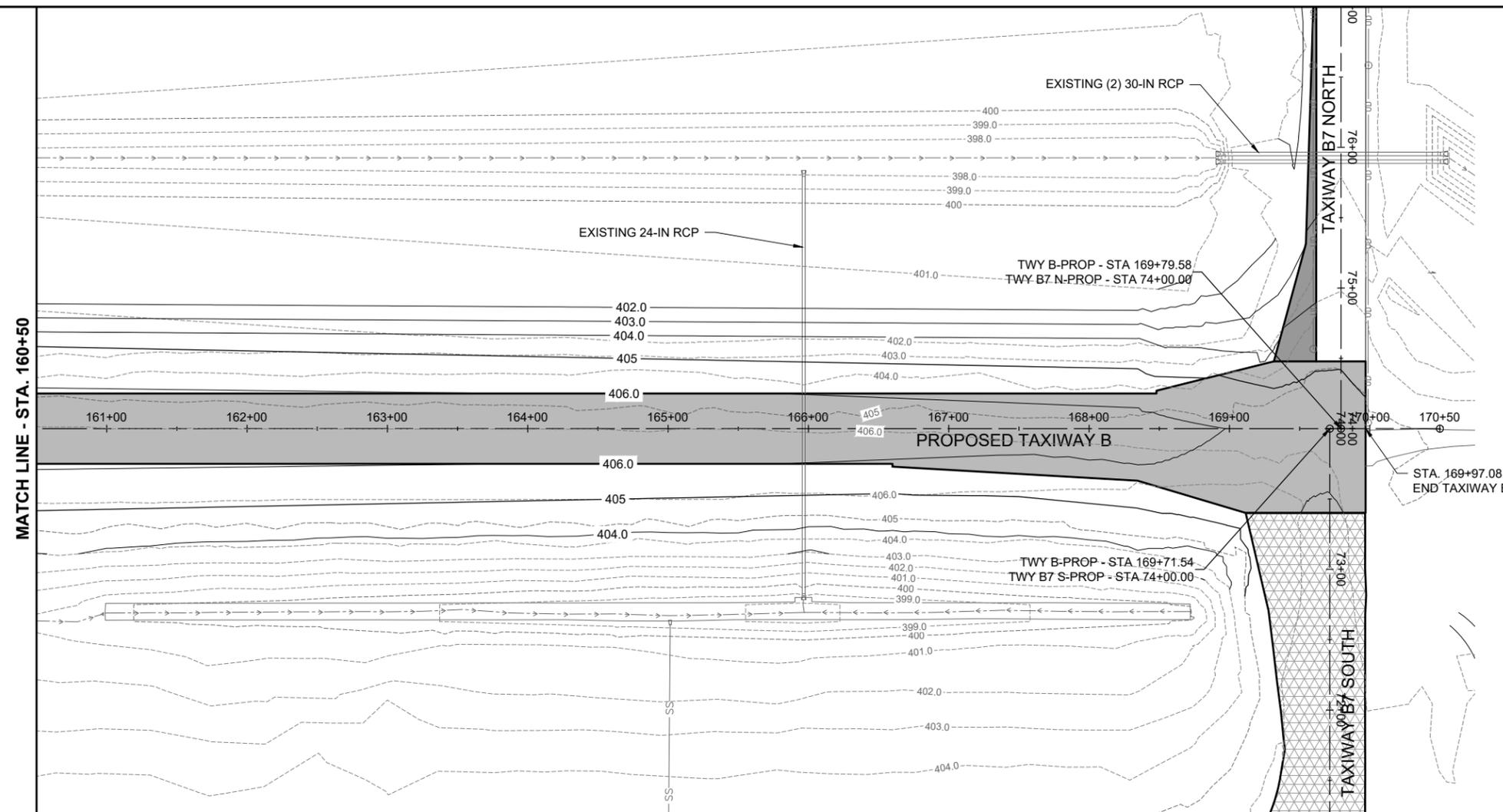
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PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

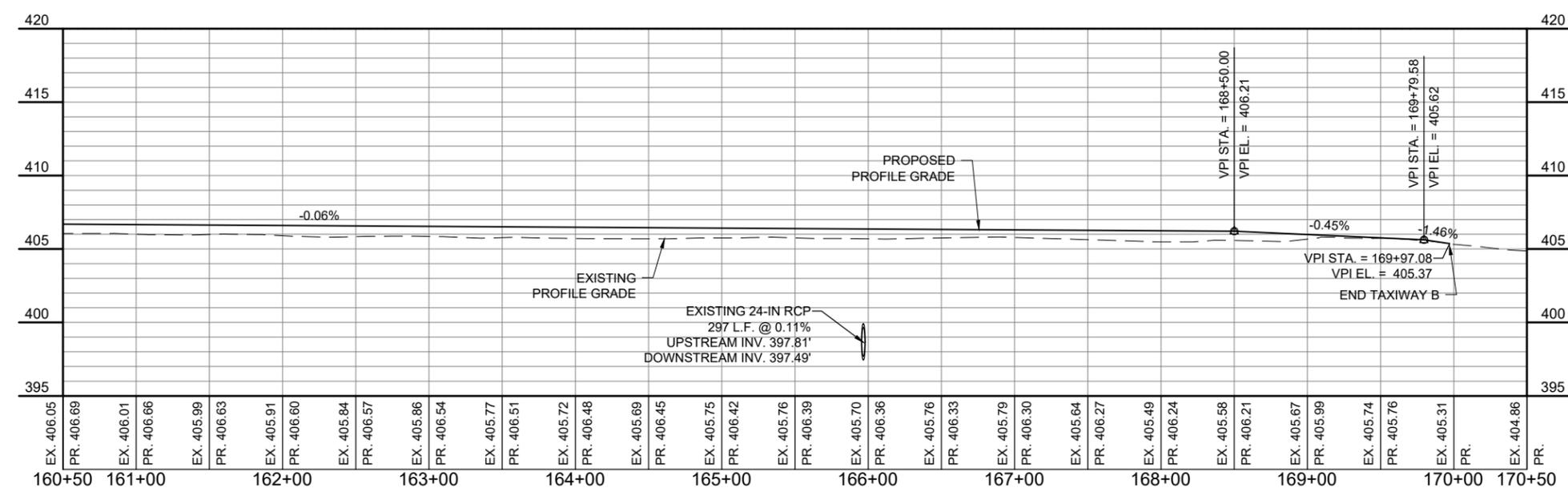


LEGEND

- EXISTING AIRPORT PROPERTY LINE
- EXISTING FENCE
- EXISTING PAVEMENT
- EXISTING DITCH
- EXISTING WATER
- EXISTING STORM SEWER
- EXISTING UNDERDRAIN
- EXISTING FIBER OPTIC
- EXISTING TELEPHONE
- EXISTING COMMUNICATION
- PROPOSED CONCRETE PAVEMENT
- PROPOSED BITUMINOUS PAVEMENT
- PROPOSED MILL & OVERLAY



PLAN VIEW - STA. 160+50 TO STA. 170+50



PROFILE VIEW - STA. 160+50 TO STA. 170+50

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DESIGN BY: JRH 3/17/2024
DRAWN BY: JRH 3/24/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED PLAN
AND PROFILE - STA.
160+50 TO STA.
170+50

FOR BID



ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: XTRI_ALP2024_DS_P&P_RWS_E&F_CLIMB.DWG

DESIGN BY: JRH 3/17/2024

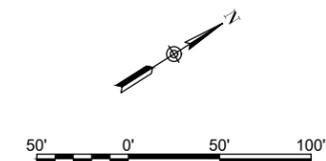
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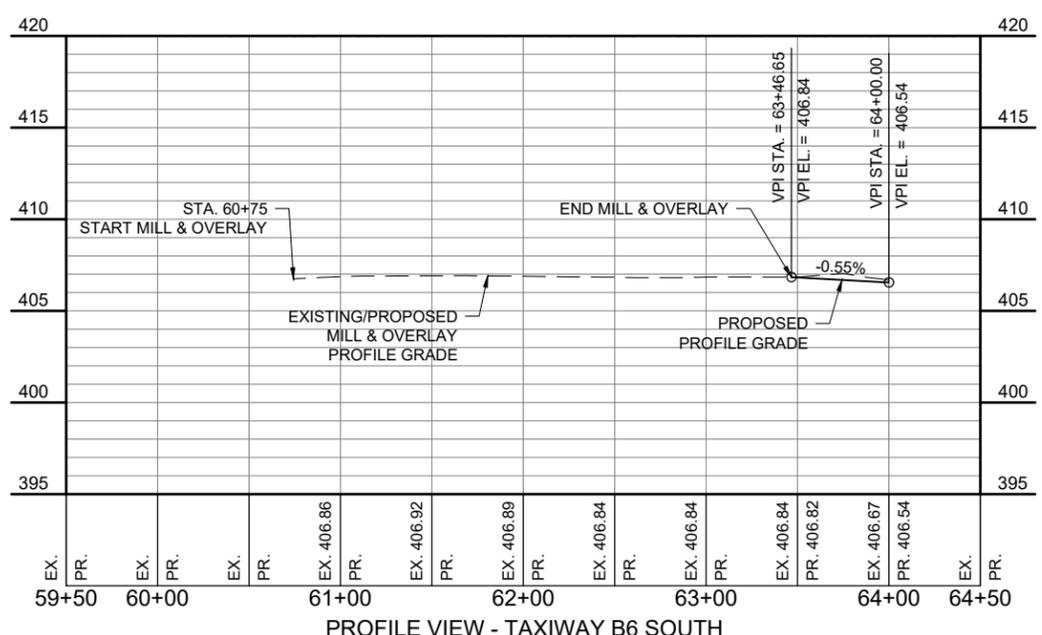
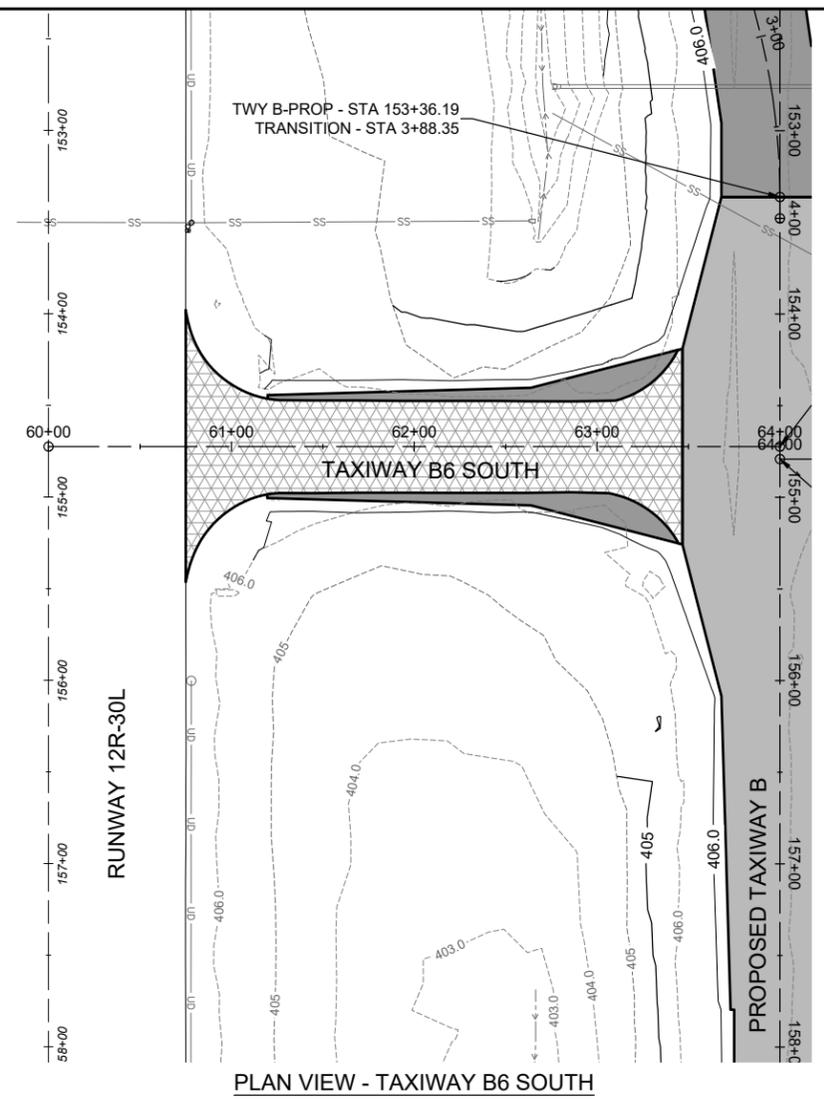
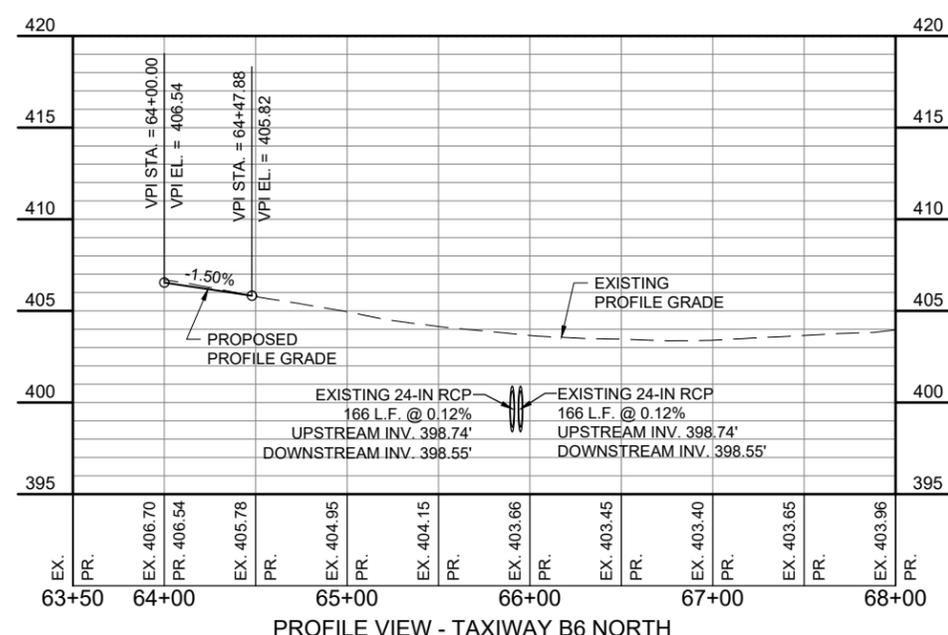
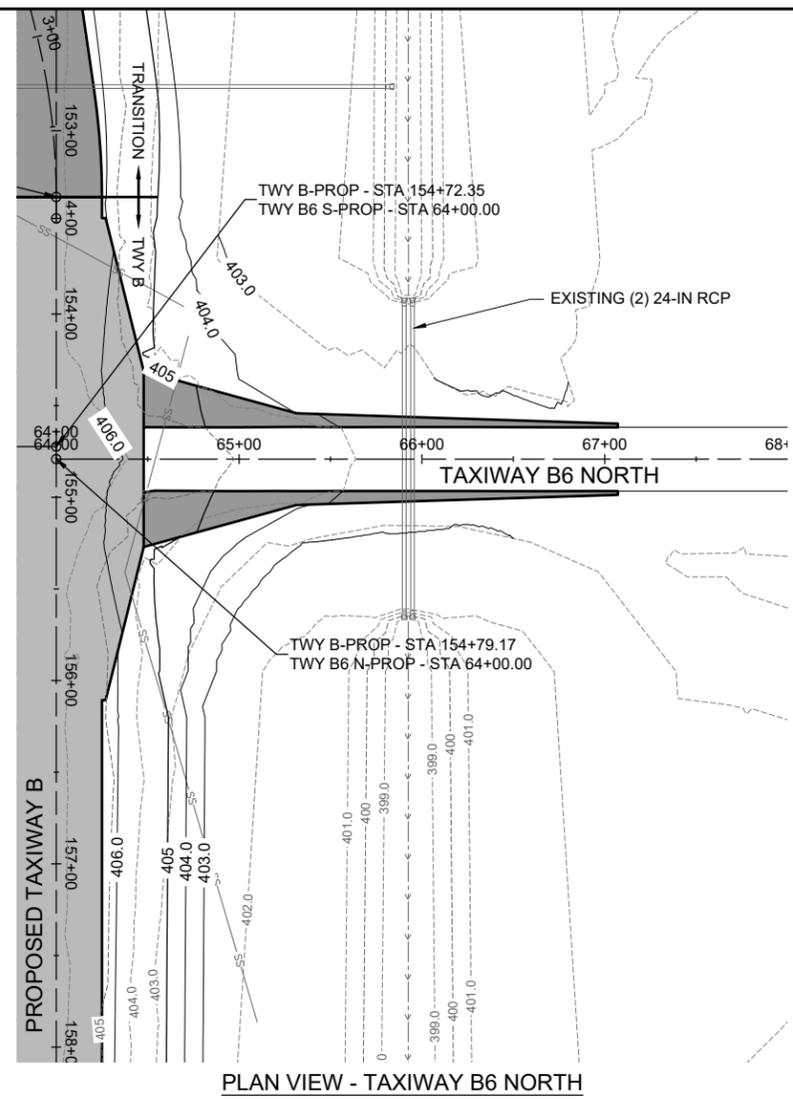
SHEET TITLE

PROPOSED PLAN
AND PROFILE -
TAXIWAY B6

FOR BID



- LEGEND**
- EXISTING AIRPORT PROPERTY LINE
 - EXISTING FENCE
 - EXISTING PAVEMENT
 - EXISTING DITCH
 - EXISTING WATER
 - EXISTING STORM SEWER
 - EXISTING UNDERDRAIN
 - EXISTING FIBER OPTIC
 - EXISTING TELEPHONE
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 - PROPOSED CONCRETE PAVEMENT
 - PROPOSED BITUMINOUS PAVEMENT
 - PROPOSED MILL & OVERLAY



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ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024
LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

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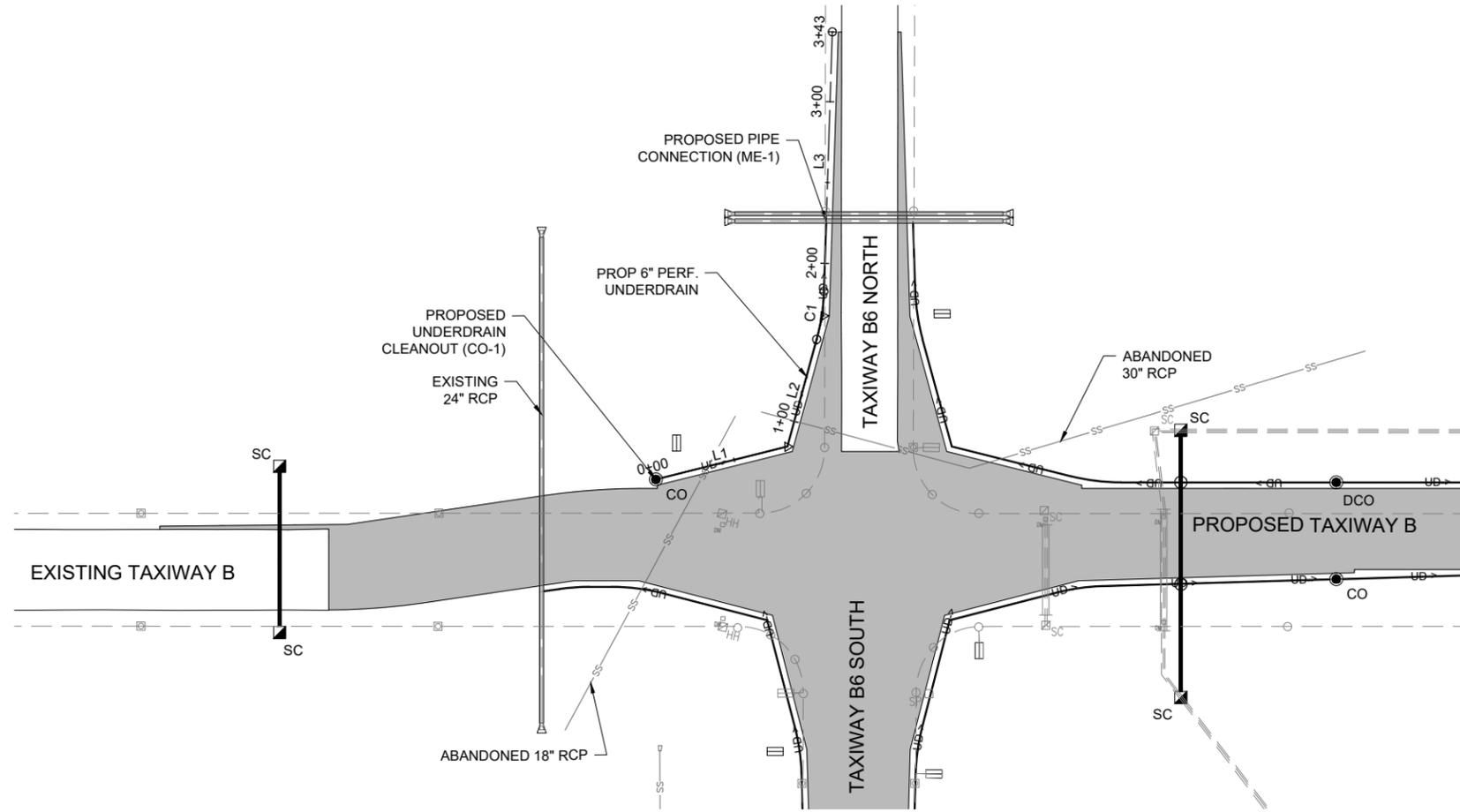
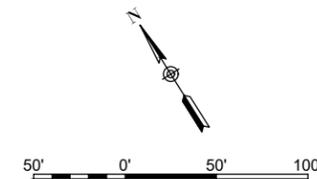
DESIGN BY: MJD 03/28/2024

DRAWN BY: AJL 04/03/2024

REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED PLAN &
PROFILE -
NORTHWEST
UNDERDRAINS

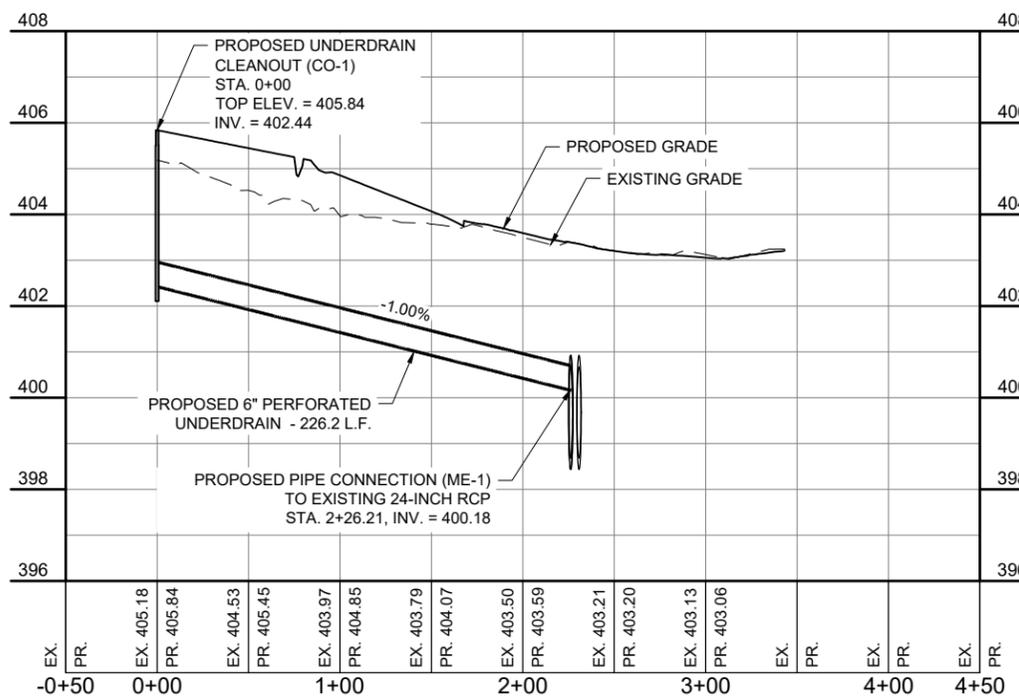


PLAN VIEW - NORTHWEST UNDERDRAINS

NOTES:

1. SEE ELECTRICAL PLANS FOR LOCATIONS OF ALL PROPOSED ELECTRICAL ITEMS.
2. SEE PROPOSED UNDERDRAIN SCHEDULES SHEET FOR FURTHER INFORMATION.

NORTHWEST UNDERDRAIN PROFILE



FOR BID



ST. LOUIS
DOWNTOWN AIRPORT

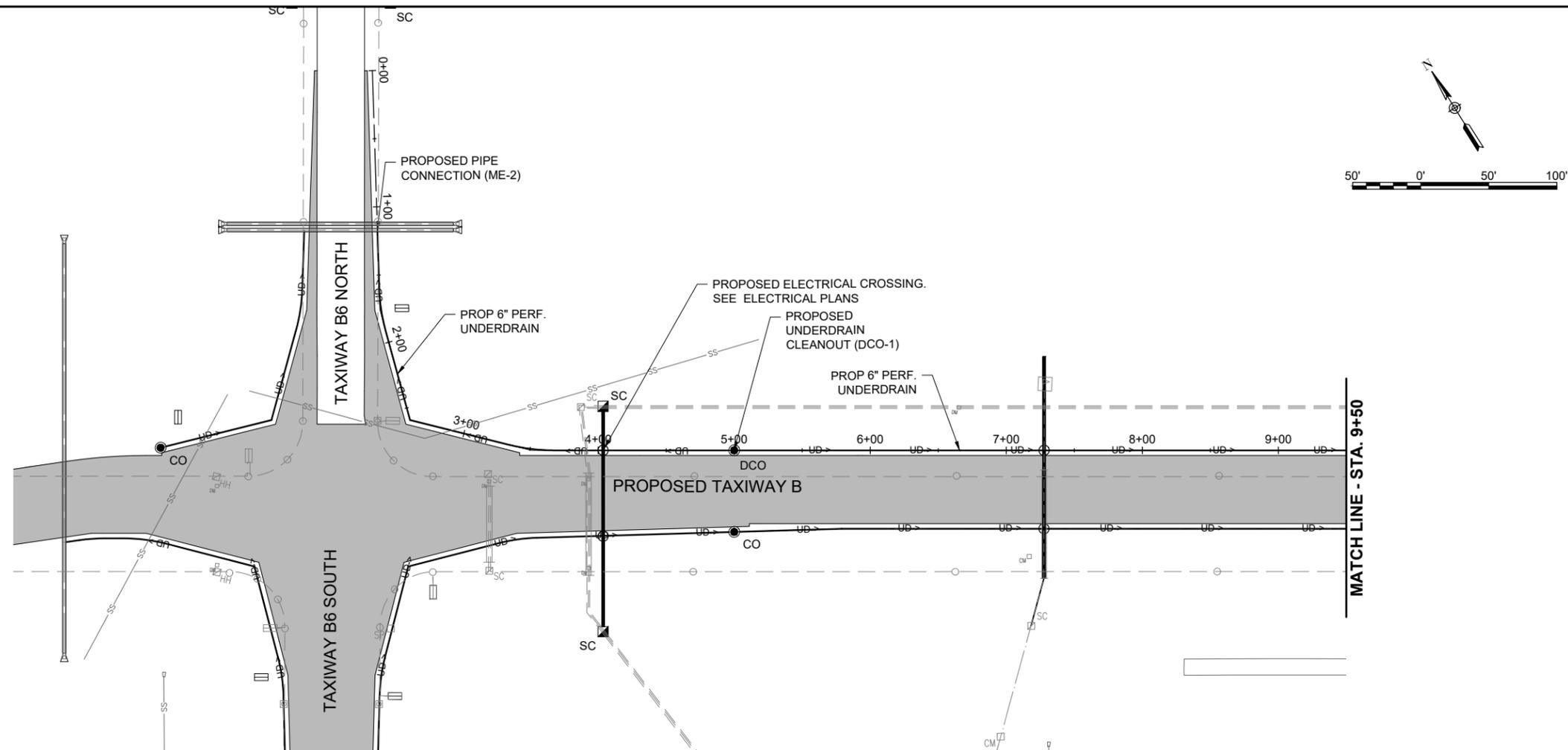
BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

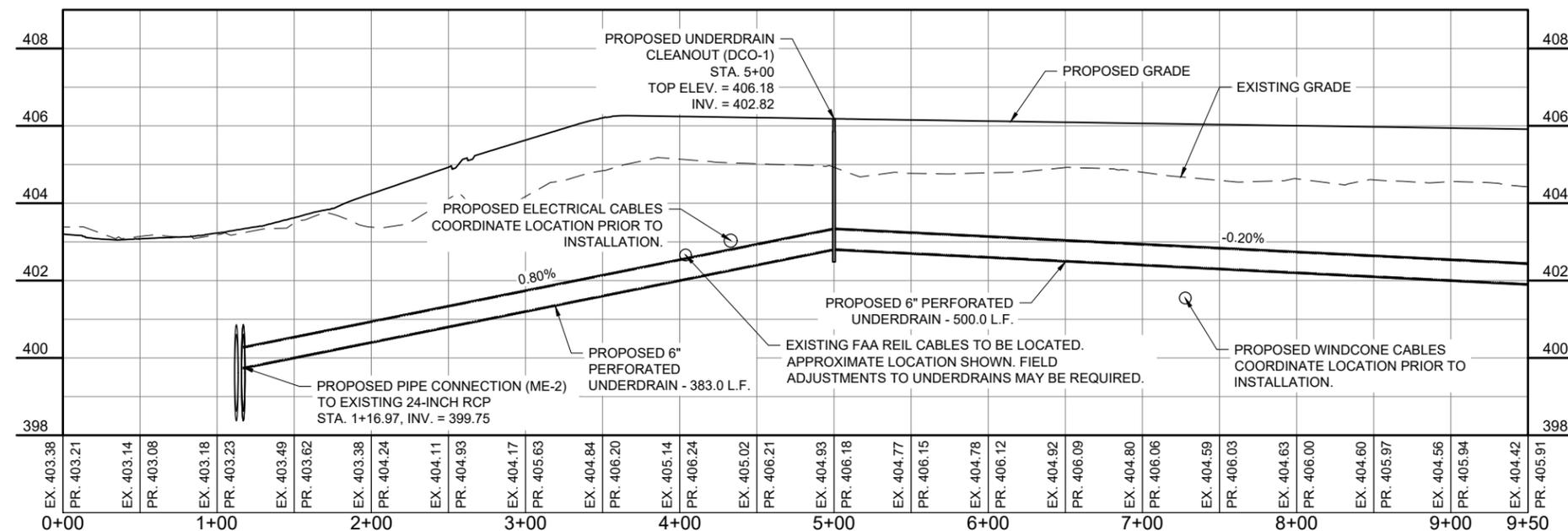
TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064



PLAN VIEW - NORTHEAST UNDERDRAINS

NORTHEAST UNDERDRAIN PROFILE SHEET 1



FOR BID

PROPOSED PLAN &
PROFILE -
NORTHEAST
UNDERDRAINS
SHEET 1



ST. LOUIS
DOWNTOWN AIRPORT

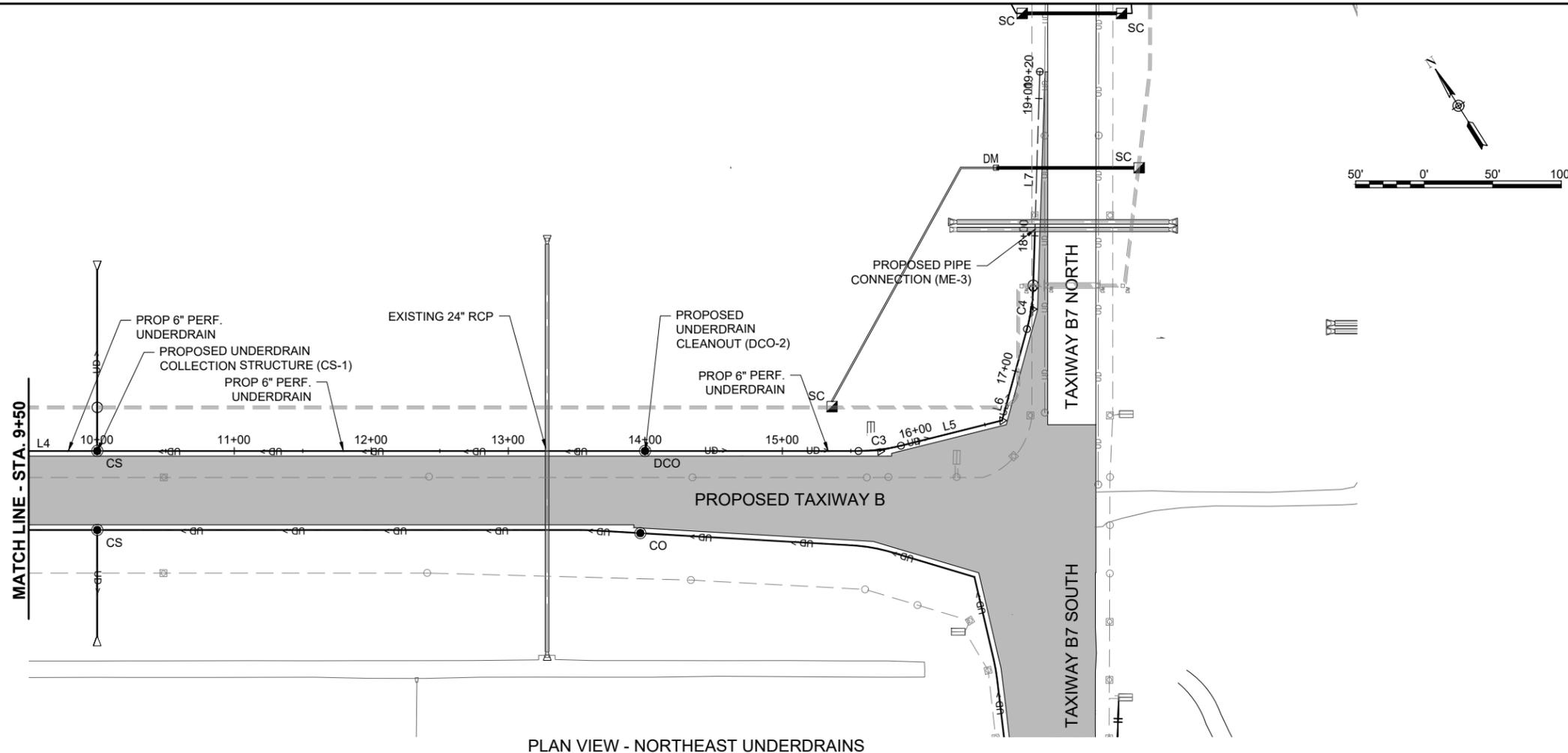
BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024
LICENSE EXPIRES: 11/30/2025

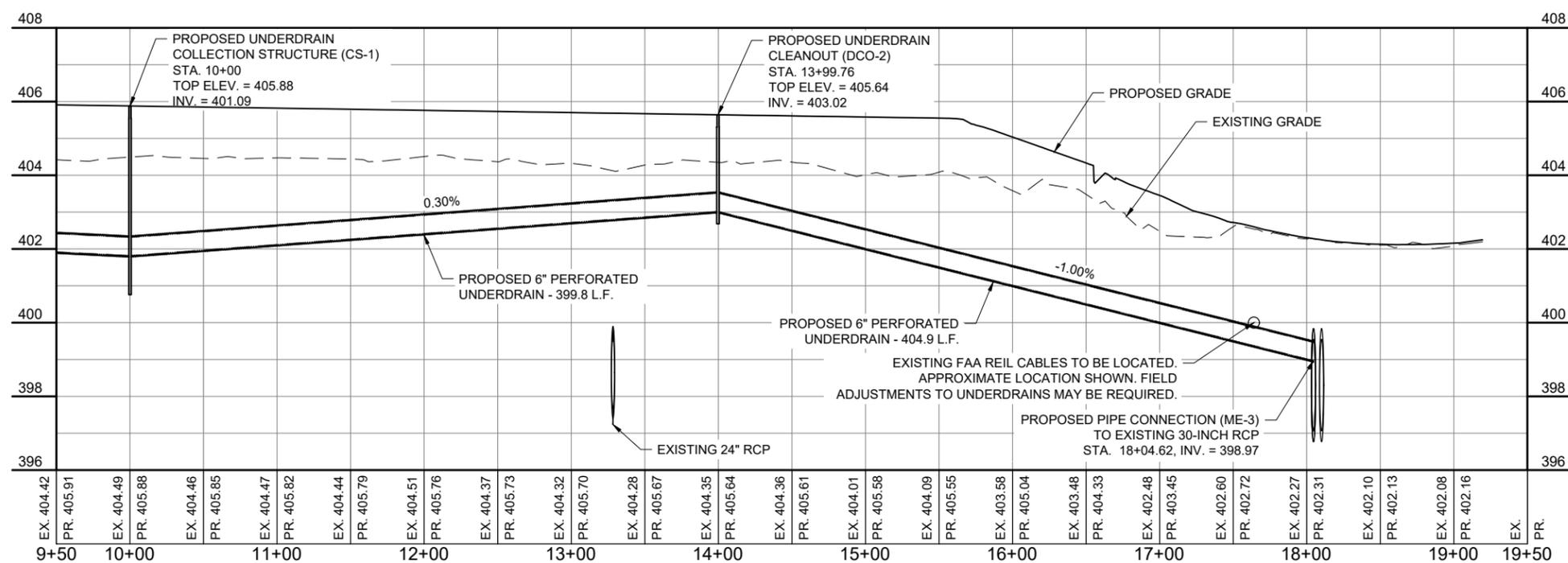
TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064



PLAN VIEW - NORTHEAST UNDERDRAINS

NORTHEAST UNDERDRAIN PROFILE SHEET 2



FOR BID

PROPOSED PLAN &
PROFILE -
NORTHEAST
UNDERDRAINS
SHEET 2



ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024
LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
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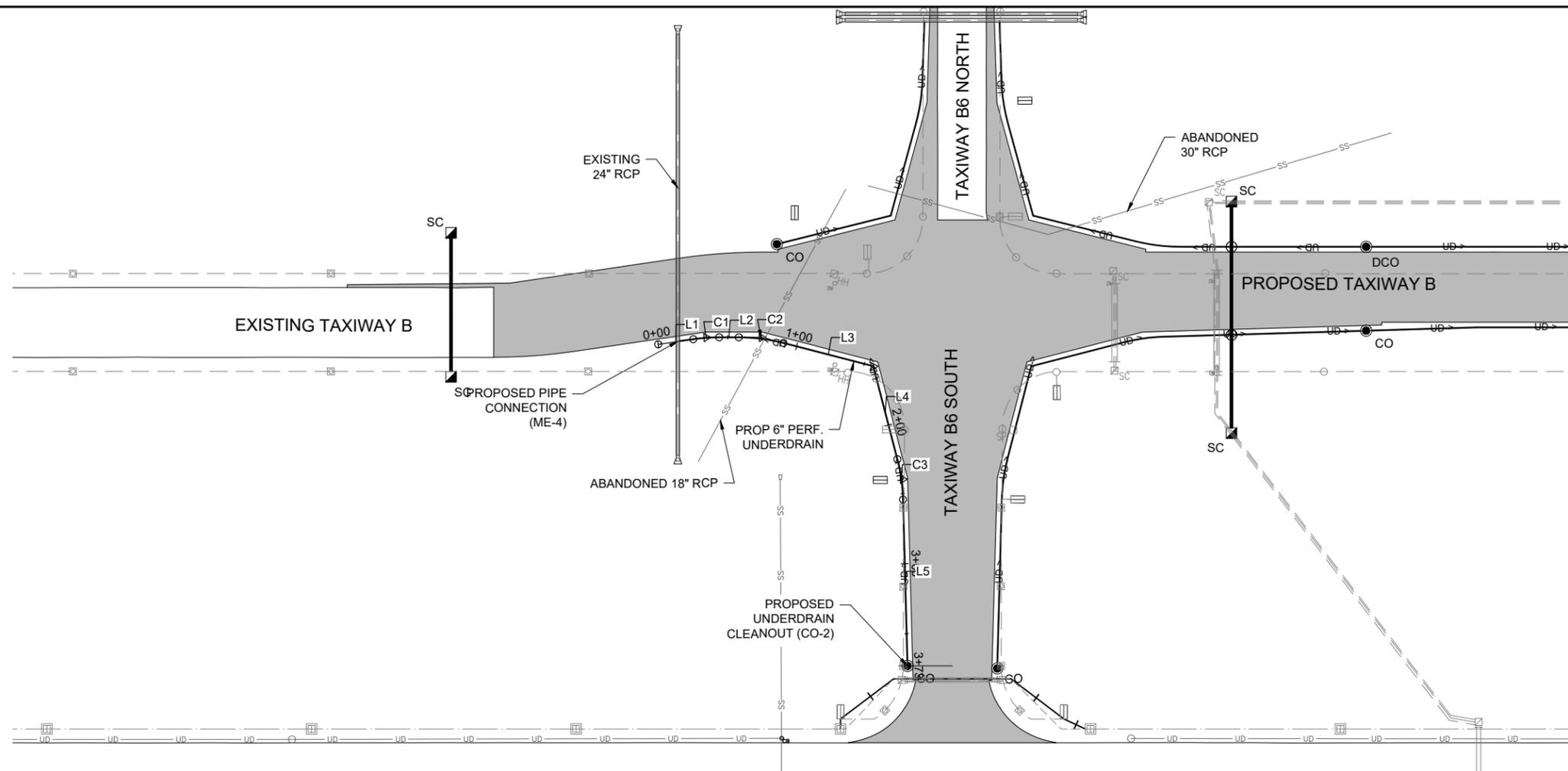
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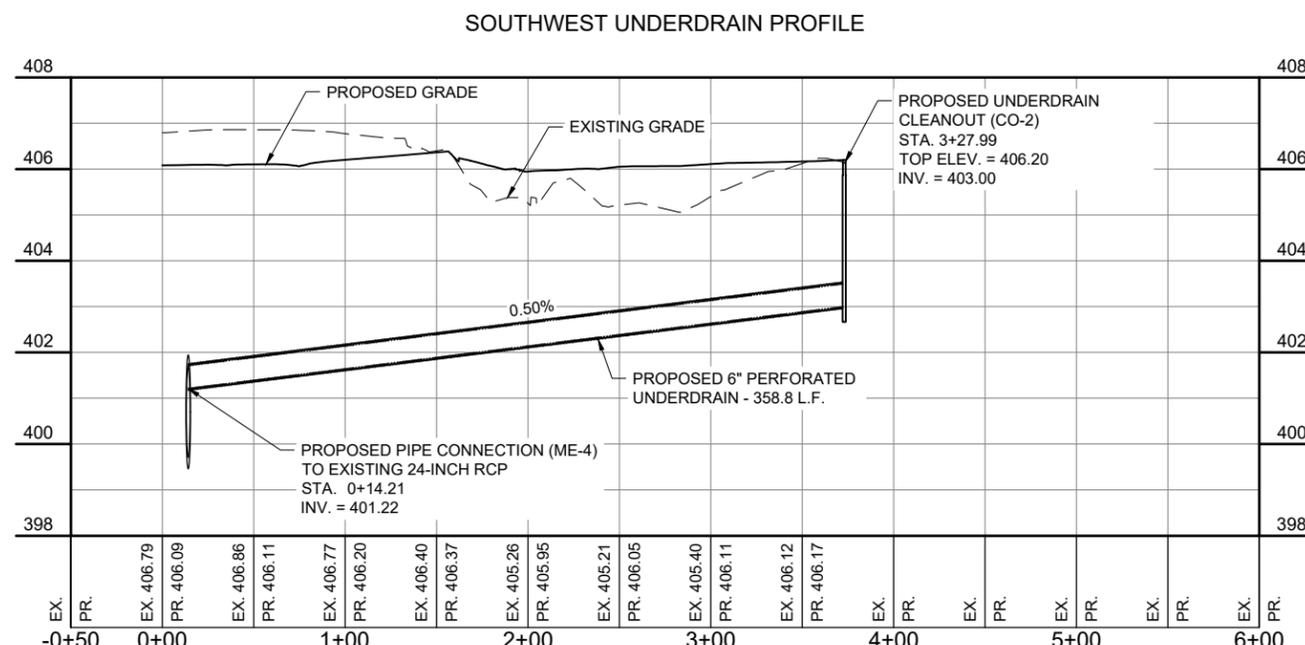
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED PLAN &
PROFILE -
SOUTHWEST
UNDERDRAINS



PLAN VIEW - SOUTHWEST UNDERDRAINS



SOUTHWEST UNDERDRAIN PROFILE

FOR BID

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ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE: 11/22/2024
LICENSE: 062-057281
SIGNED: 11/22/2024
EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
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ISSUE: NOVEMBER 22, 2024

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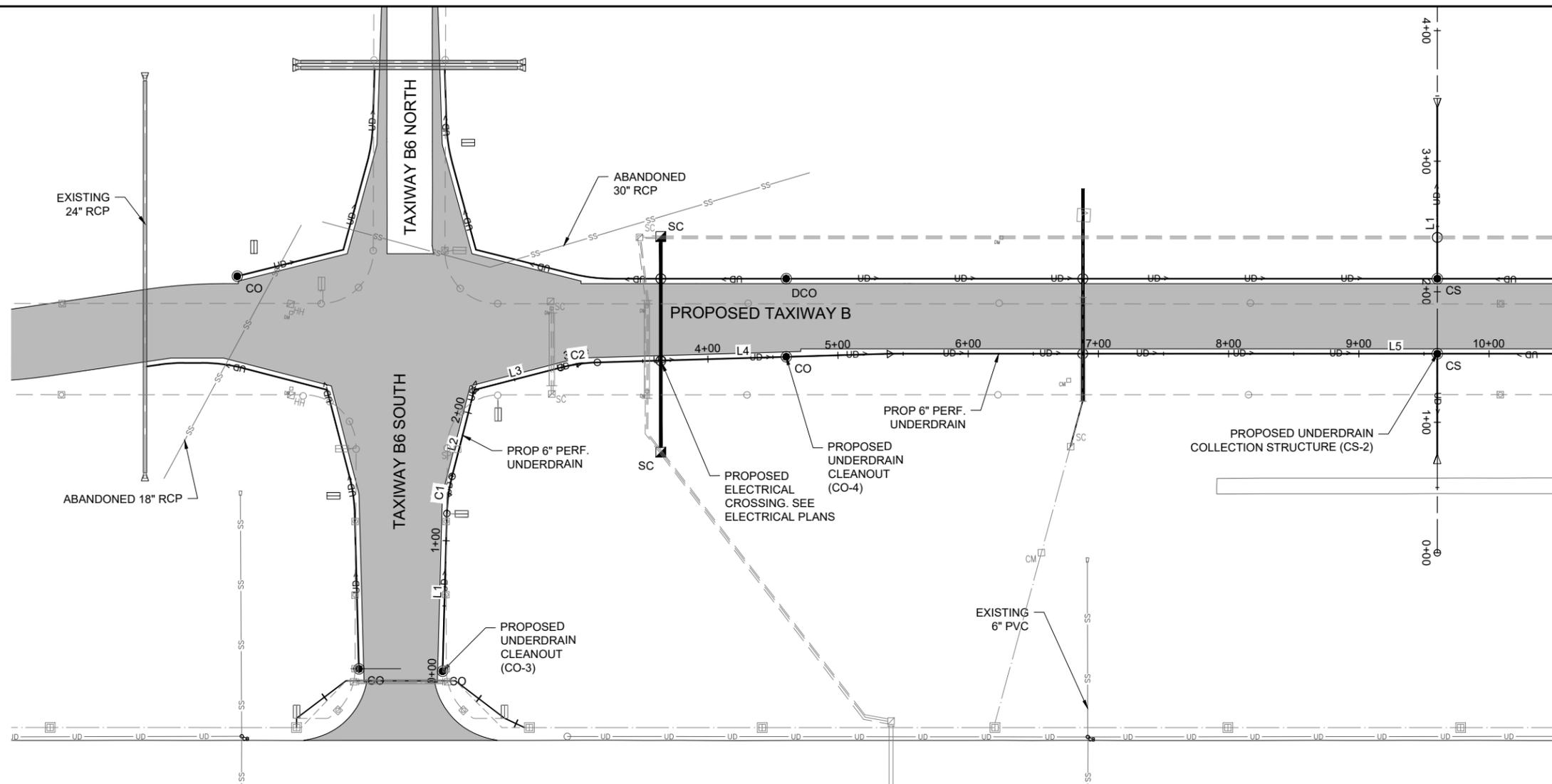
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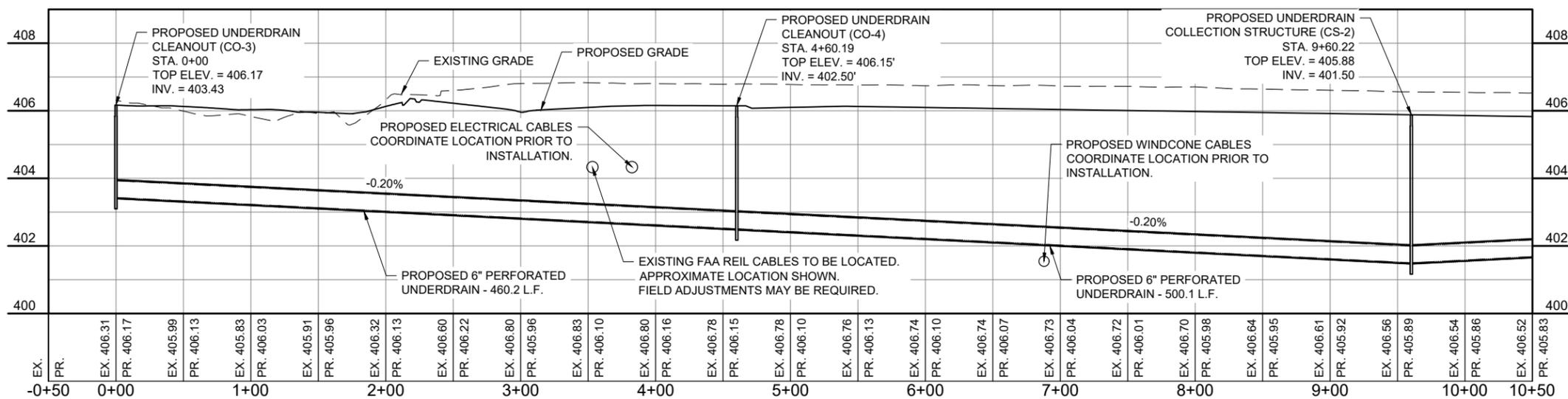
PROPOSED PLAN &
PROFILE -
SOUTHEAST
UNDERDRAINS
SHEET 1

