

# CONSTRUCTION PLANS - FOR BID, ISSUED MARCH 14, 2025

**RELOCATE/RECONSTRUCT TAXIWAY B, PHASE 3:  
CONSTRUCT FROM TAXIWAY B5 TO B7  
AND B1 INTERSECTION**

**BI-STATE DEVELOPMENT  
ST. LOUIS DOWNTOWN AIRPORT (CPS)  
CAHOKIA HEIGHTS, ST. CLAIR COUNTY, ILLINOIS**

**IDA PROJECT NO.: CPS-5078**  
**SBG PROJECT NO.: 3-17-SBGP-TBD**

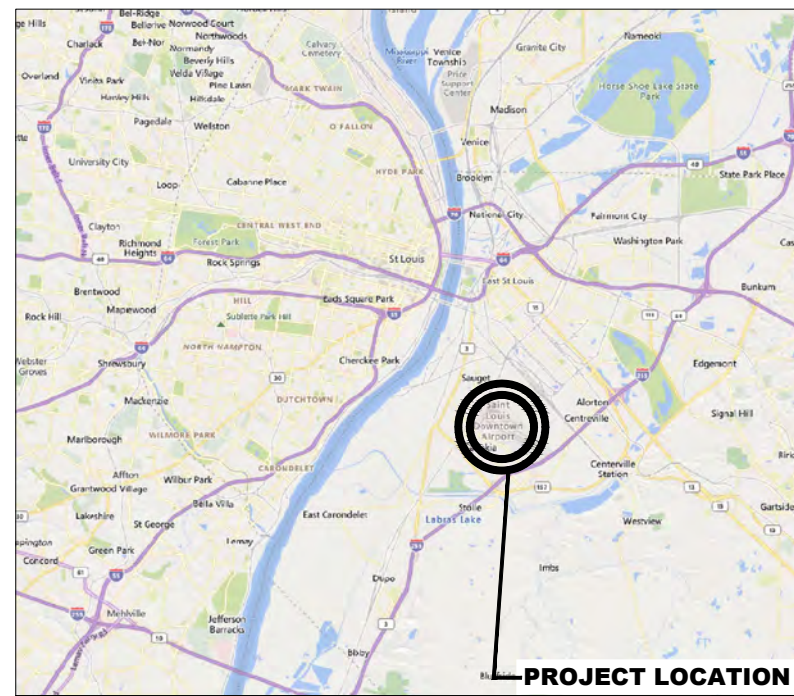
SCOPE OF WORK:

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.

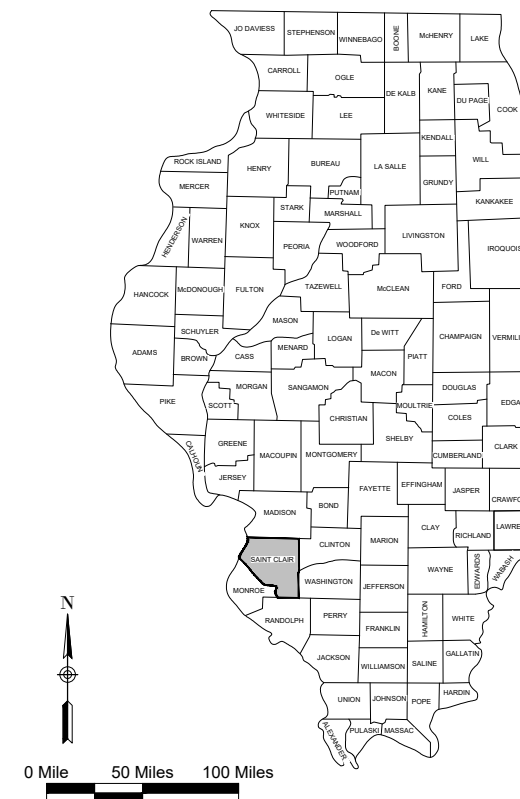
## NOTICE TO CONTRACTORS AND BIDDERS

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

## VICINITY MAP



## LOCATION MAP



No.	Issue/Description	Sheets Changed	Date	By

COVERING ELECTRICAL DESIGN

Kevin N. Lightfoot



03/14/2025  
Date

EXP.  
1/30/25



**HANSON PROFESSIONAL SERVICES INC.**  
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Telephone: 217.788.2450  
Fax: 217.788.2503

Barny S. Stolz, P.E.  
Project Manager



03/14/2025  
Date

EXP.  
11/30/25



**Bi-State Development**  
6100 Archview Drive  
Cahokia Heights, Illinois 62206-1445  
Telephone: 618.337.6060

Sandra Shore, A.A.E.  
Airport Director

03/14/2025  
Date

MAR 14, 2025 9:27 AM GROVE02594  
I:\23JOBS\23A000\1DCAD\AIRPORT\1SHEET\2025 CPS-5078 COMBINED SHEETS\G-002-FLP

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GENERAL NOTES:

QUANTITIES PAYMENT  
WILL BE MADE UNDER THE ITEM NUMBERS, DESCRIPTIONS AND UNITS NOTED IN THE ABOVE TABLE IN ACCORDANCE WITH THE BASIS OF PAYMENT FOR EACH RESPECTIVE WORK ITEM COMPLETED AND ACCEPTED BY THE ENGINEER.

CERTIFIED PAYROLLS  
THE RESIDENT ENGINEER/TECHNICIAN CANNOT FORWARD CONSTRUCTION REPORTS TO THE ILLINOIS DIVISION OF AERONAUTICS FOR PROCESSING UNTIL ALL CERTIFIED PAYROLLS FOR THE PERIOD HAVE BEEN RECEIVED.

MATERIAL CERTIFICATIONS  
MATERIALS TO BE INCORPORATED INTO THE PROJECT CANNOT BE USED WITHOUT PRIOR APPROVAL. ALL MATERIALS TO BE USED IN THE PROJECT MUST BE SUBMITTED TO THE RESIDENT ENGINEER FOR APPROVAL. USE OF MATERIALS WITHOUT PRIOR APPROVAL AND ULTIMATELY DETERMINED TO BE UNACCEPTABLE BY THE ILLINOIS DIVISION OF AERONAUTICS ARE SUBJECT TO REMOVAL AND/OR NON-PAYMENT.

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 SIGNED: 3/14/2025  
LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION	
		DES	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: G-002-FLP.DWG

DESIGN BY: BSS 3/11/2025

DRAWN BY: CWS 3/11/2025

REVIEWED BY: BSS 3/12/2025

SHEET TITLE

INDEX TO SHEETS

SUMMARY OF QUANTITIES - BASE BID						
ITEM NO.	DESCRIPTION	UNIT	FY24 QUANTITY	FY25 QUANTITY	TOTAL QUANTITY	AS-BUILT QUANTITY
AR107508	L-806 WC 8" INTERNALLY LIT	EACH	1		1	
AR108066	REIL CABLE	FOOT	540		540	
AR108108	1/C #8 5 KV UG CABLE	FOOT	25,260	10,960	36,220	
AR109200	INSTALL ELECTRICAL EQUIPMENT	L SUM		1	1	
AR110012	2" DIRECTIONAL BORE	FOOT	760	330	1,090	
AR110202	2" PVC DUCT, DIRECT BURY	FOOT	13,295	7,639	20,934	
AR110501	1-WAY CONC. ENCASED DUCT	FOOT	70		70	
AR110502	2-WAY CONCRETE ENCASED DUCT	FOOT		70	70	
AR110503	3-WAY CONCRETE ENCASED DUCT	FOOT	75		75	
AR125416	MITL-BASE MOUNTED-LED	EACH	94	74	168	
AR125565	SPLICE CAN	EACH	19	6	25	
AR125932	REPLACE SIGN PANEL	EACH	102	64	166	
AR125964	RELOCATE TAXI GUIDANCE SIGN	EACH	7	4	11	
AR150510	ENGINEER'S FIELD OFFICE	L SUM		1	1	
AR150520	MOBILIZATION	L SUM		1	1	
AR150530	TRAFFIC MAINTENANCE	L SUM		1	1	
AR152410	UNCLASSIFIED EXCAVATION	CU YD	13,989	21,389	35,378	
AR156500	TEMPORARY EROSION CONTROL	L SUM		1	1	
AR156530	TEMPORARY SEEDING	ACRE	5.13	8.66	13.79	
AR208540	OVERSIZE AGGREGATE	TON	18,682	21,681	40,363	
AR209510	CRUSHED AGGREGATE BASE COURSE	TON	5,953	7,282	13,235	
AR401613	BIT. SURF. CSE.-METHOD I, SUPERPAVE	TON	661	657	1,318	
AR401650	BITUMINOUS PAVEMENT MILLING	SQ YD	3,857	2,033	5,890	
AR403614	BIT. BASE CSE.-METHOD II, SUPERPAVE	TON	4,509	5,252	9,761	
AR403630	BITUMINOUS BASE TEST SECTION	EACH		1	1	
AR501512	12" PCC PAVEMENT	SQ YD	11,399	12,655	24,054	
AR501530	PCC TEST BATCH	EACH		1	1	
AR501910	REMOVE & REPLACE PCC PAVEMENT	SQ YD	192		192	
AR602510	BITUMINOUS PRIME COAT	GALLON	4,006	4,646	8,652	
AR603510	BITUMINOUS TACK COAT	GALLON	986	991	1,977	
AR620520	PAVEMENT MARKING-WATERBORNE	SQ FT	3,188	2,658	5,846	
AR620525	PAVEMENT MARKING-BLACK BORDER	SQ FT	4,315	4,360	8,675	
AR620900	PAVEMENT MARKING REMOVAL	SQ FT	308	1,265	1,573	
AR701900	REMOVE PIPE	FOOT	610	117	727	
AR705506	6" PERFORATED UNDERDRAIN	FOOT	4,186	4,478	8,664	
AR705548	8" NON PERFORATED UNDERDRAIN	FOOT	210	269	479	
AR705620	UNDERDRAIN END SECTION	EACH	2	2	4	
AR705630	UNDERDRAIN INSPECTION HOLE	EACH		3	3	
AR705635	UNDERDRAIN COLLECTION STRUCTURE	EACH	2	3	5	
AR705640	UNDERDRAIN CLEANOUT	EACH	8	7	15	
AR800469	REMOVE BITUMINOUS & PCC PAVEMENT	SQ YD	10,476	12,935	23,411	
AR800476	REMOVE AIRFIELD LIGHTING	L SUM		1	1	
AR800538	TAXI SIGN 2 MODULE, LED UPGRADE	EACH	11	6	17	
AR800539	TAXI SIGN 3 MODULE, LED UPGRADE	EACH	7	4	11	
AR800540	TAXI SIGN 4 MODULE, LED UPGRADE	EACH	2	2	4	
AR800564	CABLE & CCR TESTING & CALIBRATION	L SUM		1	1	
AR901510	SEEDING	ACRE	5.13	8.66	13.79	
AR908514	LIGHT-DUTY HYDRAULIC MULCH	ACRE	5.13	8.66	13.79	

EARTHWORK QUANTITY SUMMARY				
CALCULATION	CUT (CY)	FILL (CY)	FILL + 20% (CY)	NET (CY)
FY24 EARTHWORK	13,989	5,928	7,113	6,876 (EXCESS)
FY25 EARTHWORK	21,389	4,442	5,330	16,059 (EXCESS)
TOTAL	35,378**	10,370	12,443	22,935 (EXCESS)

\*\* USED TO CALCULATE AR152410 PAY ITEM QUANTITY

EARTHWORK NOTES:

1. EARTHWORK QUANTITIES (CUT/FILL VOLUMES) SHOWN ABOVE HAVE BEEN CALCULATED UTILIZING AUTODESK CIVIL3D SOFTWARE THROUGH AUTOCAD. THE CALCULATION METHOD WAS BY A COMPARISON OF SURFACE MODELS CREATED WITH EXISTING SURVEY DATA AND PROPOSED DESIGN GRADES. THE VOLUMES WERE CALCULATED IN TWO PARTS: THE CUT/FILL VOLUME REQUIRED TO CORE OUT AND FILL FOR THE PROPOSED PAVEMENT SECTION AS COMPARED TO THE EXISTING SUBGRADE DATUM, AND THE CUT/FILL VOLUMES REQUIRED FOR PROPOSED GRADING WORK OUTSIDE OF THE PROPOSED PAVEMENT LIMITS AS COMPARED TO THE EXISTING GROUND SURFACE. THE NUMBERS IN THE SUMMARY TABLES ABOVE REPRESENT A TOTAL OF THESE TWO PARTS ADDED TOGETHER FOR CLARITY.
2. ANOTHER PROJECT (CPS-4839) WITHIN THIS PROJECT'S CONSTRUCTION AREA IS ANTICIPATED TO BE CONSTRUCTED PRIOR TO OR CONCURRENT WITH THIS PROJECT. THE PROPOSED DRAINAGE IMPROVEMENTS AND GRADING HAVE BEEN REFLECTED IN THIS PROJECT AS EXISTING. HOWEVER THE ACTUAL ITEMS LOCATION AND ELEVATIONS MAY VARY SLIGHTLY. THE CONTRACTOR WILL BE PROVIDED A COPY OF THE RECORD DRAWINGS ONCE AVAILABLE.
3. FOLLOWING THE PROJECT AWARD, THE ENGINEER CAN PROVIDE THE RELEVANT AUTOCAD AND CIVIL 3D SURFACE MODEL FILES TO THE AWARDED CONTRACTOR UPON REQUEST TO ASSIST WITH CONSTRUCTION LAYOUT.
3. EXCESS MATERIAL TO BE PLACED ON STOCKPILE AS IDENTIFIED ON THE PLANS, AND GRADED TO DRAIN AT A MAINTAINABLE SLOPE (MAX 4:1). DISTURBED AREAS OF STOCKPILE SHALL BE RESTORED WITH TEMPORARY SEEDING, SEEDING AND MULCHING IN ACCORDANCE WITH THE SPECIFICATIONS AND PAID FOR UNDER THE RESPECTIVE 156, 901 AND 908 PAY ITEMS. AN ESTIMATED QUANTITY OF 1.50 ACRES OF TEMPORARY SEEDING, SEEDING AND MULCHING EACH HAVE BEEN INCLUDED WITHIN THE BID QUANTITIES FOR STOCKPILE RESTORATION.
4. IF THE CONTRACTOR DOES NOT AGREE TO THE QUANTITIES DERIVED WITH THIS METHOD, THE CONTRACTOR MAY ELECT TO SURVEY THE EXISTING GRADES PRIOR TO BEGINNING EARTHWORK OPERATIONS AS PART OF THE PROJECT FOR THE ENGINEER TO REVIEW FOR A POTENTIAL ADJUSTMENT TO THE PAY ITEM QUANTITY. ANY COSTS ASSOCIATED WITH THE CONTRACTOR-PROVIDED SURVEY SHALL BE INCLUDED IN THE ORIGINAL BID AMOUNT, AND NO ADDITIONAL PAYMENT SHALL BE MADE. FOLLOWING THE CONTRACTOR'S VERIFICATION OF THE QUANTITIES, IF A DISAGREEMENT STILL EXISTS, THE MEASUREMENT OF THE EARTHWORK FOR PAYMENT SHALL BE MADE BY THE RESIDENT ENGINEER, PER THE 152 SPECIFICATION, WHO SHALL TAKE CROSS-SECTIONAL ELEVATIONS AND MEASUREMENTS OF THE EXISTING GROUND SURFACE AND THE FINAL GROUND GRADED SURFACE FOR COMPARISON.



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**ST. LOUIS  
DOWNTOWN AIRPORT**

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



DATE  
SIGNED: 3/14/2025

LICENSE  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: G-002-FLP.DWG

DESIGN BY: BSS 3/11/2025

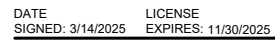
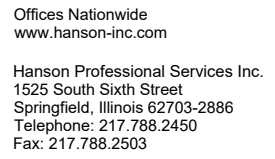
DRAWN BY: CWS 3/11/2025

REVIEWED BY: BSS 3/12/2025

**SHEET TITLE**

## SUMMARY OF QUANTITIES

**FOR BID**



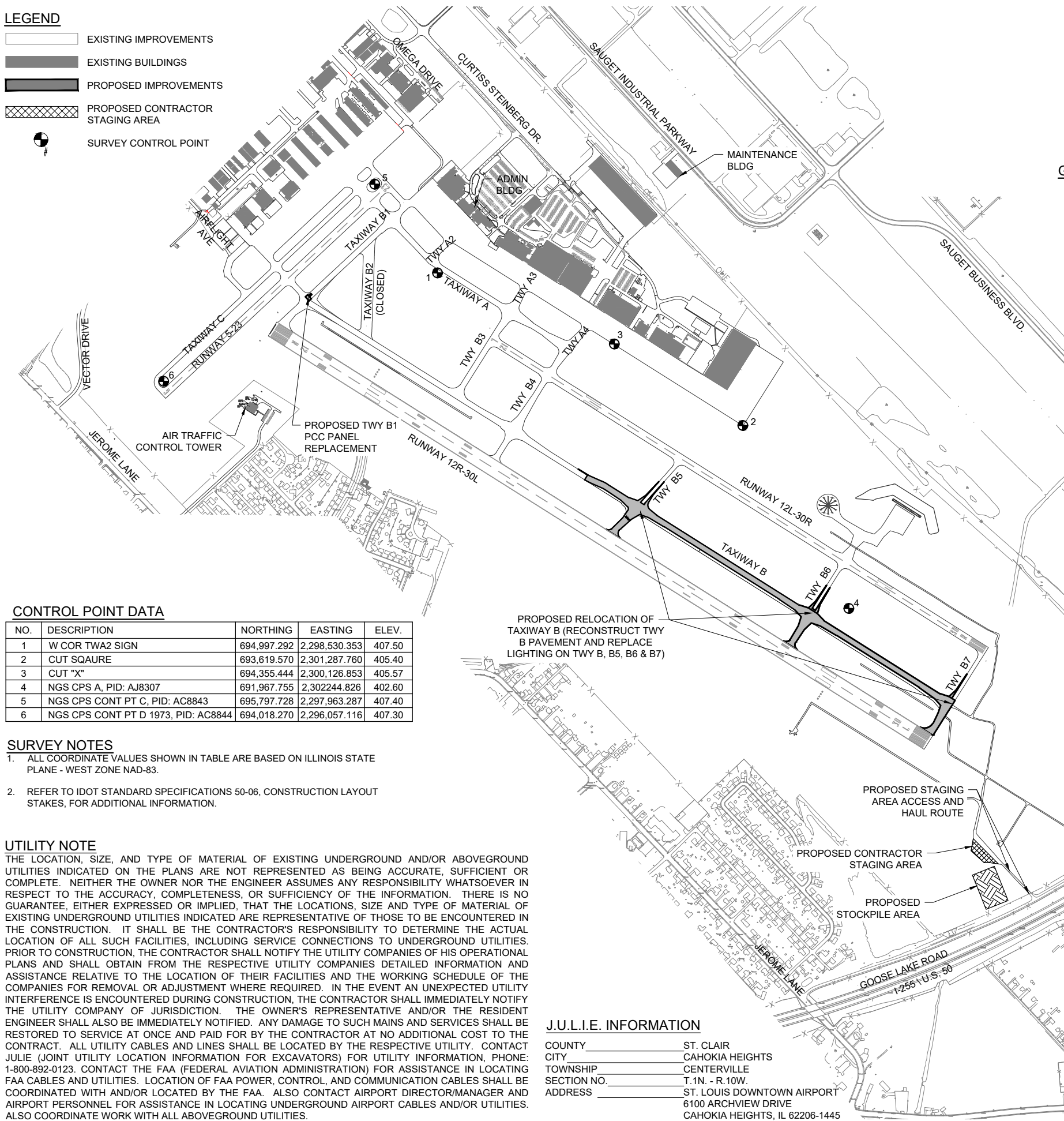
IDA NO.: CPS-5078  
CONTRACT NO.: SD064

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: G-003-SOW.DWG  
DESIGN BY: BSS 3/11/2025  
DRAWN BY: CWS 3/11/2025  
REVIEWED BY: BSS 3/12/2025

## SCOPE OF WORK

4

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



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

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.

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.

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

1. THE SCOPE OF WORK SHEET IS INTENDED ONLY 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.

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

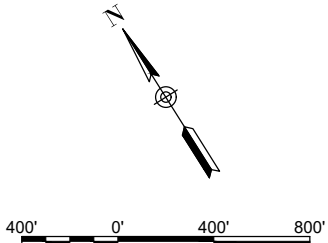
PRIOR TO THE ISSUANCE OF A CONSTRUCTION NOTICE-TO-PROCEED (NTP), THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND SUBMITTING A SAFETY PLAN COMPLIANCE DOCUMENT IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5370-2G, PARAGRAPH 2.4.2, OR EQUIVALENT SECTION IN SUBSEQUENT/CURRENT ISSUE. THE AIRPORT DIRECTOR 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 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 B5, B6 AND B7 SHALL BE CLOSED TO AIRCRAFT FOR A PORTION 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 2 MAY NOT BE PERFORMED SIMULTANEOUSLY.
  - WORK AREAS 1A AND 3 MAY NOT BE PERFORMED SIMULTANEOUSLY.
  - WORK AREAS 2A AND 3 MAY NOT BE PERFORMED SIMULTANEOUSLY.
  - WORK AREAS 1B AND 1C MAY NOT BE PERFORMED SIMULTANEOUSLY.
  - WORK AREAS 2B AND 2C MAY NOT BE PERFORMED SIMULTANEOUSLY.
  - WORK AREA 4A SHALL BE PERFORMED WHILE WORK AREA 1A OR 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.

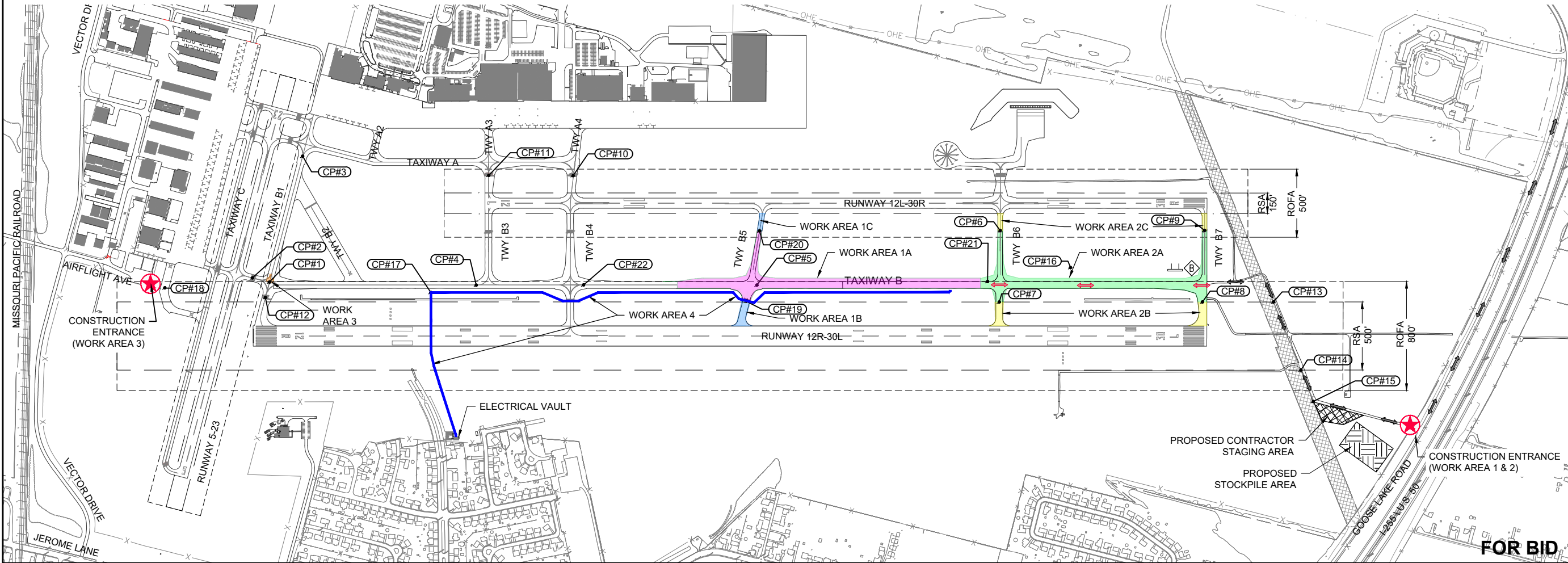
CRITICAL POINTS						
POINT #	LATITUDE	LONGITUDE	SE	AGL	AMSL	DESCRIPTION
1	038° 34' 29.09"	-090° 09' 50.30"	411'	25'	436'	EQUIPMENT
2	038° 34' 30.01"	-090° 09' 51.43"	405'	25'	430'	EQUIPMENT
3	038° 34' 35.53"	-090° 09' 41.50"	410'	2'	412'	BARRICADES
4	038° 34' 20.90"	-090° 09' 34.27"	411'	2'	413'	BARRICADES
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
19	038° 34' 09.46"	-090° 09' 13.95"	411'	2'	413'	BARRICADES
20	038° 34' 13.27"	-090° 09' 09.44"	406'	2'	408'	BARRICADES
21	038° 34' 01.34"	-090° 08' 54.11"	406'	2'	408'	BARRICADES
22	038° 34' 16.76"	-090° 09' 25.87"	410'	2'	412'	BARRICADES

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



DATE: 3/14/2025  
SIGNED: 3/14/2025  
LICENSE: 11/30/2025  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: G-004-SFY.DWG  
DESIGN BY: BSS 3/11/2025  
DRAWN BY: CWS 3/11/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

CONSTRUCTION  
SAFETY AND  
PHASING PLAN  
OVERALL



DATE SIGNED: 3/14/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: G-004-SFY.DWG

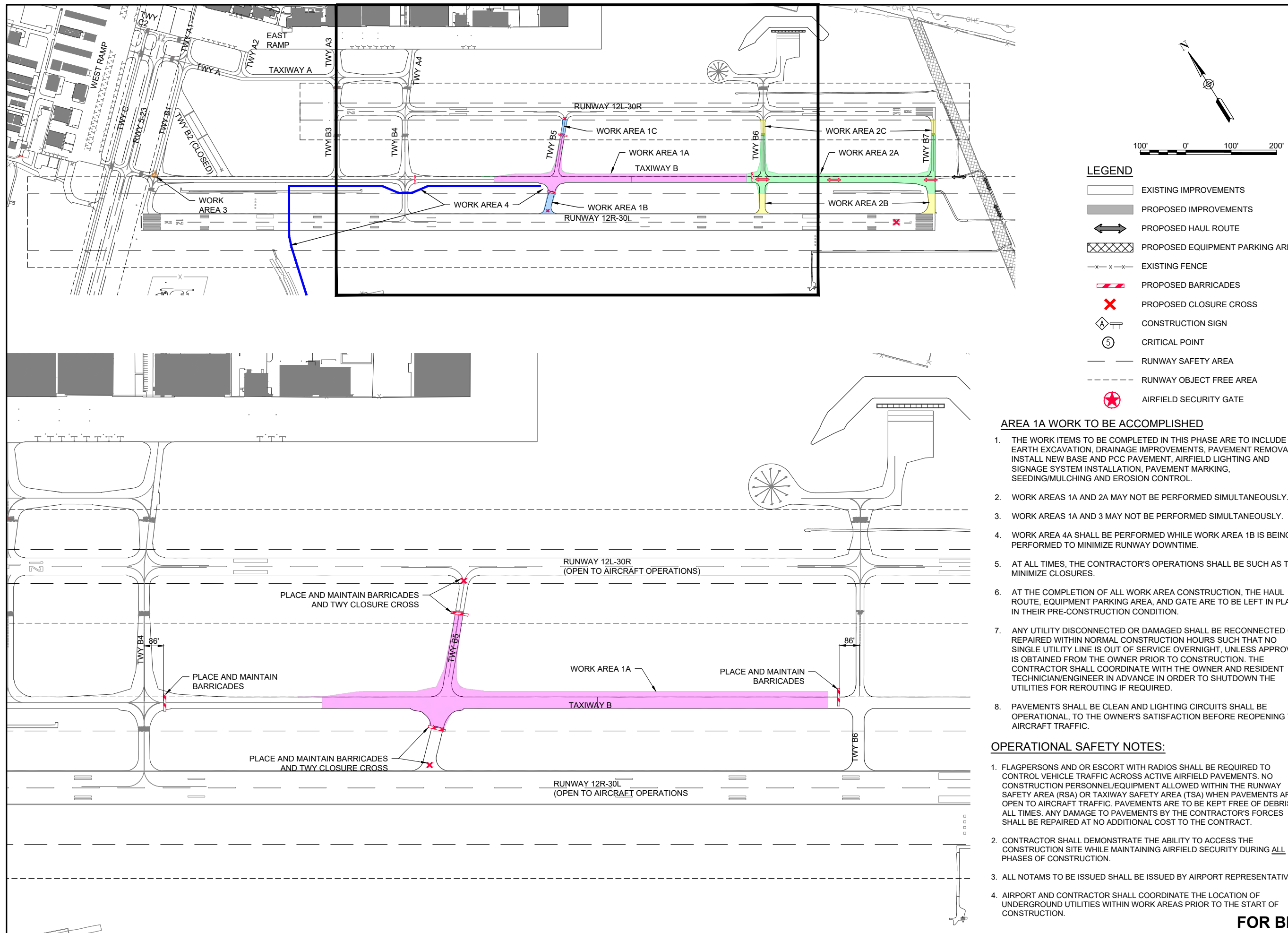
DESIGN BY: BSS 3/11/2025

DRAWN BY: CWS 3/11/2025

REVIEWED BY: BSS 3/12/2025

SHEET TITLE

# CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 1A



MAR 14, 2025 9:29 AM GROVE02594

**FOR BID**



DATE SIGNED: 3/14/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: G-004-SFY.DWG

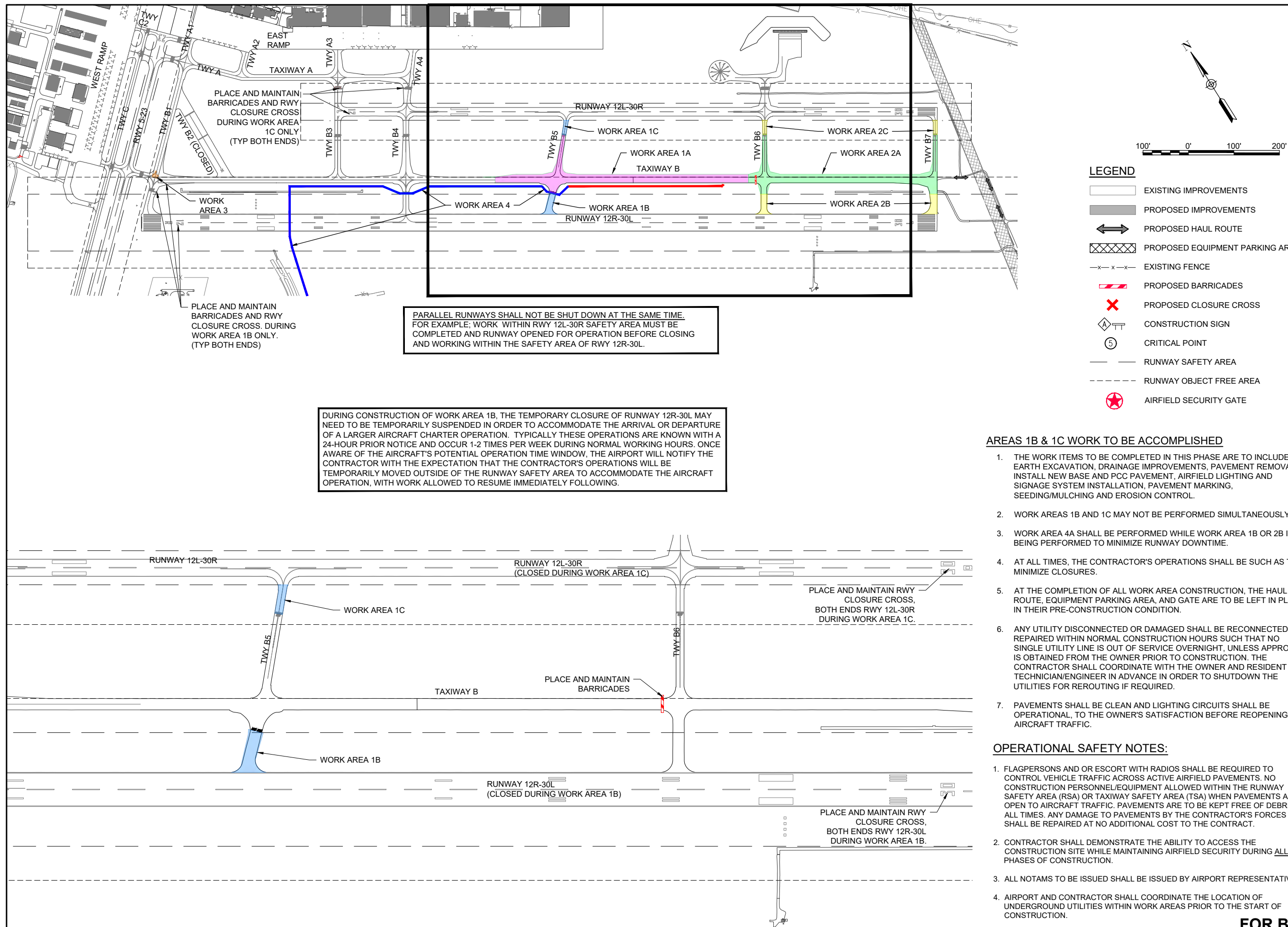
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DRAWN BY: CWS 3/11/2025

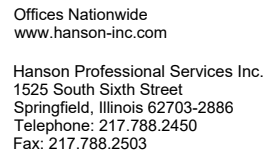
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

# CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREAS 1B AND 1C



MAR 14, 2025 9:30 AM GROVE02594  
\\23JOBS\23A0001\DCAD\AIRPORT\1\2025 CPS-5078 COMBINED SHEETS\G-004-SFY



DATE SIGNED: 3/14/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

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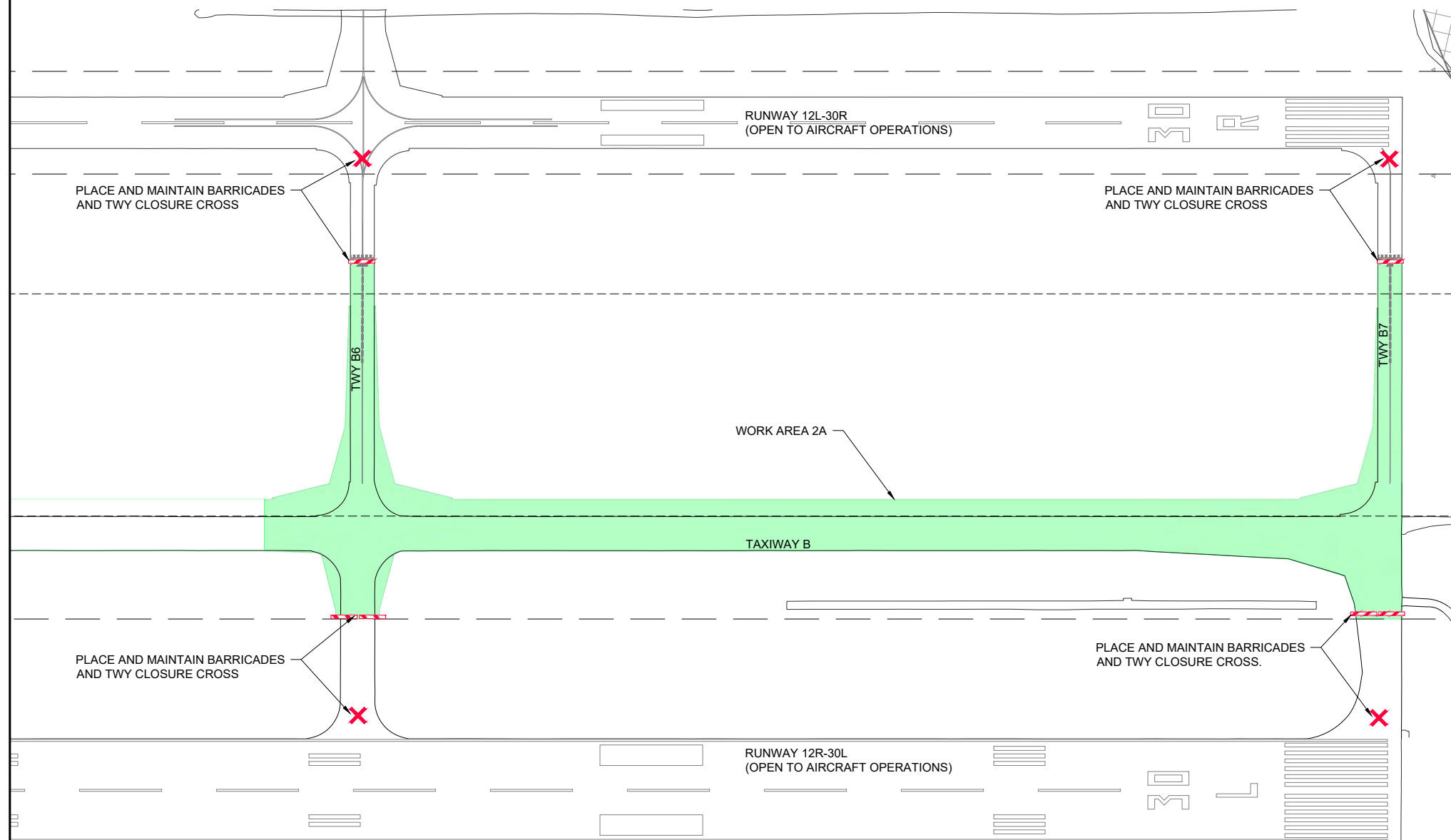
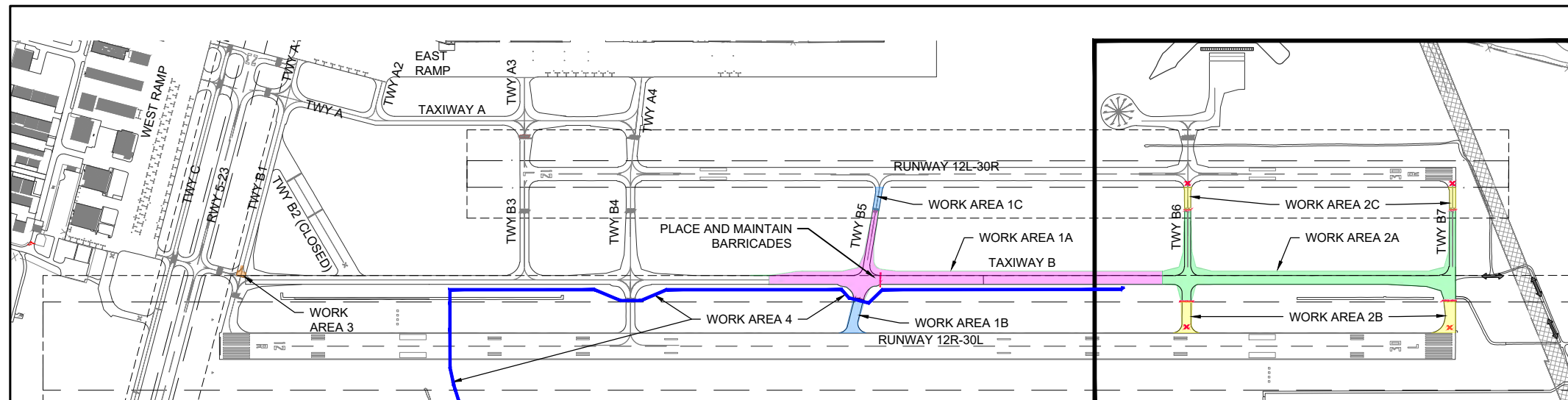
DESIGN BY: BSS 3/11/2025

DRAWN BY: CWS 3/11/2025

REVIEWED BY: BSS 3/12/2025

SHEET TITLE

# CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 2A



	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 2A 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 1A AND 2A MAY NOT BE PERFORMED SIMULTANEOUSLY.
3. WORK AREAS 2A AND 3 MAY NOT BE PERFORMED SIMULTANEOUSLY.
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 MUST 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**



DATE SIGNED: 3/14/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: G-004-SFY.DWG

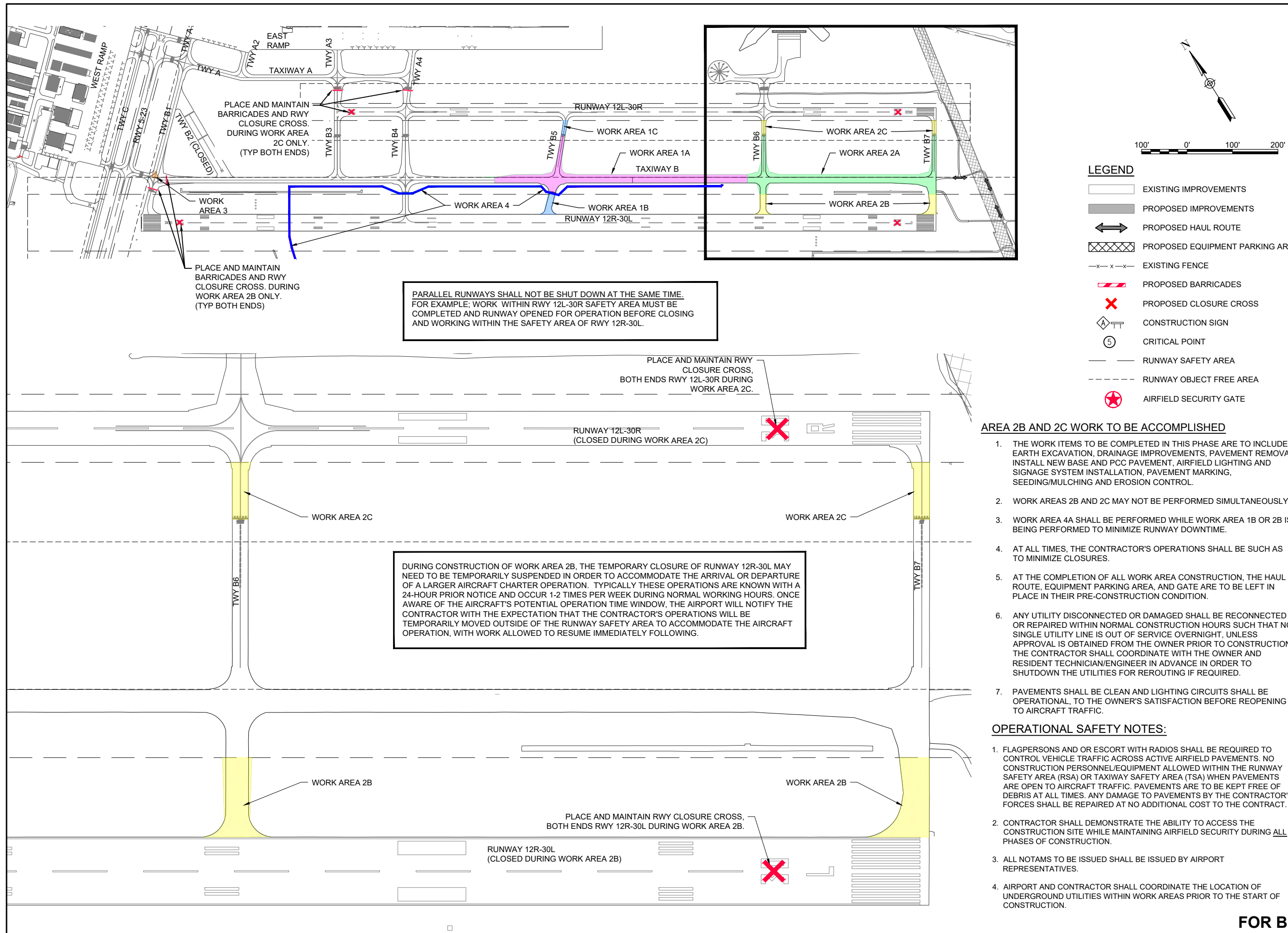
DESIGN BY: BSS 3/11/2025

DRAWN BY: CWS 3/11/2025

REVIEWED BY: BSS 3/12/2025

SHEET TITLE

# CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREAS 2B AND 2C



MAR 14, 2025 9:31 AM GROVE02594  
\\23\JOBS\23A\0001\DCAD\AIRPORT\SHEET\2025 CPS-5078 COMBINED SHEETS\G-004-SFY



DATE SIGNED: 3/14/2025

LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: G-004-SFY.DWG

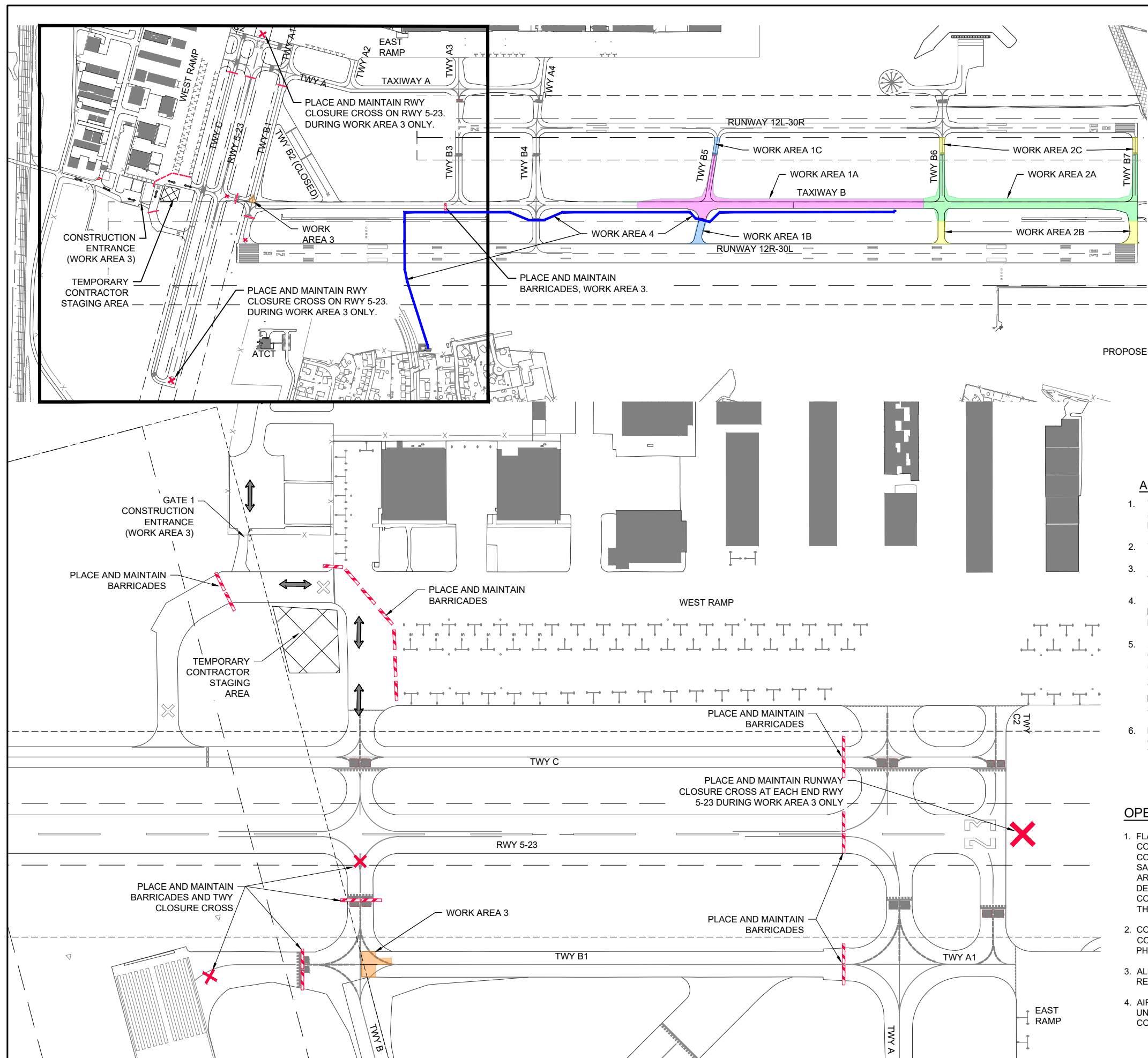
DESIGN BY: BSS 3/11/2025

DRAWN BY: CWS 3/11/2025



REVIEWED BY: BSS 3/12/2025

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, 2 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.

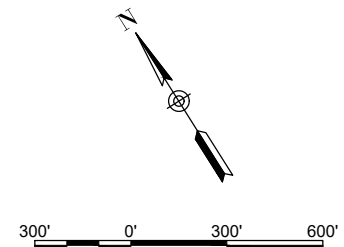
OPERATIONAL SAFETY NOTES:

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.

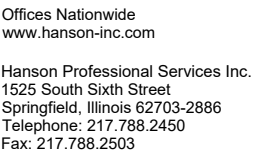
**FOR BID**

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 1B OR 2B 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.

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.



	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



DATE LICENSE  
SIGNED: 3/14/2025 EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

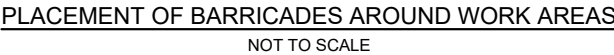
NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: G-004-SFY.DWG  
DESIGN BY: BSS 3/11/2025  
DRAWN BY: CWS 3/11/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

# CONSTRUCTION SAFETY AND PHASING PLAN - WORK AREA 4

**FOR BID**

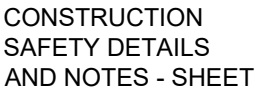


FOLLOWING ARE THE PRECONSTRUCTION SAFETY AND PHASING PLAN SHEET AND THIS PROJECT. ADDITIONAL REQUIREMENTS ARE SHOWN ON THE CONSTRUCTION SAFETY AND PHASING PLAN SHEET AND THIS SHEET.