FOR BID



PLAN VIEW - SOUTHEAST UNDERDRAINS

SOUTHEAST UNDERDRAIN PROFILE SHEET 1





ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
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TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
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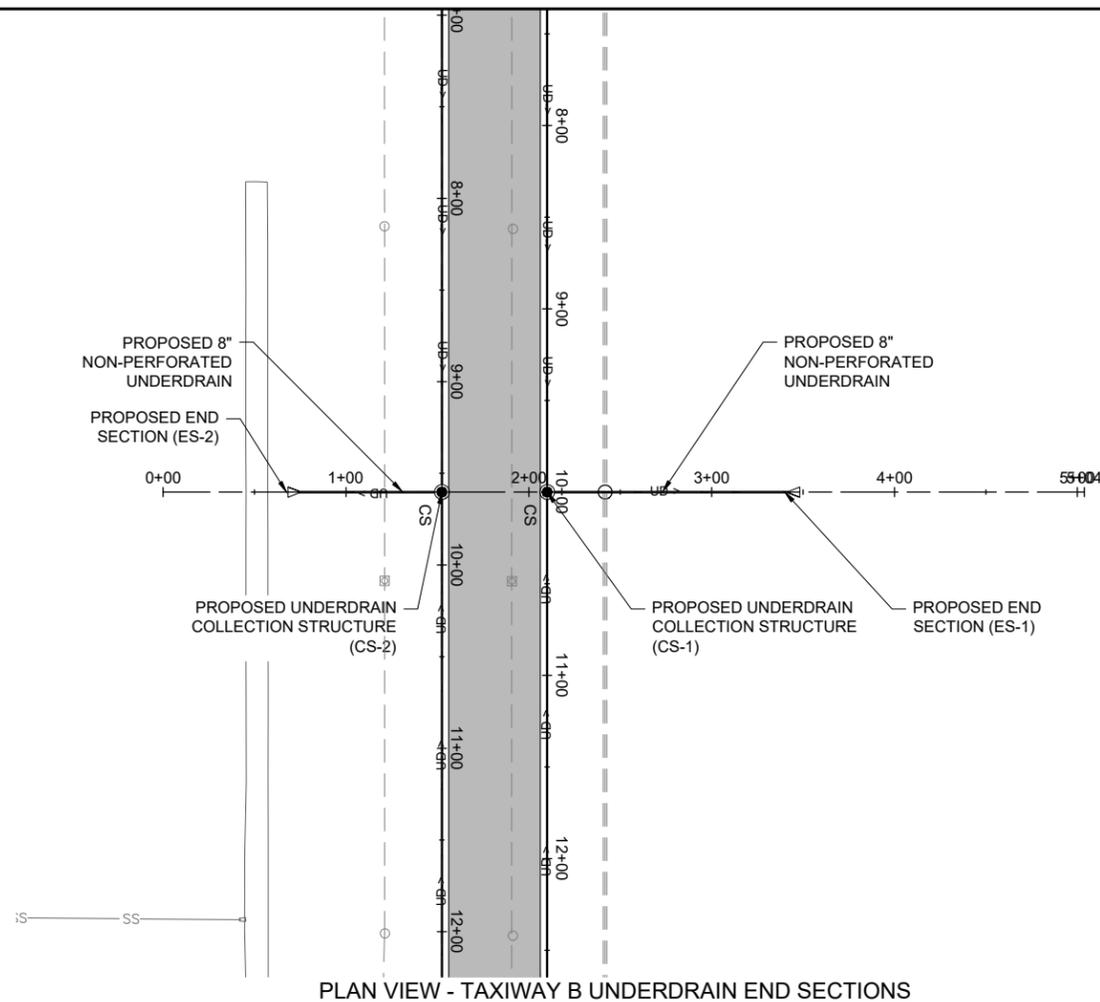
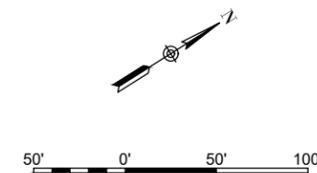
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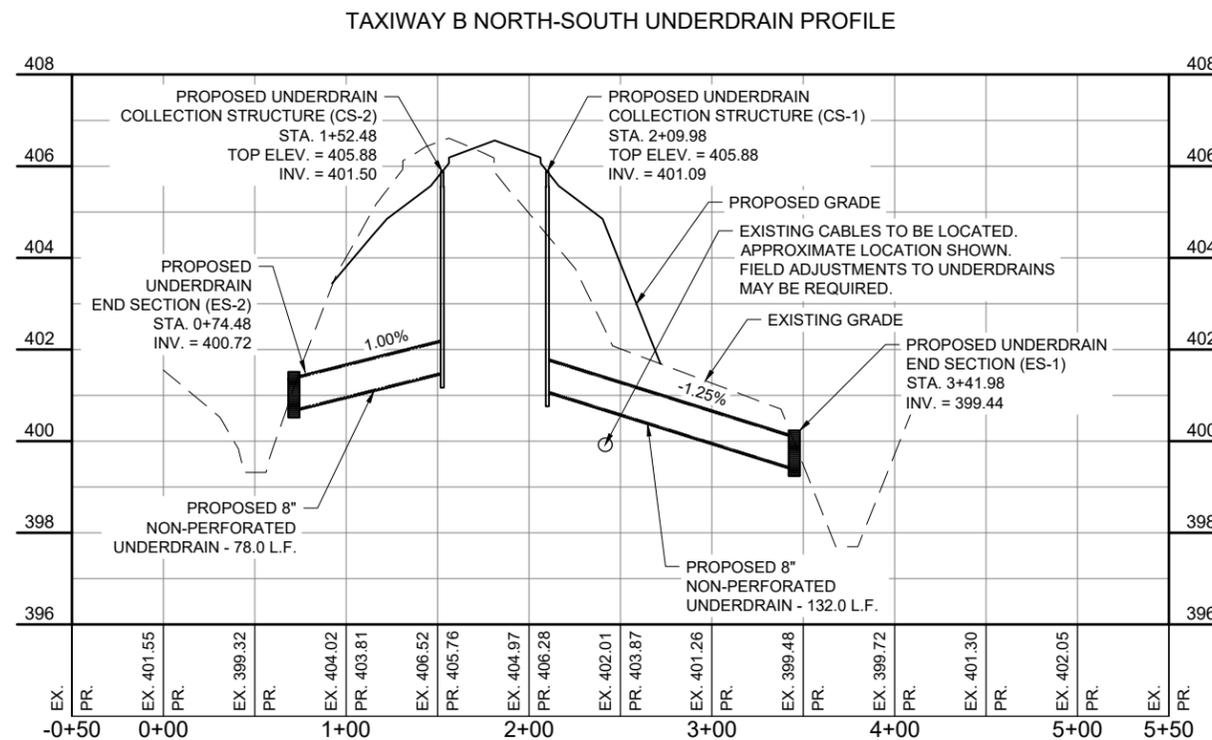
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DESIGN BY: MJD 03/28/2024
DRAWN BY: AJL 04/03/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED PLAN &
PROFILE -
NORTH-SOUTH
UNDERDRAINS



PLAN VIEW - TAXIWAY B UNDERDRAIN END SECTIONS



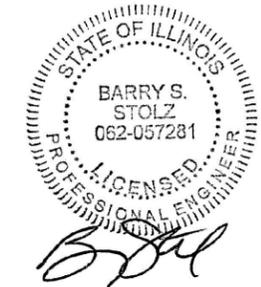
TAXIWAY B NORTH-SOUTH UNDERDRAIN PROFILE

FOR BID



ST. LOUIS
DOWNTOWN AIRPORT

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DESIGN BY: MJD 03/28/2024

DRAWN BY: AJL 04/08/2024

REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED
UNDERDRAIN
ALIGNMENT DATA
TABLES

FOR BID

ALIGNMENT DATA NORTHWEST UNDERDRAINS

LABEL	START STATION	END STATION	LENGTH	AZIMUTH	START (N,E)	END (N,E)
L1	0+00.00	0+83.99	83.99	108° 11' 22"	692002.990, 2301799.125	691976.771, 2301878.919
L2	0+83.99	1+52.69	68.70	47° 32' 21"	691976.771, 2301878.919	692023.151, 2301929.603
C1	1+52.69	1+82.78	30.08	IN=N47° 32' 21"E OUT=N34° 04' 23"E DEL=13° 27' 58"	692023.15, 2301929.603	692045.870, 2301949.218
L3	1+82.78	3+43.19	160.42	34° 04' 23"	692045.870, 2301949.218	692178.746, 2302039.091

ALIGNMENT DATA NORTHEAST UNDERDRAINS

LABEL	START STATION	END STATION	LENGTH	AZIMUTH	START (N,E)	END (N,E)
L1	0+00.00	1+60.13	160.13	210° 24' 50"	692154.055, 2302078.276	692015.961, 2301997.212
C1	1+60.13	1+90.28	30.15	IN=S30° 24' 50"W OUT=S16° 55' 11"W DEL=13° 29' 39"	692015.96, 2301997.212	691988.414, 2301985.138
L2	1+90.28	2+59.18	68.91	196° 55' 11"	691988.414, 2301985.138	691922.490, 2301965.084
L3	2+59.18	3+35.23	76.05	136° 13' 47"	691922.490, 2301965.084	691867.575, 2302017.692
C2	3+35.23	3+66.55	31.32	IN=S43° 46' 13"E OUT=S57° 47' 25"E DEL=14° 01' 12"	691867.57, 2302017.692	691847.820, 2302041.896
L4	3+66.55	15+55.54	1188.99	122° 12' 35"	691847.820, 2302041.896	691214.066, 2303047.905
C3	15+55.54	15+86.86	31.32	IN=S57° 47' 25"E OUT=S71° 48' 38"E DEL=14° 01' 12"	691214.07, 2303047.905	691200.763, 2303076.175
L5	15+86.86	16+62.91	76.05	108° 11' 22"	691200.763, 2303076.175	691177.024, 2303148.422
L6	16+62.91	17+31.81	68.90	47° 29' 58"	691177.024, 2303148.422	691223.573, 2303199.220
C4	17+31.81	17+61.97	30.16	IN=N47° 29' 58"E OUT=N34° 00' 01"E DEL=13° 29' 58"	691223.57, 2303199.220	691246.367, 2303218.861
L7	17+61.97	19+19.52	157.55	34° 00' 01"	691246.367, 2303218.861	691376.983, 2303306.963

ALIGNMENT DATA NORTH-SOUTH UNDERDRAINS

LABEL	START STATION	END STATION	LENGTH	AZIMUTH	START (N,E)	END (N,E)
L1	0+00.00	5+03.80	503.80	32° 12' 35"	691332.512, 2302465.935	691758.777, 2302734.469

ALIGNMENT DATA SOUTHWEST UNDERDRAINS

LABEL	START STATION	END STATION	LENGTH	AZIMUTH	START (N,E)	END (N,E)
L1	0+00.00	0+25.30	25.30	113° 52' 28"	691987.767, 2301689.248	691977.528, 2301712.381
C1	0+25.30	0+43.92	18.62	IN=S66° 07' 32"E OUT=S57° 47' 25"E DEL=8° 20' 06"	691977.53, 2301712.381	691968.781, 2301728.801
L2	0+43.92	0+57.93	14.02	122° 12' 35"	691968.781, 2301728.801	691961.311, 2301740.660
C2	0+57.93	0+90.17	32.24	IN=S57° 47' 25"E OUT=S43° 21' 33"E DEL=14° 25' 52"	691961.31, 2301740.660	691940.890, 2301765.498
L3	0+90.17	1+56.56	66.39	136° 38' 27"	691940.890, 2301765.498	691892.621, 2301811.079
L4	1+56.56	2+25.17	68.61	197° 38' 38"	691892.621, 2301811.079	691827.239, 2301790.283
C3	2+25.17	2+54.27	29.10	IN=S17° 38' 38"W OUT=S30° 40' 10"W DEL=13° 01' 32"	691827.24, 2301790.283	691800.745, 2301778.400
L5	2+54.27	3+72.99	118.72	210° 40' 10"	691800.745, 2301778.400	691698.631, 2301717.843

ALIGNMENT DATA SOUTHEAST UNDERDRAINS

LABEL	START STATION	END STATION	LENGTH	AZIMUTH	START (N,E)	END (N,E)
L1	0+00.00	1+20.89	120.89	33° 46' 24"	691662.919, 2301771.243	691763.408, 2301838.447
C1	1+20.89	1+49.64	28.75	IN=N33° 46' 24"E OUT=N46° 38' 27"E DEL=12° 52' 03"	691763.41, 2301838.447	691785.316, 2301856.965
L2	1+49.64	2+18.07	68.44	46° 38' 27"	691785.316, 2301856.965	691832.302, 2301906.723
L3	2+18.07	2+86.65	68.58	107° 46' 43"	691832.302, 2301906.723	691811.362, 2301972.028
C2	2+86.65	3+15.12	28.47	IN=S72° 13' 17"E OUT=S59° 28' 42"E DEL=12° 44' 36"	691811.36, 2301972.028	691799.739, 2301997.952
L4	3+15.12	5+39.36	224.24	120° 31' 18"	691799.739, 2301997.952	691685.857, 2302191.116
L5	5+39.36	13+16.88	777.53	122° 12' 35"	691685.857, 2302191.116	691271.421, 2302848.984
L6	13+16.88	15+11.33	194.44	125° 29' 27"	691271.421, 2302848.984	691158.534, 2303007.299
C3	15+11.33	15+41.02	29.69	IN=S54° 30' 33"E OUT=S41° 13' 06"E DEL=13° 17' 27"	691158.53, 2303007.299	691138.658, 2303029.268
L7	15+41.02	16+03.80	62.78	138° 46' 54"	691138.658, 2303029.268	691091.431, 2303070.639
L8	16+03.80	16+65.43	61.62	199° 00' 56"	691091.431, 2303070.639	691033.170, 2303050.560
C4	16+65.43	16+79.82	14.40	IN=S19° 00' 56"W OUT=S25° 27' 36"W DEL=6° 26' 40"	691033.17, 2303050.560	691019.851, 2303045.115
L9	16+79.82	17+45.37	65.55	205° 27' 36"	691019.851, 2303045.115	690960.667, 2303016.936
C5	17+45.37	17+59.38	14.01	IN=S25° 27' 36"W OUT=S31° 43' 54"W DEL=6° 16' 18"	690960.67, 2303016.936	690948.371, 2303010.233
L10	17+59.38	17+78.73	19.35	211° 43' 54"	690948.371, 2303010.233	690931.916, 2303000.058
C6	17+78.73	19+12.96	134.23	IN=S31° 43' 54"W OUT=N57° 47' 25"W DEL=90° 28' 40"	690931.92, 2303000.058	690904.703, 2302882.457
L11	19+12.96	19+52.48	39.52	302° 12' 35"	690904.703, 2302882.457	690925.769, 2302849.016



ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE: 11/22/2024 LICENSE: 11/30/2025
SIGNED: BARRY S. STOLZ

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY

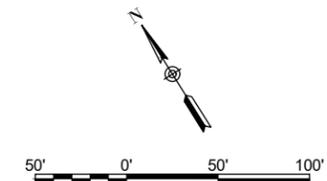
DESIGN BY: JRH 3/17/2024

DRAWN BY: AJL 3/20/2024

REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED JOINTING
PLAN STA. 100+00 TO
STA. 104+50

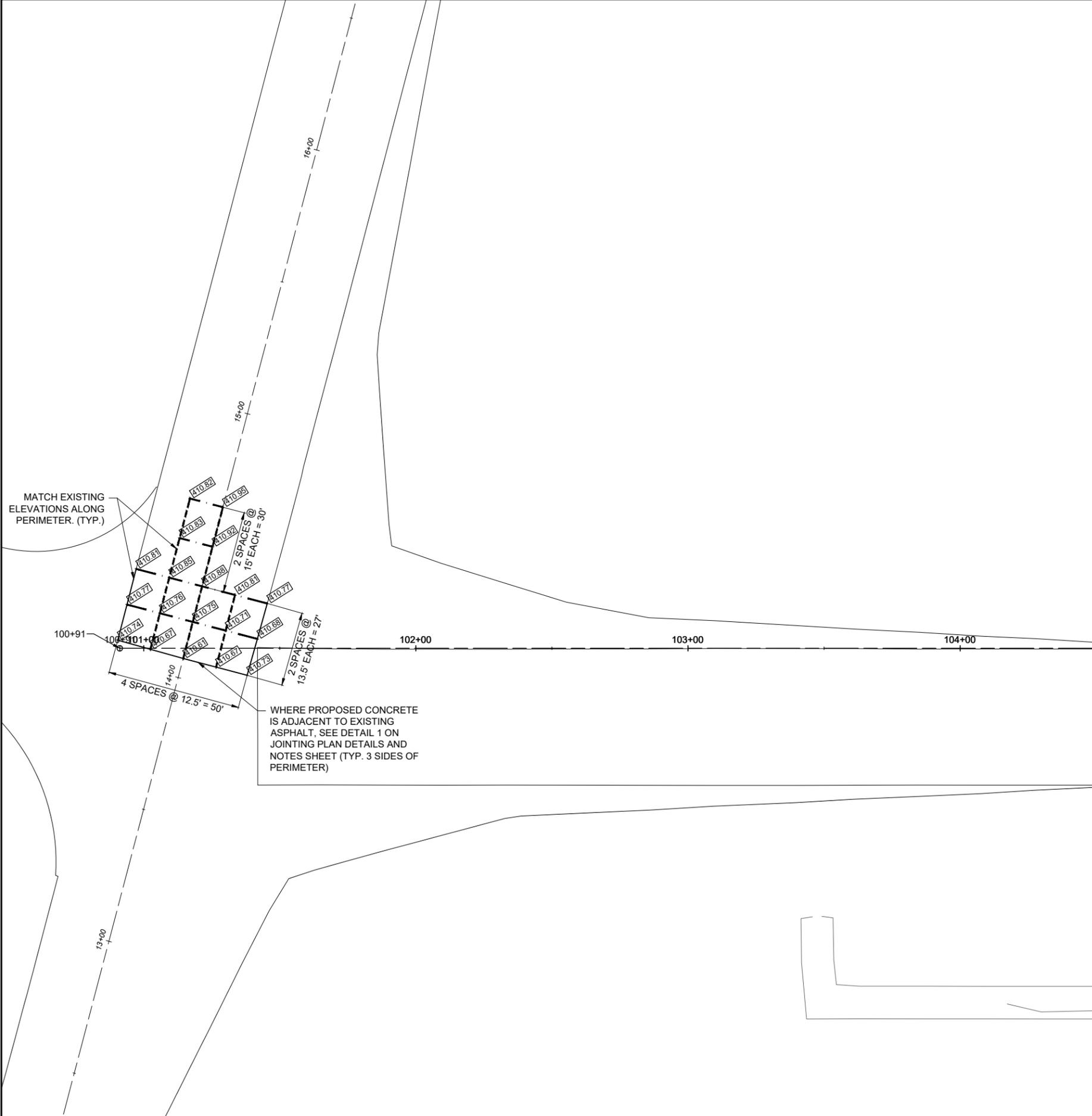


LEGEND

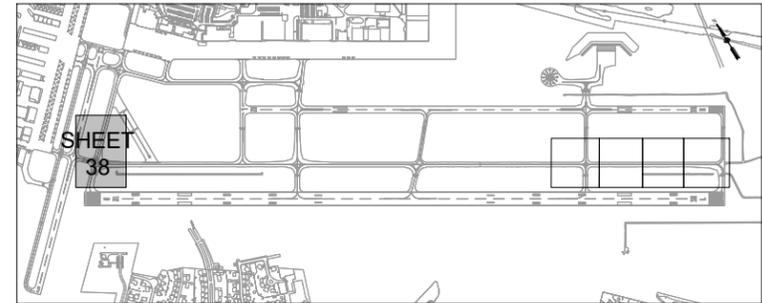
- EXISTING AIRPORT PROPERTY LINE
- EXISTING FENCE
- EXISTING PAVEMENT
- TYPE A1-MODIFIED, ISOLATION JOINT
- TYPE B, CONTRACTION JOINT
- TYPE C, CONTRACTION JOINT
- TYPE D, CONTRACTION JOINT
- TYPE E, CONSTRUCTION JOINT
- PROPOSED REINFORCED PANEL
- PROPOSED PAVEMENT

- NOTES:**
- CONTRACTOR MAY PROPOSE ALTERNATIVE PAVING/JOINTING PLAN FOR REVIEW AND APPROVAL FOLLOWING AWARD.
 - CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AT "MATCH" LOCATIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER/TECHNICIAN IMMEDIATELY TO DETERMINE IF ADJUSTMENTS ARE NECESSARY TO PROPOSED GRADES.

MATCH LINE - STA. 104+50



JOINTING PLAN - KEY MAP



FOR BID



ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE: 11/22/2024 LICENSE: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
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NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY

DESIGN BY: JRH 3/17/2024

DRAWN BY: AJL 3/20/2024

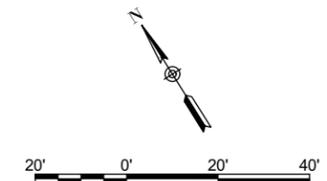
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

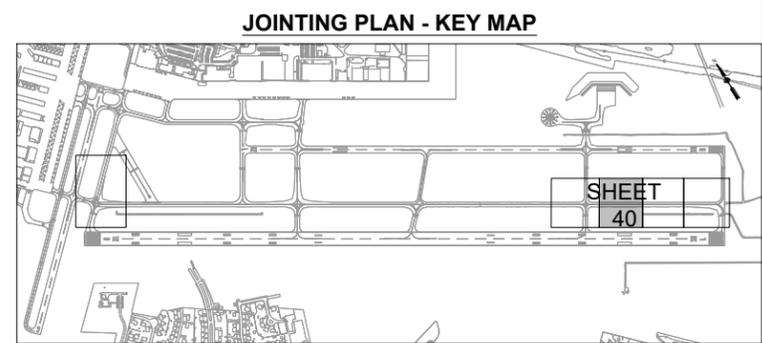
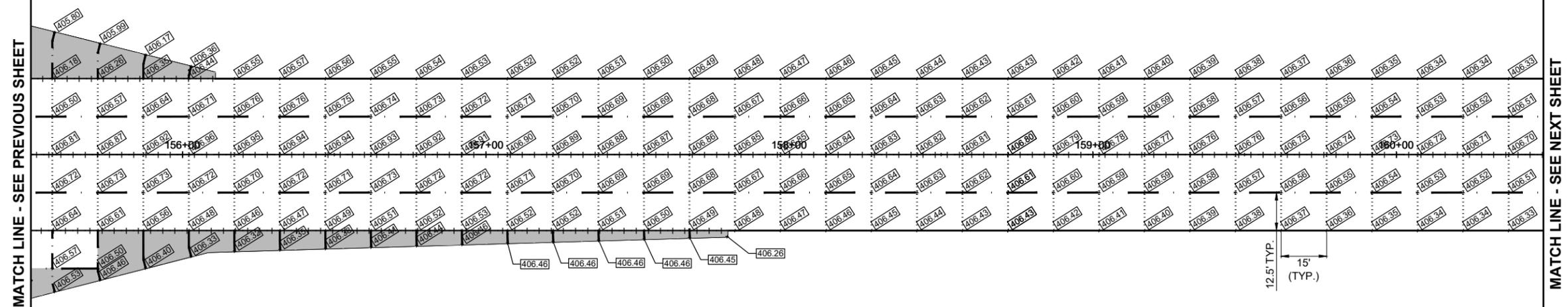
PROPOSED JOINTING
PLAN STA. 155+50 TO
STA. 160+50

NOTES:

- CONTRACTOR MAY PROPOSE ALTERNATIVE PAVING/JOINTING PLAN FOR REVIEW AND APPROVAL FOLLOWING AWARD.
- CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AT "MATCH" LOCATIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER/TECHNICIAN IMMEDIATELY TO DETERMINE IF ADJUSTMENTS ARE NECESSARY TO PROPOSED GRADES.



- LEGEND**
- EXISTING AIRPORT PROPERTY LINE
 - EXISTING FENCE
 - EXISTING PAVEMENT
 - TYPE A1-MODIFIED, ISOLATION JOINT
 - TYPE B, CONTRACTION JOINT
 - TYPE C, CONTRACTION JOINT
 - TYPE D, CONTRACTION JOINT
 - TYPE E, CONSTRUCTION JOINT
 - PROPOSED REINFORCED PANEL
 - PROPOSED PAVEMENT



FOR BID

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**ST. LOUIS
DOWNTOWN AIRPORT**

**BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT**
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE: 11/22/2024 LICENSE: 11/30/2025
SIGNED: EXPIRES:

**TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION**

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

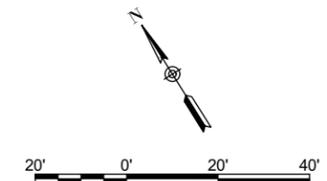
ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY
DESIGN BY: JRH 3/17/2024
DRAWN BY: AJL 3/20/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

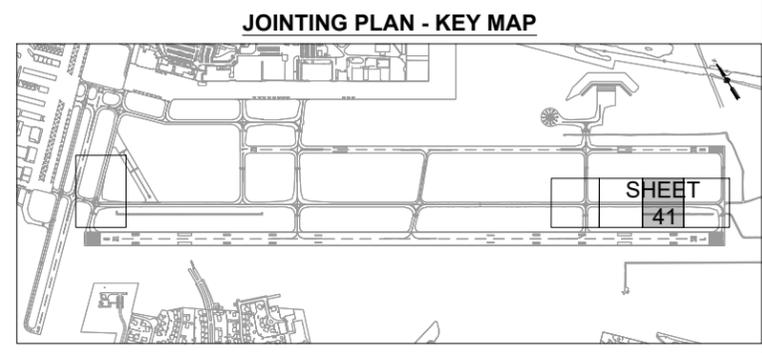
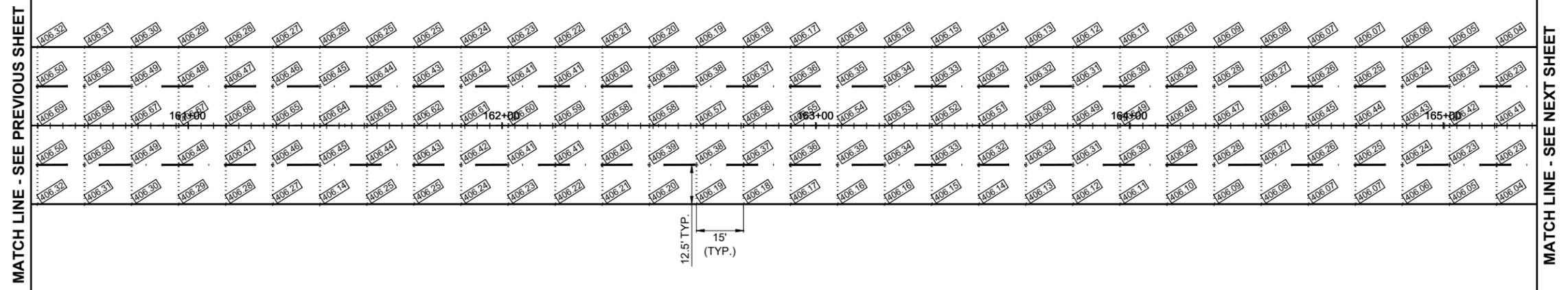
**PROPOSED JOINTING
PLAN STA. 160+50 TO
STA. 165+30**

NOTES:

- CONTRACTOR MAY PROPOSE ALTERNATIVE PAVING/JOINTING PLAN FOR REVIEW AND APPROVAL FOLLOWING AWARD.
- CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AT "MATCH" LOCATIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER/TECHNICIAN IMMEDIATELY TO DETERMINE IF ADJUSTMENTS ARE NECESSARY TO PROPOSED GRADES.



- LEGEND**
- EXISTING AIRPORT PROPERTY LINE
 - EXISTING FENCE
 - EXISTING PAVEMENT
 - TYPE A1-MODIFIED, ISOLATION JOINT
 - TYPE B, CONTRACTION JOINT
 - TYPE C, CONTRACTION JOINT
 - TYPE D, CONTRACTION JOINT
 - TYPE E, CONSTRUCTION JOINT
 - PROPOSED REINFORCED PANEL
 - PROPOSED PAVEMENT



FOR BID



ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE: 11/22/2024
LICENSE: 062-057281
SIGNED: 11/22/2024
EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

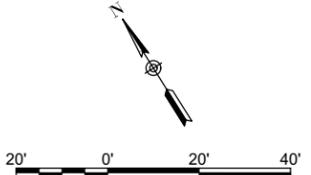
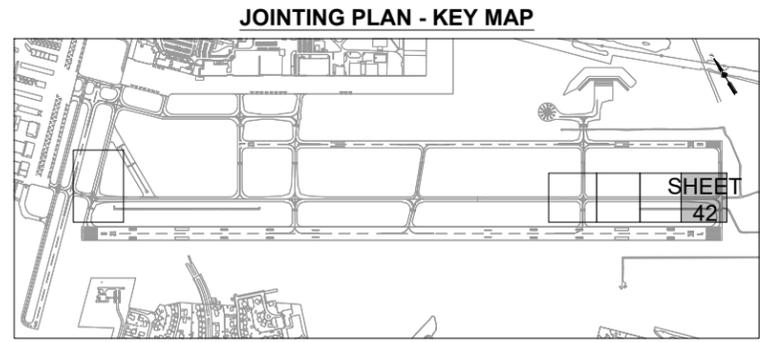
NO.	DATE	DESCRIPTION		
			DES	REV

ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY
DESIGN BY: JRH 3/17/2024
DRAWN BY: AJL 3/20/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

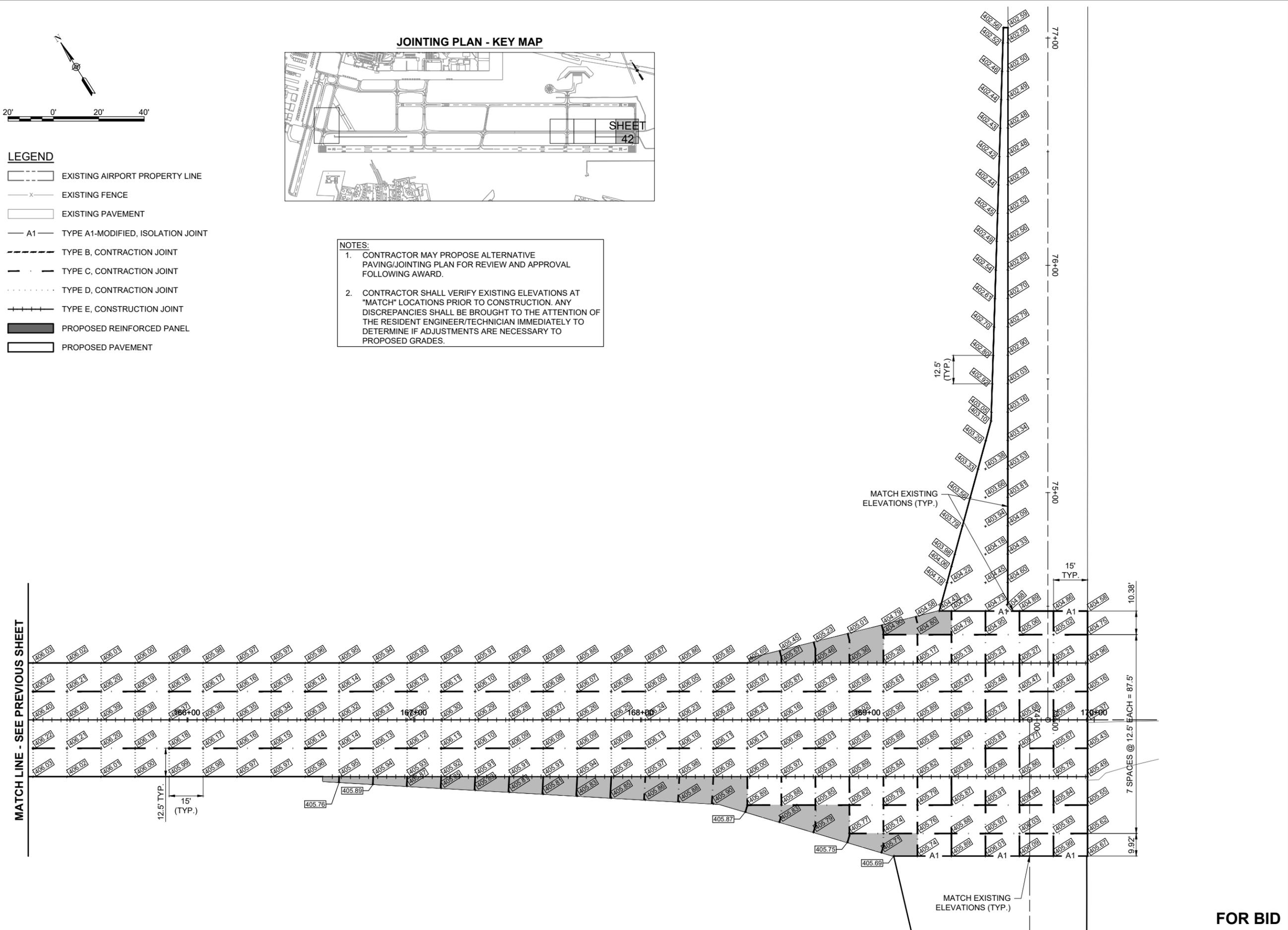
PROPOSED JOINTING
PLAN STA. 165+30 TO
STA. 170+50

FOR BID



- LEGEND**
- EXISTING AIRPORT PROPERTY LINE
 - EXISTING FENCE
 - EXISTING PAVEMENT
 - TYPE A1-MODIFIED, ISOLATION JOINT
 - TYPE B, CONTRACTION JOINT
 - TYPE C, CONTRACTION JOINT
 - TYPE D, CONTRACTION JOINT
 - TYPE E, CONSTRUCTION JOINT
 - PROPOSED REINFORCED PANEL
 - PROPOSED PAVEMENT

- NOTES:**
1. CONTRACTOR MAY PROPOSE ALTERNATIVE PAVING/JOINTING PLAN FOR REVIEW AND APPROVAL FOLLOWING AWARD.
 2. CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AT "MATCH" LOCATIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER/TECHNICIAN IMMEDIATELY TO DETERMINE IF ADJUSTMENTS ARE NECESSARY TO PROPOSED GRADES.



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**ST. LOUIS
DOWNTOWN AIRPORT**

**BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT**
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

**TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION**

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY

DESIGN BY: JRH 3/17/2024

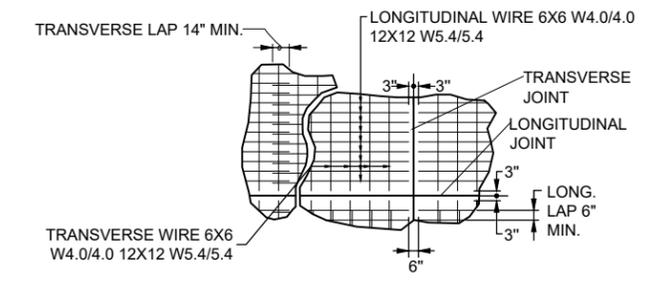
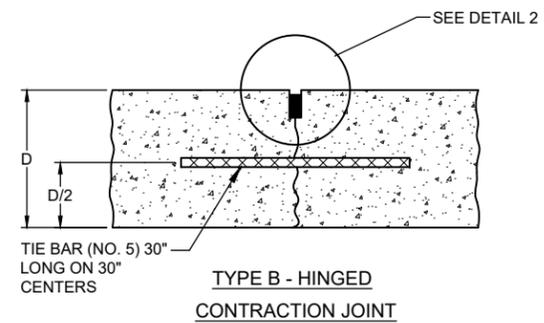
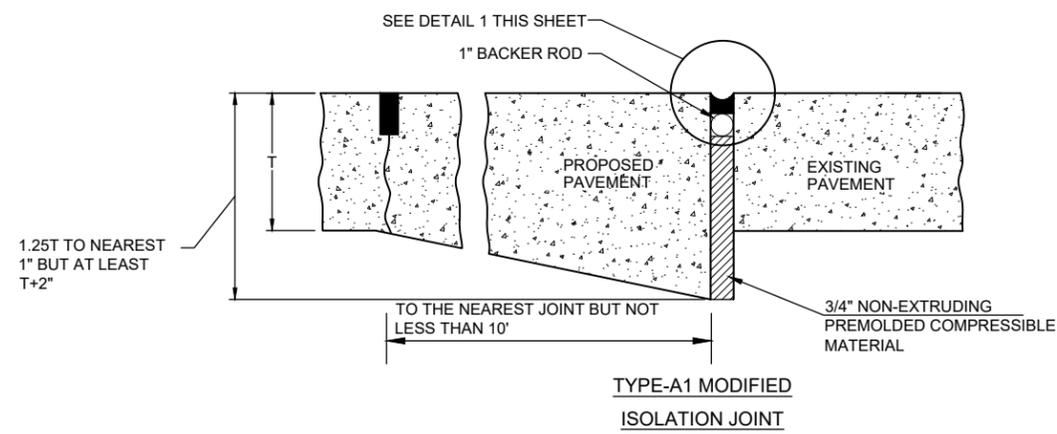
DRAWN BY: AJL 3/22/2024

REVIEWED BY: BSS 4/19/2024

SHEET TITLE

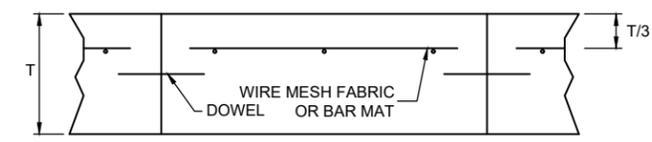
**PROPOSED JOINTING
PLAN DETAILS AND
NOTES**

FOR BID

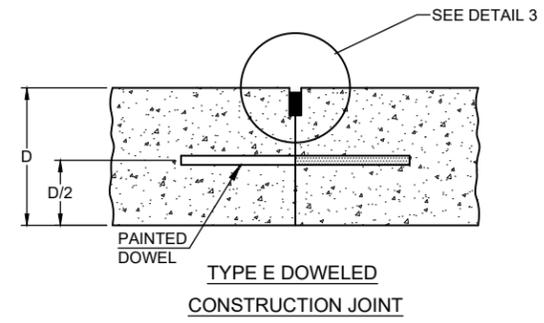
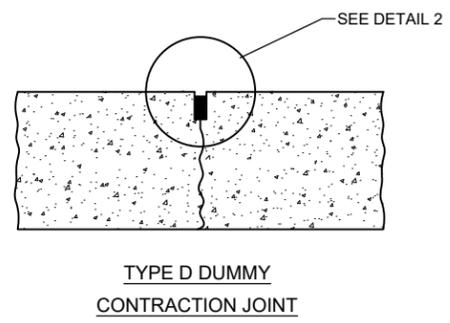
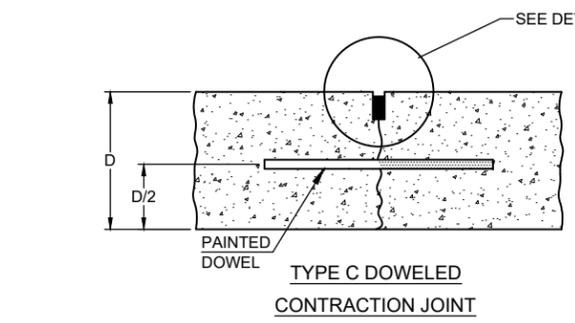


REINFORCEMENT SHEET WIRE FABRIC DETAIL
NOT TO SCALE

NOTE:
DIFFERENT WIRE MESH SIZES/CONFIGURATIONS ARE PERMITTED TO PROVIDE A MINIMUM OF 0.05% OF THE PANEL CROSS-SECTIONAL AREA IN BOTH DIRECTIONS.

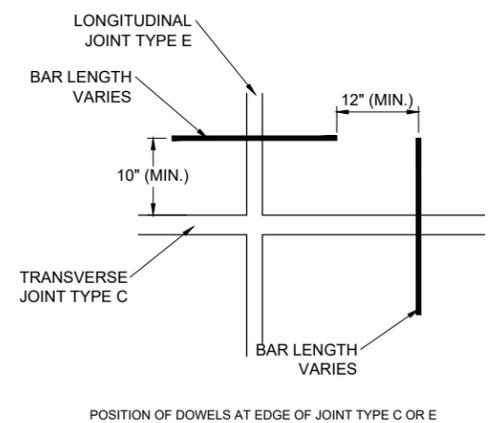


PAVEMENT REINFORCING DETAIL
NOT TO SCALE

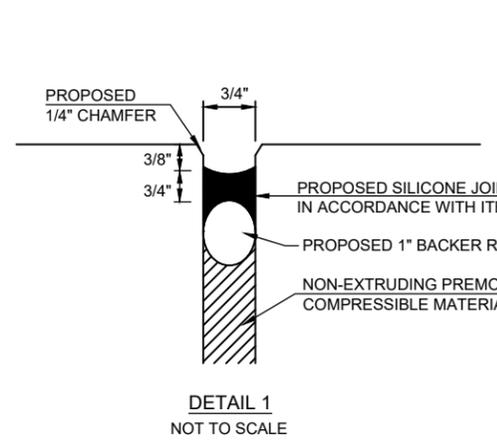


JOINTING NOTES

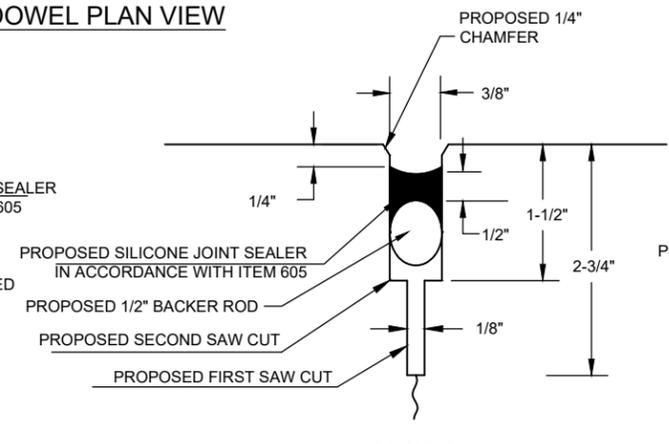
- ALL JOINT EDGES SHALL BE SAWCUT TO PRODUCE THE 1/4" CHAMFER.
- ALL LONGITUDINAL AND TRANSVERSE CONTRACTION JOINTS SHALL BE SAWED.
- ALL DOWEL BARS SHALL BE SECURELY HELD IN PLACE BY MEANS OF A DOWEL BAR ASSEMBLY WHICH WILL ENSURE THAT THEY WILL REMAIN PARALLEL TO THE SURFACE OF THE PAVEMENT AND TO THE CENTERLINES OF THE PAVEMENT LANES. THE DOWEL BAR ASSEMBLIES SHALL BE APPROVED BY THE RESIDENT ENGINEER/TECHNICIAN PRIOR TO INSTALLATION.
- DOWEL BARS FOR 12 IN. & 8 IN. THICK PAVEMENT SHALL BE 1 IN. DIAMETER, 18 IN. LONG AT 12 IN. SPACING.
- ALL TIE BARS SHALL BE HELD IN PLACE BY SUPPORT PINS OR OTHER METHODS TO PREVENT SHIFTING DURING AND AFTER CONCRETE PLACEMENT. SUPPORT PINS SHALL BE OF SUFFICIENT LENGTH TO PENETRATE AT LEAST 6" INTO THE SUBGRADE.
- ALL TIE BARS SHALL BE PLACED AT A POINT NOT LESS THAN 6" OR MORE THAN 15" FROM A TRANSVERSE OR EXPANSION JOINT.
- DOWELS IN TRANSVERSE CONTRACTION AND LONGITUDINAL CONSTRUCTION JOINTS SHALL BE COATED WITH A RUSTPROOFING COMPOUND AND HALF THE LENGTH GREASED WITH A HEAVY GREASE.
- ALLOWABLE TOLERANCES FOR GROOVE DEPTH WILL BE ±1/8" FOR CONSTRUCTION JOINTS AND ±1/4" FOR CONTRACTION JOINTS.
- THE CONTRACTOR IS REQUIRED TO DRILL AND EPOXY THE PROPOSED DOWELS IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS. THE EPOXY MATERIAL MUST BE APPROVED BY THE DIVISION OF AERONAUTICS PRIOR TO USE.
- THE COST OF ALL DOWEL BARS, TIE-BARS, SAWING AND SEALING SHALL BE INCLUDED IN THE COST OF THE PCC PAVEMENT.
- WHEN CONSTRUCTING "FILL-IN" PAVEMENT LANES THE CONTRACTOR SHALL USE BELTING OR OTHER PROTECTIVE MATERIAL FOR THE PAVING MACHINE TO TRAVEL ON AND WILL PROTECT THE TRANSVERSE JOINTS.
- JOINT SEALANT SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS, ITEM 605.
- CURING COMPOUND SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS, ITEM 501-2.9, AND SHALL BE APPROVED PRIOR TO THE PAVING OPERATION BY THE RESIDENT ENGINEER/TECHNICIAN.
- ALL NON-ALIGNED EDGES WILL BE SAWED FULL DEPTH.



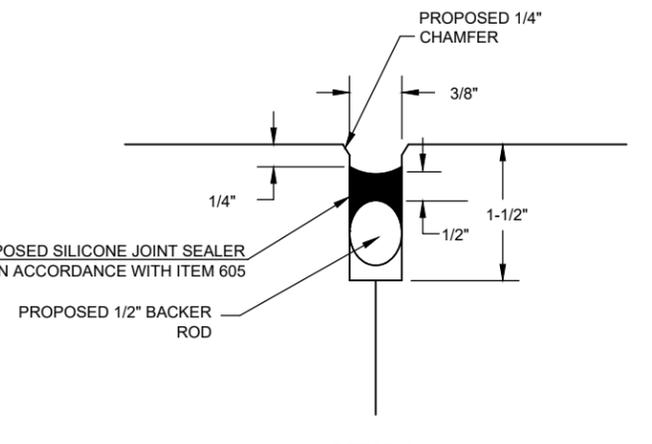
DOWEL PLAN VIEW



DETAIL 1
NOT TO SCALE



DETAIL 2
NOT TO SCALE



DETAIL 3
NOT TO SCALE

JOINT SEALING DETAILS
NOT TO SCALE

NOV 22, 2024 3:49 PM LANB02387 I:\23JOBS\23A0001D\CAD\AIRPORT\LIBRARY\2024 CPS-5078 LIBRARY\G-BSS-22X34_BORDER



**ST. LOUIS
DOWNTOWN AIRPORT**

**BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT**
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE: 11/22/2024 LICENSE: 11/30/2025
SIGNED: 11/22/2024 EXPIRES: 11/30/2025

**TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION**

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY

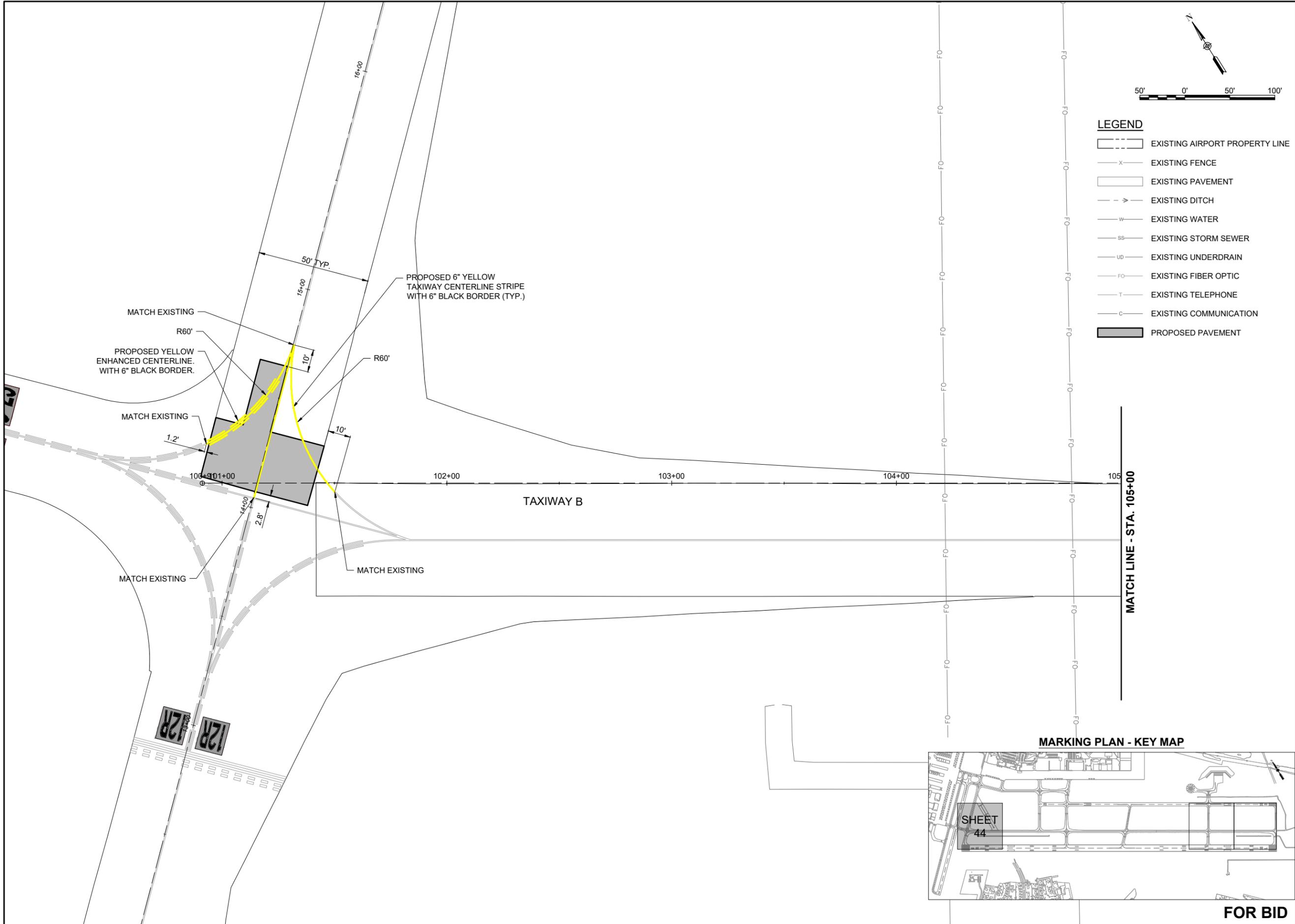
DESIGN BY: JRH 3/17/2024

DRAWN BY: AJL 3/18/2024

REVIEWED BY: BSS 4/19/2024

SHEET TITLE

**PROPOSED MARKING
PLAN STA. 100+00 TO
STA. 105+00**



NOV 22, 2024 3:50 PM LAMB02387
I:\23\05\23A0001D\CAD\AIRPORT\LIBRARY\2024 CPS-5078 LIBRARY\G-BS-22X34_BORDER



ST. LOUIS DOWNTOWN AIRPORT
BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

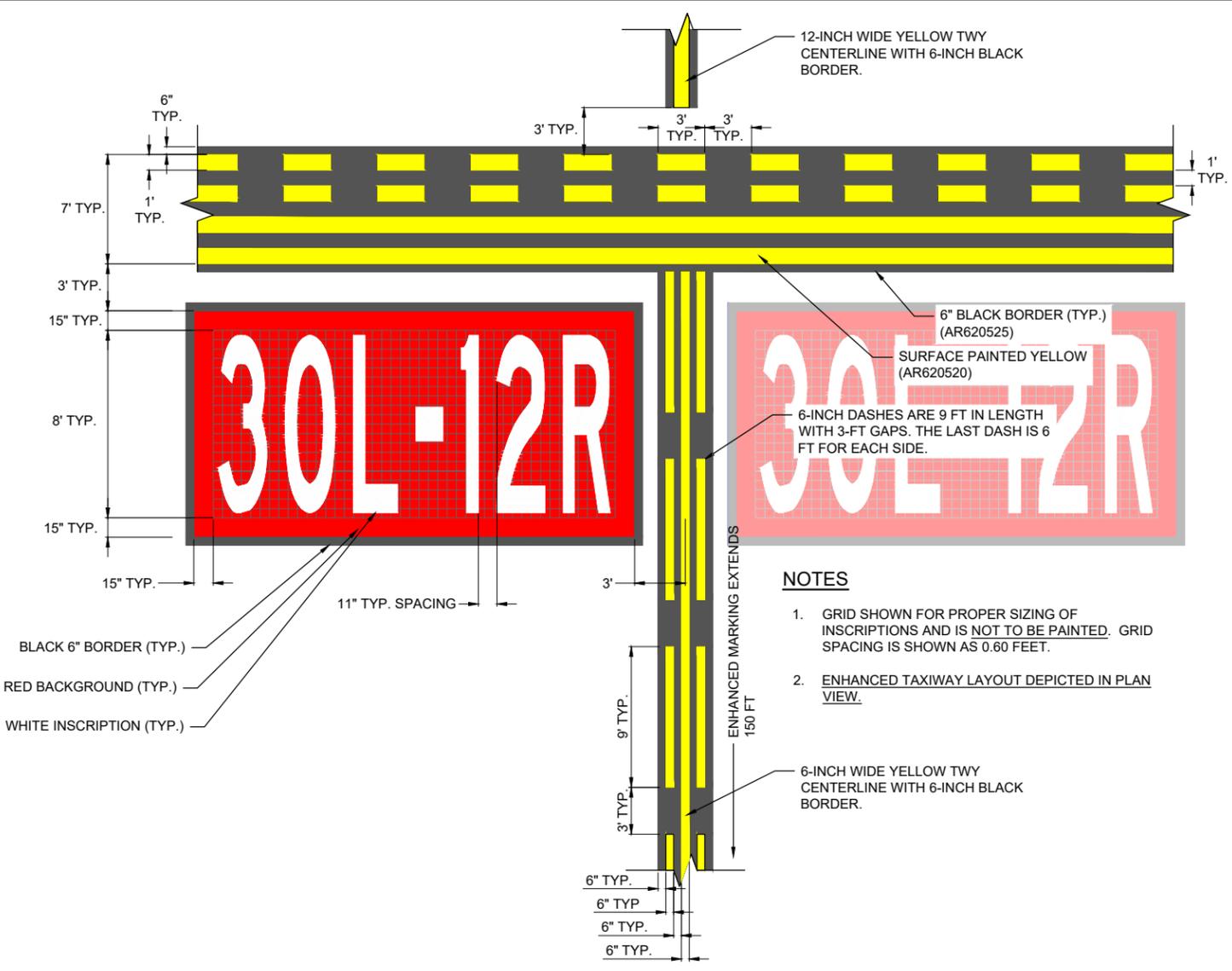
NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: C-501-MRK.DWG
DESIGN BY: JRH 3/18/2024
DRAWN BY: AJL 3/19/2024
REVIEWED BY: BSS 4/19/2024

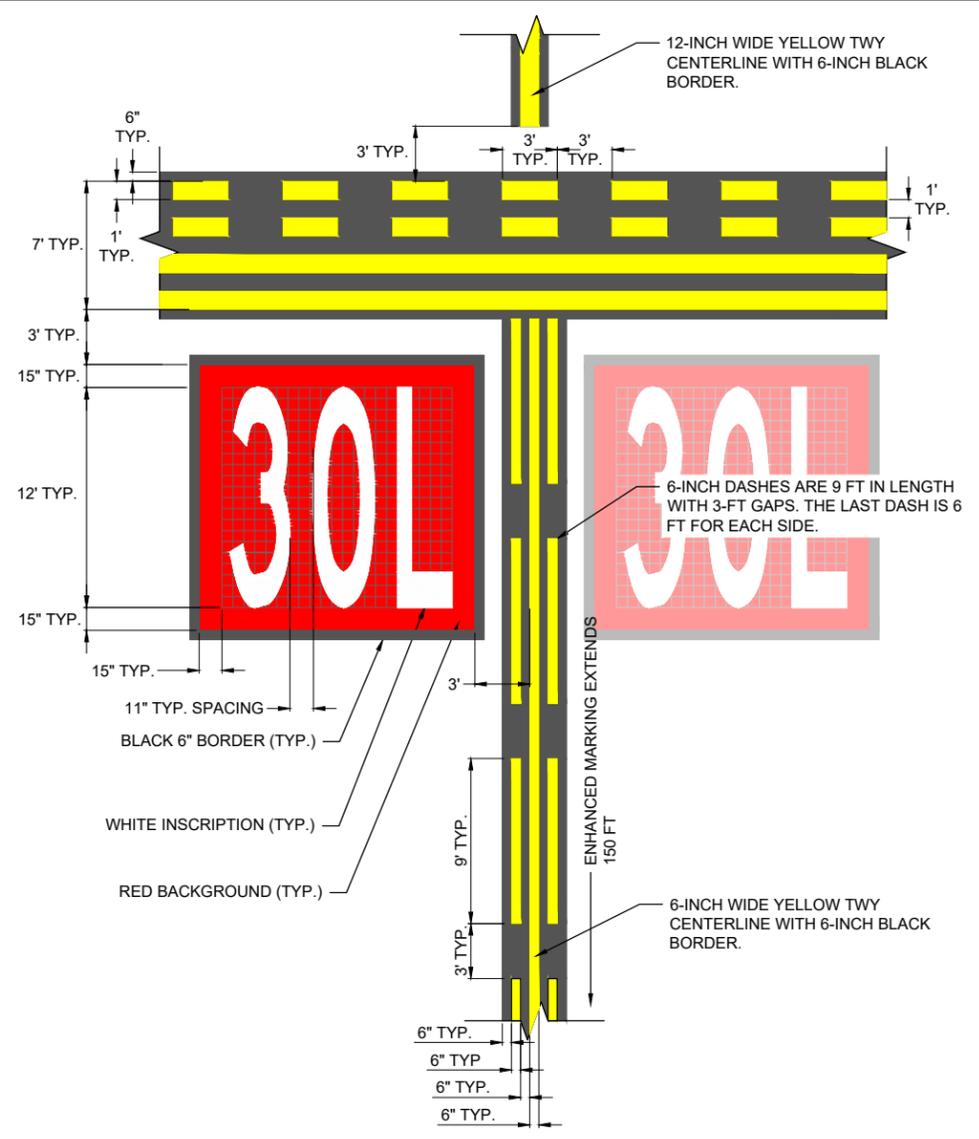
SHEET TITLE

PAVEMENT MARKING
DETAILS - SHEET 1

FOR BID



TAXIWAY B-6 HOLDING POSITION AND ENHANCED TAXIWAY CENTERLINE DETAIL
NOT TO SCALE



TAXIWAY B-7 HOLDING POSITION AND ENHANCED TAXIWAY CENTERLINE DETAIL
NOT TO SCALE

- NOTES**
- GRID SHOWN FOR PROPER SIZING OF INSCRIPTIONS AND IS NOT TO BE PAINTED. GRID SPACING IS SHOWN AS 0.60 FEET.
 - ENHANCED TAXIWAY LAYOUT DEPICTED IN PLAN VIEW.