2. ALL PROVISIONS OF THE LATEST EDITION OF FAA ADVISORY CIRCULAR AC 150/5370-2 (CURRENT EDITION), "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION", APPLY TO THIS CONTRACT, EXCEPT AS MODIFIED BY THIS SAFETY PLAN, OR AS MODIFIED BY THE OWNER THROUGH THE RESIDENT ENGINEER/TECHNICIAN AT THE PRECONSTRUCTION CONFERENCE, OR DURING THE COURSE OF THE CONTRACT.
3. THE CONTRACTORS SHALL MINIMIZE DISRUPTION OF STANDARD OPERATING PROCEDURES FOR AERONAUTICAL ACTIVITY BY REMAINING WITHIN THE PRESCRIBED STAGING, CONSTRUCTION, AND PHASING AREAS PRESENTED ON THE CONSTRUCTION SAFETY AND PHASING PLAN SHEETS.
4. NO UNAUTHORIZED PERSONNEL SHALL ENTER ANY AREA OF THE AIRPORT THAT COULD POTENTIALLY BE HAZARDOUS. THE AIRPORT MANAGER RESERVES THE RIGHT TO SUSPEND OPERATIONS IN ORDER TO MAINTAIN SAFETY AT THE AIRPORT.
5. CONTRACTOR EQUIPMENT, VEHICLES, AND PROJECT MATERIALS SHALL BE STORED AT THE STAGING AREA SHOWN ON THE PLAN VIEW, EXCEPT AS OTHERWISE PROVIDED FOR AT THE PRECONSTRUCTION CONFERENCE.
6. ALL CONSTRUCTION EQUIPMENT OPERATING IN THE PRESCRIBED CONSTRUCTION AREA IS REQUIRED TO DISPLAY A CHECKERBOARD FLAG PROPERLY LOCATED OR A ROTATING BEACON (STROBE) AS SPECIFIED IN AC 150/5210-5, "PAINTING, MARKING, AND LIGHTING OF VEHICLES USED ON AN AIRPORT" LATEST EDITION.
7. NO CONSTRUCTION MATERIAL STOCKPILES SHALL BE LOCATED WITHIN 250' OF ANY ACTIVE RUNWAY, WITHIN 93' OF ANY OTHER ACTIVE AIRPORT OPERATIONS AREA, OR PENETRATE A PART 77 IMAGINARY SURFACE (PROVIDED BY THE RESIDENT ENGINEER/TECHNICIAN) EXTENDING OUT AND UPWARDS FROM ALL SIDES OF AN ACTIVE RUNWAY.
8. CLOSED AIRFIELD PHASING AREAS, OPEN TRENCHES, AND STOCKPILED MATERIALS AT THE CONSTRUCTION SITE SHALL BE PROMINENTLY MARKED WITH LIGHTED BARRICADES WITH STEADY BURNING OR FLASHING RED LIGHTS AS SPECIFIED IN 150/5370-2, "OPERATIONAL SAFETY ON AIRPORT DURING CONSTRUCTION, LATEST EDITION. LIGHTED BARRICADES MUST BE NO TALLER THAN 18" (EXCLUSIVE OF SUPPLEMENTARY LIGHTS AND FLAGS) ON THE TAXIWAYS AND COMPLY WITH ADVISORY CIRCULAR 150/5370-2, LATEST EDITION. CONTRACTOR SHALL NIGHT CHECK BARRICADES DAILY FOR PROPER OPERATION.
9. NO OPEN TRENCHES WITHIN 250' OF AN ACTIVE RUNWAY CENTERLINE OR WITHIN 93' OF ANY AIRPORT OPERATIONS AREA WILL BE PERMITTED UNLESS PROPERLY MARKED. OTHER TRENCHES SHALL BE MAINTAINED SAFE, I.E., BARRICADED OR COVERED WITH STEEL PLATES IN ALL OTHER AREAS.
10. OPEN TRENCHES, EXCAVATIONS, AND STOCKPILED MATERIALS AT THE CONSTRUCTION SITE SHOULD BE PROMINENTLY MARKED WITH ORANGE FLAGS AND LIGHTED WITH FLASHING RED LIGHTS DURING HOURS OF RESTRICTED VISIBILITY AND/OR DARKNESS.
11. NO CONSTRUCTION EQUIPMENT GREATER THAN 25' TALL WILL BE PERMITTED ON THE AIRPORT. HOWEVER OTHER EQUIPMENT TALLER THAN 25' MAY BE PERMITTED WITH THE APPROVAL OF THE AIRPORT MANAGER AND AIRSPACE APPROVAL BY THE FAA.
12. NO OPEN FLAME WELDING OR TORCH CUTTING OPERATION IS PERMITTED UNLESS ADEQUATE FIRE AND SAFETY PRECAUTIONS ARE PROVIDED AND HAVE BEEN APPROVED BY THE AIRPORT MANAGER NO FLARE POTS ARE ALLOWED ON THE PROJECT.
13. SOIL, DEBRIS, AND LOOSE MATERIAL DROPPED OR TRUCKED ONTO AIRPORT ROADS, TAXIWAYS, AND SOD SURFACES, OR WHICH CAN BE BLOWN ONTO SUCH SURFACES, SHALL BE IMMEDIATELY SWEEP, PICKED UP AND REMOVED, OR PLACED INTO CLOSED CONTAINERS. ANY DAMAGE TO AIRPORT PROPERTY SHALL BE REPAIRED IMMEDIATELY AT NO COST TO THE OWNER.
14. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MAINTAINING AIRPORT LIGHTING AND NAVIGATIONAL ELECTRICAL SYSTEMS DURING CONSTRUCTION. A CONTACT PERSON AND TELEPHONE NUMBER FOR 24 HOUR EMERGENCY IMMEDIATE REPAIR SHALL BE SUBMITTED TO THE AIRPORT MANAGER AND RESIDENT ENGINEER/TECHNICIAN. HAUL ROUTES CROSSING PAVEMENT, DRAINAGE, MISCELLANEOUS. STRUCTURES AND/OR AIRFIELD CABLES SHALL BE PROTECTED FROM DAMAGE.
15. ALL AIRCRAFT AND AIRPORT OPERATIONS HAVE THE RIGHT-OF-WAY. CONTRACTOR TO YIELD TO VEHICLES AND REMAIN CLEAR AT ALL TIMES.
16. CONTRACTOR SHALL PLACE, SECURE, AND MAINTAIN LIGHTED BARRICADES AND CLOSURE CROSSES WHEN A RUNWAY/TAXIWAY/APRON IS CLOSED OR AS REQUIRED BY THE PLANS AND DESIGNATED BY THE RESIDENT ENGINEER/TECHNICIAN.
17. CONTRACTOR SHALL MARK HAZARDOUS AREA WITH STEADY-BURNING OR FLASHING RED LIGHTS DURING PERIODS OF LOW VISIBILITY AS REQUIRED.
18. THE CONTRACTOR SHALL PERIODICALLY PERFORM ONSITE INSPECTIONS THROUGHOUT THE DURATION OF THE PROJECT WITH THE IMMEDIATE REMEDY OF ANY DIFFERENCES, WHETHER CAUSED BY NEGLIGENCE, OVERSIGHT, OR PROJECT SCOPE CHANGE.
19. CONTRACTOR SHALL MOVE MAINTENANCE OF TRAFFIC COMPONENTS AT THE WRITTEN DIRECTION OF THE RESIDENT ENGINEER/TECHNICIAN AT NO ADDITIONAL COST.
20. CONTRACTOR SHALL NOT REMOVE THE BARRICADES WITHOUT THE APPROVAL BY THE RESIDENT ENGINEER/TECHNICIAN.
21. CONTRACTOR SHALL MAINTAIN FLASHERS, SIGNS AND/OR BARRICADES AS REQUIRED BY THE PLANS, CITY OR COUNTY REGULATIONS OR CONTRACTOR ACTIVITIES. CONTRACTOR SHALL OBTAIN ANY AND ALL REQUIRED LOCAL PERMITS UNLESS SPECIFIED OTHERWISE.
22. THE CONTRACTOR SHALL UTILIZE WATER AND/OR CHEMICALS APPROVED BY THE RESIDENT ENGINEER/TECHNICIAN AS NECESSARY TO CONTROL DUST.
23. NO CONSTRUCTION VEHICLES SHALL BE DRIVEN ACROSS ANY ACTIVE RUNWAY, INCLUDING TURF RUNWAYS. CONSTRUCTION EQUIPMENT OR CONSTRUCTION ACTIVITY WILL NOT BE PERMITTED WITHIN 250' OF ANY ACTIVE RUNWAY CENTERLINE (150' FOR RUNWAY 5-23) OR WITHIN 93' OF ANY OTHER ACTIVE AIRPORT TAXIWAY OR APRON. HOWEVER, CONSTRUCTION MAY BE PERMITTED IN THESE AREAS IF THE CONTRACTOR HAS GAINED APPROVAL FROM THE AIRPORT MANAGER AT LEAST 7 DAYS IN ADVANCE OF THE SCHEDULED CONSTRUCTION PERIOD AND THE OPERATIONAL AREA IS CLOSED TO TRAFFIC AND PROPER NOTAMS ARE ISSUED BY THE AIRPORT MANAGER TO THE APPROPRIATE FLIGHT SERVICE STATION.
24. UNLESS SPECIFIED OTHERWISE, COST FOR THE ABOVE IS TO BE CONSIDERED INCIDENTAL TO THE PROJECT. SEPARATE PAYMENT SHALL NOT BE MADE.

**FOR BID**

# FOR BID

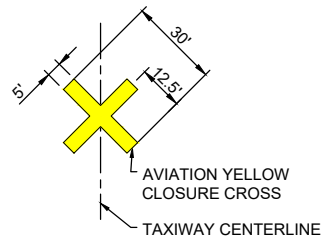




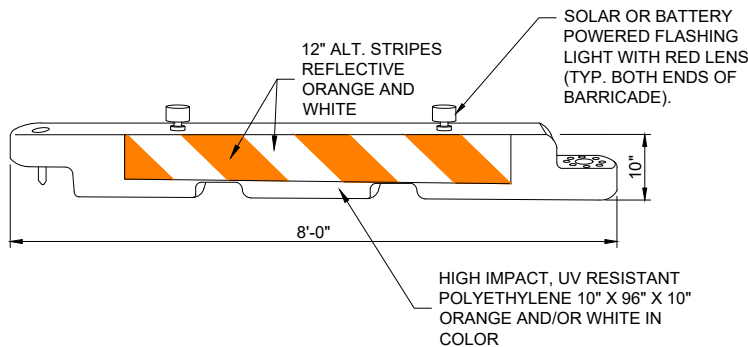
LIGHTED RUNWAY CLOSURE MARKER  
NOT TO SCALE

NOTES:

1. THE AIRPORT HAS TWO LIGHTED RUNWAY CLOSURE MARKERS AVAILABLE FOR USE ON THIS PROJECT. THE COST OF PLACING, OPERATING, MAINTAINING, AND REMOVING THE LIGHTED RUNWAY CLOSURE MARKERS WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR SHALL RETURN THE AIRPORT-OWNED LIGHTED RUNWAY CLOSURE MARKERS IN THE SAME OR BETTER CONDITION THAN AT THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL MAKE FREQUENT INSPECTION OF THE LIGHTED CROSSES AND MAKE PROMPT REPAIRS AS NECESSARY.
3. THE CONTRACTOR SHALL BE ON-CALL FOR 24-HOUR EMERGENCY MAINTENANCE WHEN LIGHTED CROSSES ARE BEING USED.
4. THE LIGHTED MARKERS SHALL BE PLACED OVER THE RUNWAY NUMERALS AS SHOWN IN THE PLANS AND AS DIRECTED BY THE ENGINEER.
5. LIGHTED MARKERS SHALL BE SECURED FROM WIND EFFECTS BY THE CONTRACTOR AS RECOMMENDED BY THE MANUFACTURER.
6. THE LIGHTED MARKERS SHALL BE IN PLACE AND OPERATING WHENEVER THE RUNWAY IS CLOSED AND REMOVED WHEN THE RUNWAY IS RE-OPENED.



TAXIWAY CLOSURE CROSS MARKER DETAIL  
NOT TO SCALE



LOW-PROFILE BARRICADE DETAIL  
NOT TO SCALE

DETAIL ABOVE REPRESENTS ONE OPTION FOR LOW-PROFILE BARRICADES. OTHER OPTIONS MAY BE UTILIZED AS LONG AS THEY MEET THE REQUIREMENTS OF THE PROJECT, INCLUDING BARRICADE NOTE 1.

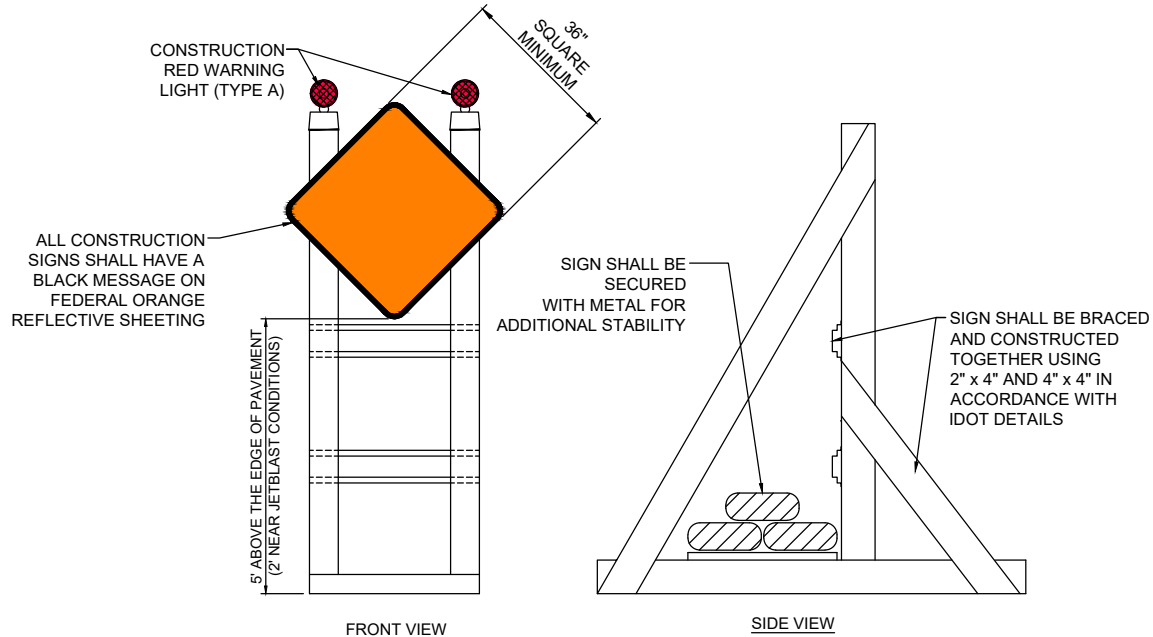


W20-3  
48" x 48" A



W20-3  
48" x 48" B

CONSTRUCTION SIGNS  
NOT TO SCALE



SIGNAGE NOTES

1. ALL CONSTRUCTION SIGNS AND TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE ILLINOIS SUPPLEMENT (LATEST EDITION) AND THE FAA ADVISORY CIRCULARS (LATEST EDITION) UNLESS NOTED OTHERWISE. THE FAA OR MORE STRINGENT SPECIFICATIONS SHALL GOVERN.
2. UNLESS OTHERWISE SPECIFIED, CONSTRUCTION SIGNS SHALL BE MOUNTED ON PORTABLE OR NON-PORTABLE SUPPORTS. A PORTABLE SUPPORT IS DEFINED AS A TYPICAL SIGN STANDARD AS SHOWN ON THIS SHEET, OR A SMALL LIGHT WEIGHT TRAILER. A NON-PORTABLE SUPPORT IS DEFINED AS DRIVEN METAL OR WOOD POST. ALL SIGNS, REGARDLESS OF THE TYPE OF SUPPORTS USED, SHALL BE MOUNTED SUCH THAT THE MESSAGE ON THE SIGN IS LEVEL IN THE HORIZONTAL PLANE AFTER PLACEMENT. THE COST OF CONSTRUCTION WARNING LIGHTS SHALL BE INCLUDED IN THE COST OF THE CONSTRUCTION SIGNS.
3. CONSTRUCTION RED WARNING LIGHT: THESE ARE PORTABLE, LENS DIRECTED, ENCLOSED LIGHTS. THE COLOR OF THE LIGHT EMITTED SHALL BE RED. THEY ARE TO BE USED IN A LOW INTENSITY FLASHING MODE (TYPE A).
4. THE LIGHTING SHALL BE MAINTAINED IN OPERATION DURING THE HOURS OF DARKNESS BETWEEN 1/2 HOUR AFTER SUNSET AND 1/2 HOUR BEFORE SUNRISE AND WHEN CONDITIONS EXIST WHICH TEND TO OBSCURE VISION.
5. COST FOR PROVIDING, PLACING, MAINTAINING, AND REMOVING SIGNS SHALL BE INCLUDED IN ITEM AR150530 TRAFFIC MAINTENANCE.

BARRICADE NOTES

1. ALL CONSTRUCTION SIGNS AND TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE ILLINOIS SUPPLEMENT (LATEST EDITION) AND THE FAA ADVISORY CIRCULARS (LATEST EDITION) UNLESS NOTED OTHERWISE. THE FAA OR MORE STRINGENT SPECIFICATIONS SHALL GOVERN.
2. BARRICADES SHALL BE "LOW-PROFILE" WITH A MAXIMUM HEIGHT OF 18" ABOVE GROUND, EXCLUSIVE OF ASSOCIATED WARNING LIGHTS AND FLAGS.
3. BARRICADES SHALL BE SPACED END TO END THE WIDTH OF THE PAVEMENT, WITH GAPS BETWEEN BARRICADES NOT TO EXCEED 4' WIDE. BARRICADES ARE TO BE SET BACK 66' FROM THE ACTIVE TAXIWAY CENTERLINE OR AS SHOWN ON THE PLANS.
4. CONSTRUCTION RED WARNING LIGHT: THESE ARE PORTABLE, LENS DIRECTED, ENCLOSED LIGHTS. THE COLOR OF THE LIGHT EMITTED SHALL BE RED. THEY MAY BE USED IN EITHER A STEADY BURN (TYPE C) OR LOW INTENSITY FLASHING MODE (TYPE A) UNLESS NOTED OTHERWISE.
5. THE LIGHTING SHALL BE MAINTAINED IN OPERATION DURING THE HOURS OF DARKNESS BETWEEN 1/2 HOUR BEFORE SUNSET AND 1/2 HOUR AFTER SUNRISE AND WHEN CONDITIONS EXIST WHICH TEND TO OBSCURE VISION.
6. BARRICADES SHALL BE SECURED TO THE GROUND BY APPROVED METHODS TO PREVENT MOVEMENT BY PROP WASH, JET BLAST OR OTHER WIND CURRENTS.
7. THE ONLY COLOR COMBINATION ON BARRICADES IS ORANGE AND WHITE. THE ORANGE STRIPES SHALL BE ENCAPSULATED LENS REFLECTIVE SHEETING. THE WHITE STRIPES SHALL BE EITHER ENCAPSULATED OR ENCLOSED LENS REFLECTIVE SHEETING AND MUST BE IN ACCEPTABLE CONDITION.
8. COST FOR PROVIDING, PLACING, MAINTAINING, AND REMOVING BARRICADES SHALL BE PAID FOR UNDER ITEM AR150530 - TRAFFIC MAINTENANCE.



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



DATE SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

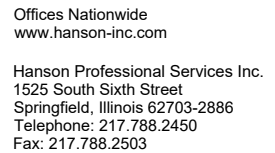
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		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: G-004-SFY.DWG  
DESIGN BY: BSS 3/11/2025  
DRAWN BY: CWS 3/11/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

CONSTRUCTION  
SAFETY DETAILS  
AND NOTES - SHEET  
2

FOR BID



DATE SIGNED: 3/14/2025

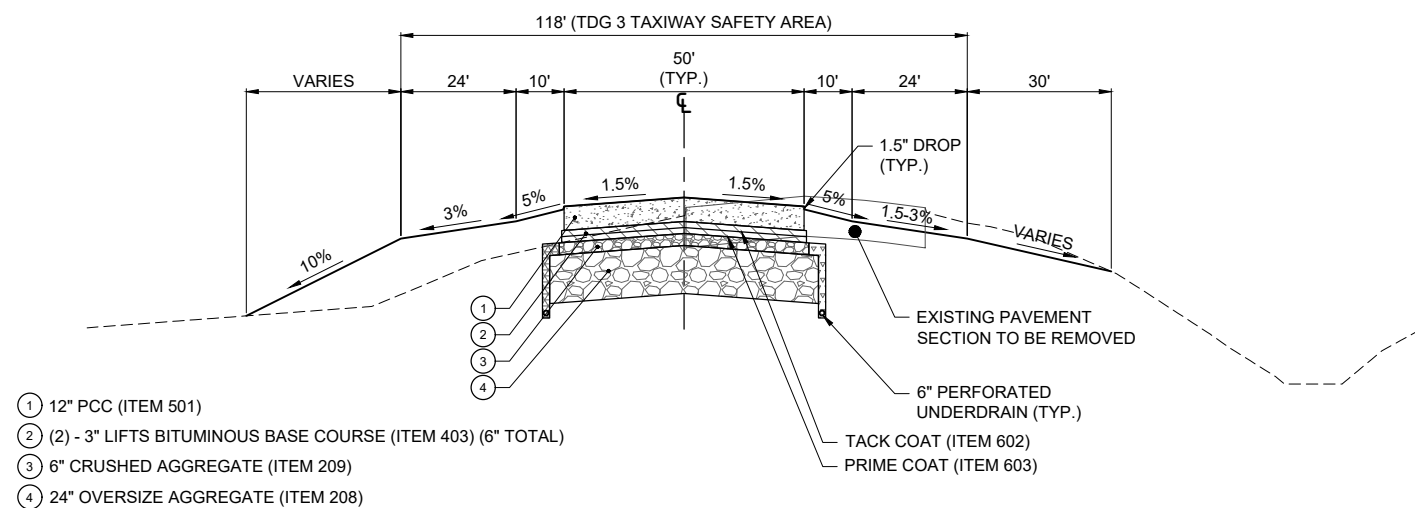
RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
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NO.	DATE	DESCRIPTION		
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PROJECT NO: 23A0001D  
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DESIGN BY: JRH 3/11/2025  
DRAWN BY: JRH 3/11/2025  
REVIEWED BY: BSS 3/12/2025

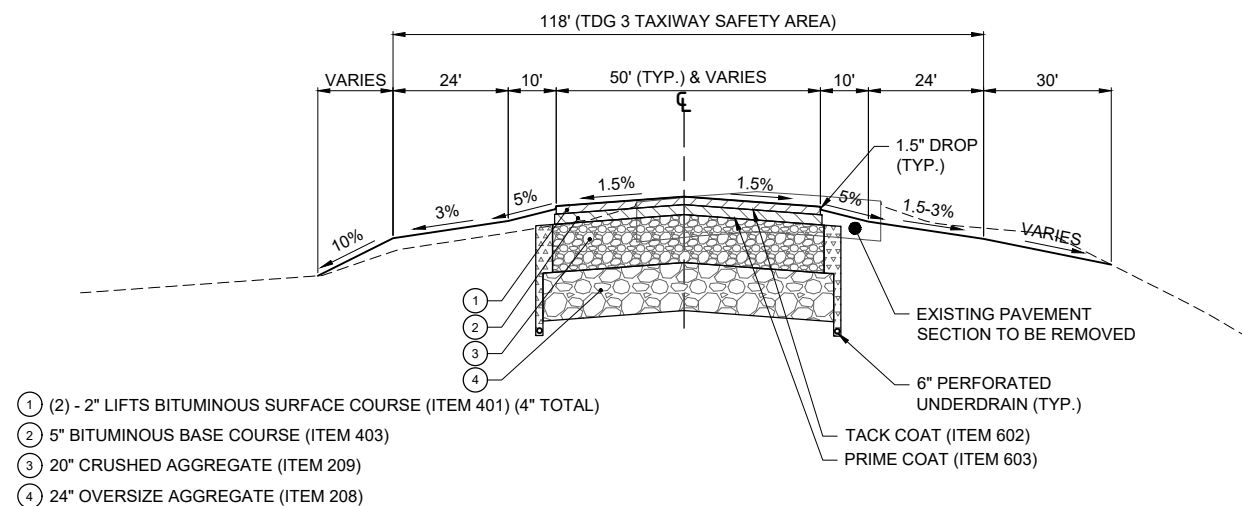
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TYPICAL SECTIONS -  
SHEET 1

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

**NOTE:**  
 BASED ON BORINGS CONDUCTED ON 7/27/22 AND HISTORICAL PAVEMENT DATA, THE EXISTING PAVEMENT TO BE REMOVED CONSISTS OF:

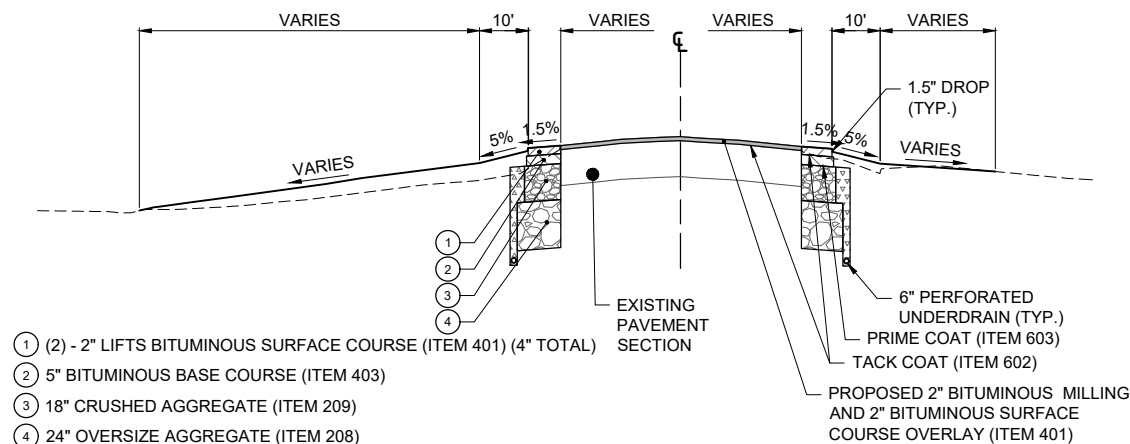
- APPROX. 8" OF CONCRETE ON 6" OF CRUSHED AGGREGATE FROM STA. 131+05 TO STA. 143+22.
- APPROX. 15" OF ASPHALT PLACED DIRECTLY ON THE SUBGRADE FROM STA. 143+22 TO STA. 155+00.
- APPROX. 11" OF ASPHALT ON 9" OF CRUSHED AGGREGATE FROM STA. 155+00 TO STA. 170+00



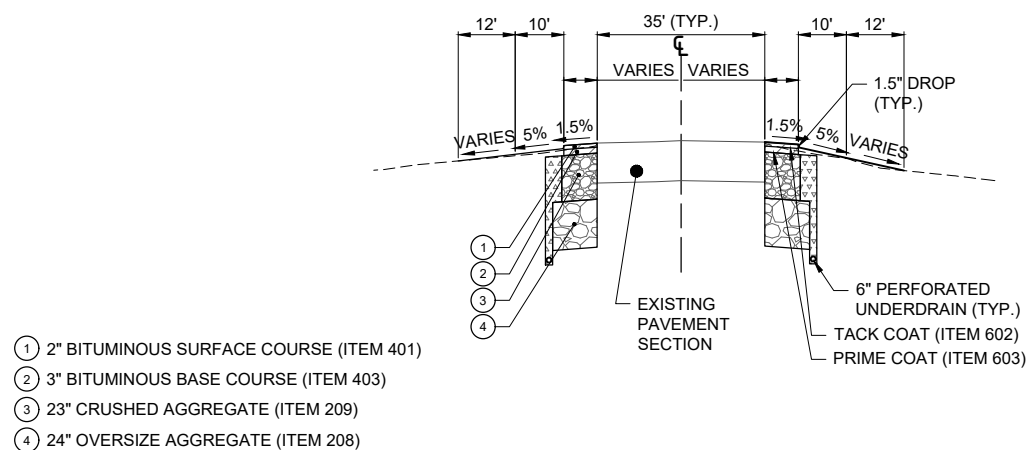
TYPICAL SECTION B-B - PROPOSED TAXIWAY B TRANSITION  
NOT TO SCALE

**NOTE:**  
BASED ON BORINGS CONDUCTED ON 7/27/22 AND HISTORICAL PAVEMENT DATA, THE EXISTING PAVEMENT TO BE REMOVED CONSISTS OF:

- APPROX. 8" OF CONCRETE ON 6" OF CRUSHED AGGREGATE FROM STA. 131+05 TO STA. 143+22.
- APPROX. 15" OF ASPHALT PLACED DIRECTLY ON THE SUBGRADE FROM STA. 143+22 TO STA. 155+00.
- APPROX. 11" OF ASPHALT ON 9" OF CRUSHED AGGREGATE FROM STA. 155+00 TO STA. 170+00



TYPICAL SECTION C-C - PROPOSED TAXIWAY B5 SOUTH - FILLETS  
NOT TO SCALE



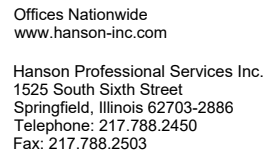
TYPICAL SECTION D-D - PROPOSED TAXIWAY B5 NORTH - FILLETS  
NOT TO SCALE

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
AR403614 BIT. BASE COURSE-METHOD II, 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

**FOR BID**

14

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\\23JOBS\23A0001\DRAWING\REPORTS\SHEET\2025 CPS-5078 COMBINED SHEETS\C-301-TYP



DATE  
SIGNED: 3/14/2025

LICENSE  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
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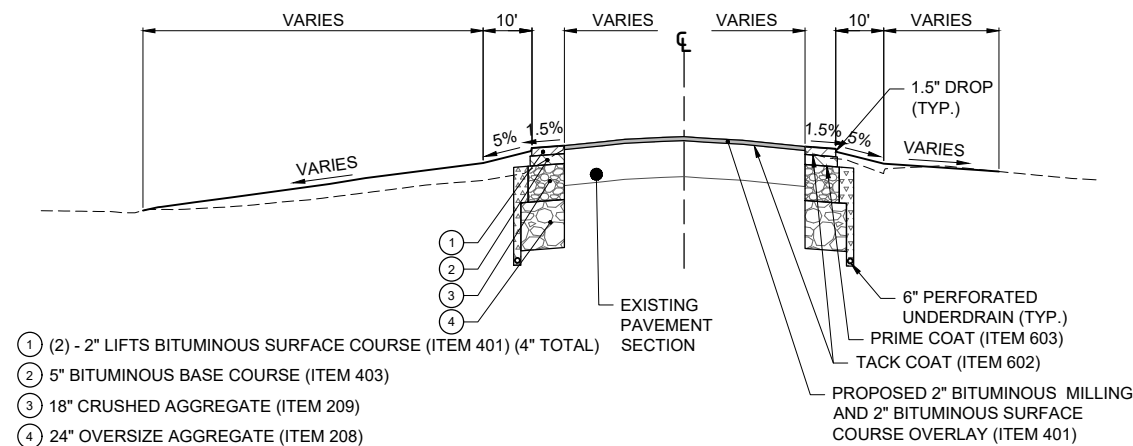
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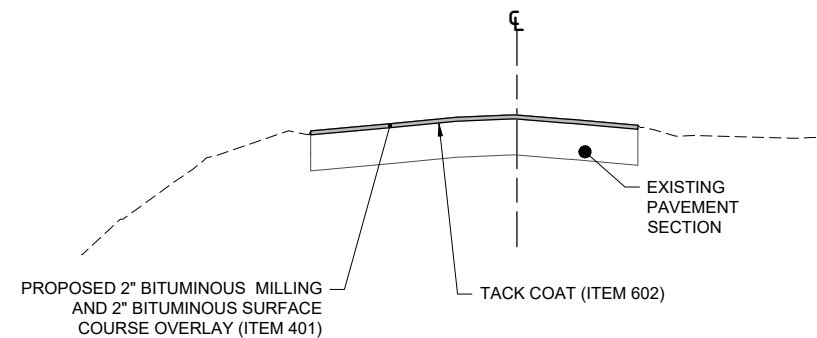
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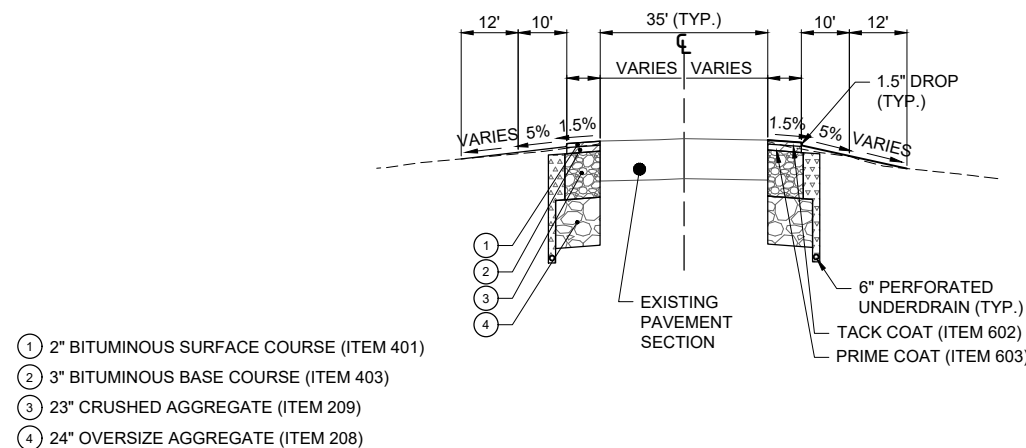
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TYPICAL SECTIONS -  
SHEET 2

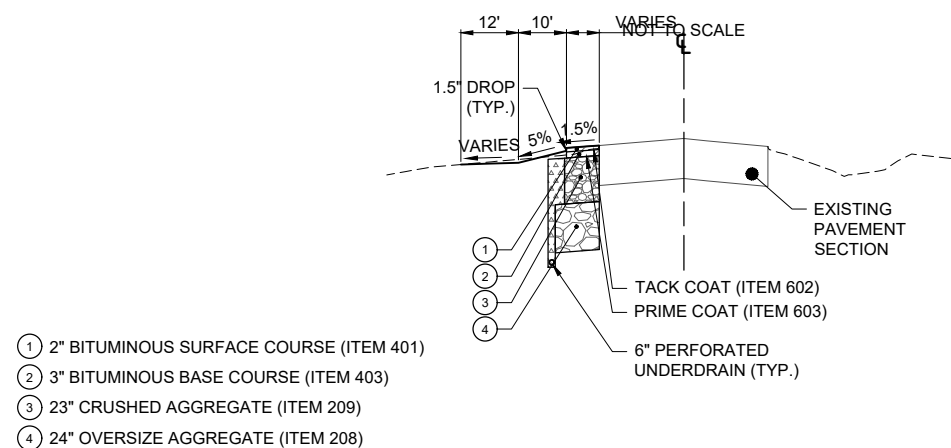
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NOT TO SCALE



TYPICAL SECTION G-G - PROPOSED TAXIWAY B7 SOUTH - MILL & OVERLAY



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



TYPICAL SECTION H-H - PROPOSED TAXIWAY B7 NORTH - FILLET  
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
AR403614 BIT. BASE COURSE-METHOD II, 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

**FOR BID**







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



DATE SIGNED: 3/14/2025

LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
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CAD FILE: C-111-ALG.DWG

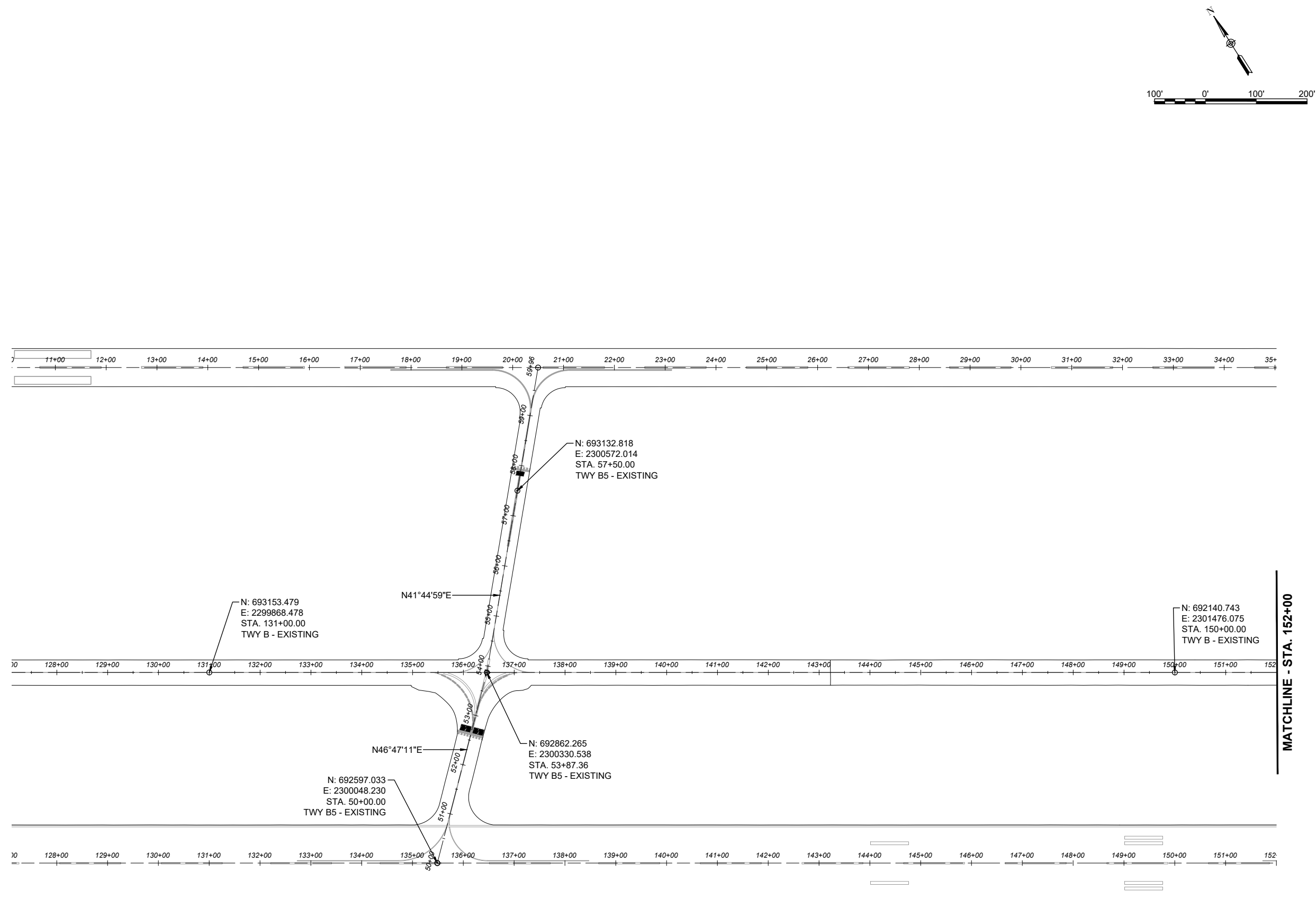
DESIGN BY: JRH 3/5/2025

DRAWN BY: A.J.C. 3/11/2025

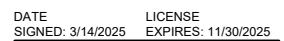
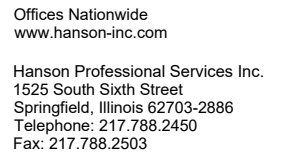
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SHEET TITLE

EXISTING  
ALIGNMENT LAYOUT  
PLAN - SHEET 1



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CONTRACT NO.: SD064

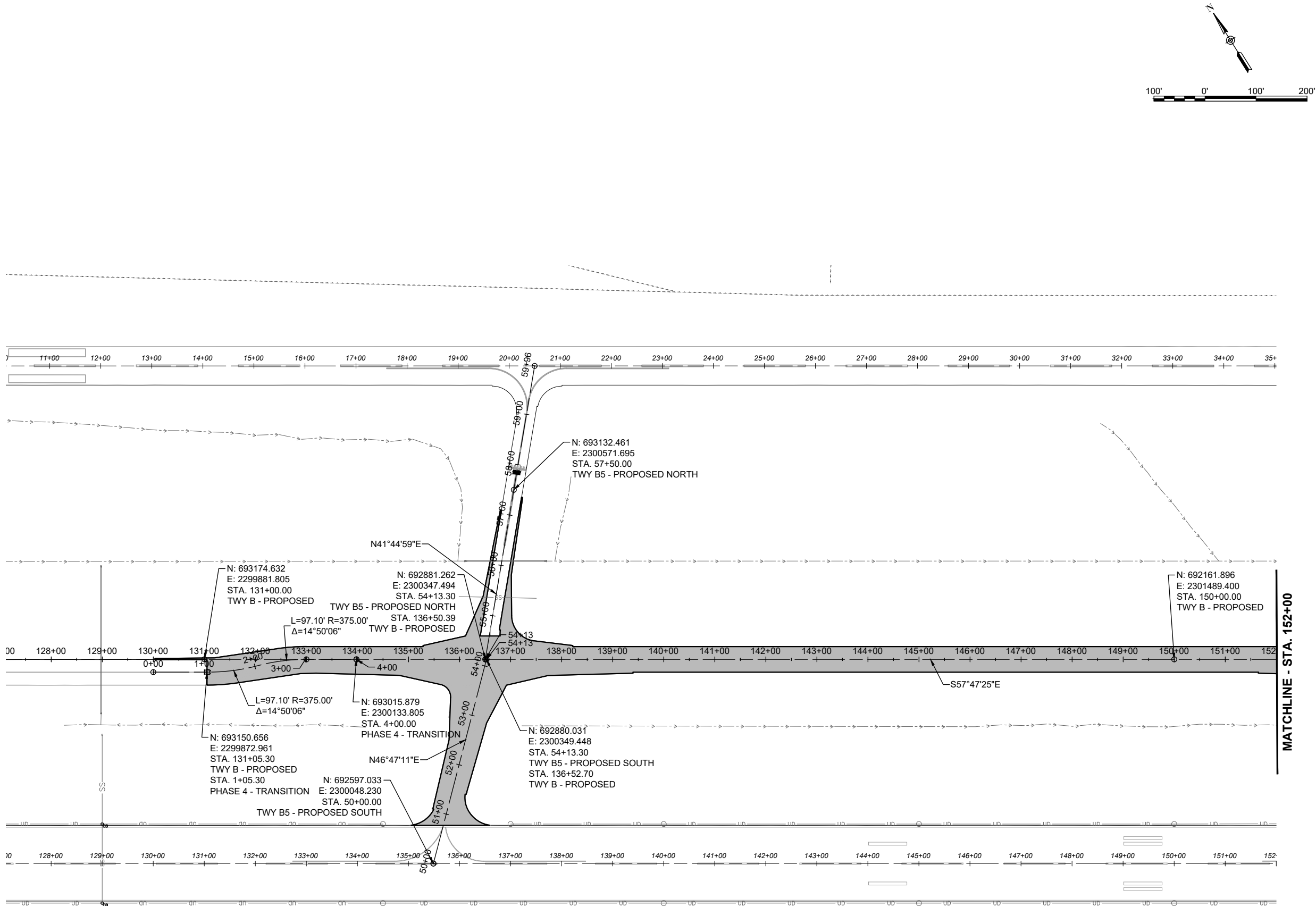
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ISSUE: MARCH 14, 2025  
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CAD FILE: C-111-ALG.DWG  
DESIGN BY: JRH 3/5/2025  
DRAWN BY: AJC 3/11/2025  
REVIEWED BY: BSS 3/12/2025

EXISTING  
ALIGNMENT LAYOUT  
PLAN - SHEET 2



MAR 14, 2025 10:22 AM GROVE02594  
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Fax: 217.788.2503



DATE: 3/14/2025  
SIGNED: [Signature]  
LICENSE: 062-057281  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-112-ALG.DWG  
DESIGN BY: JRH 3/5/2025  
DRAWN BY: AJC 3/11/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

PROPOSED  
ALIGNMENT LAYOUT  
PLAN - SHEET 1



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



DATE SIGNED: 3/14/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

IDA NO.: CPS-5078  
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NO.	DATE	DESCRIPTION		
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ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-112-ALG.DWG

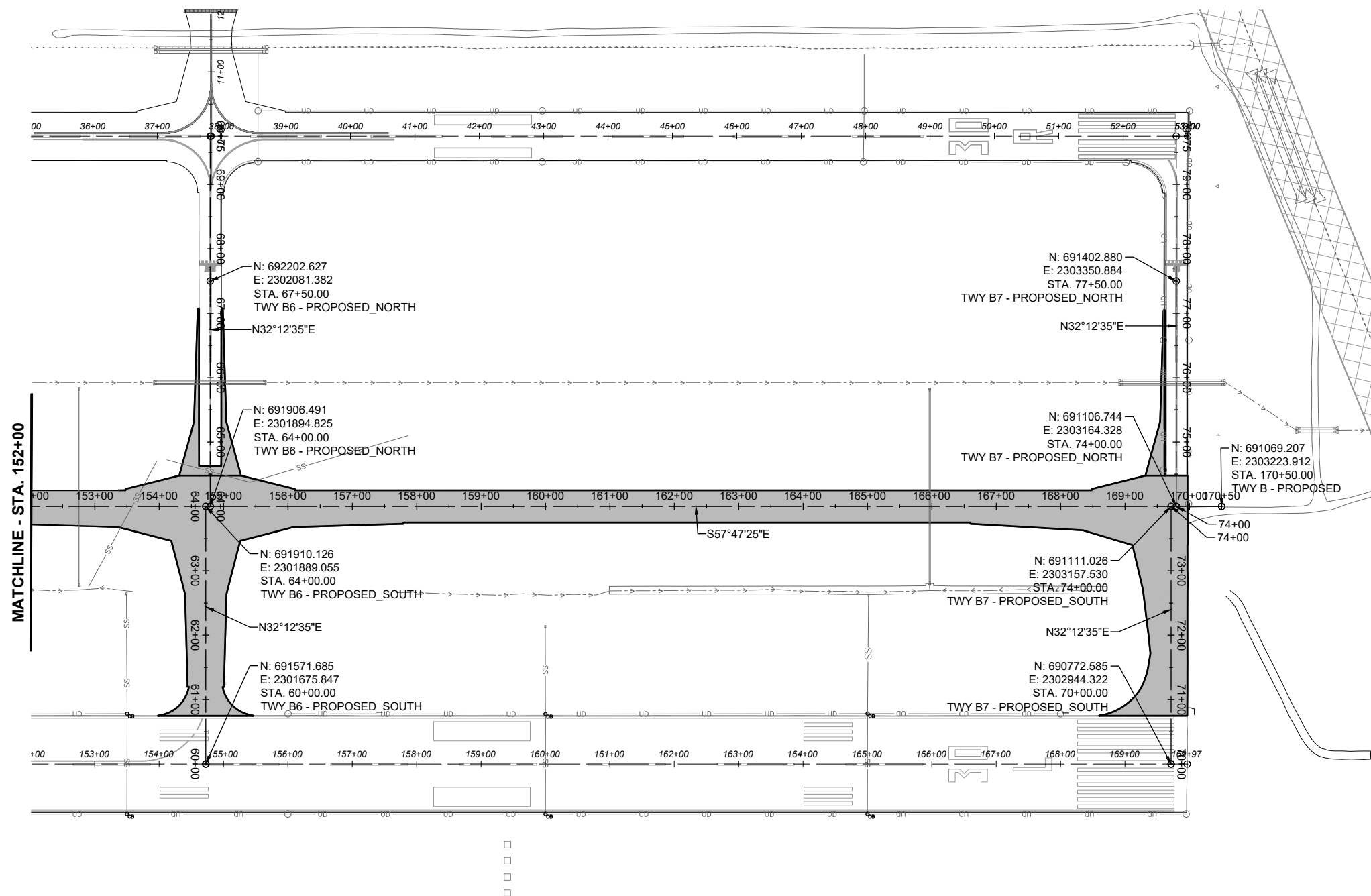
DESIGN BY: JRH 3/5/2025

DRAWN BY: AJC 3/11/2025

REVIEWED BY: BSS 3/12/2025

**SHEET TITLE**

PROPOSED  
ALIGNMENT LAYOUT  
PLAN - SHEET 2



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DATE SIGNED: 3/14/2025

LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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ISSUE: MARCH 14, 2025

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CAD FILE: C-121-DEM.DWG

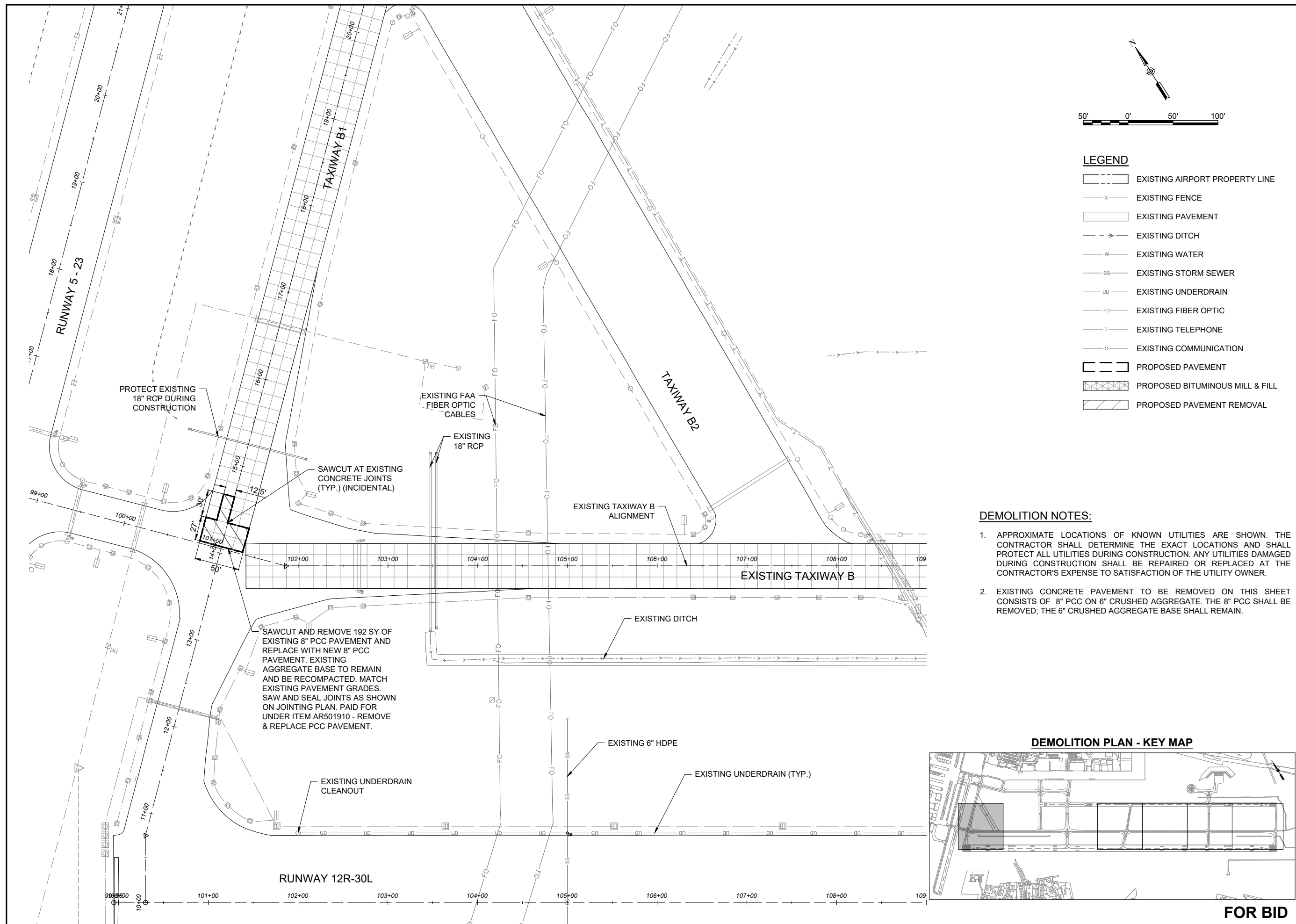
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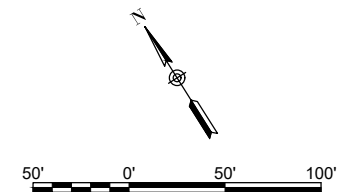
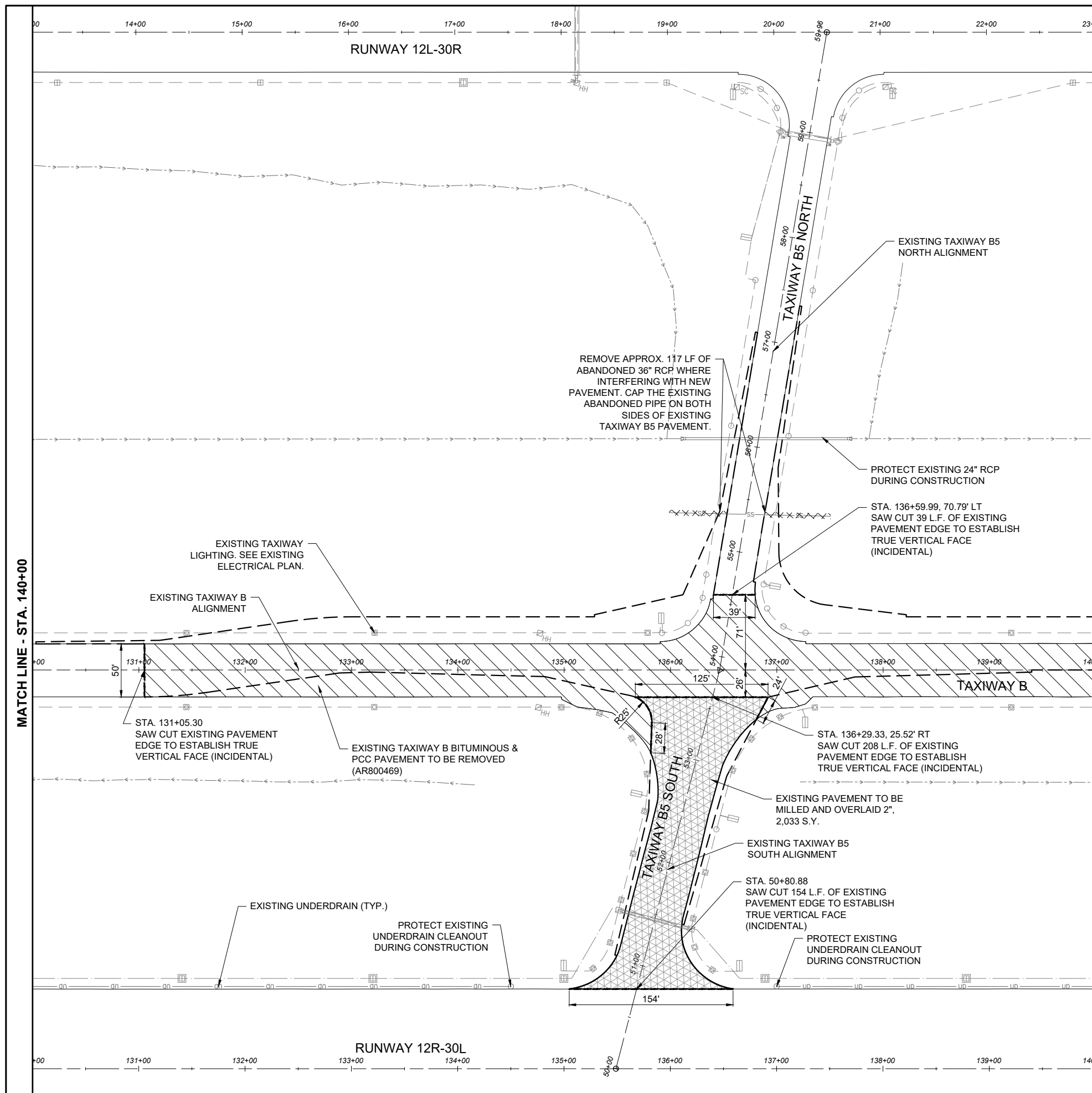
DRAWN BY: AJC 3/11/2025














REVIEWED BY: BSS 3/12/2025

SHEET TITLE

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



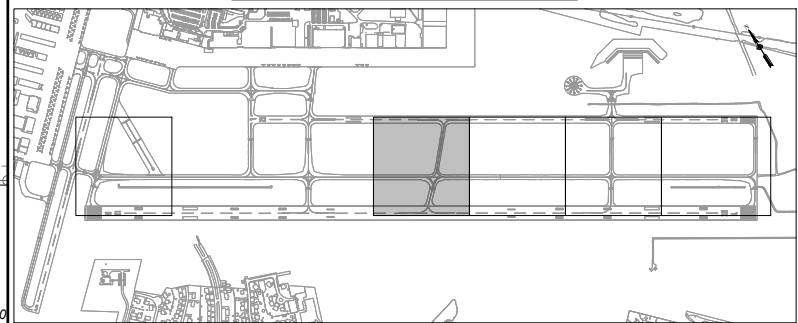


- ## LEGEND
- |   |                                 |
|---|---------------------------------|
|  | EXISTING AIRPORT PROPERTY LINE  |
|  | EXISTING FENCE                  |
|  | EXISTING PAVEMENT               |
|  | EXISTING DITCH                  |
|  | EXISTING WATER                  |
|  | EXISTING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

DEMOLITION NOTES:

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. BASED ON BORINGS CONDUCTED ON 7/27/22 AND HISTORICAL PAVEMENT DATA, THE EXISTING PAVEMENT TO BE REMOVED CONSISTS OF:
  - 2.1. APPROX. 8" OF CONCRETE ON 6" OF CRUSHED AGGREGATE FROM STA. 131+05 TO STA. 143+22.
  - 2.2. APPROX. 15" OF ASPHALT PLACED DIRECTLY ON THE SUBGRADE FROM STA. 143+22 TO STA. 155+00.
  - 2.3. APPROX. 11" OF ASPHALT ON 9" OF CRUSHED AGGREGATE FROM STA. 155+00 TO STA. 170+00

## DEMOLITION PLAN - KEY MAP



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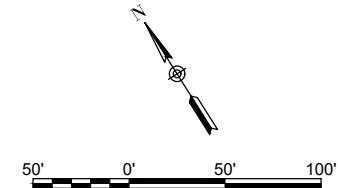
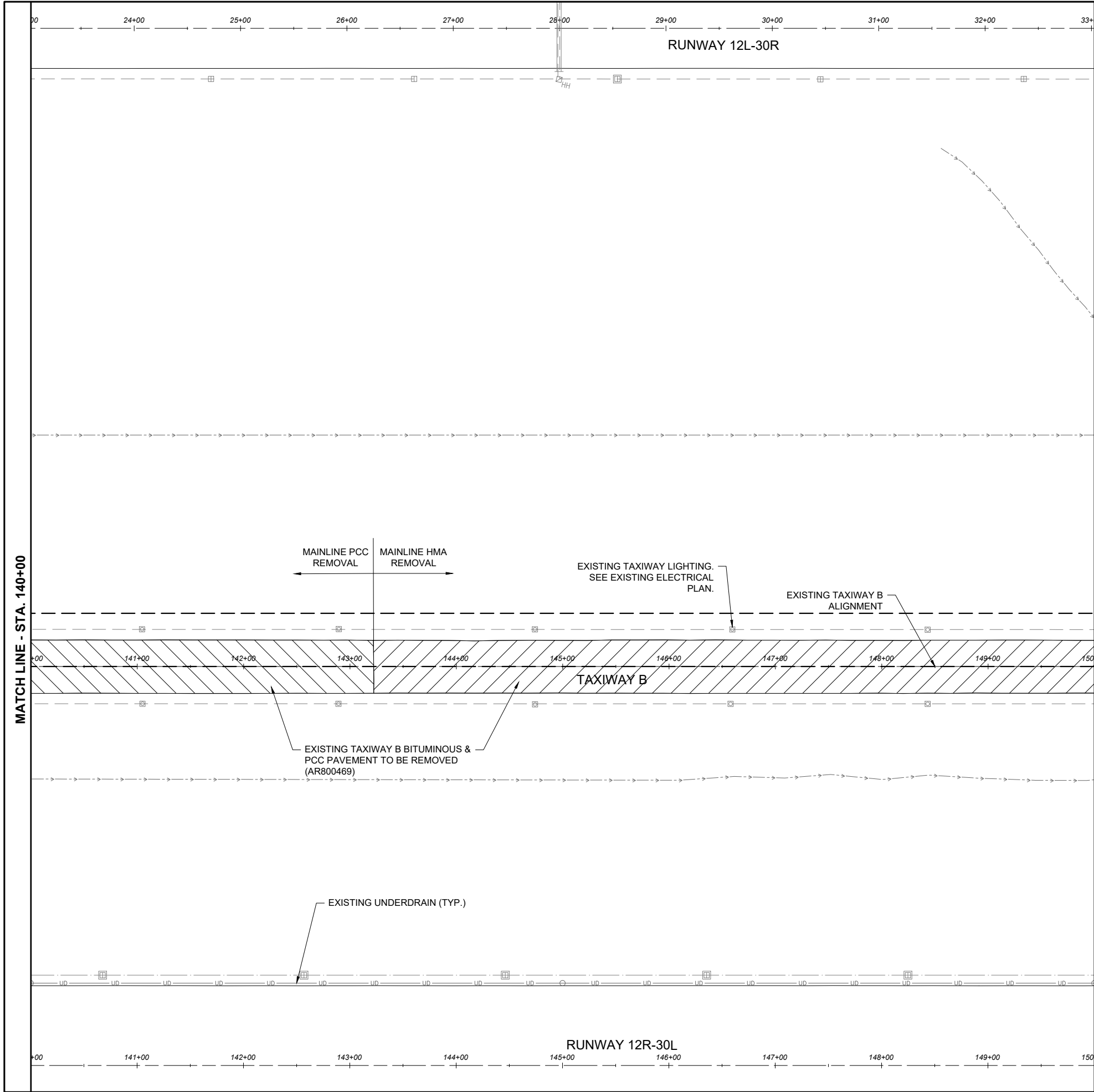
DRAWN BY: AJC 3/11/2025

REVIEWED BY: BSS 3/12/2025

SHEET TITLE

DEMOLITION PLAN  
STA. 130+00 TO STA.  
140+00

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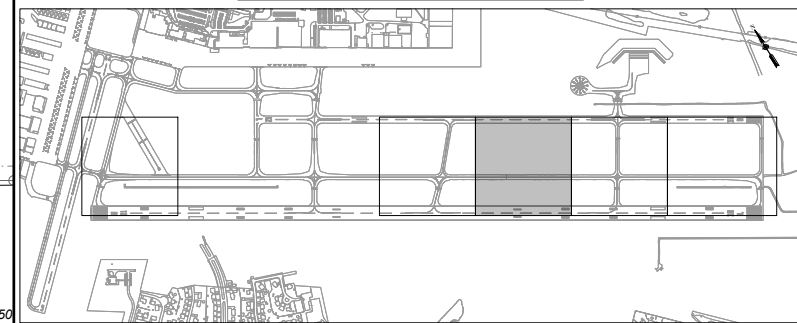
#### LEGEND

- EXISTING AIRPORT PROPERTY LINE
- EXISTING FENCE
- EXISTING PAVEMENT
- EXISTING DITCH
- EXISTING WATER
- EXISTING STORM SEWER
- EXISTING UNDERDRAIN
- EXISTING FIBER OPTIC
- EXISTING TELEPHONE
- EXISTING COMMUNICATION
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- PROPOSED BITUMINOUS MILL & FILL
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DESIGN BY: JRH 3/5/2025  
DRAWN BY: AJC 3/11/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

DEMOLITION PLAN  
STA. 140+00 TO STA.  
150+00



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DATE  
SIGNED: 3/14/2025

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EXPIRES: 11/30/2025

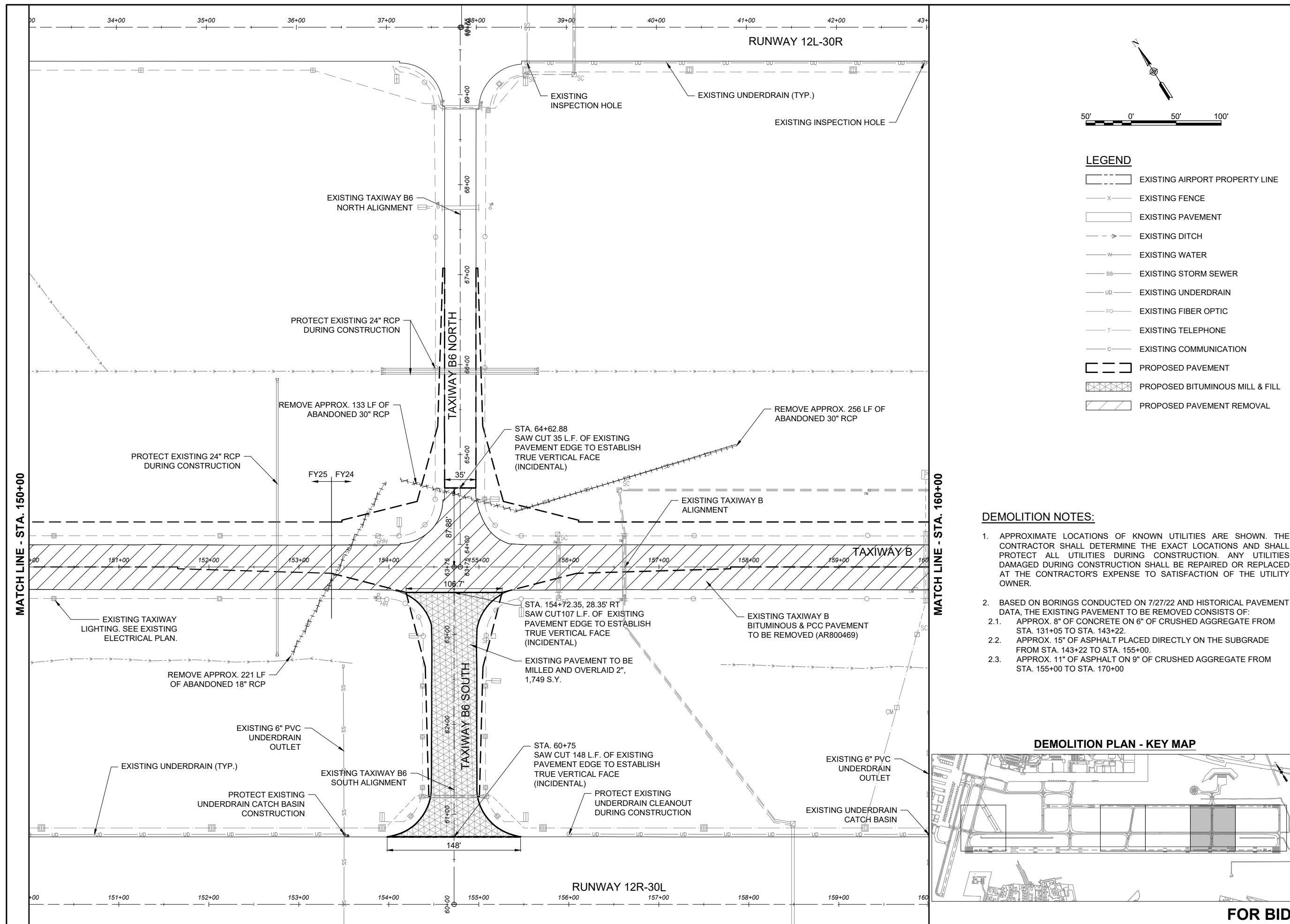
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DRAWN BY: AJC 3/11/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

DEMOLITION PLAN  
STA. 150+00 TO STA.  
160+00





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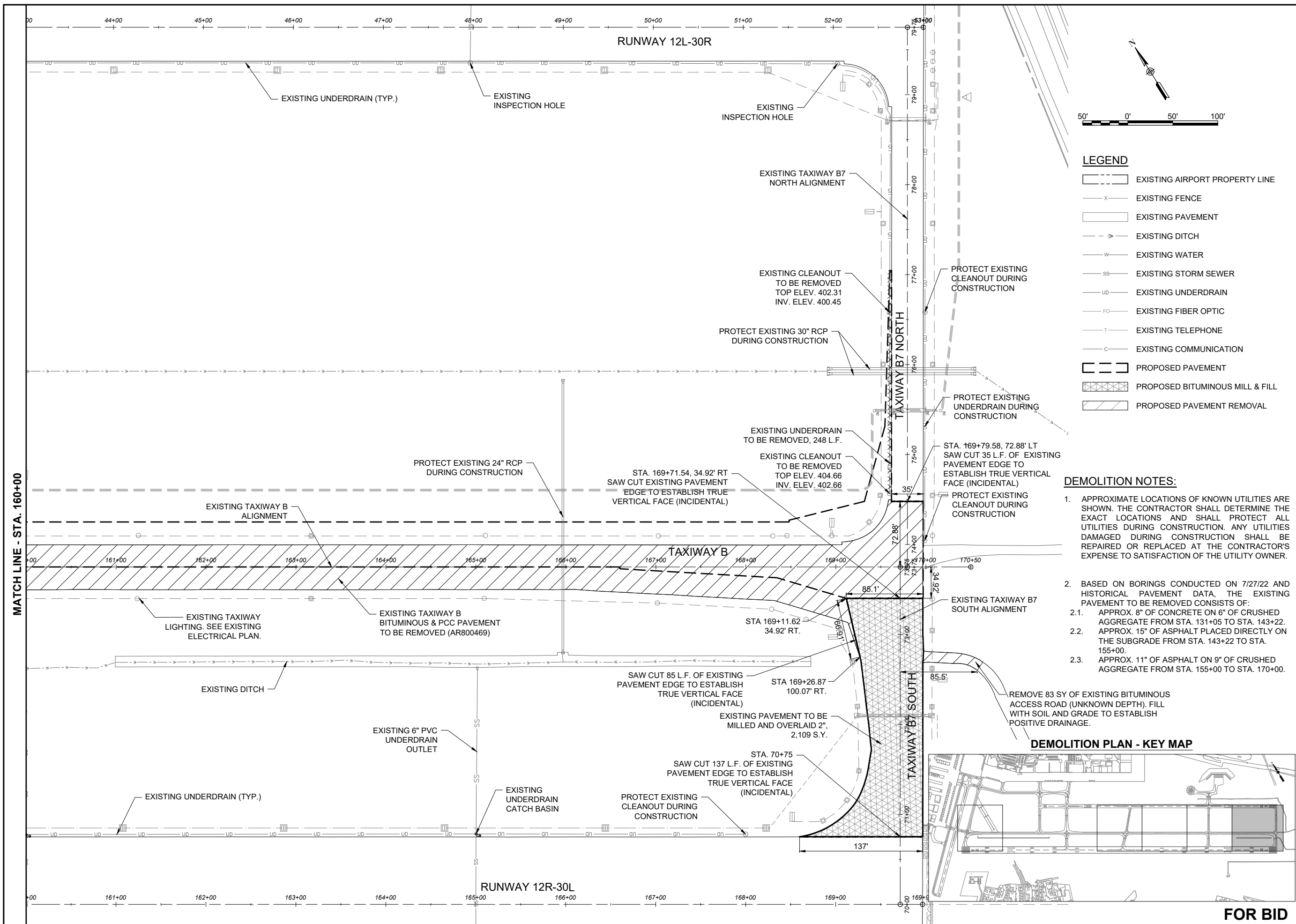
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DRAWN BY: AIC 3/11/2025

REVIEWED BY: BSS 3/12/2025

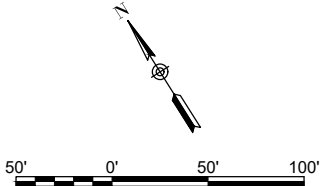
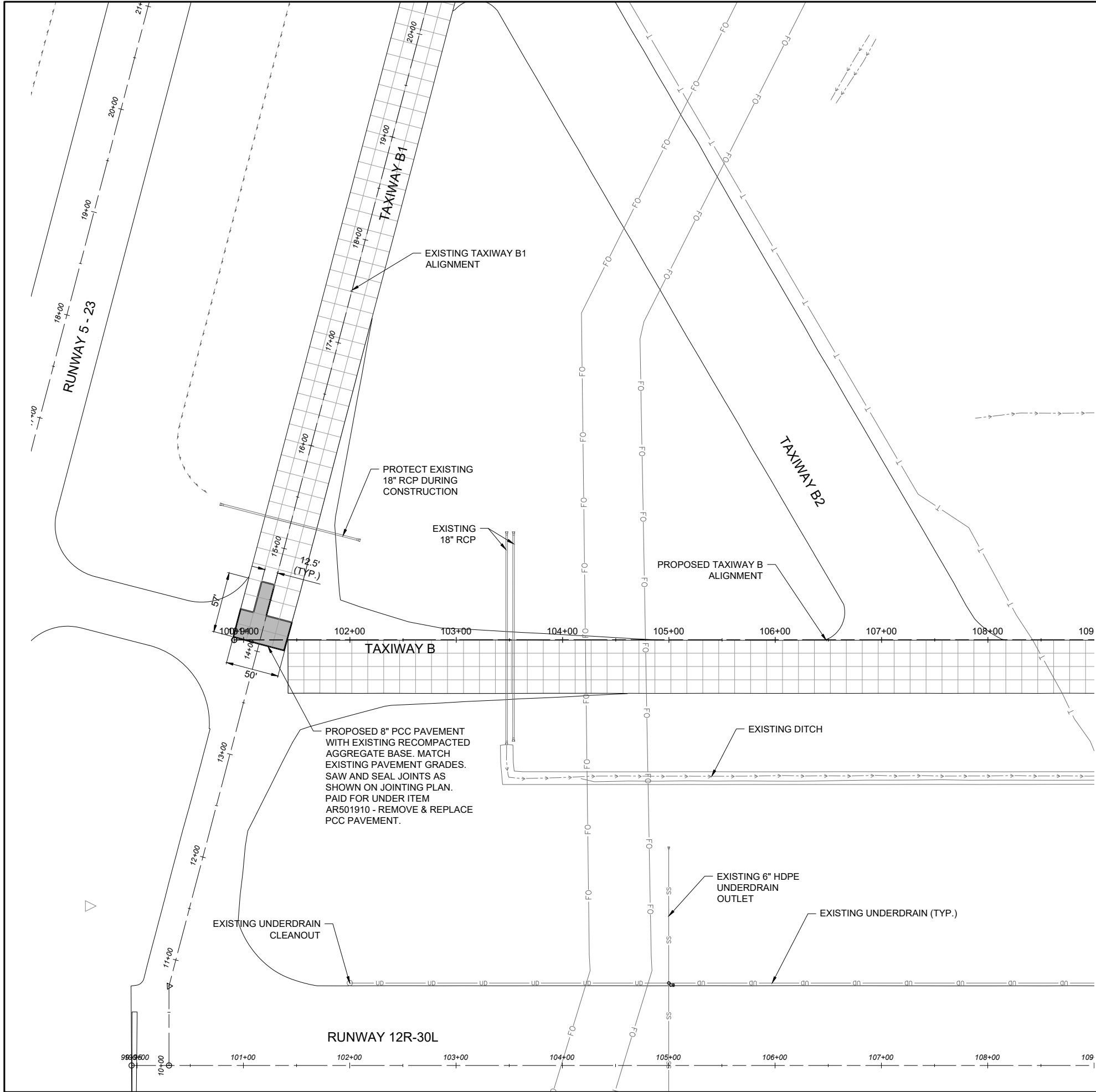
SHEET TITLE

DEMOLITION PLAN  
STA. 160+00 TO STA.  
170+50



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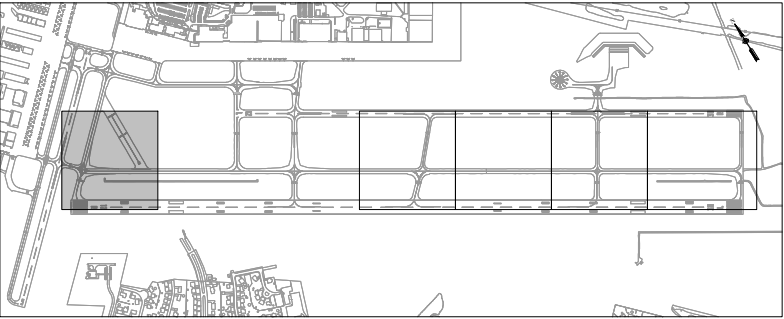
LEGEND

- 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 BITUMINOUS MILL & FILL

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CONSTRUCTION PLAN - KEY MAP



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RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

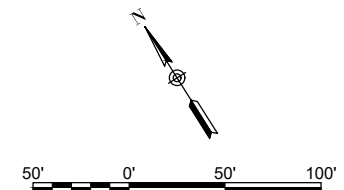
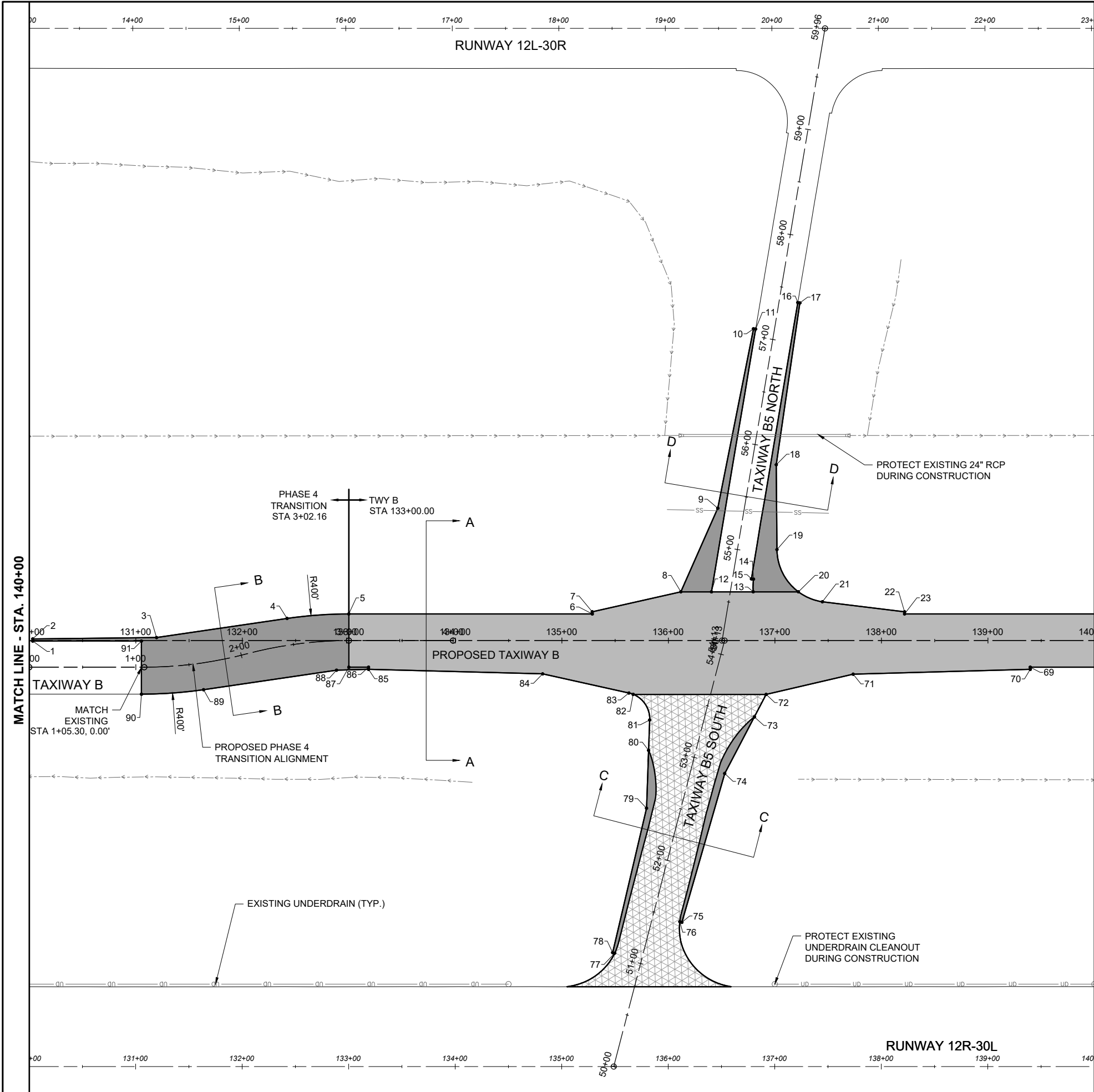
NO.	DATE	DESCRIPTION		
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ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-122-CON.DWG  
DESIGN BY: JRH 3/5/2025  
DRAWN BY: AJC 3/11/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

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

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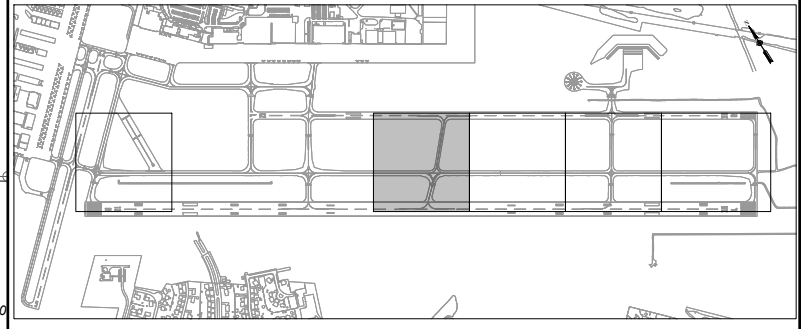
- LEGEND**
- EXISTING AIRPORT PROPERTY LINE
  - EXISTING FENCE
  - EXISTING PAVEMENT
  - EXISTING DITCH
  - EXISTING WATER
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  - EXISTING UNDERDRAIN
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MATCH LINE - STA. 150+00

MATCH LINE - STA. 140+00

**CONSTRUCTION PLAN - KEY MAP**



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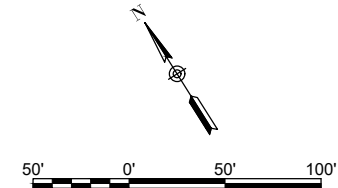
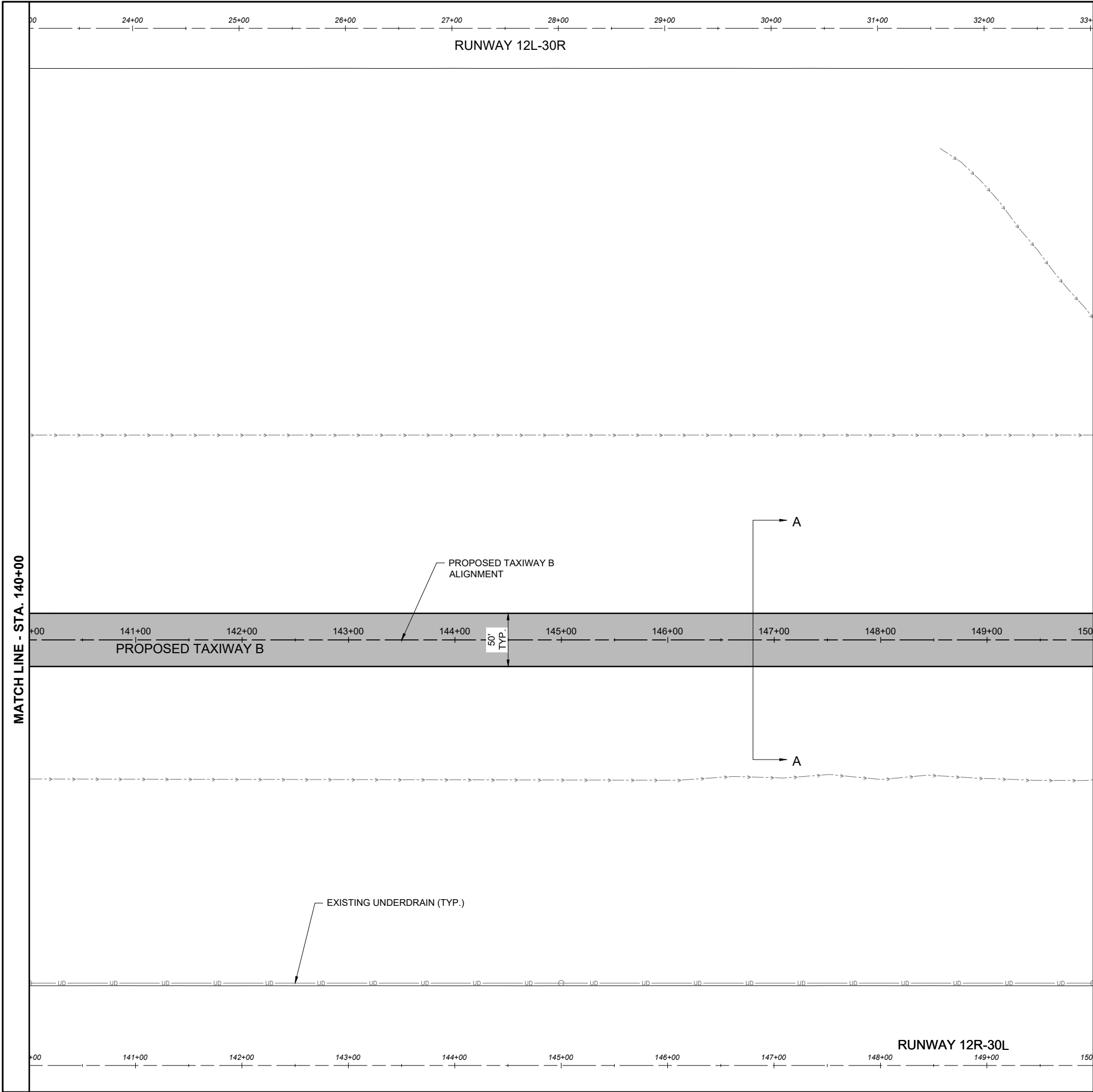
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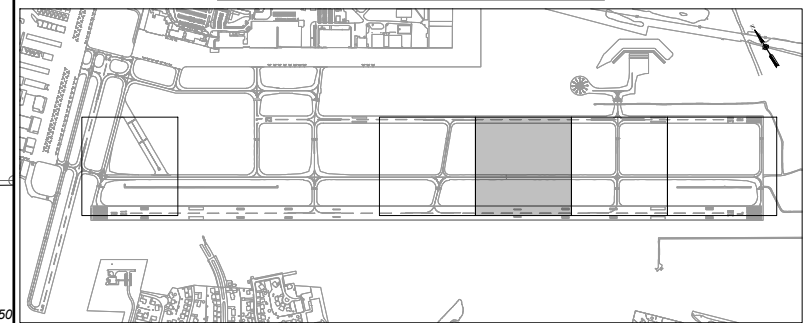
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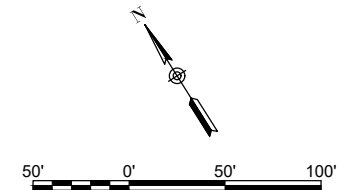
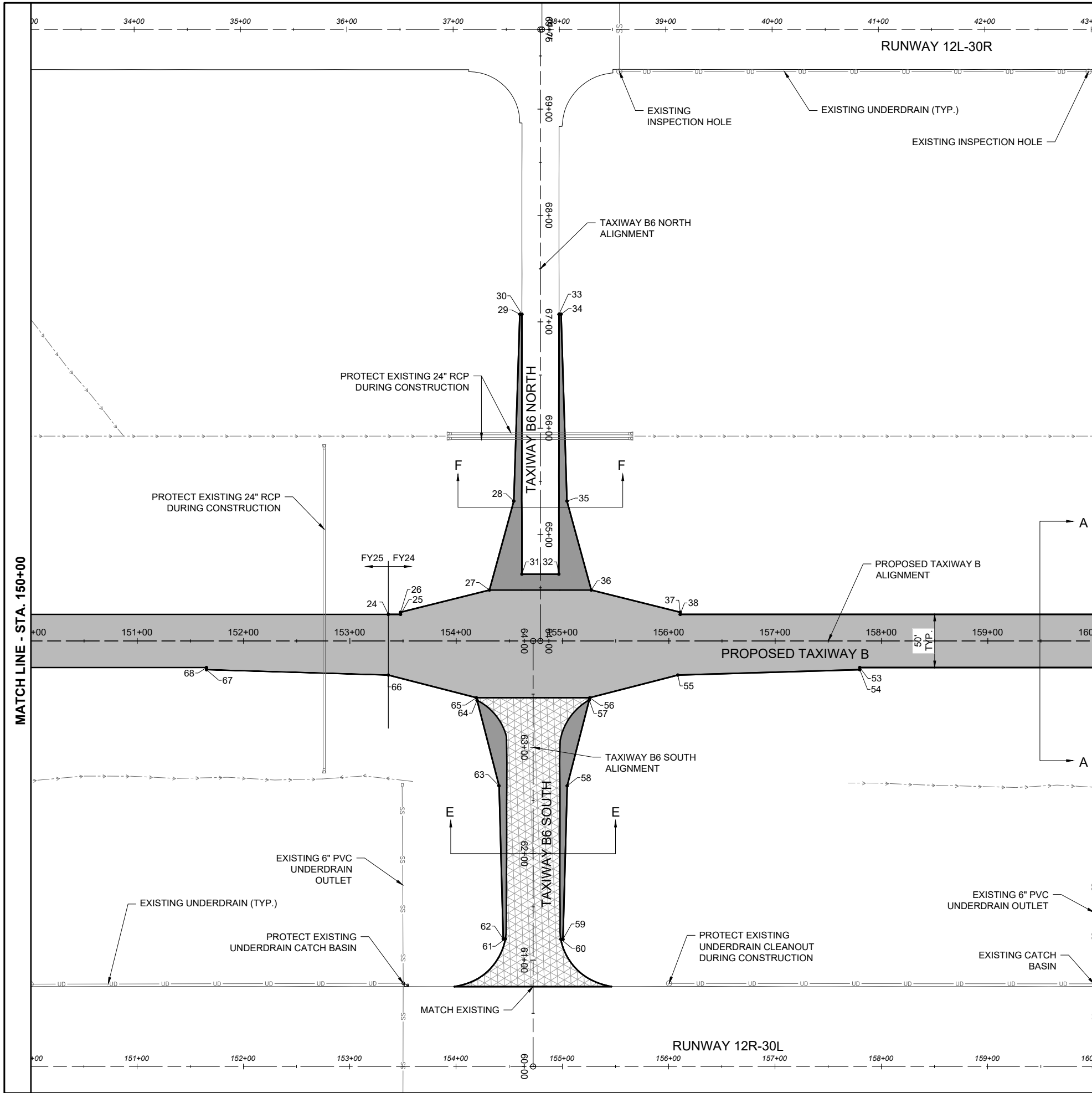
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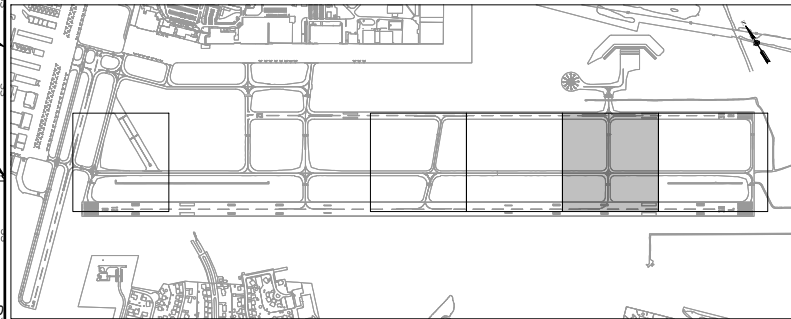


- LEGEND**
- EXISTING AIRPORT PROPERTY LINE
  - EXISTING FENCE
  - EXISTING PAVEMENT
  - EXISTING DITCH
  - EXISTING WATER
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**CONSTRUCTION PLAN - KEY MAP**



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CAD FILE: C-122-CON.DWG

DESIGN BY: JRH 3/5/2025

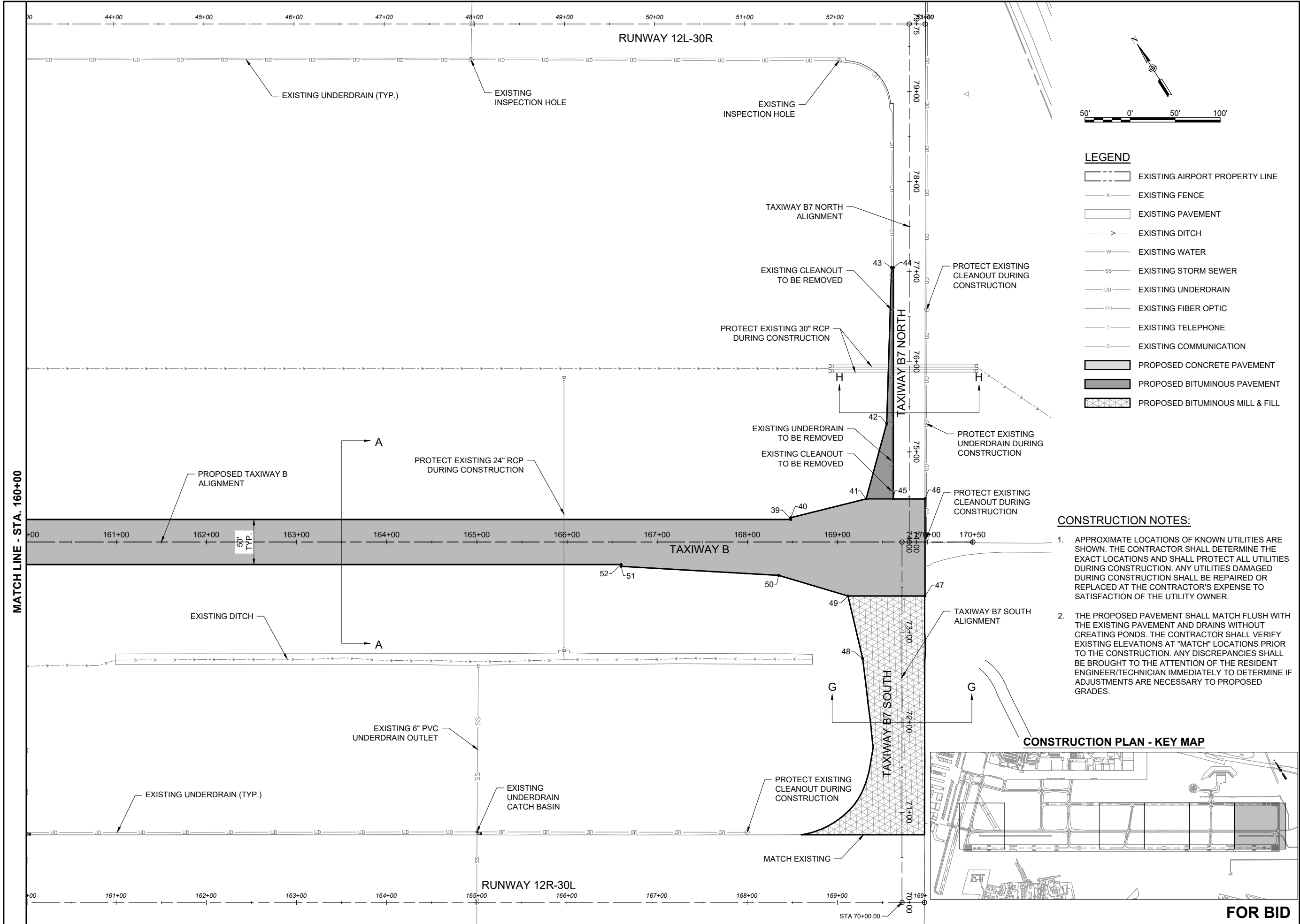
DRAWN BY: AJC 3/11/2025

REVIEWED BY: BSS 3/12/2025

SHEET TITLE

CONSTRUCTION  
PLAN STA. 150+00 TO  
STA. 160+00

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		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-122-CON.DWG

DESIGN BY: JRH 3/5/2025

DRAWN BY: AJC 3/11/2025

REVIEWED BY: BSS 3/12/2025

SHEET TITLE

CONSTRUCTION  
PLAN STA. 160+00 TO  
STA. 170+50

PAVEMENT GEOMETRY COORDINATE DATA TABLE				
POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
61	MATCH EXISTING	691687.0527	2301717.6609	406.56
62	EDGE OF PAVEMENT	691688.1187	2301715.9687	406.33
63	EDGE OF PAVEMENT	691811.9983	2301789.3703	406.35
64	EDGE OF PAVEMENT	691890.9955	2301814.7008	406.67
65	EDGE OF PAVEMENT	691893.4228	2301815.4791	406.70
66	EDGE OF PAVEMENT	691955.5925	2301756.7719	406.42
67	EDGE OF PAVEMENT	692051.0191	2301614.7493	406.39
68	EDGE OF PAVEMENT	692052.7113	2301615.8153	406.42
69	EDGE OF PAVEMENT	692705.9069	2300578.9458	409.18
70	EDGE OF PAVEMENT	692704.2147	2300577.8798	409.15
71	EDGE OF PAVEMENT	692788.9869	2300434.7591	409.94
72	EDGE OF PAVEMENT	692816.4643	2300355.5711	410.34
73	EDGE OF PAVEMENT	692804.4627	2300334.9008	410.20
74	EDGE OF PAVEMENT	692774.3768	2300283.0838	410.98
75	EDGE OF PAVEMENT	692677.5609	2300174.5798	410.30
76	MATCH EXISTING	692679.0183	2300173.2105	410.44
77	MATCH EXISTING	692686.6324	2300105.7353	410.46
78	EDGE OF PAVEMENT	692688.0900	2300104.3659	410.35
79	EDGE OF PAVEMENT	692785.8695	2300203.5711	410.34
80	EDGE OF PAVEMENT	692830.7819	2300234.1534	410.09

PAVEMENT GEOMETRY COORDINATE DATA TABLE				
POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
81	EDGE OF PAVEMENT	692854.4135	2300250.2449	410.45
82	EDGE OF PAVEMENT	692883.0213	2300249.9198	410.40
83	EDGE OF PAVEMENT	692886.2410	2300247.1791	410.38
84	EDGE OF PAVEMENT	692944.6157	2300188.2799	410.07
85	EDGE OF PAVEMENT	693035.3261	2300052.2804	409.45
86	EDGE OF PAVEMENT	693037.0183	2300053.3464	409.47
87	EDGE OF PAVEMENT	693046.8751	2300037.6998	409.41
88	EDGE OF PAVEMENT	693050.6311	2300026.4362	409.36
89	EDGE OF PAVEMENT	693101.7036	2299911.0465	409.25
90	MATCH EXISTING	693129.2124	2299859.4530	409.18
91	MATCH EXISTING	693171.4467	2299886.0593	409.19



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Telephone: 217.788.2450  
Fax: 217.788.2503



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



DATE  
SIGNED: 3/14/2025

LICENSE  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

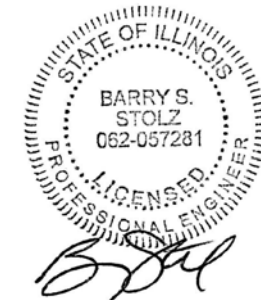
ISSUE: MARCH 14, 2025
PROJECT NO: 23A0001D
CAD FILE: C-122-CON.DWG
DESIGN BY: JRH 3/5/2025
DRAWN BY: AJC 03/11/2025
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

# PAVEMENT GEOMETRY COORDINATE DATA TABLE



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



DATE  
SIGNED: 3/14/2025

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EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

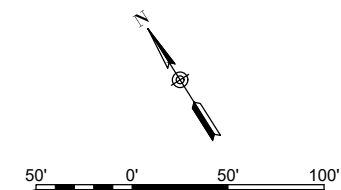
IDA NO.: CPS-5078  
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	RE














ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-701-PNP.DWG  
DESIGN BY: JRH 3/5/2025  
DRAWN BY: AJC 03/11/2025  
REVIEWED BY: BSS 3/12/2025

**SHEET TITLE**

## PROPOSED PLAN AND PROFILE - TRANSITION

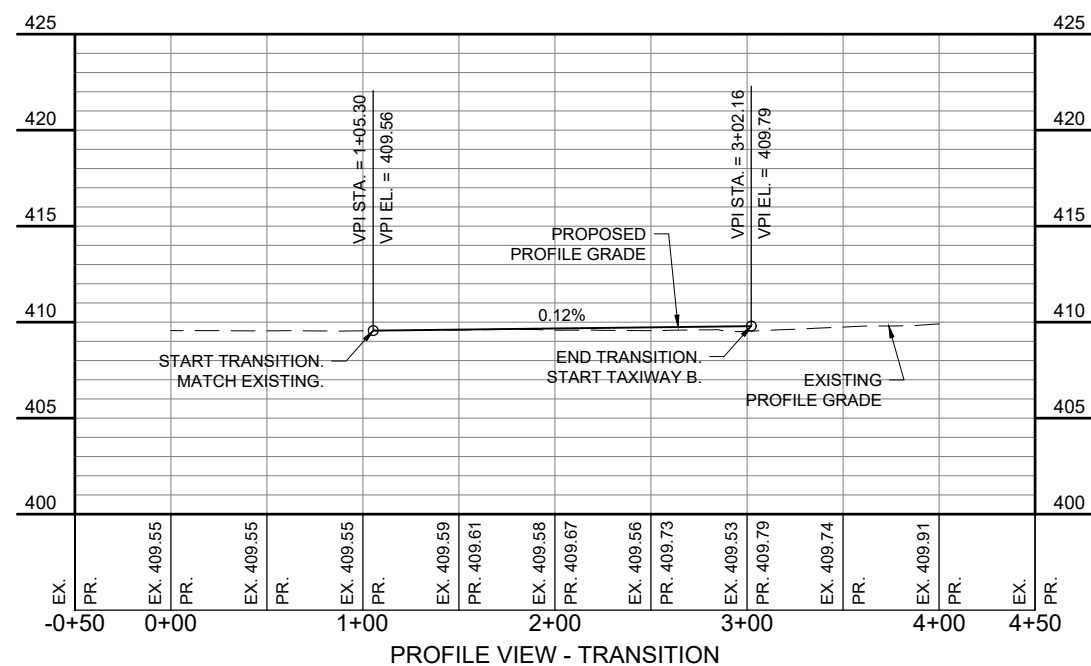


LEGEND

- |   |                                |
|---|--------------------------------|
|  | 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        |

**MATCH LINE - STA. 140+00**

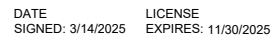
PLAN VIEW - TRANSITION



**FOR BID**



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



RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

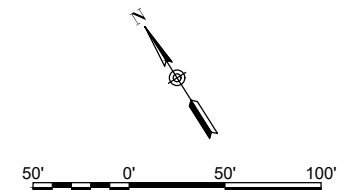
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CONTRACT NO.: SD064

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DRAWN BY: AJC 03/11/2025  
REVIEWED BY: BSS 3/12/2025

**SHEET TITLE**

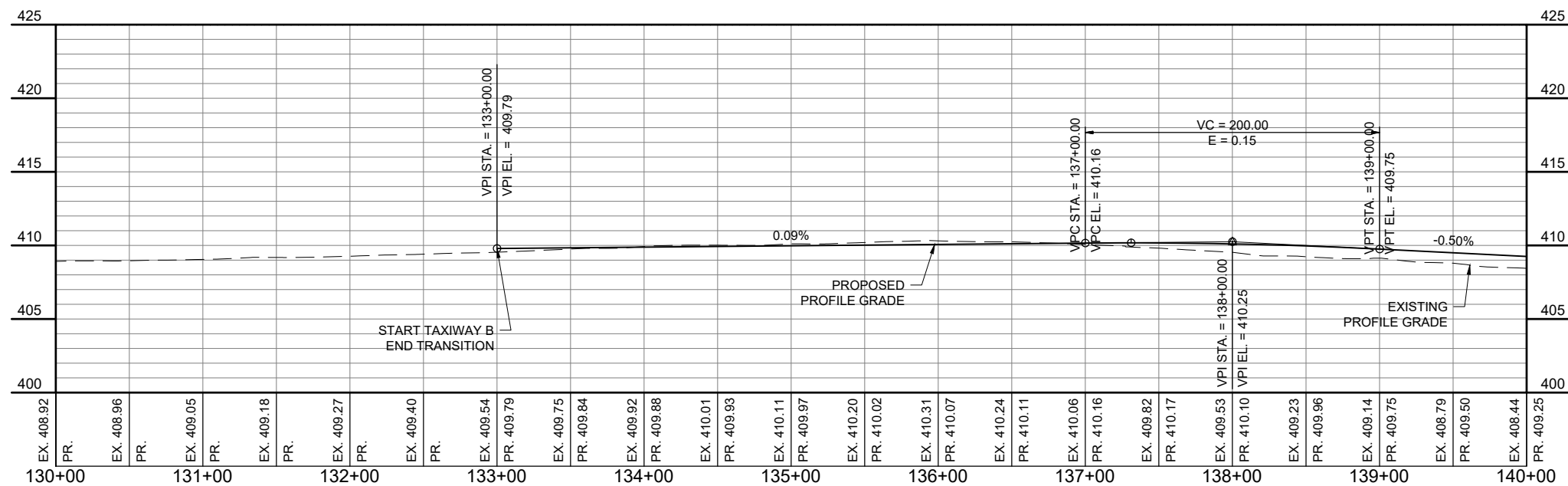
PROPOSED PLAN  
AND PROFILE - STA.  
130+00 TO STA.  
140+00



### 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 MILL & OVERLAY        |

PLAN VIEW - STA. 140+00 TO STA. 150+00



PROFILE VIEW - STA. 130+00 TO STA. 140+00

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



DATE SIGNED: 3/14/2025

LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION			
		DES	DWN	RE	

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-701-PNP.DWG

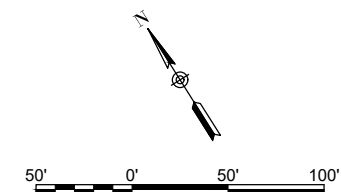
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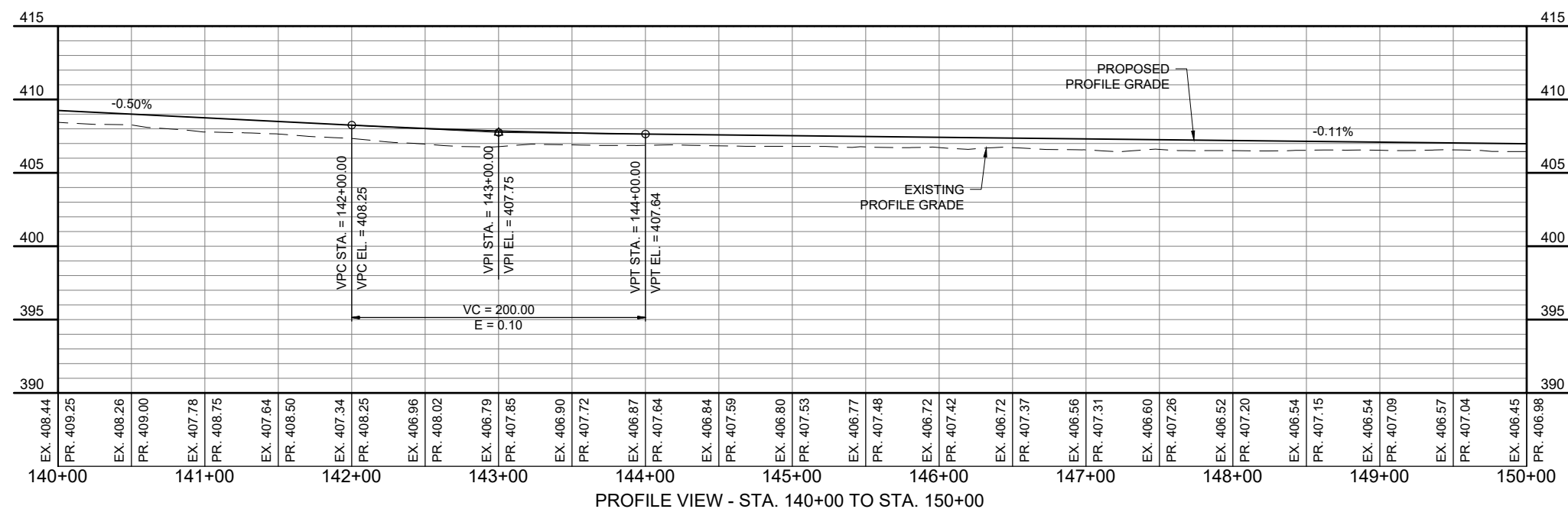
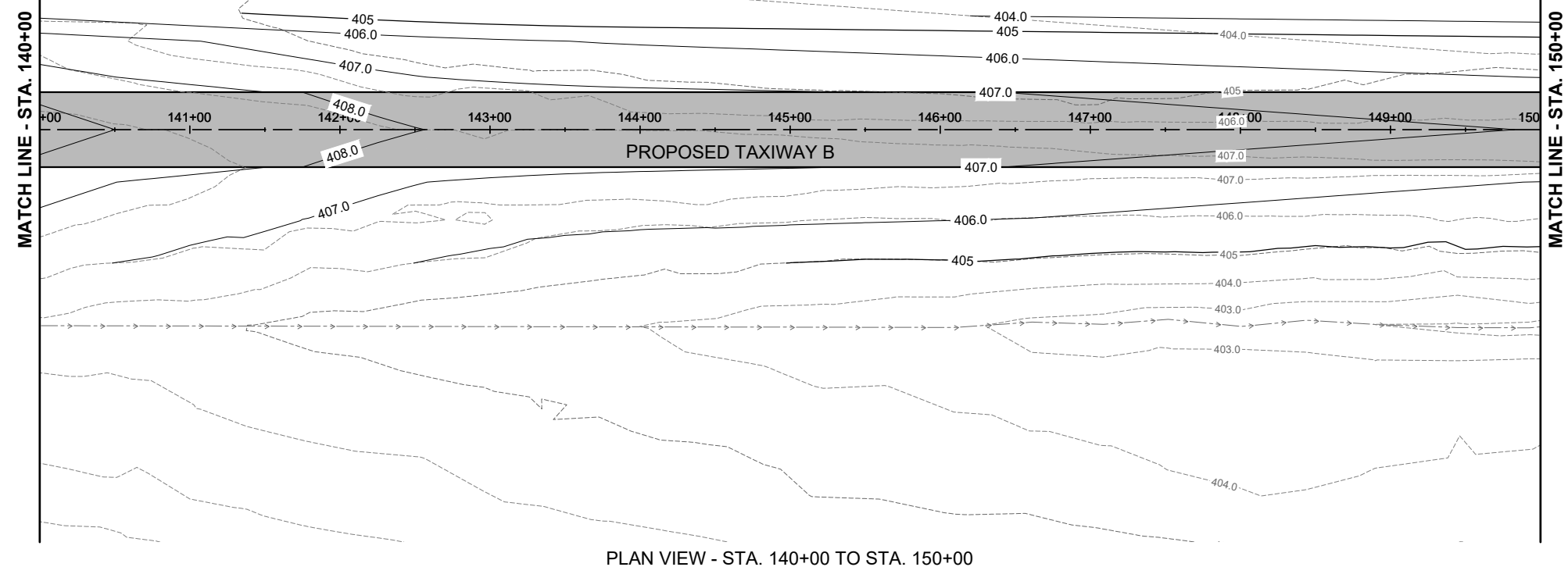
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SHEET TITLE