SURFACE PAINTED HOLDING POSITION SIGN NOTES:

- SURFACE PAINTED HOLDING POSITION SIGNS SHALL BE PAINTED AT THE LOCATIONS SHOWN ON THE PAVEMENT MARKING PLAN SHEETS. THE CONTRACTOR SHALL FIELD VERIFY THAT THE SURFACE PAINTED HOLDING POSITION SIGNS MEET THE STANDARD DIMENSIONS SHOWN. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OF ANY VARIATION FROM THE DIMENSIONS AND LOCATIONS SHOWN.
- THE STENCILS FOR THE SURFACE PAINTED HOLDING POSITION SIGNS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. AT THE CONCLUSION OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SET OF STENCILS TO THE AIRPORT THAT MATCH THE SIGN DIMENSIONS PAINTED AT THIS AIRPORT.
- THE SURFACE PAINTED HOLDING POSITION SIGNS SHALL BE ORIENTED PARALLEL TO THE RUNWAY HOLDING POSITION MARKING.
- SURFACE PAINTED HOLDING POSITIONS SIGNS SHALL BE LOCATED BASED ON DIMENSIONS FROM THE TAXIWAY CENTERLINE AND RUNWAY HOLDING POSITION MARKING. IF THE TAXIWAY CENTERLINE AND THE RUNWAY HOLDING POSITION MARKING ARE NOT PERPENDICULAR TO TO EACH OTHER, THE DIMENSION FROM THE CENTERLINE SHALL BE MEASURED TO THE NEAREST POINT ON THE SURFACE PAINTED SIGN.



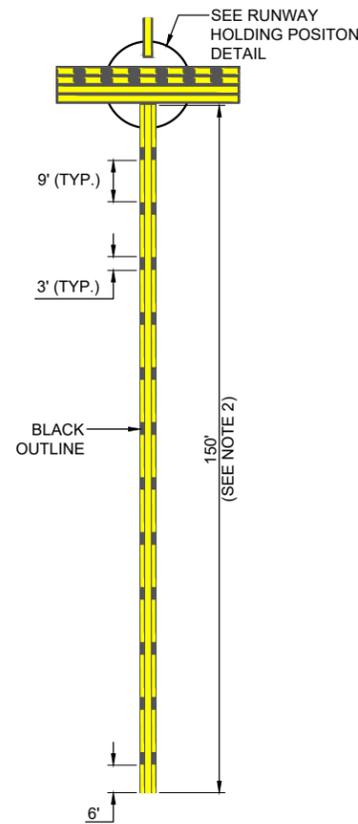
ST. LOUIS DOWNTOWN AIRPORT
BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



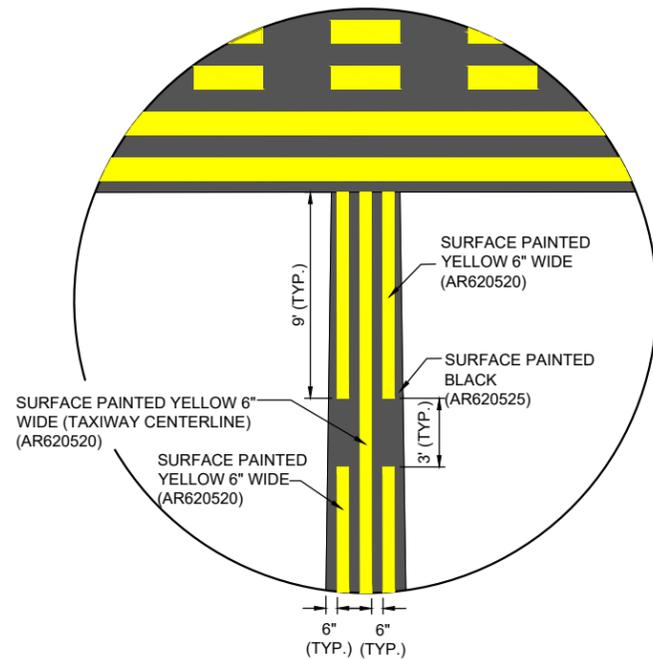
DATE: 11/22/2024
LICENSE: 062-057281
SIGNED: 11/22/2024
EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

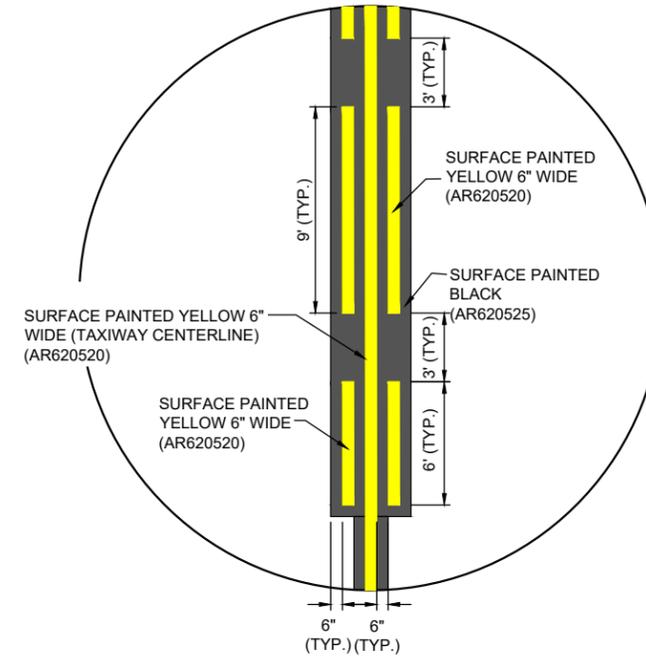
IDA NO.: CPS-5078
CONTRACT NO.: SD064



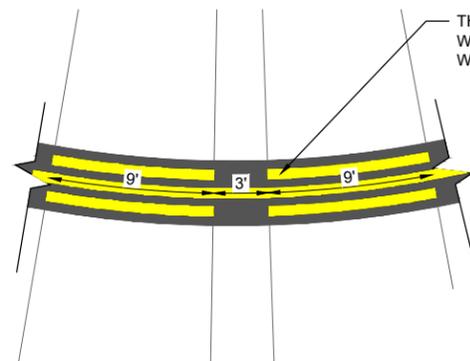
ENHANCED TAXIWAY CENTERLINE MARKING DETAIL
NOT TO SCALE



ENHANCED TAXIWAY MARKING DETAIL (BEGIN)
NOT TO SCALE

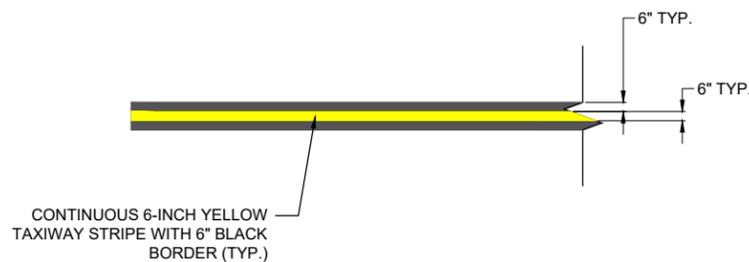


ENHANCED TAXIWAY MARKING DETAIL (END)
NOT TO SCALE



ENHANCED TAXIWAY CENTERLINE DETAIL ON CURVE
NOT TO SCALE

THE 3-FT GAPS AND 9-FT DASHES ARE MEASURED FROM THE CENTERLINE. WHEN THE ENHANCED TAXIWAY IS CURVED THE DASHES ON THE OUTSIDE WILL BE MORE THAN 9-FT LESS THAN 9 FT ON THE INSIDE OF THE CURVE.



TAXIWAY CENTERLINE DETAIL
NOT TO SCALE

CONTINUOUS 12-INCH YELLOW TAXIWAY LEAD-IN STRIPE WITH 6" BLACK BORDER FROM HOLDING POSITION MARKING TO RWY 12R-30L.

ENHANCED TAXIWAY CENTERLINE MARKING NOTES:

- TAXIWAY CENTERLINE MARKINGS SHALL BE YELLOW IN COLOR AND OUTLINED IN BLACK.
- TAXIWAY CENTERLINE MARKINGS SHALL BE ENHANCED FOR 150-FT PRIOR TO A RUNWAY HOLDING POSITION MARKING, UNLESS NOTED OTHERWISE. FOR A CURVED TAXIWAY CENTERLINE, THIS DISTANCE SHALL BE MEASURED ALONG THE CENTERLINE BEING ENHANCED TO A DISTANCE OF 150-FT.
- WHERE TWO TAXIWAY CENTERLINES CONVERGE AT OR BEFORE THE RUNWAY HOLDING POSITION MARKING, PARTIAL INNER DASHED LINES LESS THAN 5 FEET AT THE POINT OF CONVERGENCE MAY BE OMITTED.
- DASHES ON EITHER SIDE OF THE TAXIWAY CENTERLINE MUST BE ALIGNED, STARTING AND STOPPING WITH THE DASHES ON THE OPPOSITE SIDE OF THE CENTERLINE. TO ACCOMPLISH THIS FOR CURVED TAXIWAY CENTERLINES, THE MEASUREMENTS FOR THE DASHES AND GAPS SHALL BE MADE AT THE CENTERLINE AND EXTENDED PERPENDICULAR FROM THE CENTERLINE TO OBTAIN THE LOCATIONS OF THE DASHES.
- ENHANCED TAXIWAY CENTERLINE MARKINGS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF FAA AC 150/5340-1, "STANDARDS FOR AIRPORT MARKING".
- IF THE CONTRACTOR ELECTS TO "BLOCK PAINT" THE BLACK PAINT AND THEN PAINT EITHER YELLOW, RED, OR WHITE PAINT OVER THE BLACK PAINT; ONLY THE VISIBLE BLACK PAINT WILL BE ELIGIBLE FOR PAYMENT.

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: C-501-MRK.DWG
DESIGN BY: JRH 4/19/2024
DRAWN BY: JRH 4/19/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

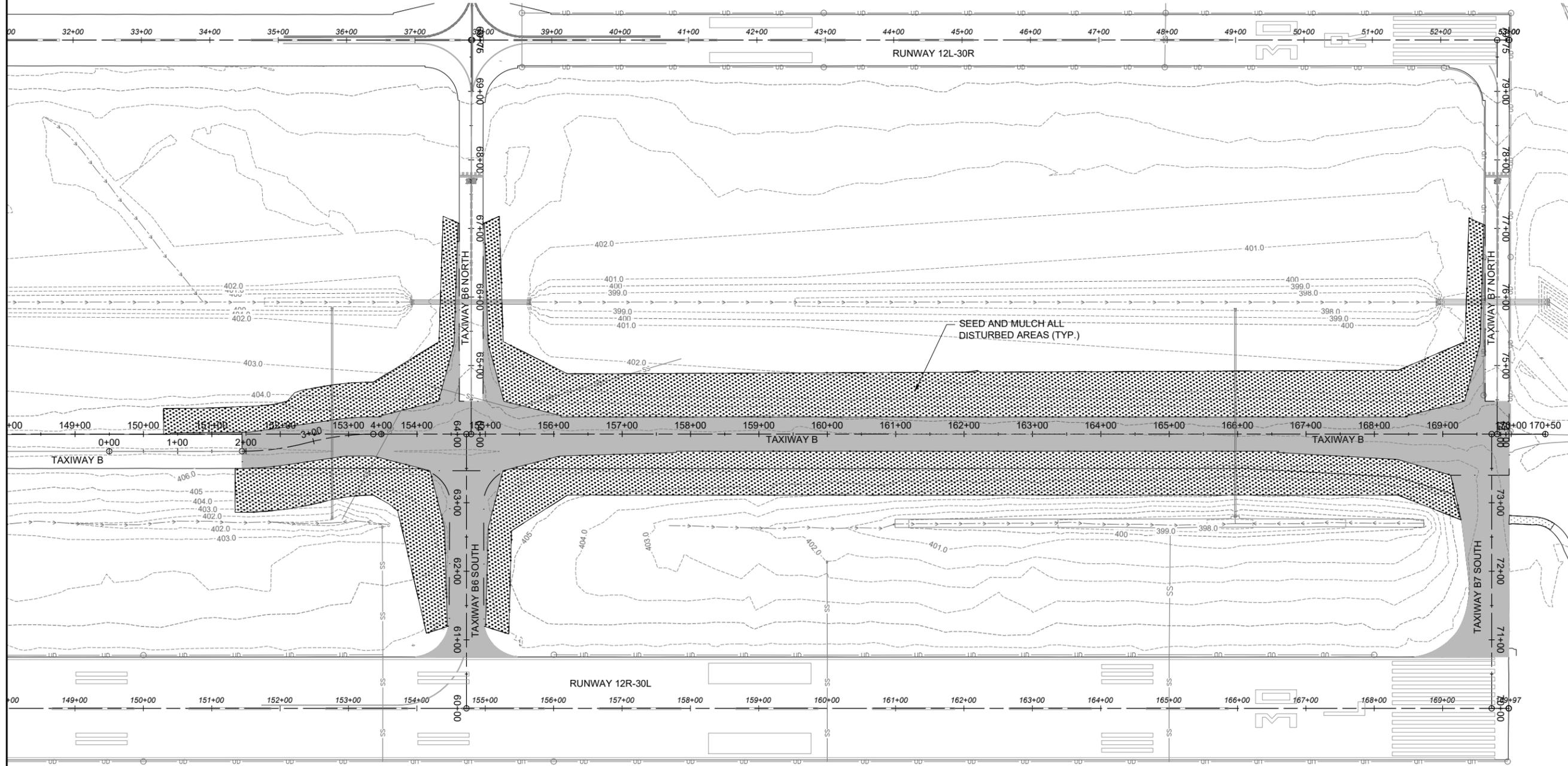
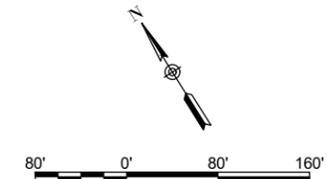
PAVEMENT MARKING
DETAILS - SHEET 2

FOR BID

STORM WATER POLLUTION PREVENTION NOTES

1. THE CONTRACTOR SHALL IMPLEMENT ALL PROVISIONS OF THE CONTRACT DOCUMENTS TO ASSURE THAT STORM WATER POLLUTION PREVENTION ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY MANNER. SEDIMENTATION MUST NOT BE TRANSPORTED OFF THE CONSTRUCTION SITE. PERMANENT DAMAGE FEATURES AND VEGETATIVE MEASURES SHALL BE PROVIDED AS SOON AS POSSIBLE.
2. THE CONTRACTOR SHALL BE REQUIRED TO IMPLEMENT AND MAINTAIN STORM WATER POLLUTION PREVENTION PRACTICES AND MEASURES PRIOR TO THE STRIPPING OF EXISTING VEGETATION WHERE EVER POSSIBLE AND AS SOON AS CONSTRUCTION PERMITS IN OTHER AREAS. POLLUTION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, INCLUDING THESE CONSTRUCTION PLANS, AND WITH STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, CURRENT ISSUE. THE CONTRACTOR SHALL ADJUST HIS OPERATIONS AND IMPLEMENT POLLUTION CONTROL MEASURES SO THAT NO RUNOFF FROM STRIPPED AREAS WILL LEAVE THE CONSTRUCTION SITE OTHER THAN THROUGH SEDIMENT TRAPS OR OTHER SUITABLE CONTROL MEASURES.
3. POLLUTION CONTROL ITEMS SHALL BE PROVIDED AS NOTED ON THE STORM WATER POLLUTION PREVENTION PLAN AND IN THE STORM WATER POLLUTION PREVENTION DETAILS AND AS DIRECTED BY THE ENGINEER. THE LIMITS OF SUCH MEASURES SHALL BE STAKED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SUCH LIMITS MAY BE ADJUSTED BY THE ENGINEER TO ACCOUNT FOR ACTUAL SITE CONDITIONS EXPERIENCED DURING CONSTRUCTION. ADDITIONAL COMPENSATION FOR MEASURES EXCEEDING THE PLAN QUANTITIES WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR EACH ITEM.
4. THE CONTRACTOR IS TO MAINTAIN AND ADJUST, REPAIR OR REPLACE ALL POLLUTION PREVENTION MEASURES AS REQUIRED OR AS DIRECTED BY THE ENGINEER UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. MAINTENANCE OF POLLUTION CONTROL MEASURES IS TO BE PROVIDED AT NO ADDITIONAL COST TO THE CONTRACT.

-  EXISTING PAVEMENT
-  EXISTING UNDERDRAIN
-  EXISTING DITCH
-  EXISTING MANHOLE/INLET
-  EXISTING STORM SEWER
-  PROPOSED SEEDING/MULCHING
-  PROPOSED PAVEMENT



Offices Nationwide
www.hanson-inc.com

Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Telephone: 217.788.2450
Fax: 217.788.2503



ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE: 11/22/2024
LICENSE: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY
DESIGN BY: JRH 3/25/2024
DRAWN BY: AJL 3/25/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

STORM WATER
POLLUTION
PREVENTION PLAN

FOR BID

NOV 22, 2024 3:52 PM L:\MB02387\1\23\JOBS\23A0001D\CAD\AIRPORT\LIBRARY\2024 CPS-5078 LIBRARY\G-BS-22X34_BORDER



ST. LOUIS
DOWNTOWN AIRPORT

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Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

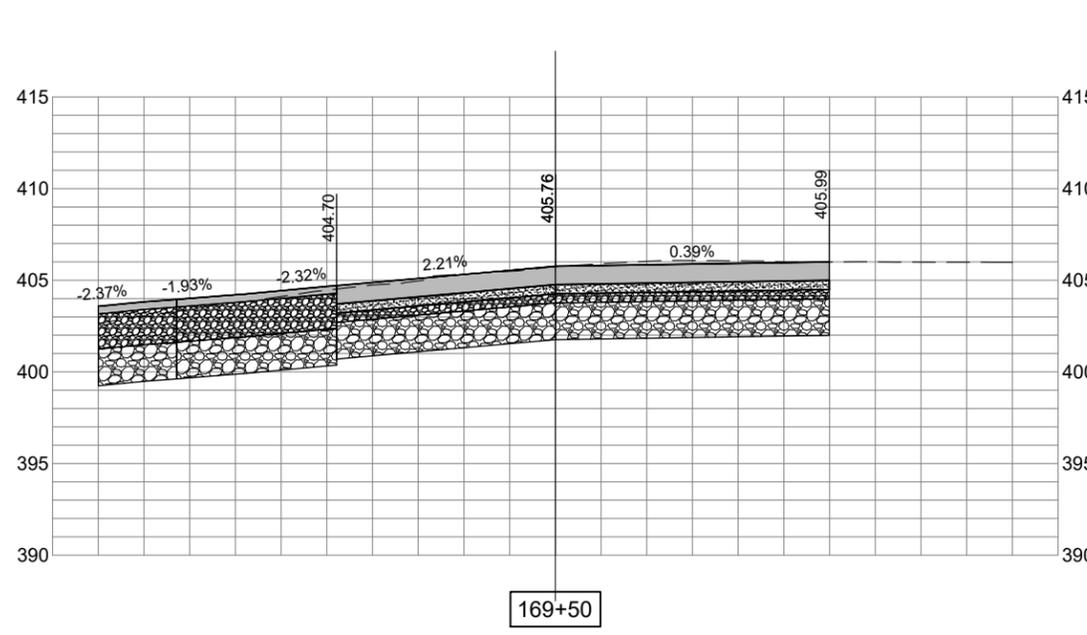
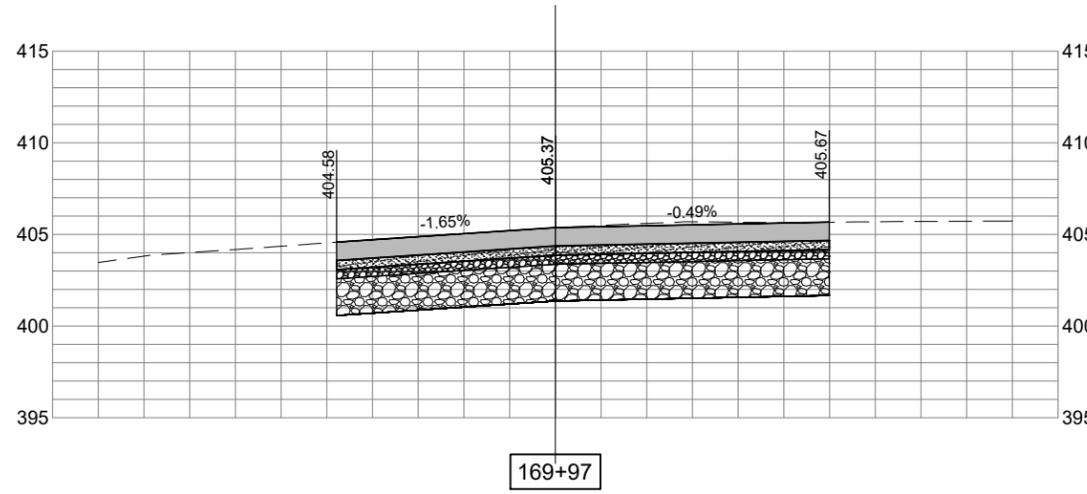
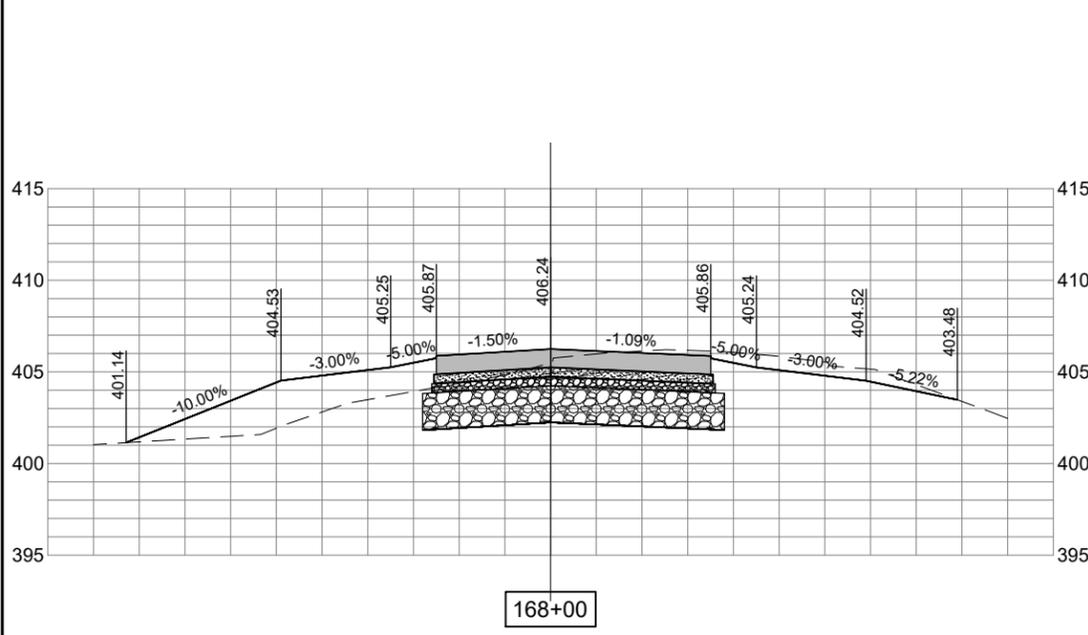
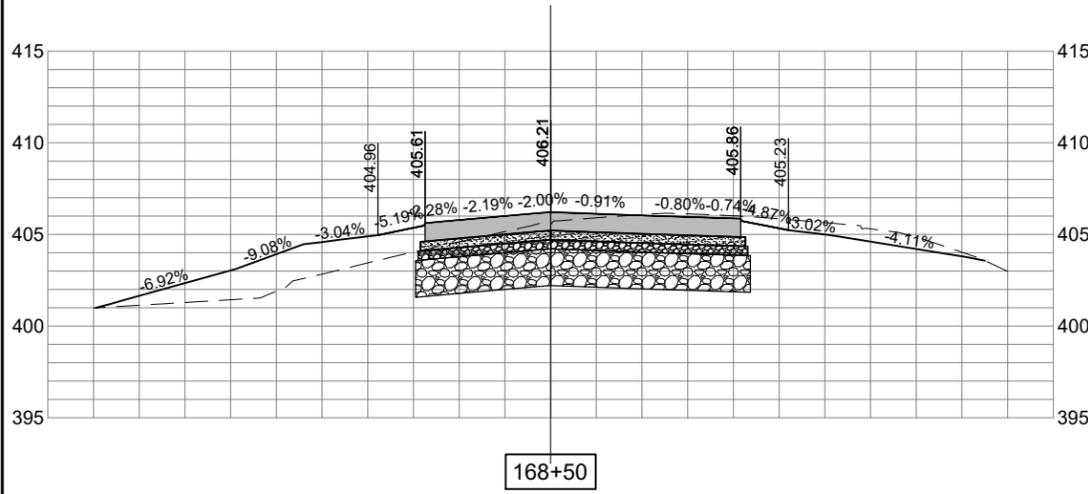
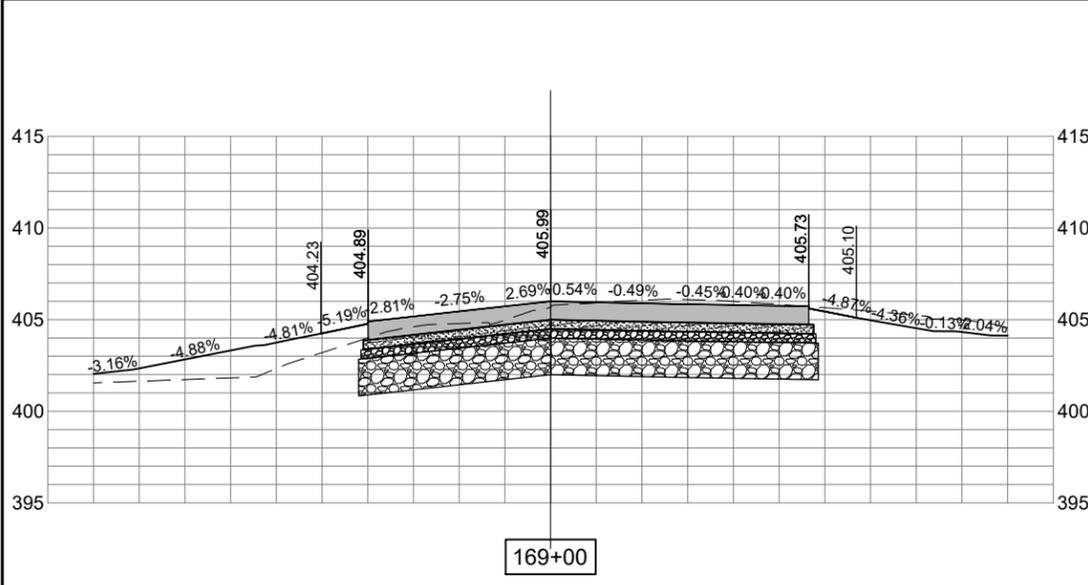
IDA NO.: CPS-5078
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NO.	DATE	DESCRIPTION	
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ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY
DESIGN BY: JRH 03/24/2024
DRAWN BY: JRH 4/19/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED CROSS
SECTION STA. 168+00
TO STA. 169+97



NOV 22, 2024 3:54 PM L:\MIB02387\1\23\05\23A0001D\CAD\AIRPORT\LIBRARY\2024 CPS-5078 LIBRARY\G-BS-22X34_BORDER

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DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

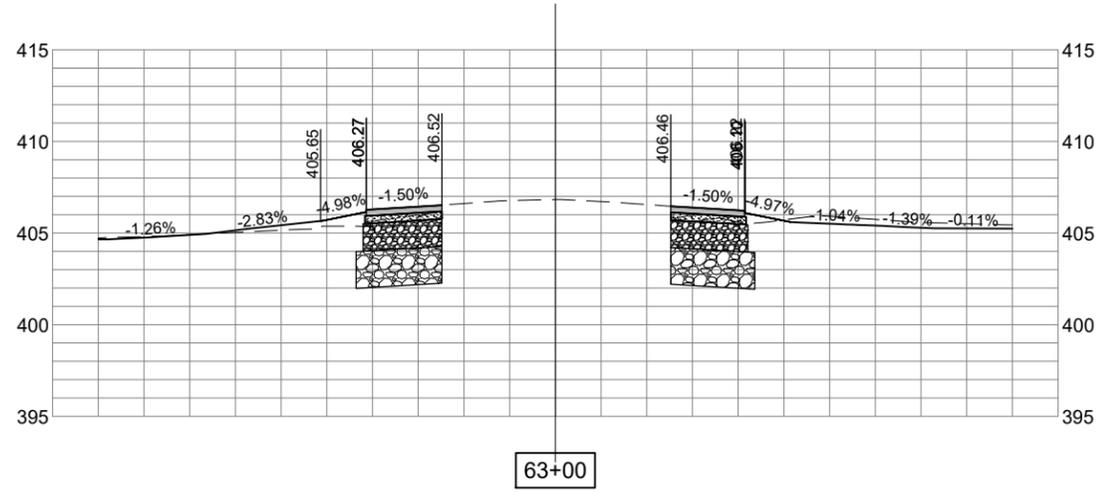
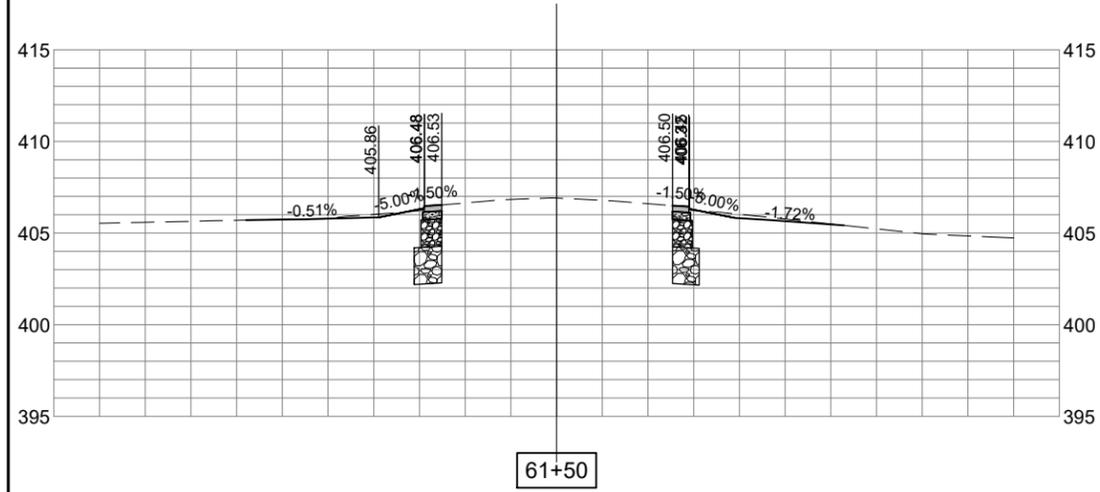
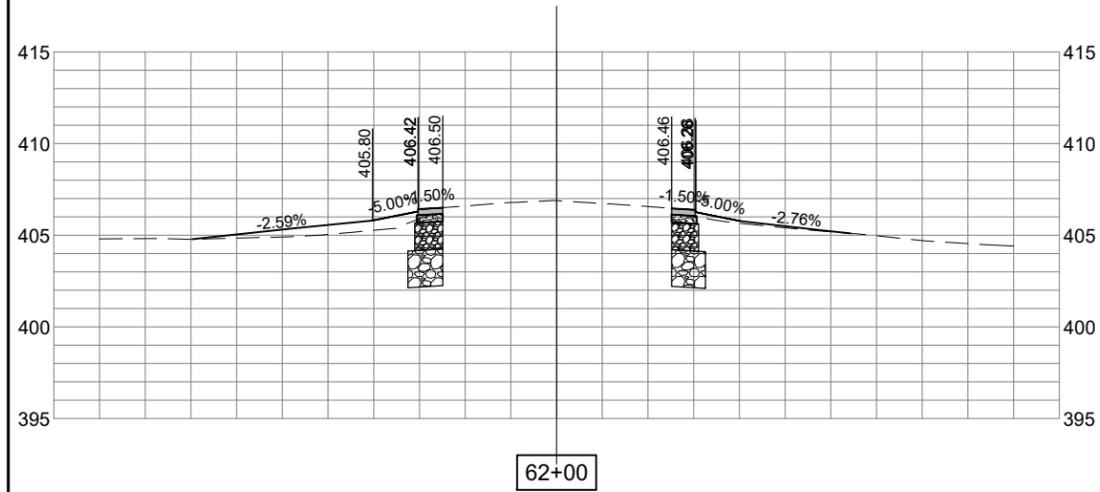
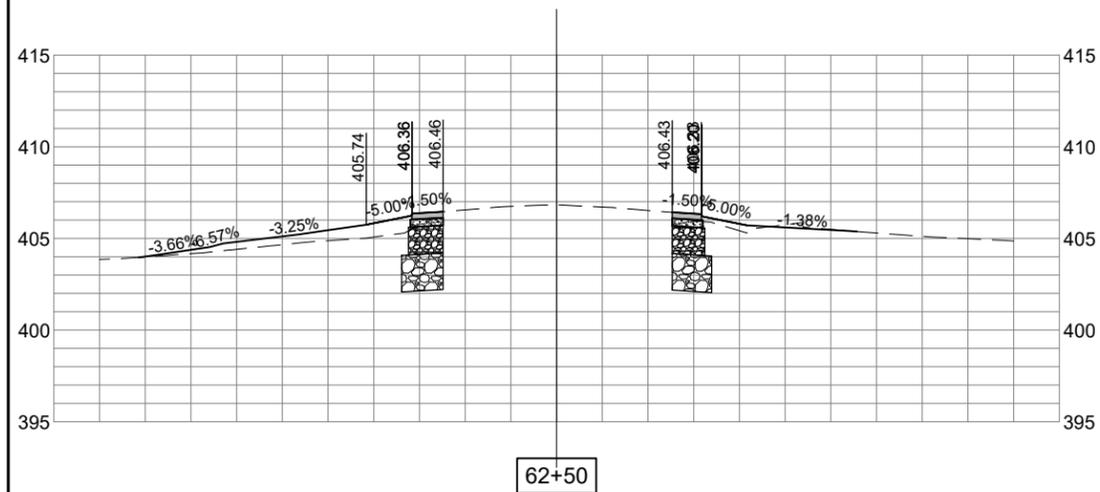
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CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY
DESIGN BY: JRH 03/24/2024
DRAWN BY: JRH 4/19/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED CROSS
SECTION - TWY B6
SOUTH



FOR BID

NOV 22, 2024 3:54 PM LAMB02387 I:\23\0523A000\DCAD\AIRPORT\LIBRARY\2024 CPS-5078 LIBRARY\G-BS-22X34_BORDER



ST. LOUIS
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Cahokia Heights, Illinois 62206



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SIGNED: 11/22/2024
EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

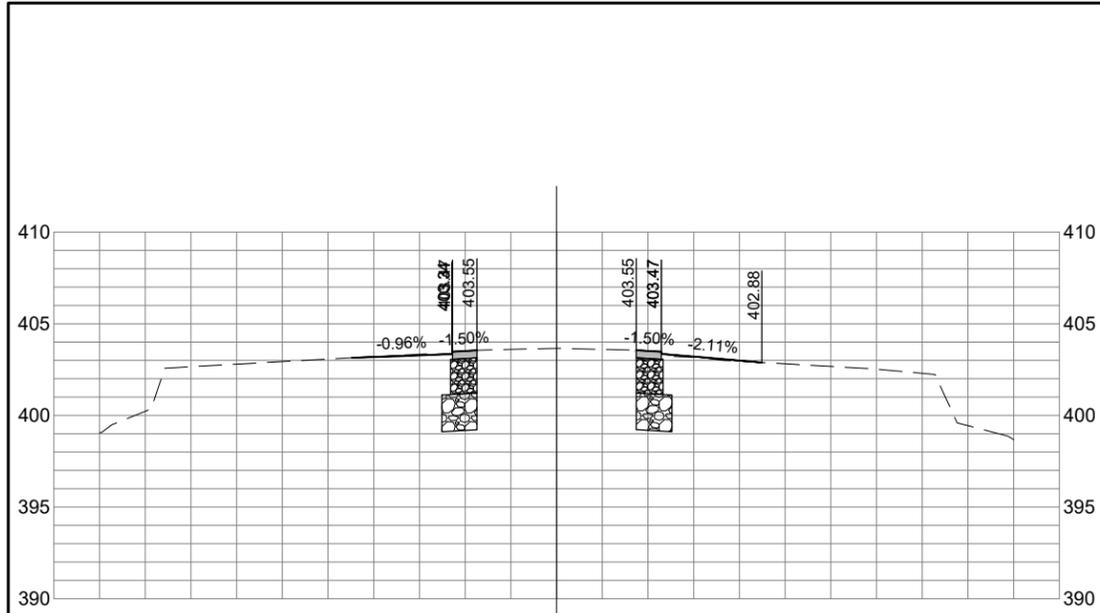
IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

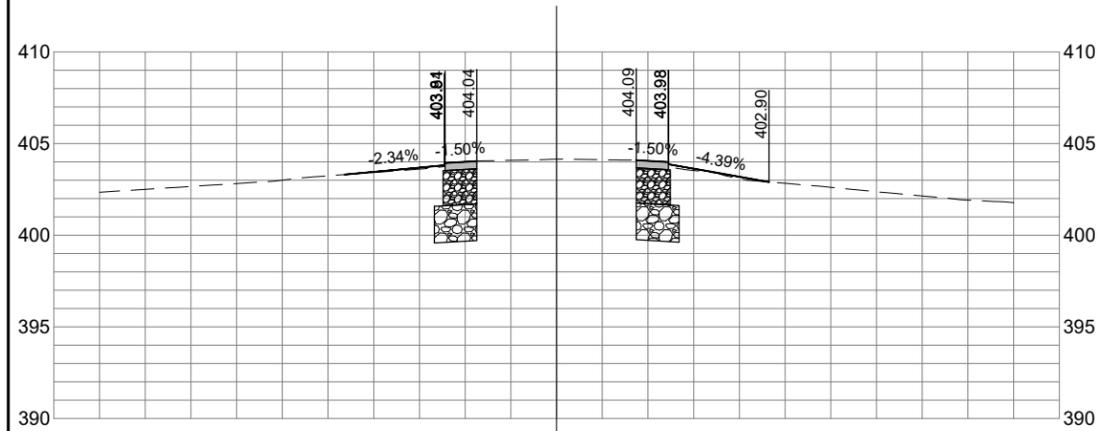
ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY
DESIGN BY: JRH 03/24/2024
DRAWN BY: JRH 4/19/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

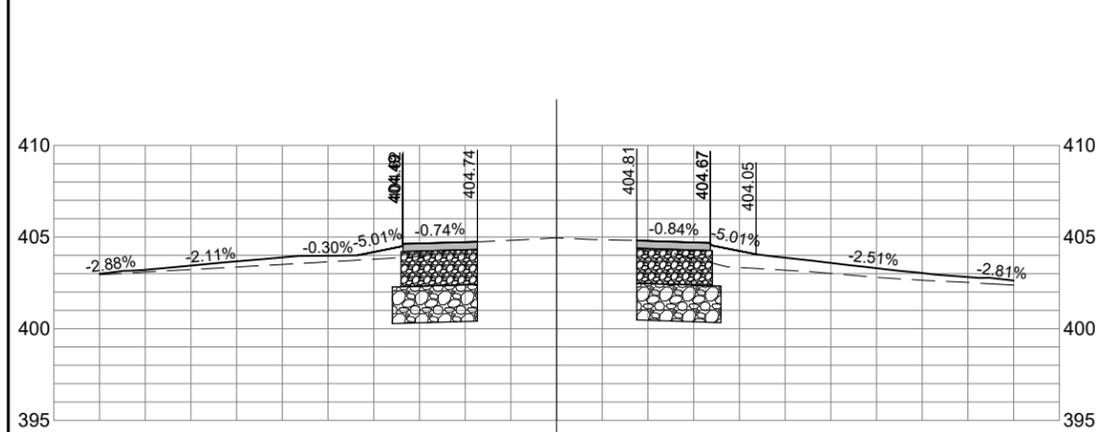
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SECTION - TWY B6
NORTH



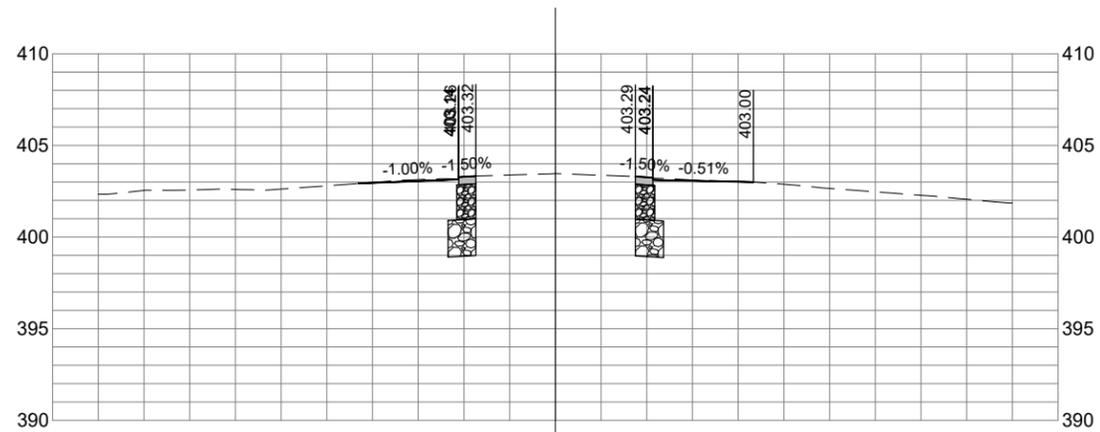
66+00



65+50



65+00



66+50

FOR BID



ST. LOUIS
DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206



DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: XTRI_ALP2024_DS_P&P_RW27_E&F_PLOT_ONLY

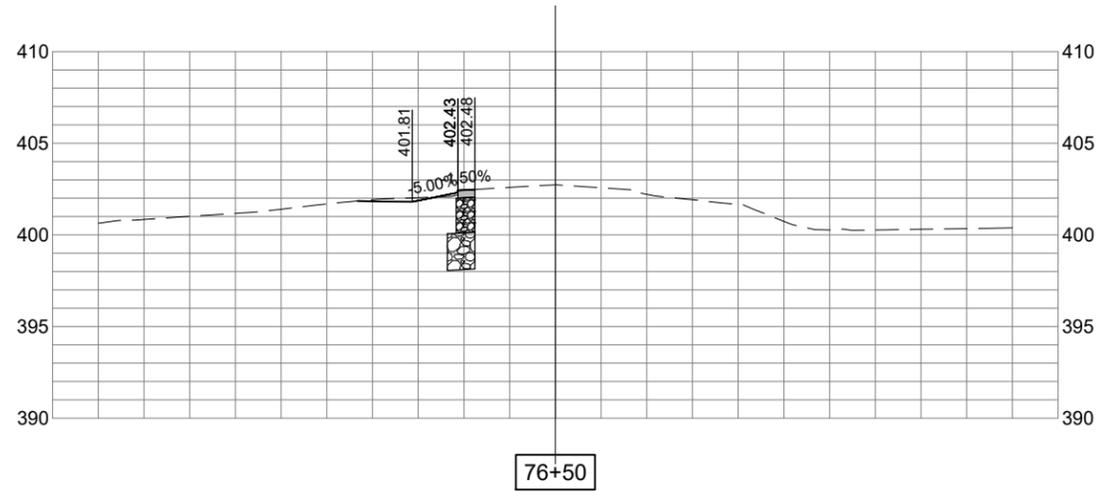
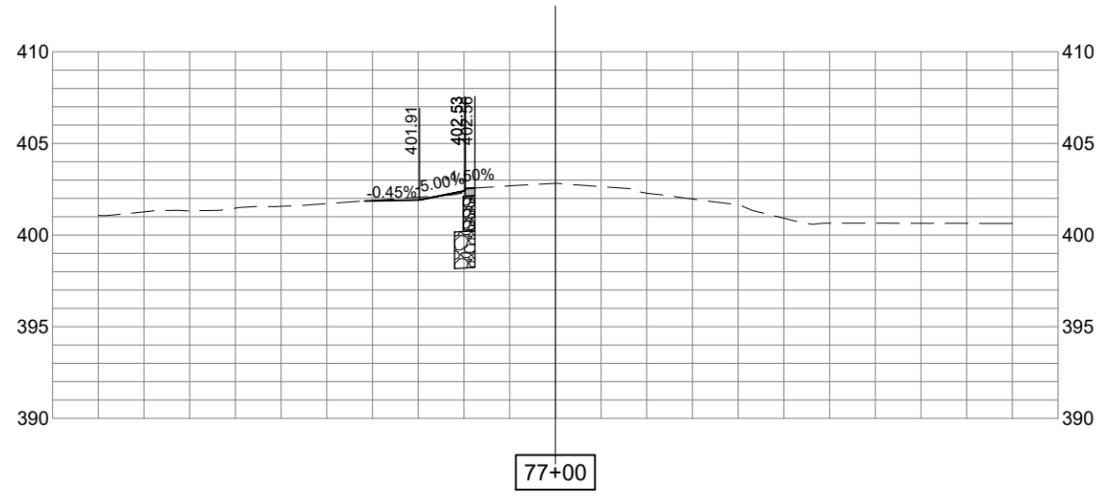
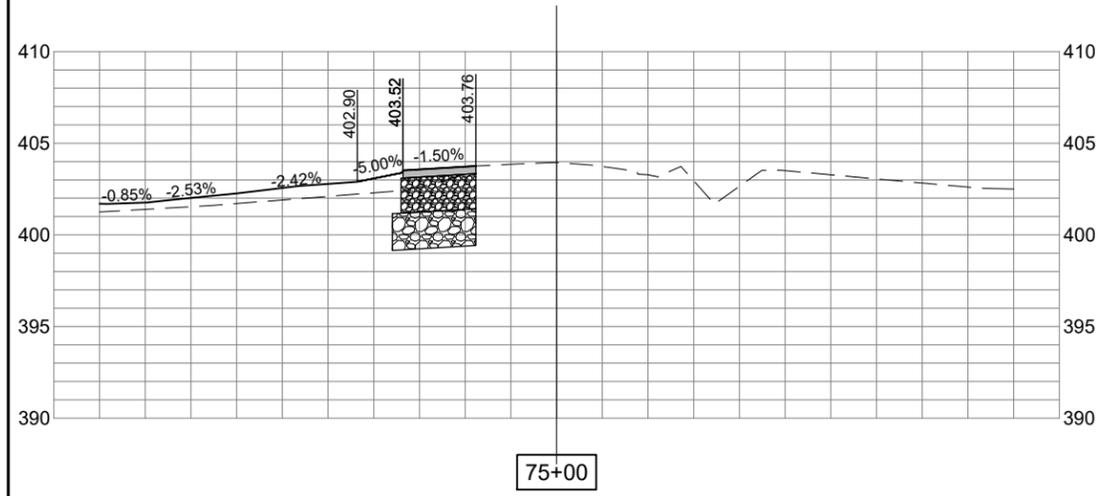
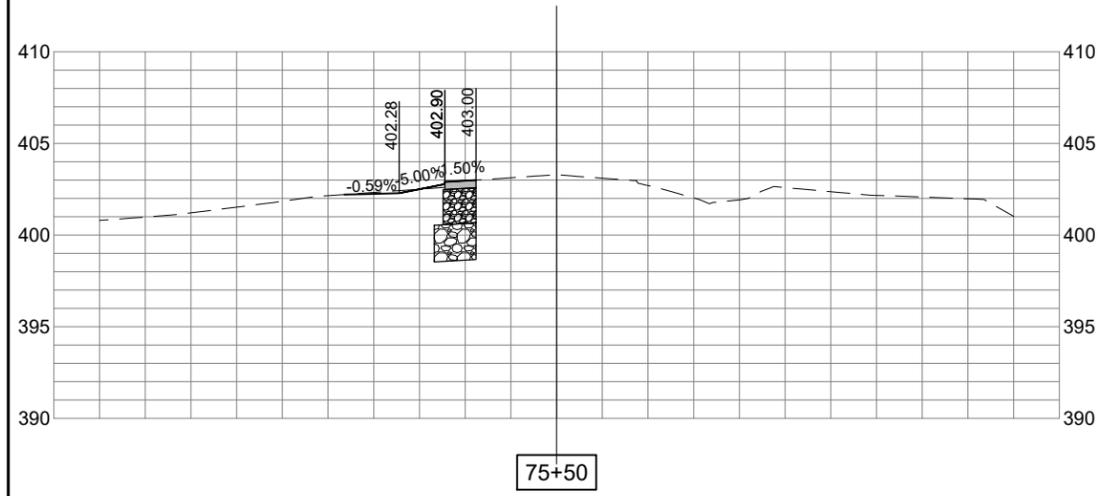
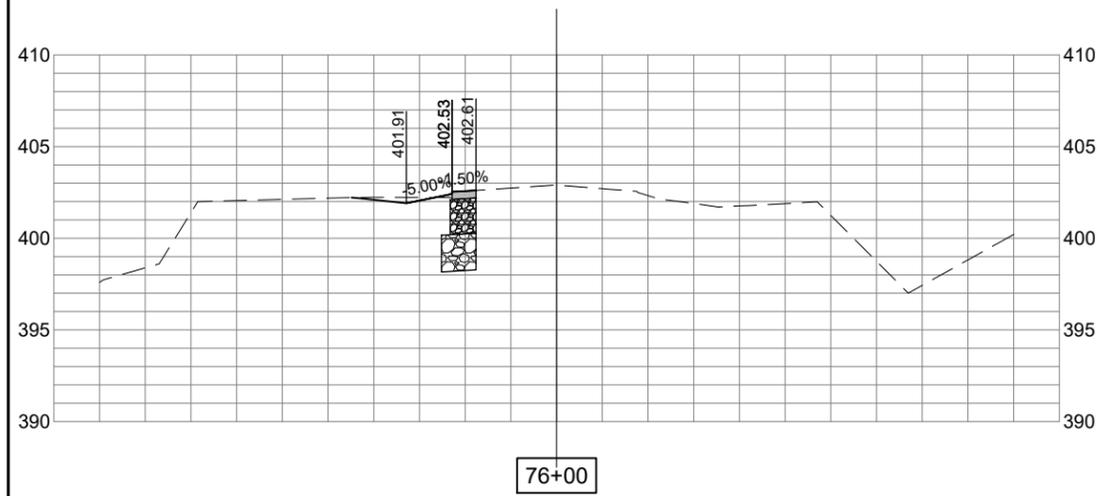
DESIGN BY: JRH 03/24/2024