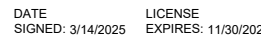
PROPOSED PLAN  
AND PROFILE - STA.  
140+00 TO STA.  
150+00



	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



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RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

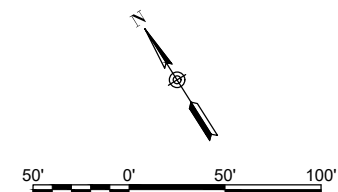
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CONTRACT NO.: SD064

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


ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-701-PNP.DWG  
DESIGN BY: JRH 3/5/2025  
DRAWN BY: AJC 03/11/2025  
REVIEWED BY: BSS 3/12/2025

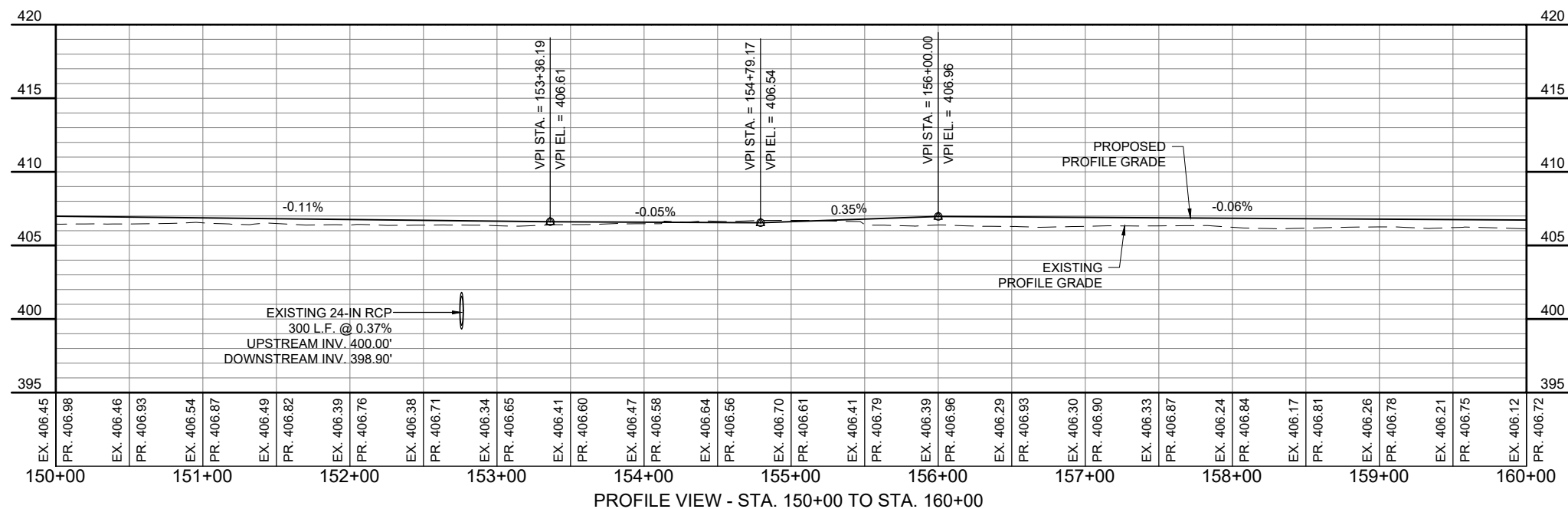
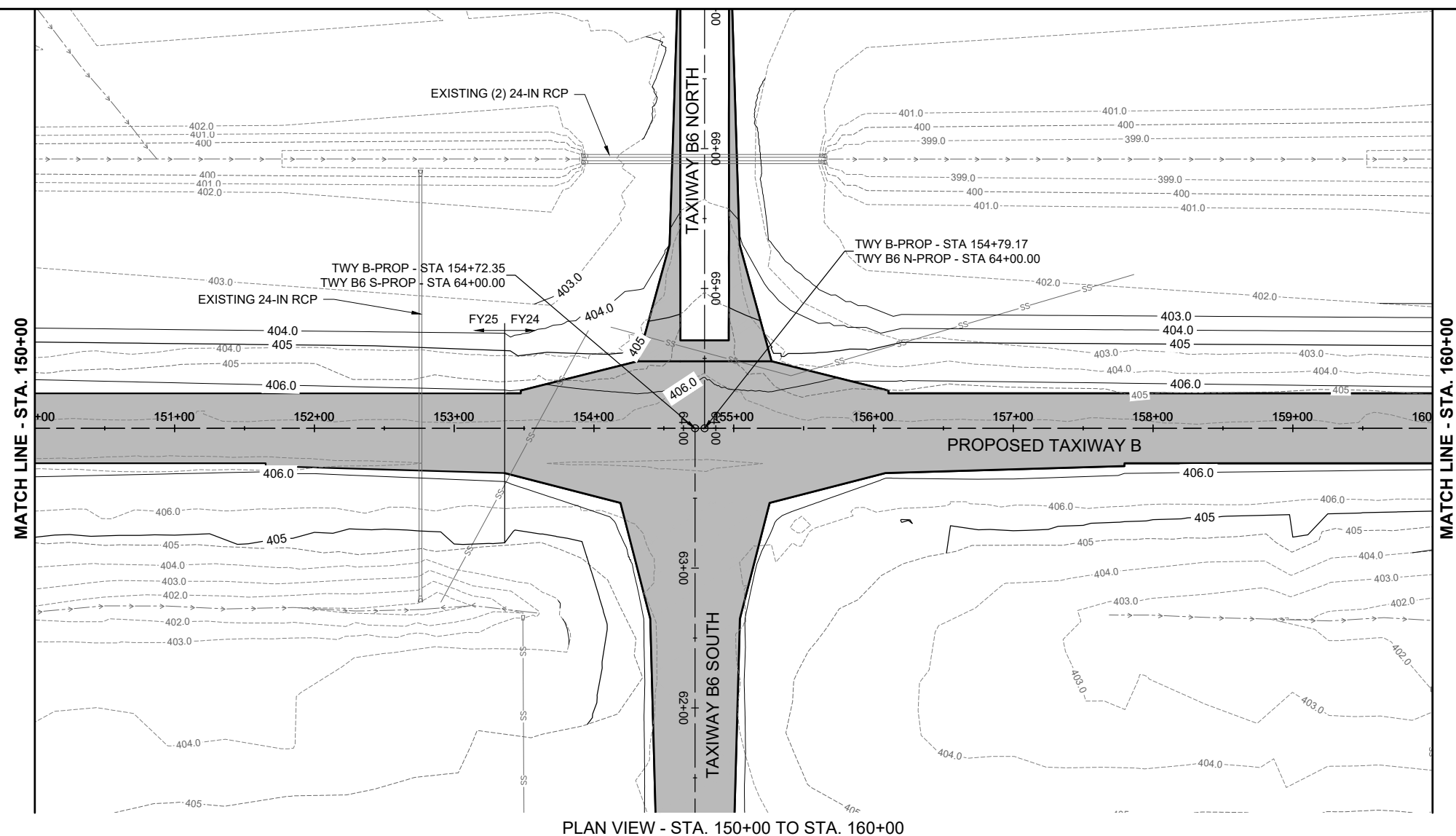
SHEET TITLE

PROPOSED PLAN  
AND PROFILE - STA.  
150+00 TO STA.  
160+00

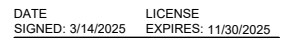


### LEGEND

- |   |                                |
|---|--------------------------------|
|  | 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 MILL & OVERLAY        |



**FOR BID**



RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

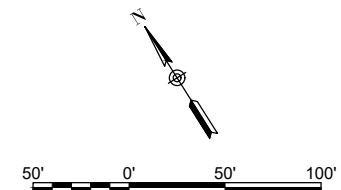
IDA NO.: CPS-5078  
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV














ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
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DESIGN BY: JRH 3/5/2025  
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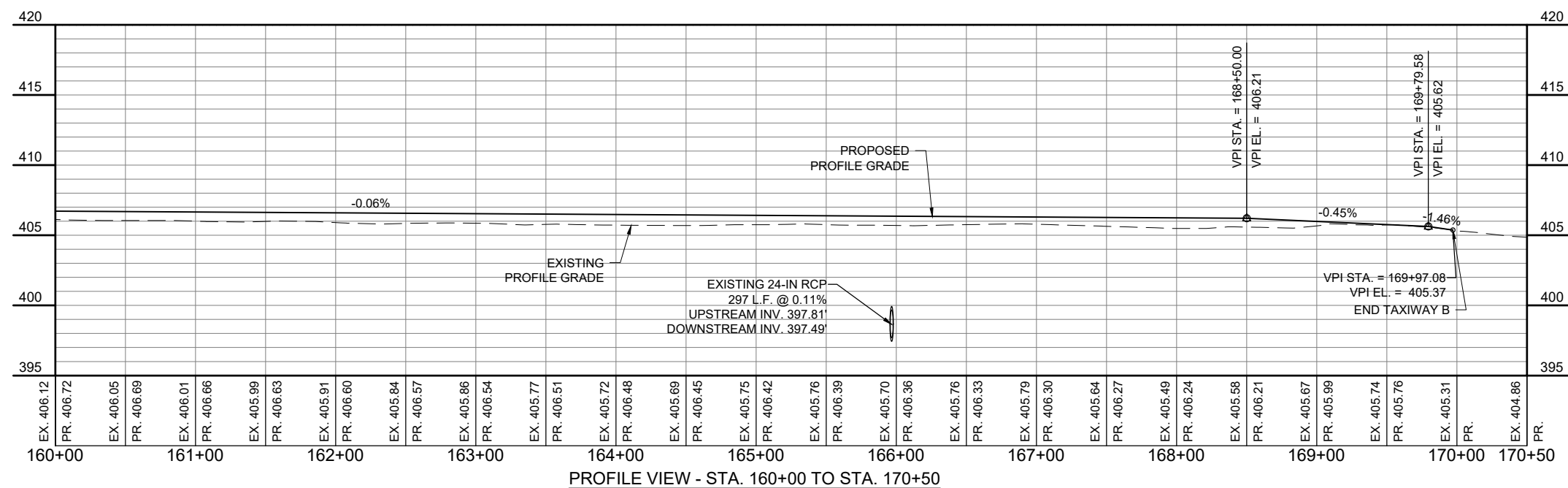
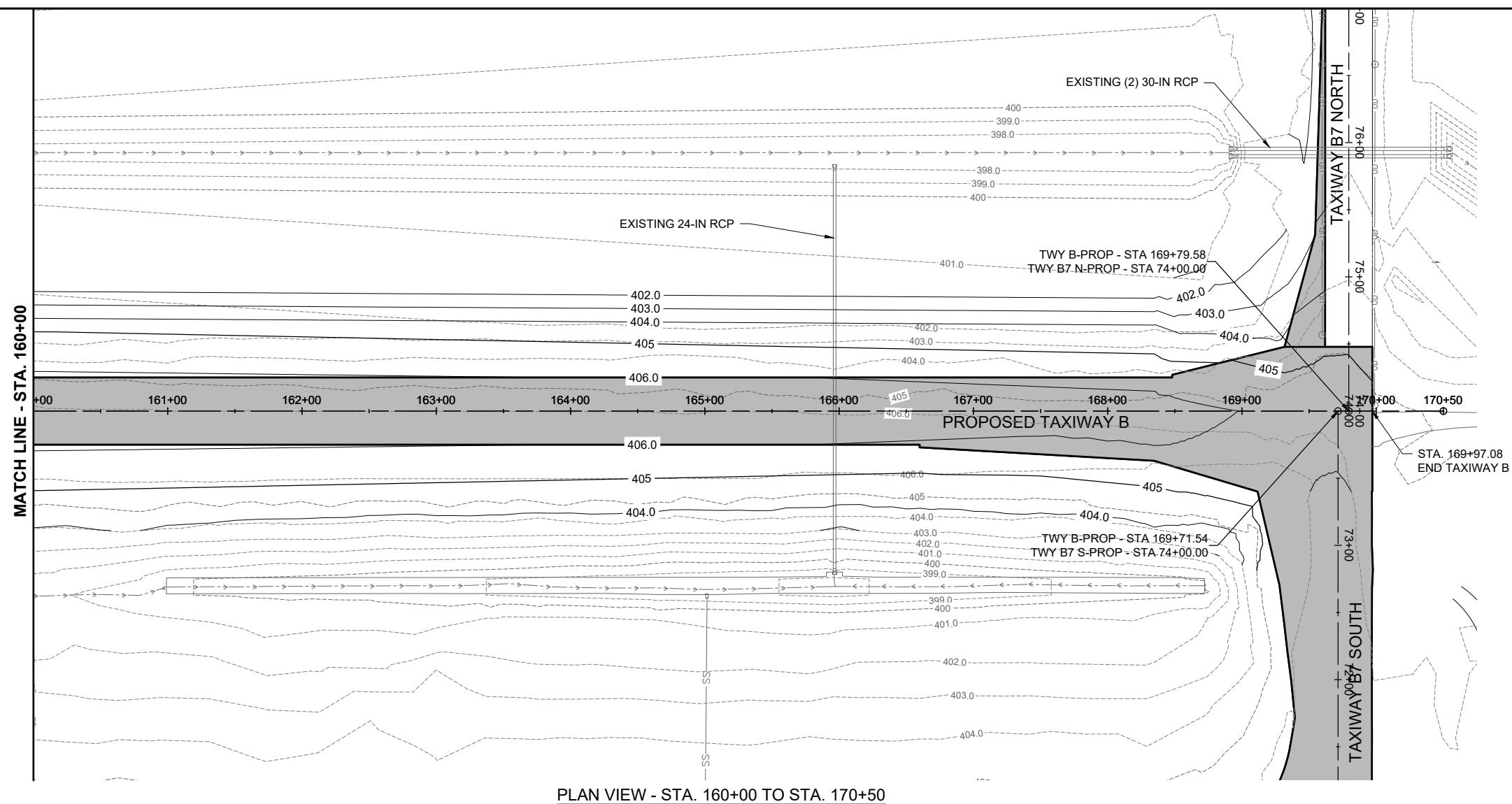
SHEET TITLE

PROPOSED PLAN  
AND PROFILE - STA.  
160+00 TO STA.  
170+50

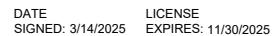


LEGEND

- |   |                                |
|---|--------------------------------|
|  | 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 MILL & OVERLAY        |



**FOR BID**



RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

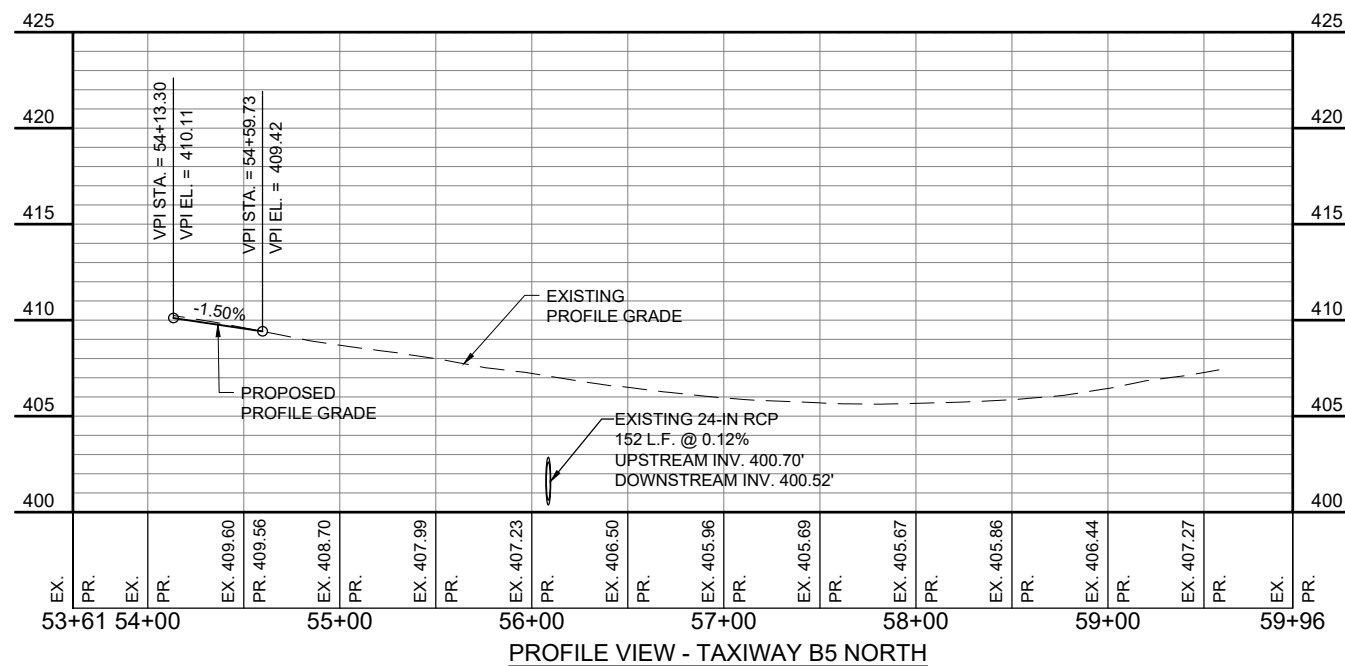
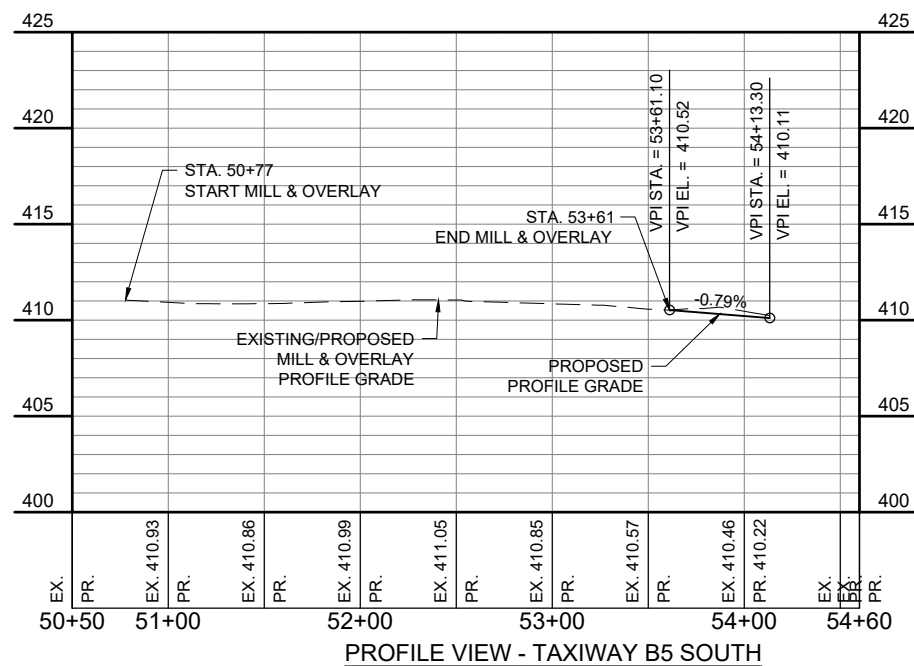
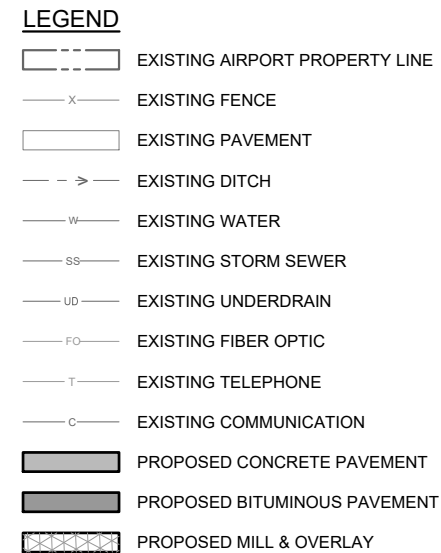
IDA NO.: CPS-5078  
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-701-PNP.DWG  
DESIGN BY: JRH 3/5/2025  
DRAWN BY: AJC 03/11/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

# PROPOSED PLAN AND PROFILE - TAXIWAY B5



**FOR BID**



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



DATE SIGNED: 3/14/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

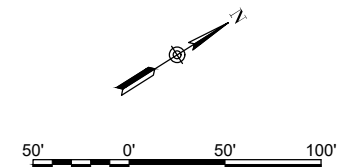
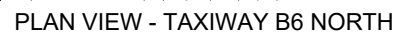
IDA NO.: CPS-5078  
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV














ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-701-PNP.DWG  
DESIGN BY: JRH 3/5/2025  
DRAWN BY: AJC 03/11/2025  
REVIEWED BY: BSS 3/12/2025

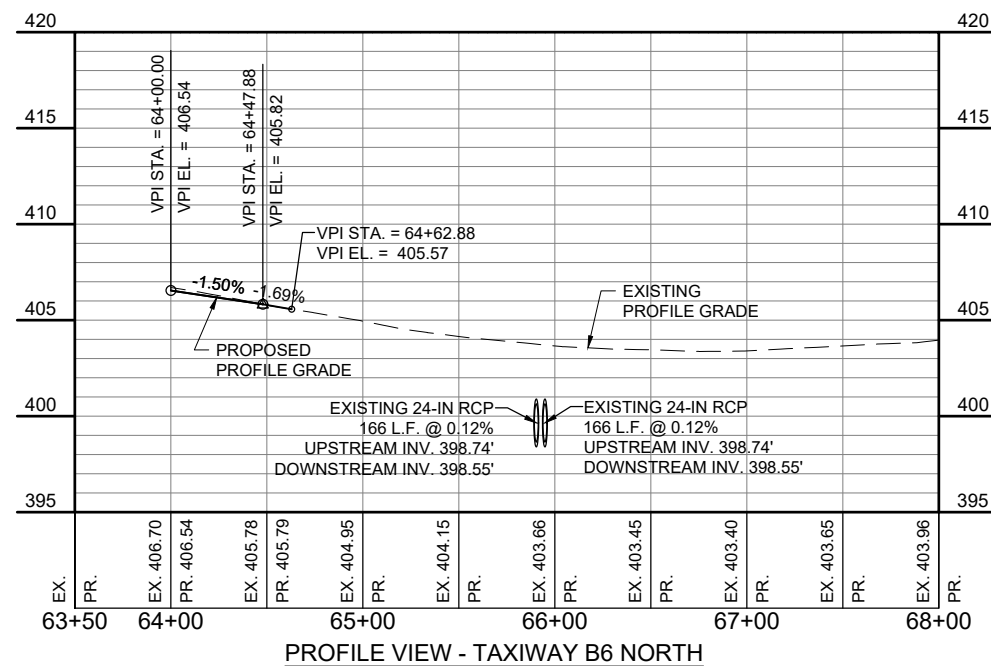
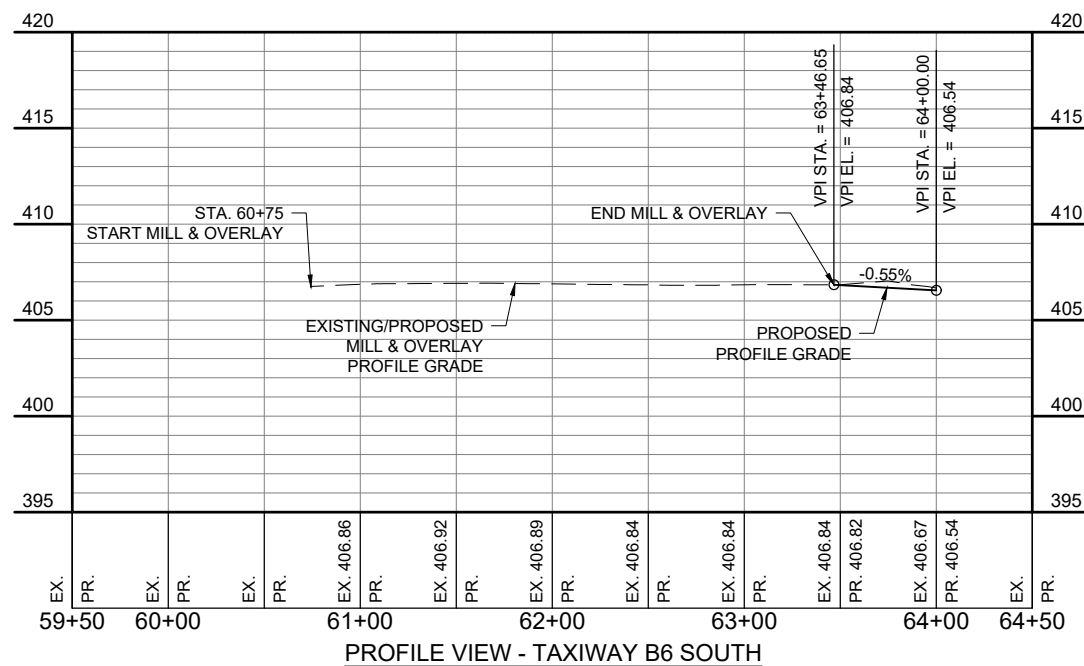
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# PROPOSED PLAN AND PROFILE - TAXIWAY B6

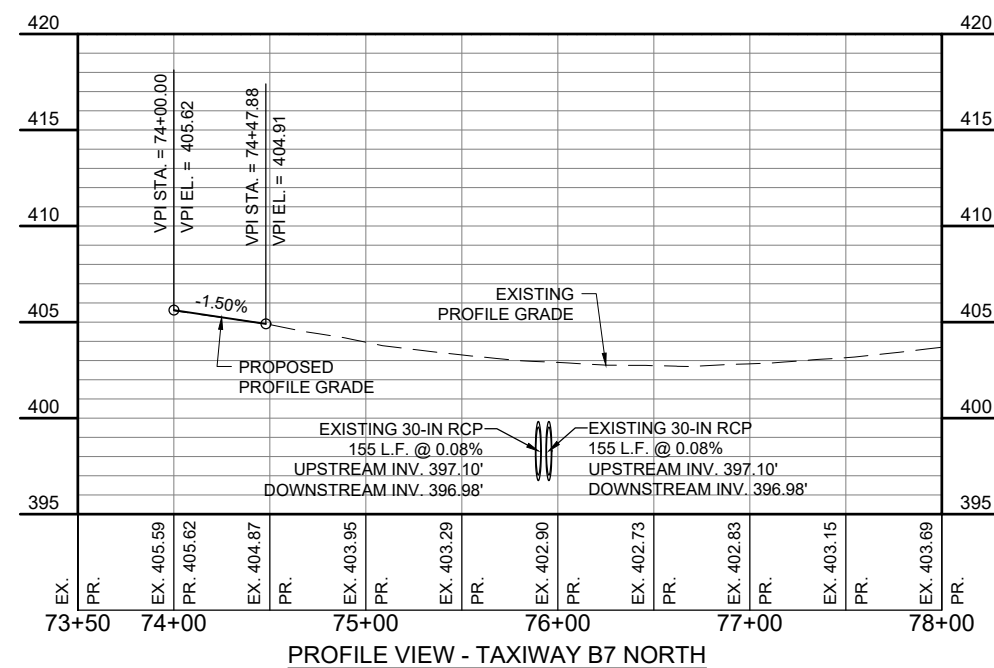
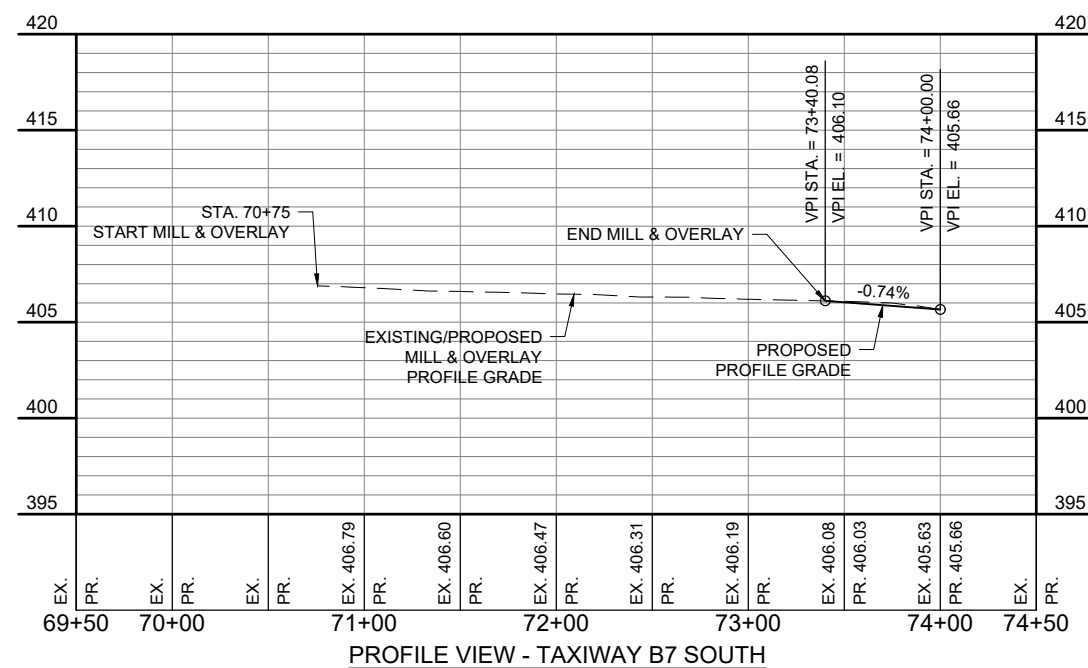
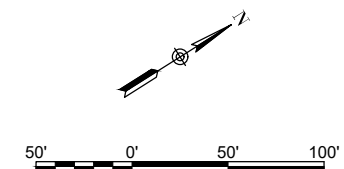
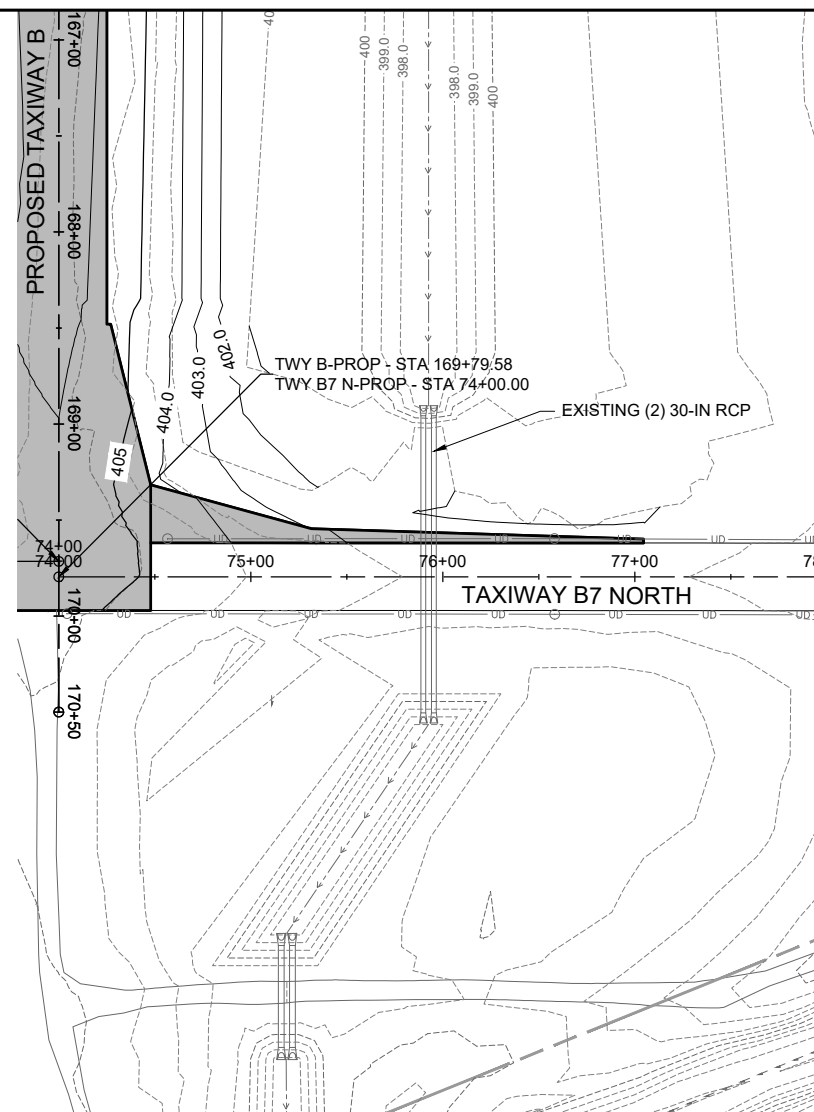
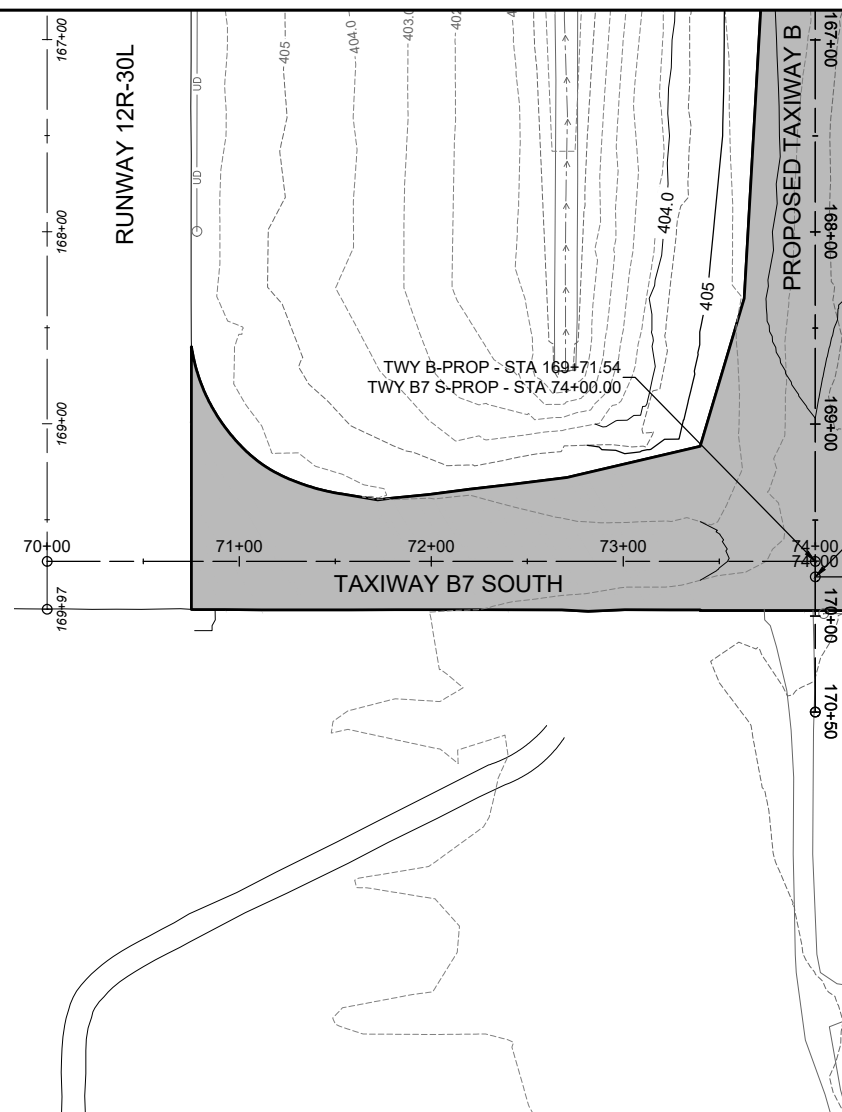


### LEGEND

- |   |                                |
|---|--------------------------------|
|  | 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        |



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Springfield, Illinois 62703-2886  
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**BI-STATE DEVELOPMENT  
ST. LOUIS DOWNTOWN AIRPORT**  
6100 Archview Drive  
Cahokia Heights, Illinois 62206



DATE SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-701-PNP.DWG

DESIGN BY: JRH 3/5/2025

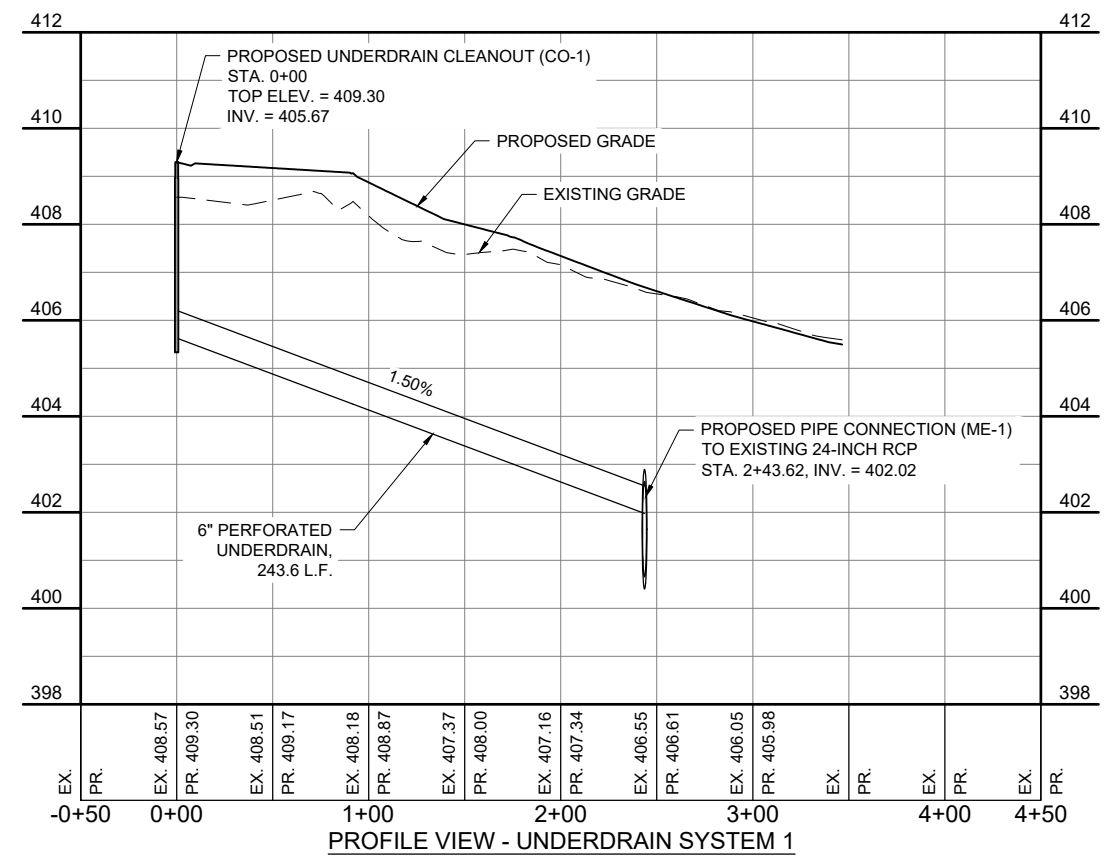
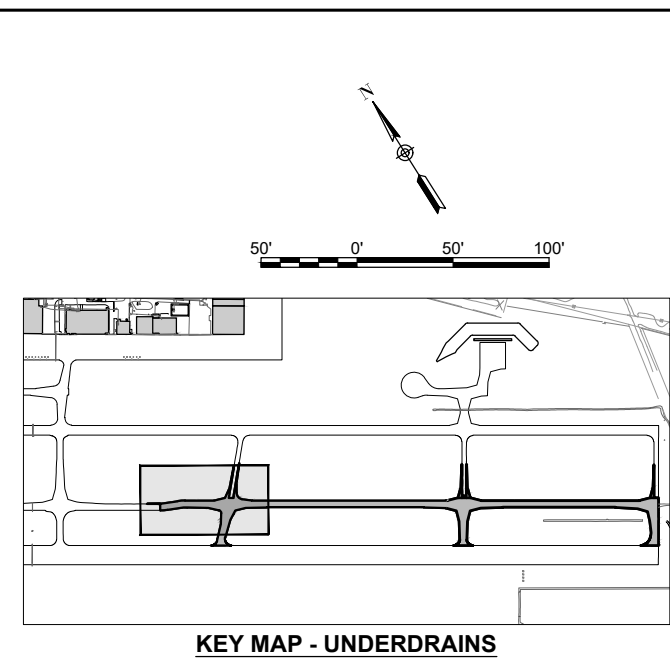
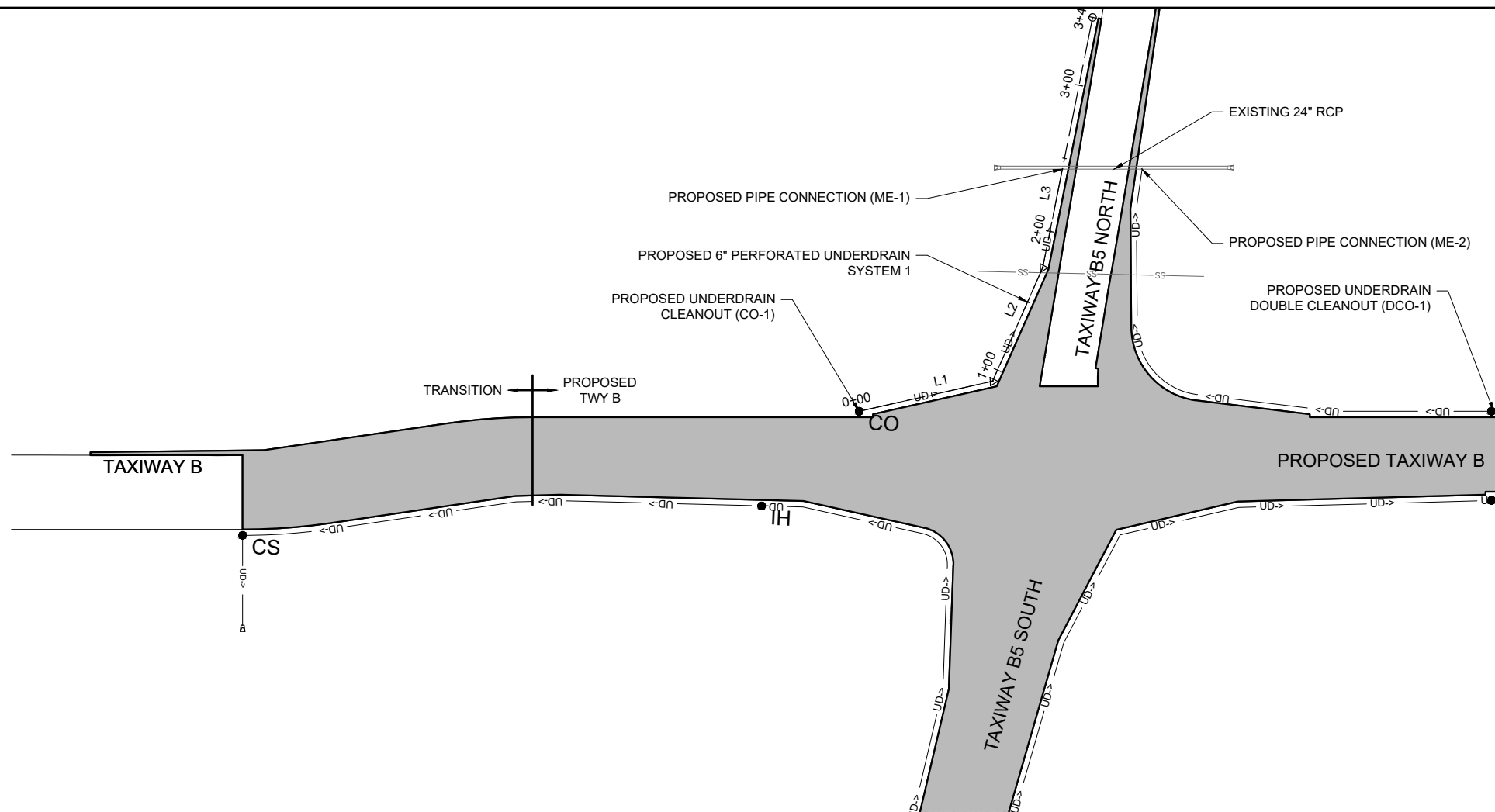
DRAWN BY: AJC 03/11/2025

REVIEWED BY: BSS 3/12/2025

SHEET TITLE

## PROPOSED PLAN AND PROFILE - TAXIWAY B7

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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

STATE OF ILLINOIS  
BARRY S. STOLZ  
062-057281  
LICENSED PROFESSIONAL ENGINEER  
*B. Stolz*

DATE: 3/14/2025  
SIGNED: 3/14/2025  
LICENSE: 062-057281  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

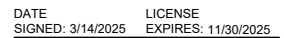
ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/9/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

PROPOSED PLAN  
AND PROFILE -  
UNDERDRAIN  
SYSTEM 1



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



RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

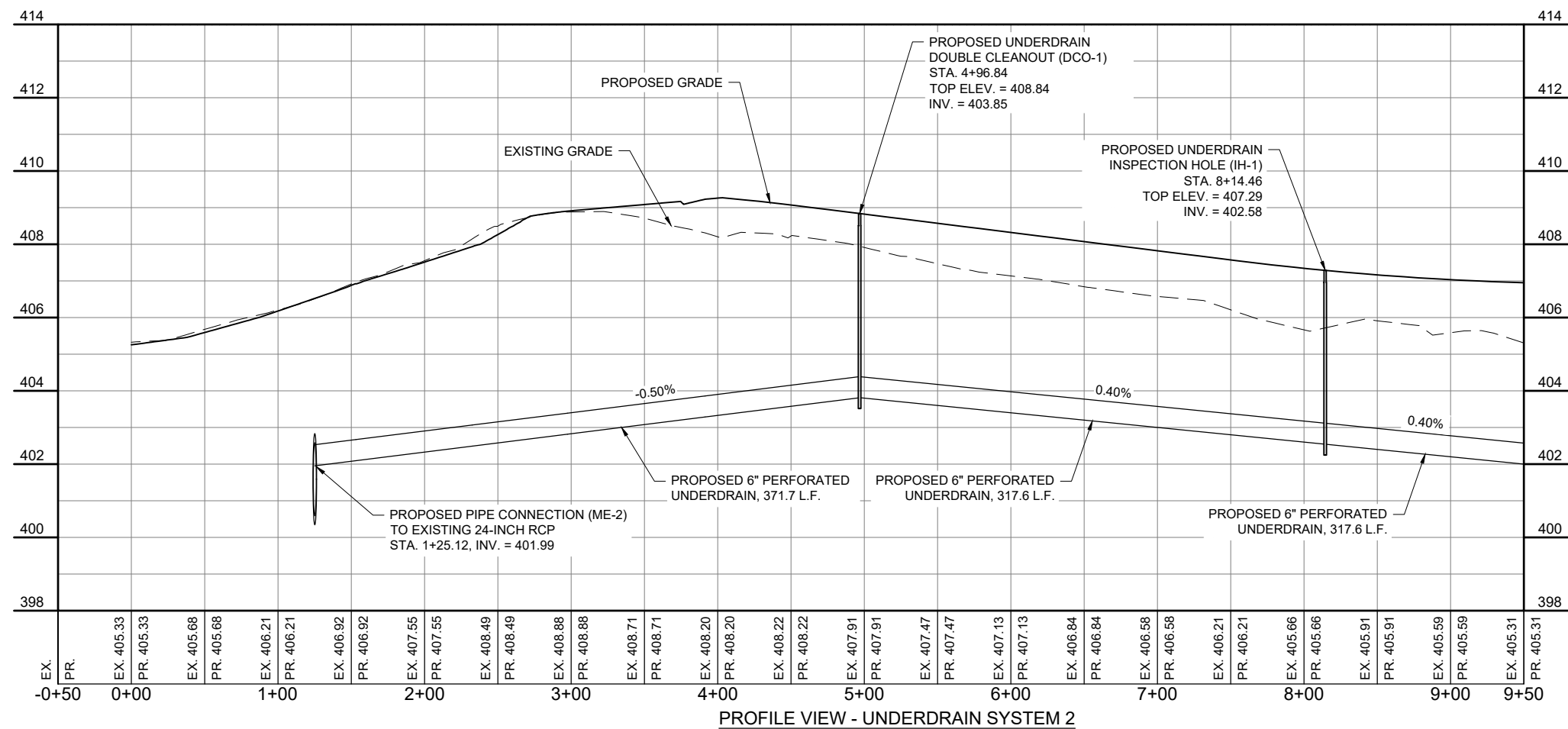
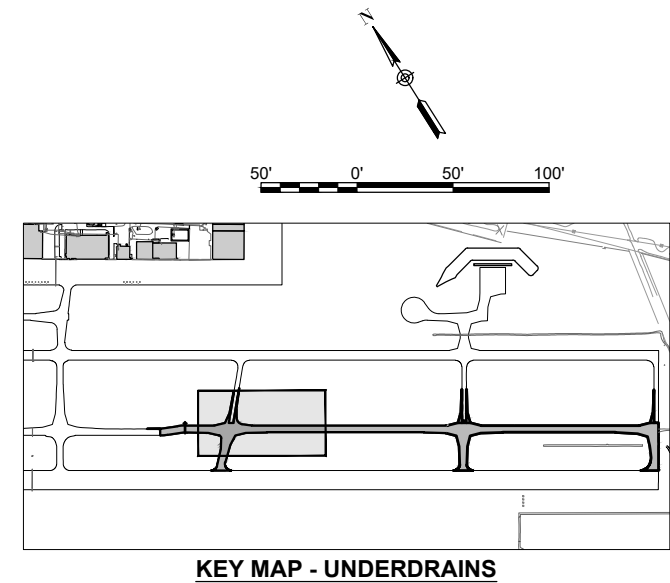
IDA NO.: CPS-5078  
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/9/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

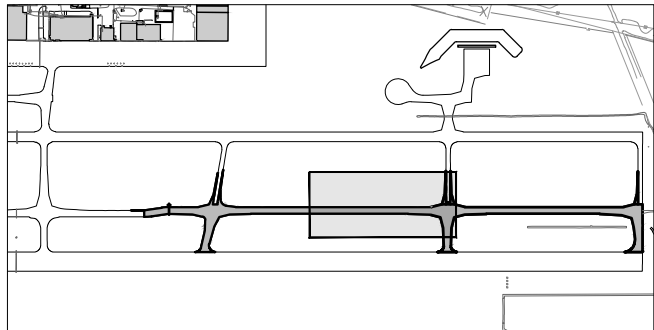
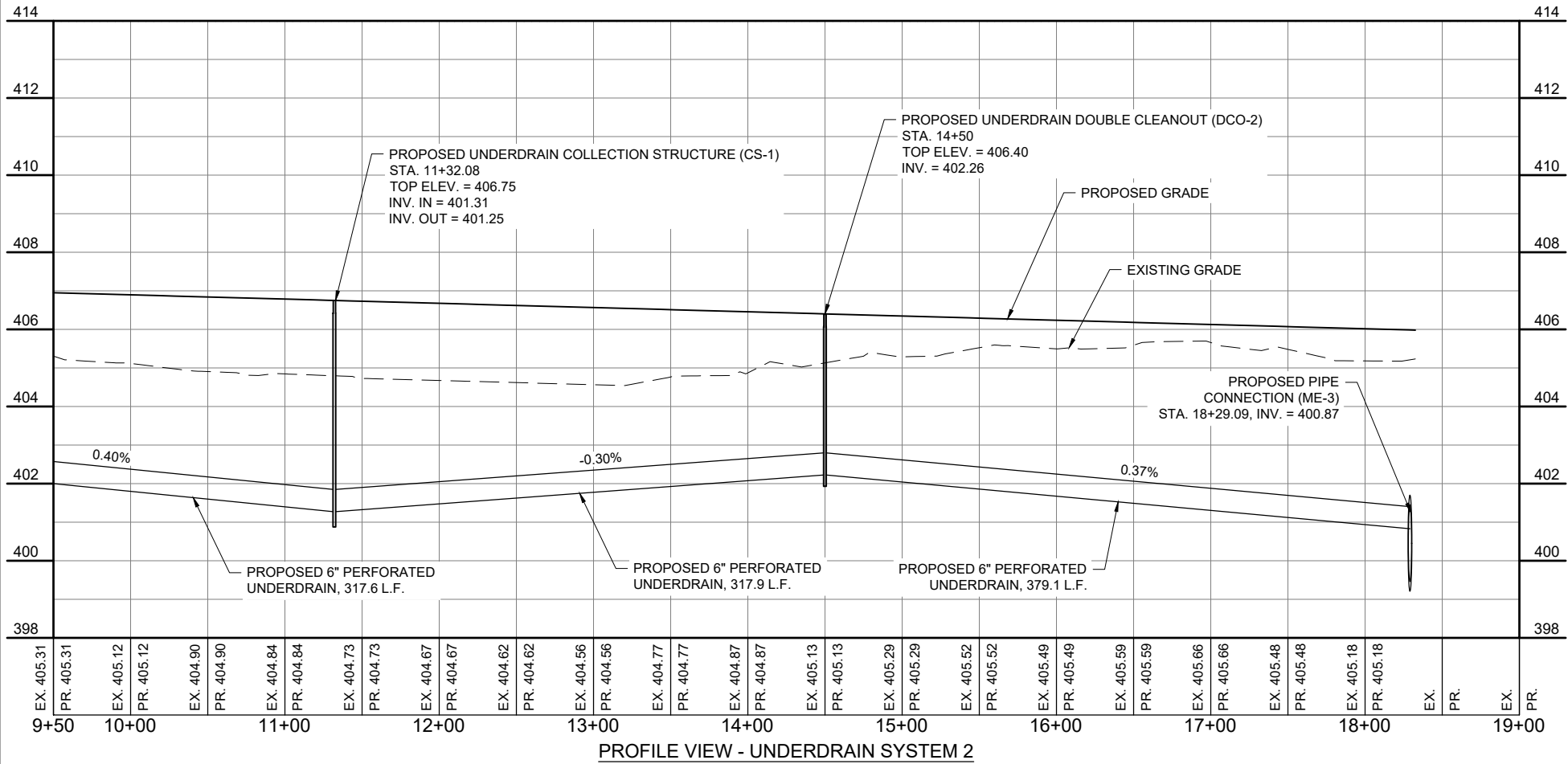
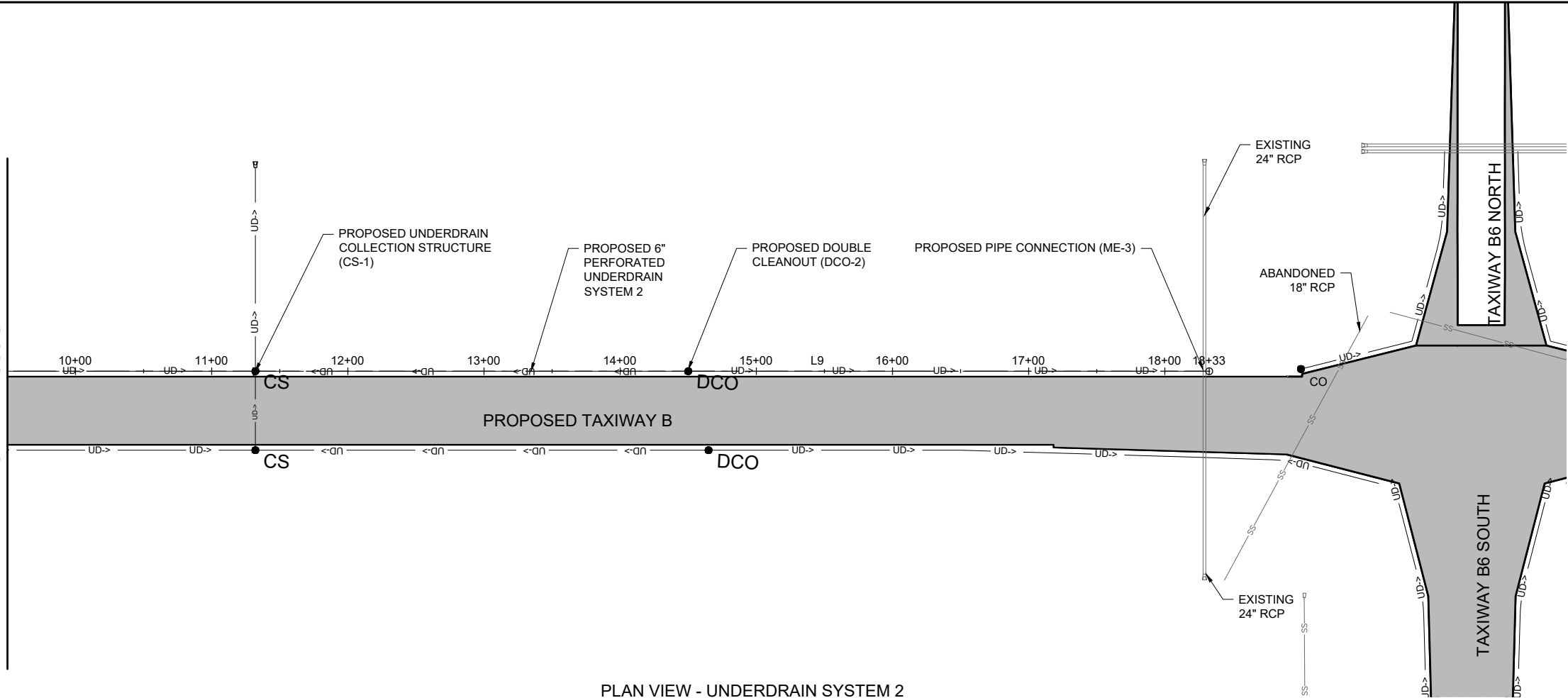
# PROPOSED PLAN AND PROFILE - UNDERDRAIN SYSTEM 2 (SHEET 1)



**FOR BID**

MAR 14, 2025 9:43 AM GROVE02594  
I:\23\JOBS\23A000\DCAD\AIRPORT\LIBRARY\2025 CPS-5078 COMBINED LIBRARY\G-BS-22\X34\_BORDER

MATCH LINE - SEE PREVIOUS SHEET



KEY MAP - UNDERDRAINS

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ST. LOUIS DOWNTOWN AIRPORT  
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Cahokia Heights, Illinois 62206



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SIGNED: [Signature]  
LICENSE: 062-057281  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

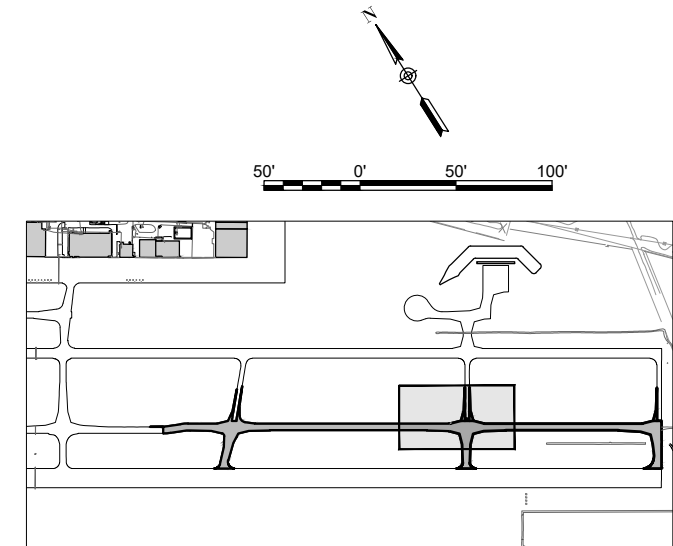
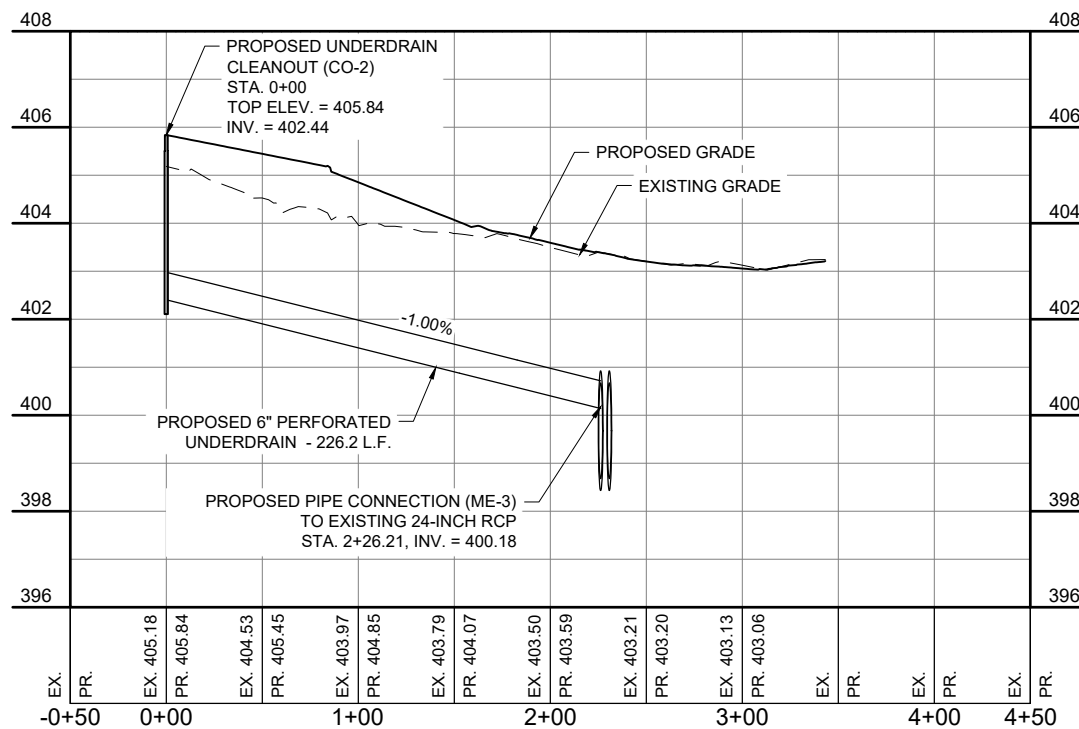
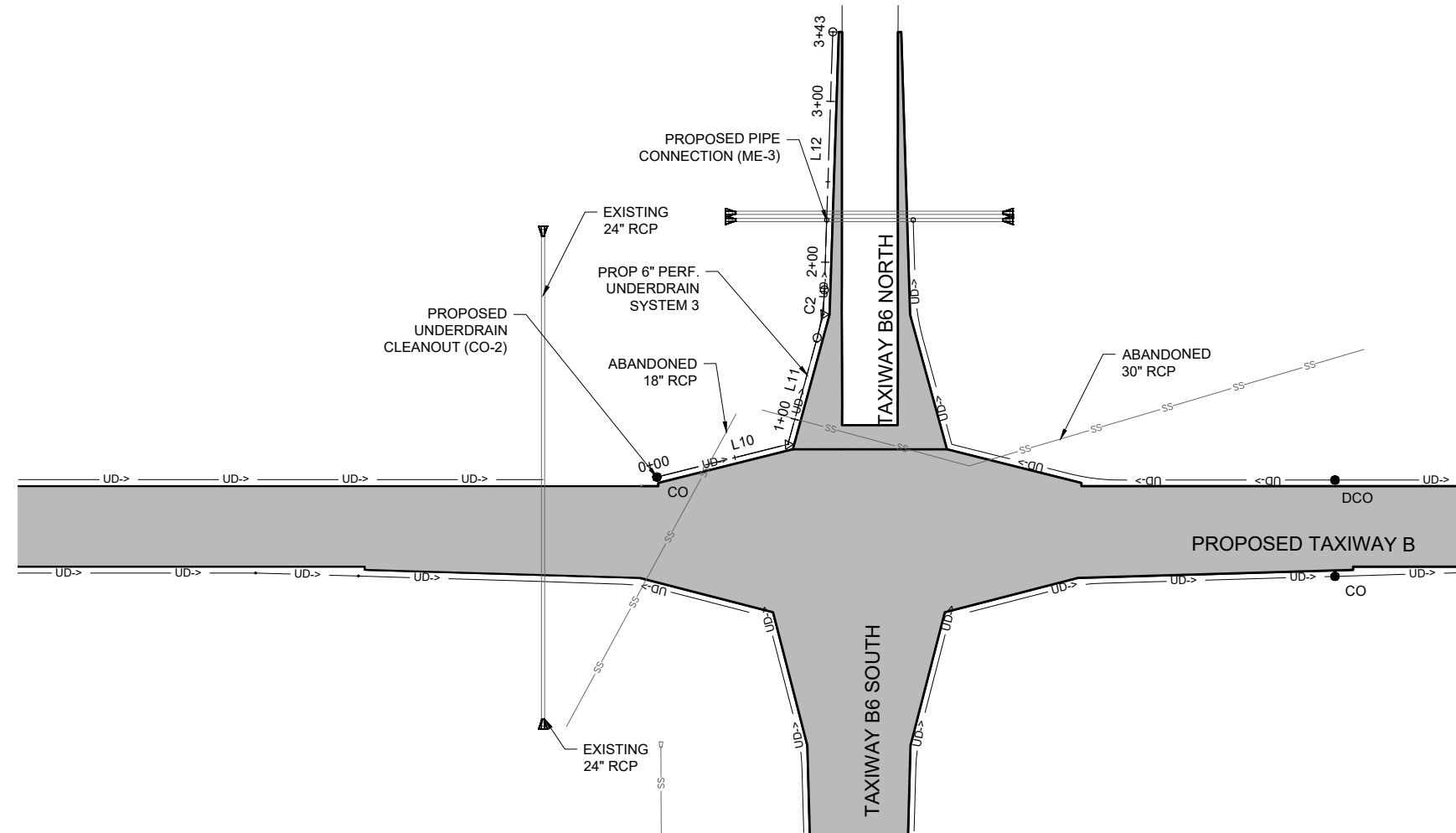
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ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/9/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

PROPOSED PLAN  
AND PROFILE -  
UNDERDRAIN  
SYSTEM 2 (SHEET 2)

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



DATE: 3/14/2025  
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LICENSE: 11/30/2025  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

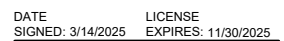
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ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/9/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

PROPOSED PLAN  
AND PROFILE -  
UNDERDRAIN  
SYSTEM 3

FOR BID



RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

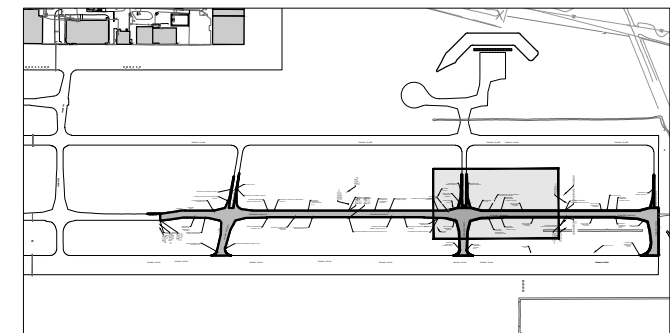
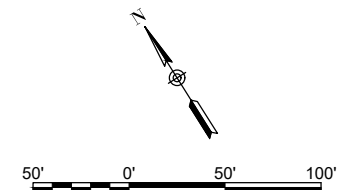
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NO.	DATE	DESCRIPTION		
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ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/9/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

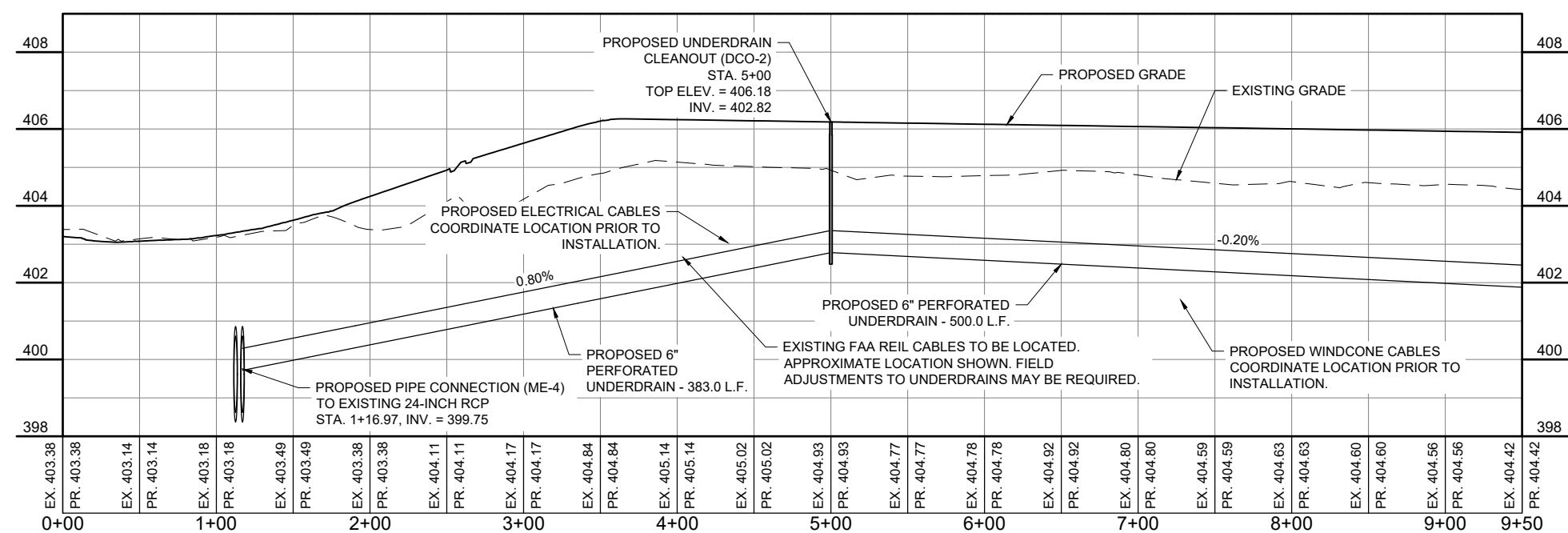
# PROPOSED PLAN AND PROFILE - UNDERDRAIN SYSTEM 4 (SHEET 1)



### KEY MAP - UNDERDRAINS

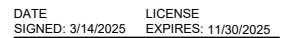
**MATCH LINE - SEE NEXT SHEET**

PLAN VIEW - UNDERDRAIN SYSTEM 4



### PROFILE VIEW - UNDERDRAIN SYSTEM 4

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RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
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REVIEWED BY: BSS 3/12/2025

SHEET TITLE

## PROPOSED PLAN AND PROFILE - UNDERDRAIN SYSTEM 4 (SHEET 2)



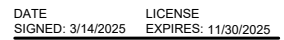
### PLAN VIEW - UNDERDRAIN SYSTEM 4



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6100 Archview Drive  
Cahokia Heights, Illinois 62206



RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-702-PNP.DWG

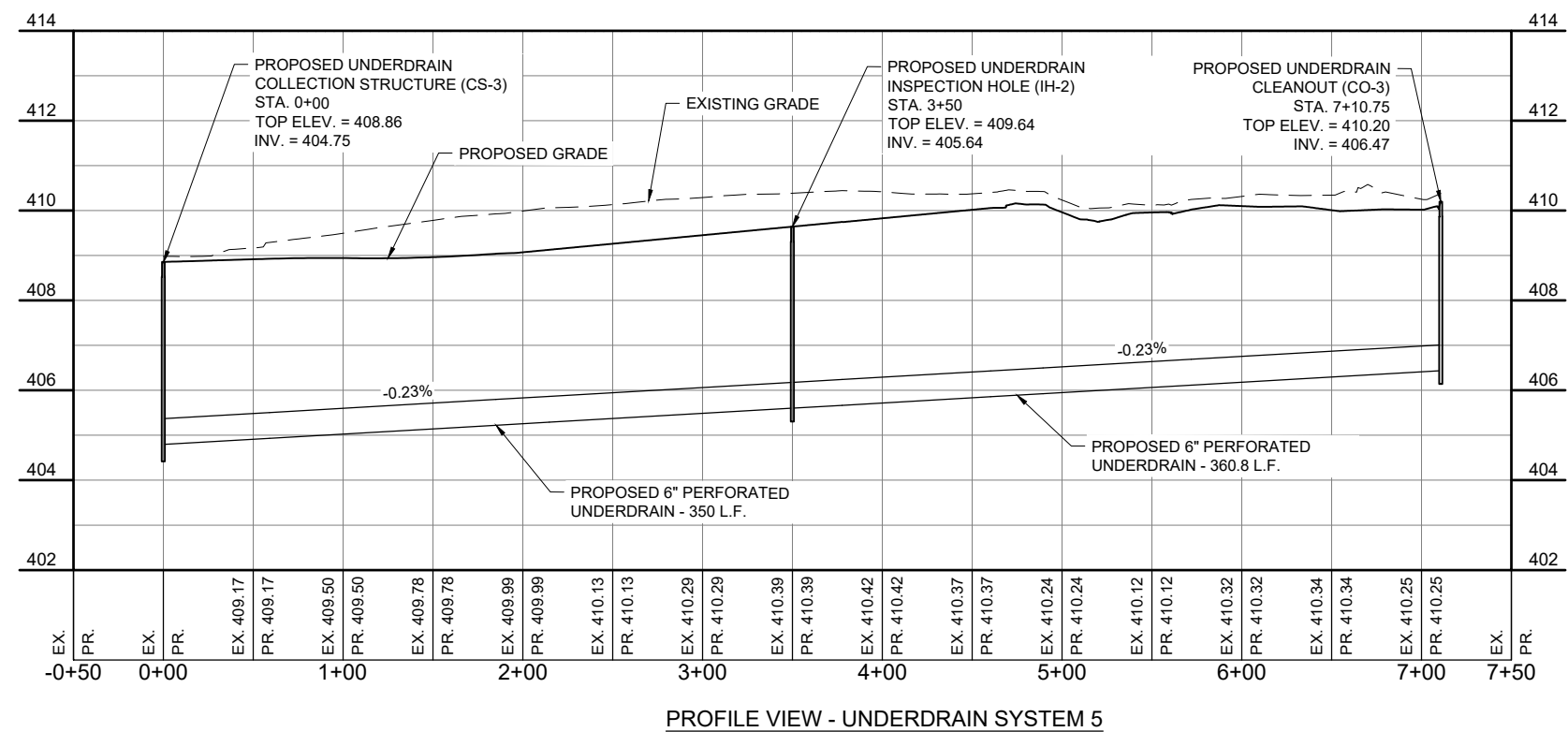
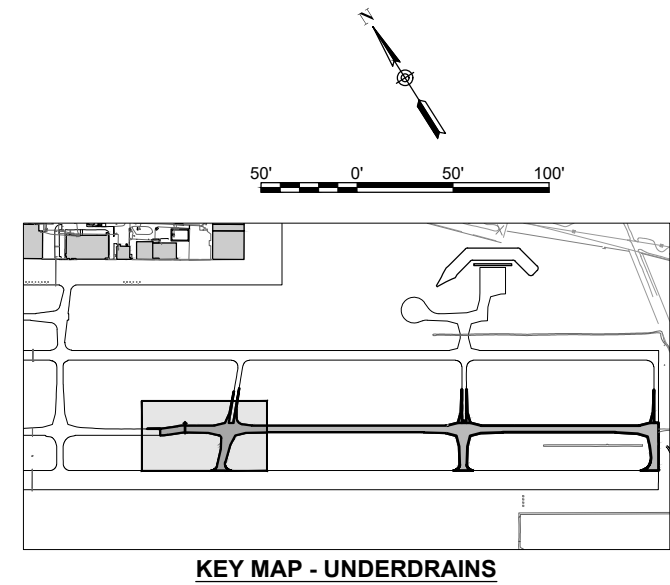
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DRAWN BY: AJC 3/9/2025

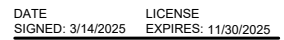
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SHEET TITLE

## PROPOSED PLAN AND PROFILE - UNDERDRAIN SYSTEM 5



**FOR BID**



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

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/9/2025  
REVIEWED BY: BSS 3/12/2025

# PROPOSED PLAN AND PROFILE - UNDERDRAIN SYSTEM 6 (SHEET 1)



### PROFILE VIEW - UNDERDRAIN SYSTEM 6

48



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**ST. LOUIS DOWNTOWN AIRPORT**  
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Cahokia Heights, Illinois 62206



DATE SIGNED: 3/14/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

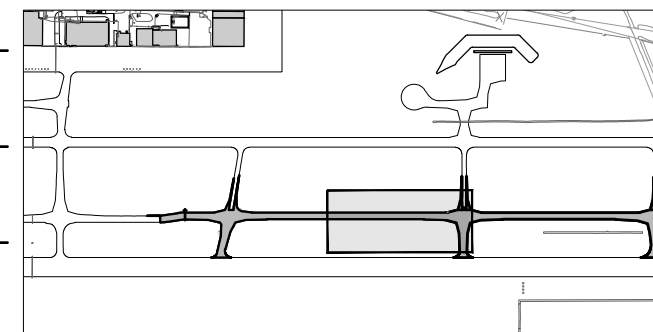
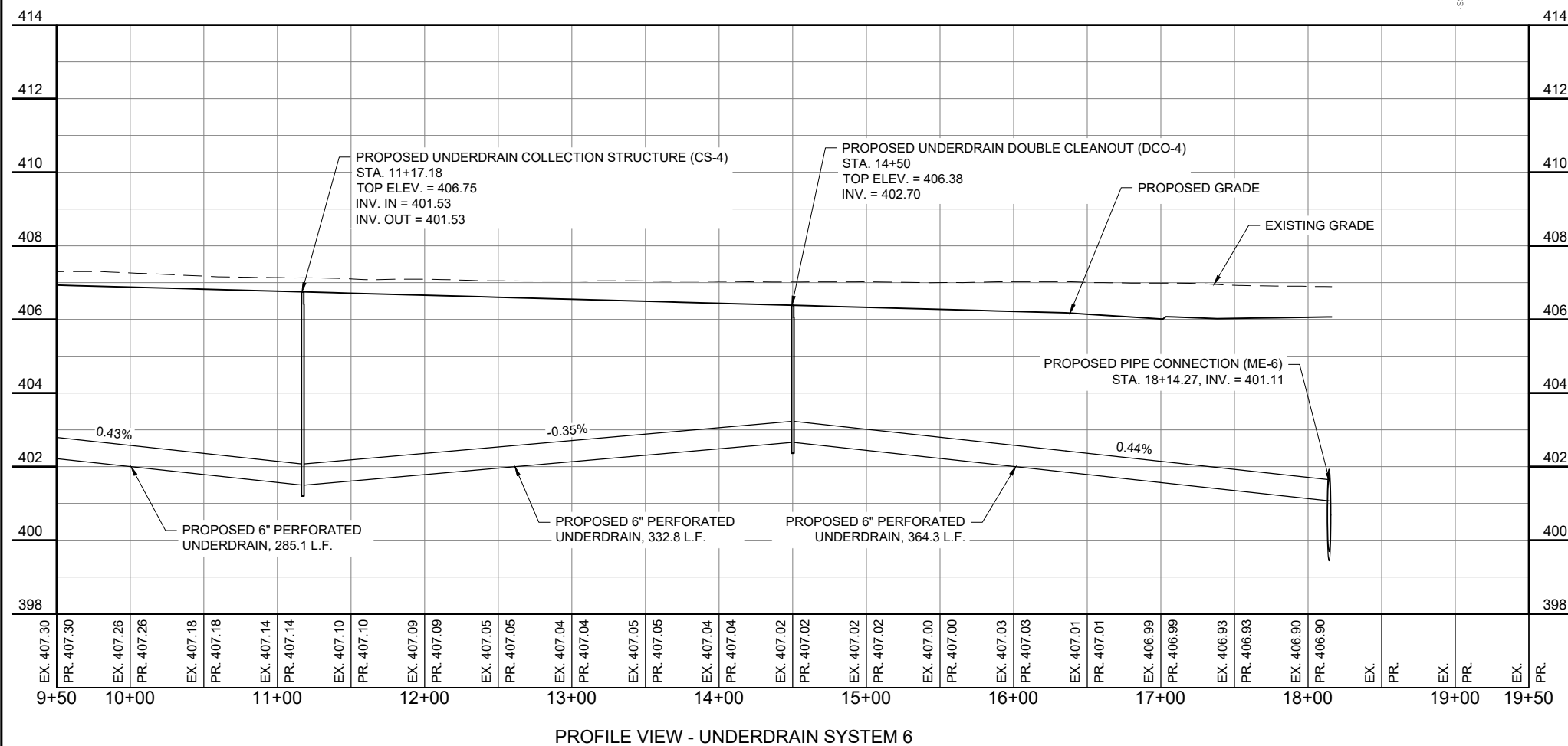
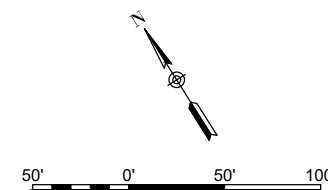
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CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
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ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
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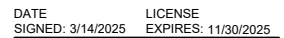
SHEET TITLE

PROPOSED PLAN  
AND PROFILE -  
UNDERDRAIN  
SYSTEM 6 (SHEET 2)



### KEY MAP - UNDERDRAINS

**FOR BID**



RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

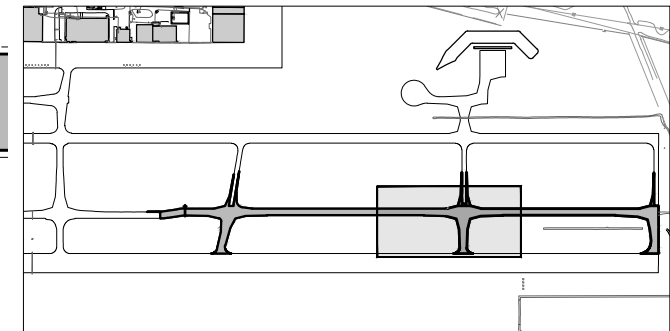
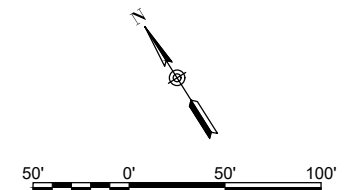
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CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
DESIGN BY: AJC 3/7/2025  
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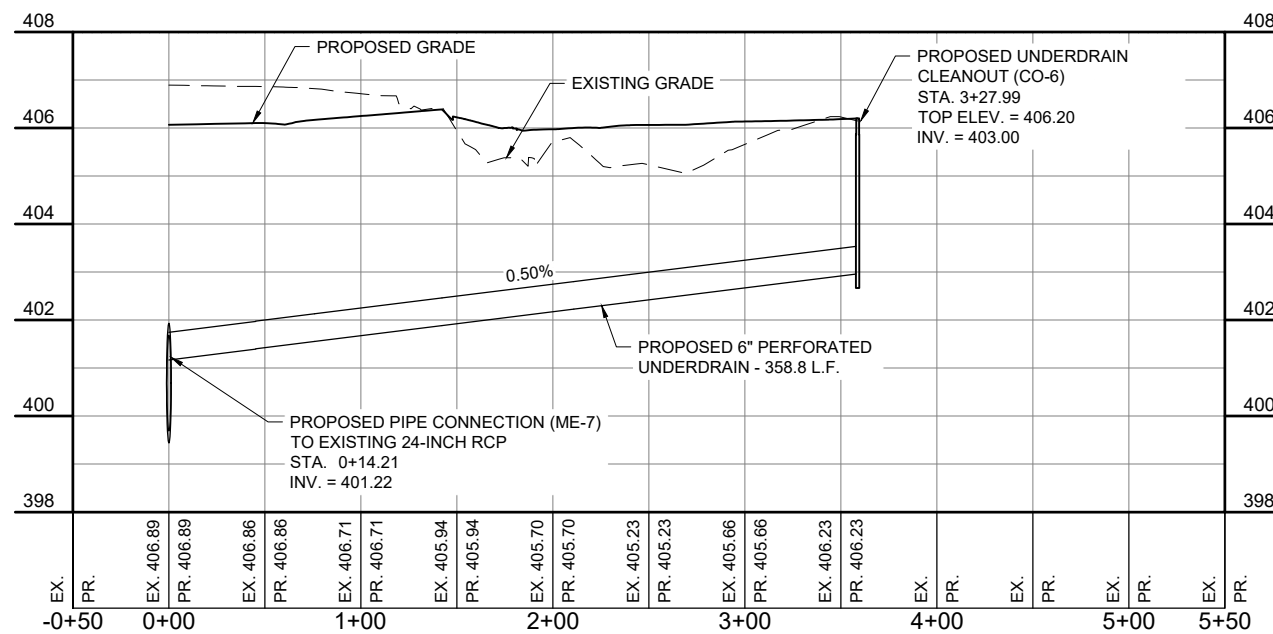
SHEET TITLE

## PROPOSED PLAN AND PROFILE - UNDERDRAIN SYSTEM 7



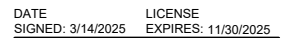
### KEY MAP - UNDERDRAINS

### PLAN VIEW - UNDERDRAIN SYSTEM 7



### PROFILE VIEW - UNDERDRAIN SYSTEM 7

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RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
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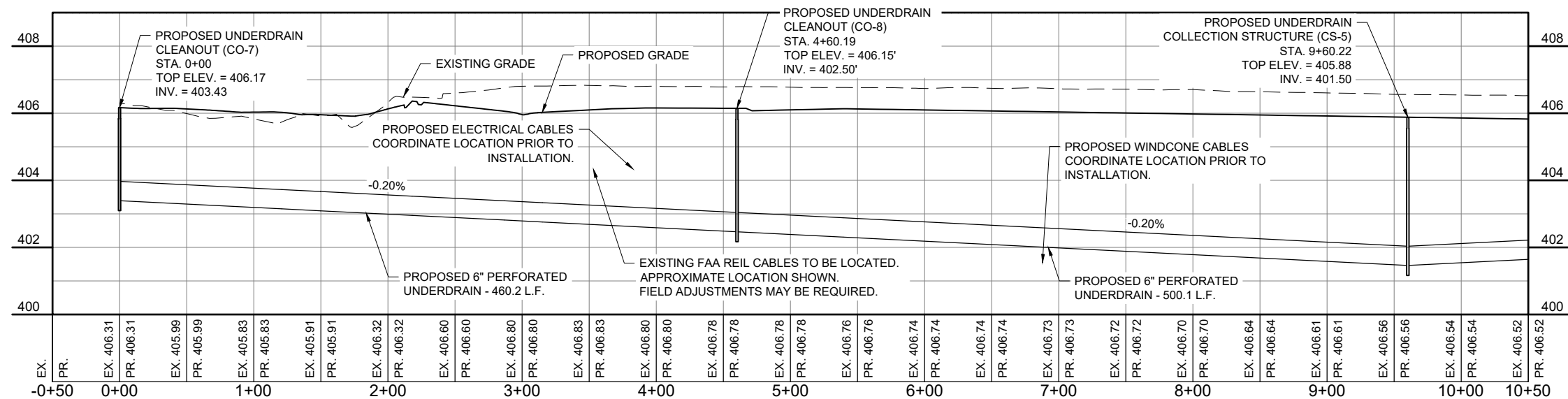
ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/9/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

# PROPOSED PLAN AND PROFILE - UNDERDRAIN SYSTEM 8 (SHEET 1)

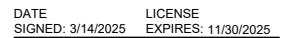


### PLAN VIEW - UNDERDRAIN SYSTEM 8



### PROFILE VIEW - UNDERDRAIN SYSTEM 8

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RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

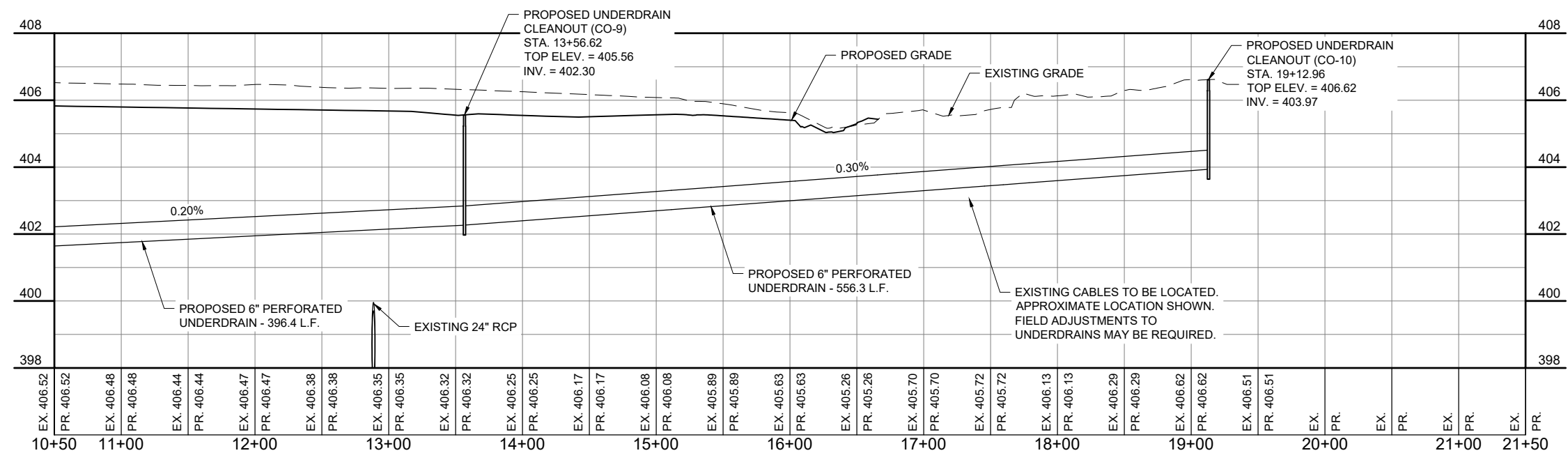
ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/9/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

## PROPOSED PLAN AND PROFILE - UNDERDRAIN SYSTEM 8 (SHEET 2)

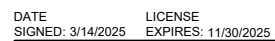
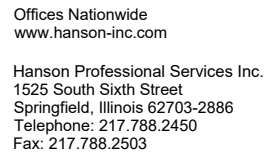


PLAN VIEW - UNDERDRAIN SYSTEM 8



### PROFILE VIEW - UNDERDRAIN SYSTEM 8

**FOR BID**



RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/9/2025  
REVIEWED BY: BSS 3/12/2025

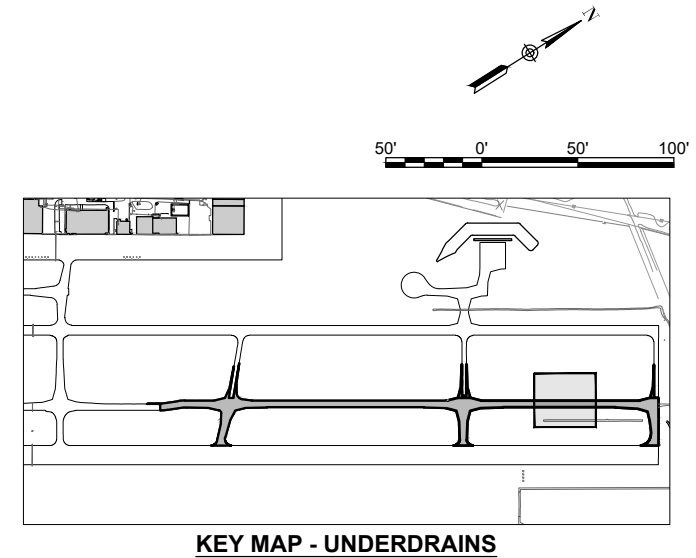
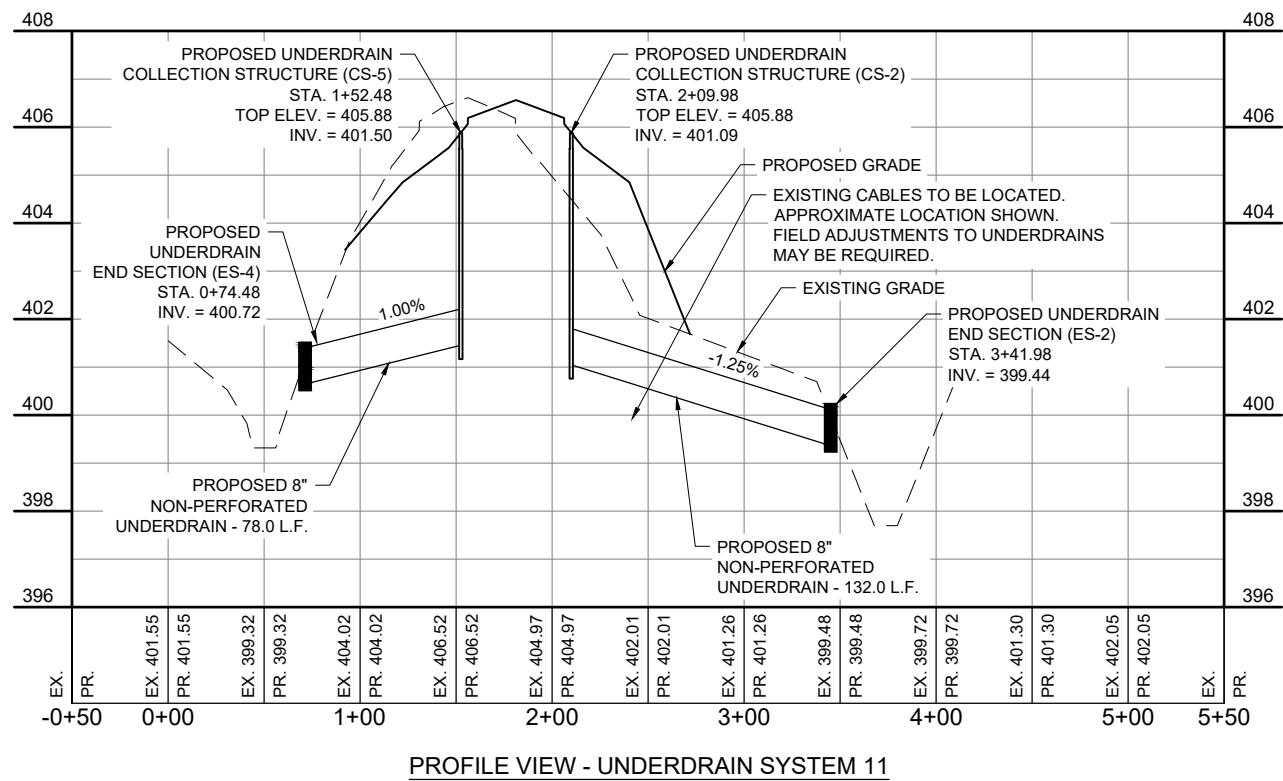
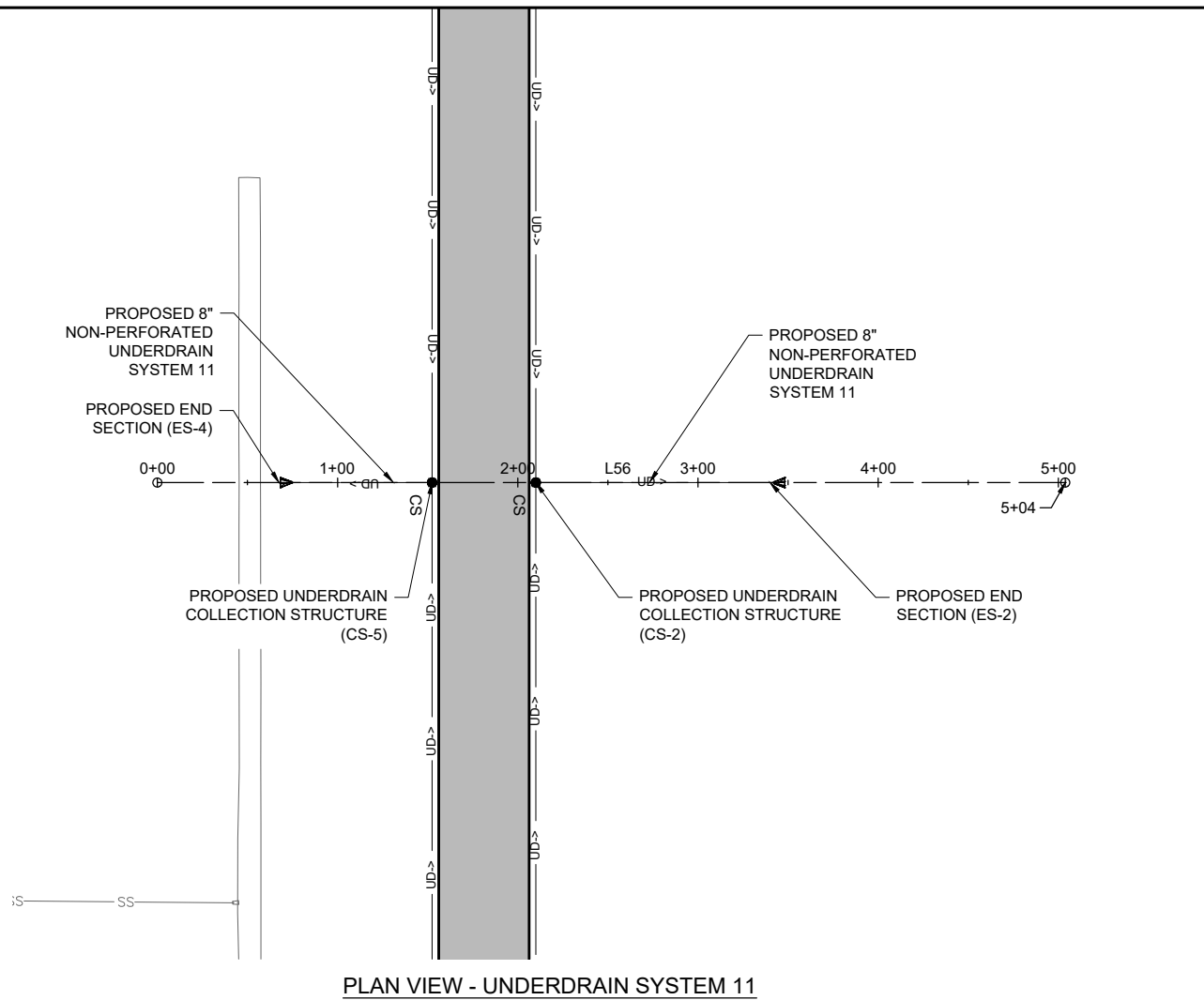
SHEET TITLE

## PROPOSED PLAN AND PROFILE - UNDERDRAIN SYSTEMS 9 & 10



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DATE: 3/14/2025  
SIGNED: 3/14/2025

LICENSE: 11/30/2025  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-702-PNP.DWG

DESIGN BY: AJC 3/7/2025

DRAWN BY: AJC 3/9/2025

REVIEWED BY: BSS 3/12/2025

SHEET TITLE

PROPOSED PLAN  
AND PROFILE -  
UNDERDRAIN  
SYSTEM 11

FOR BID

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UNDERDRAIN SCHEDULE - SYSTEM 1						
STRUCTURE	STATION	TYPE	RIM ELEV.	INVERT ELEV.	PAY LENGTH	SLOPE %
CO-1	0+00	CLEANOUT	409.30	405.67		
					243.6	-1.50
ME-1	2+43.62	RCP CONNECTION	-	402.02		

UNDERDRAIN SCHEDULE - SYSTEM 2							
STRUCTURE	STATION	TYPE	RIM ELEV.	INVERT ELEV. (IN)	INVERT ELEV.(OUT)	PAY LENGTH	SLOPE %
ME-2	1+25.12	RCP CONNECTION	-	401.99	401.99		
						371.7	0.50
DCO-1	4+96.84	DOUBLE CLEANOUT	408.84	403.85	403.85		
						317.6	-0.40
IH-1	8+14.46	INSPECTION HOLE	407.29	402.579	402.579		
						317.6	-0.40
CS-1	11+32.08	COLLECTION STRUCTURE	406.75	401.31	401.25		
						317.9	0.30
DCO-2	14+500	DOUBLE CLEANOUT	406.40	402.26	402.26		
						379.1	-0.37
ME-3	18+29.09	RCP CONNECTION	-	400.867	400.867		

UNDERDRAIN SCHEDULE - SYSTEM 3						
STRUCTURE	STATION	TYPE	RIM ELEV.	INVERT ELEV.	PAY LENGTH	SLOPE %
CO-2	0+00	CLEANOUT	405.84	402.44		
					226.2	-1.00
ME-3	2+26.21	RCP CONNECTION	-	400.18		

UNDERDRAIN SCHEDULE - SYSTEM 4							
STRUCTURE	STATION	TYPE	RIM ELEV.		INVERT ELEV.(OUT)	PAY LENGTH	SLOPE %
ME-4	1+16.97	RCP CONNECTION	-	399.75	399.75		
						383.0	0.80
DCO-2	5+00	DOUBLE CLEANOUT	406.18	402.82	402.82		
						500.0	-0.20
CS-2	10+00	COLLECTION STRUCTURE	405.88	401.82 401.09	401.09		
						399.8	0.30
DCO-3	13+99.76	DOUBLE CLEANOUT	405.64	403.02	403.02		
						404.9	-1.00
ME-5	18+04.62	RCP CONNECTION	-	398.97	398.97		

UNDERDRAIN SCHEDULE - SYSTEM 5							
STRUCTURE	STATION	TYPE	RIM ELEV.	INVERT ELEV. (IN)	INVERT ELEV. (OUT)	PAY LENGTH	SLOPE %
CS-3	0+00	COLLECTION STRUCTURE	408.86	404.83	404.75		
						350.0	0.23
IH-2	3+50	INSPECTION HOLE	409.64	405.64	405.64		
						360.8	0.23
CO-3	7+10.75	CLEANOUT	410.20	406.47	406.47		

UNDERDRAIN SCHEDULE - SYSTEM 6							
STRUCTURE	STATION	TYPE	RIM ELEV.	INVERT ELEV. (IN)	INVERT ELEV. (OUT)	PAY LENGTH	SLOPE %
CO-4	0+00	CLEANOUT	410.54	406.36	406.36		
						481.9	-0.43
CO-5	4+81.90	CLEANOUT	408.74	404.28	404.28		
						350.2	-0.43
IH-3	8+32.05	INSPECTION HOLE	407.17	402.77	402.77		
						285.1	-0.43
CS-4	11+17.18	COLLECTION STRUCTURE	406.75	401.53	401.53		
						332.8	0.35
DCO-4	14+50	DOUBLE CLEANOUT	406.38	402.70	402.70		
						364.3	-0.44
ME-6	18+14.27	RCP CONNECTION	-	401.11	401.11		

UNDERDRAIN SCHEDULE - SYSTEM 7						
STRUCTURE	STATION	TYPE	RIM ELEV.	INVERT ELEV.	PAY LENGTH	SLOPE %
ME-7	0+14.21	RCP CONNECTION	-	401.22		
					358.8	0.50
CO-6	3+72.99	CLEANOUT	406.2	403.00		

UNDERDRAIN SCHEDULE - SYSTEM 8						
STRUCTURE	STATION	TYPE	RIM ELEV.	INVERT ELEV.	PAY LENGTH	SLOPE %
CO-7	0+00	CLEANOUT	406.17	403.43		
					460.2	-0.20
CO-8	4+60.19	CLEANOUT	406.15	402.50		
					500.1	-0.20
CS-5	9+60.22	COLLECTION STRUCTURE	405.88	401.50		
					396.4	0.20
CO-9	13+56.62	CLEANOUT	405.56	402.30		
					556.3	0.30
CO-10	19+12.96	CLEANOUT	406.62	403.97		

UNDERDRAIN SCHEDULE - SYSTEM 9						
STRUCTURE	STATION	TYPE	RIM ELEV.	INVERT ELEV.	PAY LENGTH	SLOPE %
ES-3	0+39.77	END SECTION	-	404.45		
					60.2	0.5
CS-3	1+00	COLLECTION STRUCTURE	408.86	404.75		

UNDERDRAIN SCHEDULE - SYSTEM 10						
STRUCTURE	STATION	TYPE	RIM ELEV.	INVERT ELEV.	PAY LENGTH	SLOPE %
CS-4	1+19	COLLECTION STRUCTURE	406.75	401.53		
					58.0	-0.5
CS-1	1+77	COLLECTION STRUCTURE	406.75	401.25		
					149.5	-0.5
ES-1	3+26.55	END SECTION	-	401		

UNDERDRAIN SCHEDULE - SYSTEM 11						
STRUCTURE	STATION	TYPE	RIM ELEV.	INVERT ELEV.	PAY LENGTH	SLOPE %
ES-4	0+74.48	END SECTION	-	400.72		
					78.0	1.00
CS-5	1+52.48	COLLECTION STRUCTURE	405.88	401.5		
CS-2	2+09.98	COLLECTION STRUCTURE	405.88	401.09		
					132.0	-1.25
ES-2	3+41.98	END SECTION	-	399.44		



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RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION			
		DES	DWN	REV	

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/10/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

PROPOSED  
UNDERDRAIN  
SCHEDULES

FOR BID

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ALIGNMENT DATA UNDERDRAIN SYSTEM 1						
Number	START STATION	END STATION	Length	AZIMUTH	START (N,E)	END (N,E)
L1	0+00.00	0+91.85	91.85	109° 28' 30"	692975.72,2300251.96	692945.09,2300338.56
L2	0+91.85	1+75.20	83.35	56° 02' 52"	692945.09,2300338.56	692991.64,2300407.70
L3	1+75.20	3+46.51	171.31	43° 28' 23"	692991.64,2300407.70	693115.96,2300525.56