DRAWN BY: JRH 4/19/2024

REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED CROSS
SECTION - TWY B7
NORTH



FOR BID

NOV 22, 2024 3:55 PM LAMB02387 I:\23\JOBS\23A0001D\CAD\AIRPORT\LIBRARY\2024 CPS-5078 LIBRARY\G-BS-22X34_BORDER



ST. LOUIS DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION, PHASE 3: SOUTHEAST & TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

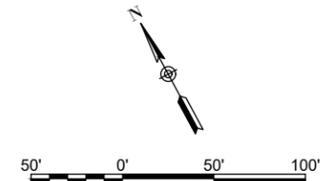
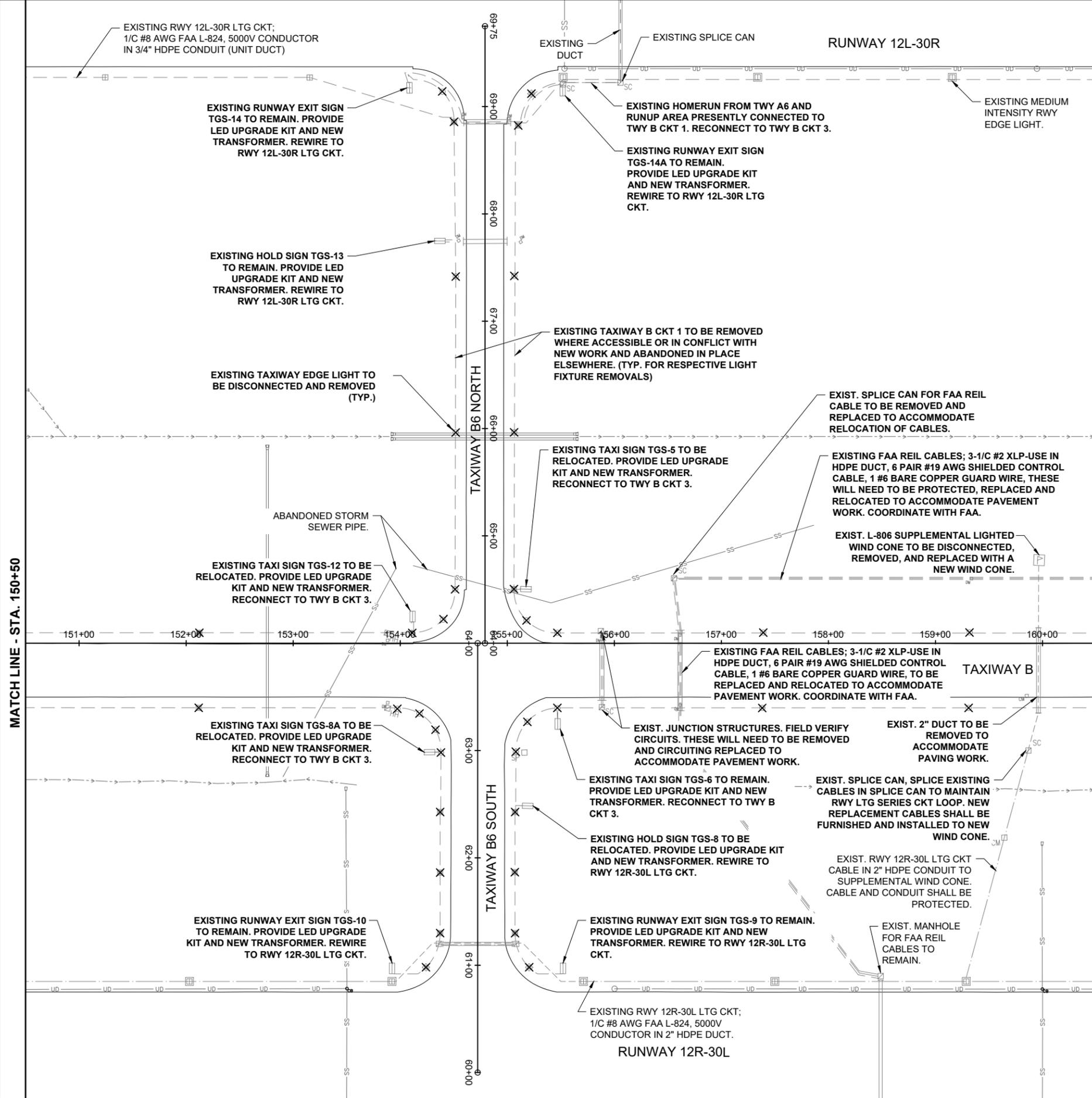
ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D
CAD FILE: C-141-ELE.DWG
DESIGN BY: KNL 3/22/2024
DRAWN BY: CWS 3/22/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

EXISTING ELECTRICAL PLAN
STA. 150+50 TO STA. 160+50

NOV 22, 2024 3:55 PM L:\AMB02387 1\23\JOBS\23A0001D\CAD\AIRPORT\LIBRARY\2024 CPS-5078 LIBRARY\G-BS-22\314_BORDER

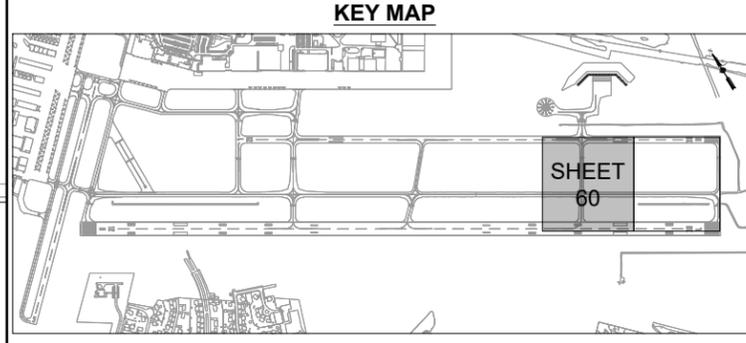


LEGEND

- EXISTING PAVEMENT
- EXISTING ELECTRICAL DUCT
- EXISTING DRAINAGE CHANNEL
- EXISTING TAXIWAY LTG ELECTRICAL CABLE
- EXISTING RUNWAY LTG ELECTRICAL CABLE
- EXISTING UG ELECTRIC
- EXISTING ELECTRICAL CABLES
- EXISTING STORM SEWER/UNDERDRAIN
- EXISTING UNDERDRAIN
- EXISTING SANITARY SEWER
- EXISTING COMMUNICATION LINE
- EXISTING FIBER OPTIC
- EXISTING WATER
- EXISTING TELEPHONE
- EXISTING FENCE
- EXISTING TAXIWAY LIGHT
- EXISTING TAXIWAY LIGHTS TO BE REMOVED
- EXISTING BASE MOUNTED RUNWAY LIGHT
- EXISTING AND/OR RELOCATED RUNWAY/TAXI GUIDANCE SIGN
- EXISTING JUNCTION CAN, HANDHOLE, OR MANHOLE
- EXISTING DRAINAGE PIPE

MATCH LINE - STA. 160+50

MATCH LINE - STA. 150+50



SHEET 60

FOR BID



**ST. LOUIS
DOWNTOWN AIRPORT**

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
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NO.	DATE	DESCRIPTION		
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ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: C-141-ELE.DWG

DESIGN BY: KNL 3/22/2024

DRAWN BY: CWS 3/22/2024

REVIEWED BY: BSS 4/19/2024

SHEET TITLE

EXISTING
ELECTRICAL PLAN
STA. 160+50 TO STA.
170+50

RUNWAY 12L-30R

EXISTING MEDIUM INTENSITY
RWY EDGE LIGHT.

THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER 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 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 OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER/TECHNICIAN SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. CONTACT JULIE (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS) FOR UTILITY INFORMATION, PHONE: 1-800-892-0123. CONTACT THE FAA (FEDERAL AVIATION ADMINISTRATION) FOR ASSISTANCE IN LOCATING FAA CABLES AND UTILITIES. LOCATION OF FAA POWER, CONTROL, AND COMMUNICATION CABLES SHALL BE COORDINATED WITH AND/OR LOCATED BY THE FAA. ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.

EXISTING RWY 12L-30R LTG CKT;
1/C #8 AWG FAA L-824, 5000V CONDUCTOR
IN 3/4" HDPE CONDUIT (UNIT DUCT)

EXISTING RUNWAY EXIT SIGN
TGS-4B TO REMAIN. PROVIDE
LED UPGRADE KIT AND NEW
TRANSFORMER. REWIRE TO
RWY 12L-30R LTG CKT.

EXISTING HOLD SIGN TGS-4A
TO REMAIN. PROVIDE LED
UPGRADE KIT AND NEW
TRANSFORMER. REWIRE TO
RWY 12L-30R LTG CKT.

EXIST.
FAA REIL
(RWY 30R)

LEGEND

- EXISTING PAVEMENT
- EXISTING ELECTRICAL DUCT
- EXISTING DRAINAGE CHANNEL
- EXISTING TAXIWAY LTG ELECTRICAL CABLE
- EXISTING RUNWAY LTG ELECTRICAL CABLE
- EXISTING UG ELECTRIC
- EXISTING ELECTRICAL CABLES
- EXISTING STORM SEWER/UNDERDRAIN
- EXISTING UNDERDRAIN
- EXISTING SANITARY SEWER
- EXISTING COMMUNICATION LINE
- EXISTING FIBER OPTIC
- EXISTING WATER
- EXISTING TELEPHONE
- EXISTING FENCE
- EXISTING TAXIWAY LIGHT
- EXISTING TAXIWAY LIGHTS TO BE REMOVED
- EXISTING BASE MOUNTED RUNWAY LIGHT
- EXISTING AND/OR RELOCATED RUNWAY/TAXI GUIDANCE SIGN
- EXISTING JUNCTION CAN, HANDHOLE, OR MANHOLE
- EXISTING DRAINAGE PIPE

EXISTING FAA REIL CABLES; 3-1/C #2 XLP-USE IN HDPE DUCT, 6 PAIR #19 AWG SHIELDED CONTROL CABLE, 1 #6 BARE COPPER GUARD WIRE, THESE WILL NEED TO BE PROTECTED, REPLACED AND RELOCATED TO ACCOMMODATE PAVING WORK, COORDINATE WITH FAA.

EXISTING TAXI SIGN TGS-4 TO BE RELOCATED. PROVIDE LED UPGRADE KIT AND NEW TRANSFORMER. RECONNECT TO TWY B CKT 3.

EXISTING TAXI SIGN TGS-4C TO REMAIN. PROVIDE LED UPGRADE KIT AND NEW TRANSFORMER. RECONNECT TO TWY B CKT 3.

EXISTING TAXI SIGN TGS-3 TO REMAIN. PROVIDE LED UPGRADE KIT AND NEW TRANSFORMER. RECONNECT TO TWY B CKT 3.

EXISTING HOLD SIGN TGS-1 TO REMAIN. PROVIDE LED UPGRADE KIT AND NEW TRANSFORMER. REWIRE TO RWY 12R-30L LTG CKT.

EXISTING RUNWAY EXIT SIGN TGS-2 TO REMAIN. PROVIDE LED UPGRADE KIT AND NEW TRANSFORMER. REWIRE TO RWY 12R-30L LTG CKT.

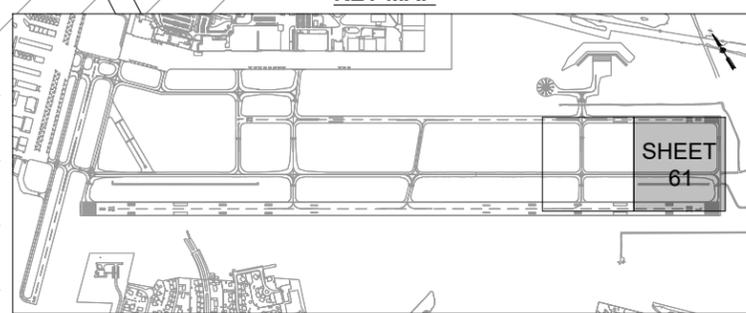
EXISTING RWY 12R-30L LTG CKT;
1/C #8 AWG FAA L-824, 5000V
CONDUCTOR IN 2" HDPE DUCT.

EXISTING HIGH INTENSITY
RWY EDGE LIGHT.

EXISTING TAXIWAY EDGE LIGHT TO BE DISCONNECTED AND REMOVED (TYP.)

EXISTING CONCRETE DITCH.

KEY MAP



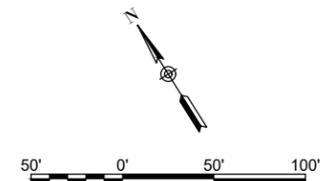
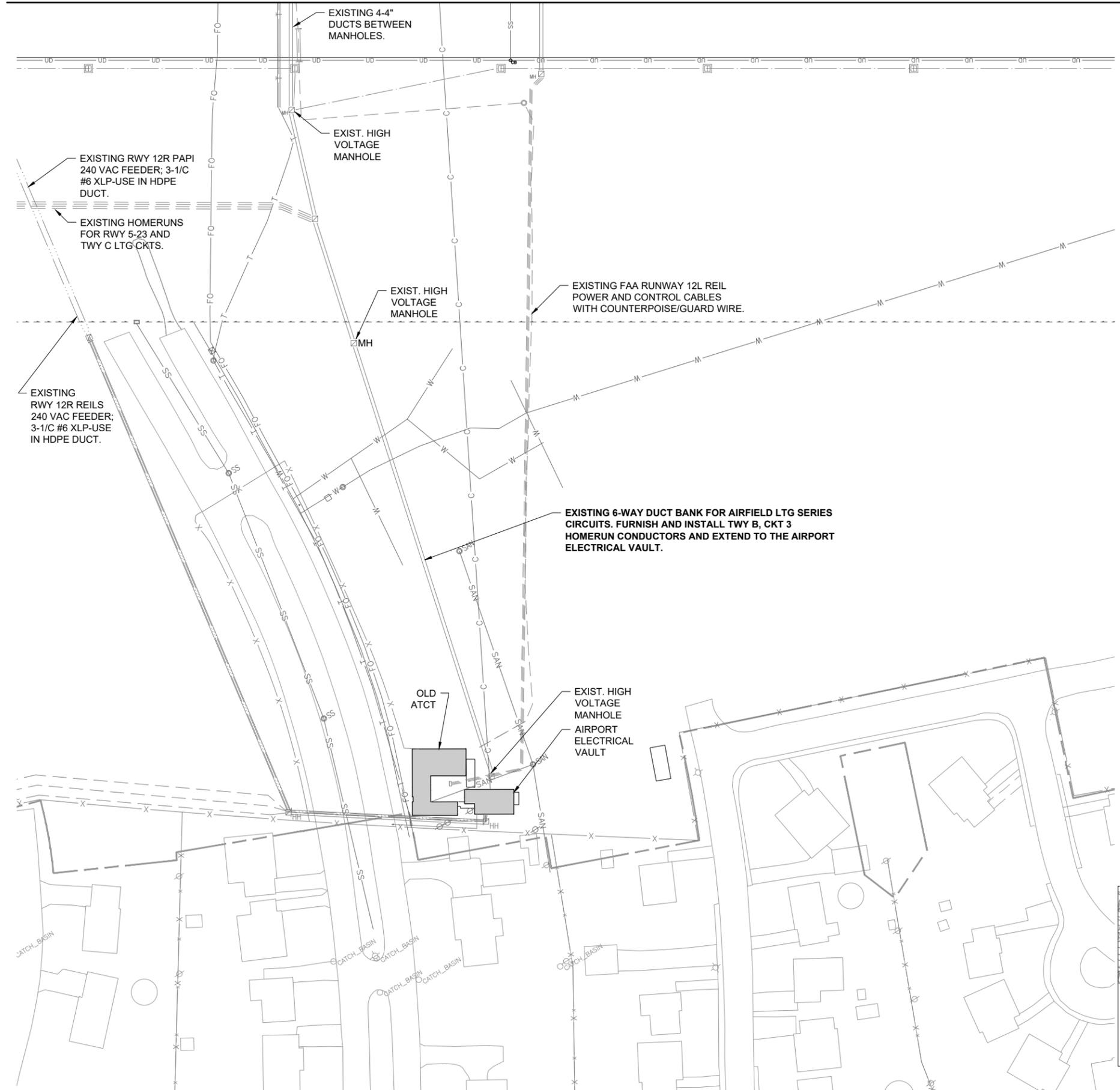
SHEET
61

FOR BID

MATCH LINE - STA. 160+50

NOV 22, 2024 3:56 PM L:\AMB02387
1\23\JOBS\23A0001\DCAD\AIRPORT\LIBRARY\2024 CPS-5078 LIBRARY\G-BS-22\314_BORDER

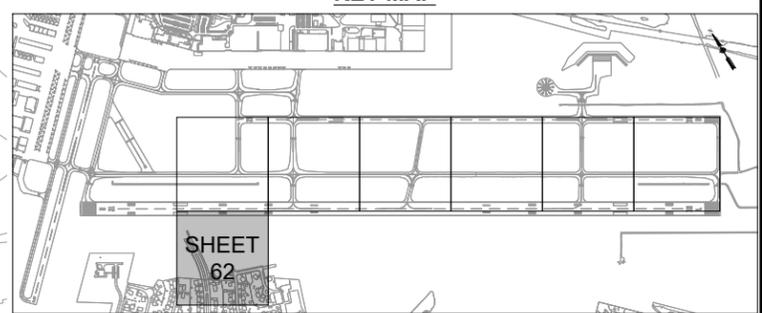
MATCH LINE - 426.32' RT



LEGEND:

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING ELECTRICAL DUCT
- PROPOSED ELECTRICAL DUCT
- EXISTING DRAINAGE CHANNEL
- EXISTING TAXIWAY LTG ELECTRICAL CABLE
- EXISTING RUNWAY LTG ELECTRICAL CABLE
- EXISTING UG ELECTRIC
- EXISTING ELECTRICAL CABLES
- EXISTING STORM SEWER/UNDERDRAIN
- EXISTING UNDERDRAIN
- EXISTING SANITARY SEWER
- EXISTING COMMUNICATION LINE
- EXISTING FIBER OPTIC
- EXISTING WATER
- EXISTING TELEPHONE
- EXISTING FENCE
- PROPOSED 1/C #8 AWG, FAA L-824, 5000 VOLT TYPE C UNDERGROUND CABLE IN 2" SCHED 40 (MIN.) PVC OR HDPE DUCT
- PROPOSED 2-1/C #8 AWG, FAA L-824, 5000 VOLT TYPE C UNDERGROUND CABLE IN 2" SCHED 40 (MIN.) PVC OR HDPE DUCT
- EXISTING TAXIWAY LIGHT
- EXISTING BASE MOUNTED RUNWAY LIGHT
- PROPOSED BASE MOUNTED TAXIWAY LIGHT
- EXISTING AND/OR RELOCATED RUNWAY/TAXI GUIDANCE SIGN
- EXISTING JUNCTION CAN, HANDHOLE, OR MANHOLE
- PROPOSED SPLICE CAN

KEY MAP



FOR BID



Offices Nationwide
www.hanson-inc.com

Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703-2886
Telephone: 217.788.2450
Fax: 217.788.2503

ST. LOUIS DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE: 11/22/2024 LICENSE: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: APRIL 19, 2024

PROJECT NO: 23A0001D
CAD FILE: C-141-ELE.DWG
DESIGN BY: KNL 3/22/2024
DRAWN BY: CWS 3/22/2024
REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED
ELECTRICAL VAULT
HOMERUN PLAN

NOV 22, 2024 3:57 PM L:\AMB02387 1\23\JOBS\23A0001D\CAD\AIRPORT\LIBRARY\2024 CPS-5078 LIBRARY\G-BS-22\34_BORDER



ST. LOUIS DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE: 12/05/2024 LICENSE: 11/30/2025

TAXIWAY B RELOCATION, PHASE 3: SOUTHEAST & TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: C-142-ELE.DWG

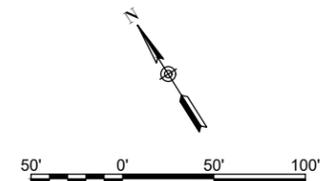
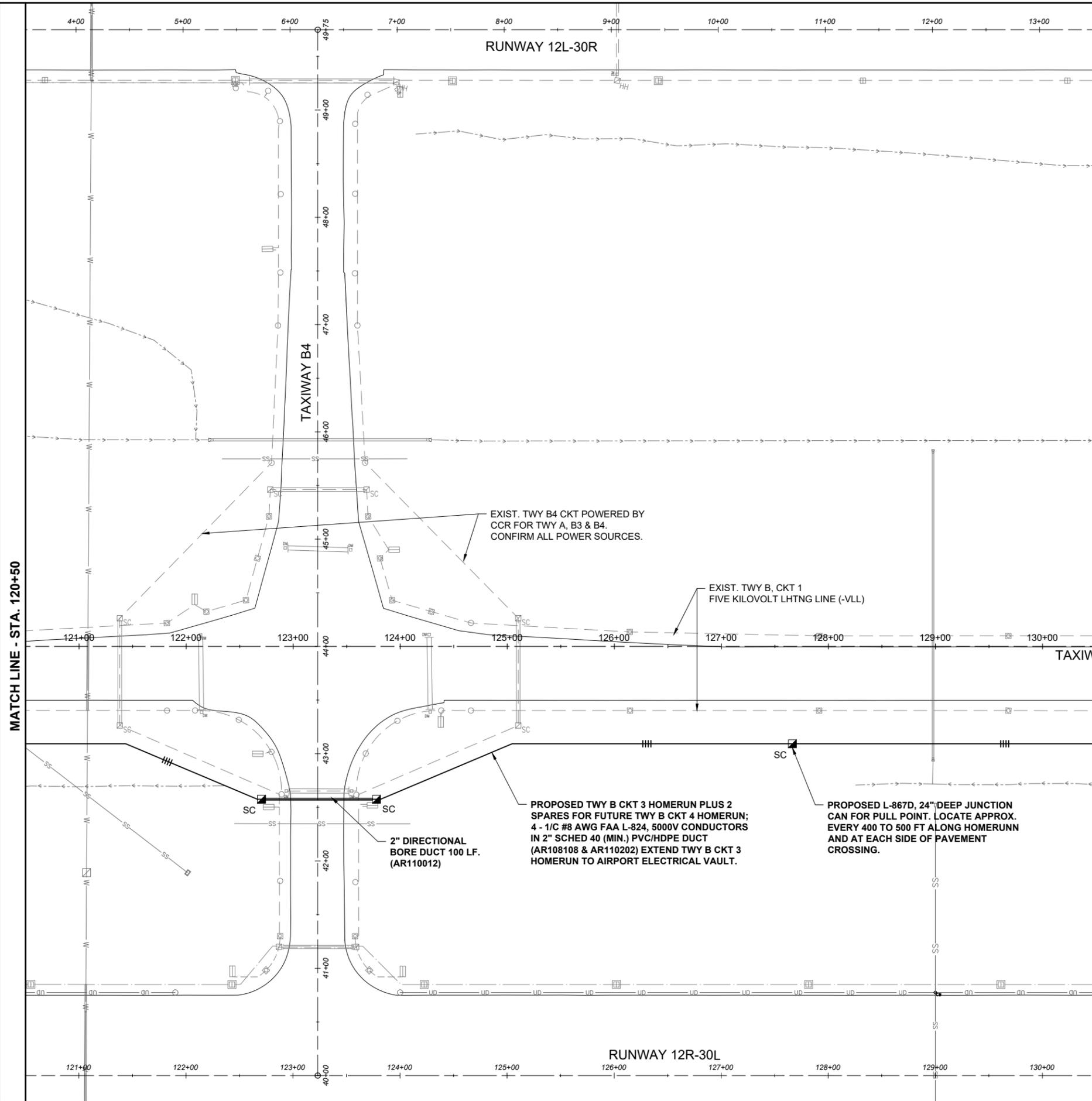
DESIGN BY: KNL 3/22/2024

DRAWN BY: CWS 3/22/2024

REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED ELECTRICAL PLAN STA. 120+50 TO STA. 130+50

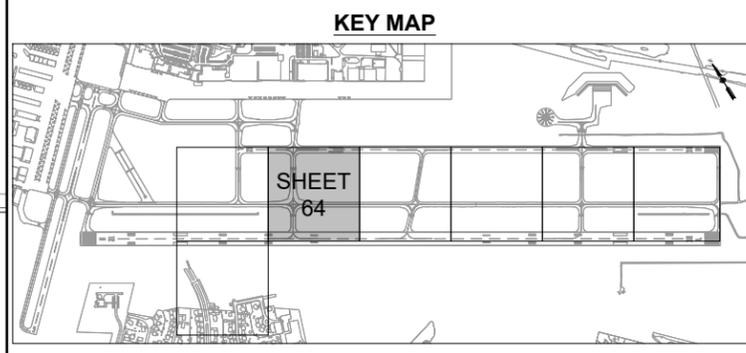


LEGEND:

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING ELECTRICAL DUCT
- PROPOSED ELECTRICAL DUCT
- EXISTING DRAINAGE CHANNEL
- EXISTING TAXIWAY LTG ELECTRICAL CABLE
- EXISTING RUNWAY LTG ELECTRICAL CABLE
- EXISTING UG ELECTRIC
- EXISTING ELECTRICAL CABLES
- EXISTING STORM SEWER/UNDERDRAIN
- EXISTING UNDERDRAIN
- EXISTING SANITARY SEWER
- EXISTING COMMUNICATION LINE
- EXISTING FIBER OPTIC
- EXISTING WATER
- EXISTING TELEPHONE
- EXISTING FENCE
- PROPOSED 1/C #8 AWG, FAA L-824, 5000 VOLT TYPE C UNDERGROUND CABLE IN 2\"/>

MATCH LINE - STA. 130+50

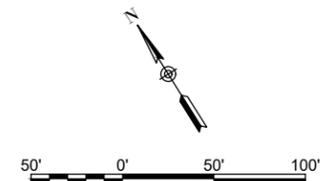
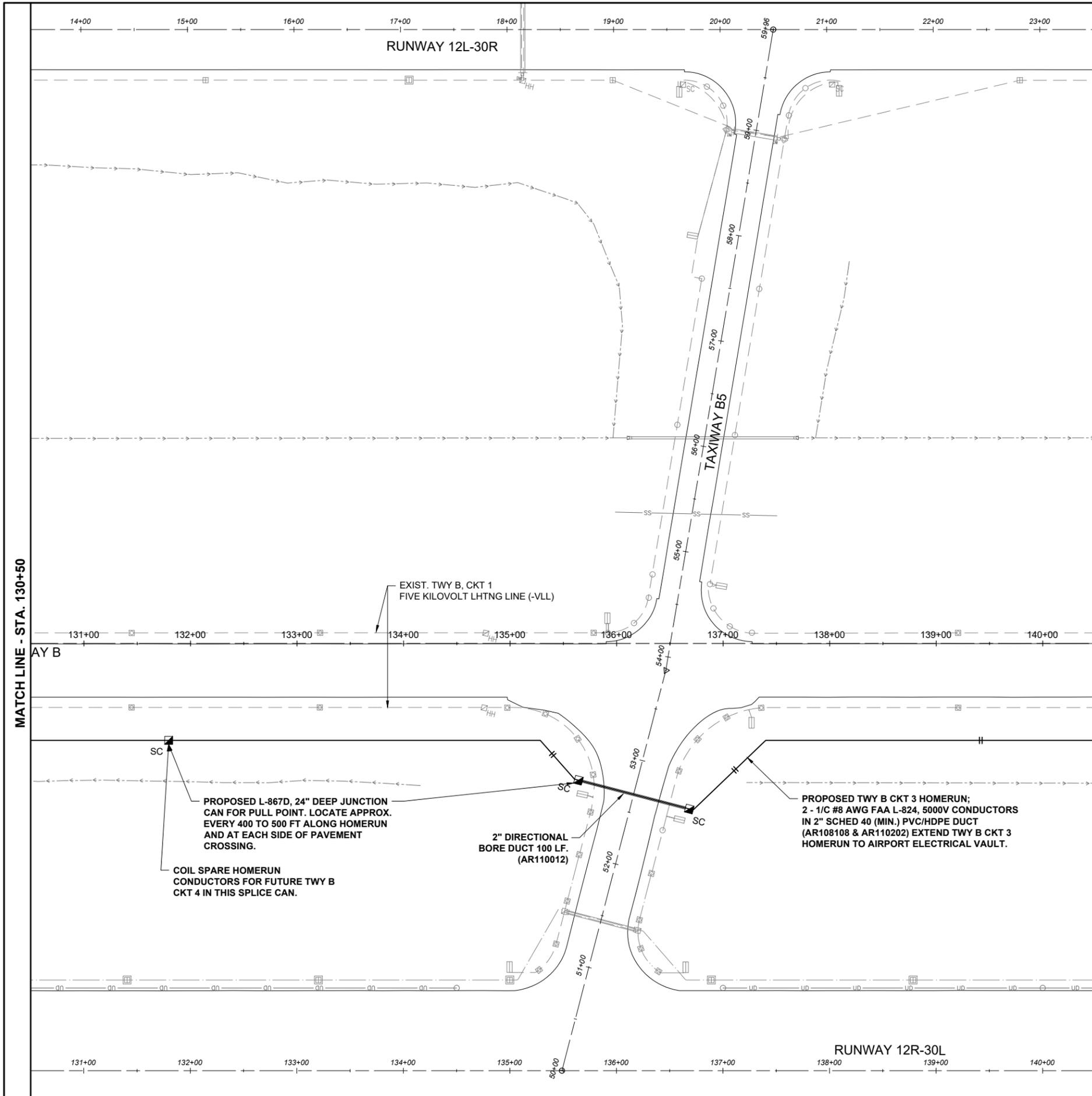
MATCH LINE - STA. 120+50



FOR BID

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DEC 05, 2024 2:52 PM LAMB02387
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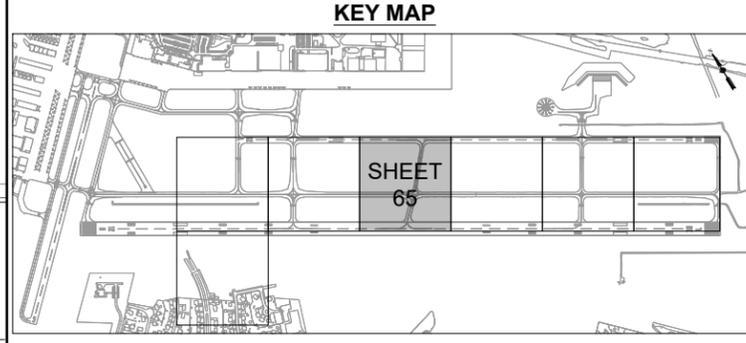


LEGEND:

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING ELECTRICAL DUCT
- PROPOSED ELECTRICAL DUCT
- EXISTING DRAINAGE CHANNEL
- EXISTING TAXIWAY LTG ELECTRICAL CABLE
- EXISTING RUNWAY LTG ELECTRICAL CABLE
- EXISTING UG ELECTRIC
- EXISTING ELECTRICAL CABLES
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- EXISTING SANITARY SEWER
- EXISTING COMMUNICATION LINE
- EXISTING FIBER OPTIC
- EXISTING WATER
- EXISTING TELEPHONE
- EXISTING FENCE
- PROPOSED 1/C #8 AWG, FAA L-824, 5000 VOLT TYPE C UNDERGROUND CABLE IN 2" SCHED 40 (MIN.) PVC OR HDPE DUCT
- PROPOSED 2-1/C #8 AWG, FAA L-824, 5000 VOLT TYPE C UNDERGROUND CABLE IN 2" SCHED 40 (MIN.) PVC OR HDPE DUCT
- EXISTING TAXIWAY LIGHT
- EXISTING BASE MOUNTED RUNWAY LIGHT
- PROPOSED BASE MOUNTED TAXIWAY LIGHT
- EXISTING AND/OR RELOCATED RUNWAY/TAXI GUIDANCE SIGN
- EXISTING JUNCTION CAN, HANDHOLE, OR MANHOLE
- PROPOSED SPLICE CAN

MATCH LINE - STA. 140+50

MATCH LINE - STA. 130+50



FOR BID

HANSON
 Engineering | Planning | Allied Services
 Offices Nationwide
 www.hanson-inc.com
 Hanson Professional Services Inc.
 1525 South Sixth Street
 Springfield, Illinois 62703-2886
 Telephone: 217.788.2450
 Fax: 217.788.2503

ST. LOUIS DOWNTOWN AIRPORT
 BI-STATE DEVELOPMENT
 ST. LOUIS DOWNTOWN AIRPORT
 6100 Archview Drive
 Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE: 12/05/2024
 LICENSE: 11/30/2025

TAXIWAY B RELOCATION,
 PHASE 3: SOUTHEAST &
 TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
 CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D
 CAD FILE: C-142-ELE.DWG
 DESIGN BY: KNL 3/22/2024
 DRAWN BY: CWS 3/22/2024
 REVIEWED BY: BSS 4/19/2024

SHEET TITLE

PROPOSED
 ELECTRICAL PLAN
 STA. 130+50 TO STA.
 140+50



ST. LOUIS DOWNTOWN AIRPORT

**BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT**
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE: 12/05/2024 LICENSE: 11/30/2025
SIGNED: 12/05/2024 EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: C-142-ELE.DWG

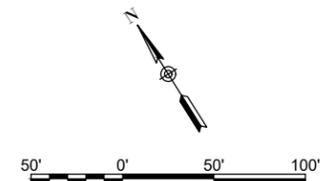
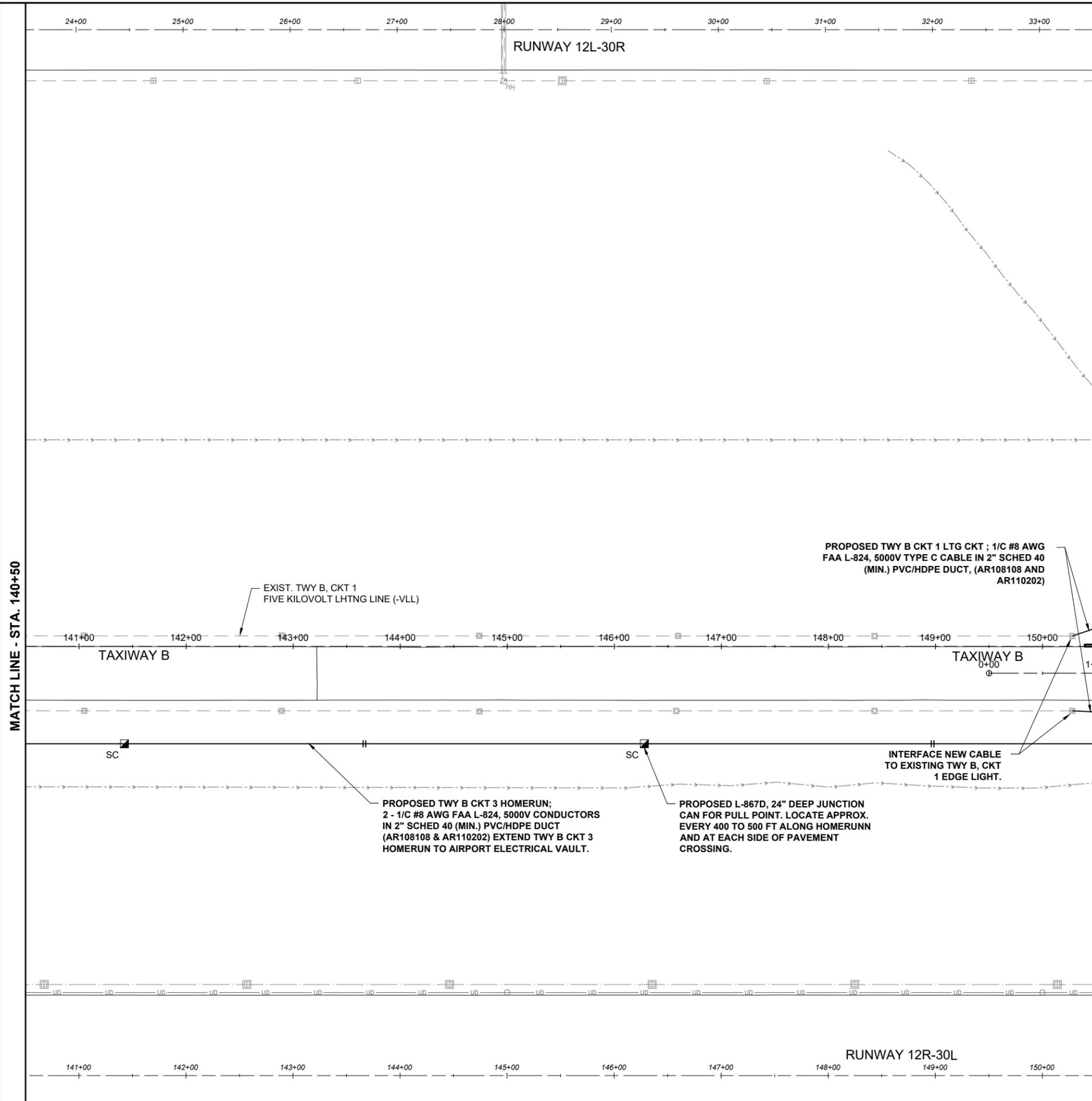
DESIGN BY: KNL 3/22/2024

DRAWN BY: CWS 3/22/2024

REVIEWED BY: BSS 4/19/2024

SHEET TITLE

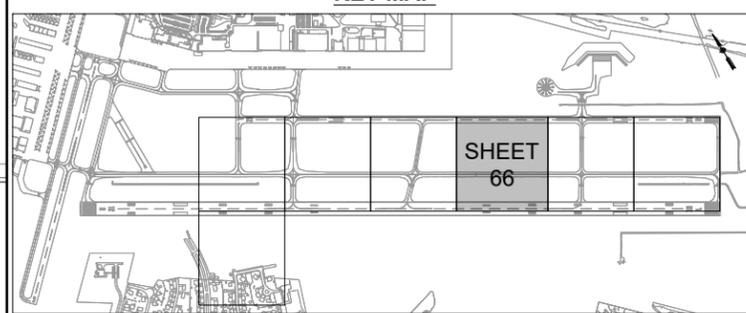
PROPOSED
ELECTRICAL PLAN
STA. 140+50 TO STA.
150+50



LEGEND:

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING ELECTRICAL DUCT
- PROPOSED ELECTRICAL DUCT
- EXISTING DRAINAGE CHANNEL
- EXISTING TAXIWAY LTG ELECTRICAL CABLE
- EXISTING RUNWAY LTG ELECTRICAL CABLE
- EXISTING UG ELECTRIC
- EXISTING ELECTRICAL CABLES
- EXISTING STORM SEWER/UNDERDRAIN
- EXISTING UNDERDRAIN
- EXISTING SANITARY SEWER
- EXISTING COMMUNICATION LINE
- EXISTING FIBER OPTIC
- EXISTING WATER
- EXISTING TELEPHONE
- EXISTING FENCE
- PROPOSED 1/2" #8 AWG, FAA L-824, 5000 VOLT TYPE C UNDERGROUND CABLE IN 2" SCHED 40 (MIN.) PVC OR HDPE DUCT
- PROPOSED 2-1/2" #8 AWG, FAA L-824, 5000 VOLT TYPE C UNDERGROUND CABLE IN 2" SCHED 40 (MIN.) PVC OR HDPE DUCT
- EXISTING TAXIWAY LIGHT
- EXISTING BASE MOUNTED RUNWAY LIGHT
- PROPOSED BASE MOUNTED TAXIWAY LIGHT
- EXISTING AND/OR RELOCATED RUNWAY/TAXI GUIDANCE SIGN
- EXISTING JUNCTION CAN, HANDHOLE, OR MANHOLE
- PROPOSED SPLICE CAN

KEY MAP



SHEET
66

FOR BID

DEC 05, 2024 2:52 PM LAMB02387
I:\23\JOBS\23A0001\DCAD\AIRPORT\LIBRARY\2024\CPS-5078\LIBRARY\G-BS-2\2\34_BORDER



**ST. LOUIS
DOWNTOWN AIRPORT**

**BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT**
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: E-643-SCHED.DWG

DESIGN BY: KNL 3/2/2024

DRAWN BY: CWS 3/11/2024

REVIEWED BY: KNL 3/21/2024

SHEET TITLE

TAXI GUIDANCE SIGN
SCHEDULE

TAXI GUIDANCE SIGN SCHEDULE

SIGN NUMBER	LOCATION	EXISTING		REMARKS
		SIDE A	SIDE B	
TGS-1	TAXIWAY B7 INTERSECTION WITH RUNWAY 30L AT HOLD LINE			EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO BE POWERED FROM RUNWAY 12R-30L LIGHTING CKT. PROVIDE LED UPGRADE KIT BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-2	RUNWAY 12R INTERSECTION WITH TAXIWAY B7.			EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO BE POWERED FROM RUNWAY 12R-30L LIGHTING CKT. PROVIDE LED UPGRADE KIT BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-3	TAXIWAY B7 INTERSECTION WITH TAXIWAY B WEST OF TAXIWAY B7.			EXISTING SIGN TO REMAIN IN PLACE. RECONNECT TO TAXIWAY B CIRCUIT 3. PROVIDE LED UPGRADE KIT BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-4	TAXIWAY B INTERSECTION WITH TAXIWAY B7 NORTH SIDE OF TAXIWAY B. NORTHING: 691218.76 EASTING: 2303061.55			EXISTING SIGN TO BE RELOCATED. RECONNECT TO TAXIWAY B CIRCUIT 3. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER FOR EACH SIGN. THIS SIGN ARRAY HAS A 2 MODULE SIGN AND A 3 MODULE SIGN.
TGS-4A	TAXIWAY B7 INTERSECTION WITH RUNWAY 30R AT HOLD LINE.			EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO RUNWAY 12L-30R LIGHTING CIRCUIT. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-4B	RUNWAY 12L INTERSECTION WITH TAXIWAY B7			EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO RUNWAY 12L-30R LIGHTING CIRCUIT. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-4C	TAXIWAY B7 INTERSECTION WITH TAXIWAY B EAST SIDE OF TAXIWAY B7			EXISTING SIGN TO REMAIN IN PLACE. RECONNECT TO TAXIWAY B CIRCUIT 3. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-5	TAXIWAY B6 INTERSECTION WITH TAXIWAY B EAST SIDE OF TAXIWAY B6 NORTHING: 691997.71 EASTING: 2301999.54			EXISTING SIGN TO BE RELOCATED. RECONNECT TO TAXIWAY B CIRCUIT 3. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER FOR EACH SIGN.
TGS-6	TAXIWAY B INTERSECTION WITH TAXIWAY B6 SOUTH SIDE OF TAXIWAY B			EXISTING SIGN TO REMAIN IN PLACE. REWIRE TO TAXIWAY B CIRCUIT 3. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER FOR EACH SIGN. THIS SIGN ARRAY HAS A 2 MODULE SIGN AND A 3 MODULE SIGN.
TGS-8	TAXIWAY B6 INTERSECTION WITH RUNWAY 12R-30L AT HOLD LINE NORTHING: 691759.76 EASTING: 2301843.71			EXISTING SIGN TO BE RELOCATED. RECONNECT TO RUNWAY 12R-30L LIGHTING CIRCUIT. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-8A	TAXIWAY B6 INTERSECTION WITH TAXIWAY B WEST SIDE OF TAXIWAY B6 NORTHING: 691818.58 EASTING: 2301776.28			EXISTING SIGN TO BE RELOCATED. RECONNECT TO TAXIWAY B CIRCUIT 3. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-9	RUNWAY 30L INTERSECTION WITH TAXIWAY B6			EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO RUNWAY 12R-30L LIGHTING CIRCUIT. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-10	RUNWAY 12L INTERSECTION WITH TAXIWAY B6			EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO RUNWAY 12R-30L LIGHTING CIRCUIT. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-12	TAXIWAY B INTERSECTION WITH TAXIWAY B6 AT NORTH SIDE OF TAXIWAY B NORTHING: 692010.90 EASTING: 2301819.29			EXISTING SIGN TO BE RELOCATED. RECONNECT TO TAXIWAY B CIRCUIT 3. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER FOR EACH SIGN. THIS SIGN ARRAY HAS A 2 MODULE SIGN AND A 3 MODULE SIGN.
TGS-13	TAXIWAY B6 INTERSECTION WITH TAXIWAY RUNWAY 12L-30R AT HOLD LINE			EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO RUNWAY 12L-30R LIGHTING CIRCUIT. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-14	RUNWAY 12L INTERSECTION WITH TAXIWAY B6			EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO RUNWAY 12L-30R LIGHTING CIRCUIT. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-14A	RUNWAY 30R INTERSECTION WITH TAXIWAY B6			EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO RUNWAY 12L-30R LIGHTING CIRCUIT. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.

NOTES:

- THE TAXI GUIDANCE SIGNS IN THE SCHEDULE ARE EXISTING SIGNS SIZE 1, 18-IN. SIGN FACE WITH A 12-IN. LEGEND; STYLE 2, POWERED FROM A 4.8 TO 6.6 AMP SERIES LIGHTING CIRCUIT WITH QUARTZ OR INCANDESCENT LAMPS AND ARE/MANUFACTURED BY LUMACURVE.
- PROVIDE TETHERS FOR EACH TAXI SIGN IN ACCORDANCE WITH FAA AC 150/5345-44K (OR LATEST ISSUE IN FORCE). SIGN TETHER ANCHOR HARD POINTS MUST BE PROVIDED ON ONE SIGN MOUNTING LEG ABOVE THE FRANGIBLE BREAKING POINT. TETHER ANCHOR HARD POINTS MUST BE PROVIDED SO THAT ONE END OF THE TETHER ATTACHES TO THE SIGN STRUCTURE, AND THE OTHER END ATTACHES BELOW THE FRANGIBLE POINT ON THE COUPLING TO EITHER ONE OF THE LEG MOUNTING BOLTS OR AN INDEPENDENT BOLT IN THE SIGN CONCRETE MOUNTING PAD. SIGNS THAT CONSIST OF MULTIPLE SEPARATE HOUSINGS (NOT CONNECTED TOGETHER IN A CONTINUOUS FRAME) MUST HAVE A MINIMUM OF ONE TETHER PER HOUSING. SIGNS THAT USE MULTIPLE MODULES CONNECTED TOGETHER IN A CONTINUOUS FRAME MUST USE A TETHER AT BOTH ENDS.
- PROVIDE A LEGEND PLATE/LABEL FOR EACH SIGN THAT NOTES THE RESPECTIVE POWER SOURCE. EXAMPLE: **"THIS SIGN IS CONNECTED TO LIGHTING CIRCUIT. CONFIRM AND DISCONNECT POWER SOURCE PRIOR TO WORKING ON THIS SIGN."** IDENTIFY THE RESPECTIVE AIRFIELD LIGHTING CIRCUIT FOR EACH SIGN. LOCATE ON SIGN ABOVE OR BELOW SIGN NUMBER LABEL.
- RUNWAY EXIT/TAXIWAY ENTRANCE SIGNS (TAXIWAY GUIDANCE SIGNS TO DEFINE THE THROAT OR ENTRANCE INTO THE INTERSECTING TAXIWAY ROUTE) OR RUNWAY EXIT/TAXIWAY ENTRANCE LIGHTS SHALL BE CONNECTED TO THE RESPECTIVE RUNWAY CIRCUIT TO BE ILLUMINATED WHEN THE RUNWAY EDGE LIGHTS ARE ON TO COMPLY WITH FAA AC 150/5340-18G, CHAPTER 1, PART 1.15 "SIGN OPERATION", AND/OR FAA AC 150/5340-30J PART 2.5.3.4.
- HOLDING POSITION SIGNS FOR RUNWAYS SHALL BE CONNECTED TO THE RESPECTIVE RUNWAY SERIES CIRCUIT TO BE ILLUMINATED WHEN THE ASSOCIATED RUNWAY LIGHTS ARE ILLUMINATED TO COMPLY WITH FAA AC 150/5340-18G, CHAPTER 1, PART 1.15 "SIGN OPERATION".
- CONCRETE STEEL REINFORCEMENT SHALL BE TYPE ASTM A615 OR A706 GRADE 60 WELDED STEEL WIRE FABRIC SHALL CONFORM TO AASHTO M55 OR AASHTO M221. ALL REINFORCEMENT SHALL HAVE A 3" MINIMUM CONCRETE COVER. REINFORCEMENT MAY BE ADJUSTED TO MISS INTERFERENCES. CONCRETE SHALL CONFORM TO ITEM P-610 CONCRETE FOR MISCELLANEOUS STRUCTURES.
- SEE SPECIFICATION ITEM L-125 FOR ADDITIONAL REQUIREMENTS ON TAXI GUIDANCE SIGNS.
- SEE "AIRFIELD LIGHTING NOTES" SHEET FOR ADDITIONAL REQUIREMENT ON TAXI GUIDANCE SIGNS.
- CONTRACTOR SHALL TEST AND RECORD THE EARTH GROUND RESISTANCE FOR THE GROUND ROD AT EACH AIRFIELD LIGHT FIXTURE AND EACH TAXI GUIDANCE SIGN.
- FAA AC 150/5340-26C, PART 3.6.6 USE OF ORIGINAL EQUIPMENT MANUFACTURER (OEM) PART. NOTES THE FOLLOWING: "THE USE OF NON-OEM PARTS OR LAMPS IN FAA APPROVED EQUIPMENT IS STRONGLY DISCOURAGED. THE FAA HAS STRICT SPECIFICATIONS FOR APPROVAL OF ALL AIRPORT LIGHTING EQUIPMENT AND USE OF NON-OEM PARTS OR LAMPS IN SUCH EQUIPMENT OR SYSTEMS CAN RENDER THE EQUIPMENT TO BE FUNCTIONALLY NON-FAA APPROVED. THIS COULD POSSIBLY LEAD TO SERIOUS LIABILITY CONSEQUENCES IN CASE OF AN AIRCRAFT INCIDENT AT AN AIRPORT FOLLOWING THESE PRACTICES."