ALIGNMENT DATA UNDERDRAIN SYSTEM 2						
Number	START STATION	END STATION	Length	AZIMUTH	START (N,E)	END (N,E)
L4	0+00.00	1+53.11	153.11	220° 30' 29"	693107.93,2300581.26	692991.51,2300481.81
L5	1+53.11	2+32.49	79.37	211° 45' 11"	692991.51,2300481.81	692924.02,2300440.04
C1	2+32.49	2+97.57	65.08	IN=S31° 45' 11"W OUT=S49° 18' 38"E DEL=81°03'49"	692924.02,2300440.04	692864.93,2300449.16
L6	2+97.57	3+91.47	93.90	129° 10' 04"	692864.93,2300449.16	692805.63,2300521.96
L7	3+91.47	4+96.84	105.37	122° 12' 35"	692805.63,2300521.96	692749.46,2300611.11
L8	4+96.84	11+32.08	635.25	122° 12' 35"	692749.46,2300611.11	692410.87,2301148.60
L9	11+32.08	18+32.57	700.49	122° 12' 35"	692410.87,2301148.60	692037.49,2301741.29

ALIGNMENT DATA UNDERDRAIN SYSTEM 3						
Number	START STATION	END STATION	Length	AZIMUTH	START (N,E)	END (N,E)
L10	0+00.00	0+83.99	83.99	108° 11' 22"	692002.99,2301799.12	691976.77,2301878.92
L11	0+83.99	1+52.69	68.70	47° 32' 21"	691976.77,2301878.92	692023.15,2301929.60
C2	1+52.69	1+82.78	30.08	IN=N47° 32' 21"E OUT=N34° 04' 23"E DEL=13°27'58"	692023.15,2301929.60	692045.87,2301949.22
L12	1+82.78	3+43.19	160.42	34° 04' 23"	692045.87,2301949.22	692178.75,2302039.09

ALIGNMENT DATA UNDERDRAIN SYSTEM 4						
Number	START STATION	END STATION	Length	AZIMUTH	START (N,E)	END (N,E)
L13	0+00.00	1+60.13	160.13	210° 24' 50"	692154.05,2302078.28	692015.96,2301997.21
C3	1+60.13	1+90.28	30.15	IN=S30° 24' 50"W OUT=S16° 55' 11"W DEL=13°29'39"	692015.96,2301997.21	691988.41,2301985.14
L14	1+90.28	2+59.18	68.91	196° 55' 11"	691988.41,2301985.14	691922.49,2301965.08
L15	2+59.18	3+35.23	76.05	136° 13' 47"	691922.49,2301965.08	691867.57,2302017.69
C4	3+35.23	3+66.55	31.32	IN=S43° 46' 13"E OUT=S57° 47' 25"E DEL=14°01'12"	691867.57,2302017.69	691847.82,2302041.90
L16	3+66.55	15+55.54	1188.99	122° 12' 35"	691847.82,2302041.90	691214.07,2303047.91
C5	15+55.54	15+86.86	31.32	IN=S57° 47' 25"E OUT=S71° 48' 38"E DEL=14°01'12"	691214.07,2303047.91	691200.76,2303076.17
L17	15+86.86	16+62.91	76.05	108° 11' 22"	691200.76,2303076.17	691177.02,2303148.42
L18	16+62.91	17+31.81	68.90	47° 29' 58"	691177.02,2303148.42	691223.57,2303199.22
C6	17+31.81	17+61.97	30.16	IN=N47° 29' 58"E OUT=N34° 00' 01"E DEL=13°29'58"	691223.57,2303199.22	691246.37,2303218.86
L19	17+61.97	19+19.52	157.55	34° 00' 01"	691246.37,2303218.86	691376.98,2303306.96

ALIGNMENT DATA UNDERDRAIN SYSTEM 5						
Number	START STATION	END STATION	Length	AZIMUTH	START (N,E)	END (N,E)
C7	0+00.00	0+59.11	59.11	IN=S57° 44' 34"E OUT=S66° 07' 32"E DEL=8°22'57"	693125.83,2299857.32	693098.05,2299909.43
L20	0+59.11	1+85.06	125.95	113° 52' 28"	693098.05,2299909.43	693047.07,2300024.60
L21	1+85.06	2+14.75	29.69	120° 38' 03"	693047.07,2300024.60	693031.94,2300050.15
L22	2+14.75	3+77.73	162.98	123° 42' 10"	693031.94,2300050.15	692941.50,2300185.74
L23	3+77.73	4+60.27	82.54	134° 44' 37"	692941.50,2300185.74	692883.40,2300244.36
C8	4+60.27	4+89.41	29.14	IN=S45° 15' 23"E OUT=S34° 15' 08"W DEL=79°30'30"	692883.40,2300244.36	692856.66,2300246.94
L24	4+89.41	5+71.95	82.54	214° 15' 08"	692856.66,2300246.94	692788.44,2300200.48
L25	5+71.95	7+10.75	138.81	225° 24' 53"	692788.44,2300200.48	692691.01,2300101.63

ALIGNMENT DATA UNDERDRAIN SYSTEM 6						
Number	START STATION	END STATION	Length	AZIMUTH	START (N,E)	END (N,E)
L26	0+00.00	1+48.91	148.91	48° 15' 29"	692671.98,2300174.33	692771.12,2300285.44
L27	1+48.91	2+30.49	81.58	59° 51' 35"	692771.12,2300285.44	692812.08,2300355.99
L28	2+30.49	3+12.07	81.58	109° 08' 10"	692812.08,2300355.99	692785.34,2300433.07
L29	3+12.07	4+81.90	169.83	120° 38' 20"	692785.34,2300433.07	692698.79,2300579.19
L30	4+81.90	5+50.91	69.01	120° 38' 20"	692698.79,2300579.19	692663.62,2300638.57
L31	5+50.91	11+17.18	566.26	122° 12' 35"	692663.62,2300638.57	692361.79,2301117.68
L32	11+17.18	16+35.47	518.29	122° 12' 35"	692361.79,2301117.68	692085.53,2301556.21
L33	16+35.47	16+99.42	63.96	123° 53' 51"	692085.53,2301556.21	692049.87,2301609.29
L34	16+99.42	18+16.13	116.71	123° 53' 51"	692049.87,2301609.29	691984.77,2301706.17

ALIGNMENT DATA UNDERDRAIN SYSTEM 7						
Number	START STATION	END STATION	Length	AZIMUTH	START (N,E)	END (N,E)
L35	0+00.00	0+45.23	45.23	123° 40' 11"	691985.82,2301704.62	691960.74,2301742.26
C9	0+45.23	0+74.21	28.98	IN=S56° 19' 49"E OUT=S43° 21' 33"E DEL=12°58'16"	691960.74,2301742.26	691942.09,2301764.36
L36	0+74.21	1+42.25	68.04	136° 38' 27"	691942.09,2301764.36	691892.62,2301811.08
L37	1+42.25	2+10.86	68.61	197° 38' 38"	691892.62,2301811.08	691827.24,2301790.28
C10	2+10.86	2+39.96	29.10	IN=S17° 38' 38"W OUT=S30° 40' 10"W DEL=13°01'32"	691827.24,2301790.28	691800.75,2301778.40
L38	2+39.96	3+58.68	118.72	210° 40' 10"	691800.75,2301778.40	691698.63,2301717.84



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BI-STATE DEVELOPMENT  
ST. LOUIS DOWNTOWN AIRPORT  
6100 Archview Drive  
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DATE SIGNED: 3/14/2025  
LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-702-PNP.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/10/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

PROPOSED  
UNDERDRAIN  
ALIGNMENT DATA  
TABLES - SHEET 1

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ALIGNMENT DATA UNDERDRAIN SYSTEM 8						
Number	START STATION	END STATION	Length	AZIMUTH	START (N,E)	END (N,E)
L39	0+00.00	1+20.89	120.89	33° 46' 24"	691662.92,2301771.24	691763.41,2301838.45
C11	1+20.89	1+49.64	28.75	IN=N33° 46' 24"E OUT=N46° 38' 27"E DEL=12°52'03"	691763.41,2301838.45	691785.32,2301856.97
L40	1+49.64	2+18.07	68.44	46° 38' 27"	691785.32,2301856.97	691832.30,2301906.72
L41	2+18.07	2+86.65	68.58	107° 46' 43"	691832.30,2301906.72	691811.36,2301972.03
C12	2+86.65	3+15.12	28.47	IN=S72° 13' 17"E OUT=S59° 28' 42"E DEL=12°44'36"	691811.36,2301972.03	691799.74,2301997.95
L42	3+15.12	5+39.36	224.24	120° 31' 18"	691799.74,2301997.95	691685.86,2302191.12
L43	5+39.36	13+16.88	777.53	122° 12' 35"	691685.86,2302191.12	691271.42,2302848.98
L44	13+16.88	15+11.33	194.44	125° 29' 27"	691271.42,2302848.98	691158.53,2303007.30
C13	15+11.33	15+41.02	29.69	IN=S54° 30' 33"E OUT=S41° 13' 06"E DEL=13°17'27"	691158.53,2303007.30	691138.66,2303029.27
L45	15+41.02	16+03.80	62.78	138° 46' 54"	691138.66,2303029.27	691091.43,2303070.64
L46	16+03.80	16+65.43	61.62	199° 00' 56"	691091.43,2303070.64	691033.17,2303050.56
C14	16+65.43	16+79.82	14.40	IN=S19° 00' 56"W OUT=S25° 27' 36"W DEL=6°26'40"	691033.17,2303050.56	691019.85,2303045.11
L47	16+79.82	17+45.37	65.55	205° 27' 36"	691019.85,2303045.11	690960.67,2303016.94
C15	17+45.37	17+59.38	14.01	IN=S25° 27' 36"W OUT=S31° 43' 54"W DEL=6°16'18"	690960.67,2303016.94	690948.37,2303010.23
L48	17+59.38	17+78.73	19.35	211° 43' 54"	690948.37,2303010.23	690931.92,2303000.06
C16	17+78.73	19+12.96	134.23	IN=S31° 43' 54"W OUT=N57° 47' 25"W DEL=90°28'40"	690931.92,2303000.06	690904.70,2302882.46
L49	19+12.96	19+52.48	39.52	302° 12' 35"	690904.70,2302882.46	690925.77,2302849.02

ALIGNMENT DATA UNDERDRAIN SYSTEM 9						
Number	START STATION	END STATION	Length	AZIMUTH	START (N,E)	END (N,E)
L50	0+00.00	1+00.00	100.00	32° 12' 35"	693041.22,2299804.02	693125.83,2299857.32

ALIGNMENT DATA UNDERDRAIN SYSTEM 10						
Number	START STATION	END STATION	Length	AZIMUTH	START (N,E)	END (N,E)
L51	0+00.00	0+41.00	41.00	32° 12' 35"	692261.11,2301054.25	692295.80,2301076.11
L52	0+41.00	1+19.00	78.00	32° 12' 35"	692295.80,2301076.11	692361.79,2301117.68
L53	1+19.00	1+77.00	58.00	32° 12' 35"	692361.79,2301117.68	692410.87,2301148.60
L54	1+77.00	3+09.00	132.00	32° 12' 35"	692410.87,2301148.60	692522.55,2301218.96
L55	3+09.00	3+50.00	41.00	32° 12' 35"	692522.55,2301218.96	692557.24,2301240.81

ALIGNMENT DATA UNDERDRAIN SYSTEM 11						
Number	START STATION	END STATION	Length	AZIMUTH	START (N,E)	END (N,E)
L56	0+00.00	5+03.80	503.80	32° 12' 35"	691332.51,2302465.94	691758.78,2302734.47



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RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION	
		DES	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-702-PNP.DWG

DESIGN BY: AJC 3/7/2025

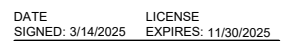
DRAWN BY: AJC 3/10/2025

REVIEWED BY: BSS 3/12/2025

SHEET TITLE

PROPOSED  
UNDERDRAIN  
ALIGNMENT DATA  
TABLES - SHEET 2

FOR BID



RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

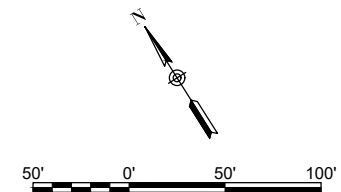
IDA NO.: CPS-5078  
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV











ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-161-JNT.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/10/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

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

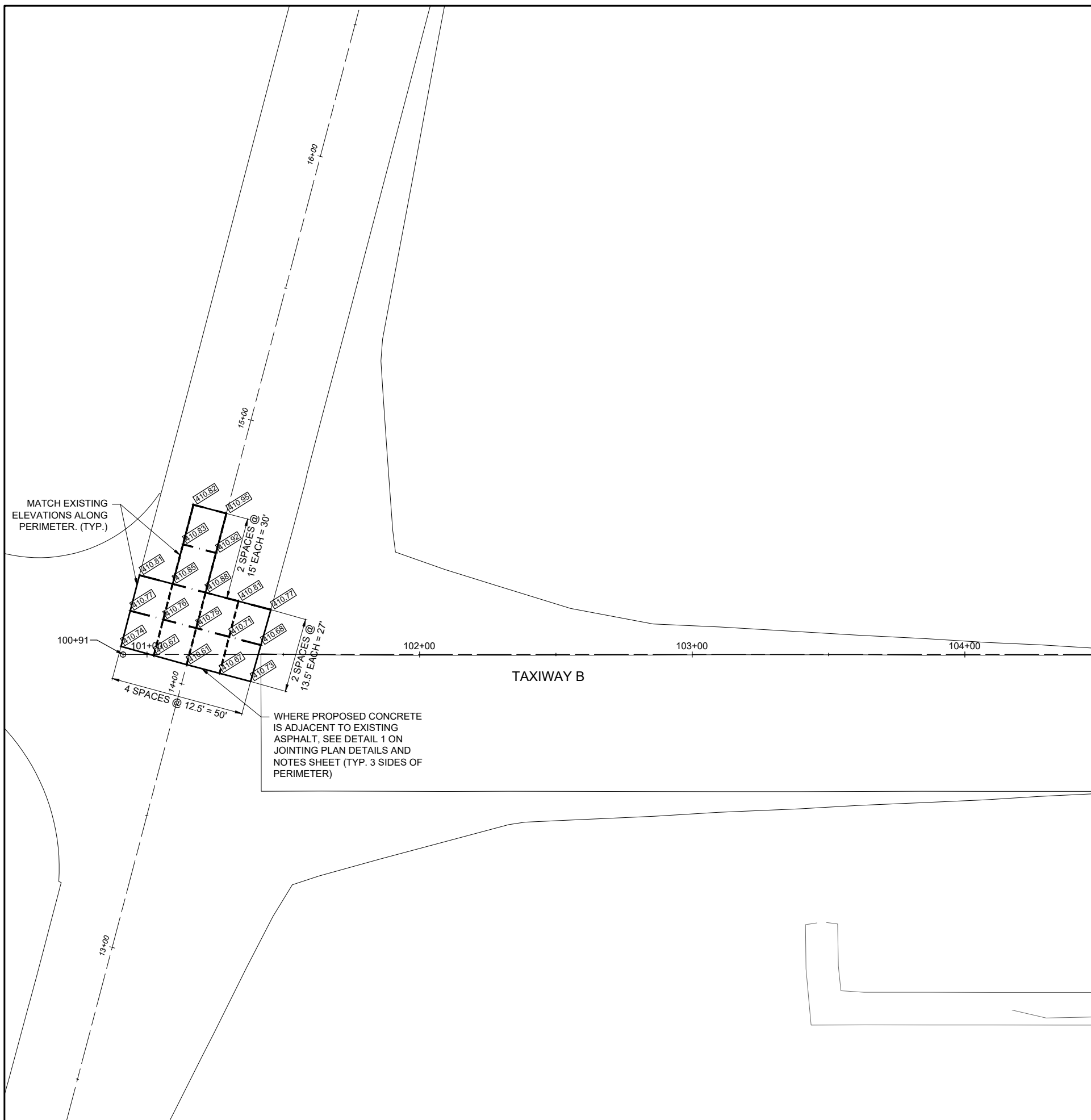


LEGEND

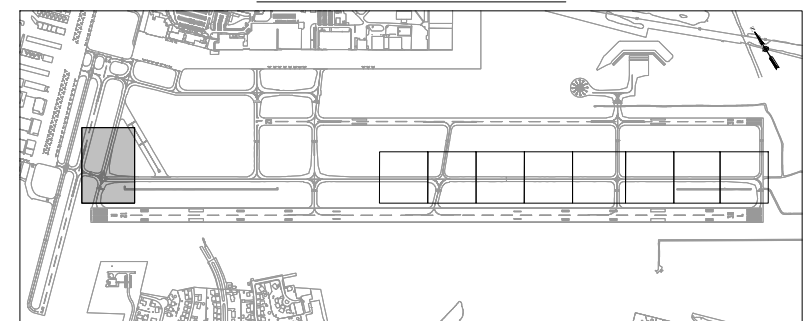
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|  | EXISTING AIRPORT PROPERTY LINE    |
|  | EXISTING FENCE                    |
|  | EXISTING PAVEMENT                 |
|  | TYPE A1-MODIFIED, ISOLATION JOINT |
|  | TYPE B, CONTRACTION JOINT         |
|  | TYPE C, CONTRACTION JOINT         |
|  | 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.



## JOINTING PLAN - KEY MAP



**FOR BID**



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



DATE: 3/14/2025  
SIGNED: 3/14/2025

LICENSE: 11/30/2025  
EXPIRES: 11/30/2025

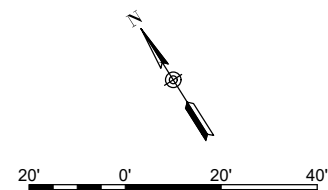
RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

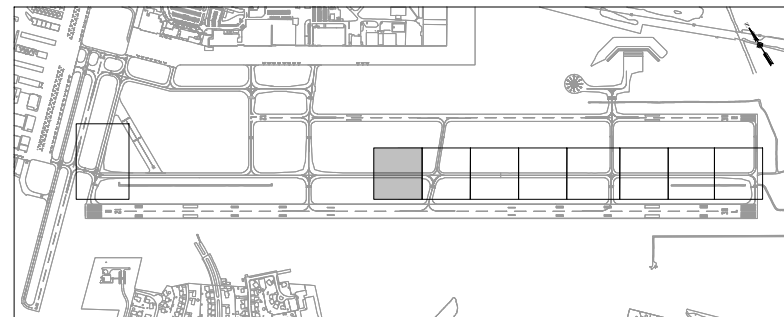
ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-161-JNT.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/10/2025  
REVIEWED BY: BSS 3/12/2025

**SHEET TITLE**











PROPOSED JOINTING  
PLAN STA. 130+00 TO  
STA. 135+00



## JOINTING PLAN - KEY MAP

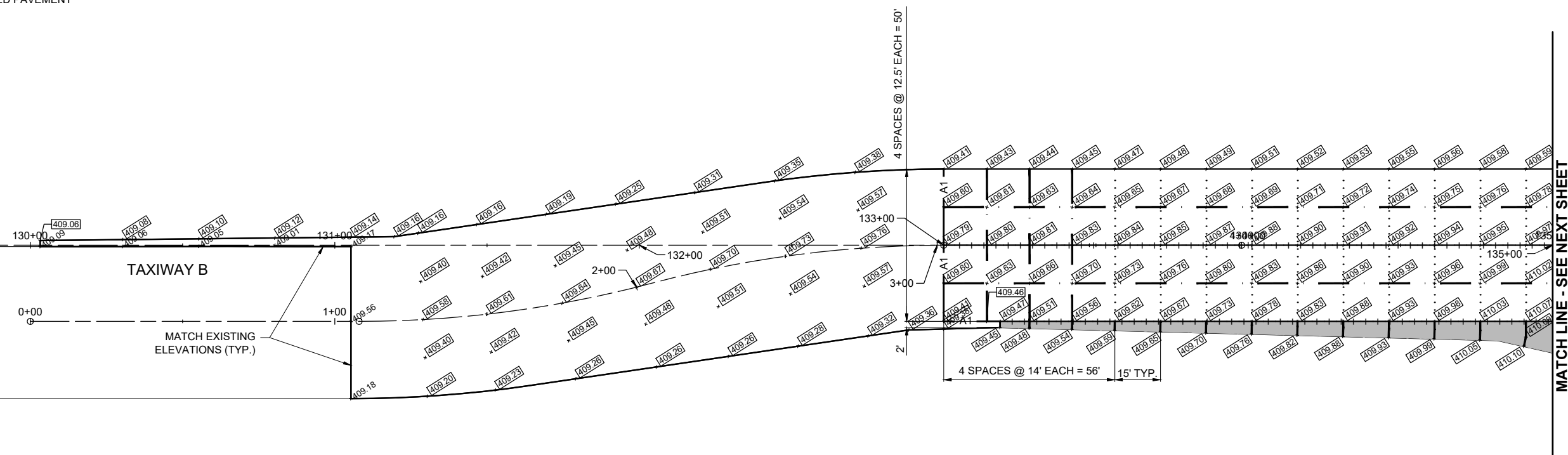


### LEGEND

- |   |                                   |
|---|-----------------------------------|
|  | 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:

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MATCH LINE - SEE NEXT SHEET

**FOR BID**

59

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**BI-STATE DEVELOPMENT**  
**ST. LOUIS DOWNTOWN AIRPORT**  
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SIGNED: 3/14/2025

LICENSE  
EXPIRES: 11/30/2025

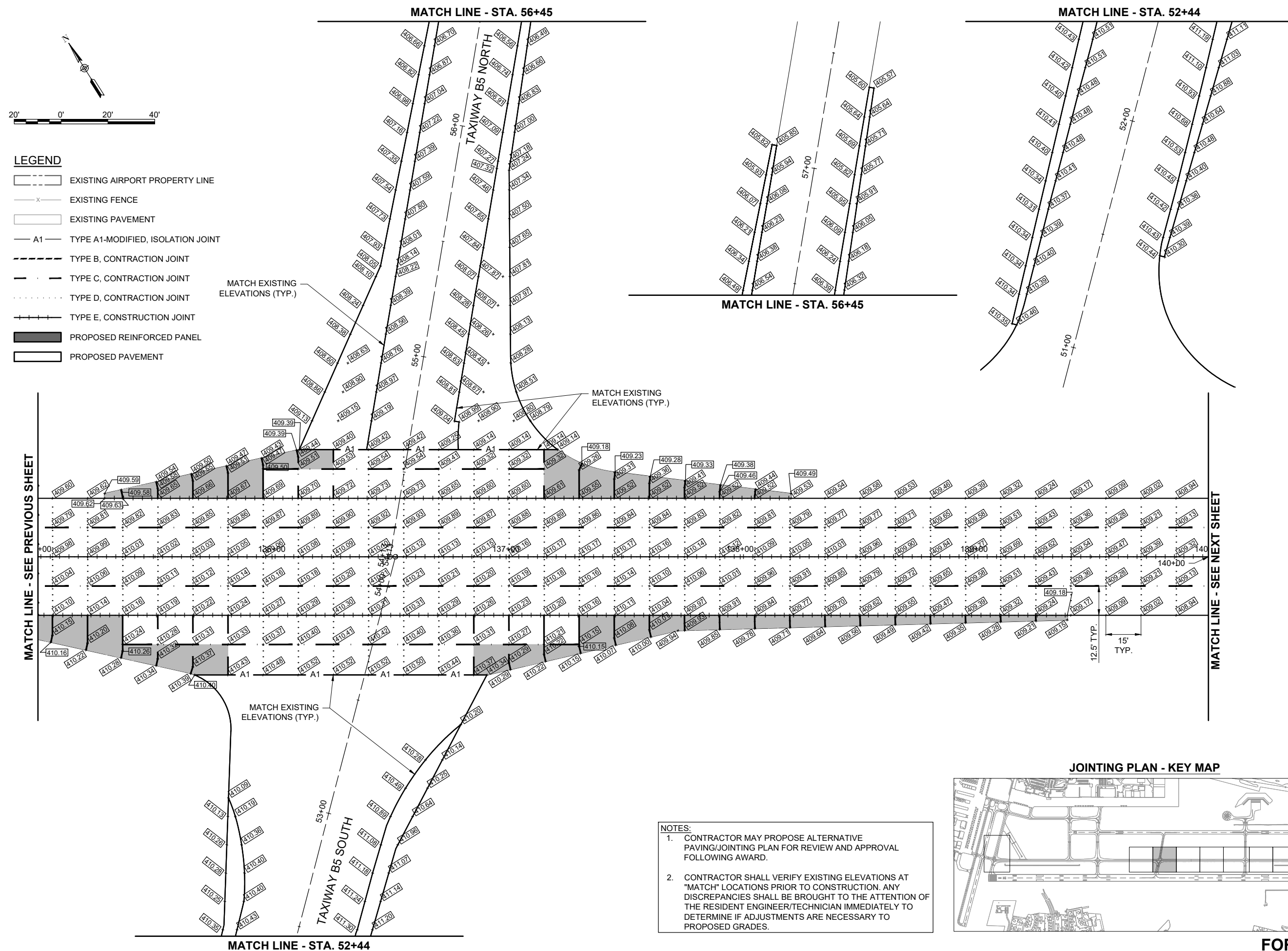
RELOCATE/RECONSTRUCT  
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SHEET TITLE

PROPOSED JOINTING  
PLAN STA. 135+00 TO  
STA. 140+00



**FOR BID**



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



DATE  
SIGNED: 3/14/2025

LICENSE  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

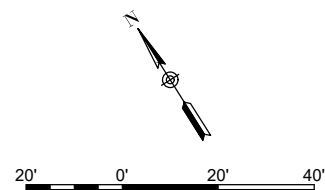
IDA NO.: CPS-5078  
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

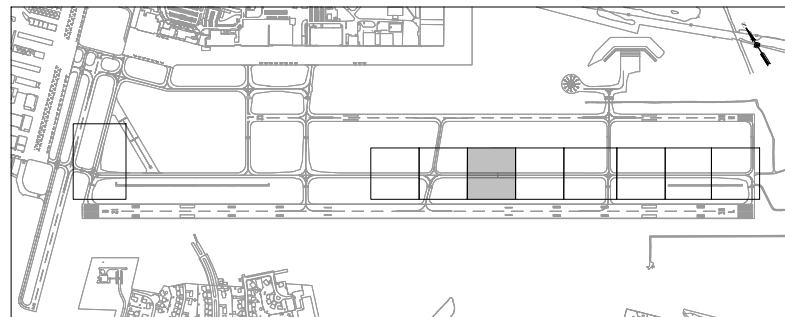
ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-161-JNT.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/10/2025  
REVIEWED BY: BSS 3/12/2025

**SHEET TITLE**











PROPOSED JOINTING  
PLAN STA. 140+00 TO  
STA. 145+00



## JOINTING PLAN - KEY MAP



### 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.



**FOR BID**



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6100 Archview Drive  
Cahokia Heights, Illinois 62206



DATE SIGNED: 3/14/2025

LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

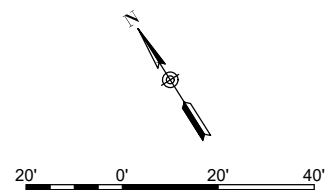
IDA NO.: CPS-5078  
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

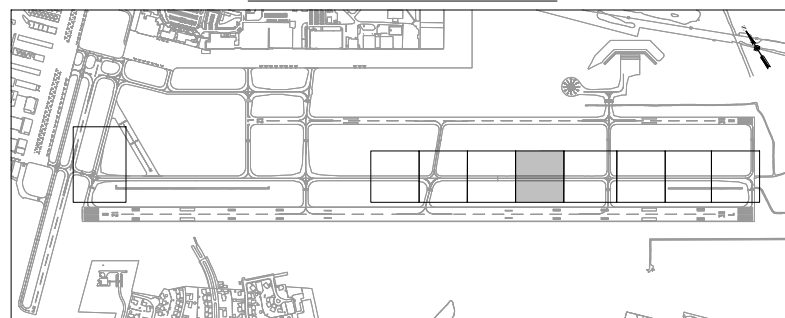
ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-161-JNT.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/10/2025  
REVIEWED BY: BSS 3/12/2025

**SHEET TITLE**











PROPOSED JOINTING  
PLAN STA. 145+00 TO  
STA. 150+00



## JOINTING PLAN - KEY MAP



### 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:

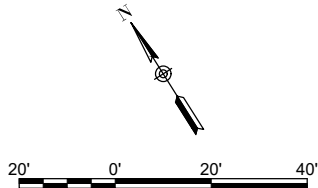
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**FOR BID**



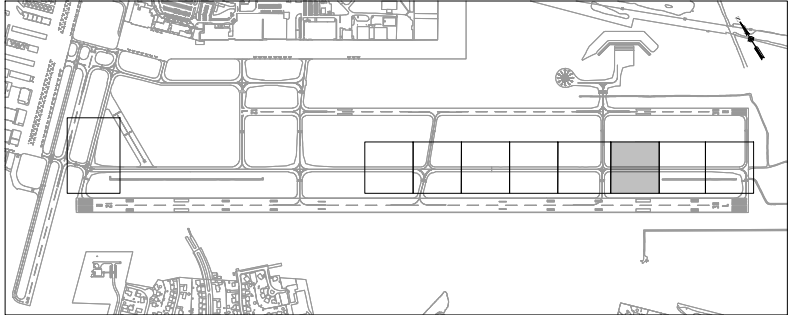
MAR 14, 2025 9:53 AM GROVED2594  
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LEGEND

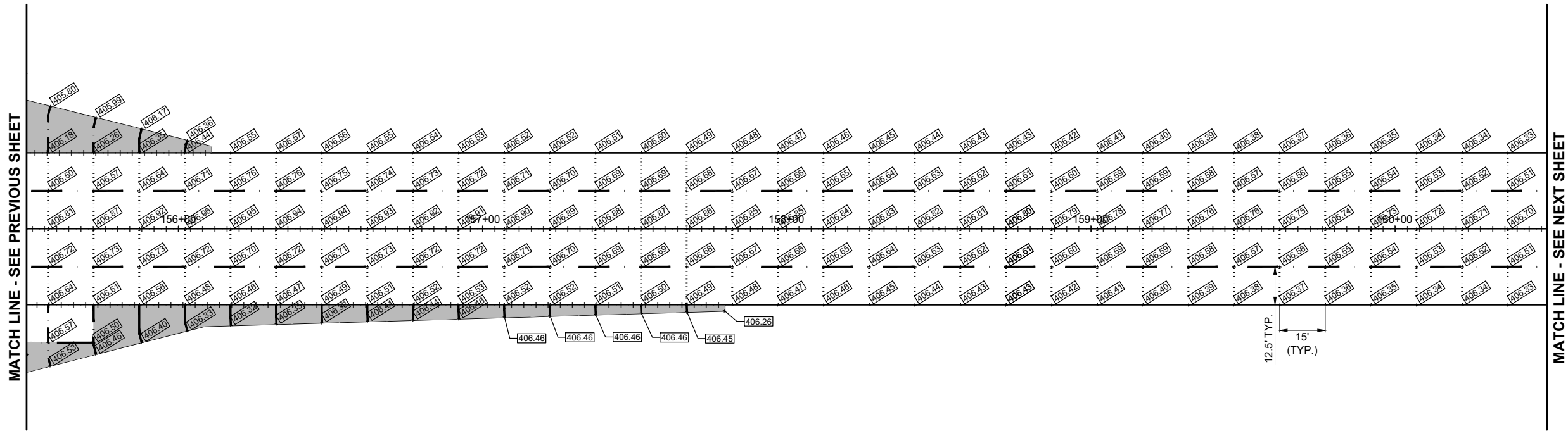
- EXISTING AIRPORT PROPERTY LINE
- EXISTING FENCE
- EXISTING PAVEMENT
- TYPE A1-MODIFIED, ISOLATION JOINT
- TYPE B, CONTRACTION JOINT
- TYPE C, CONTRACTION JOINT
- TYPE D, CONTRACTION JOINT
- TYPE E, CONSTRUCTION JOINT
- PROPOSED REINFORCED PANEL
- PROPOSED PAVEMENT

JOINTING PLAN - KEY MAP



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



BI-STATE DEVELOPMENT  
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6100 Archview Drive  
Cahokia Heights, Illinois 62206



DATE SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

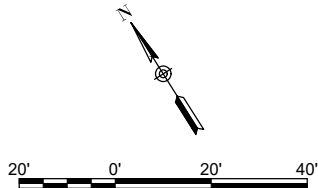
ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-161-JNT.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/10/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

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

FOR BID

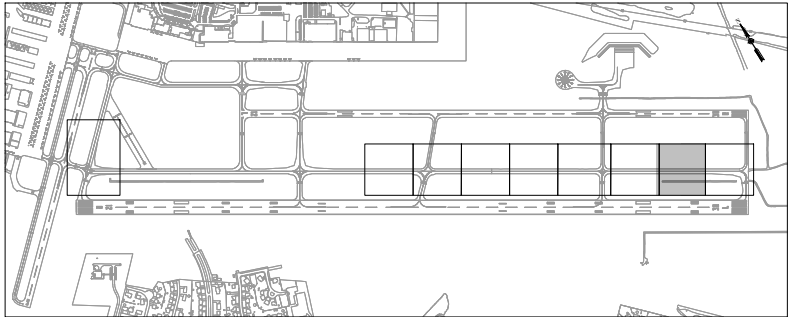
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LEGEND

- 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

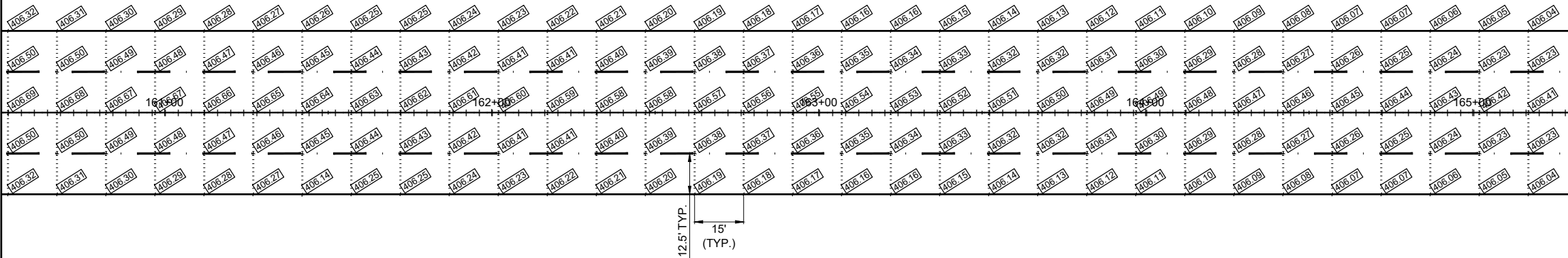
JOINTING PLAN - KEY MAP



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MATCH LINE - SEE PREVIOUS SHEET



MATCH LINE - SEE NEXT SHEET



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RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-161-JNT.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/10/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

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

FOR BID



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



DATE  
SIGNED: 3/14/2025

LICENSE  
EXPIRES: 11/30/2025

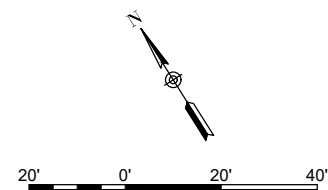
RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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











ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-161-JNT.DWG  
DESIGN BY: AJC 3/7/2025  
DRAWN BY: AJC 3/10/2025  
REVIEWED BY: BSS 3/12/2025

**SHEET TITLE**

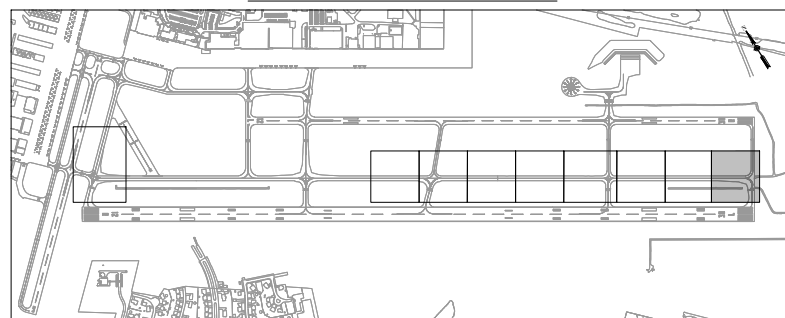
PROPOSED JOINTING  
PLAN STA. 165+30 TO  
STA. 170+50



### 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                 |

## JOINTING PLAN - KEY MAP

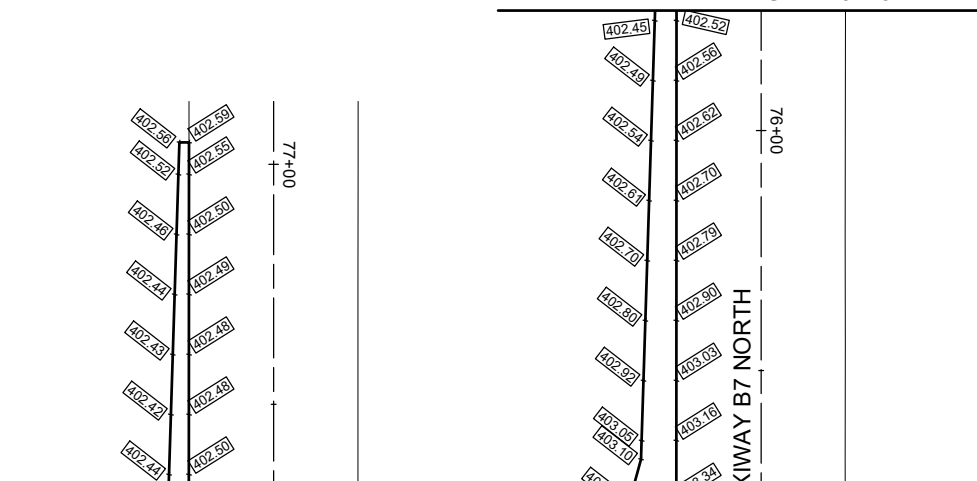


NOTES:

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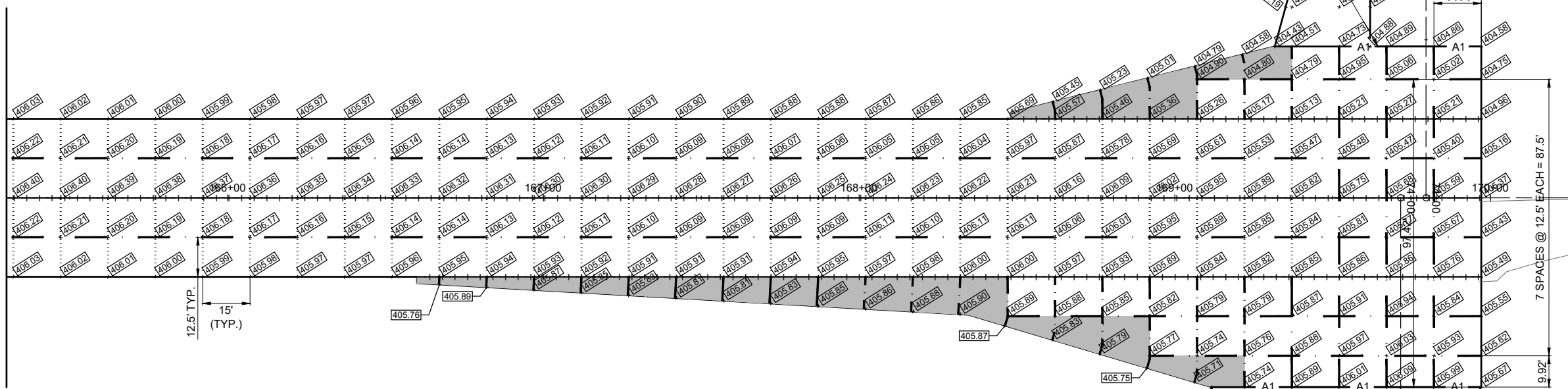
MATCH LINE - STA. 76+25

**MATCH LINE - STA. 76+25**



MATCH EXISTING  
ELEVATIONS (TYP.)

**MATCH LINE - SEE PREVIOUS SHEET**



MATCH EXISTING  
ELEVATIONS (TYP.)

TAXIWAY B7 SOUTH

**FOR BID**



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



DATE  
SIGNED: 3/14/2025

LICENSE  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

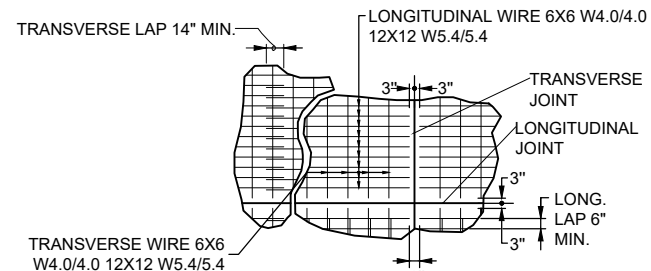
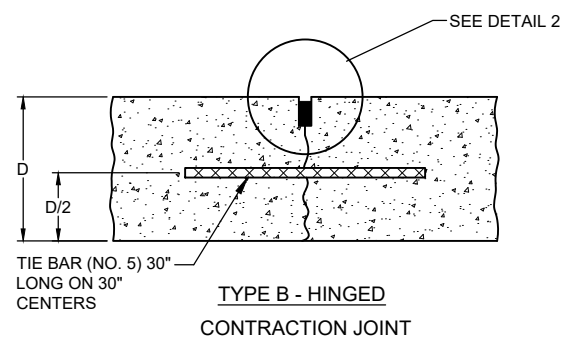
ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-561-JNT.DWG  
DESIGN BY: JRH 3/5/2025  
DRAWN BY: AJC 3/11/2025  
REVIEWED BY: BSS 3/12/2025

**SHEET TITLE**

## PROPOSED JOINTING PLAN DETAILS AND NOTES

**FOR BID**

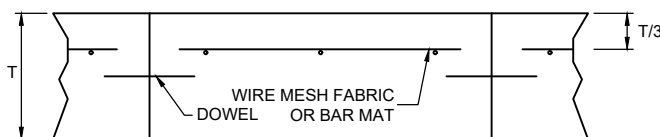
67



### 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.

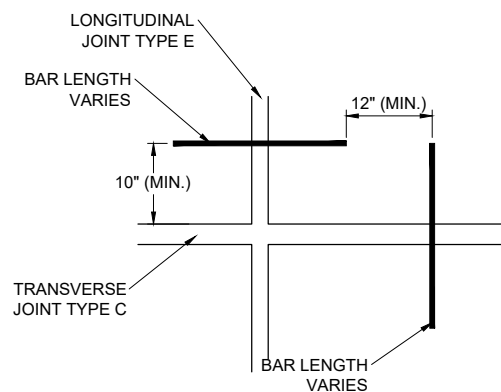


## PAVEMENT REINFORCING DETAIL

NOT TO SCALE

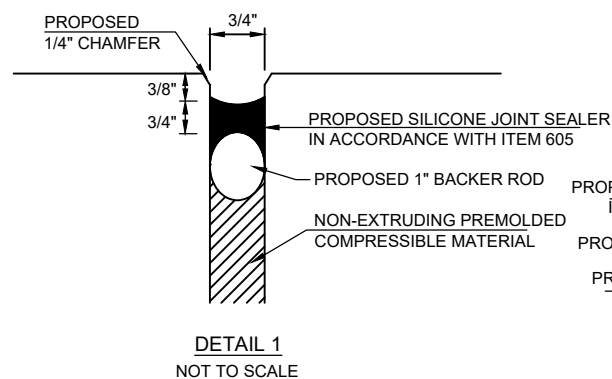
## JOINTING NOTES

1. ALL JOINT EDGES SHALL BE SAWCUT TO PRODUCE THE 1/4" CHAMFER.
2. ALL LONGITUDINAL AND TRANSVERSE CONTRACTION JOINTS SHALL BE SAWED.
3. 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.
4. DOWEL BARS FOR 12 IN. & 8 IN. THICK PAVEMENT SHALL BE 1 IN. DIAMETER, 18 IN. LONG AT 12 IN. SPACING.
5. 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.
6. ALL TIE BARS SHALL BE PLACED AT A POINT NOT LESS THAN 6" OR MORE THAN 15" FROM A TRANSVERSE OR EXPANSION JOINT.
7. DOWELS IN TRANSVERSE CONTRACTION AND LONGITUDINAL CONSTRUCTION JOINTS SHALL BE COATED WITH A RUSTPROOFING COMPOUND AND HALF THE LENGTH GREASED WITH A HEAVY GREASE.
8. ALLOWABLE TOLERANCES FOR GROOVE DEPTH WILL BE  $\pm 1/8"$  FOR CONSTRUCTION JOINTS AND  $\pm 1/4"$  FOR CONTRACTION JOINTS.
9. 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.
10. THE COST OF ALL DOWEL BARS, TIE-BARS, SAWING AND SEALING SHALL BE INCLUDED IN THE COST OF THE PCC PAVEMENT.
11. 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.
12. JOINT SEALANT SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS, ITEM 605.
13. 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.
14. ALL NON-ALIGNED EDGES WILL BE SAWED FULL DEPTH.

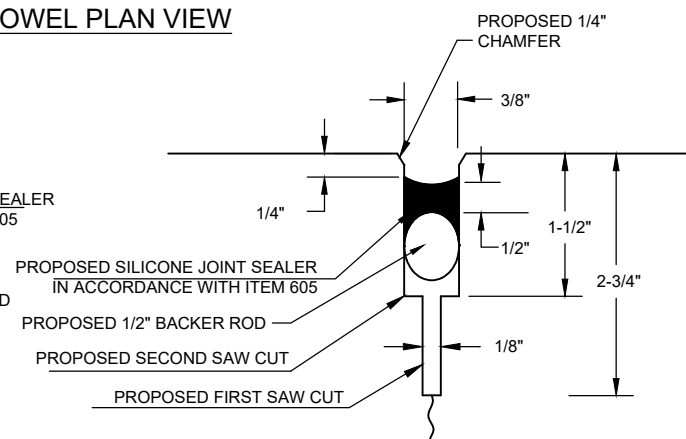


POSITION OF DOWELS AT EDGE OF JOINT TYPE C OR E

DOWEL PLAN VIEW



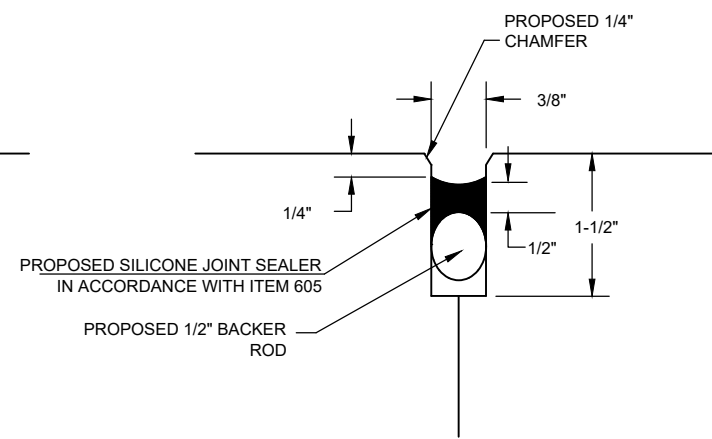
DETAIL 1  
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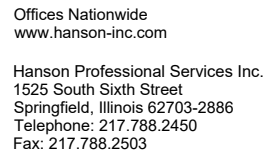
DETAIL 2  
NOT TO SCALE

## JOINT SEALING DETAILS

NOT TO SCALE



DETAIL 3  
NOT TO SCALE



DATE  
SIGNED: 3/14/2025

LICENSE  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-151-MRK.DWG

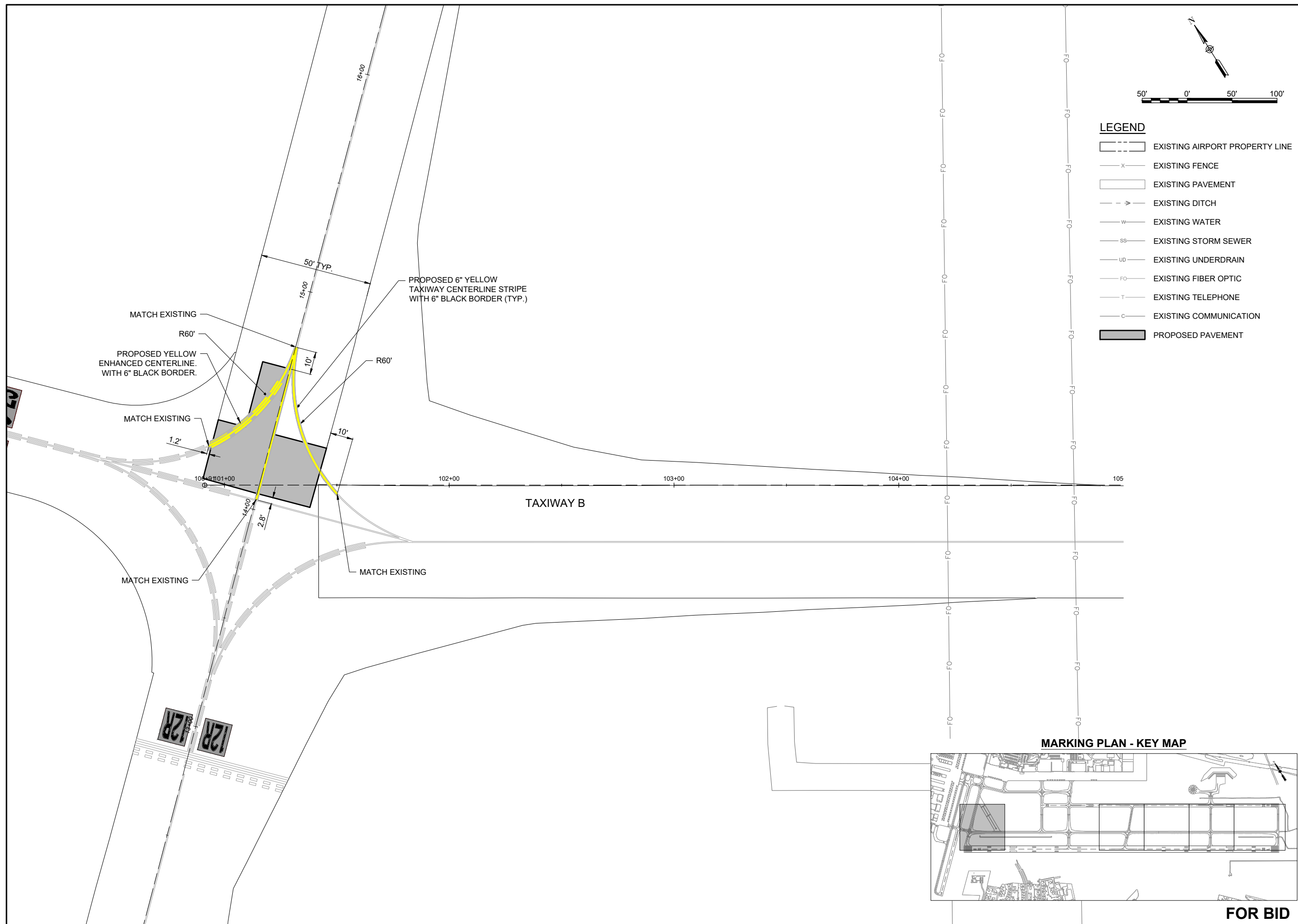
DESIGN BY: JRH 3/5/2025

DRAWN BY: AJC 3/11/2025

REVIEWED BY: BSS 3/12/2025

SHEET TITLE

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







DATE LICENSE  
SIGNED: 3/14/2025 EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

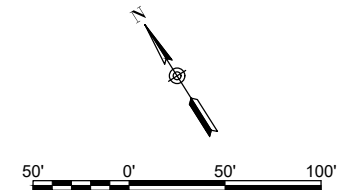
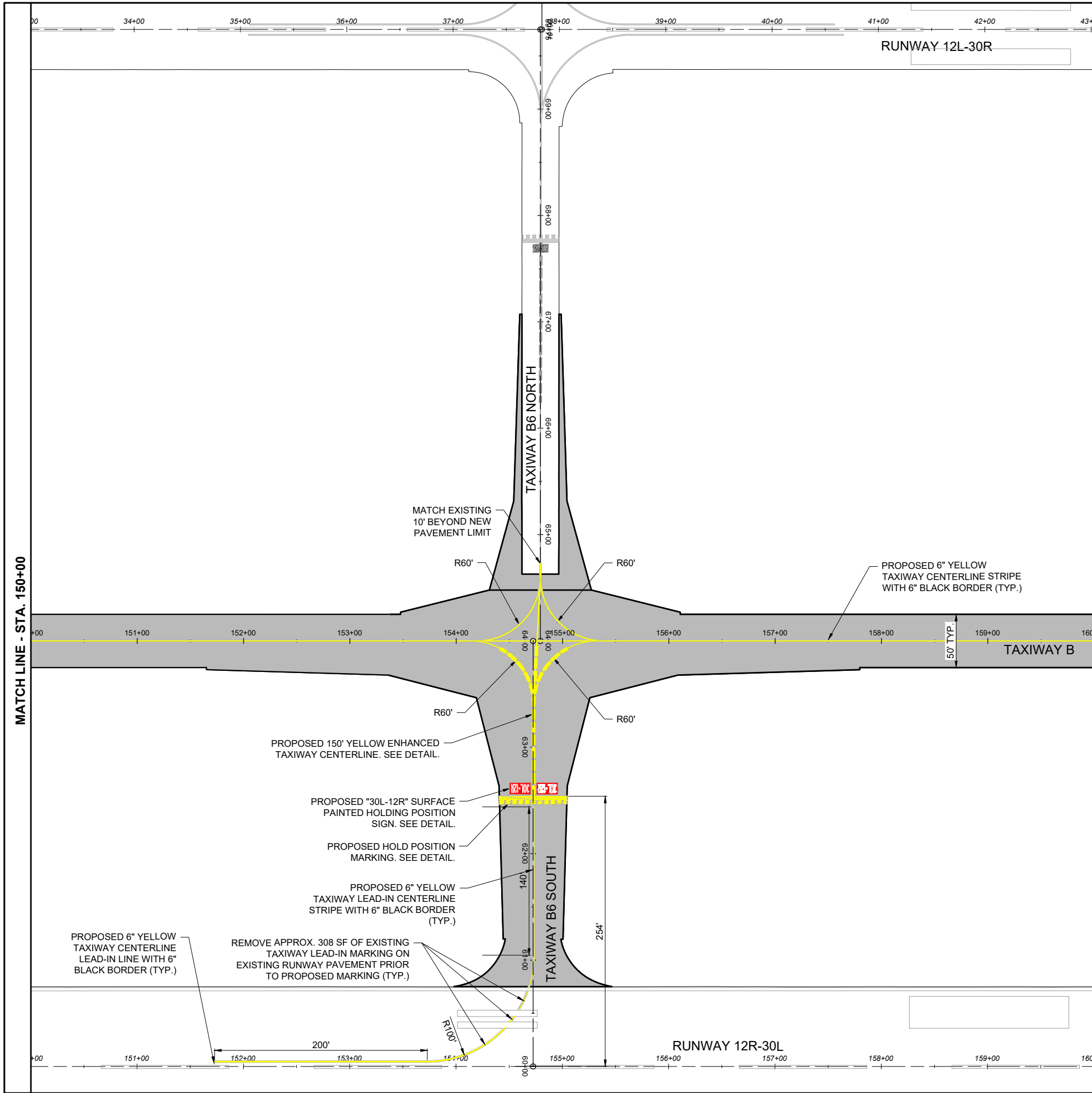
ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-151-MRK.DWG  
DESIGN BY: JRH 3/5/2025  
DRAWN BY: AJC 3/11/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