TAXI GUIDANCE SIGN LEGEND

- TYPE L-858(L) LOCATION SIGN - YELLOW LEGEND AND BORDER ON A BLACK BACKGROUND
- TYPE L-858R(L) MANDATORY INSTRUCTION SIGN - BLACK OUTLINE ON OUTSIDE EDGE OF WHITE LEGEND ON A RED BACKGROUND
- TYPE L-858Y(L) DIRECTION, DESTINATION, AND BOUNDARY SIGN - BLACK LEGEND ON A YELLOW BACKGROUND
- BLANK - BLACK BACKGROUND

* COORDINATE SIGN NUMBERING WITH AIRPORT DIRECTOR/MANAGER. EACH TAXI SIGN SHALL HAVE A TAG WITH ID NUMBER; 3" HIGH PERMANENT WHITE REFLECTIVE LETTERING/NUMBERING LOCATED ON THE EDGE OF THE SIGN.

FOR BID



**ST. LOUIS
DOWNTOWN AIRPORT**

**BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT**
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

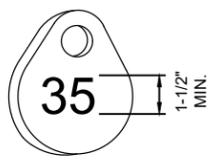
ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: E-501-DETL.DWG
DESIGN BY: KNL 3/2/2024
DRAWN BY: CWS 3/7/2024
REVIEWED BY: KNL 3/21/2024

SHEET TITLE

**AIRFIELD LIGHT
DETAILS**

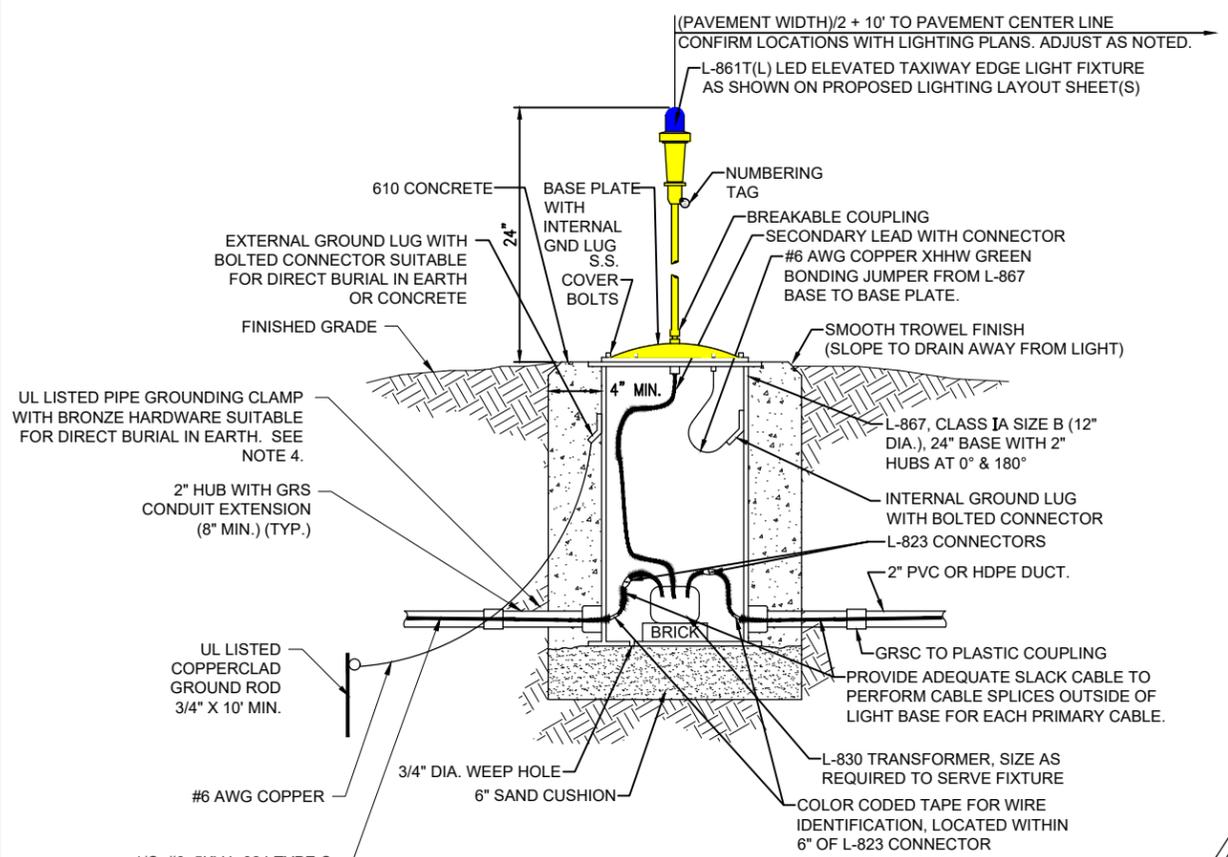
A LIGHT BASE GROUND SHALL BE INSTALLED AT EACH STAKE MOUNTED LIGHT AND EACH TRANSFORMER BASE/LIGHT CAN ASSOCIATED WITH RUNWAY LIGHTS, TAXIWAY LIGHTS, RUNWAY DISTANCE REMAINING SIGNS, AND LIGHTED RUNWAY/TAXI GUIDANCE SIGNS. THE LIGHT BASE GROUND SHALL BE A #6 AWG BARE COPPER CONDUCTOR CONNECTED TO THE GROUND LUG ON THE RESPECTIVE L-867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE AND A 3/4-INCH DIAMETER BY 10-FEET LONG (MINIMUM) UL LISTED COPPER CLAD GROUND ROD.

- NOTES:**
- SEE ELECTRICAL NOTES SHEETS.
 - SEE "ELECTRICAL NOTES SHEET 2" AND "GROUNDING NOTES" SHEET FOR GROUNDING NOTES FOR AIRFIELD LIGHTING.
 - SEE PROPOSED LIGHTING LAYOUT SHEET(S) FOR LIGHT LOCATIONS
 - WHERE GROUND LUGS ARE NOT ACCESSIBLE ON BASE CANS, PROVIDE A UL LISTED PIPE GROUND CLAMP RATED FOR DIRECT BURIAL IN EARTH AND BOND TO THE METAL CONDUIT EXTENSION TO PROVIDE GROUND PATH TO LIGHT BASE.
 - THE PROPOSED AIRFIELD LIGHT FIXTURES SHALL CONFORM TO ADVISORY CIRCULAR 150/5345-46 (CURRENT ISSUE(S) IN EFFECT) AND BE FAA APPROVED FOR TYPE L-861T(L) FOR TAXIWAY EDGE LIGHTS. AIRFIELD LIGHT FIXTURES SHALL HAVE LED (LIGHT EMITTING DIODE) ILLUMINATION AND SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF FAA ENGINEERING BRIEF NO. 67D LIGHT SOURCES OTHER THAN INCANDESCENT AND XENON FOR AIRPORT AND OBSTRUCTION LIGHTING FIXTURES.
 - LIGHT BASE CANS FOR THE AIRFIELD LIGHT FIXTURES SHALL CONFORM TO THE REQUIREMENTS OF FAA AC 150/5345-42 (CURRENT ISSUE IN EFFECT), FOR TYPE L-867, CLASS IA, SIZE B (12 IN. NOMINAL DIAMETER) OR SIZE D (16 IN. NOMINAL DIAMETER), AND 24 IN. DEEP AND/OR AS DETAILED ON THE PLANS. EACH LIGHT BASE CAN SHALL INCLUDE INTERNAL AND EXTERNAL GROUND LUGS TO ACCOMMODATE THE RESPECTIVE APPLICATIONS. LIGHT BASE PLATES SHALL BE SIZED AND COMPATIBLE WITH THE RESPECTIVE LIGHT BASES AND LIGHT FIXTURES WITH STAINLESS STEEL BOLTS.
 - PRIOR TO INSTALLING THE AIRFIELD LIGHT FIXTURES, APPLY AN OXIDE-INHIBITING, ANTI-SEIZING COMPOUND TO ALL SCREWS, NUTS, BREAKABLE COUPLING, AND ALL PLACES WHERE METAL COMES INTO CONTACT WITH METAL.
 - SERIES CIRCUIT ISOLATION TRANSFORMERS FOR THE AIRFIELD LIGHTING SHALL BE MANUFACTURED TO FAA SPECIFICATION AC 150/5345-47, (CURRENT EDITION IN EFFECT), AND SHALL BE FAA-APPROVED (ETL/INTERTEK TESTING SERVICES-CERTIFIED). SERIES CIRCUIT TRANSFORMER SHALL BE PROPERLY SIZED FOR THE RESPECTIVE AIRFIELD LIGHTING DEVICE, AND SHALL BE AS RECOMMENDED BY THE RESPECTIVE EQUIPMENT MANUFACTURER. CONFIRM PROPER TRANSFORMER SELECTION AND SIZING WITH THE RESPECTIVE EQUIPMENT MANUFACTURER.
 - THE CONCRETE USED IN THE CONSTRUCTION OF THE BASES FOR THE AIRFIELD LIGHTING AND SPLICE CANS SHALL BE IN ACCORDANCE WITH ITEM 610 CONCRETE FOR MISCELLANEOUS STRUCTURES.
 - IDENTIFICATION TAGS SHALL BE ATTACHED TO EACH AIRFIELD LIGHT FIXTURE.
 - PER ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS ITEM 108, ITEM 125, AND FAA AC 150/5370-10H ITEM L-108 AND L-125, RUBBER AND PLASTIC ELECTRICAL TAPES SHALL BE SCOTCH ELECTRICAL TAPE NUMBERS 130C LINERLESS RUBBER SPLICING TAPE (2" WIDE) AND 88 (1.5" WIDE) RESPECTIVELY, AS MANUFACTURED THE MINNESOTA MINING AND MANUFACTURING COMPANY, OR EQUIVALENT.

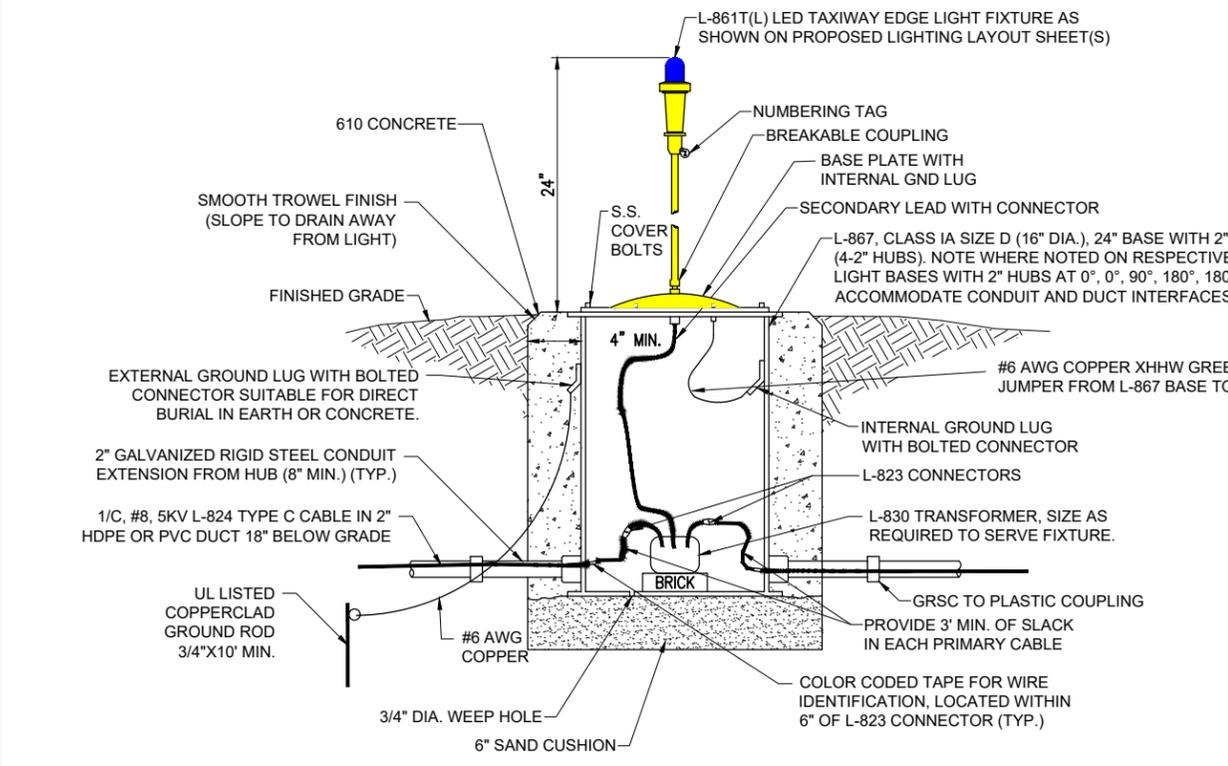


NOTE:
AFFIX NON-CORROSIVE, NON-BREAKABLE, TAG TO FIXTURE FACING RUNWAY/TAXIWAY WITH SET SCREW, WIRE TIE, OR METAL BAND. NUMERALS SHALL BE ENGRAVED FOR PERMANENT READABILITY. STAINLESS STEEL OR BRASS TAGS WITH 1/2" HIGH STAMPED LETTERING WILL ALSO BE ACCEPTABLE.

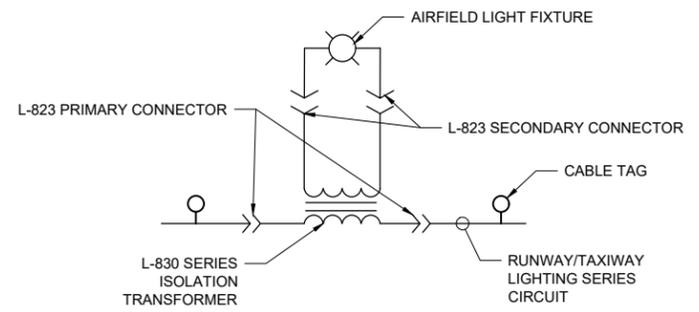
NUMBERING TAG DETAIL
(NOT TO SCALE)



MEDIUM INTENSITY ELEVATED AIRFIELD LIGHT - BASE MOUNTED
(NOT TO SCALE)



MEDIUM INTENSITY TAXIWAY EDGE LIGHT - BASE MOUNTED WITH L-867D CAN
(NOT TO SCALE)



LIGHTING CONNECTION SCHEMATIC
NOT TO SCALE

NOV 22, 2024 4:00 PM L:\AMB02387\1\23\JOBS\23A0001\DCAD\AIRPORT\SH024 CPS-5078 SHEETS\IE-501-DETL

FOR BID



Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

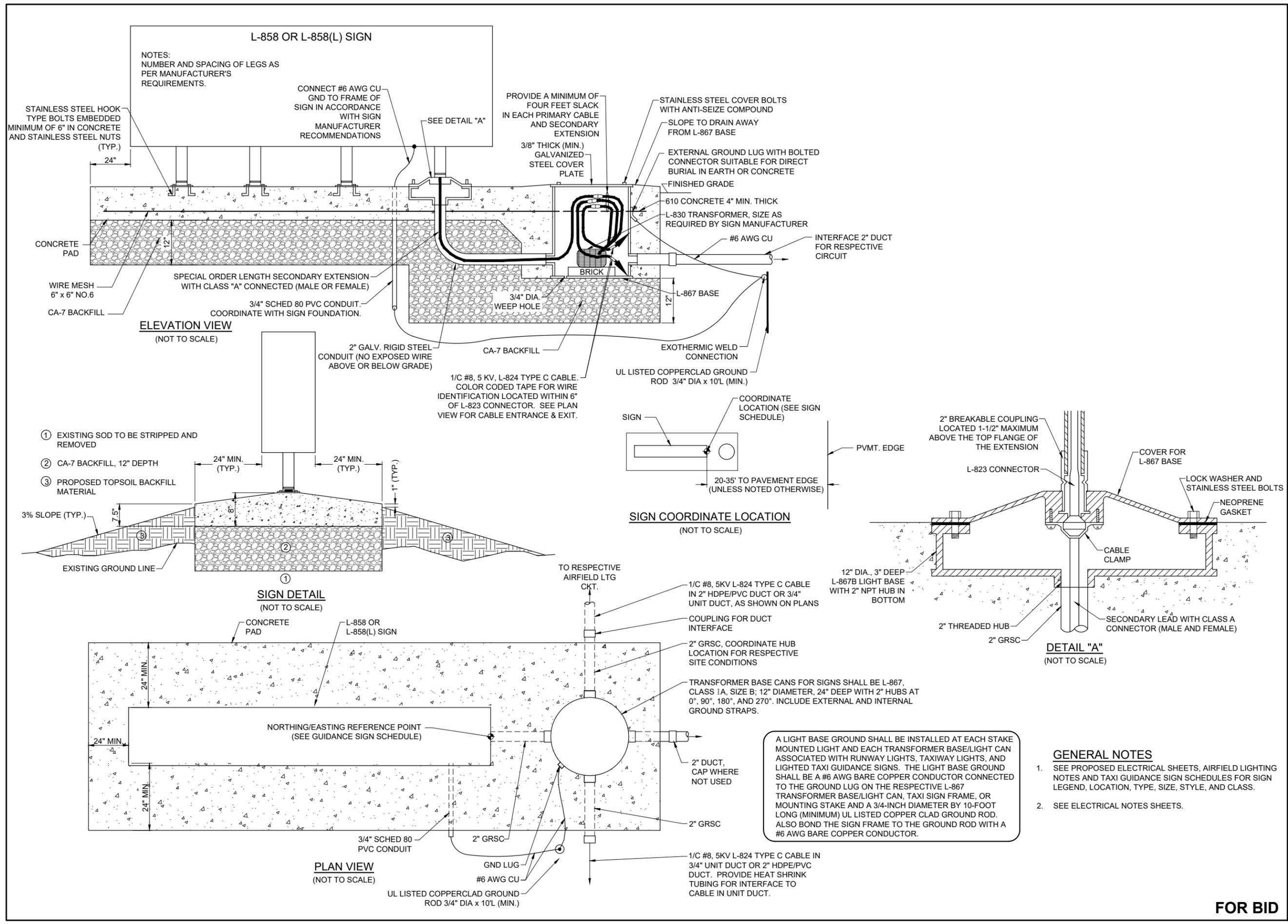
IDA NO.: CPS-5078
CONTRACT NO.: SD064

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ISSUE: NOVEMBER 22, 2024
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REVIEWED BY: KNL 3/21/2024

SHEET TITLE

TAXI GUIDANCE SIGN
DETAILS - SHEET 1



NOV 22, 2024 4:00 PM L:\AMB02387 1\23\JOBS\23A0001D\CAD\AIRPORT\SHEET\2024 CPS-5078 SHEETS\IE-502-DETL

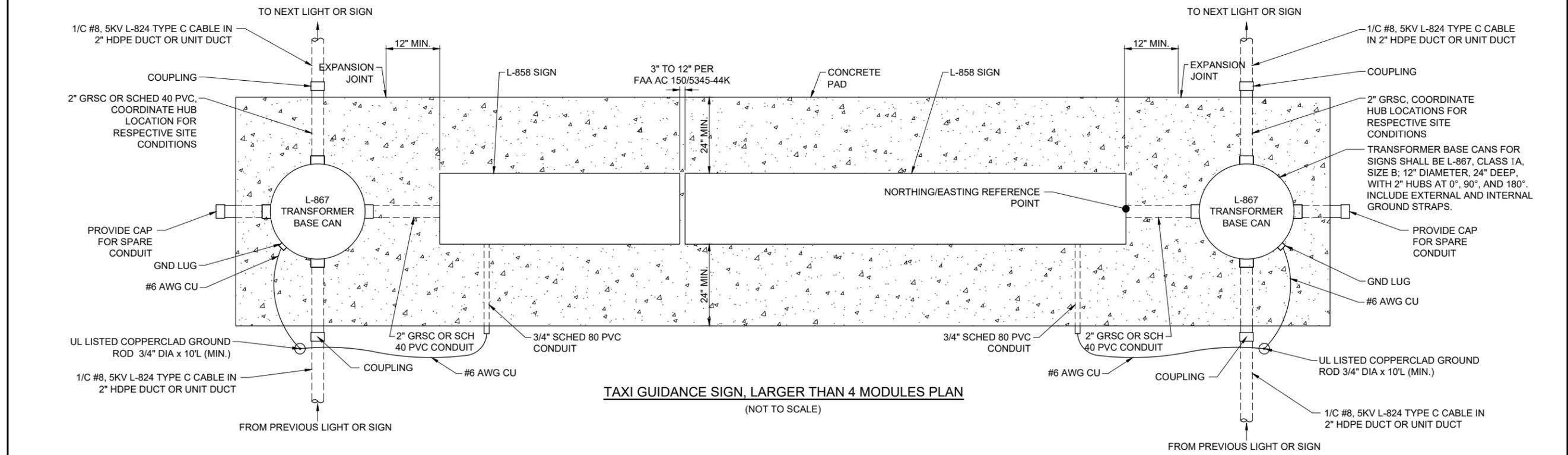
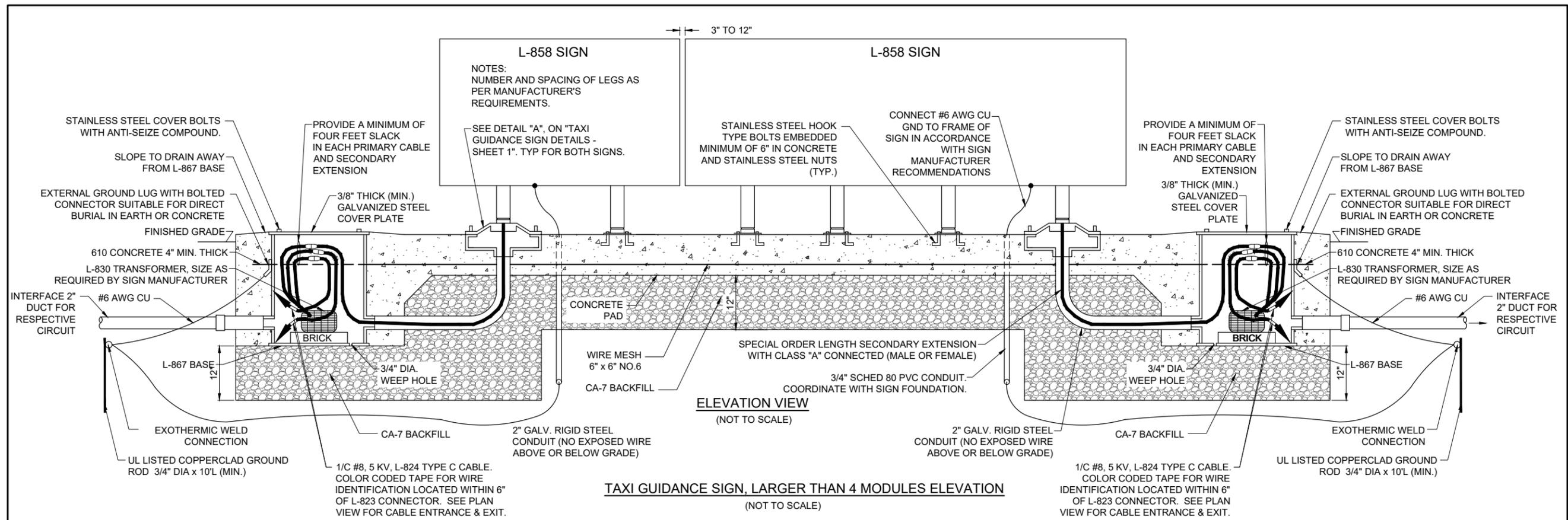


Kevin N. Lightfoot

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DRAWN BY: CWS 3/12/2024
REVIEWED BY: KNL 3/21/2024

SHEET TITLE



GENERAL NOTES

- SEE PROPOSED ELECTRICAL SHEETS, AIRFIELD LIGHTING NOTES AND TAXI GUIDANCE SIGN SCHEDULES FOR SIGN LEGEND, LOCATION, TYPE, SIZE, STYLE, AND CLASS.
- SEE ELECTRICAL NOTES SHEETS.

A LIGHT BASE GROUND SHALL BE INSTALLED AT EACH STAKE MOUNTED LIGHT AND EACH TRANSFORMER BASE/LIGHT CAN ASSOCIATED WITH RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS. THE LIGHT BASE GROUND SHALL BE A #2 AWG BARE COPPER CONDUCTOR CONNECTED TO THE GROUND LUG ON THE RESPECTIVE L-867 TRANSFORMER BASE/LIGHT CAN, TAXI SIGN FRAME, OR MOUNTING STAKE AND A 3/4-INCH DIAMETER BY 10-FOOT LONG (MINIMUM) UL LISTED COPPER CLAD GROUND ROD.

FOR BID

NOV 22, 2024 4:01 PM L:\AMB02387\1\23\JOBS\23A0001D\CAD\AIRPORT\SHEET\2024 CPS-5078 SHEETS\IE-510-DETL



**ST. LOUIS
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**BI-STATE DEVELOPMENT
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6100 Archview Drive
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COVERING ELECTRICAL DESIGN



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TAXIWAY B RELOCATION,
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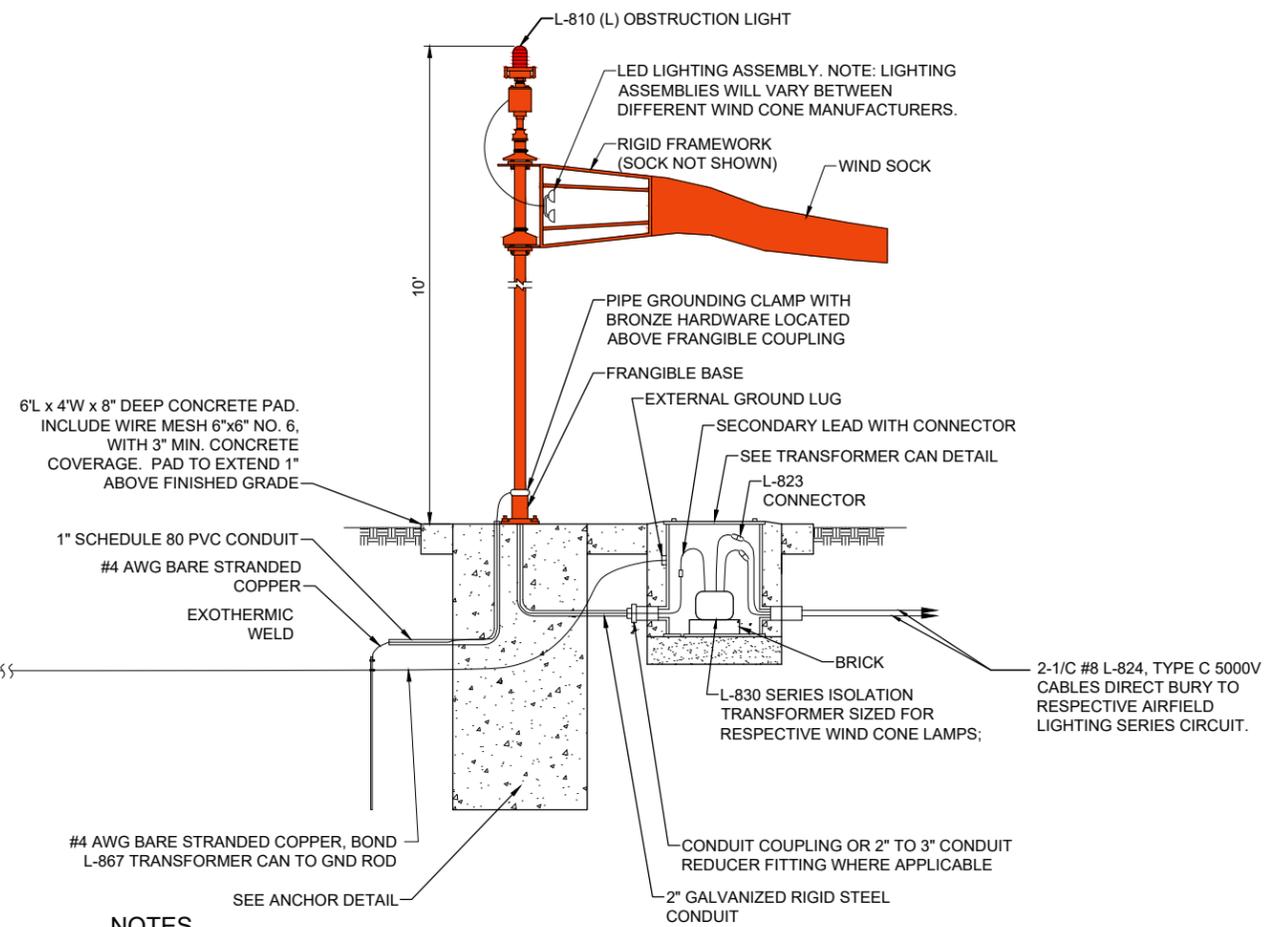
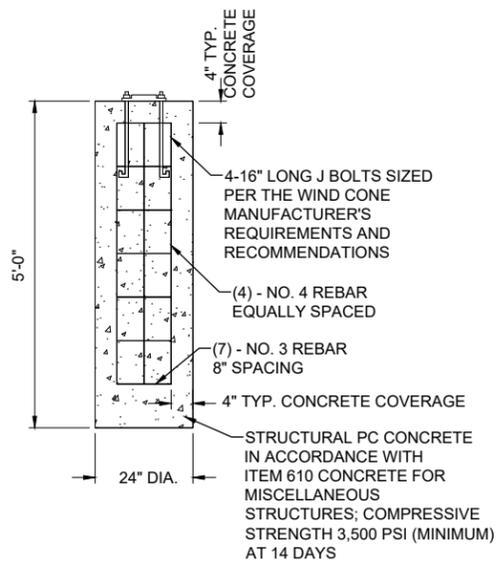
DESIGN BY: KNL 4/17/2024

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SHEET TITLE

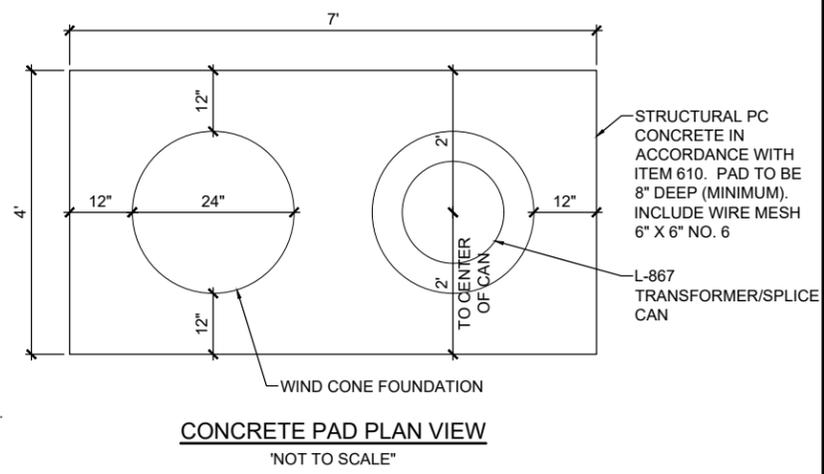
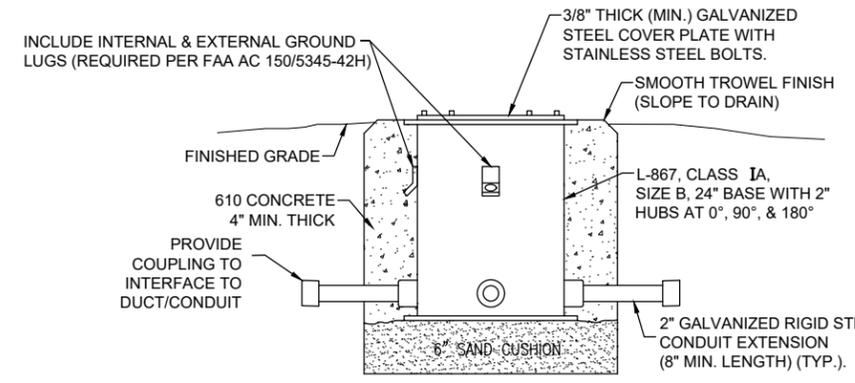
L-806 WIND CONE
DETAILS



3/4" X 10' LONG UL LISTED COPPERCLAD GROUND ROD (TYP. FOR 2). GROUND RODS SHALL BE SPACED NOT LESS THAN ONE ROD LENGTH APART

NOTES

- ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE OWNER. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
- CONTRACTOR SHALL FIELD VERIFY EXISTING SITE CONDITIONS. CONTRACTOR SHALL FIELD VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES PRIOR TO REMOVING, DISCONNECTING, INSTALLING, OR RECONNECTING THE RESPECTIVE AIRFIELD LIGHTING, NAVAID, OR OTHER DEVICE.
- SUPPLEMENTAL WIND CONES SHALL BE FAA APPROVED TYPE L-806(L) WITH LIGHT EMITTING DIODE ILLUMINATION, STYLE I-B (INTERNALLY LIGHTED), SIZE 1 (18-INCH DIAMETER BY 8 FEET LONG), AND SUITABLE FOR 6.6 AMP SERIES CIRCUIT POWER. WIND CONES SHALL INCLUDE CONSTANT-BRIGHTNESS SERIES CIRCUIT POWER ADAPTER. SEE SPECIAL PROVISION SPECS.
- THE RESPECTIVE RUNWAY LIGHTING CIRCUIT IS POWERED BY AN L-828, CLASS 1 - 6.6 AMP OUTPUT CURRENT, STYLE 2; 5 BRIGHTNESS STEPS CONSTANT CURRENT REGULATOR. COORDINATE WITH THE RESPECTIVE WIND CONE MANUFACTURER TO PROVIDE A COMPATIBLE AND PROPERLY SIZED SERIES ISOLATION TRANSFORMER FOR EACH WIND CONE.
- SUPPLEMENTAL L-806 WIND CONES WILL BE PAID FOR UNDER ITEM AR107508 L-806 WC 8" INTERNALLY LIT PER EACH. SPLICE/TRANSFORMER CANS FOR WIND CONE SERIES CIRCUIT TRANSFORMERS WILL BE INCIDENTAL TO THE RESPECTIVE WIND CONE PAY ITEM.
- REBAR SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706 GRADE 60 OR ASTM A615 GRADE 6 AND SHALL BE MANUFACTURED FROM 100% DOMESTIC STEEL. WELDED WIRE FABRIC SHALL CONFORM TO AASHTO M55, ASTM A82, OR ASTM A185 AND SHALL BE MANUFACTURED FROM 100% DOMESTIC STEEL.
- FOR EACH GROUNDING ELECTRODE SYSTEM (GROUND ROD) THE CONTRACTOR SHALL TEST THE MADE ELECTRODE GROUNDING SYSTEM WITH AN INSTRUMENT THAT IS SPECIFICALLY DESIGNED FOR TESTING GROUNDING SYSTEMS. TEST RESULTS SHALL BE RECORDED FOR EACH GROUNDING ELECTRODE SYSTEM. IF GROUND RESISTANCE EXCEEDS 25 OHMS, CONTACT THE PROJECT ENGINEER FOR FURTHER DIRECTION. COPIES OF THE GROUND SYSTEM TEST RESULTS SHALL BE FURNISHED TO THE PROJECT ENGINEER OF RECORD.
- RESTORE TURF AREAS AFFECTED BY WIND CONE INSTALLATION.



INTERNALLY LIGHTED L806 WIND CONE (SERIES CIRCUIT TYPE)

"NOT TO SCALE"

FOR BID

NOV 22, 2024 4:01 PM L:\AMB02387 1\23\JOBS\23A0001\DCAD\AIRPORT\SHEET\2024 CPS-5078 SHEETS\511-DET1



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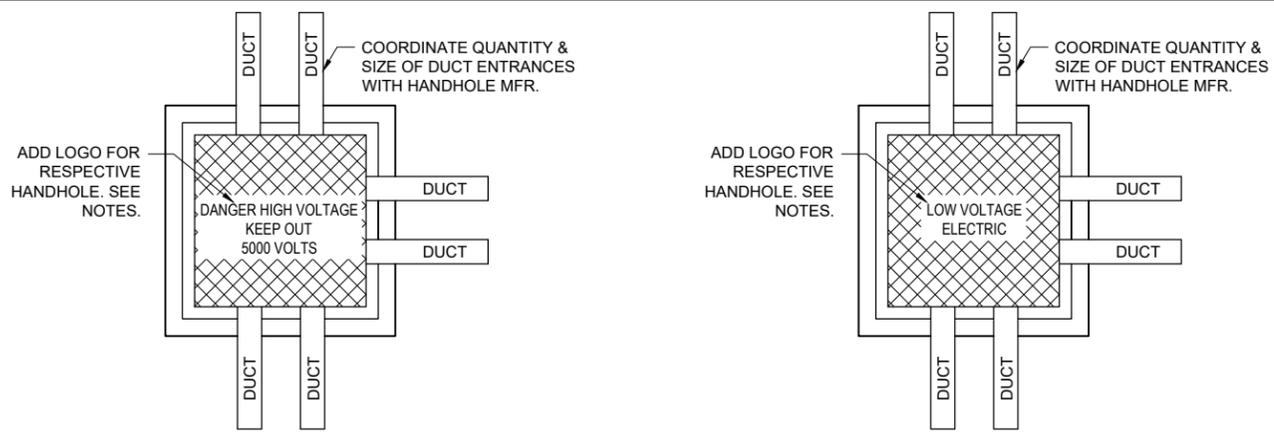
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DRAWN BY: CWS 3/7/2024

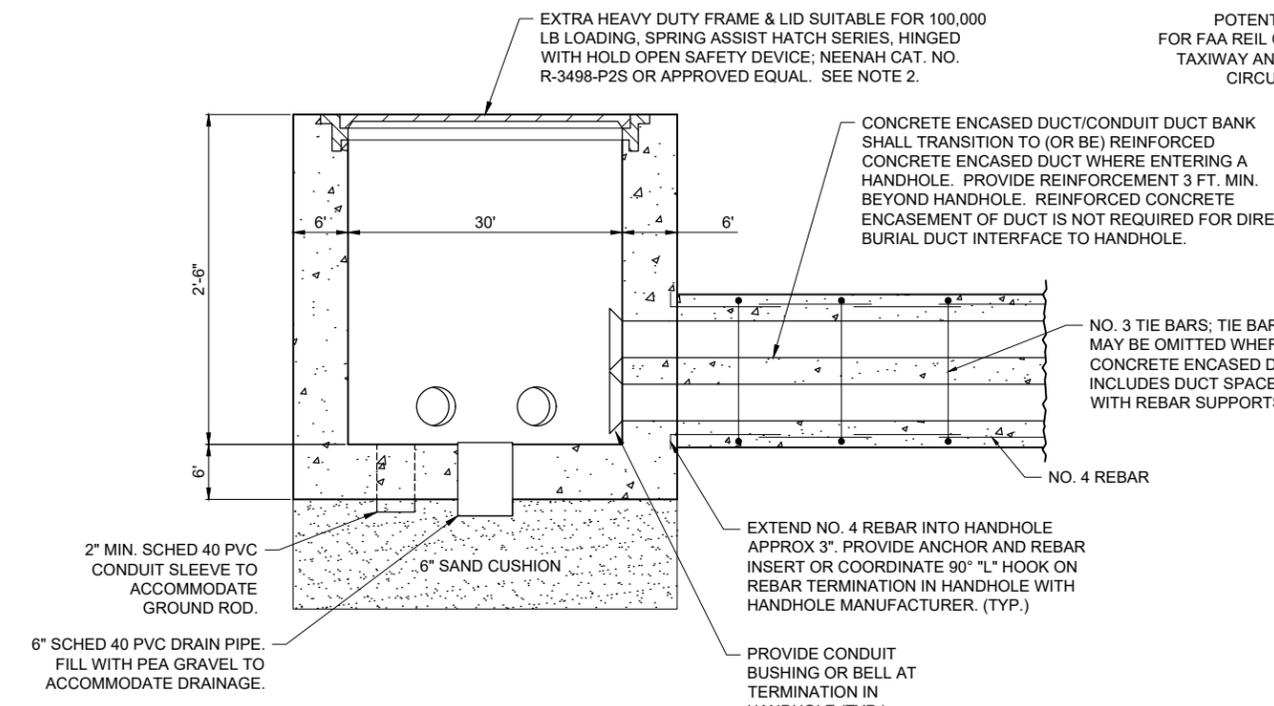
REVIEWED BY: KNL 3/21/2024

SHEET TITLE



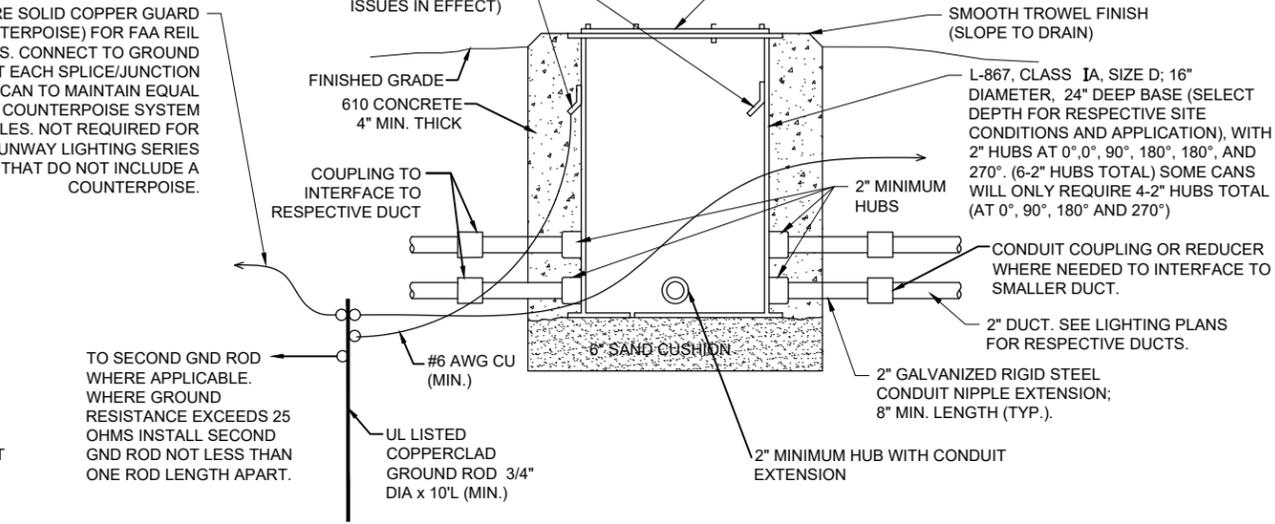
HIGH VOLTAGE HANDHOLE PLAN
"NOT TO SCALE"

LOW VOLTAGE HANDHOLE PLAN
"NOT TO SCALE"



- HANDHOLE NOTES:**
- LIDS FOR LOW VOLTAGE HANDHOLES (CONTAINING CIRCUITS RATED 600 VOLTS AND BELOW) SHALL BE LABELED "LOW VOLTAGE" OR "0V - 600V ELECTRIC". LIDS FOR HIGH VOLTAGE HANDHOLES CONTAINING AIRFIELD LIGHTING SERIES CIRCUIT WIRING SHALL BE LABELED "DANGER HIGH VOLTAGE KEEP OUT 5000 VOLTS" TO COMPLY WITH NEC ARTICLE 300.45 "WARNING SIGNS" AND NEC ARTICLE 314.30(D) "COVERS". COORDINATE LETTERING WITH MFR. HANDHOLES PROVIDED WITH THE WRONG LIDS SHALL HAVE THE LIDS REPLACED WITH THE CORRECT LIDS AT NO ADDITIONAL COST TO THE CONTRACT.
 - ELECTRICAL HANDHOLE, FRAME & LID SHALL BE CAPABLE OF WITHSTANDING MINIMUM 100,000 POUND LOADS AS CALLED FOR IN FAA ADVISORY CIRCULAR AC 150/5320-6F APPENDIX B, ITEM B.2.4 DIRECT LOADING, 1.A. AIRPORT HANDHOLE FRAME & LID SHALL BE NEENAH CATALOG NO. R-3498-P2S, EAST JORDAN IRON WORKS CAT NO. 8096 OR APPROVED EQUAL.
 - REINFORCEMENT SHALL BE #6 BARS AT 6" CENTERS BASE & WALLS EACH WAY.
 - CONCRETE SHALL BE 5000 PSI AT 28 DAYS.
 - HANDHOLES SHALL BE PRECAST. PRECAST MANUFACTURER MUST BE ON THE IDOT (ILLINOIS DEPARTMENT OF TRANSPORTATION) APPROVED LIST OF CERTIFIED PRECAST CONCRETE PRODUCERS.
 - FRAMES AND LIDS (CASTINGS) SHALL BE MADE IN THE USA TO COMPLY WITH THE AIRPORT IMPROVEMENT PROGRAM BUY AMERICAN PREFERENCES REQUIREMENTS.
 - COORDINATE INSTALLATION OF HANDHOLES WITH RESPECTIVE FINISHED GRADE ELEVATION.
 - ALL CORING, INTERFACE, AND LABOR ASSOCIATED WITH CONDUIT, DUCT, CABLE IN UNIT DUCT, AND/OR CABLE ENTRIES WILL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE HANDHOLE AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
 - HANDHOLES WITH SIMILAR DIMENSIONS MEETING STRENGTH AND LOADING REQUIREMENTS WILL BE CONSIDERED.

ELECTRICAL HANDHOLE
"NOT TO SCALE"



SPLICE CAN/JUNCTION CAN DETAIL
"NOT TO SCALE"

- NOTES FOR SPLICE CAN/JUNCTION CAN DETAIL:**
- SPLICE CANS SHALL CONFORM TO THE REQUIREMENTS OF FAA AC 150/5345-42 (CURRENT ISSUES IN EFFECT), FOR TYPE L-867, CLASS IA, SIZE D, (16 IN. NOMINAL DIAMETER), AND 24 IN. DEEP AND/OR AS DETAILED ON THE PLANS. EACH SPLICE CAN SHALL INCLUDE INTERNAL AND EXTERNAL GROUND LUGS TO ACCOMMODATE THE RESPECTIVE APPLICATIONS. SPLICE CANS AND/OR JUNCTION CANS SHALL HAVE GALVANIZED STEEL COVERS, 3/8-INCH THICK (MINIMUM), WITH STAINLESS STEEL BOLTS.
 - FOR THE PURPOSE OF ENHANCING SAFETY, EACH BASE MUST HAVE INSTALLED, BY THE MANUFACTURER, AN INTERNAL AND EXTERNAL GROUND STRAP THAT IS AVAILABLE FOR THE PURPOSE OF ATTACHING A GROUND LUG THAT IS CONNECTED TO AN EARTH GROUND OR A SAFETY GROUND CONDUCTOR INSTALLED WITH THE RESPECTIVE CIRCUIT. FOR AIRPORT PROJECTS RECEIVING FEDERAL FUNDS THIS REQUIREMENT IS MANDATORY PER FAA AC 150/5345-42 (CURRENT ISSUES IN EFFECT).
 - APPLY AN OXIDE-INHIBITING, ANTI-SEIZING COMPOUND TO ALL SCREWS, NUTS, AND ALL PLACES WHERE METAL COMES INTO CONTACT WITH METAL.
 - THE CONCRETE USED IN THE CONSTRUCTION OF THE BASES FOR THE AIRFIELD LIGHTING CANS SHALL BE IN ACCORDANCE WITH ITEM 610 STRUCTURAL PORTLAND CEMENT CONCRETE.
 - LIDS FOR THE SPLICE CANS CONTAINING HIGH VOLTAGE AIRFIELD LIGHTING CABLES SHALL INCLUDE MINIMUM 1/2-INCH HIGH LETTERING LABELED "DANGER HIGH VOLTAGE KEEP OUT" TO COMPLY WITH NEC ARTICLE 300.45 "WARNING SIGNS" AND NEC ARTICLE 314.71(E) "SUITABLE COVERS". THIS WILL NEED TO BE COORDINATED WITH THE SPLICE CAN MANUFACTURER.
 - LIDS FOR THE SPLICE CANS CONTAINING LOW VOLTAGE CABLES (RATED 600 VOLTS AND BELOW) WILL BE ACCEPTABLE TO USE BLANK COVERS.