PROPOSED MARKING  
PLAN STA. 140+00 TO  
STA. 150+00



MAR 14, 2025 9:55 AM GROVE02594  
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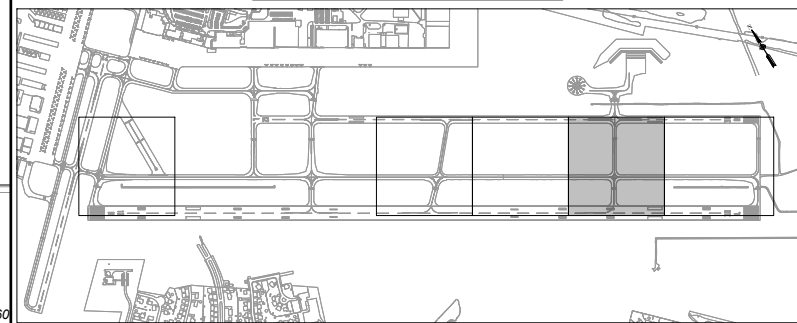


- LEGEND**
- EXISTING AIRPORT PROPERTY LINE
  - EXISTING FENCE
  - EXISTING PAVEMENT
  - EXISTING DITCH
  - EXISTING WATER
  - EXISTING STORM SEWER
  - EXISTING UNDERDRAIN
  - EXISTING FIBER OPTIC
  - EXISTING TELEPHONE
  - EXISTING COMMUNICATION
  - PROPOSED PAVEMENT

MATCH LINE - STA. 160+00

MATCH LINE - STA. 150+00

MARKING PLAN - KEY MAP



FOR BID



Offices Nationwide  
www.hanson-inc.com

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PROJECT NO: 23A0001D

CAD FILE: C-151-MRK.DWG

DESIGN BY: JRH 3/5/2025

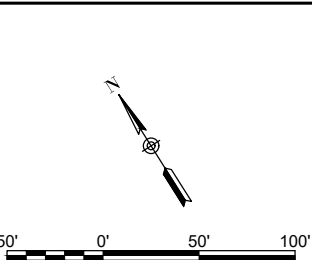
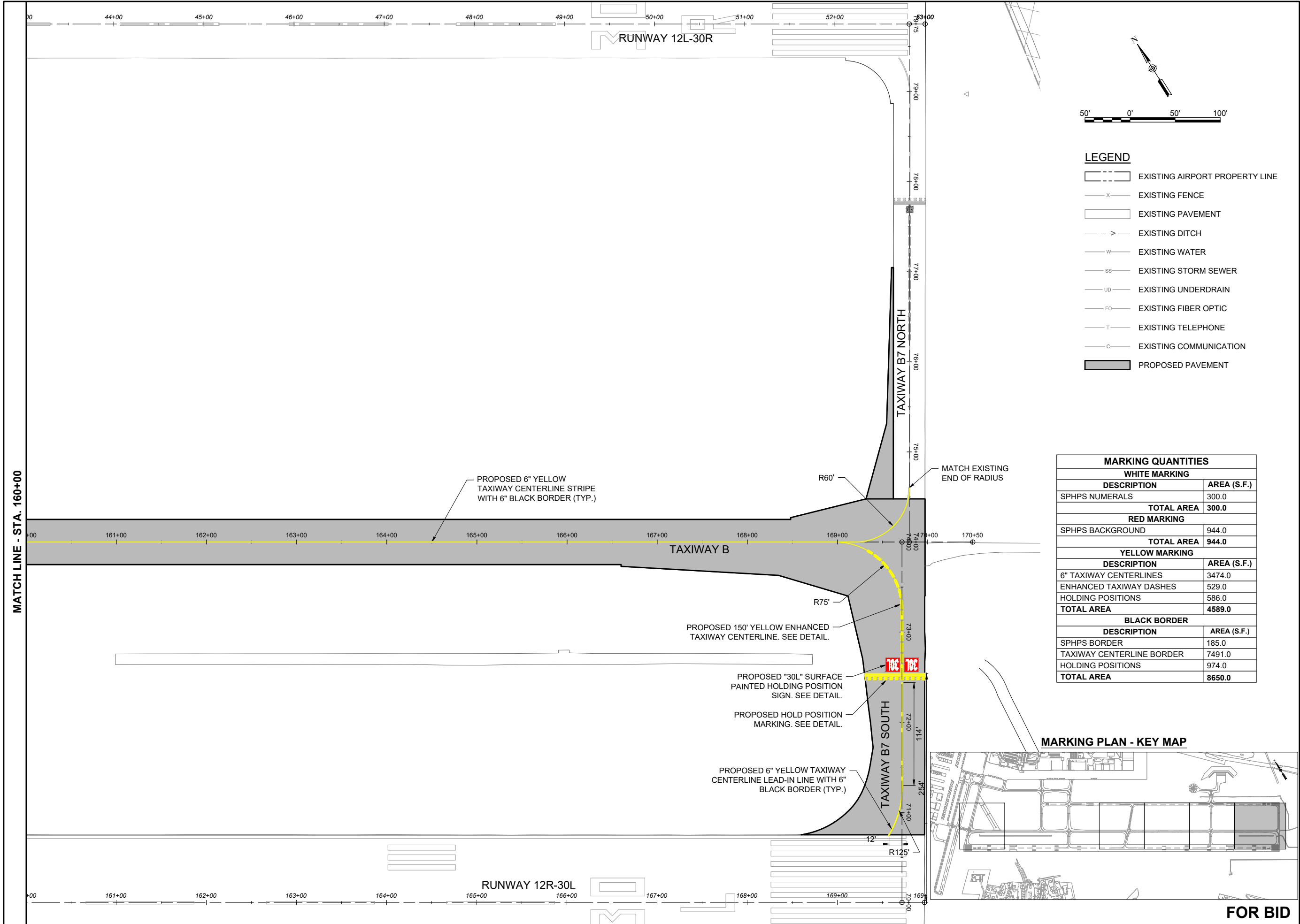
DRAWN BY: AJC 3/11/2025

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SHEET TITLE

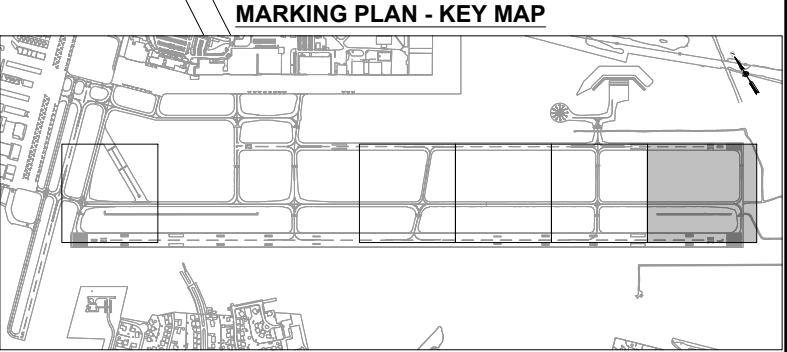
PROPOSED MARKING  
PLAN STA. 150+00 TO  
STA. 160+00

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- 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

MARKING QUANTITIES	
WHITE MARKING	
DESCRIPTION	AREA (S.F.)
SPHPS NUMERALS	300.0
TOTAL AREA	300.0
RED MARKING	
SPHPS BACKGROUND	944.0
TOTAL AREA	944.0
YELLOW MARKING	
DESCRIPTION	AREA (S.F.)
6" TAXIWAY CENTERLINES	3474.0
ENHANCED TAXIWAY DASHES	529.0
HOLDING POSITIONS	586.0
TOTAL AREA	4589.0
BLACK BORDER	
DESCRIPTION	AREA (S.F.)
SPHPS BORDER	185.0
TAXIWAY CENTERLINE BORDER	7491.0
HOLDING POSITIONS	974.0
TOTAL AREA	8650.0



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ST. LOUIS DOWNTOWN AIRPORT  
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Cahokia Heights, Illinois 62206



DATE SIGNED: 3/14/2025  
LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

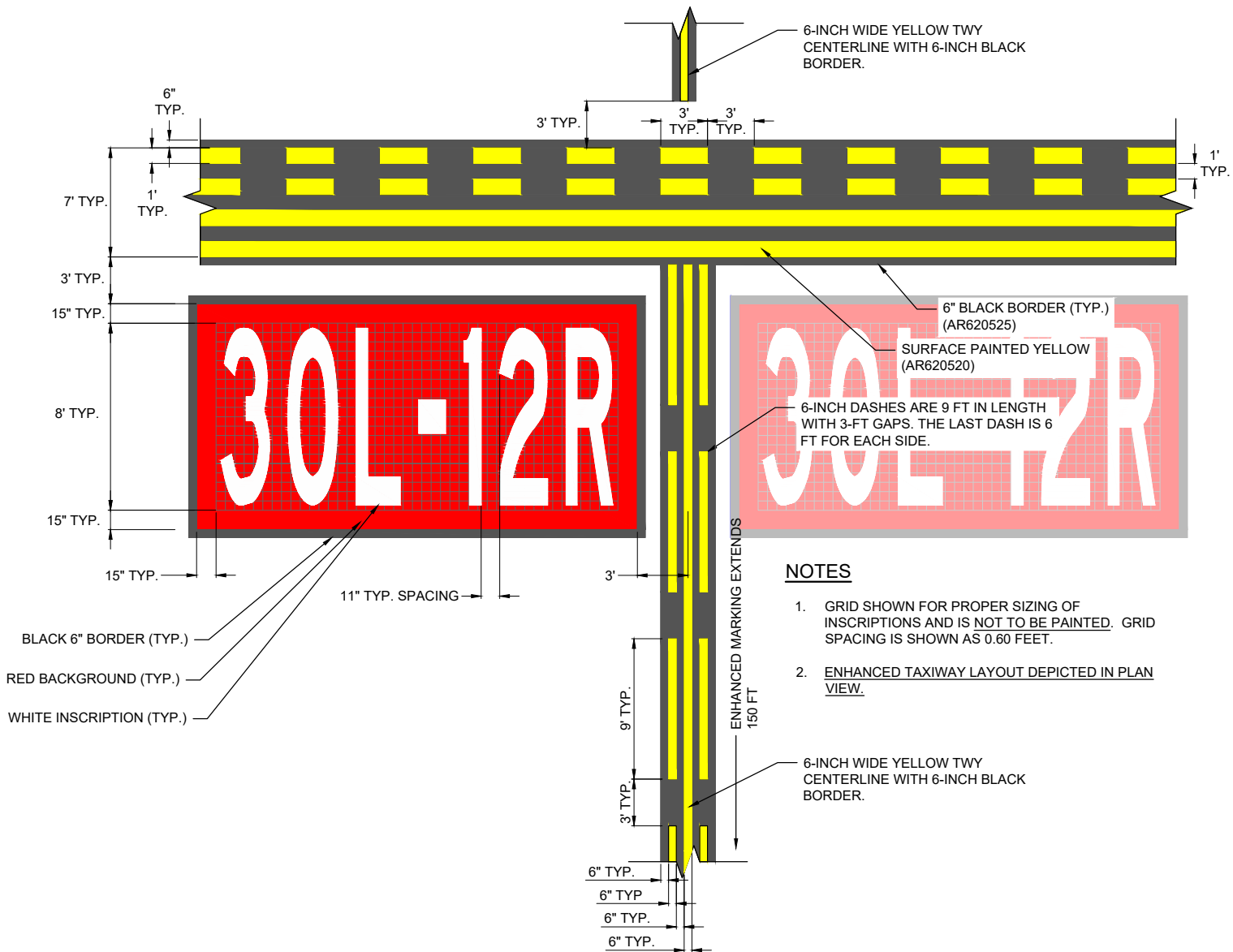
NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-151-MRK.DWG  
DESIGN BY: JRH 3/11/2025  
DRAWN BY: AJC 3/11/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

PROPOSED MARKING  
PLAN STA. 160+00 TO  
STA. 170+50

FOR BID



TAXIWAY B-5 HOLDING POSITION AND ENHANCED TAXIWAY CENTERLINE DETAIL  
NOT TO SCALE

SURFACE PAINTED HOLDING POSITION SIGN NOTES:

1. 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.
2. 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.
3. THE SURFACE PAINTED HOLDING POSITION SIGNS SHALL BE ORIENTED PARALLEL TO THE RUNWAY HOLDING POSITION MARKING.
4. 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.



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RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-501-MRK.DWG

DESIGN BY: JRH 3/11/2025

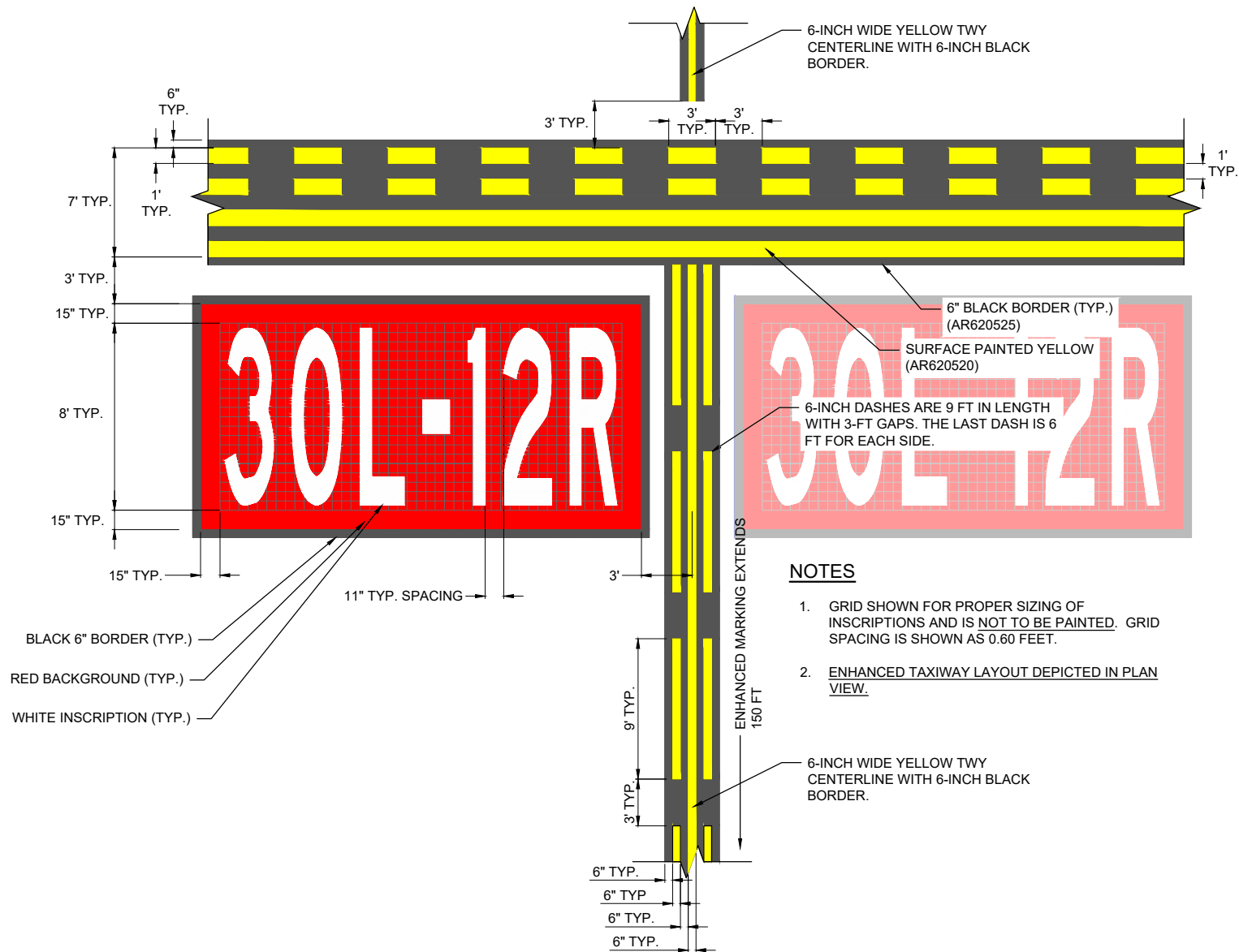
DRAWN BY: AJC 3/11/2025

REVIEWED BY: BSS 3/12/2025

SHEET TITLE

PAVEMENT MARKING  
DETAILS - SHEET 1

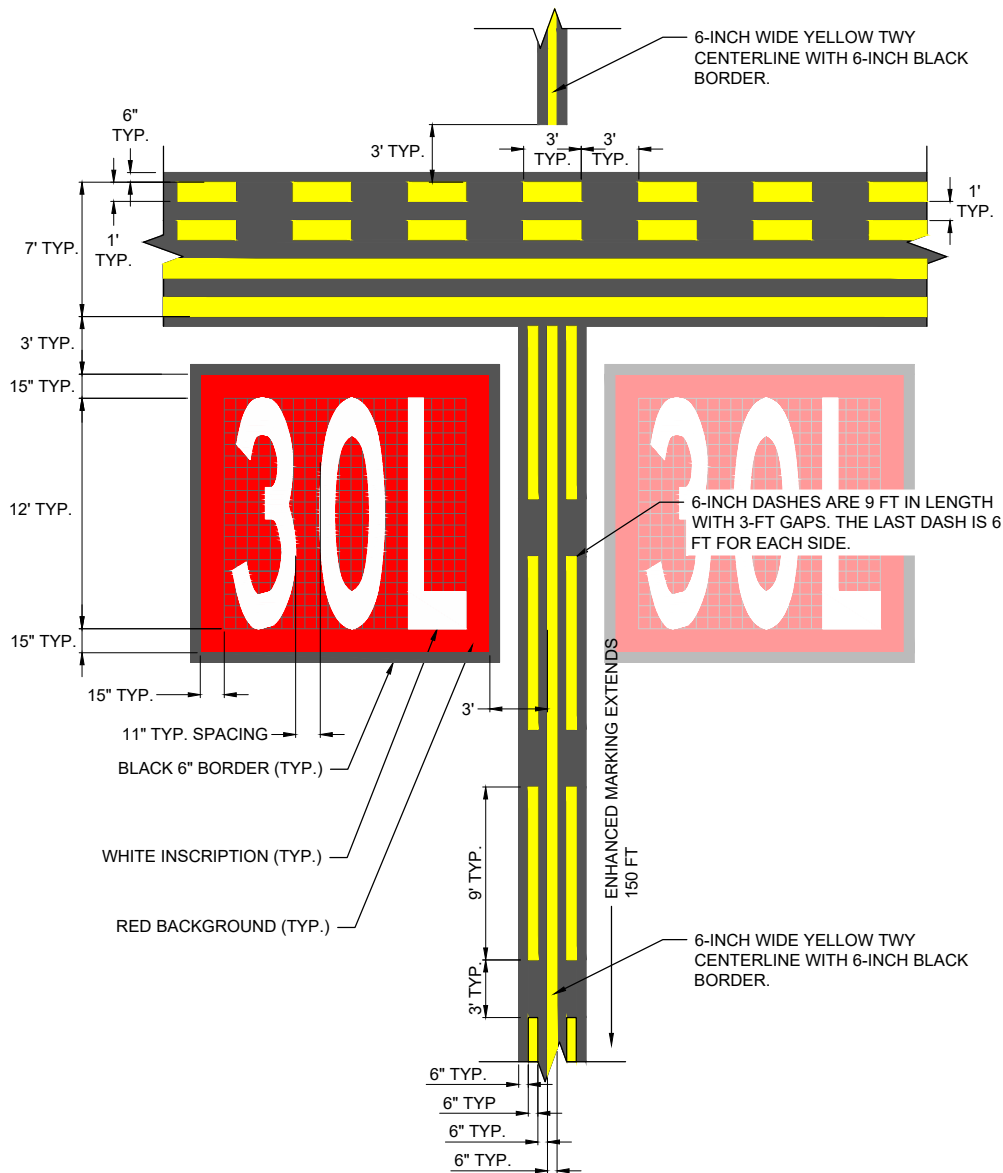
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TAXIWAY B-6 HOLDING POSITION AND ENHANCED TAXIWAY CENTERLINE DETAIL  
NOT TO SCALE

**SURFACE PAINTED HOLDING POSITION SIGN NOTES:**

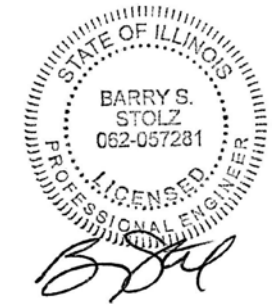
1. SURFACE PAINTED HOLDING POSITION SIGNS SHALL BE PAINTED AT THE LOCATIONS SHOWN ON THE PAVEMENT MARKING PLAN SHEETS. THE CONTRACTOR SHALL FIELD VERIFY THAT THE SURFACE PAINTED HOLDING POSITION SIGNS MEET THE STANDARD DIMENSIONS SHOWN. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OF ANY VARIATION FROM THE DIMENSIONS AND LOCATIONS SHOWN.
2. 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.
3. THE SURFACE PAINTED HOLDING POSITION SIGNS SHALL BE ORIENTED PARALLEL TO THE RUNWAY HOLDING POSITION MARKING.
4. 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.



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



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RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-501-MRK.DWG  
DESIGN BY: JRH 3/11/2025  
DRAWN BY: AJC 3/11/2025  
REVIEWED BY: BSS 3/12/2025

SHEET TITLE

PAVEMENT MARKING  
DETAILS - SHEET 2

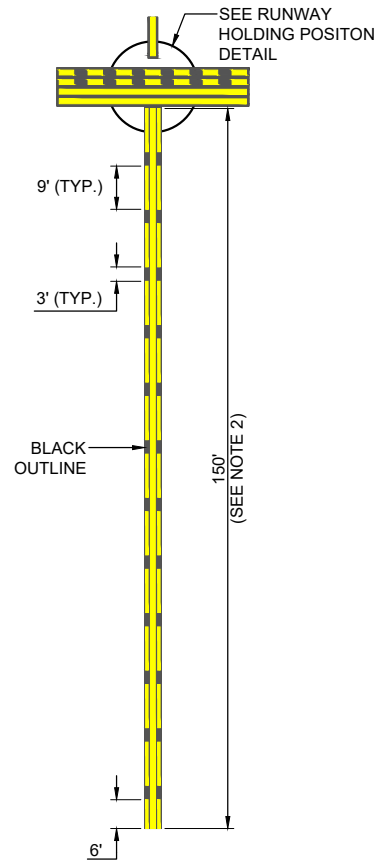
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NO.	DATE	DESCRIPTION		
		DES	DWN	REV

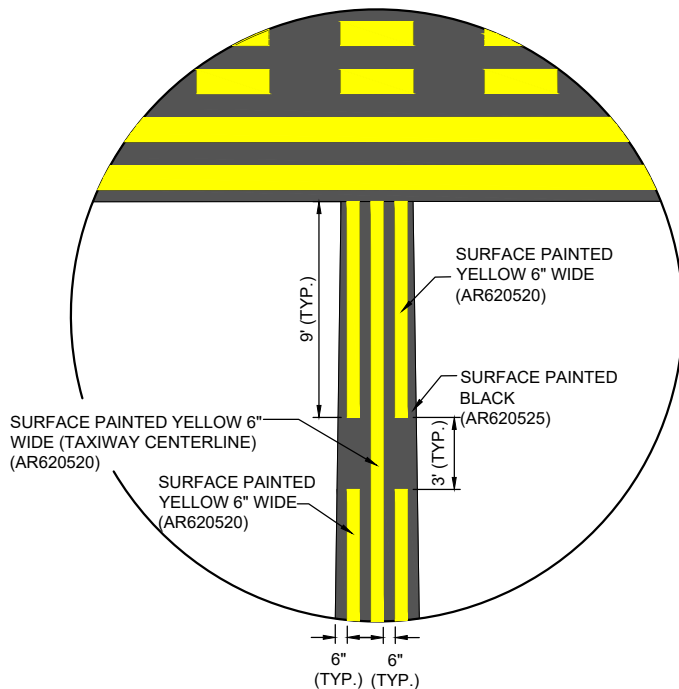
ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D  
CAD FILE: C-501-MRK.DWG  
DESIGN BY: JRH 3/11/2025  
DRAWN BY: AJC 3/11/2025  
REVIEWED BY: BSS 3/12/2025

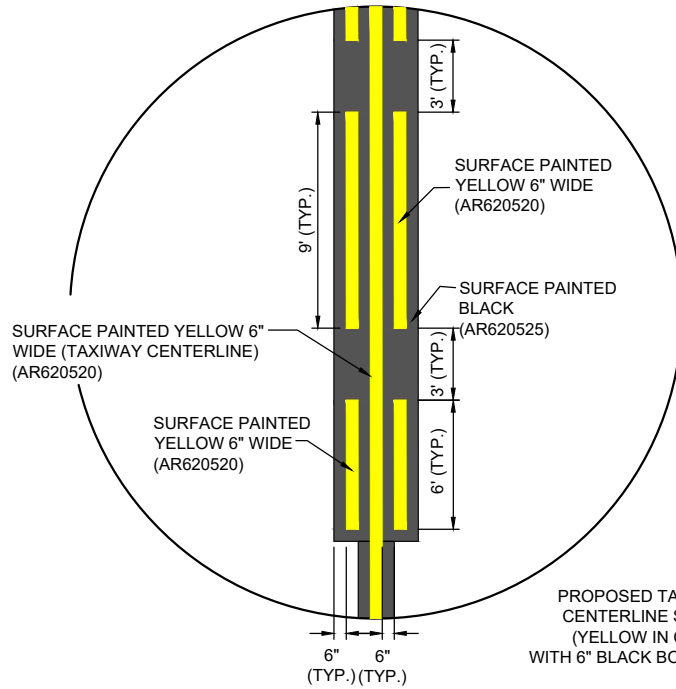
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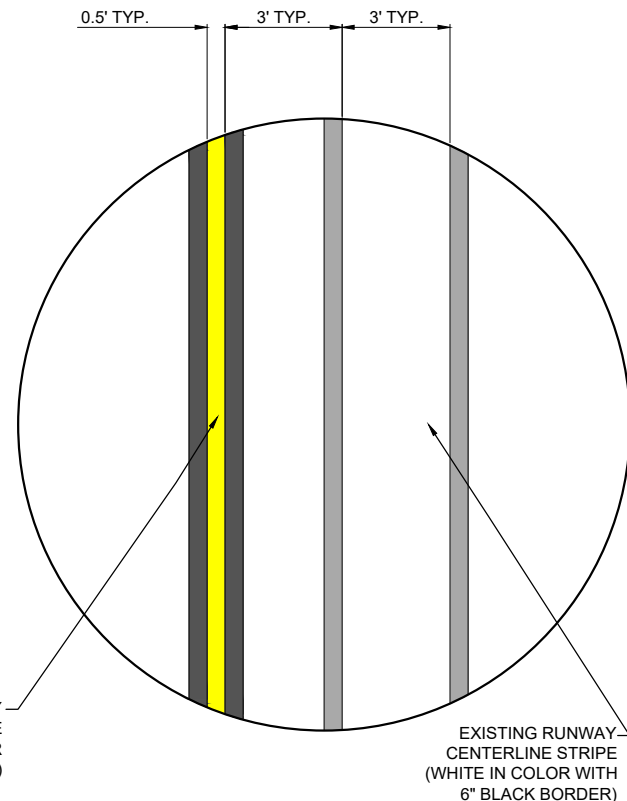
**ENHANCED TAXIWAY CENTERLINE MARKING DETAIL**  
NOT TO SCALE



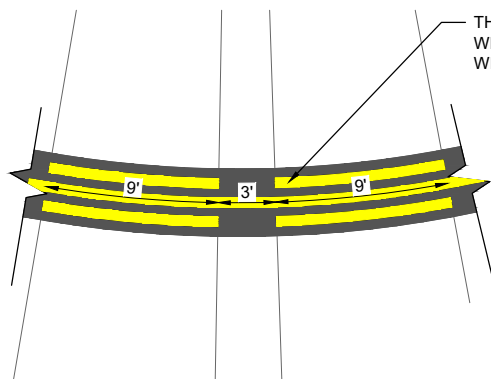
**ENHANCED TAXIWAY MARKING DETAIL (BEGIN)**  
NOT TO SCALE



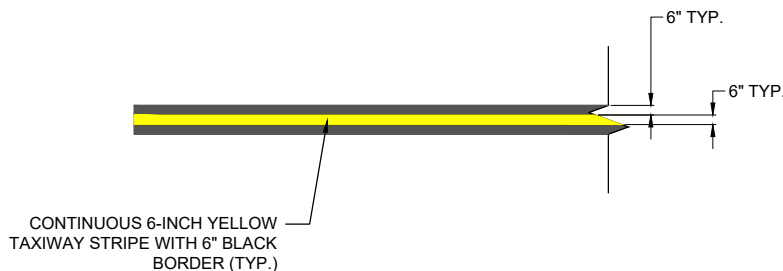
**ENHANCED TAXIWAY MARKING DETAIL (END)**  
NOT TO SCALE



**TAXIWAY CENTERLINE LEAD-IN DETAIL**  
NOT TO SCALE



**ENHANCED TAXIWAY CENTERLINE DETAIL ON CURVE**  
NOT TO SCALE



**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:**

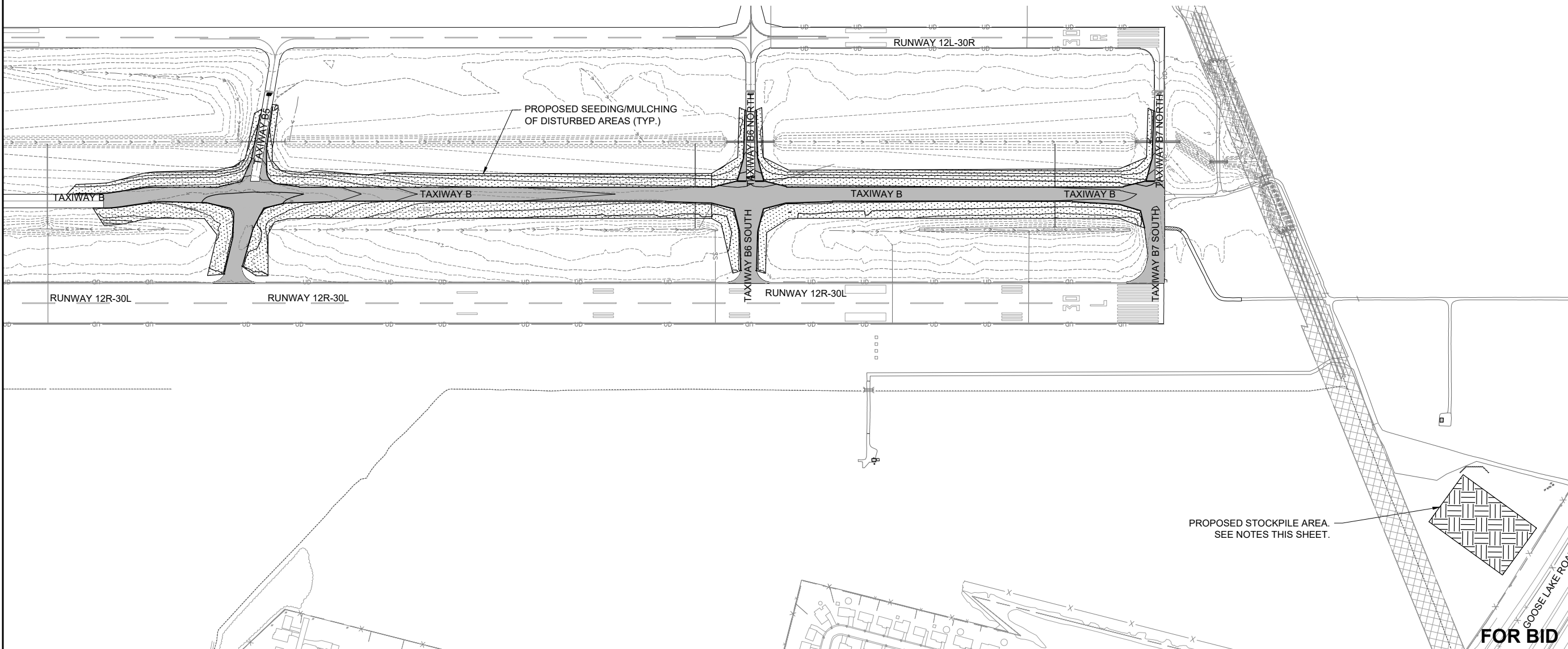
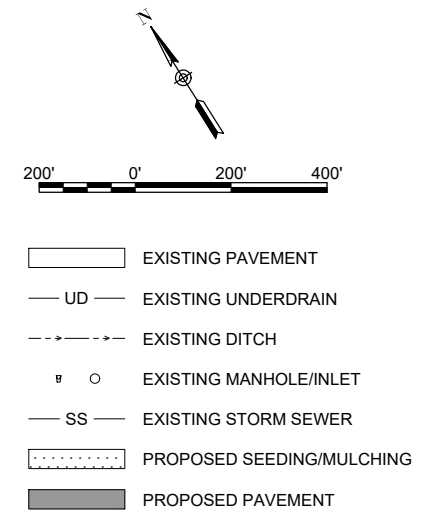
- TAXIWAY CENTERLINE MARKINGS SHALL BE YELLOW IN COLOR AND OUTLINED IN BLACK.
- TAXIWAY CENTERLINE MARKINGS SHALL BE ENHANCED FOR 150-FT PRIOR TO A RUNWAY HOLDING POSITION MARKING, UNLESS NOTED OTHERWISE. FOR A CURVED TAXIWAY CENTERLINE, THIS DISTANCE SHALL BE MEASURED ALONG THE CENTERLINE BEING ENHANCED 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.

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.
5. AS THIS PROJECT WILL BE COVERED BY A NPDES PERMIT, PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR MUST COMPLETE AND SUBMIT TO THE RESIDENT ENGINEER/TECHNICIAN THE "CONTRACTOR CERTIFICATION STATEMENT" AS PROVIDED ON FORM BDE 2342, STORM WATER POLLUTION PROTECTION PLAN (SWPPP).

## STOCKPILE NOTES

1. THE STOCKPILE LIMITS SHOWN ON THE SCOPE OF WORK AND CONSTRUCTION SAFETY AND PHASING PLAN SHEETS ARE APPROXIMATE AND SHALL BE COORDINATED IN THE FIELD. THE STOCKPILE HEIGHT SHALL BE LIMITED TO A MAXIMUM OF 15' ABOVE EXISTING GROUND. THE STOCKPILE SHALL BE GRADED AND MAINTAINED IN ORDER TO PROVIDE POSITIVE DRAINAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE FOR THE DURATION OF CONSTRUCTION. THE CONTRACTOR SHALL INSTALL AND MAINTAIN SILT FENCE SURROUNDING THE PERIMETER OF THE STOCKPILE AREA, SUBTRACTING SECTIONS OF SILT FENCE FOR CONSTRUCTION ACCESS. COST FOR SILT FENCE SHALL BE PAID FOR UNDER PAY ITEM AR156500.
2. AT THE COMPLETION OF CONSTRUCTION, THE PROPOSED STOCKPILE AREA SHALL BE GRADED WITH MOWABLE SLOPES NOT GREATER THAN 4:1 TO THE SATISFACTION OF THE OWNER, AND SHALL BE SEEDED AND HYDROMULCHED. COST FOR FINAL GRADING SHALL BE INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL PAYMENT WILL BE ALLOWED. COST FOR SEEDING AND HYDROMULCHING SHALL BE PAID FOR UNDER THE RESPECTIVE PAY ITEMS. ALTHOUGH THE STOCKPILE DIMENSIONS/LIMITS HAVE NOT BEEN DEFINED SPECIFICALLY, AN ESTIMATED QUANTITY OF 2.00 ACRES OF SEEDING AND MULCHING EACH HAVE BEEN INCLUDED WITHIN THE BID QUANTITIES TO ACCOMMODATE STOCKPILE RESTORATION.



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ST. LOUIS  
DOWNTOWN AIRPORT

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



DATE SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-181-SWP.DWG

DESIGN BY: JRH 3/11/2025

DRAWN BY: AJC 3/11/2025

SHEET TITLE

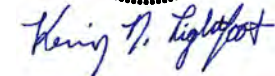
# STORM WATER POLLUTION PREVENTION PLAN

MAR 14, 2025 9:57 AM GROVE02594  
123 JOBS23A0001D1CADIAIRPORTLIBRARY2025 CPS-5078 COMBINED LIBRARYG-B5-22X34 BORDER



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COVERING ELECTRICAL DESIGN



DATE  
SIGNED: 3/14/2025

LICENSE  
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AND B1 INTERSECTION

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

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-141-ELE.DWG

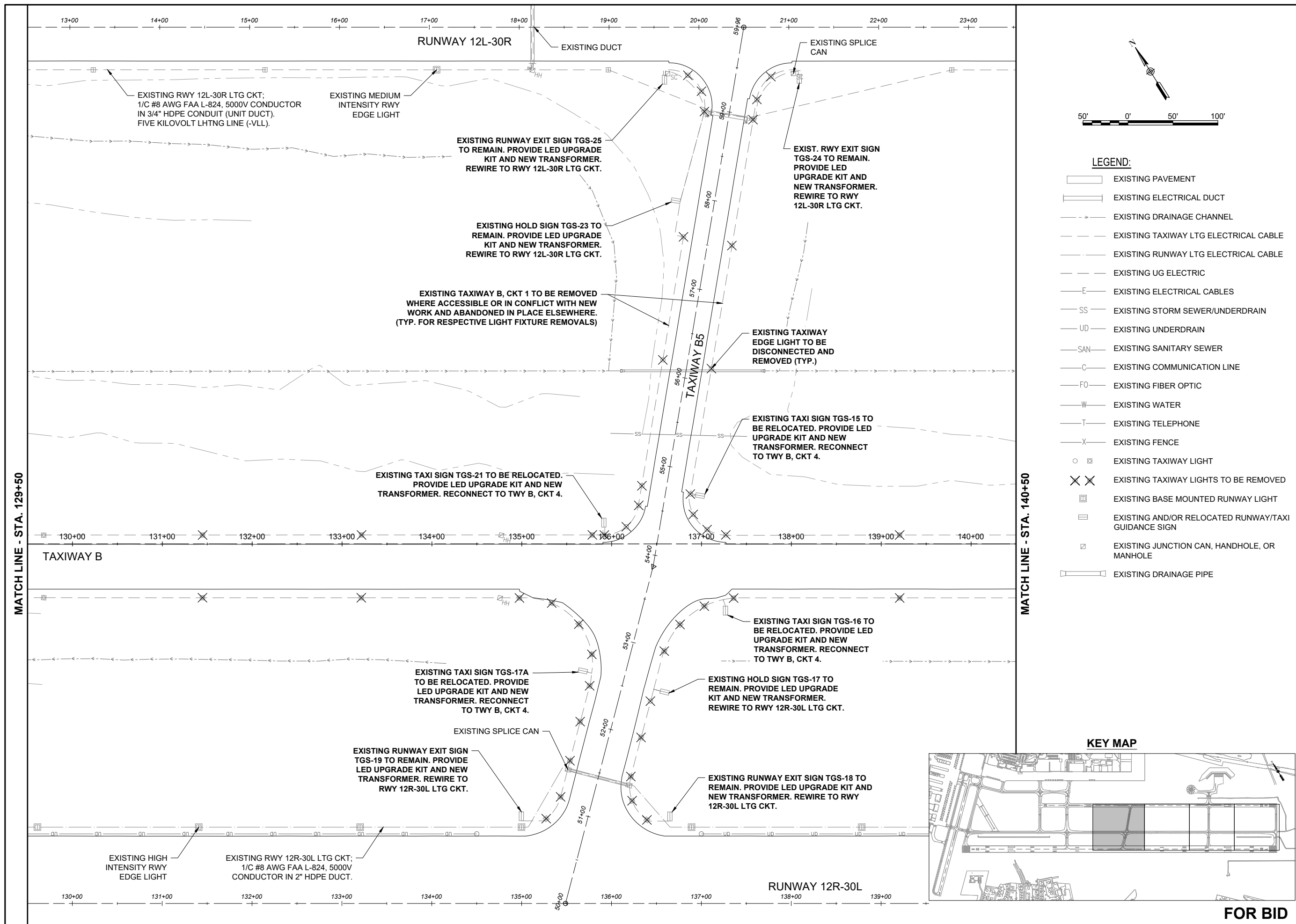
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DRAWN BY: CWS 3/7/2025

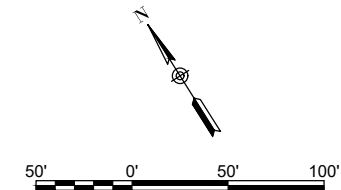
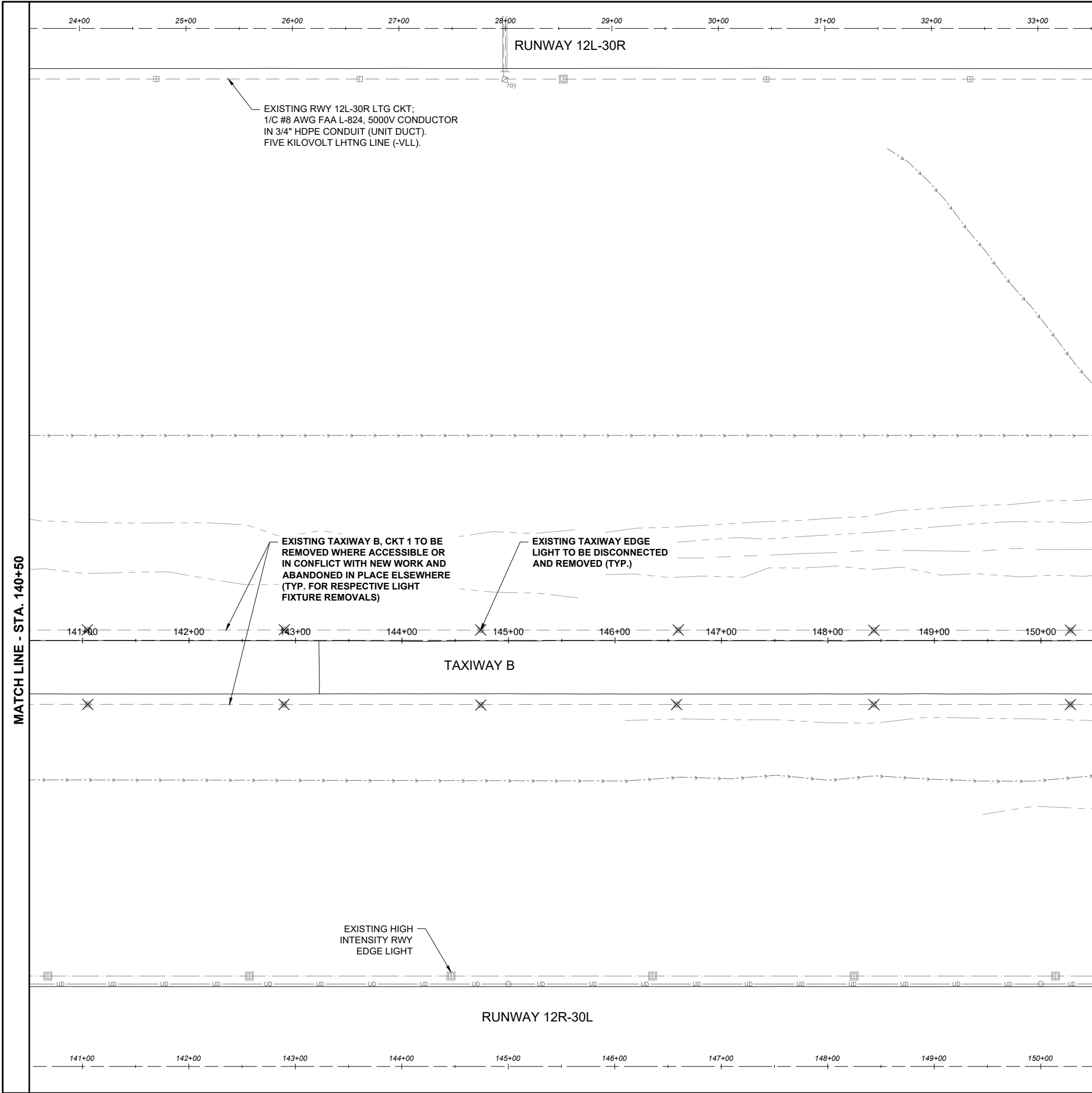
REVIEWED BY: KNL 3/11/2025

SHEET TITLE

EXISTING  
ELECTRICAL PLAN  
STA. 129+50 TO STA.  
140+50



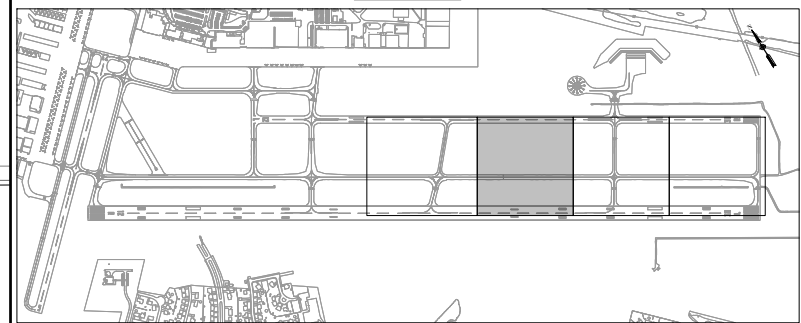
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LEGEND:

- 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

KEY MAP



FOR BID



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*Kevin N. Lightfoot*

DATE SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
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AND B1 INTERSECTION

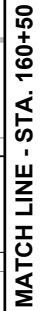
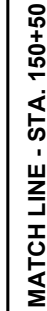
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CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-141-ELE.DWG  
DESIGN BY: KNL 3/5/2025  
DRAWN BY: CWS 3/7/2025  
REVIEWED BY: KNL 3/11/2025

SHEET TITLE

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



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DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

REVIEWED BY: KNL 3/11/2025

SHEET TITLE

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



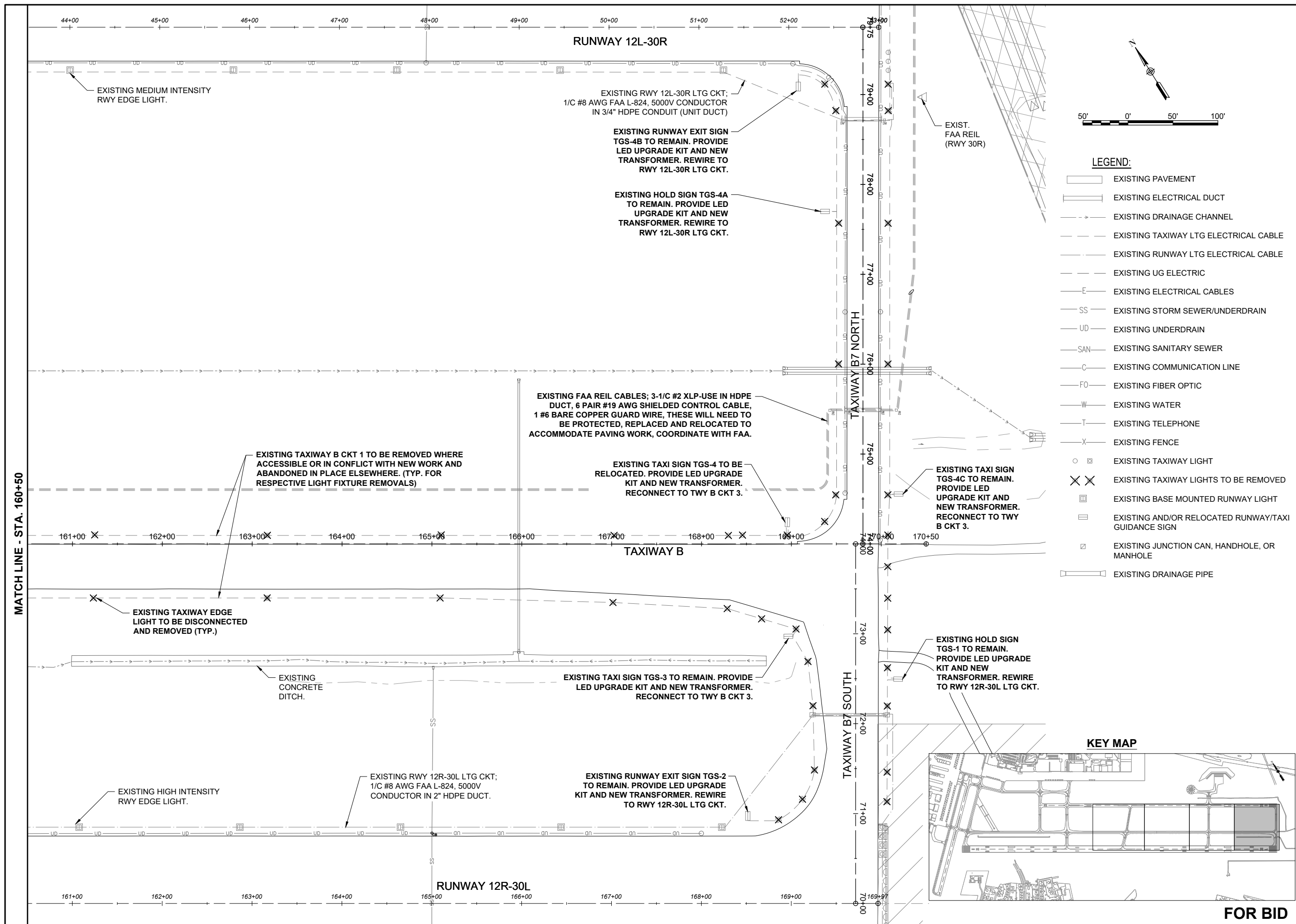
LICENSED PROFESSIONAL ENGINEER  
 KEVIN N. LIGHTFOOT  
 062-047643  
 STATE OF ILLINOIS

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

NO.	DATE	DESCRIPTION		
		DES	DWN	RE

SHEET TITLE

80





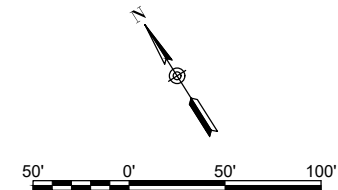
Professional Engineer Seal for Kevin N. Lightfoot, State of Illinois, License No. 062-047643.