ST. LOUIS DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
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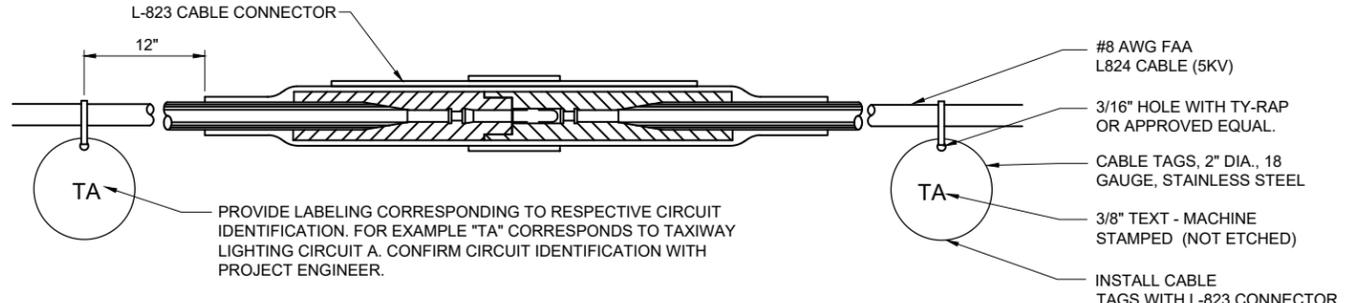
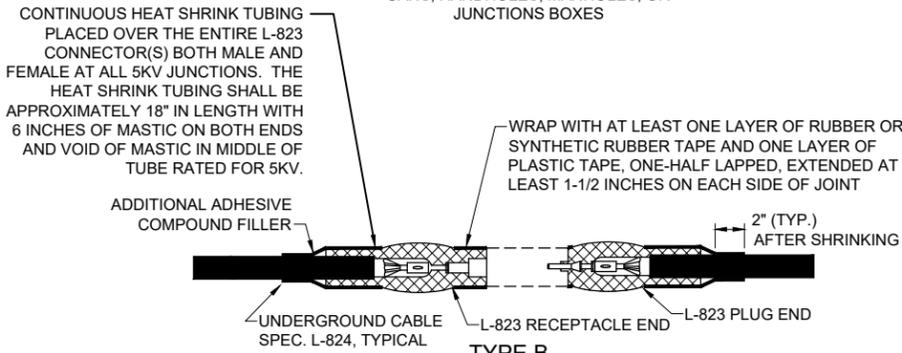
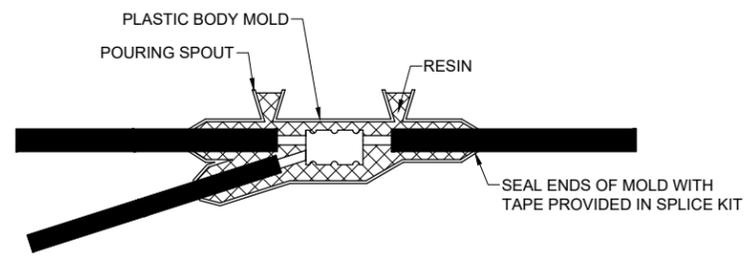
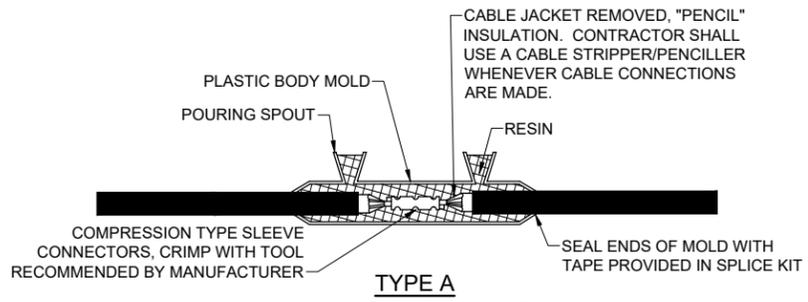
PROJECT NO: 23A0001D
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REVIEWED BY: KNL 3/21/2024

SHEET TITLE

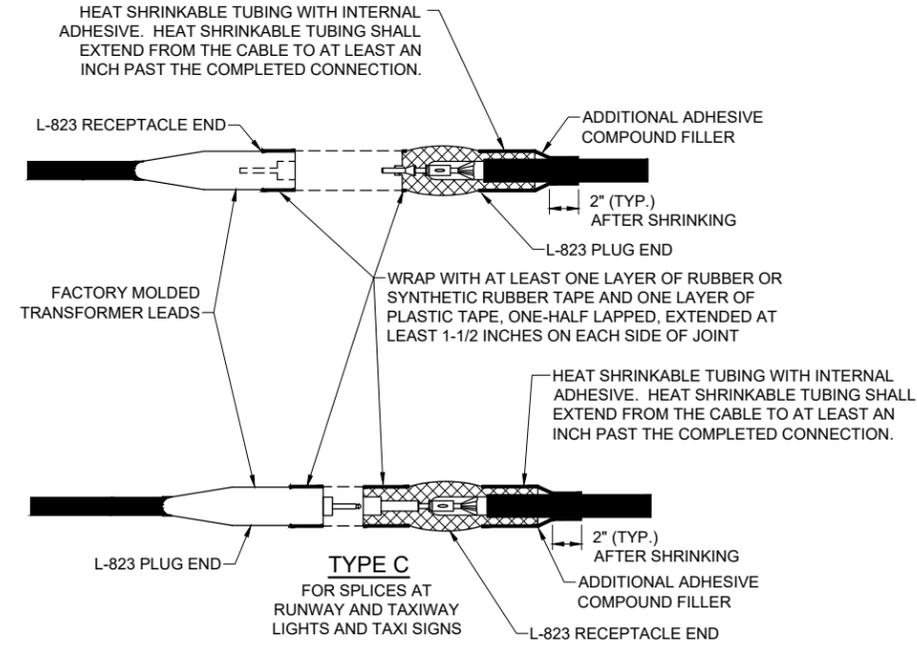
AIRFIELD LIGHTING CABLE SPLICE DETAILS

NOTES:

- SPLICE DETAILS ARE PROVIDED FOR NEW WORK AND TO ASSIST IN REPAIRS OF ACCIDENTAL OR UNEXPECTED INTERRUPTIONS AND/OR CUTS TO AIRFIELD LIGHTING CABLES.
- KEEP ON HAND A MINIMUM OF 10 SETS OF SPLICE KITS FOR L-823 CONNECTORS AND A MINIMUM OF 10 SETS OF TYPE A LOW VOLTAGE SPLICE KITS TO ACCOMMODATE REPAIRS.
- EVERY AIRFIELD LIGHTING CABLE SPICER SHALL BE QUALIFIED IN MAKING CABLE SPLICES AND TERMINATIONS ON CABLES RATED AT AND/OR ABOVE 5,000 VOLTS AC TO COMPLY WITH THE REQUIREMENTS OF FAA AC 150/5370-10G ITEM L-108.
- INSIDE DIAMETER OF RESPECTIVE CABLE CONNECTOR SHALL PROPERLY MATCH OUTSIDE DIAMETER OF CABLE.
- WHEN PREPARING CABLE FOR SPLICES, THE CONTRACTOR SHALL USE A CABLE STRIPPER/PENCILLER WHENEVER CABLE CONNECTIONS ARE MADE.
- WRAP ALL PRIMARY AND SECONDARY POWER CONNECTIONS WITH SUFFICIENT LAYERS OF HIGH VOLTAGE ELECTRICAL INSULATING TAPE (RUBBER SPLICING TAPE SUITABLE FOR PRIMARY ELECTRICAL INSULATION FOR SPLICING CABLE FROM 600 VOLTS TO 69,000 VOLTS) AND COVER WITH VINYL ELECTRICAL TAPE (ALL-WEATHER VINYL INSULATING TAPE SUITABLE FOR PROTECTIVE JACKETING FOR HIGH-VOLTAGE CABLE SPLICES AND REPAIRS) FOR FULL VALUE OF CABLE INSULATION VOLTAGE. PER ILLINOIS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS ITEM 108, ITEM 125, AND FAA AC 150/5370-10H ITEM L-108 AND L-125, HIGH VOLTAGE ELECTRICAL INSULATING TAPE SHALL BE 3M SCOTCH 130C LINERLESS RUBBER SPLICING TAPE (2 INCHES WIDE) OR APPROVED EQUIVALENT, AND VINYL ELECTRICAL TAPE SHALL BE 3M SCOTCH 88 (1.5 INCHES WIDE) OR APPROVED EQUIVALENT. TAPES MUST BE RATED SUITABLE FOR THE APPLICATION.
- PROVIDE CABLE TAGS TO IDENTIFY THE RESPECTIVE CIRCUITS ALL POINTS OF ACCESS INCLUDING L-867 BASES, L-868 BASES, HANDHOLES, MANHOLES, JUNCTION BOXES, AND WIREWAYS.
- CONNECTION OF CONDUCTORS MUST BE MADE BY USING CRIMP CONNECTORS AND A CRIMPING TOOL APPROVED BY THE CONNECTOR/LUG MANUFACTURER. THE TOOL MUST PRODUCE A COMPLETE CRIMP BEFORE IT CAN BE REMOVED. FOR THE L-823 CONNECTORS, THE CRIMPING TOOL USED MUST BE LISTED BY THE L-823 KIT MANUFACTURER. MAKE THE NUMBER AND TYPE OF CRIMPS PER THE KIT MANUFACTURER'S INSTRUCTIONS.



- CONTRACTOR SHALL PROVIDE CABLE CIRCUIT IDENTIFICATION MARKERS ATTACHED TO BOTH SIDES OF EACH CABLE CONNECTION.
- CABLE IDENTIFICATION TAGS SHALL BE STAINLESS STEEL OR BRASS.
- THE CABLE SHALL THOROUGHLY BE CLEANED PRIOR TO THE INSTALLATION OF THE L-823 CONNECTOR KIT.
- ATTACH EACH CABLE TIE ENOUGH TO HOLD IN PLACE WITHOUT COMPRESSING EDGE OF CABLE TAG INTO CONDUCTOR. TRIM OFF EXCESS CABLE TIE.
- CABLE TAGS SHALL BE PROVIDED AT ALL POINTS OF ACCESS INCLUDING L-867 BASES, L-868 BASES, HANDHOLES, MANHOLES, JUNCTION BOXES, AND WIREWAYS.
- CABLE TAGS SHALL BE LABELED AS FOLLOWS FOR RESPECTIVE AIRFIELD LIGHTING CIRCUITS,
 RUNWAY 12R-30L LIGHTING: R1
 RUNWAY 12L-30R LIGHTING: R2
 RUNWAY 5-23 LIGHTING: R3
 TAXIWAY A LIGHTING: TA
 TAXIWAY A6 & RUNUP AREA LIGHTING: TB3
 TAXIWAY B CKT 1 LIGHTING: TB1
 TAXIWAY B CKT 2 LIGHTING: TB2
 TAXIWAY B CKT 3 LIGHTING: TB3
 TAXIWAY C LIGHTING: TC



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

CABLE SPLICES
"NOT TO SCALE"

NOV 22, 2024 4:01 PM L:\AMB02387\1\23\JOBS\23A0001D\CAD\AIRPORT\SHSHEET\2024 CPS-5078 SHEETS\IE-503-DETL

FOR BID



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TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

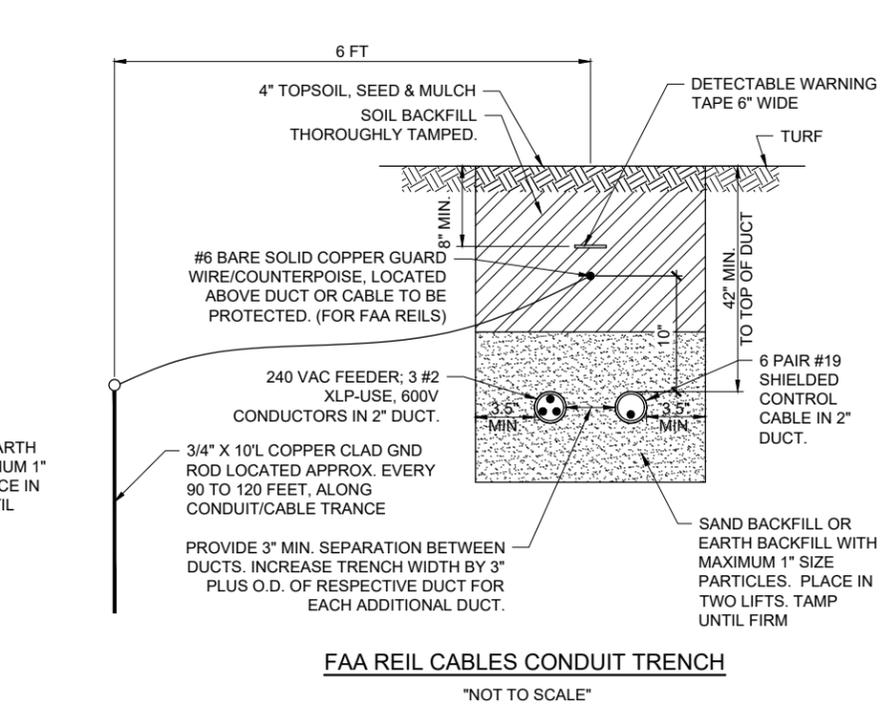
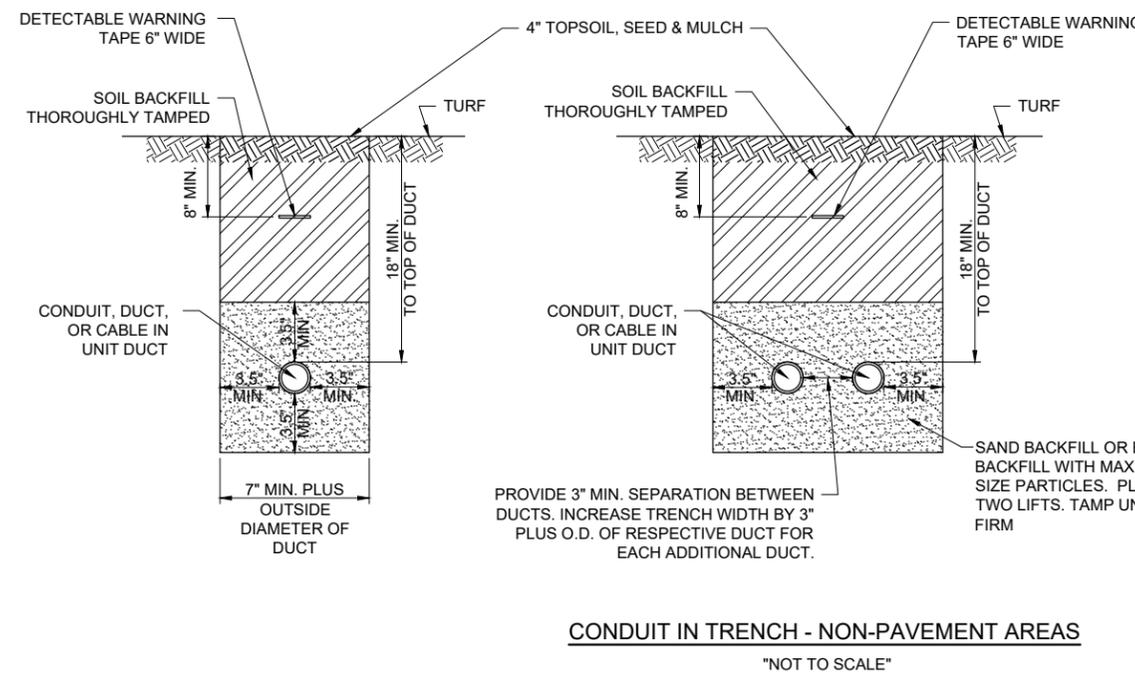
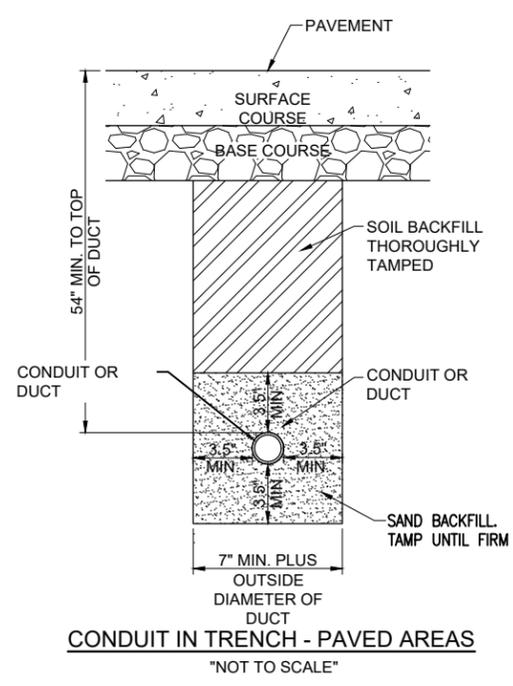
IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: E-504-DETL.DWG
DESIGN BY: KNL 3/2/2024
DRAWN BY: CWS 3/7/2024
REVIEWED BY: KNL 3/21/2024

SHEET TITLE

CONDUIT TRENCH
DETAIL



NOTES:

- DIMENSIONS FOR COVERAGE AND SEPARATION BETWEEN DUCTS ARE MINIMUM.
- TRENCHES WITH MORE THAN TWO DUCTS OR CABLE IN UNIT DUCTS SHALL BE INCREASED 3" IN WIDTH PLUS DIAMETER OF RESPECTIVE DUCT FOR EACH ADDITIONAL CONDUIT, DUCT, OR CABLE IN UNIT DUCT; IF SPECIFIED ON PLANS TWO PARALLEL TRENCHES MAY BE CONSTRUCTED.
- DEPTH OF TRENCHES SHALL BE AS SHOWN ABOVE UNLESS OTHERWISE SPECIFIED ON THE PLANS. MINIMUM COVER REQUIREMENTS FOR CABLES AND DUCTS AT AIRPORT RUNWAYS AND ADJACENT AREAS WHERE TRESPASSING IS PROHIBITED IS 18 INCHES PER NEC 300.5 AND 300.50. MINIMUM COVER REQUIREMENTS FOR DUCTS CONTAINING FAA NAVAID FEEDER CIRCUITS SHALL BE 42". MINIMUM COVER REQUIREMENTS FOR DUCTS LOCATED BELOW NEW TAXIWAY PAVEMENT OR ROADWAYS IS 54". MINIMUM COVER REQUIREMENTS FOR DUCTS LOCATED IN AREAS SUBJECT TO FARMING IS 42". MINIMUM COVER FOR DUCTS CONTAINING SECONDARY ELECTRIC SERVICE CONDUCTORS SHALL BE 36" OR AS REQUIRED BY THE SERVING ELECTRIC UTILITY COMPANY. ADJUST/INCREASE BURIAL DEPTHS TO ACCOMMODATE SITE CONDITIONS, DRAINAGE AND/OR OBSTRUCTIONS. COVER IS DEFINED AS THE SHORTEST DISTANCE IN INCHES MEASURED BETWEEN A POINT ON THE TOP SURFACE OF ANY DIRECT-BURIED CONDUCTOR, CABLE, CONDUIT, OR OTHER RACEWAY AND THE TOP SURFACE OF FINISHED GRADE, CONCRETE OR SIMILAR COVER.
- HIGH-VOLTAGE CIRCUIT WIRING (AIRFIELD LIGHTING 5000 VOLT SERIES CIRCUITS AND/OR OTHER CIRCUITS RATED ABOVE 600 VOLTS) AND LOW-VOLTAGE CIRCUIT WIRING (RATED 600 VOLTS AND BELOW) SHALL MAINTAIN SEPARATION FROM EACH OTHER. HIGH-VOLTAGE WIRING AND LOW-VOLTAGE WIRING SHALL NOT BE INSTALLED IN THE SAME WIREWAY, CONDUIT, DUCT, RACEWAY, HANDHOLE, OR JUNCTION BOX. CORRECTIVE WORK WILL BE REQUIRED TO SEPARATE HIGH VOLTAGE SERIES CIRCUIT CONDUCTORS FROM LOW VOLTAGE CONDUCTORS WHERE THEY ARE INSTALLED IN THE SAME RACEWAY.
- SERVICE CONDUCTORS SHALL NOT BE INSTALLED IN THE SAME RACEWAY, CONDUIT, DUCT, OR HANDHOLE WITH FEEDER CIRCUITS, BRANCH CIRCUITS OR CONTROL CIRCUITS.
- COMMUNICATION CIRCUITS SHALL NOT BE INSTALLED IN THE SAME RACEWAY, CONDUIT, DUCT, OR HANDHOLE WITH POWER CIRCUITS.
- HOME RUN CABLES FOR A RESPECTIVE CIRCUIT SHALL BE INSTALLED IN THE SAME RACEWAY OR DUCT.
- COORDINATE DUCT INTERFACE TO MANHOLES AND HANDHOLES. FIELD CUT OPENINGS FOR CONDUITS AND DUCTS TO INTERFACE TO MANHOLES AND/OR HANDHOLES. CUT WALL OF RESPECTIVE HANDHOLE OR MANHOLE WITH A TOOL DESIGNED FOR MATERIAL TO BE CUT. SIZE HOLES FOR RESPECTIVE DUCTS, CONDUITS, AND TERMINATION FITTINGS AND SEAL AROUND PENETRATIONS. ALL CORING, INTERFACE, CUTTING, AND SEALING WILL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE DUCT INSTALLATION AND/OR RESPECTIVE HANDHOLE/MANHOLE INSTALLATION. PROVIDE BUSHINGS OR BELLS AT CONDUIT TERMINATIONS IN ELECTRICAL HANDHOLES OR MANHOLES.
- ALL DISTURBED SURFACES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST IS INCIDENTAL TO TRENCH.
- ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 - NATIONAL ELECTRICAL CODE (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, INTERTEK TESTING SERVICES VERIFICATION/ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.

- CONTRACTOR SHALL COORDINATE WORK AND ANY POWER OUTAGES AND/OR SHUT DOWN OF SYSTEMS WITH THE RESPECTIVE FACILITY OWNER PERSONNEL AND THE AIRPORT MANAGER/DIRECTOR. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
- THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO 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 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 OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. CONTACT JULIE (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS) FOR UTILITY INFORMATION PHONE: 1-800-892-0123. CONTACT THE FAA (FEDERAL AVIATION ADMINISTRATION) FOR ASSISTANCE IN LOCATING FAA CABLES AND UTILITIES. ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.
- ADJUSTMENTS TO DUCT BANK ROUTES MIGHT BE REQUIRED TO ACCOMMODATE EXISTING SITE CONDITIONS AND UNDERGROUND LINES AND UTILITIES. CONTRACTOR SHALL FIELD VERIFY EXISTING SITE CONDITIONS. CONTRACTOR SHALL COORDINATE DUCT ROUTE ADJUSTMENTS WITH THE RESIDENT PROJECT REPRESENTATIVE AND THE AIRPORT MANAGER.
- CONTRACTOR SHALL LOCATE AND MARK ALL EXISTING CABLES, LINES, OR UTILITIES WITHIN 10 FT OF PROPOSED EXCAVATING/TRENCHING AREA. ANY CABLES, LINES, AND UTILITIES FOUND INTERFERING WITH PROPOSED EXCAVATION OR CABLE/TRENCHING SHALL BE HAND DUG AND EXPOSED. ANY DAMAGED CABLES OR OTHER UTILITIES SHALL BE IMMEDIATELY REPAIRED TO THE SATISFACTION OF THE RESPECTIVE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE. THE RESIDENT ENGINEER/RESIDENT TECHNICIAN AND OWNER SHALL BE NOTIFIED IMMEDIATELY IF ANY CABLES OR OTHER UTILITIES ARE DAMAGED.

- PAYMENT FOR LOCATING AND MARKING UNDERGROUND UTILITIES AND CABLES WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE DUCT INSTALLATION.
- THE CONTRACTOR WILL DETERMINE IF THERE IS A CONFLICT BETWEEN THE INSTALLATION OF THE PROPOSED ELECTRICAL DUCTS AND ANY EXISTING UTILITIES. THE CONTRACTOR WILL MAKE ALL NECESSARY ADJUSTMENTS IN DEPTH OF INSTALLATION TO AVOID ANY AND ALL PROPOSED UNDERGROUND IMPROVEMENTS
- CONDUITS FOR DIRECT BURIAL OR CONCRETE ENCASED DUCT BANK SHALL BE SCHEDULE 40 (MINIMUM) PVC CONDUIT, UL-LISTED, RATED FOR 90°C CABLE-CONFORMING TO NEMA STANDARD TC-2 AND UL 651, LISTED SUITABLE FOR UNDERGROUND USE EITHER DIRECT-BURIED OR ENCASED IN CONCRETE, OR SCHEDULE 40 (MINIMUM) HDPE CONDUIT, UL LISTED, CONFORMING TO NEMA STANDARD TC-7 AND UL 651B AND LISTED SUITABLE FOR UNDERGROUND USE; EITHER DIRECT BURY OR ENCASED IN CONCRETE. HEAVIER WALL CONDUITS SHALL BE FURNISHED FOR RESPECTIVE APPLICATIONS WHERE DETAILED HEREIN.
- CONDUITS FOR DIRECTIONAL BORING SHALL BE SCHEDULE 40 PVC CONDUIT OR SCHEDULE 80 PVC CONDUIT, UL-LISTED, RATED FOR 90°C CABLE-CONFORMING TO NEMA STANDARD TC-2 AND UL 651 AND SUITABLE FOR DIRECTIONAL BORING INSTALLATION, SCHEDULE 80 HDPE CONDUIT, UL-LISTED, CONFORMING TO NEMA STANDARD TC-7 AND UL 651B AND SUITABLE FOR DIRECTIONAL BORING INSTALLATION, OR WALL TYPE MINIMUM SDR 11 HDPE CONDUIT MANUFACTURED IN ACCORDANCE WITH ASTM D-3350 (SPECIFICATION OF POLYETHYLENE PLASTICS PIPE AND FITTINGS MATERIALS) AND ASTM F2160 (STANDARD SPECIFICATION FOR SOLID WALL, HIGH-DENSITY POLYETHYLENE CONDUIT BASED ON CONTROLLED OUTSIDE DIAMETER), AND SUITABLE FOR DIRECTIONAL BORING INSTALLATION. PER NEC 300.5 (K), RACEWAYS INSTALLED USING DIRECTIONAL BORING EQUIPMENT SHALL BE APPROVED FOR THE PURPOSE.
- UNDERGROUND DUCTS INSTALLED BY DIRECTIONAL-BORING METHOD SHALL BE INSTALLED IN A MANNER THAT WILL NOT DAMAGE ANY EXISTING UNDERGROUND UTILITIES, AND SHALL NOT DISTURB OR DAMAGE THE RESPECTIVE PAVEMENT OR ROADWAY SURFACE. DUCTS SHALL BE DIRECTIONAL-BORED AT THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS. THE DUCTS WILL BE BORED AT A MINIMUM DEPTH OF 42 IN. BELOW THE RESPECTIVE PAVEMENT IT IS BEING BORED UNDER.
- A PULL WIRE SHALL BE INSTALLED IN EACH CONDUIT OR DUCT TO BE LEFT VACANT.
- CONTRACTOR SHALL COORDINATE DUCT MARKING WITH AIRPORT.
- ALL POWER AND CONTROL CABLES IN HANDHOLES, MANHOLES, AND JUNCTION BOXES SHALL BE TAGGED TO IDENTIFY THE RESPECTIVE CABLE. A MINIMUM OF TWO TAGS SHALL BE PROVIDED ON EACH CABLE IN A MANHOLE; ONE AT THE CABLE ENTRANCE AND ONE AT THE CABLE EXIT. CABLE TAGS SHALL BE STAMPED BRASS TAGS OR OTHER WEATHERPROOF/WATERPROOF CORROSION RESISTANT MATERIAL.

FOR BID

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Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

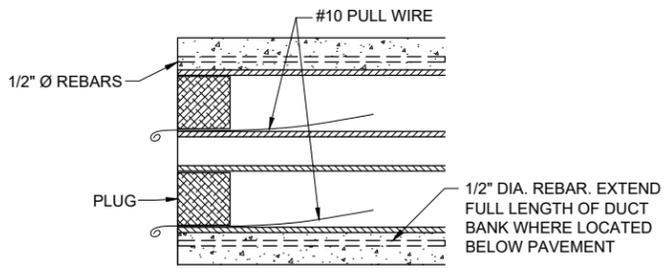
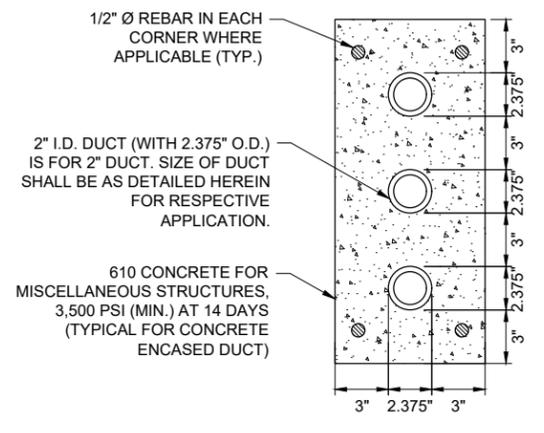
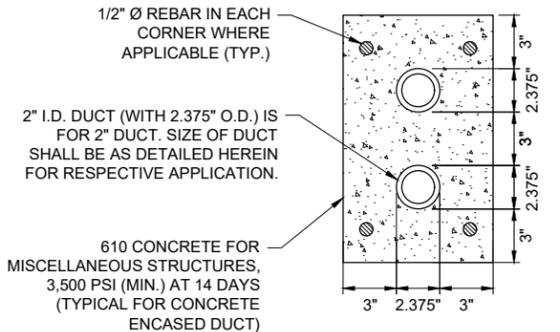
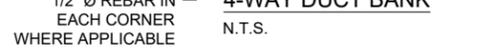
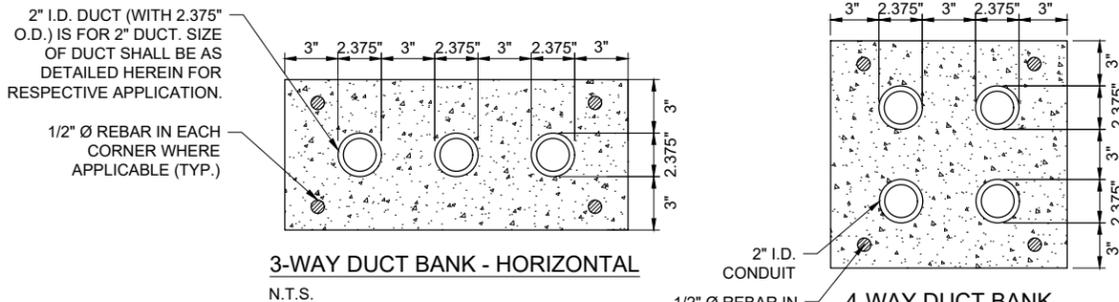
NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D
CAD FILE: E-505-DETL.DWG
DESIGN BY: KNL 3/2/2024
DRAWN BY: CWS 3/7/2024
REVIEWED BY: KNL 3/21/2024

SHEET TITLE

DUCT BANK DETAILS
AND NOTES



DUCT INSTALLATION NOTES

- DIMENSIONS FOR CONCRETE COVERAGE AND SEPARATION BETWEEN DUCTS ARE MINIMUM.
- INCLUDE DUCT SPACERS AS MANUFACTURED BY UNDERGROUND DEVICES INC., CARLON, OR APPROVED EQUAL TO MAINTAIN PROPER SEPARATION OF CONDUITS.
- PROVIDE REBAR WHERE APPLICABLE TO ACCOMMODATE INTERFACE OF CONCRETE ENCASED DUCT BANKS TERMINATING IN HANDHOLE. PROVIDE REBAR REINFORCEMENT WHERE DUCT BANK IS LOCATED BELOW PAVEMENT. REBAR SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706, GRADE 60, OR ASTM A615, GRADE 60.

DUCT INSTALLATION NOTES

- ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 - NATIONAL ELECTRICAL CODE (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, INTERTEK TESTING SERVICES VERIFICATION/ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- CONTRACTOR SHALL KEEP A COPY OF THE LATEST NEC IN FORCE ON SITE AT ALL TIMES DURING CONSTRUCTION FOR USE AS A REFERENCE.
- CONTRACTOR SHALL COORDINATE WORK AND ANY POWER OUTAGES AND/OR SHUT DOWN OF SYSTEMS WITH THE RESPECTIVE FACILITY OWNER PERSONNEL AND THE AIRPORT MANAGER/DIRECTOR. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
- THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO 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 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 OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. CONTACT JULIE (JOINT UTILITY INFORMATION FOR EXCAVATORS) FOR INFORMATION, PHONE: 1-800-892-0123. CONTACT THE FAA (FEDERAL AVIATION ADMINISTRATION) FOR ASSISTANCE IN LOCATING FAA CABLES AND UTILITIES. ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.
- ADJUSTMENTS TO DUCT BANK ROUTES MIGHT BE REQUIRED TO ACCOMMODATE EXISTING SITE CONDITIONS AND UNDERGROUND LINES AND UTILITIES. CONTRACTOR SHALL FIELD VERIFY EXISTING SITE CONDITIONS. CONTRACTOR SHALL COORDINATE DUCT ROUTE ADJUSTMENTS WITH THE RESIDENT PROJECT REPRESENTATIVE AND THE AIRPORT MANAGER.
- CONTRACTOR SHALL LOCATE AND MARK ALL EXISTING CABLES, LINES, OR UTILITIES WITHIN 10 FT OF PROPOSED EXCAVATING/TRENCHING AREA. ANY CABLES, LINES, AND UTILITIES FOUND INTERFERING WITH PROPOSED EXCAVATION OR CABLE/TRENCHING SHALL BE HAND DUG AND EXPOSED. ANY DAMAGED CABLES OR OTHER UTILITIES SHALL BE IMMEDIATELY REPAIRED TO THE SATISFACTION OF THE RESIDENT PROJECT REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE. THE RESIDENT PROJECT REPRESENTATIVE AND OWNER SHALL BE NOTIFIED IMMEDIATELY IF ANY CABLES OR OTHER UTILITIES ARE DAMAGED.
- PAYMENT FOR LOCATING AND MARKING UNDERGROUND UTILITIES AND CABLES WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE DUCT INSTALLATION.
- THE CONTRACTOR WILL DETERMINE IF THERE IS A CONFLICT BETWEEN THE INSTALLATION OF THE PROPOSED ELECTRICAL DUCTS AND ANY EXISTING UTILITIES. HE WILL MAKE ALL NECESSARY ADJUSTMENTS IN DEPTH OF INSTALLATION TO AVOID ANY AND ALL PROPOSED UNDERGROUND IMPROVEMENTS
- CONDUITS FOR DIRECT BURIAL OR CONCRETE ENCASED DUCT BANK SHALL BE SCHEDULE 40 (MINIMUM) PVC CONDUIT, UL-LISTED, RATED FOR 90°C CABLE-CONFORMING TO NEMA STANDARD TC-2 AND UL 651, LISTED SUITABLE FOR UNDERGROUND USE EITHER DIRECT-BURIED OR ENCASED IN CONCRETE, OR SCHEDULE 40 (MINIMUM) HDPE CONDUIT, UL LISTED, CONFORMING TO NEMA STANDARD TC-7 AND UL 651B AND LISTED SUITABLE FOR UNDERGROUND USE; EITHER DIRECT BURY OR ENCASED IN CONCRETE.
- CONDUITS FOR DIRECTIONAL BORING SHALL BE SCHEDULE 40 PVC CONDUIT OR SCHEDULE 80 PVC CONDUIT, UL-LISTED, RATED FOR 90°C CABLE-CONFORMING TO NEMA STANDARD TC-2 AND UL 651 AND SUITABLE FOR DIRECTIONAL BORING INSTALLATION, SCHEDULE 80 HDPE CONDUIT, UL-LISTED, CONFORMING TO NEMA STANDARD TC-7 AND UL 651B AND SUITABLE FOR DIRECTIONAL BORING INSTALLATION, OR WALL TYPE SDR 13.5 OR SDR 11 HDPE CONDUIT MANUFACTURED IN ACCORDANCE WITH ASTM D-3350 (SPECIFICATION OF POLYETHYLENE PLASTICS PIPE AND FITTINGS MATERIALS) AND ASTM F2160 (STANDARD SPECIFICATION FOR SOLID WALL, HIGH-DENSITY POLYETHYLENE CONDUIT BASED ON CONTROLLED OUTSIDE DIAMETER), AND SUITABLE FOR DIRECTIONAL BORING INSTALLATION. PER NEC 300.5 (K), RACEWAYS INSTALLED USING DIRECTIONAL BORING EQUIPMENT SHALL BE APPROVED FOR THE PURPOSE.
- INSTALLATION OF CONDUIT AND DUCTS SHALL CONFORM TO ITEM 110 AIRPORT UNDERGROUND ELECTRICAL DUCT BANKS AND CONDUITS.
- DUCTS INSTALLED IN TRENCH SHALL BE INSTALLED 18 IN. MINIMUM BELOW GRADE IN TURF AREAS NOT SUBJECT TO FARMING. DUCTS LOCATED IN AREAS SUBJECT TO FARMING SHALL BE 42 IN. MINIMUM BELOW GRADE. MINIMUM DEPTH OF TOP OF DUCT ENCASEMENT SHALL BE 24" IN AREAS UNDER AIRFIELD PAVEMENTS. WHERE DETAILED ON THE PLANS OR WHERE REQUIRED TO AVOID OBSTRUCTIONS, DUCTS SHALL BE BURIED DEEPER.
- WHERE CONCRETE-ENCASED DUCT INTERFACES TO AN ELECTRICAL HANDHOLE OR MANHOLE, THE CONCRETE ENCASEMENT SHALL BE INSTALLED UP TO THE RESPECTIVE HANDHOLE OR MANHOLE. PROVIDE BUSHINGS OR BELLS AT CONDUIT TERMINATIONS IN ELECTRICAL HANDHOLES OR MANHOLES.
- UNDERGROUND DUCTS INSTALLED BY DIRECTIONAL-BORING METHOD SHALL BE INSTALLED IN A MANNER THAT WILL NOT DAMAGE ANY EXISTING UNDERGROUND UTILITIES, AND SHALL NOT DISTURB OR DAMAGE THE RESPECTIVE PAVEMENT OR ROADWAY SURFACE. DUCTS SHALL BE DIRECTIONAL-BORED AT THE LOCATIONS SHOWN ON THE CONSTRUCTION PLANS. THE DUCTS WILL BE BORED AT A MINIMUM DEPTH OF 42 IN. BELOW THE RESPECTIVE PAVEMENT IT IS BEING BORED UNDER.
- A PULL WIRE SHALL BE INSTALLED IN EACH CONDUIT OR DUCT TO BE LEFT VACANT.
- HIGH VOLTAGE CIRCUITS (AIRFIELD LIGHTING 5000 VOLT SERIES CIRCUITS AND/OR OTHER CIRCUITS RATED ABOVE 600 VOLTS) AND LOW VOLTAGE CIRCUITS (RATED 600 VOLTS AND BELOW) SHALL NOT BE INSTALLED IN THE SAME RACEWAY, CONDUIT, DUCT, HANDHOLE, OR MANHOLE.
- CONTROL CABLES SHALL BE RUN IN SEPARATE DUCTS FROM POWER CABLES.
- HOMERUN CABLES FOR A RESPECTIVE CIRCUIT SHALL BE INSTALLED IN THE SAME RACEWAY OR DUCT.
- COORDINATE DUCT INTERFACE TO MANHOLES AND HANDHOLES. FIELD CUT OPENINGS FOR CONDUITS AND DUCTS TO INTERFACE TO MANHOLES AND/OR HANDHOLES. CUT WALL OF RESPECTIVE HANDHOLE OR MANHOLE WITH A TOOL DESIGNED FOR MATERIAL TO BE CUT. SIZE HOLES FOR RESPECTIVE DUCTS, CONDUITS, AND TERMINATION FITTINGS AND SEAL AROUND PENETRATIONS. ALL CORING, INTERFACE, CUTTING, AND SEALING WILL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE DUCT INSTALLATION AND/OR RESPECTIVE HANDHOLE/MANHOLE INSTALLATION.
- CONTRACTOR SHALL COORDINATE DUCT MARKING WITH AIRPORT.
- ALL POWER AND CONTROL CABLES IN HANDHOLES, MANHOLES, AND JUNCTION BOXES SHALL BE TAGGED TO IDENTIFY THE RESPECTIVE CABLE. A MINIMUM OF TWO TAGS SHALL BE PROVIDED ON EACH CABLE IN A MANHOLE; ONE AT THE CABLE ENTRANCE AND ONE AT THE CABLE EXIT. CABLE TAGS SHALL BE STAMPED BRASS TAGS OR OTHER WEATHERPROOF/WATERPROOF CORROSION RESISTANT MATERIAL.



**ST. LOUIS
DOWNTOWN AIRPORT**

**BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT**
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE: 11/22/2024 LICENSE: 11/30/2025
SIGNED: 11/22/2024 EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: E-507-DETL.DWG

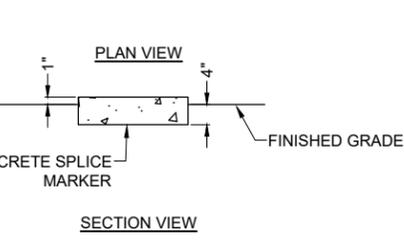
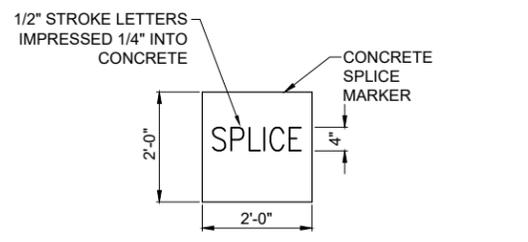
DESIGN BY: KNL 3/2/2024

DRAWN BY: CWS 3/7/2024

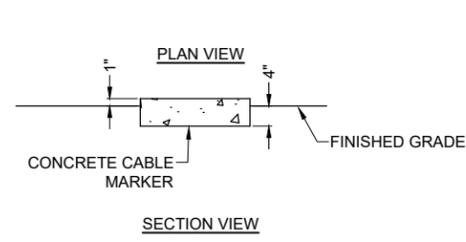
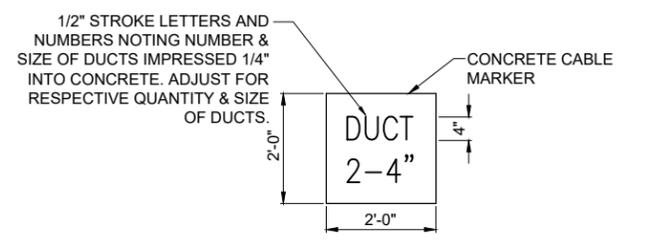
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SHEET TITLE

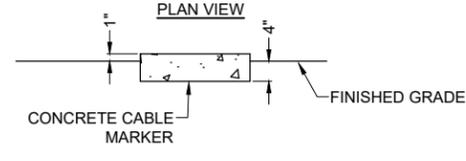
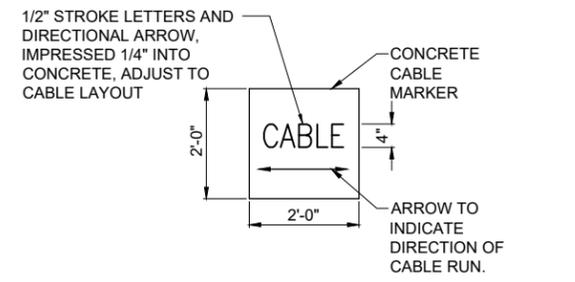
**CABLE AND DUCT
MARKER DETAILS**



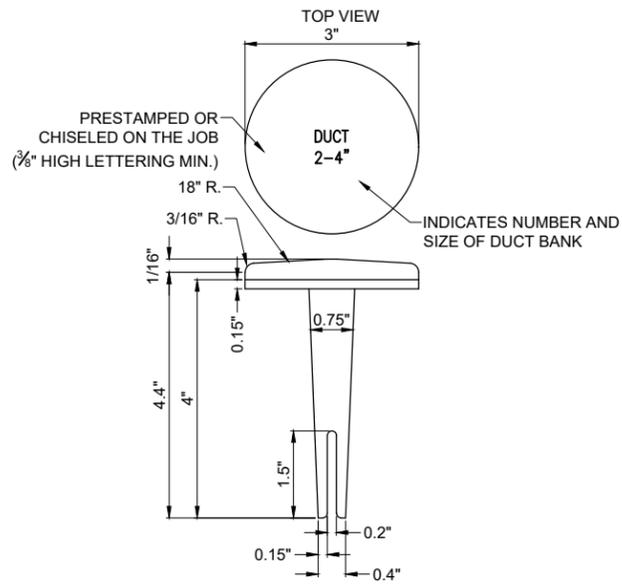
TURF CABLE MARKERS
"NOT TO SCALE"



TURF CABLE MARKERS
"NOT TO SCALE"



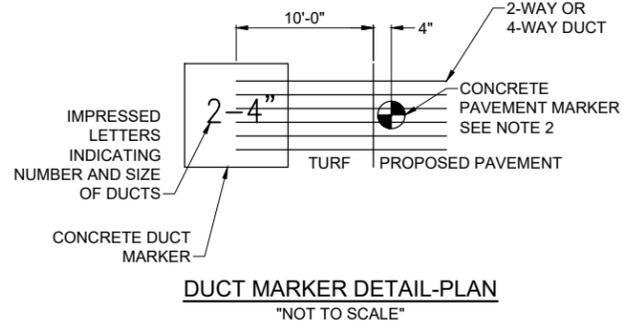
TURF CABLE MARKERS
"NOT TO SCALE"



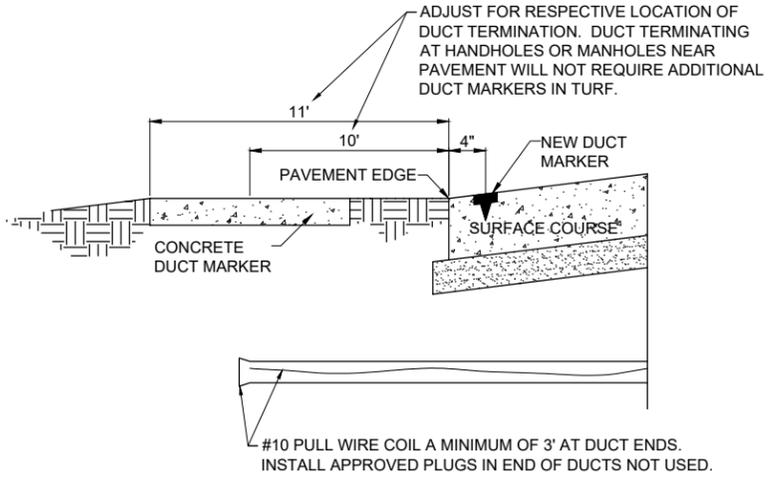
BITUMINOUS PAVEMENT DUCT MARKERS
"NOT TO SCALE"

NOTE:

1. TOP OF MARKER SHALL BE FLUSH WITH FINISHED PAVEMENT SURFACE. MARKER MAY BE INSTALLED IN A DRILLED HOLE AND SECURED WITH EPOXY GLUE
2. BRASS DUCT MARKERS ARE AVAILABLE FROM BERNTSEN INTERNATIONAL INC., P.O. BOX 8670, MADISON, WI. 53708-8670, PHONE: 1-877-959-8556, SURV-KAP, 3225 E. 47TH ST., TUCSON, AZ 85713, PHONE: (502)-622-6011, OR OTHER EQUIVALENT MANUFACTURERS.



DUCT MARKER DETAIL-PLAN
"NOT TO SCALE"



UNDERGROUND ELECTRICAL DUCT
(NOT TO SCALE)

CABLE & DUCT MARKER NOTES:

1. THE COST OF ALL TURF AND PAVEMENT DUCT MARKERS SHALL BE INCIDENTAL TO THE DUCT. THE COST OF ALL CABLE MARKERS SHALL BE INCIDENTAL TO THE CABLE.
2. BITUMINOUS PAVEMENT DUCT MARKER AND CONCRETE DUCT MARKER TO BE PROVIDED AT EACH END OF EACH DUCT AS SHOWN ON THE LOCATION PLAN. FOR CONCRETE PAVEMENT, THE LETTER "D" SHALL BE IMPRESSED IN THE PAVEMENT INSTEAD OF THE MARKER. THE LETTER SHALL BE INFORMED AS DESCRIBED IN NOTE 4.
3. UNDERGROUND CABLE RUNS MUST BE IDENTIFIED BY CABLE MARKERS AT 200 FEET (61 M) MAXIMUM SPACING WITH AN ADDITIONAL MARKER AT EACH CHANGE OF DIRECTION OF THE CABLE RUN. CABLE MARKERS MUST BE INSTALLED ABOVE THE CABLE. CABLE MARKERS ARE NOT REQUIRED FOR CABLE RUNS BETWEEN RUNWAY/TAXIWAY EDGE LIGHTS.
4. CONCRETE CABLE MARKERS AND DUCT MARKERS SHALL HAVE LETTERS 4" HIGH, 3" WIDE WITH WIDTH OF STROKE 1/2" AND 1/4" DEEP. ALL LETTERS, NUMBERS AND ARROWS TO BE IMPRESSED.
5. EMPLOY THE FOLLOWING METHODS WHERE ADDITIONAL SPACE TO FIT THE LEGEND IS REQUIRED:
 - A. REDUCE LETTER SIZE TO 3" HIGH, 2" WIDE.
 - B. INCREASE THE MARKER SIZE TO 30" X 30".
 - C. PROVIDE ADDITIONAL MARKERS PLACED SIDE BY SIDE
6. TURF DUCT MARKERS ARE NOT REQUIRED AT PAVEMENT CROSSINGS WHERE DUCTS TERMINATE IN HANDHOLES, OR JUNCTION STRUCTURES.
7. LOCATION OF ALL DIRECT EARTH BURIAL UNDERGROUND CABLE SPLICE/CONNECTIONS, EXCEPT THOSE AT ISOLATION TRANSFORMERS, MUST BE IDENTIFIED BY SPLICE MARKERS. SPLICE MARKERS MUST BE PLACED ABOVE THE SPLICE/CONNECTIONS. DIRECT EARTH BURIAL UNDERGROUND CABLE SPLICES SHALL BE AVOIDED WHERE POSSIBLE. CABLE SPLICES SHALL BE LOCATED IN SPLICE CANS, LIGHT BASES, HANDHOLES, MANHOLES, OR OTHER JUNCTION STRUCTURES UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER.
8. THE CABLE AND SPLICE MARKERS MUST IDENTIFY THE CIRCUITS TO WHICH THE CABLES BELONG. FOR EXAMPLE: RWY 12L-30R PAPI-12R, PAPI-30L.
9. LOCATIONS OF ENDS OF ALL UNDERGROUND DUCTS MUST BE IDENTIFIED BY DUCT MARKERS.

FOR BID



**ST. LOUIS
DOWNTOWN AIRPORT**

**BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT**
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN

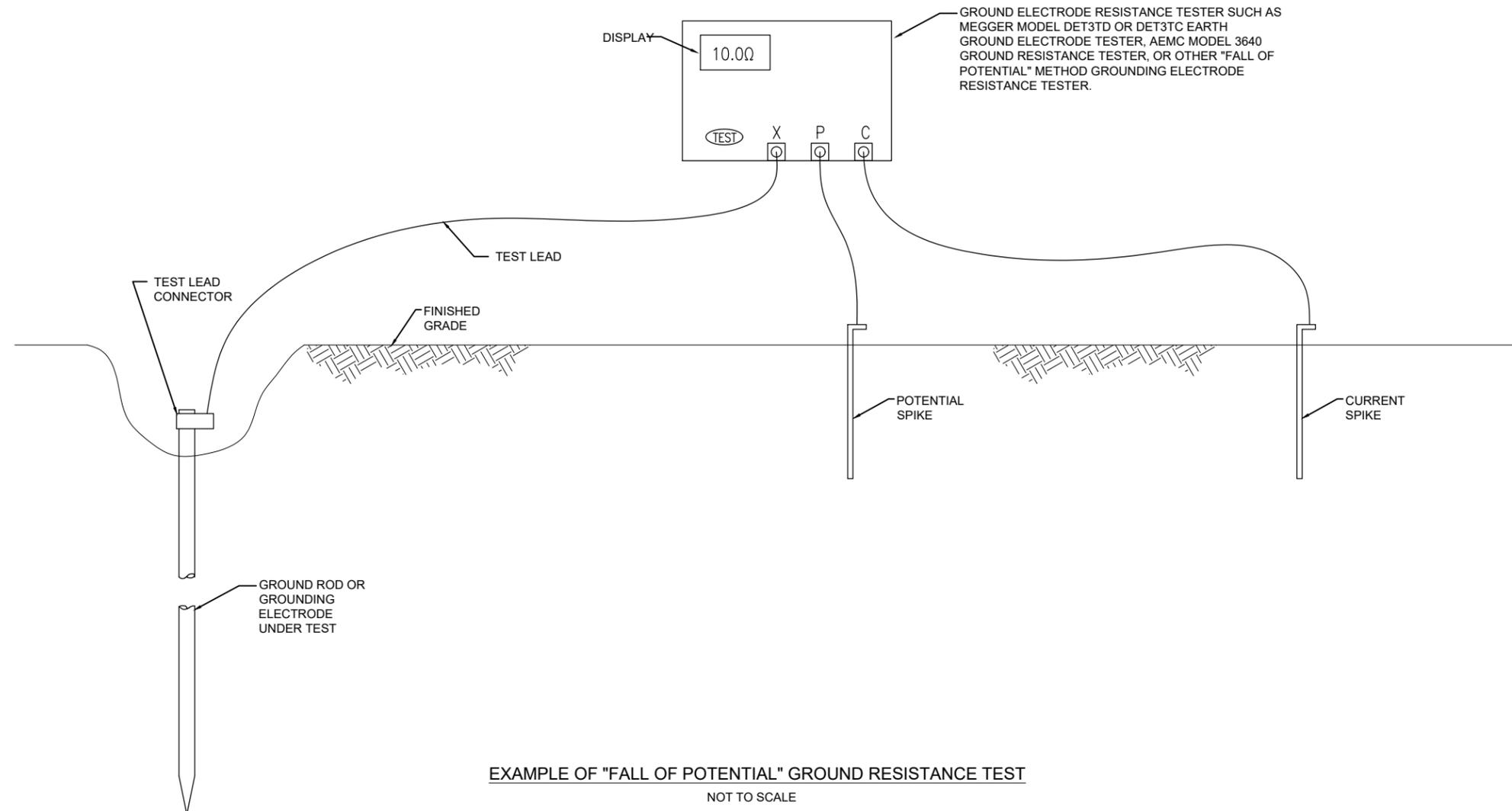


Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064



EXAMPLE OF "FALL OF POTENTIAL" GROUND RESISTANCE TEST

NOT TO SCALE

NOTES

- CONTRACTOR SHALL TEST AND RECORD THE RESISTANCE FOR EACH MADE ELECTRODE GROUND ROD/GROUND FIELD/GROUND RING WITH AN INSTRUMENT SPECIFICALLY DESIGNED FOR TESTING GROUNDING ELECTRODE SYSTEMS. IF GROUND RESISTANCE EXCEEDS 25 OHMS, CONTACT THE PROJECT ENGINEER FOR FURTHER DIRECTION. COPIES OF GROUND ROD TEST RESULTS SHALL BE FURNISHED TO THE RESIDENT ENGINEER/RESIDENT TECHNICIAN, AND THE PROJECT ENGINEER.
- FOR EACH AIRFIELD LIGHT FIXTURE, TAXI GUIDANCE SIGN, SPLICE CAN AND NAVAID THE CONTRACTOR SHALL TEST THE MADE ELECTRODE GROUND SYSTEM WITH AN INSTRUMENT SPECIFICALLY DESIGNED FOR TESTING GROUND SYSTEMS. TEST RESULTS SHALL BE RECORDED FOR EACH AIRFIELD LIGHT FIXTURE, TAXI GUIDANCE SIGN, AND NAVAIDS INSTALLATION. IF GROUND RESISTANCE EXCEEDS 25 OHMS, CONTACT THE PROJECT ENGINEER FOR FURTHER DIRECTION. ALSO REFER TO EOR-47643 FOR ADDITIONAL INFORMATION ON GROUNDING REQUIREMENTS WHERE APPLICABLE. COPIES OF THE GROUND SYSTEM TEST RESULTS SHALL BE FURNISHED TO THE RESIDENT ENGINEER / RESIDENT TECHNICIAN, AND THE PROJECT ENGINEER.
- GROUND RESISTANCE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE RESPECTIVE GROUND ELECTRODE RESISTANCE TESTING EQUIPMENT MANUFACTURER'S INSTRUCTIONS.
- RECORD SITE CONDITIONS DURING TESTS.
- "FALL OF POTENTIAL" TYPE GROUND ELECTRODE RESISTANCE TESTER IS RECOMMENDED FOR TESTING INDIVIDUAL STAND ALONE GROUND RODS.

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DRAWN BY: CWS 3/7/2024

REVIEWED BY: KNL 3/21/2024

SHEET TITLE

**GROUND
RESISTANCE
TESTING DETAILS**

FOR BID

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-O-A SHOWN)
	N.O. THERMAL SWITCH
	N.C. THERMAL SWITCH
	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, GROUND BUS
	INDUSTRIAL CONTROL RELAY OR LIGHTING CONTACTOR
	TYPE S1 CUTOUT HANDLE REMOVED (MFRD BY CROUSE-HINDS, MANAIRCO, AND OTHERS)
	TYPE S1 CUTOUT HANDLE INSERTED (MFRD BY CROUSE-HINDS, MANAIRCO, AND OTHERS)
	TYPE SCO CUTOUT (MFRD BY ADB)
	TYPE ALSC AIRFIELD LIGHTING SAFETY CUTOUT (MFRD BY ADB)
	L-830 SERIES ISOLATION TRANSFORMER

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
EOR	ENGINEER OF RECORD
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
HOA	HAND OFF AUTOMATIC
HP	HORSEPOWER
J	JUNCTION BOX
KVA	KILOVOLT AMPERE(S)
KNL	KEVIN NEIL LIGHTFOOT
KW	KILOWATTS
LC	LIGHTING CONTACTOR
LED	LIGHT EMITTING DIODE
LTFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT (UL LISTED)
LTG	LIGHTING
LHTNG	LIGHTING
LP	LIGHTING PANEL
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCULAR 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
-	DASH, HYPHEN, OR MINUS SIGN
XXX	LETTERS AND / OR NUMBERS (TO BE DETERMINED)

AIRPORT EQUIPMENT/FACILITY ABBREVIATIONS	
ASOS	AUTOMATED SURFACE OBSERVING SYSTEM
ATCT	AIR TRAFFIC CONTROL TOWER
AWOS	AUTOMATED WEATHER OBSERVING SYSTEM
CCR	CONSTANT CURRENT REGULATOR
DME	DISTANCE MEASURING EQUIPMENT
FAR	FEDERAL AVIATION REGULATION
GS	GLIDE SLOPE FACILITY
HIRL	HIGH INTENSITY RUNWAY LIGHT
ILS	INSTRUMENT LANDING SYSTEM
IM	INNER MARKER
LIR	LOW IMPACT-RESISTANT
LOC	LOCALIZER FACILITY
MALS	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM
MALSR	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATING LIGHTS
MIRL	MEDIUM INTENSITY RUNWAY LIGHT
MITL	MEDIUM INTENSITY TAXIWAY LIGHT
NDB	NON-DIRECTIONAL BEACON
PAPI	PRECISION APPROACH PATH INDICATOR
PLASI	PULSE LIGHT APPROACH SLOPE INDICATOR
RAIL	RUNWAY ALIGNMENT INDICATING LIGHTS
REIL	RUNWAY END IDENTIFIER LIGHT
RVR	RUNWAY VISUAL RANGE
VADI	VISUAL APPROACH DESCENT INDICATOR
VASI	VISUAL APPROACH SLOPE INDICATOR
VOR	VERY HIGH FREQUENCY OMNIDIRECTIONAL RANGE FACILITY
WC	WIND CONE

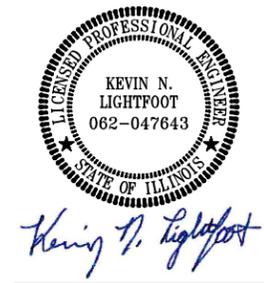
NOTES:

- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 - NATIONAL ELECTRICAL CODE (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, INTERTEK TESTING SERVICES VERIFICATION/ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- KEEP A COPY OF THE LATEST NEC IN FORCE ON SITE AT ALL TIMES DURING CONSTRUCTION FOR USE AS A REFERENCE.
- NEW WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT MANAGER. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
- 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. CONFIRM LTFMC BEARS THE UL LABEL PRIOR TO INSTALLATION.
- INSULATED CONDUCTORS SHALL 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 TO COMPLY WITH NEC 250.119. NEUTRAL CONDUCTORS SHALL HAVE WHITE COLORED INSULATION FOR NO. 6 AWG AND SMALLER TO MEET THE REQUIREMENTS OF NEC 200.6. STANDARD COLORS FOR POWER WIRING AND BRANCH CIRCUITS SHALL BE AS FOLLOWS:

<u>120/240 VAC, 1 PHASE, 3 WIRE</u>	
PHASE A	BLACK
PHASE C	BLUE
NEUTRAL	WHITE
GROUND	GREEN
- SEE RESPECTIVE SITE PLANS FOR SITE LEGEND INFORMATION.
- ENCLOSURES RATED NEMA 4, 4X SHALL HAVE WATERTIGHT HUBS AT CONDUIT ENTRANCES UL LISTED NEMA 4, 4X FOR THE RESPECTIVE ENCLOSURE, TO MAINTAIN THE NEMA 4, 4X RATING.
- ONLY QUALIFIED ELECTRICAL CONTRACTORS SHALL PERFORM ELECTRICAL WORK ON THIS PROJECT. NEC DEFINES A QUALIFIED PERSON AS FOLLOWS: "ONE WHO HAS SKILLS AND KNOWLEDGE RELATED TO THE CONSTRUCTION AND OPERATION OF THE ELECTRICAL EQUIPMENT AND INSTALLATIONS AND HAS RECEIVED SAFETY TRAINING TO RECOGNIZE AND AVOID THE HAZARDS INVOLVED".
- RESPECTIVE POWER SOURCES FOR EACH PANEL, EQUIPMENT, AIRFIELD LIGHT, SIGN, NAVAID, OR OTHER DEVICE SHALL BE VERIFIED PRIOR TO WORKING ON, RELOCATING, REMOVING, DISCONNECTING, AND/OR INSTALLING THE RESPECTIVE DEVICES. SHUT OFF, LOCKOUT, AND TAGOUT FOR PROTECTION OF PERSONNEL.
- HIGH VOLTAGE CIRCUITS (AIRFIELD LIGHTING 5000 VOLT SERIES CIRCUITS AND OTHER CIRCUITS RATED ABOVE 600 VOLTS) AND LOW VOLTAGE CIRCUITS (RATED 600 VOLTS AND BELOW) SHALL NOT BE INSTALLED IN THE SAME WIREWAY, CONDUIT, DUCT, RACEWAY, JUNCTION STRUCTURE OR HANDHOLE.



Offices Nationwide
 www.hanson-inc.com
 Hanson Professional Services Inc.
 1525 South Sixth Street
 Springfield, Illinois 62703-2886
 Telephone: 217.788.2450
 Fax: 217.788.2503



DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
 PHASE 3: SOUTHEAST &
 TAXIWAY B1 INTERSECTION
 IDA NO.: CPS-5078
 CONTRACT NO.: SD064

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ELECTRICAL LEGEND AND ABBREVIATIONS

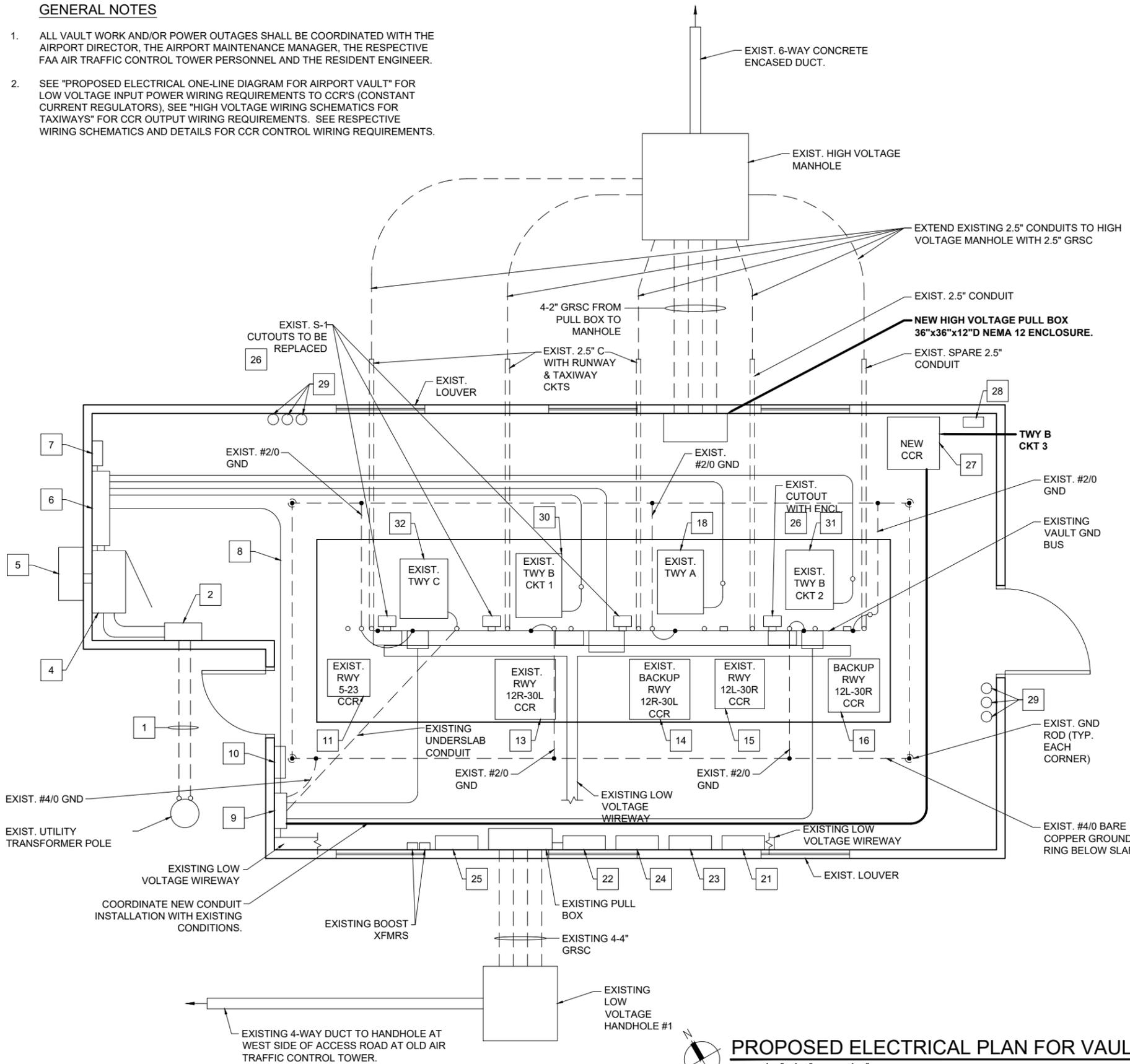
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GENERAL NOTES

1. ALL VAULT WORK AND/OR POWER OUTAGES SHALL BE COORDINATED WITH THE AIRPORT DIRECTOR, THE AIRPORT MAINTENANCE MANAGER, THE RESPECTIVE FAA AIR TRAFFIC CONTROL TOWER PERSONNEL AND THE RESIDENT ENGINEER.
2. SEE "PROPOSED ELECTRICAL ONE-LINE DIAGRAM FOR AIRPORT VAULT" FOR LOW VOLTAGE INPUT POWER WIRING REQUIREMENTS TO CCR'S (CONSTANT CURRENT REGULATORS), SEE "HIGH VOLTAGE WIRING SCHEMATICS FOR TAXIWAYS" FOR CCR OUTPUT WIRING REQUIREMENTS. SEE RESPECTIVE WIRING SCHEMATICS AND DETAILS FOR CCR CONTROL WIRING REQUIREMENTS.

KEYED NOTES

- 1 EXIST. UNDERGROUND 800 AMP, 120/240 VAC, 1PH, 3W SERVICE;
- 2 EXIST. 800 AMP, 2 POLE CIRCUIT BREAKER SERVICE ENTRANCE DISCONNECT SWITCH.
- 3 RESERVED.
- 4 EXIST. 800 AMP, 120/240 VAC, 1 PHASE AUTO TRANSFER SWITCH IN A NEMA 12 ENCLOSURE.
- 5 EXIST. 800 AMP, 120/240 VAC, 1 PHASE PORTABLE GENERATOR CONNECTION BOX.
- 6 EXIST. MAIN DISTRIBUTION PANELBOARD "A".
- 7 EXIST. TRANSIENT VOLTAGE SURGE SUPPRESSOR.
- 8 EXIST. 400 AMP FEEDER FROM PANEL A TO PANEL B.
- 9 EXIST. DISTRIBUTION PANELBOARD "B".
- 10 EXIST. TVSS.
- 11 EXIST. 4KW RWY 5-23 CCR.
- 12 RESERVED.
- 13 EXIST. RWY 12R-30L CCR.
- 14 EXIST. RWY 12R-30L BACKUP CCR.
- 15 EXIST. 7.5KW RWY 12L-30R CCR; PRIMARY CCR FOR RWY 12L-30R.
- 16 EXIST. 10KW RWY 12R-30L CCR; BACKUP UNIT FOR RWY 12L-30R CCR.
- 17 RESERVED
- 18 EXIST. 30KW TWY B CCR.
- 19 RESERVED
- 20 RESERVED
- 21 EXIST. TRANSFER RELAY PANEL.
- 22 EXIST. TERMINAL PANEL FOR 50 PAIR CONTROL CABLE.
- 23 EXIST. 48VDC PILOT RELAY PANEL #1.
- 24 EXIST. 48VDC PILOT RELAY PANEL #2.
- 25 EXIST. LIGHTING CONTACTOR PANEL.
- 26 REMOVE EXISTING S-1 CUTOUT AND FURNISH AND INSTALL NEW TYPE S-1 CUTOUT IN EXISTING ENCLOSURE. (TYP EACH TAXIWAY CCR)(BASE BID)
- 27 NEW TAXIWAY B CIRCUIT 3 CCR. INTERFACE CONTROL WIRING TO EXISTING TAXIWAY "B" CIRCUIT 2 CCR SUCH THAT TAXIWAY B CIRCUIT 3 LIGHTING IS CONTROLLED BY L-821 PANEL AT ATCT BY TAXIWAY "B" CONTROL SELECTOR SWITCH. (BASE BID)
- 28 NEW S-1 CUTOUT WITH NEMA 12 ENCLOSURE FOR TAXIWAY "B" CIRCUIT 3 LIGHTING. (BASE BID)
- 29 PROVIDE TWO 10LB UL RATING 10B:C CARBON DIOXIDE FIRE EXTINGUISHERS FOR VAULT LOCATE NEAR EACH EXIT. INCLUDE PLACARD/SIGN "FOR ELECTRICAL FIRES" WITH ARROW POINTING TO EXTINGUISHER. PROVIDE TWO 10 LB UL RATING 1A: 10B:C HALOTRON FIRE EXTINGUISHERS LOCATE ADJACENT TO EACH CARBON DIOXIDE FIRE EXTINGUISHER. INCLUDE PLACARD/SIGN "FOR ELECTRICAL FIRES" WITH ARROW POINTING TO EXTINGUISHER. PROVIDE TWO 10LB UL RATING 4A:80B:C ABC DRY CHEMICAL FIRE EXTINGUISHERS. LOCATE ADJACENT TO OTHER FIRE EXTINGUISHERS. INCLUDE PLACARD/SIGN "FOR BUILDING FIRES" WITH ARROW POINTING TO ABC DRY CHEMICAL FIRE EXTINGUISHER. (BASE BID)
- 30 EXISTING 30KW TWY B CKT 1 CCR TO BE REPLACED WITH A NEW 15KW L-829 CCR. RELOCATE EXISTING CCR TO STORAGE. (ADD. ALT BID)
- 31 EXISTING 15KW TWY B CKT 2 CCR TO BE REPLACED WITH A NEW 15KW L-829 CCR. RELOCATE EXISTING TWY B, CKT 2 CCR FOR USE AS TWY C CCR. (ADD. ALT BID)
- 32 EXISTING 7.5KW TWY C CCR TO BE REPLACED WITH EXISTING TWY B CKT 2 CCR. RELOCATE EXISTING TWY C CCR FOR USE AS BACKUP CCR FOR RWY 5-23. (ADD. ALT BID)



PROPOSED ELECTRICAL PLAN FOR VAULT
 0 1'-4" 2'-8" 5'-4"
 HALF SIZE SCALE: 3/16" = 1'-0"
 FULL SIZE SCALE: 3/8" = 1'-0"



Offices Nationwide
 www.hanson-inc.com
 Hanson Professional Services Inc.
 1525 South Sixth Street
 Springfield, Illinois 62703-2886
 Telephone: 217.788.2450
 Fax: 217.788.2503



BI-STATE DEVELOPMENT
 ST. LOUIS DOWNTOWN AIRPORT
 6100 Archview Drive
 Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
 PHASE 3: SOUTHEAST &
 TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
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PROPOSED
 ELECTRICAL PLAN FOR
 VAULT

FOR BID

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ST. LOUIS DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



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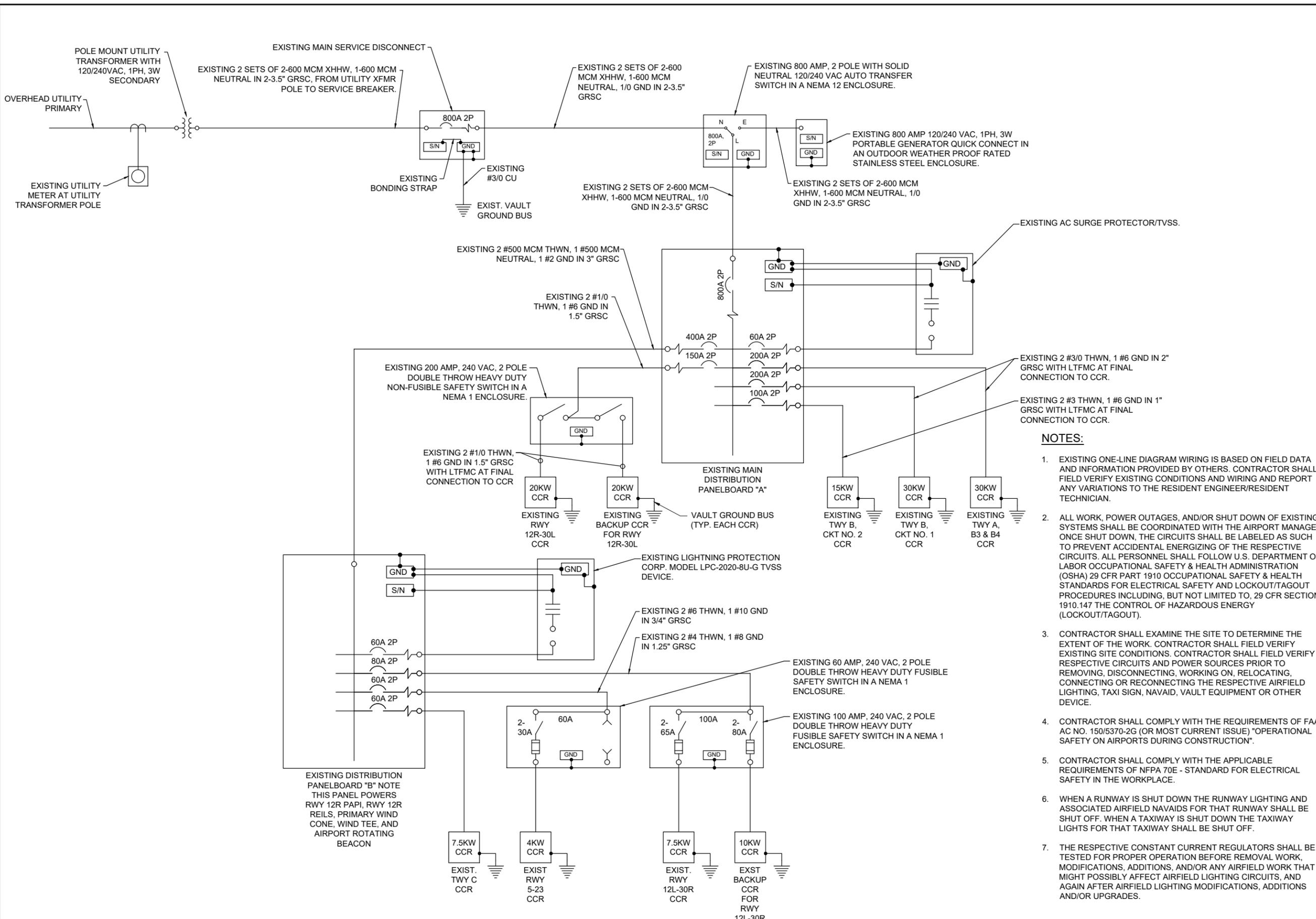
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SHEET TITLE

EXISTING ELECTRICAL ONE-LINE DIAGRAM FOR AIRPORT VAULT



EXISTING ELECTRICAL ONE-LINE DIAGRAM FOR AIRPORT VAULT

FOR BID

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Kevin N. Lightfoot

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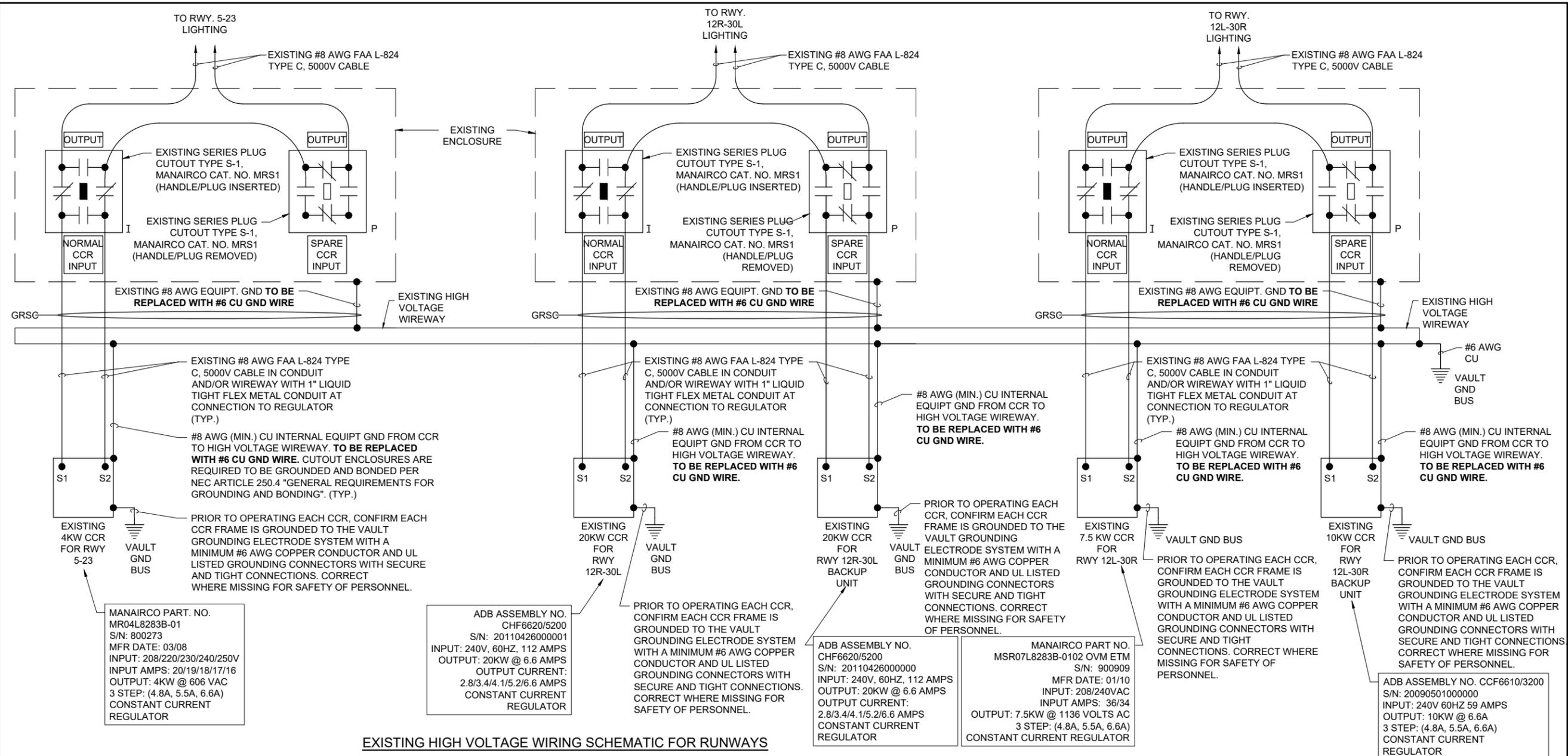
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EXISTING HIGH VOLTAGE WIRING SCHEMATIC FOR RUNWAYS

FOR BID



EXISTING HIGH VOLTAGE WIRING SCHEMATIC FOR RUNWAYS

NOTES

- KEEP ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS COORDINATED WITH THE AIRPORT MANAGER/DIRECTOR AND RESIDENT PROJECT REPRESENTATIVE. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT). WHERE THE FACILITY IS NOT EQUIPPED WITH LOCKOUT/TAGOUT EQUIPMENT THE RESPECTIVE PERSONNEL WILL BE RESPONSIBLE FOR PROVIDING THE APPROPRIATE LOCKOUT/TAGOUT EQUIPMENT. WHERE EXISTING ELECTRICAL EQUIPMENT DOES NOT HAVE FEATURES FOR LOCKOUT/TAGOUT THE RESPECTIVE PERSONNEL WILL BE RESPONSIBLE FOR PROVIDING THE APPROPRIATE LOCKOUT/TAGOUT EQUIPMENT AND MEASURES TO ENSURE THE COMPLIANCE WITH OSHA LOCKOUT/TAGOUT PROCEDURES. FAILURE TO SHUT DOWN AND LOCKOUT THE CIRCUIT PRESENTS A DANGEROUS HAZARD FOR PERSONNEL WORKING ON THE SYSTEM. COMPLIANCE WITH LOCKOUT/TAGOUT PROCEDURES AND ALL OTHER SAFETY PROCEDURES AND REQUIREMENTS ARE THE RESPONSIBILITY OF EACH INDIVIDUAL, THE CONTRACTOR, THE RESPECTIVE MAINTENANCE PERSONNEL, AND ANY OTHER PERSONNEL WORKING ON THE EQUIPMENT OR ELECTRICAL SYSTEM.
- EXAMINE THE SITE TO CONFIRM AND FIELD VERIFY EXISTING SITE CONDITIONS.
- VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES FOR RESPECTIVE SYSTEMS PRIOR TO REMOVING, DISCONNECTING, WORKING ON, RELOCATING, RECONNECTING, AND/OR INSTALLING THE RESPECTIVE AIRFIELD LIGHTING, TAXI SIGN, NAVAID, VAULT EQUIPMENT, OR OTHER DEVICES. THE CONTRACTOR WILL NEED TO EXERCISE CAUTION WHEN WORKING IN THE VAULT AND ON THE AIRFIELD. CONTRACTOR SHALL REPORT ANY VARIATIONS, DEFICIENCIES, AND/OR APPARENT SAFETY CONCERNS TO THE PROJECT ENGINEER OF RECORD AND THE RESIDENT PROJECT REPRESENTATIVE. CONTRACTOR SHALL FOLLOW LOCKOUT/TAGOUT PROCEDURES TO COMPLY WITH OSHA REQUIREMENTS.
- IDENTIFY EACH RESPECTIVE CIRCUIT PRIOR TO PERFORMING WORK ON THAT CIRCUIT. CONTRACTOR SHALL ARRANGE TO SHUTOFF, DISCONNECT, AND LOCKOUT/TAGOUT CIRCUITS WHEN WORKING ON THE RESPECTIVE AIRFIELD LIGHTING SYSTEMS FOR SAFETY OF PERSONNEL.
- NOTE: SOME OF THE EXISTING RUNWAY LIGHTING CIRCUITS HAVE BEEN OBSERVED TO BE IN VERY POOR TO DANGEROUS CONDITIONS. EXERCISE CAUTION AND SAFETY PROCEDURES WHEN WORKING ON AIRFIELD LIGHTING SYSTEMS.

- NEVER REMOVE OR INSERT A CUTOUT WITH THE CIRCUIT ENERGIZED. SHUTOFF CIRCUITS PRIOR TO PULLING OR INSERTING A SERIES PLUG CUTOUT.
- THE RESPECTIVE PERSONNEL PERFORMING AIRFIELD LIGHTING WORK, VAULT WORK, AND/OR TESTS SHALL BE FAMILIAR WITH, AND QUALIFIED TO WORK ON, 5000 VOLT AIRFIELD LIGHTING SERIES CIRCUITS, CONSTANT CURRENT REGULATORS, AND ASSOCIATED AIRPORT ELECTRICAL VAULT EQUIPMENT. NEC DEFINES A QUALIFIED PERSON AS "ONE WHO HAS SKILLS AND KNOWLEDGE RELATED TO THE CONSTRUCTION AND OPERATION OF THE ELECTRICAL EQUIPMENT AND INSTALLATIONS AND HAS RECEIVED SAFETY TRAINING TO RECOGNIZE AND AVOID THE HAZARDS INVOLVED."
- EXERCISE CAUTION, PRACTICE SAFETY, AND DISCONNECT THE SERIES CIRCUITS FROM THE RESPECTIVE CONSTANT CURRENT REGULATORS, AS APPLICABLE WHEN PERFORMING WORK ON THE AIRFIELD LIGHTING OR WORK THAT MIGHT AFFECT THE AIRFIELD LIGHTING. CONTRACTOR SHALL MAKE NECESSARY ARRANGEMENTS TO DISCONNECT POWER AND LOCKOUT CIRCUITS FOR PROTECTION OF PERSONNEL.
- OVERSEE AND CONDUCT TESTS FOR AREAS OF WORK WHERE THE RESPECTIVE CIRCUITS MIGHT BE AFFECTED. MEGGER TEST AND RECORD EXISTING SERIES CIRCUITS (WITH A CABLE INSULATION TESTER) PRIOR TO CABLE WORK OR ANY OTHER WORK THAT MIGHT POSSIBLY AFFECT AIRFIELD LIGHTING SYSTEMS, AND AGAIN AFTER AIRFIELD LIGHTING MODIFICATIONS, ADDITIONS, UPGRADES AND/OR OTHER WORK HAS BEEN COMPLETED. PROVIDE 5KV INSULATION TESTER FOR 5,000 VOLT SERIES CIRCUIT CABLES. ALSO TEST AND RECORD SERIES CIRCUIT LOOP RESISTANCE WITH AN OHMMETER. PROVIDE COPY OF TEST RESULTS TO THE ENGINEER OF RECORD (EOR) WITHIN 5 DAYS OF CONDUCTING TESTS.
- RESPECTIVE CCR'S SHALL BE TESTED FOR PROPER OPERATION BEFORE REMOVAL WORK, MODIFICATIONS, ADDITIONS AND/OR ANY AIRFIELD WORK THAT MIGHT AFFECT LIGHTING CIRCUITS AND AGAIN AFTER THE AIRFIELD WORK AND ADDITIONS HAVE BEEN COMPLETED. CONTRACTOR SHALL TEST AND RECORD THE INPUT CURRENT AND OUTPUT CURRENT FOR EACH CONSTANT CURRENT REGULATOR IN THE AUTOMATIC AND MANUAL MODES OF OPERATION. PROVIDE A TRUE RMS AMMETER FOR CURRENT MEASUREMENTS. CONTRACTOR SHALL REPORT CONCERNS AND/OR DEFICIENCIES TO THE RESIDENT PROJECT REPRESENTATIVE AND THE ENGINEER OF RECORD (EOR). WRITTEN TEST RESULTS SHALL BE PROVIDED TO THE RESIDENT PROJECT REPRESENTATIVE AND THE ENGINEER OF RECORD (EOR).

LEGEND

- "I" DENOTES PLUG CUTOUT WITH PLUG INSERTED
- "P" DENOTES PLUG CUTOUT WITH PLUG PULLED
- "CCR" DENOTES CONSTANT CURRENT REGULATOR

NOV 22, 2024 4:04 PM L:\AMB02387\1\23\JOBS\23A0001D\CAD\AIRPORT\SHEET\2024 CPS-5078 SHEETS\IE-602



ST. LOUIS DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

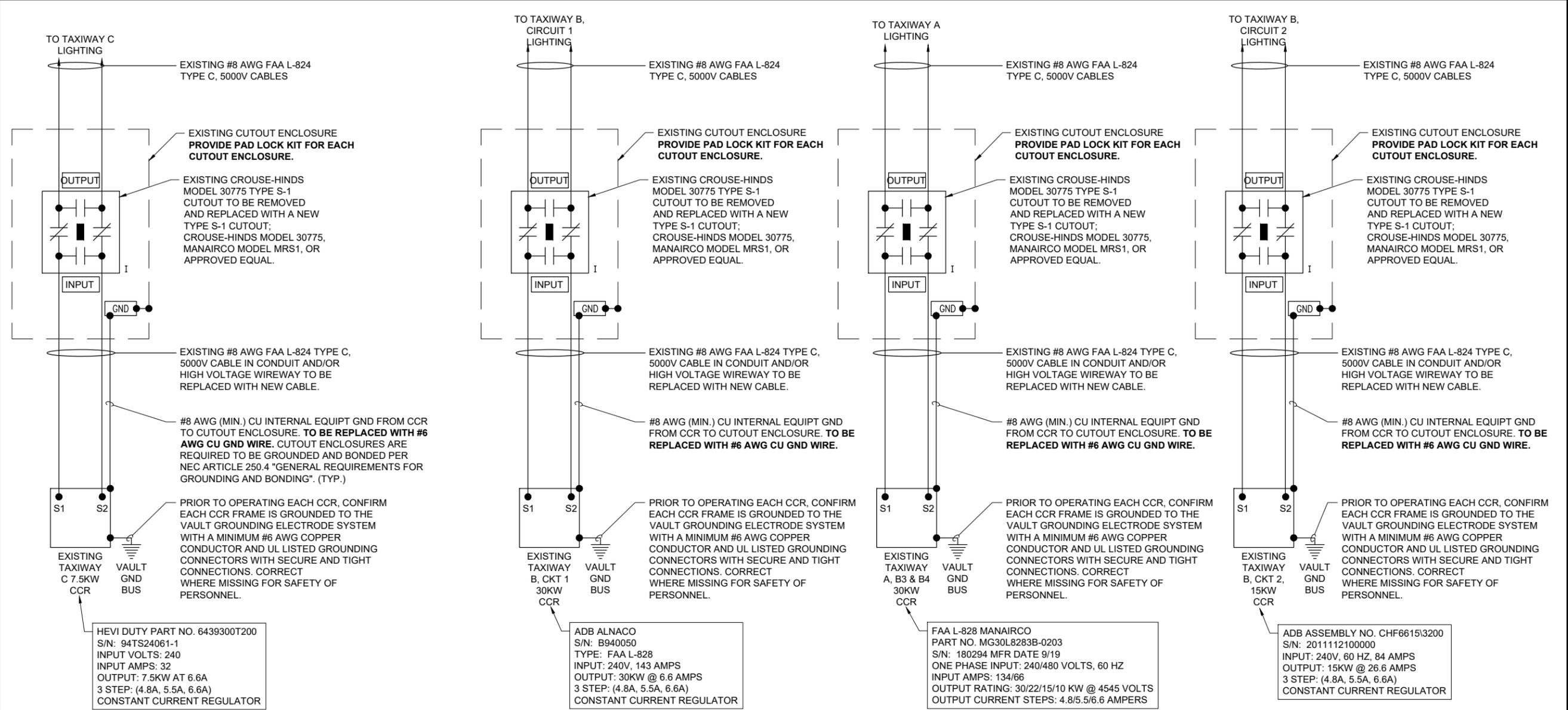
NO.	DATE	DESCRIPTION
		DES DWN REV

ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: E-603-SCHM.DWG
DESIGN BY: KNL 3/2/2024
DRAWN BY: CWS 3/7/2024
REVIEWED BY: KNL 3/21/2024

SHEET TITLE

EXISTING HIGH VOLTAGE WIRING SCHEMATIC FOR TAXIWAYS

FOR BID



EXISTING HIGH VOLTAGE WIRING SCHEMATIC FOR TAXIWAYS

NOTES

- KEEP ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS COORDINATED WITH THE AIRPORT MANAGER/DIRECTOR AND RESIDENT PROJECT REPRESENTATIVE. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT). WHERE THE FACILITY IS NOT EQUIPPED WITH LOCKOUT/TAGOUT EQUIPMENT THE RESPECTIVE PERSONNEL WILL BE RESPONSIBLE FOR PROVIDING THE APPROPRIATE LOCKOUT/TAGOUT EQUIPMENT. WHERE EXISTING ELECTRICAL EQUIPMENT DOES NOT HAVE FEATURES FOR LOCKOUT/TAGOUT THE RESPECTIVE PERSONNEL WILL BE RESPONSIBLE FOR PROVIDING THE APPROPRIATE LOCKOUT/TAGOUT EQUIPMENT AND MEASURES TO ENSURE THE COMPLIANCE WITH OSHA LOCKOUT/TAGOUT PROCEDURES. FAILURE TO SHUT DOWN AND LOCKOUT THE CIRCUIT PRESENTS A DANGEROUS HAZARD FOR PERSONNEL WORKING ON THE SYSTEM. COMPLIANCE WITH LOCKOUT/TAGOUT PROCEDURES AND ALL OTHER SAFETY PROCEDURES AND REQUIREMENTS ARE THE RESPONSIBILITY OF EACH INDIVIDUAL, THE CONTRACTOR, THE RESPECTIVE MAINTENANCE PERSONNEL, AND ANY OTHER PERSONNEL WORKING ON THE EQUIPMENT OR ELECTRICAL SYSTEM.
- EXAMINE THE SITE TO CONFIRM AND FIELD VERIFY EXISTING SITE CONDITIONS.
- VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES FOR RESPECTIVE SYSTEMS PRIOR TO REMOVING, DISCONNECTING, WORKING ON, RELOCATING, RECONNECTING, AND/OR INSTALLING THE RESPECTIVE AIRFIELD LIGHTING, TAXI SIGN, NAVAID, VAULT EQUIPMENT, OR OTHER DEVICES. THE CONTRACTOR WILL NEED TO EXERCISE CAUTION WHEN WORKING IN THE VAULT AND ON THE AIRFIELD. CONTRACTOR SHALL REPORT ANY VARIATIONS, DEFICIENCIES, AND/OR APPARENT SAFETY CONCERNS TO THE PROJECT ENGINEER OF RECORD AND THE RESIDENT PROJECT REPRESENTATIVE. CONTRACTOR SHALL FOLLOW LOCKOUT/TAGOUT PROCEDURES TO COMPLY WITH OSHA REQUIREMENTS.
- IDENTIFY EACH RESPECTIVE CIRCUIT PRIOR TO PERFORMING WORK ON THAT CIRCUIT. CONTRACTOR SHALL ARRANGE TO SHUTOFF, DISCONNECT, AND LOCKOUT/TAGOUT CIRCUITS WHEN WORKING ON THE RESPECTIVE AIRFIELD LIGHTING SYSTEMS FOR SAFETY OF PERSONNEL.
- NOTE: SOME OF THE EXISTING TAXIWAY LIGHTING CIRCUITS HAVE BEEN OBSERVED TO BE IN VERY POOR TO DANGEROUS CONDITIONS. EXERCISE CAUTION AND SAFETY PROCEDURES WHEN WORKING ON AIRFIELD LIGHTING SYSTEMS.
- NEVER REMOVE OR INSERT A CUTOUT WITH THE CIRCUIT ENERGIZED. SHUTOFF CIRCUITS PRIOR TO PULLING OR INSERTING A SERIES PLUG CUTOUT.
- THE RESPECTIVE PERSONNEL PERFORMING AIRFIELD LIGHTING WORK, VAULT WORK, AND/OR TESTS SHALL BE FAMILIAR WITH, AND QUALIFIED TO WORK ON, 5000 VOLT AIRFIELD LIGHTING SERIES CIRCUITS, CONSTANT CURRENT REGULATORS, AND ASSOCIATED AIRPORT ELECTRICAL VAULT EQUIPMENT. NEC DEFINES A QUALIFIED PERSON AS "ONE WHO HAS SKILLS AND KNOWLEDGE RELATED TO THE CONSTRUCTION AND OPERATION OF THE ELECTRICAL EQUIPMENT AND INSTALLATIONS AND HAS RECEIVED SAFETY TRAINING TO RECOGNIZE AND AVOID THE HAZARDS INVOLVED."
- EXERCISE CAUTION, PRACTICE SAFETY, AND DISCONNECT THE SERIES CIRCUITS FROM THE RESPECTIVE CONSTANT CURRENT REGULATORS, AS APPLICABLE WHEN PERFORMING WORK ON THE AIRFIELD LIGHTING OR WORK THAT MIGHT AFFECT THE AIRFIELD LIGHTING. CONTRACTOR SHALL MAKE NECESSARY ARRANGEMENTS TO DISCONNECT POWER AND LOCKOUT CIRCUITS FOR PROTECTION OF PERSONNEL.
- OVERSEE AND CONDUCT TESTS FOR AREAS OF WORK WHERE THE RESPECTIVE CIRCUITS MIGHT BE AFFECTED. MEGGER TEST AND RECORD EXISTING SERIES CIRCUITS (WITH A CABLE INSULATION TESTER) PRIOR TO CABLE WORK OR ANY OTHER WORK THAT MIGHT POSSIBLY AFFECT AIRFIELD LIGHTING SYSTEMS, AND AGAIN AFTER AIRFIELD LIGHTING MODIFICATIONS, ADDITIONS, UPGRADES AND/OR OTHER WORK HAS BEEN COMPLETED. PROVIDE 5KV INSULATION TESTER FOR 5,000 VOLT SERIES CIRCUIT CABLES. ALSO TEST AND RECORD SERIES CIRCUIT LOOP RESISTANCE WITH AN OHMMETER. PROVIDE COPY OF TEST RESULTS TO THE ENGINEER OF RECORD (EOR) WITHIN 5 DAYS OF CONDUCTING TESTS.
- RESPECTIVE CCR'S SHALL BE TESTED FOR PROPER OPERATION BEFORE REMOVAL WORK, MODIFICATIONS, ADDITIONS AND/OR ANY AIRFIELD WORK THAT MIGHT AFFECT LIGHTING CIRCUITS AND AGAIN AFTER THE AIRFIELD WORK AND ADDITIONS HAVE BEEN COMPLETED. CONTRACTOR SHALL TEST AND RECORD THE INPUT CURRENT AND OUTPUT CURRENT FOR EACH CONSTANT CURRENT REGULATOR IN THE AUTOMATIC AND MANUAL MODES OF OPERATION. PROVIDE A TRUE RMS AMMETER FOR CURRENT MEASUREMENTS. CONTRACTOR SHALL REPORT CONCERNS AND/OR DEFICIENCIES TO THE RESIDENT PROJECT REPRESENTATIVE AND THE ENGINEER OF RECORD (EOR). WRITTEN TEST RESULTS SHALL BE PROVIDED TO THE RESIDENT PROJECT REPRESENTATIVE AND THE ENGINEER OF RECORD (EOR).

LEGEND

"I"	DENOTES PLUG CUTOUT WITH PLUG INSERTED
"P"	DENOTES PLUG CUTOUT WITH PLUG PULLED
"CCR"	DENOTES CONSTANT CURRENT REGULATOR

NOV 22, 2024 4:05 PM L:\AMB02387\1\23\JOBS\23A0001D\CAD\AIRPORT\SHEET\2024 CPS-5078 SHEETS\IE-603-SCHM



**ST. LOUIS
DOWNTOWN AIRPORT**

**BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT**
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION	DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: E-604.DWG

DESIGN BY: KNL 3/2/2024

DRAWN BY: CWS 3/11/2024

REVIEWED BY: KNL 3/21/2024

SHEET TITLE

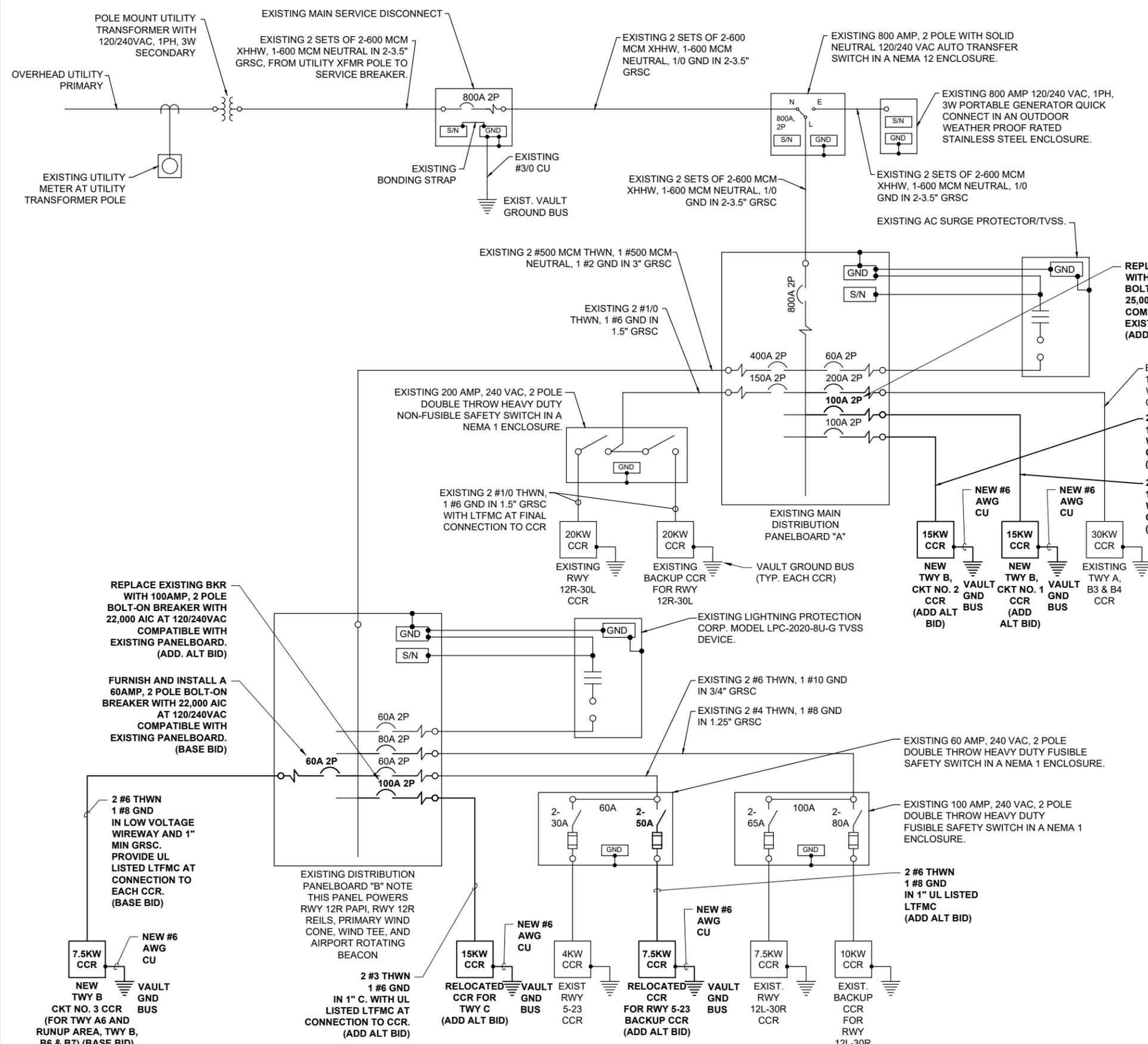
PROPOSED
ELECTRICAL
ONE-LINE DIAGRAM
FOR AIRPORT VAULT

FOR BID

NOTES

- ALL VAULT WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT MANAGER. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
- ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 - NATIONAL ELECTRICAL CODE (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, INTERTEK TESTING SERVICES VERIFICATION/ETL LISTING, (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- ALL CONDUCTORS/WIRING SHALL BE COPPER.
- COLOR CODE PHASE AND NEUTRAL CONDUCTOR INSULATION FOR NO. 4 AWG OR SMALLER. PROVIDE COLORED INSULATION OR COLORED MARKING TAPE FOR PHASE AND NEUTRAL CONDUCTORS FOR NO. 3 AWG AND LARGER. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR AWG AND/OR KCMIL TO COMPLY WITH NEC 250.119. NEUTRAL CONDUCTORS SHALL HAVE WHITE COLORED INSULATION FOR NO. 6 AWG AND SMALLER TO MEET THE REQUIREMENTS OF NEC 200.6. 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
- CONTRACTOR SHALL CONFIRM POWER REQUIREMENTS WITH THE ACTUAL NAMEPLATE ON EACH CONSTANT CURRENT REGULATOR (OR OTHER RESPECTIVE EQUIPMENT) AND ADJUST CIRCUIT BREAKER, FUSES, WIRE SIZES & CONDUIT SIZES TO CONFORM WITH NEC & MANUFACTURER'S RECOMMENDATIONS WHERE APPLICABLE. WIRE SIZES SHOWN ON THE PLANS ARE MINIMUM.
- HIGH VOLTAGE CIRCUITS (AIRFIELD LIGHTING 5000 VOLT SERIES CIRCUITS OR OTHER CIRCUITS RATED ABOVE 600 VOLTS) AND LOW VOLTAGE CIRCUITS (RATED 600 VOLTS AND BELOW) SHALL NOT BE INSTALLED IN THE SAME WIREWAY, CONDUIT, HANDHOLE, JUNCTION BOX, OR RACEWAY.
- 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. CONFIRM LTFMC BEARS THE UL LABEL PRIOR TO INSTALLATION.
- EQUIPMENT AND MATERIALS NOT LABELED AS "EXISTING" ARE NEW.



PROPOSED ELECTRICAL ONE-LINE DIAGRAM FOR AIRPORT VAULT

NOV 22, 2024 4:05 PM L:\AMB02387\1\23\JOBS\23A0001D\CAD\AIRPORT\SHEET\2024 CPS-5078 SHEETS\IE-604



Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: E-610.DWG

DESIGN BY: KNL 3/2/2024

DRAWN BY: CWS 3/11/2024

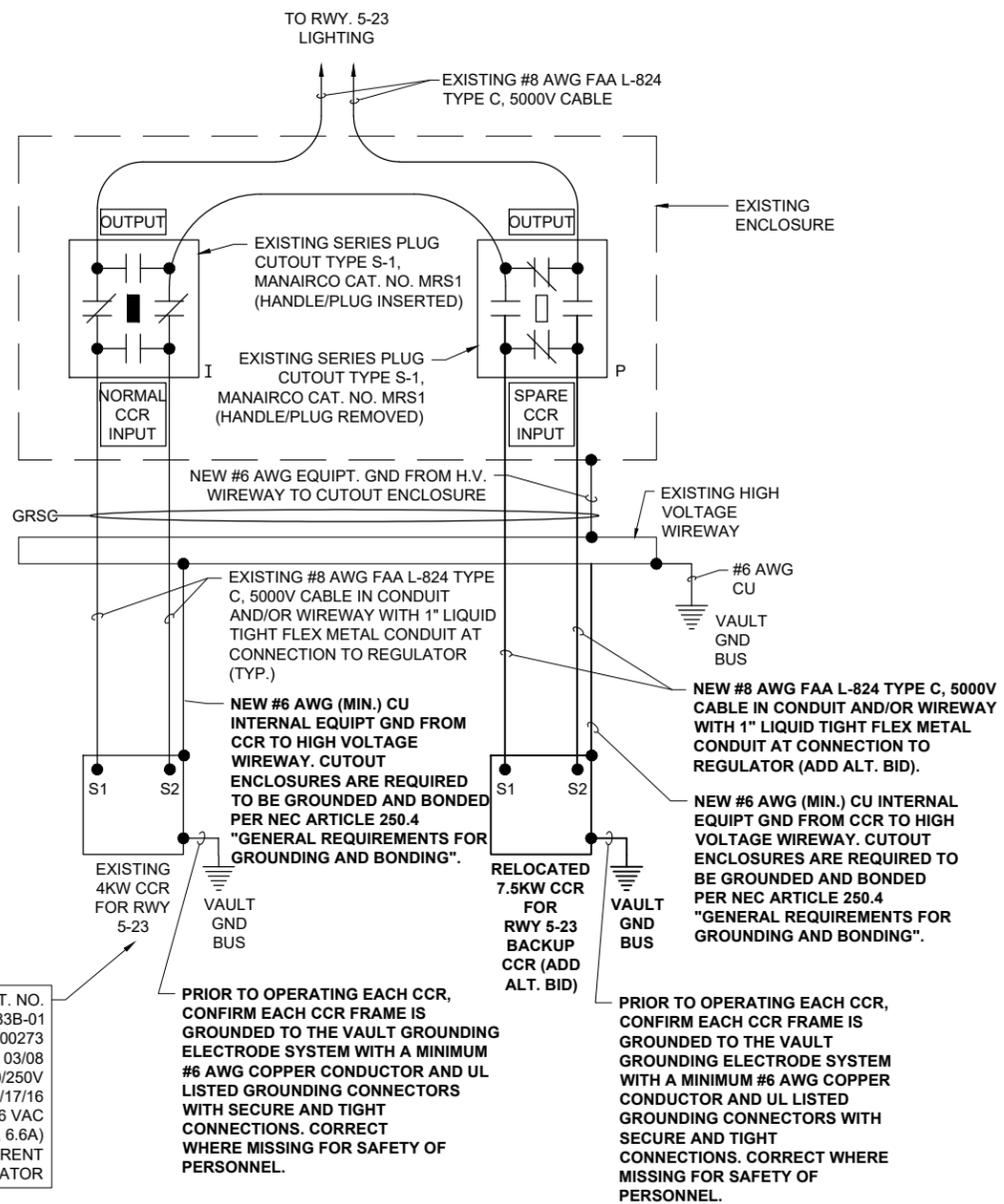
REVIEWED BY: KNL 3/21/2024

SHEET TITLE

PROPOSED HIGH
VOLTAGE WIRING
SCHEMATIC FOR
RUNWAY 5-23

NOTES:

1. KNOW RESPECTIVE CIRCUITS AND POWER SOURCES FOR RESPECTIVE SYSTEMS PRIOR TO REMOVING, DISCONNECTING, WORKING ON, RELOCATING, RECONNECTING, AND/OR INSTALLING THE RESPECTIVE AIRFIELD LIGHTING, TAXI SIGN, NAVAID, VAULT EQUIPMENT, OR OTHER DEVICES. THE CONTRACTOR WILL NEED TO EXERCISE CAUTION WHEN WORKING IN THE VAULT AND ON THE AIRFIELD. CONTRACTOR SHALL REPORT ANY VARIATIONS, DEFICIENCIES, AND/OR APPARENT SAFETY CONCERNS TO THE PROJECT ENGINEER OF RECORD AND THE RESIDENT PROJECT REPRESENTATIVE. CONTRACTOR SHALL FOLLOW LOCKOUT/TAGOUT PROCEDURES FOR SAFETY PERSONNEL.
2. EQUIPMENT AND MATERIALS NOT LABELED AS EXISTING ARE NEW.
3. VERIFY EACH CUTOUT IS PROVIDED WITH LEGEND PLATES TO IDENTIFY THE RESPECTIVE CUTOUT INPUT AND OUTPUT.
4. INCLUDE ADEQUATE WORKING SPACE IN FRONT OF EACH CUTOUT ENCLOSURE TO MEET NEC CLEARANCE REQUIREMENTS.
5. NOTE SOME OF THE EXISTING RUNWAY LIGHTING CIRCUITS HAVE BEEN OBSERVED TO BE IN VERY POOR TO DANGEROUS CONDITION. DANGEROUS CONDITION INDICATES LIGHTING FAILURES, GROUND FAULTS, TRANSFORMER FAILURES, BAD CONNECTIONS, UNSAFE CONDITIONS, RISK OF ELECTRIC SHOCK, INJURY AND/OR DEATH, AND OTHER FAILURE CONDITIONS CAN BE EXPECTED OR PRESENTLY EXIST. PERSONNEL ARE AT RISK OF ELECTRIC SHOCK, INJURY, AND DEATH WHEN ON THE AIRFIELD AREAS THAT CONTAIN THE LIGHTING SYSTEMS. THE AIRFIELD LIGHTING SERIES CIRCUIT CABLES ARE UNSAFE, AND THAT BEING NEAR ACTIVE CIRCUITS WITH STANDING WATER ON THE GROUND COULD BE LIFE-THREATENING. CAUTION NEEDS TO BE EXERCISED WHEN WORKING ON OR AROUND THESE CIRCUITS. THE AIRFIELD LIGHTING SERIES CIRCUITS ARE IN SUCH BAD CONDITION THAT THEY ARE A SAFETY HAZARD TO PERSONNEL WORKING ON THE AIRFIELD, AND SAFETY MEASURES NEED TO BE PERFORMED WHEN WORKING AROUND THESE CIRCUITS. SHUT OFF AND LOCK OFF THE RESPECTIVE AIRFIELD LIGHTING CIRCUITS WHEN WORKING IN AREAS THAT HAVE AIRFIELD LIGHTING CIRCUITS.
6. NEVER REMOVE OR INSERT A CUTOUT WITH THE CIRCUIT ENERGIZED. SHUTOFF CIRCUITS PRIOR TO PULLING OR INSERTING A SERIES PLUG CUTOUT.
7. LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6, SUITABLE FOR GROUNDING AND SUNLIGHT RESISTANT. 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 LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS NOT UL LISTED. CONFIRM LIQUID TIGHT FLEXIBLE METAL CONDUIT BEARS THE UL LABEL PRIOR TO INSTALLING IT.
8. INSTALL UL LISTED FIRE STOP MATERIAL AT EACH CONDUIT ENTRY AND EXIT TO EACH RESPECTIVE CUTOUT ENCLOSURE (EXISTING AND NEW).
9. SERIES CIRCUIT DISCONNECTS/CUTOUTS ARE REQUIRED TO ACCOMMODATE MAINTENANCE PROCEDURES AS NOTED IN FAA AC 150/5340-26C AND IN ACCORDANCE WITH FAA AC 150/5340-30J, PART 3.5.5 CONSTANT CURRENT REGULATORS (CCRS). SERIES PLUG CUTOUTS SHALL BE TYPE S-1, RATED 5000 VOLTS, 20-AMP. SERIES PLUG CUTOUTS SHALL BE RATED SUITABLE FOR NORMAL OPERATIONS WITH HANDLE REMOVED OR HANDLE INSERTED. CUTOUTS SHALL DISCONNECT THE INPUT FROM THE OUTPUT, SHORT TERMINALS, AND SHORT THE OUTPUT TERMINALS WHEN THE HANDLE/PLUG IS REMOVED. SERIES PLUG CUTOUTS SHALL BE CROUSE-HINDS CAT. NO. 30775, OR APPROVED EQUAL THE RESPECTIVE MANUFACTURER SHALL CERTIFY IN WRITING THAT THEIR CUTOUT IS SUITABLE AND RATED FOR THE RESPECTIVE APPLICATION.
10. EACH REGULATOR FRAME SHALL BE BONDED TO VAULT GROUND BUS WITH A DEDICATED #6 AWG BONDING JUMPER.
11. OTHER PROJECTS MAY BE UNDER CONSTRUCTION DURING THIS PROJECT. COORDINATE WORK WITH OTHER CONTRACTORS.
12. RESPECTIVE LOW VOLTAGE WIRING SHALL ENTER RESPECTIVE CCR AT THE LOW VOLTAGE SECTION. HIGH VOLTAGE WIRING SHALL ENTER THE RESPECTIVE CCR AT THE HIGH VOLTAGE SECTION. MAINTAIN SEPERATION OF HIGH VOLTAGE WIRING (AIRFIELD LIGHTING 5000 VOLTS SERIES CIRCUITS AND/OR OTHER CIRCUITS RATED ABOVE 600 VOLTS) FROM LOW VOLTAGE WIRING (RATED 600 VOLTS AND BELOW) TO COMPLY WITH NEC 300.3(C)(2). HIGH VOLTAGE AND LOW VOLTAGE WIRING SHALL NOT BE INSTALLED IN THE SAME RACEWAY, CONDUIT, WIREWAY, PULL BOX, SPLICE CAN, HANDHOLE, OR MANHOLE.
13. WORK NOT LABELED AS "ADD ALT. BID" IS BASE BID WORK.



PROPOSED HIGH VOLTAGE WIRING SCHEMATIC FOR RUNWAY 5-23

MANAIRCO PART. NO.
MR04L8283B-01
S/N: 800273
MFR DATE: 03/08
INPUT: 208/220/230/240/250V
INPUT AMPS: 20/19/18/17/16
OUTPUT: 4KW @ 606 VAC
3 STEP: (4.8A, 5.5A, 6.6A)
CONSTANT CURRENT
REGULATOR

PRIOR TO OPERATING EACH CCR, CONFIRM EACH CCR FRAME IS GROUNDED TO THE VAULT GROUNDING ELECTRODE SYSTEM WITH A MINIMUM #6 AWG COPPER CONDUCTOR AND UL LISTED GROUNDING CONNECTORS WITH SECURE AND TIGHT CONNECTIONS. CORRECT WHERE MISSING FOR SAFETY OF PERSONNEL.

PRIOR TO OPERATING EACH CCR, CONFIRM EACH CCR FRAME IS GROUNDED TO THE VAULT GROUNDING ELECTRODE SYSTEM WITH A MINIMUM #6 AWG COPPER CONDUCTOR AND UL LISTED GROUNDING CONNECTORS WITH SECURE AND TIGHT CONNECTIONS. CORRECT WHERE MISSING FOR SAFETY OF PERSONNEL.

LEGEND

- "I" DENOTES PLUG CUTOUT WITH PLUG INSERTED
- "P" DENOTES PLUG CUTOUT WITH PLUG PULLED
- "CCR" DENOTES CONSTANT CURRENT REGULATOR

FOR BID



**ST. LOUIS
DOWNTOWN AIRPORT**

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE: 11/22/2024 LICENSE: 11/30/2025
SIGNED: 11/22/2024 EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: E-605-SCHM.DWG

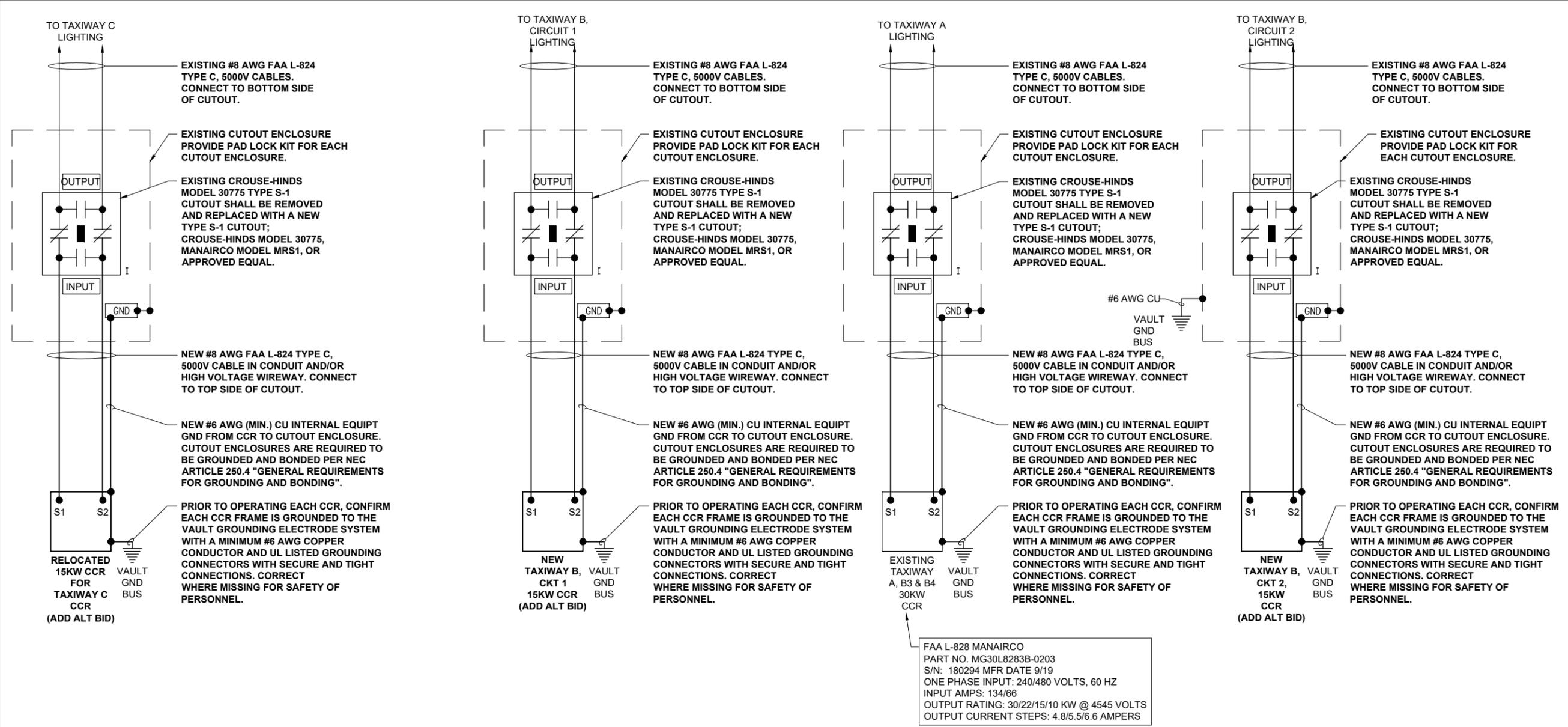
DESIGN BY: KNL 3/2/2024

DRAWN BY: CWS 3/12/2024

REVIEWED BY: KNL 3/21/2024

SHEET TITLE

**PROPOSED HIGH
VOLTAGE WIRING
SCHEMATIC FOR
TAXIWAYS**



PROPOSED HIGH VOLTAGE WIRING SCHEMATIC FOR TAXIWAYS

NOTES:

- KNOW RESPECTIVE CIRCUITS AND POWER SOURCES FOR RESPECTIVE SYSTEMS PRIOR TO REMOVING, DISCONNECTING, WORKING ON, RELOCATING, RECONNECTING, AND/OR INSTALLING THE RESPECTIVE AIRFIELD LIGHTING, TAXI SIGN, NAVAID, VAULT EQUIPMENT, OR OTHER DEVICES. THE CONTRACTOR WILL NEED TO EXERCISE CAUTION WHEN WORKING IN THE VAULT AND ON THE AIRFIELD. CONTRACTOR SHALL REPORT ANY VARIATIONS, DEFICIENCIES, AND/OR APPARENT SAFETY CONCERNS TO THE PROJECT ENGINEER OF RECORD AND THE RESIDENT PROJECT REPRESENTATIVE. CONTRACTOR SHALL FOLLOW LOCKOUT/TAGOUT PROCEDURES FOR SAFETY PERSONNEL.
- EQUIPMENT AND MATERIALS NOT LABELED AS EXISTING ARE NEW.
- VERIFY EACH CUTOUT IS PROVIDED WITH LEGEND PLATES TO IDENTIFY THE RESPECTIVE CUTOUT INPUT AND OUTPUT.
- INCLUDE ADEQUATE WORKING SPACE IN FRONT OF EACH CUTOUT ENCLOSURE TO MEET NEC CLEARANCE REQUIREMENTS.
- NOTE THE EXISTING TAXIWAY LIGHTING CIRCUITS HAVE BEEN OBSERVED TO BE IN VERY POOR TO DANGEROUS CONDITION. DANGEROUS CONDITION INDICATES LIGHTING FAILURES, GROUND FAULTS, TRANSFORMER FAILURES, BAD CONNECTIONS, UNSAFE CONDITIONS, RISK OF ELECTRIC SHOCK, INJURY AND/OR DEATH, AND OTHER FAILURE CONDITIONS CAN BE EXPECTED OR PRESENTLY EXIST. PERSONNEL ARE AT RISK OF ELECTRIC SHOCK, INJURY, AND DEATH WHEN ON THE AIRFIELD AREAS THAT CONTAIN THE LIGHTING SYSTEMS. THE AIRFIELD LIGHTING SERIES CIRCUIT CABLES ARE UNSAFE, AND THAT BEING NEAR ACTIVE CIRCUITS WITH STANDING WATER ON THE GROUND COULD BE LIFE-THREATENING. CAUTION NEEDS TO BE EXERCISED WHEN WORKING ON OR AROUND THESE CIRCUITS. THE AIRFIELD LIGHTING SERIES CIRCUITS ARE IN SUCH BAD CONDITION THAT THEY ARE A SAFETY HAZARD TO PERSONNEL WORKING ON THE AIRFIELD, AND SAFETY MEASURES NEED TO BE PERFORMED WHEN WORKING AROUND THESE CIRCUITS. SHUT OFF AND LOCK OFF THE RESPECTIVE AIRFIELD LIGHTING CIRCUITS WHEN WORKING IN AREAS THAT HAVE AIRFIELD LIGHTING CIRCUITS.
- NEVER REMOVE OR INSERT A CUTOUT WITH THE CIRCUIT ENERGIZED. SHUTOFF CIRCUITS PRIOR TO PULLING OR INSERTING A SERIES PLUG CUTOUT.

- LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6, SUITABLE FOR GROUNDING AND SUNLIGHT RESISTANT. 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 LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS NOT U.L. LISTED. CONFIRM LIQUID TIGHT FLEXIBLE METAL CONDUIT BEARS THE UL LABEL PRIOR TO INSTALLING IT.
- INSTALL UL LISTED FIRE STOP MATERIAL AT EACH CONDUIT ENTRY AND EXIT TO EACH RESPECTIVE CUTOUT ENCLOSURE (EXISTING AND NEW).
- SERIES CIRCUIT DISCONNECTS/CUTOUTS ARE REQUIRED TO ACCOMMODATE MAINTENANCE PROCEDURES AS NOTED IN FAA AC 150/5340-26C AND IN ACCORDANCE WITH FAA AC 150/5340-30J, PART 3.5.5 CONSTANT CURRENT REGULATORS (CCRS). SERIES PLUG CUTOUTS SHALL BE TYPE S-1, RATED 5000 VOLTS, 20-AMP. SERIES PLUG CUTOUTS SHALL BE RATED SUITABLE FOR NORMAL OPERATIONS WITH HANDLE REMOVED OR HANDLE INSERTED. CUTOUTS SHALL DISCONNECT THE INPUT FROM THE OUTPUT, SHORT TERMINALS, AND SHORT THE OUTPUT TERMINALS WHEN THE HANDLE/PLUG IS REMOVED. SERIES PLUG CUTOUTS SHALL BE CROUSE-HINDS CAT. NO. 30775, MANAIRCO CAT. NO. MRS1, OR APPROVED EQUAL THE RESPECTIVE MANUFACTURER SHALL CERTIFY IN WRITING THAT THEIR CUTOUT IS SUITABLE AND RATED FOR THE RESPECTIVE APPLICATION.
- EACH REGULATOR FRAME SHALL BE BONDED TO VAULT GROUND BUS WITH A DEDICATED #6 AWG BONDING JUMPER.
- OTHER PROJECTS MAY BE UNDER CONSTRUCTION DURING THIS PROJECT. COORDINATE WORK WITH OTHER CONTRACTORS.
- RESPECTIVE LOW VOLTAGE WIRING SHALL ENTER RESPECTIVE CCR AT THE LOW VOLTAGE SECTION. HIGH VOLTAGE WIRING SHALL ENTER THE RESPECTIVE CCR AT THE HIGH VOLTAGE SECTION. MAINTAIN SEPARATION OF HIGH VOLTAGE WIRING (AIRFIELD LIGHTING 5000 VOLTS SERIES CIRCUITS AND/OR OTHER CIRCUITS RATED ABOVE 600 VOLTS) FROM LOW VOLTAGE WIRING (RATED 600 VOLTS AND BELOW) TO COMPLY WITH NEC 300.3(C)(2). HIGH VOLTAGE AND LOW VOLTAGE WIRING SHALL NOT BE INSTALLED IN THE SAME RACEWAY, CONDUIT, WIREWAY, PULL BOX, SPLICE CAN, HANDHOLE, OR MANHOLE.
- WORK NOT LABELED AS "ADD ALT. BID" IS BASE BID WORK.

LEGEND

"I"	DENOTES PLUG CUTOUT WITH PLUG INSERTED
"P"	DENOTES PLUG CUTOUT WITH PLUG PULLED
"CCR"	DENOTES CONSTANT CURRENT REGULATOR

FOR BID

NOV 22, 2024 4:05 PM L:\AMB02387\1\23\JOBS\23A0001D\CAD\AIRPORT\1\SHEET\2024 CPS-5078 SHEETS\IE-605-SCHM



Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

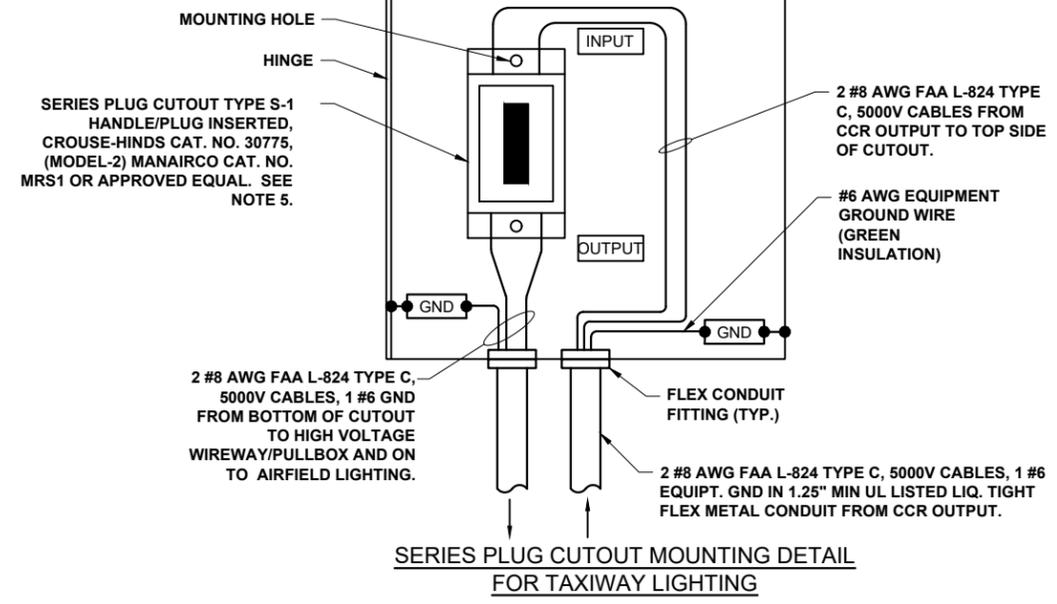
NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024
PROJECT NO: 23A0001D
CAD FILE: E-606-SCHM.DWG
DESIGN BY: KNL 3/2/2024
DRAWN BY: CWS 3/12/2024
REVIEWED BY: KNL 3/21/2024

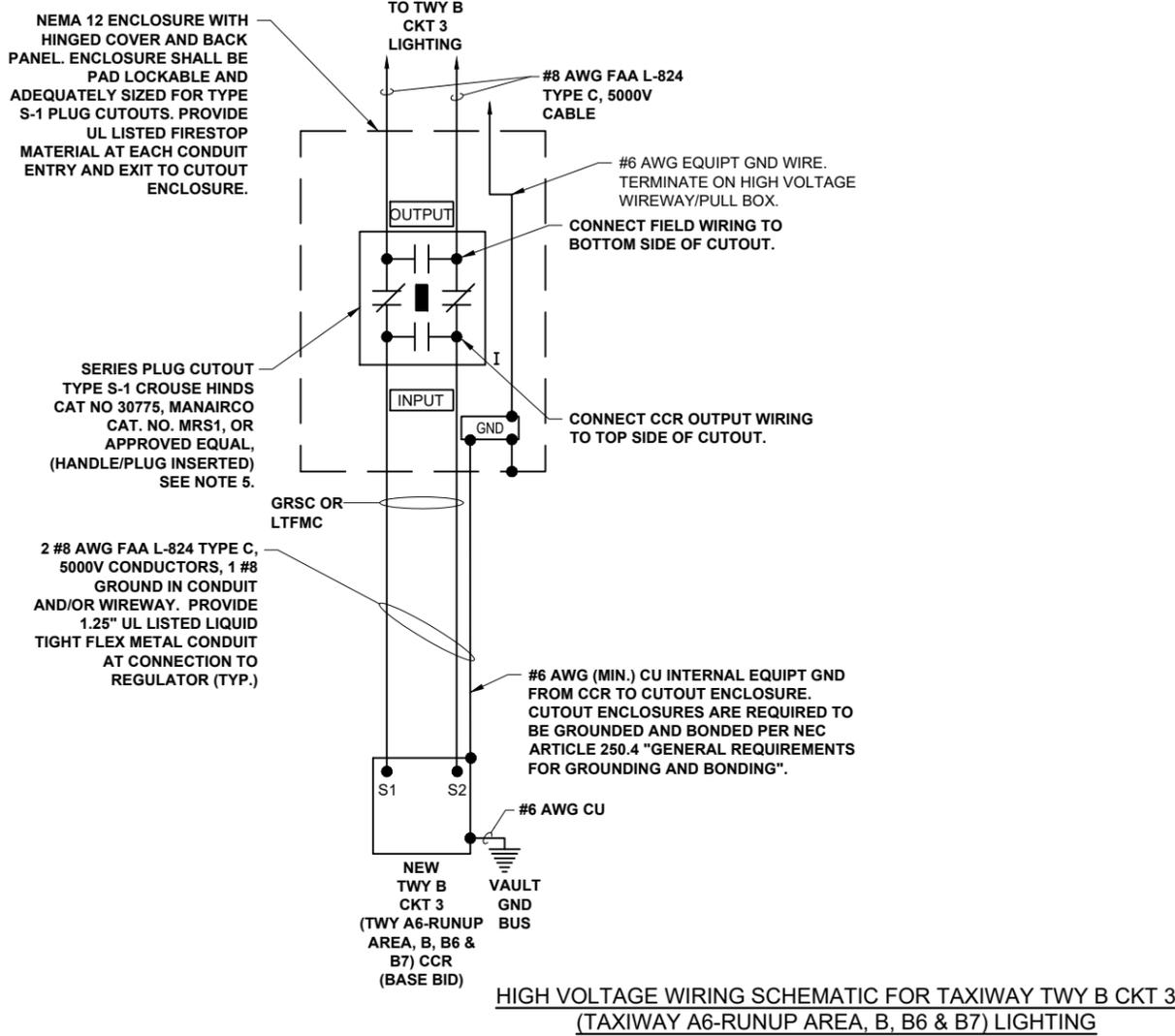
SHEET TITLE

**HIGH VOLTAGE
WIRING SCHEMATIC
FOR TWY B CKT 3
LIGHTING**

14" W X 12" H X 8" D (APPROXIMATE DIMENSIONS)
NEMA 12 ENCLOSURE WITH HINGED COVER & BACK
PANEL. NOTE FRONT DOOR OF ENCLOSURE NOT
SHOWN FOR CLARITY. ADJUST ENCLOSURE
DIMENSIONS AS NECESSARY TO ACCOMMODATE
THE RESPECTIVE CUTOUT. ENCLOSURE SHALL
INCLUDE PAD LOCK KIT. PROVIDE UL LISTED
FIRESTOP MATERIAL AT EACH CONDUIT ENTRY AND
EXIT TO CUTOUT ENCLOSURE.



**SERIES PLUG CUTOUT MOUNTING DETAIL
FOR TAXIWAY LIGHTING**



**HIGH VOLTAGE WIRING SCHEMATIC FOR TAXIWAY TWY B CKT 3
(TAXIWAY A6-RUNUP AREA, B, B6 & B7) LIGHTING**

LEGEND
"I" DENOTES PLUG CUTOUT WITH PLUG INSERTED
"P" DENOTES PLUG CUTOUT WITH PLUG PULLED
"CCR" DENOTES CONSTANT CURRENT REGULATOR

NOTES:

- PROVIDE PHENOLIC ENGRAVED LEGEND PLATES FOR EACH CONSTANT CURRENT REGULATOR NOTING THE REGULATOR DESIGNATION AND THE RUNWAY OR TAXIWAY SERVED.
- EACH PLUG CUTOUT CABINET SHALL BE FURNISHED WITH A PHENOLIC ENGRAVED LEGEND PLATE THAT IDENTIFIES THE RESPECTIVE CIRCUIT OR REGULATOR. INCLUDE AN ADDITIONAL LEGEND PLATE LABELED "CAUTION OPERATE CUTOUTS WITH CCR SHUT OFF". FURNISH & INSTALL A WARNING LABEL FOR CUTOUT ENCLOSURE TO WARN PERSONS OF POTENTIAL ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "FLASH PROTECTION". PROVIDE PHENOLIC ENGRAVED LEGEND PLATES FOR EACH CUTOUT TO IDENTIFY THE RESPECTIVE CUTOUT INPUT CONNECTION AND THE RESPECTIVE CUTOUT OUTPUT CONNECTION.
- PROVIDE ADEQUATE WORKING SPACE IN FRONT OF EACH CUTOUT ENCLOSURE TO MEET NEC CLEARANCE REQUIREMENTS.
- LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6, SUITABLE FOR GROUNDING AND SUNLIGHT RESISTANT. 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 LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS NOT UL LISTED. CONFIRM LIQUID TIGHT FLEXIBLE METAL CONDUIT BEARS THE UL LABEL PRIOR TO INSTALLATION
- SERIES PLUG CUTOUTS SHALL BE TYPE S-1, RATED 5000 VOLTS, 20-AMP, AND VERIFIED BY THE MANUFACTURER AS SUITABLE FOR THE RESPECTIVE APPLICATION. SERIES PLUG CUTOUTS SHALL BE RATED SUITABLE FOR NORMAL OPERATION WITH HANDLE REMOVED OR HANDLE INSERTED. CUTOUTS SHALL DISCONNECT THE INPUT FROM THE OUTPUT, SHORT THE INPUT TERMINALS, AND SHORT THE OUTPUT TERMINALS WHEN THE HANDLE/PLUG IS REMOVED. SERIES PLUG CUTOUTS SHALL BE CROUSE-HINDS CAT. NO. 30775, MANAIRCO CAT. NO. MRS1 OR APPROVED EQUAL. THE RESPECTIVE MANUFACTURER SHALL CERTIFY IN WRITING THAT THEIR CUTOUT IS SUITABLE AND RATED FOR THE RESPECTIVE APPLICATION.
- MAINTAIN SEPARATION OF HIGH VOLTAGE WIRING (AIRFIELD LIGHTING 5000 VOLT SERIES CIRCUITS AND/OR OTHER CIRCUITS RATED ABOVE 600 VOLTS) FROM LOW VOLTAGE WIRING (RATED 600 VOLTS AND BELOW) TO COMPLY WITH NEC 300.3(C)(2). HIGH VOLTAGE AND LOW VOLTAGE WIRING SHALL NOT BE INSTALLED IN THE SAME RACEWAY, CONDUIT, WIREWAY, PULL BOX, SPLICE CAN, HANDHOLE, OR MANHOLE.
- LOW VOLTAGE WIRING SHALL ENTER THE RESPECTIVE CCR AT THE LOW VOLTAGE SECTION. HIGH VOLTAGE WIRING SHALL ENTER THE RESPECTIVE CCR AT THE HIGH VOLTAGE SECTION
- PROVIDE UL LISTED FIRE STOP MATERIAL AT EACH CONDUIT ENTRY AND EXIT TO EACH RESPECTIVE CUTOUT ENCLOSURE.
- BOND ALL REGULATORS TO THE RESPECTIVE VAULT GROUND BUS WITH A DEDICATED #6 AWG BONDING JUMPER FOR EACH REGULATOR.

FOR BID



ST. LOUIS DOWNTOWN AIRPORT

BI-STATE DEVELOPMENT
ST. LOUIS DOWNTOWN AIRPORT
6100 Archview Drive
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: E-607.DWG

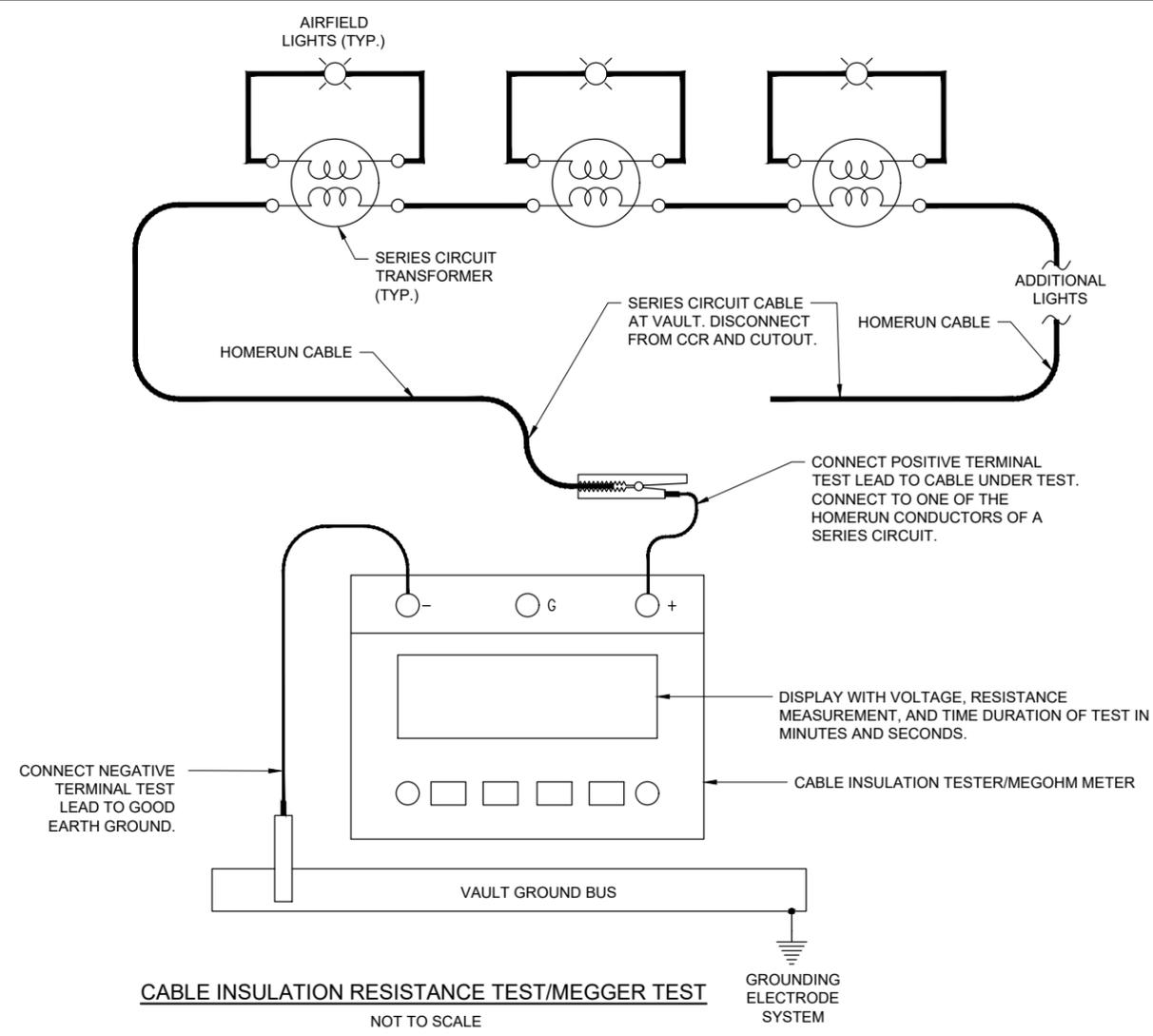
DESIGN BY: KNL 3/2/2024

DRAWN BY: CWS 3/12/2024

REVIEWED BY: KNL 3/21/2024

SHEET TITLE

**SERIES CIRCUIT
CABLE TESTING
DETAILS**

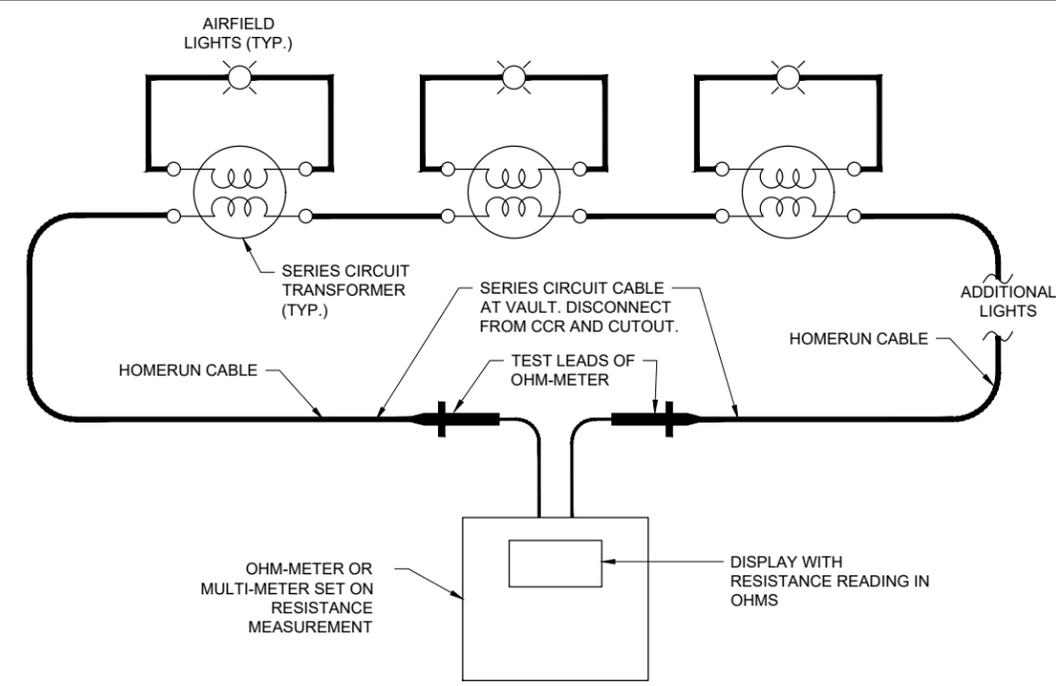


CABLE INSULATION RESISTANCE TEST/MEGGER TEST

NOT TO SCALE

CABLE INSULATION RESISTANCE TEST (MEGGER TEST) NOTES

- PRIOR TO BEGINNING EXCAVATIONS, AIRFIELD LIGHTING MODIFICATIONS, CABLE INSTALLATION, AND/OR ANY OTHER WORK THAT MIGHT POSSIBLY AFFECT AIRFIELD LIGHTING CIRCUITS, ALL EXISTING SERIES CIRCUIT LIGHTING CABLES SHALL BE MEGGER TESTED WITH AN INSULATION RESISTANCE TESTER AND RECORDED AT THE RESPECTIVE AIRPORT ELECTRICAL VAULT.
- AFTER AIRFIELD LIGHTING MODIFICATIONS, ADDITIONS, UPGRADES, AND/OR OTHER WORK AND ADDITIONS HAVE BEEN COMPLETED ALL EXISTING SERIES CIRCUIT LIGHTING CABLES SHALL BE MEGGER TESTED WITH AN INSULATION RESISTANCE TESTER AND RECORDED AT THE RESPECTIVE AIRPORT ELECTRICAL VAULT.
- THE CONTRACTOR IS RESPONSIBLE TO EMPLOY THE SERVICES OF PERSONNEL QUALIFIED, FAMILIAR WITH, AND TRAINED TO PERFORM THE RESPECTIVE TESTS, AND QUALIFIED TO WORK ON 5000 VOLT AIRFIELD LIGHTING SERIES CIRCUITS, CONSTANT CURRENT REGULATORS, AND ASSOCIATED AIRPORT ELECTRICAL VAULT EQUIPMENT.
- INSULATION RESISTANCE TESTING EQUIPMENT FOR USE WITH 5,000 VOLT SERIES CIRCUIT CABLES SHALL USE AN INSULATION RESISTANCE TESTER CAPABLE OF TESTING THE CABLES AT 5,000 VOLTS. OLDER SERIES CIRCUIT CABLES AND/OR CABLES IN POOR CONDITION MAY REQUIRE THE TEST VOLTAGE TO BE PERFORMED AT A VOLTAGE LOWER THAN 5,000 VOLTS (EXAMPLE 1,000 VOLTS, 500 VOLTS, OR LESS THAN 500 VOLTS). THE RESPECTIVE TEST VOLTAGE SHALL BE RECORDED FOR EACH CABLE INSULATION RESISTANCE TEST RESULT.
- INSULATION RESISTANCE TESTING EQUIPMENT FOR USE WITH 600 VOLT RATED CABLES SHALL USE A 500 VOLT INSULATION RESISTANCE TESTER. THE RESPECTIVE TEST VOLTAGE SHALL BE RECORDED FOR EACH CABLE INSULATION RESISTANCE TEST RESULT.
- IT IS RECOMMENDED TO USE THE SAME INSULATION RESISTANCE TEST EQUIPMENT THROUGHOUT THE PROJECT TO ENSURE RELIABLE COMPARATIVE READINGS AT THE BEGINNING OF THE PROJECT AND AT THE COMPLETION OF THE PROJECT.
- DISCONNECT THE AIRFIELD LIGHTING SERIES CIRCUIT CABLES FROM THE CONSTANT CURRENT REGULATOR WHEN PERFORMING CABLE INSULATION RESISTANCE TESTS (MEGGER TESTS). TEST THE CABLES THAT GO TO THE AIRFIELD FOR THE RESPECTIVE AIRFIELD LIGHTING SERIES CIRCUIT. CONNECT THE CABLE INSULATION RESISTANCE TESTER TO ONE OF THE AIRFIELD LIGHTING SERIES CIRCUIT CABLES AND TO A GOOD GROUND IN THE AIRPORT ELECTRICAL VAULT SUCH AS THE AIRPORT VAULT GROUND BUS. CONDUCT THE CABLE INSULATION RESISTANCE TEST ON EACH RESPECTIVE CABLE FOR NOT LESS THAN 90 SECONDS. RECORD THE TEST RESULTS AT THE END OF THE TIME DURATION FOR THE TEST.
- FAA ADVISORY CIRCULAR 150/5340-26C MAINTENANCE OF AIRPORT VISUAL AID FACILITIES PROVIDES GUIDANCE ON INSULATION RESISTANCE TESTS. ALSO REFER TO THE USER MANUAL FOR THE RESPECTIVE CABLE INSULATION RESISTANCE TESTER. REASONABLY NEW SERIES CIRCUIT CABLES AND TRANSFORMERS WITH GOOD CONNECTIONS SHOULD READ 500 MEGA-OHMS TO 1,000 MEGA-OHMS OR HIGHER. THE READINGS SHOULD DECREASE WITH AGE. THE RESISTANCE VALUE DECLINES OVER THE SERVICE LIFE OF THE CIRCUIT; A 10-20 PERCENT DECLINE PER YEAR MAY BE CONSIDERED NORMAL. A YEARLY DECLINE OF 50 PERCENT (4 PERCENT MONTHLY) OR GREATER INDICATES THE EXISTENCE OF A PROBLEM, SUCH AS A HIGH RESISTANCE GROUND, SERIOUS DETERIORATION OF THE CIRCUIT INSULATION, LIGHTNING DAMAGE, BAD CONNECTIONS, BAD SPLICES, CABLE INSULATION DAMAGE, OR OTHER FAILURE. FAA ADVISORY CIRCULAR 150/5340-26C NOTES "GENERALLY SPEAKING, ANY CIRCUIT THAT MEASURES LESS THAN 1 MEGOHM IS CERTAINLY DESTINED FOR RAPID FAILURE." AIRFIELD LIGHTING SERIES CIRCUITS WITH CABLE INSULATION READINGS OF LESS THAN 1 MEGOHM ARE NOT UNCOMMON FOR OLDER CIRCUITS THAT ARE 20 YEARS OR MORE OF AGE.
- BASED ON INFORMATION IN FAA AC NO. 150/5340-26C MAINTENANCE OF AIRPORT VISUAL AID FACILITIES, THE CABLE INSULATION RESISTANCE VALUE INEVITABLY DECLINES OVER THE SERVICE LIFE OF THE CIRCUIT; A 10-20 PERCENT DECLINE PER YEAR MAY BE CONSIDERED NORMAL. IN THE EVENT THAT THE CABLE INSULATION RESISTANCE READINGS HAVE DECLINED MORE THAN 2 PERCENT PER MONTH IT MIGHT INDICATE CABLE DAMAGE DUE TO LIGHTNING OR DAMAGE AS A RESULT OF CONTRACTOR OPERATIONS. WHERE THE CABLE INSULATION RESISTANCE READINGS HAVE DECLINED MORE THAN 2 PERCENT PER MONTH OVER THE PROJECT CONSTRUCTION DURATION AS A RESULT OF CONTRACTOR OPERATIONS, CONTRACTOR WILL NEED TO INVESTIGATE, ADDRESS, AND REPAIR THE RESPECTIVE CABLE CIRCUITS.



MEASURE RESISTANCE OF SERIES CIRCUIT LOOP.

NOT TO SCALE

SERIES CIRCUIT LOOP RESISTANCE MEASUREMENT NOTES

- PRIOR TO BEGINNING EXCAVATIONS, AIRFIELD LIGHTING MODIFICATIONS, CABLE INSTALLATION, AND/OR ANY OTHER WORK THAT MIGHT POSSIBLY AFFECT AIRFIELD LIGHTING CIRCUITS, THE RESPECTIVE SERIES CIRCUIT CABLE LOOPS SHALL HAVE THE RESISTANCE MEASURED WITH AN OHMMETER AND RECORDED FOR EACH CIRCUIT AT THE VAULT.
- AFTER AIRFIELD LIGHTING MODIFICATIONS, ADDITIONS, UPGRADES, AND/OR OTHER WORK AND ADDITIONS HAVE BEEN COMPLETED THE RESPECTIVE SERIES CIRCUIT CABLE LOOPS SHALL HAVE THE RESISTANCE MEASURED WITH AN OHMMETER AND RECORDED FOR EACH CIRCUIT AT THE VAULT.
- ALL EXISTING SERIES CIRCUIT CABLE LOOPS SHALL HAVE THE RESISTANCE MEASURED WITH AN OHMMETER AND RECORDED FOR EACH CIRCUIT AT THE VAULT. THE RESISTANCE OF THE SERIES CIRCUIT LOOP WITH CONNECTIONS USING #8 AWG COPPER CONDUCTOR SHOULD BE APPROXIMATELY 0.8 TO 1 OHM PER THOUSAND FEET OF CABLE LENGTH. THE RESISTANCE OF THE SERIES CIRCUIT LOOP WITH CONNECTIONS USING #6 AWG COPPER CONDUCTOR SHOULD BE APPROXIMATELY 0.5 TO 0.7 OHM PER THOUSAND FEET OF CABLE LENGTH. THE NUMBER OF SERIES CIRCUIT TRANSFORMERS AND CONNECTIONS WILL AFFECT THE OVERALL RESISTANCE OF THE SERIES CIRCUIT LOOP AND THEREFORE THE MEASUREMENTS MIGHT BE SLIGHTLY HIGHER THAN THE CALCULATED RESISTANCE FOR THE RESPECTIVE LENGTH OF CABLE.

FOR BID

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Kevin N. Lightfoot

DATE SIGNED: 11/22/2024 LICENSE EXPIRES: 11/30/2025

TAXIWAY B RELOCATION,
PHASE 3: SOUTHEAST &
TAXIWAY B1 INTERSECTION

IDA NO.: CPS-5078
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: NOVEMBER 22, 2024

PROJECT NO: 23A0001D

CAD FILE: E-611.DWG

DESIGN BY: KNL 4/24/2024

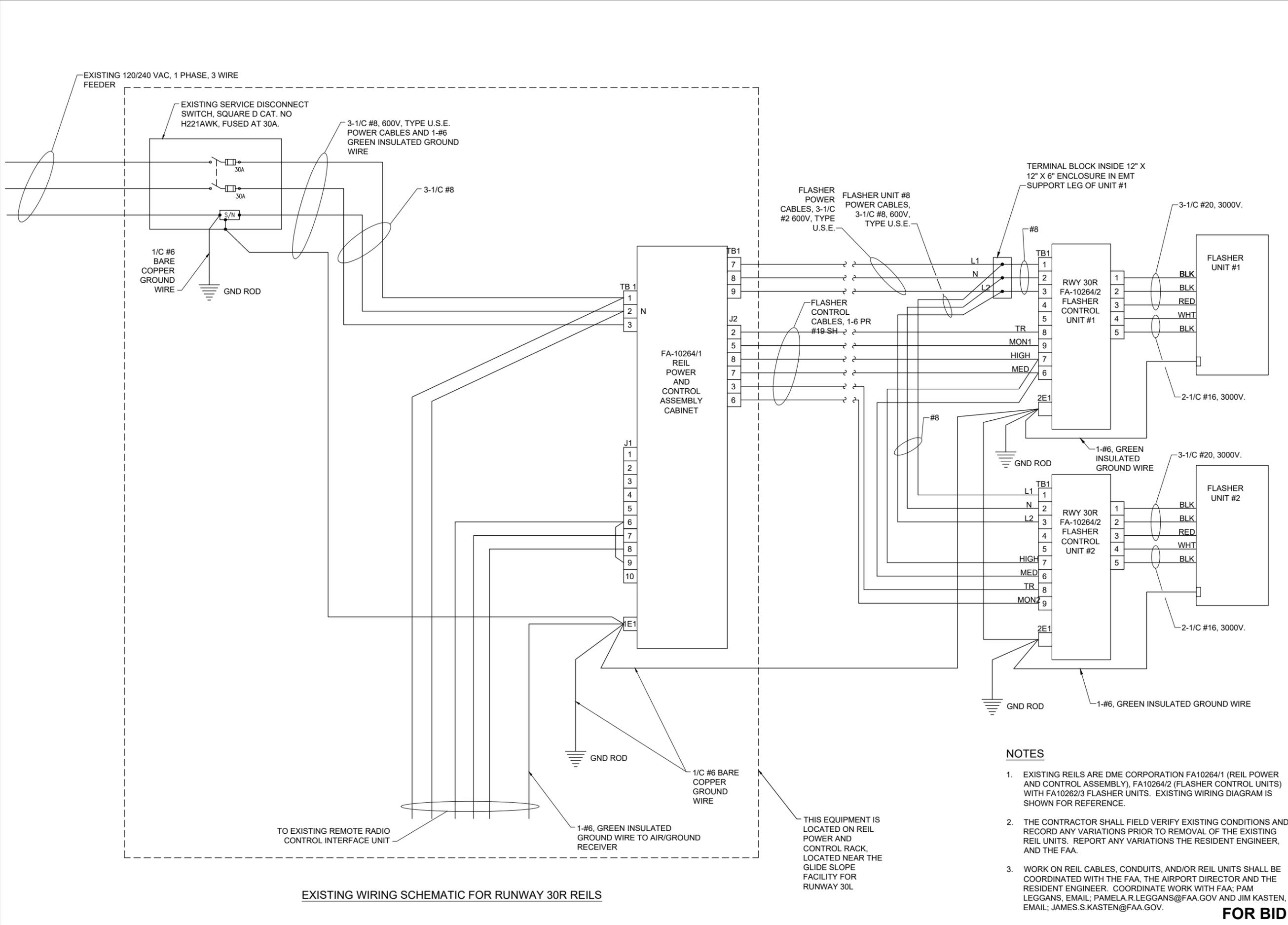
DRAWN BY: CWS 4/24/2024

REVIEWED BY: KNL 4/24/2024

SHEET TITLE

EXISTING WIRING SCHEMATIC FOR RUNWAY 30R REILS

FOR BID



EXISTING WIRING SCHEMATIC FOR RUNWAY 30R REILS

NOTES

- EXISTING REILS ARE DME CORPORATION FA10264/1 (REIL POWER AND CONTROL ASSEMBLY), FA10264/2 (FLASHER CONTROL UNITS) WITH FA10262/3 FLASHER UNITS. EXISTING WIRING DIAGRAM IS SHOWN FOR REFERENCE.
- THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND RECORD ANY VARIATIONS PRIOR TO REMOVAL OF THE EXISTING REIL UNITS. REPORT ANY VARIATIONS THE RESIDENT ENGINEER, AND THE FAA.
- WORK ON REIL CABLES, CONDUITS, AND/OR REIL UNITS SHALL BE COORDINATED WITH THE FAA, THE AIRPORT DIRECTOR AND THE RESIDENT ENGINEER. COORDINATE WORK WITH FAA; PAM LEGGANS, EMAIL; PAMELA.R.LEGGANS@FAA.GOV AND JIM KASTEN, EMAIL; JAMES.S.KASTEN@FAA.GOV.

NOV 22, 2024 4:07 PM L:\AMB02387
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