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

SHEET TITLE

81



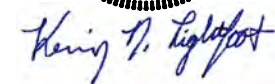
	EXISTING PAVEMENT
	PROPOSED PAVEMENT
	EXISTING ELECTRICAL DUCT
	PROPOSED ELECTRICAL DUCT
	EXISTING DRAINAGE CHANNEL
	EXISTING TAXIWAY LTG ELECTRICAL CABLE
	EXISTING RUNWAY LTG ELECTRICAL CABLE
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	EXISTING ELECTRICAL CABLES
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	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

**FOR BID**



**BI-STATE DEVELOPMENT**  
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TAXIWAY B5 TO B7  
AND B1 INTERSECTION

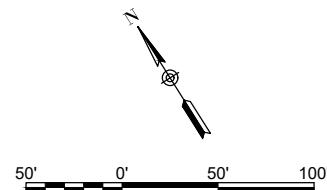
IDA NO.: CPS-5078  
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV



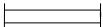



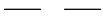

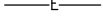
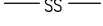
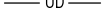

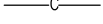
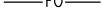
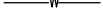


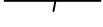
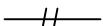






ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-142-ELE.DWG  
DESIGN BY: KNL 3/5/2025  
DRAWN BY: CWS 3/7/2025  
REVIEWED BY: KNL 3/11/2025

**SHEET TITLE**

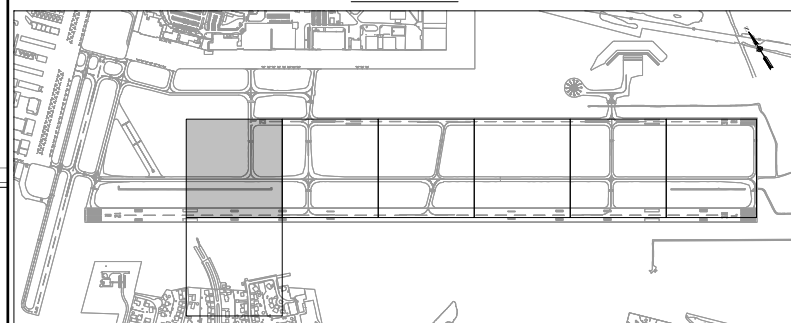
PROPOSED  
ELECTRICAL PLAN  
STA. 110+50 TO STA.  
120+50



LEGEND:

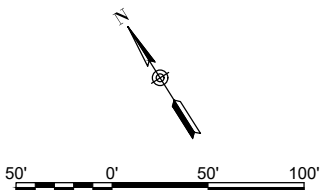
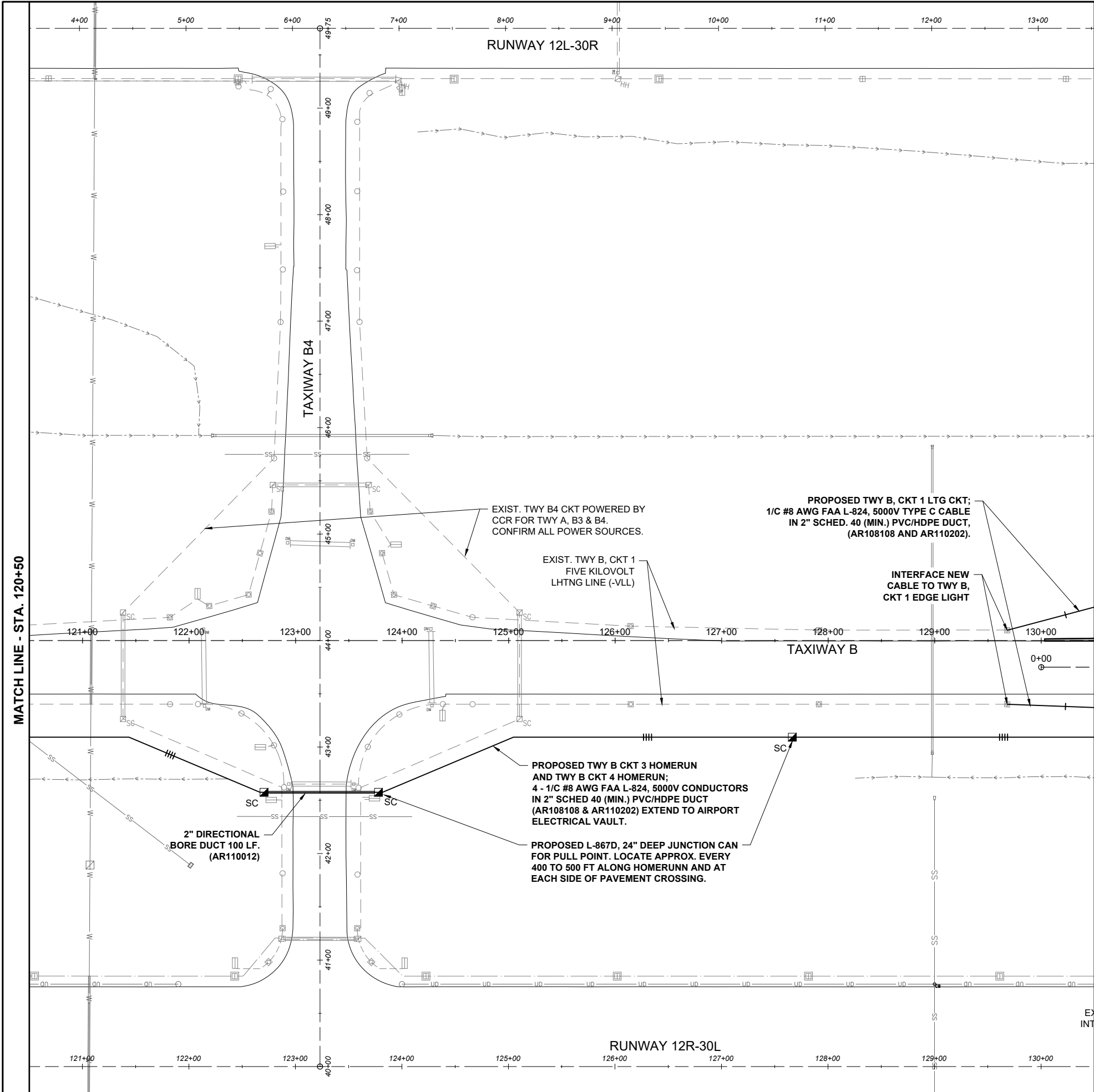
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|---|---|
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|    | PROPOSED PAVEMENT   |
|    | EXISTING ELECTRICAL DUCT  |
|    | PROPOSED ELECTRICAL DUCT  |
|    | EXISTING DRAINAGE CHANNEL   |
|    | EXISTING TAXIWAY LTG ELECTRICAL CABLE   |
|    | 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<br>TYPE C UNDERGROUND CABLE IN 2" SCHED 40<br>(MIN.) PVC OR HDPE DUCT   |
|  | PROPOSED 2-1/C #8 AWG, FAA L-824, 5000 VOLT<br>TYPE C UNDERGROUND CABLE IN 2" SCHED 40<br>(MIN.) PVC OR HDPE DUCT |
|  | EXISTING TAXIWAY LIGHT  |
|  | EXISTING BASE MOUNTED RUNWAY LIGHT  |
|  | PROPOSED BASE MOUNTED TAXIWAY LIGHT   |
|  | EXISTING AND/OR RELOCATED RUNWAY/TAXI<br>GUIDANCE SIGN  |
|  | EXISTING JUNCTION CAN, HANDHOLE, OR<br>MANHOLE  |
|  | PROPOSED SPLICE CAN   |

## KEY MAP



**FOR BID**

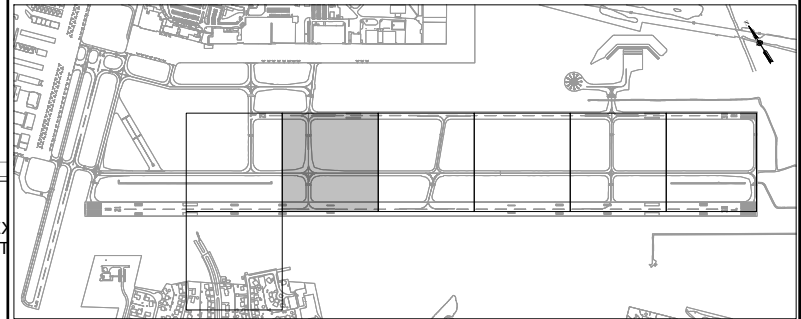
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**LEGEND:**

- 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
- 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**



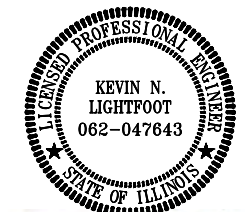
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Hanson Professional Services Inc.  
1525 South Sixth Street  
Springfield, Illinois 62703-2886  
Telephone: 217.788.2450  
Fax: 217.788.2503



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

**COVERING ELECTRICAL DESIGN**



*Kevin N. Lightfoot*

DATE SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

**RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION**

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-142-ELE.DWG  
DESIGN BY: KNL 3/5/2025  
DRAWN BY: CWS 3/7/2025  
REVIEWED BY: KNL 3/11/2025

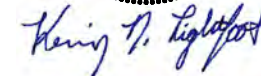
SHEET TITLE

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



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

COVERING ELECTRICAL DESIGN



DATE SIGNED: 3/14/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

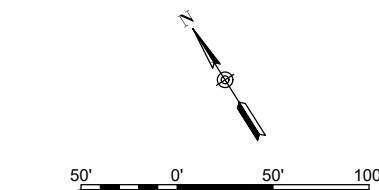
IDA NO.: CPS-5078  
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV


























ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-142-ELE.DWG  
DESIGN BY: KNL 3/5/2025  
DRAWN BY: CWS 3/7/2025  
REVIEWED BY: KNL 3/11/2025

SHEET TITLE

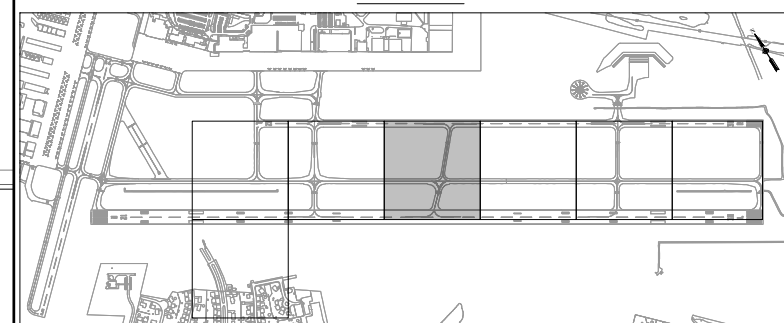
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STA. 130+50 TO STA.  
140+50



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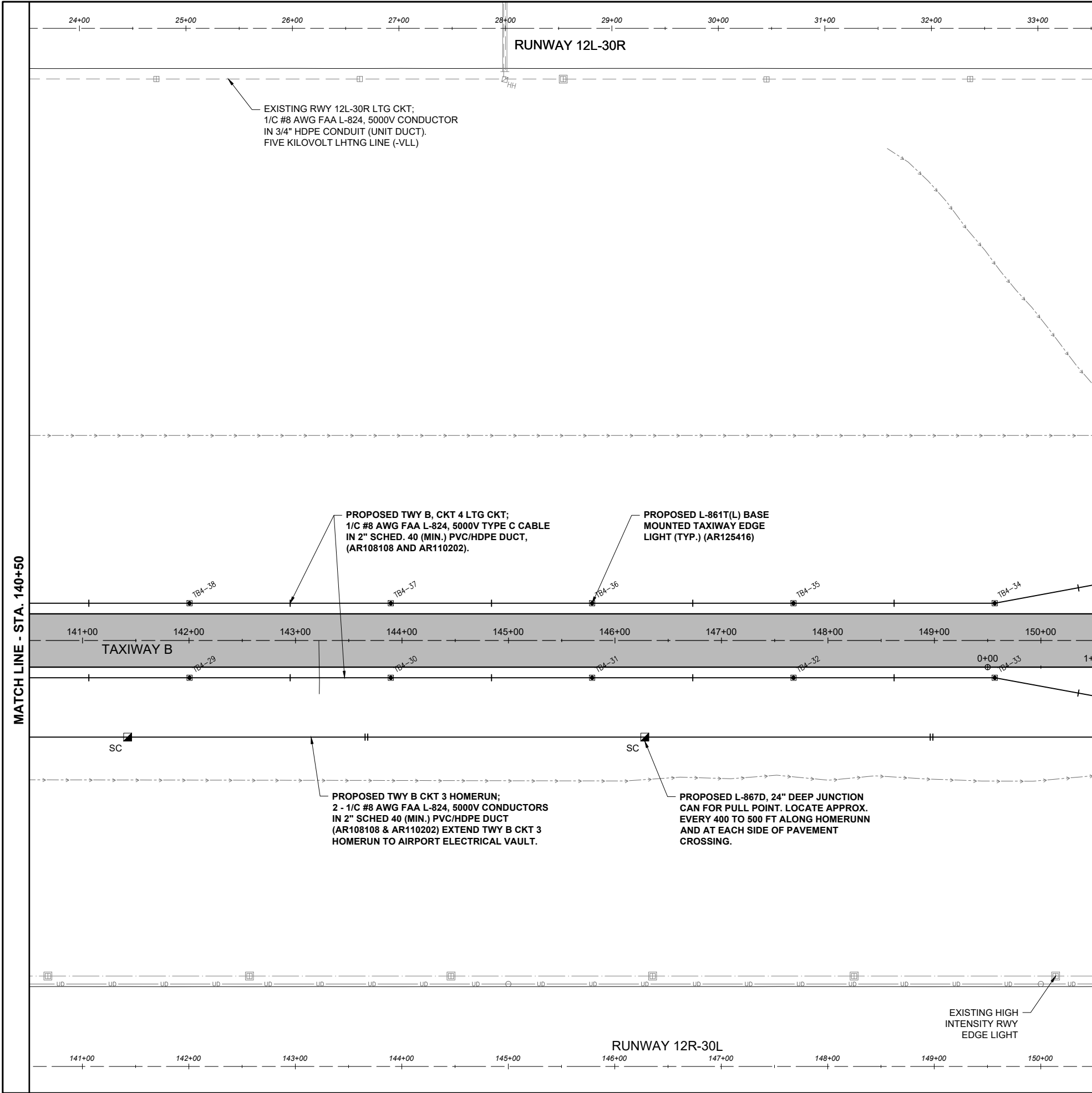
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|    | PROPOSED PAVEMENT  |
|    | EXISTING ELECTRICAL DUCT   |
|    | PROPOSED ELECTRICAL DUCT   |
|    | EXISTING DRAINAGE CHANNEL  |
|    | EXISTING TAXIWAY LTG ELECTRICAL CABLE  |
|    | EXISTING RUNWAY LTG ELECTRICAL CABLE   |
|    | EXISTING 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<br>TYPE C UNDERGROUND CABLE IN 2" SCHED 40<br>(MIN.) PVC OR HDPE DUCT  |
|  | PROPOSED 2-1/C #8 AWG, FAA L-824, 5000 VOL<br>TYPE C UNDERGROUND CABLE IN 2" SCHED 40<br>(MIN.) PVC OR HDPE DUCT |
|  | EXISTING TAXIWAY LIGHT   |
|  | EXISTING BASE MOUNTED RUNWAY LIGHT   |
|  | PROPOSED BASE MOUNTED TAXIWAY LIGHT  |
|  | EXISTING AND/OR RELOCATED RUNWAY/TAXI<br>GUIDANCE SIGN   |
|  | EXISTING JUNCTION CAN, HANDHOLE, OR<br>MANHOLE   |
|  | PROPOSED SPLICE CAN  |

## KEY MAP



**FOR BID**

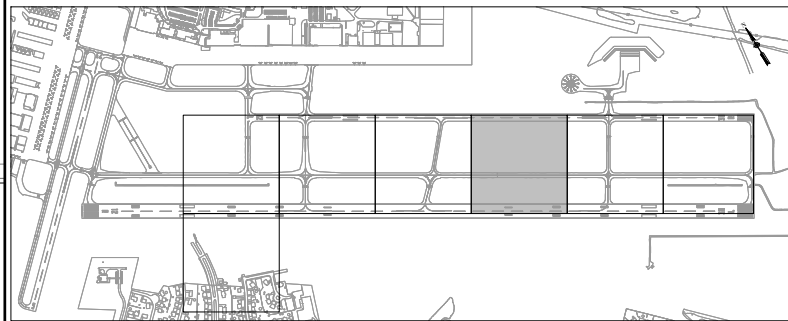
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I:\23\JOBS\23A0001\DCAD\AIRPORT\LIBRARY\2025 CPS-5078 COMBINED LIBRARY\G-B5-22\34\_BORDER



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



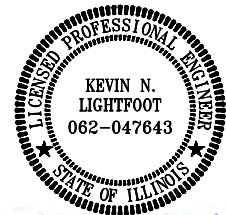
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Hanson Professional Services Inc.  
1525 South Sixth Street  
Springfield, Illinois 62703-2886  
Telephone: 217.788.2450  
Fax: 217.788.2503



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

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: C-142-ELE.DWG  
DESIGN BY: KNL 3/5/2025  
DRAWN BY: CWS 3/7/2025  
REVIEWED BY: KNL 3/11/2025

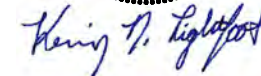
SHEET TITLE

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



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

COVERING ELECTRICAL DESIGN



DATE  
SIGNED: 3/14/2025

LICENSE  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-142-ELE.DWG

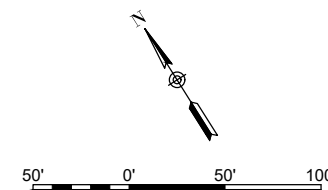
DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025


























REVIEWED BY: KNL 3/11/2025

SHEET TITLE

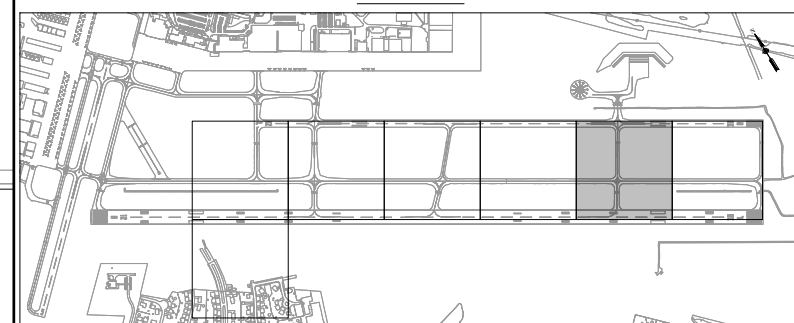
PROPOSED  
ELECTRICAL PLAN  
STA. 150+50 TO STA.  
160+50



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<br>TYPE C UNDERGROUND CABLE IN 2" SCHED 40<br>(MIN.) PVC OR HDPE DUCT   |
|  | PROPOSED 2-1/C #8 AWG, FAA L-824, 5000 VOLT<br>TYPE C UNDERGROUND CABLE IN 2" SCHED 40<br>(MIN.) PVC OR HDPE DUCT |
|  | EXISTING TAXIWAY LIGHT  |
|  | EXISTING BASE MOUNTED RUNWAY LIGHT  |
|  | PROPOSED BASE MOUNTED TAXIWAY LIGHT   |
|  | EXISTING AND/OR RELOCATED RUNWAY/TAXI<br>GUIDANCE SIGN  |
|  | EXISTING JUNCTION CAN, HANDHOLE, OR<br>MANHOLE  |
|  | PROPOSED SPLICE CAN   |

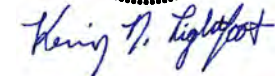
## KEY MAP



**FOR BID**



COVERING ELECTRICAL DESIGN



DATE SIGNED: 3/14/2025

LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: C-142-ELE.DWG

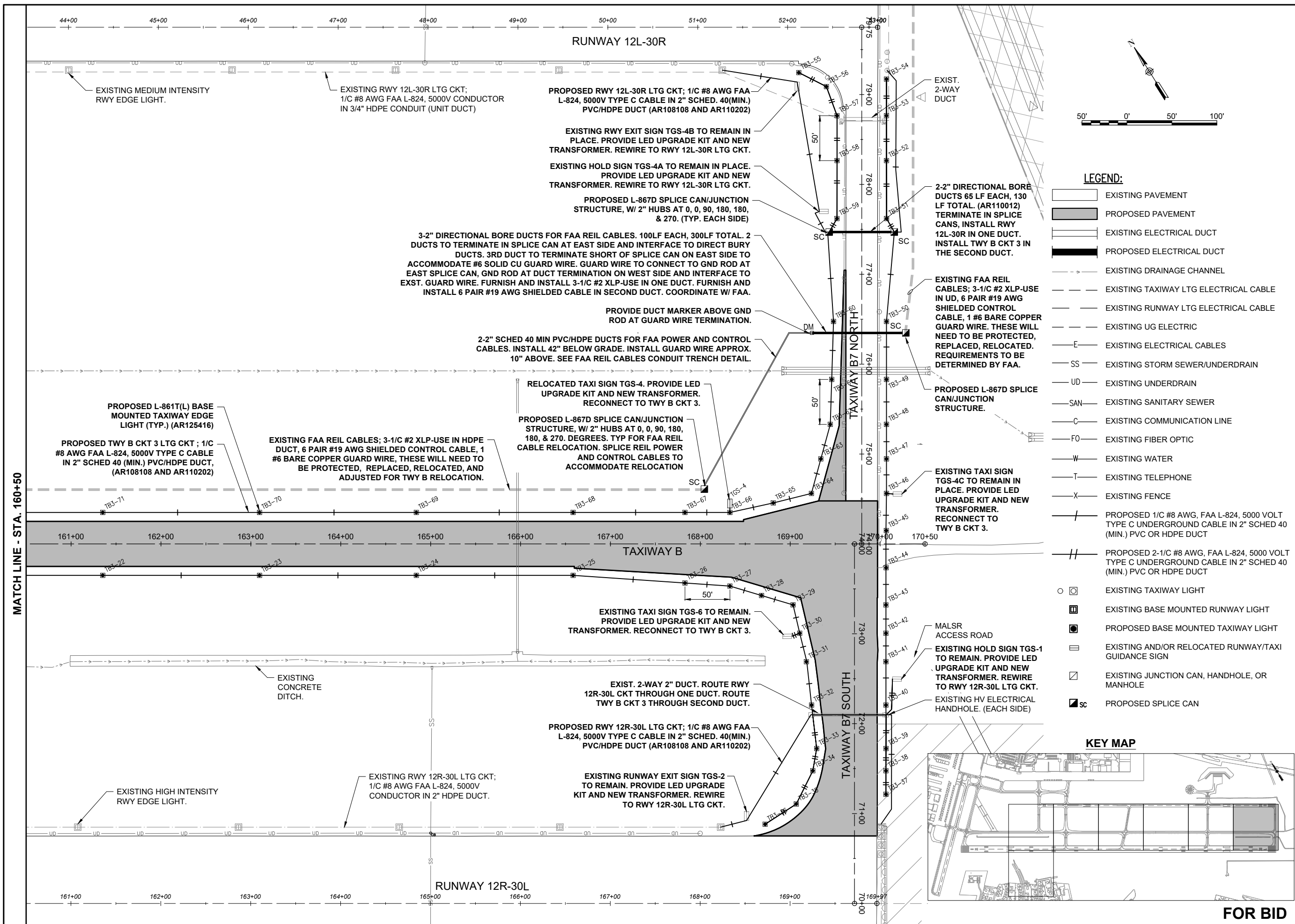
DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

REVIEWED BY: KNI 3/11/2025

SHEET TITLE

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



MAR 14, 2025 10:00 AM GROVE02594  
123 JOBS23A0001DICAIAIRPORTLIBRARY2025 CPS-5078 COMBINED LIBRARYG-BS-22X34 BORDER

MAR 14, 2025 10:01 AM GROVE02594

- 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.



**HANSON**  
Engineering | Planning | Allied Services

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



A circular professional engineer seal for the State of Illinois. The outer ring contains the text "LICENSED PROFESSIONAL ENGINEER" at the top and "STATE OF ILLINOIS" at the bottom, separated by two stars. The center of the seal contains the name "KEVIN N. LIGHTFOOT" and the license number "062-047643".

DATE LICENSE  
SIGNED: 3/14/2025 EXPIRES: 11/30/2025

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

**SHEET TITLE**

**FOR BID**

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

A circular professional engineer seal for the State of Illinois. The outer ring contains the text "LICENSED PROFESSIONAL ENGINEER" at the top and "STATE OF ILLINOIS" at the bottom, separated by two stars. The center of the seal contains the name "KEVIN N. LIGHTFOOT" and the license number "062-047643".

Henry D. Lightfoot

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

REVIEWED BY: KNL 3/11/2025

LIGHT LOCATION  
TABLE - TWY B CKT 3

89

SIGN LOCATION TABLE			
SIGN NUMBER	NORTHING	EASTING	GROUND RESISTANCE
TGS-4	691218.76	2303061.55	
TGS-5	691997.71	2301999.54	
TGS-8	691759.76	2301843.72	
TGS-8A	691818.57	2301776.28	
TGS-12	692010.72	2301819.18	

LIGHT LOCATION TABLE			
LIGHT NUMBER	NORTHING	EASTING	GROUND RESISTANCE
TB4-01	693119.62	2299856.57	
TB4-02	693074.17	2299948.56	
TB4-03	693030.25	2300041.23	
TB4-04	692964.54	2300140.21	
TB4-05	692936.88	2300181.88	
TB4-06	692908.01	2300211.01	
TB4-07	692879.14	2300240.14	
TB4-08	692869.92	2300244.51	
TB4-09	692860.04	2300241.98	
TB4-10	692826.17	2300218.92	
TB4-11	692792.31	2300195.86	
TB4-12	692762.00	2300165.10	
TB4-13	692731.69	2300134.35	
TB4-14	692702.50	2300104.74	
TB4-15	692688.29	2300080.30	
TB4-16	692627.54	2300174.67	
TB4-17	692654.15	2300172.33	
TB4-18	692675.43	2300187.21	
TB4-19	692704.17	2300219.43	
TB4-20	692732.92	2300251.65	
TB4-21	692766.24	2300288.98	
TB4-22	692785.88	2300322.80	
TB4-23	692805.51	2300356.63	
TB4-24	692792.68	2300393.61	
TB4-25	692779.85	2300430.59	
TB4-26	692755.53	2300471.63	
TB4-27	692730.04	2300514.67	
TB4-28	692659.19	2300634.34	
TB4-29	692558.43	2300794.29	
TB4-30	692457.67	2300954.23	
TB4-31	692356.91	2301114.18	
TB4-32	692256.15	2301274.12	
TB4-33	692155.39	2301434.06	
TB4-34	692214.62	2301471.37	
TB4-35	692315.38	2301311.43	
TB4-36	692416.14	2301151.49	
TB4-37	692516.90	2300991.54	
TB4-38	692617.66	2300831.60	
TB4-39	692718.42	2300671.65	
TB4-40	692793.62	2300554.98	

LIGHT LOCATION TABLE			
LIGHT NUMBER	NORTHING	EASTING	GROUND RESISTANCE
TB4-41	692820.70	2300512.95	
TB4-42	692845.08	2300483.03	
TB4-43	692869.45	2300453.11	
TB4-44	692893.69	2300439.62	
TB4-45	692920.86	2300445.14	
TB4-46	692954.41	2300465.90	
TB4-47	692987.97	2300486.67	
TB4-48	693025.98	2300519.15	
TB4-49	693117.70	2300595.00	
TB4-50	693184.52	2300654.57	
TB4-51	693221.84	2300687.84	
TB4-52	693238.68	2300705.87	
TB4-53	693251.02	2300728.99	
TB4-54	693301.63	2300653.27	
TB4-55	693279.45	2300655.88	
TB4-56	693259.62	2300645.55	
TB4-57	693220.90	2300613.75	
TB4-58	693154.60	2300554.60	
TB4-59	693068.14	2300471.96	
TB4-60	693032.54	2300438.20	
TB4-61	692996.25	2300403.80	
TB4-62	692973.97	2300370.70	
TB4-63	692951.68	2300337.60	
TB4-64	692965.05	2300300.13	
TB4-65	692978.31	2300262.63	
TB4-66	693001.36	2300222.51	
TB4-67	693028.02	2300180.20	
TB4-68	693091.33	2300079.71	
TB4-69	693142.58	2299978.84	
TB4-70	693181.13	2299895.32	

SIGN LOCATION TABLE			
SIGN NUMBER	NORTHING	EASTING	GROUND RESISTANCE
TGS-15	692984.70	2300490.46	
TGS-16	692792.55	2300378.75	
TGS-17A	692806.64	2300199.57	
TGS-21	692978.09	2300278.25	



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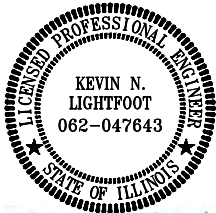
Hanson Professional Services Inc.  
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**ST. LOUIS  
DOWNTOWN AIRPORT**

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

COVERING ELECTRICAL DESIGN



Henry D. Lightfoot

DATE: 3/14/2025 LICENSE: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: E-641-SCHED.DWG

DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

REVIEWED BY: KNL 3/11/2025

SHEET TITLE





LIGHT AND SIGN  
LOCATION TABLES -  
TWY B CKT 4

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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. 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 NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. PROVIDE LED UPGRADE KIT(S) BY ORIGINAL EQUIPMENT MANUFACTURER, PROVIDE NEW FAA L-830-4 100W TRANSFORMER.

NOTES:

1. 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.
2. 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.
3. 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.
4. RUNWAY EXIT/TAXIWAY ENTRANCE SIGNS (TAXIWAY GUIDANCE SIGNS TO DEFINE THE THROAT OR ENTRANCE INTO THE INTERSECTING TAXIING 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.
5. 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".
6. 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.
7. SEE SPECIFICATION ITEM L-125 FOR ADDITIONAL REQUIREMENTS ON TAXI GUIDANCE SIGNS.
8. SEE "AIRFIELD LIGHTING NOTES" SHEET FOR ADDITIONAL REQUIREMENT ON TAXI GUIDANCE SIGNS.
9. CONTRACTOR SHALL TEST AND RECORD THE EARTH GROUND RESISTANCE FOR THE GROUND ROD AT EACH AIRFIELD LIGHT FIXTURE AND EACH TAXI GUIDANCE SIGN.
10. 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**



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**BI-STATE DEVELOPMENT  
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Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Henry D. Lightfoot

DATE SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
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CONSTRUCT FROM  
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IDA NO.: CPS-5078  
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: E-644-SCHED.DWG

DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

REVIEWED BY: KNL 3/11/2025

**SHEET TITLE**

TAXI GUIDANCE SIGN  
SCHEDULE - SHEET 1

MAR 14, 2025 10:01 AM GROVE02594  
I:\23\JOBS\23A0001\DCAD\AIRPORT\1\SHEET\2025 CPS-5078 COMBINED SHEETS\E-643-SCHED

TAXI GUIDANCE SIGN SCHEDULE				
SIGN NUMBER	LOCATION	EXISTING		REMARKS
		SIDE A	SIDE B	
TGS-15	TAXIWAY B5 NORTH SIDE INTERSECTION WITH TAXIWAY B.	<div>←B B5 B→</div>	<div></div>	EXISTING SIGN TO BE RELOCATED. RECONNECT TO TAXIWAY B CIRCUIT 4. PROVIDE NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. PROVIDE LED UPGRADE KIT BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-16	TAXIWAY B EAST SIDE INTERSECTION WITH TAXIWAY B5.	<div>← B5 B B5 →</div>	<div></div>	EXISTING SIGN TO BE RELOCATED. RECONNECT TO TAXIWAY B CIRCUIT 4. PROVIDE NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. PROVIDE LED UPGRADE KITS BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER(S). THIS SIGN ARRAY HAS A 2 MODULE SIGN AND A 3 MODULE SIGN.
TGS-17	TAXIWAY B5 INTERSECTION WITH RUNWAY 30L-12R AT HOLD LINE.	<div>B5 30L - 12R</div>	<div></div>	EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO BE POWERED FROM RUNWAY 12R-30L LIGHTING CIRCUIT. PROVIDE NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. PROVIDE LED UPGRADE KIT BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-17A	TAXIWAY B5 SOUTH SIDE INTERSECTION WITH TAXIWAY B.	<div>←B B5 B→</div>	<div></div>	EXISTING SIGN TO BE RELOCATED. RECONNECT TO TAXIWAY B CIRCUIT 4. PROVIDE NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. PROVIDE LED UPGRADE KIT BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-18	RUNWAY 30L INTERSECTION WITH TAXIWAY B5.	<div>B5 →</div>	<div></div>	EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO BE POWERED FROM RUNWAY 12R-30L LIGHTING CIRCUIT. PROVIDE NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. PROVIDE LED UPGRADE KIT BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-19	RUNWAY 12R INTERSECTION WITH TAXIWAY B5.	<div>← B5</div>	<div></div>	EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO BE POWERED FROM RUNWAY 12R-30L LIGHTING CIRCUIT. PROVIDE NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. PROVIDE LED UPGRADE KIT BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-21	TAXIWAY B WEST SIDE INTERSECTION WITH TAXIWAY B5.	<div>← B5 B B5 →</div>	<div></div>	EXISTING SIGN TO BE RELOCATED. RECONNECT TO TAXIWAY B CIRCUIT 4. PROVIDE NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. PROVIDE LED UPGRADE KITS BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER(S). THIS SIGN ARRAY HAS A 2 MODULE SIGN AND A 3 MODULE SIGN.
TGS-23	TAXIWAY B5 INTERSECTION WITH RUNWAY 12L-30R AT HOLD LINE.	<div>B5 12L - 30R</div>	<div></div>	EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO BE POWERED FROM RUNWAY 12L-30R LIGHTING CIRCUIT. PROVIDE NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. PROVIDE LED UPGRADE KIT BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-24	RUNWAY 30R INTERSECTION WITH TAXIWAY B5.	<div>← B5</div>	<div></div>	EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO BE POWERED FROM RUNWAY 12L-30R LIGHTING CIRCUIT. PROVIDE NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. PROVIDE LED UPGRADE KIT BY ORIGINAL EQUIPMENT MANUFACTURER. PROVIDE NEW FAA L-830-4 100W TRANSFORMER.
TGS-25	RUNWAY 12L INTERSECTION WITH TAXIWAY B5.	<div>B5 →</div>	<div></div>	EXISTING SIGN TO REMAIN IN PLACE. REWIRE SIGN TO BE POWERED FROM RUNWAY 12L-30R LIGHTING CIRCUIT. PROVIDE NEW REPLACEMENT PANELS WITH LEGENDS TO MATCH EXISTING. PROVIDE LED UPGRADE KIT 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 150/5345-44L (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 TAXIING 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 150/5340-18H, 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 AC150/5340-18H, 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-858L(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.



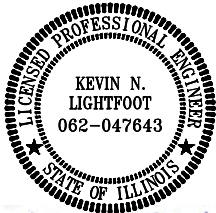
Offices Nationwide  
www.hanson-inc.com

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 SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: E-643-SCHED.DWG

DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

REVIEWED BY: KNL 3/11/2025

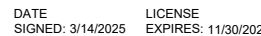
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TAXI GUIDANCE SIGN  
SCHEDULE - SHEET 2

FOR BID



COVERING ELECTRICAL DESIGN



RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

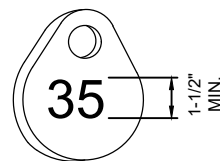
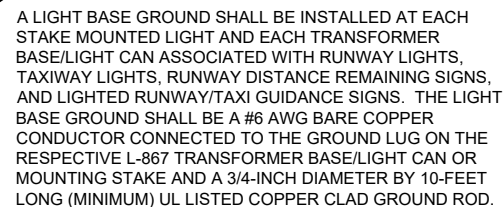
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NO.	DATE	DESCRIPTION		
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ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: E-501-DETL.DWG  
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REVIEWED BY: KNL 3/11/2025

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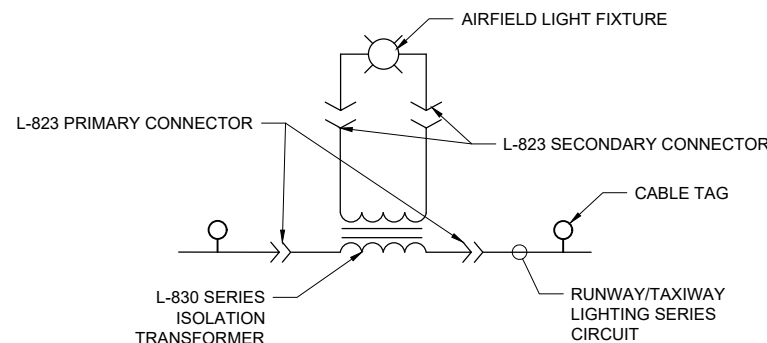
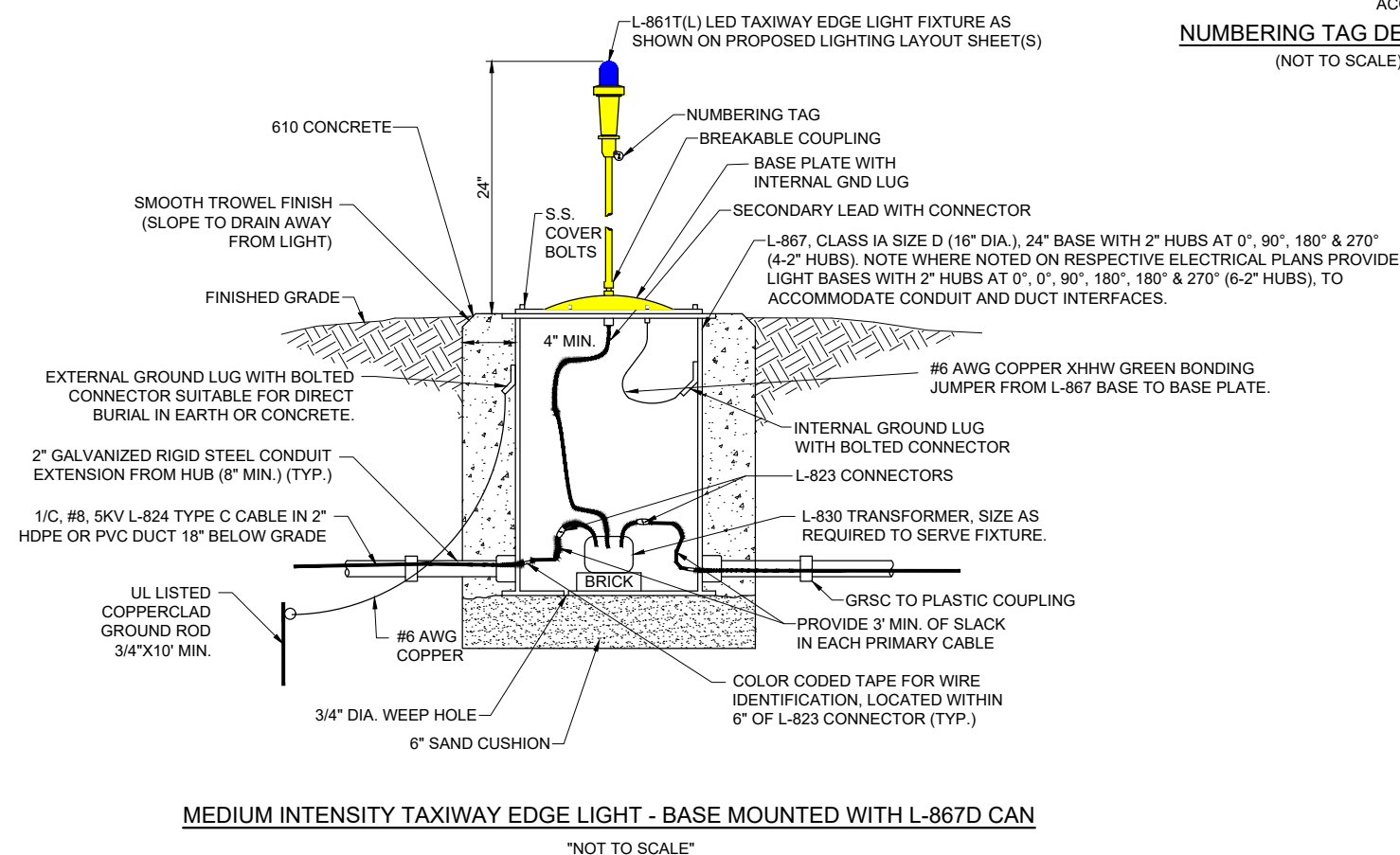
## AIRFIELD LIGHT DETAILS



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.

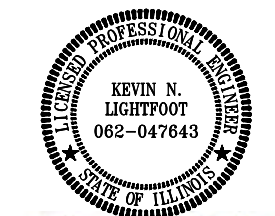
NUMBERING TAG DETAIL  
(NOT TO SCALE)



## LIGHTING CONNECTION SCHEMATIC

NOT TO SCALE

**FOR BID**



Henry D. Lightfoot

DATE SIGNED: 3/14/2025

LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
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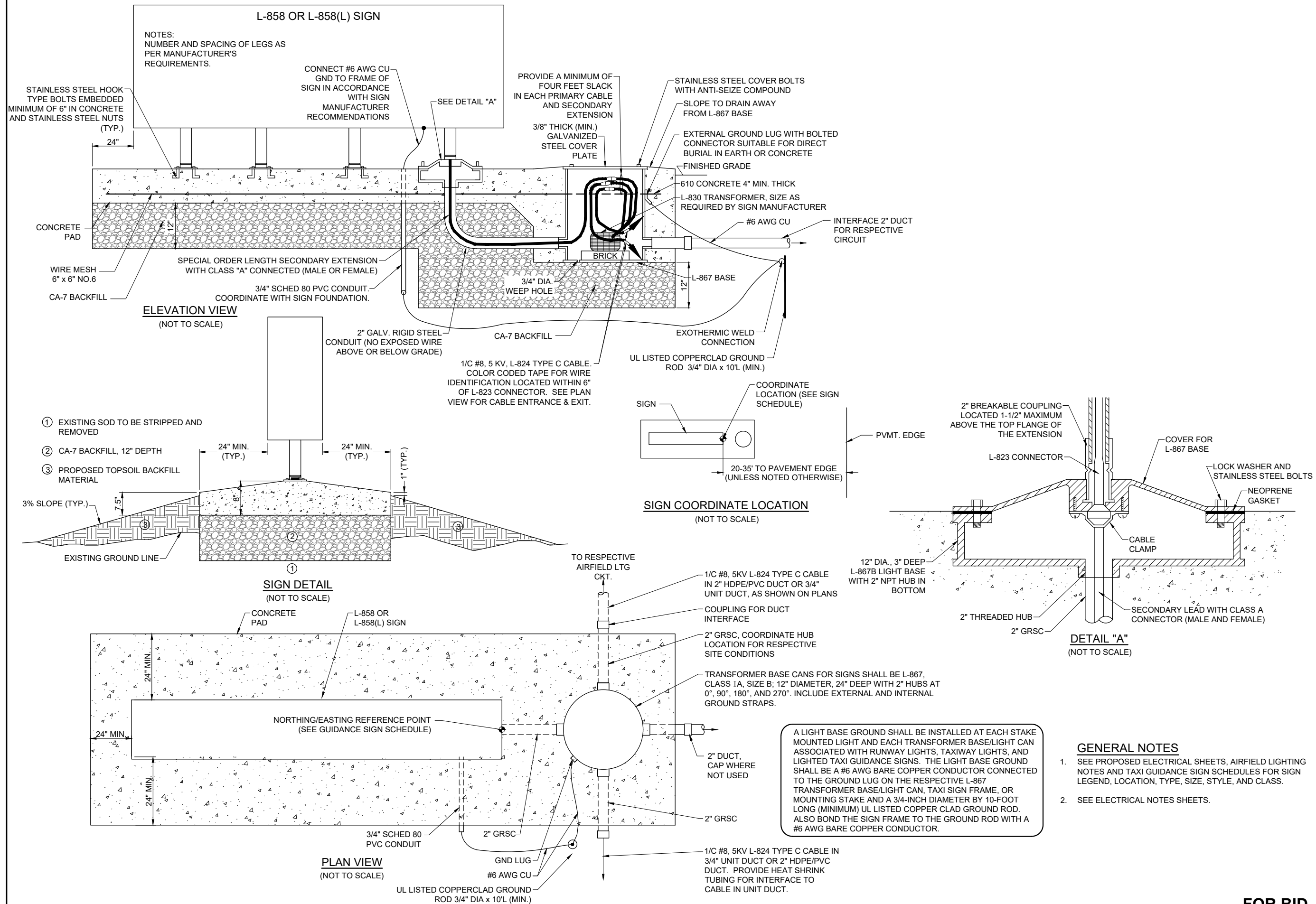
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DRAWN BY: CWS 3/7/2025

REVIEWED BY: KNI 3/11/2025

SHEET TITLE

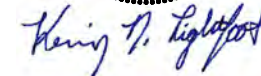
TAXI GUIDANCE SIGN  
DETAILS - SHEET 1

MAR 14, 2025 10:02 AM GROVE02594



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

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DATE  
SIGNED: 3/14/2025

LICENSE  
EXPIRES: 11/30/2025

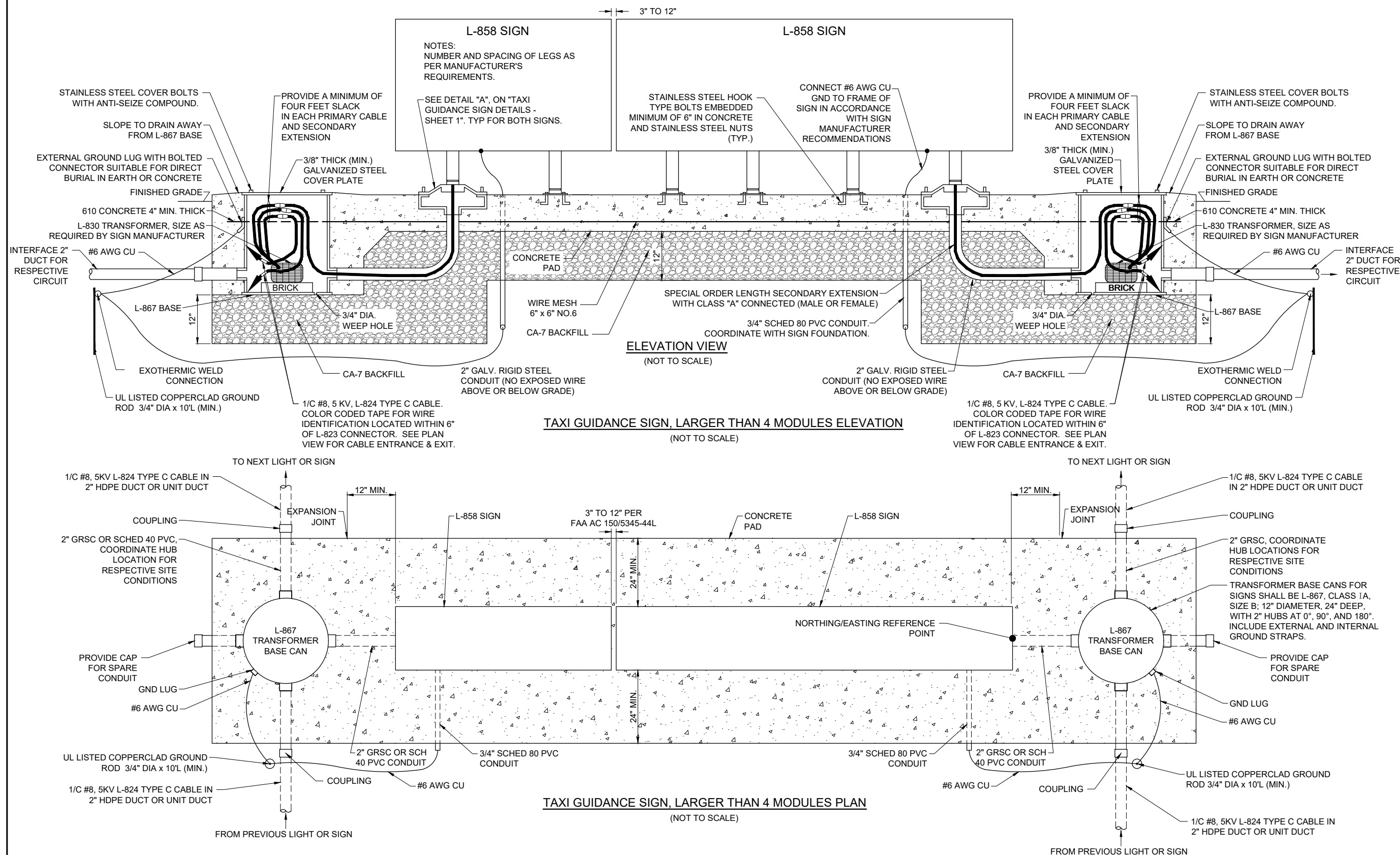
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TAXIWAY B5 TO B7  
AND B1 INTERSECTION

IDA NO.: CPS-5078  
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REVIEWED BY: KNL 3/11/2025

SHEET TITLE

TAXI GUIDANCE SIGN  
DETAILS - SHEET 2

## GENERAL NOTES

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

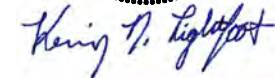
A LIGHT BASE GROUND SHALL BE INSTALLED AT EACH STAKE MOUNTED LIGHT AND EACH TRANSFORMER BASE/LIGHT CAN ASSOCIATED WITH RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS. THE LIGHT BASE GROUND SHALL BE A #2 AWG BARE COPPER CONDUCTOR CONNECTED TO THE GROUND LUG ON THE RESPECTIVE L-867 TRANSFORMER 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**



**BI-STATE DEVELOPMENT**  
**ST. LOUIS DOWNTOWN AIRPORT**  
6100 Archview Drive  
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AND B1 INTERSECTION

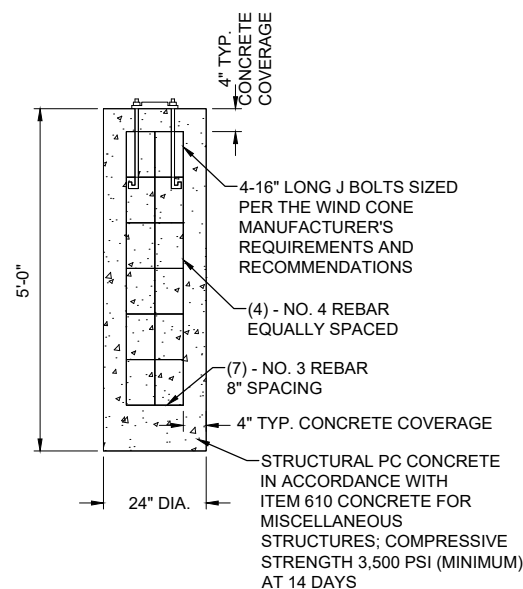
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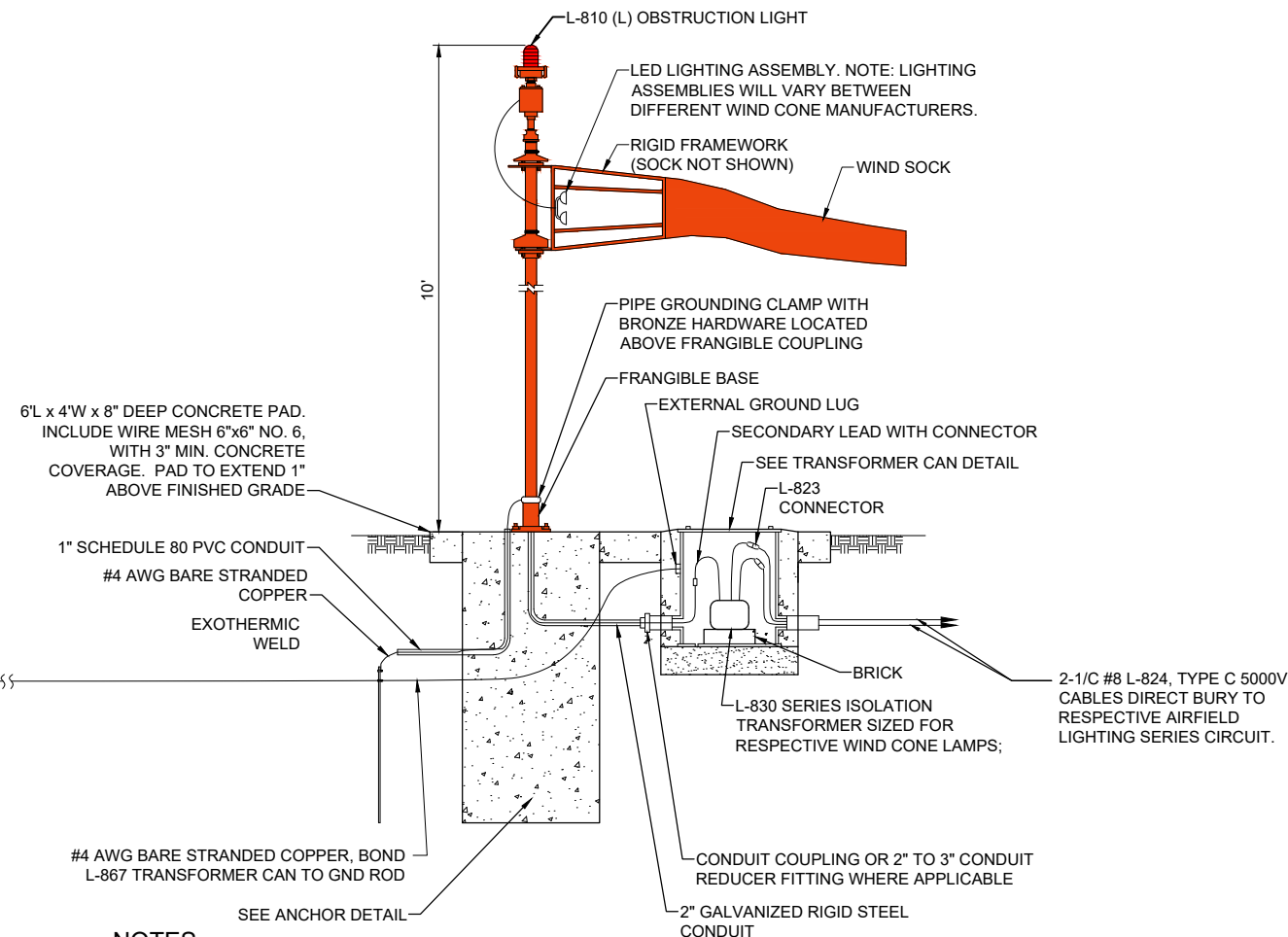
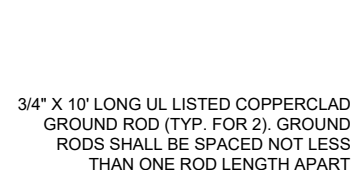
ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: E-511-DETLDWG  
DESIGN BY: KNL 3/5/2025  
DRAWN BY: CWS 3/7/2025  
REVIEWED BY: KNL 3/11/2025

SHEET TITLE

## L-806 WIND CONE DETAILS

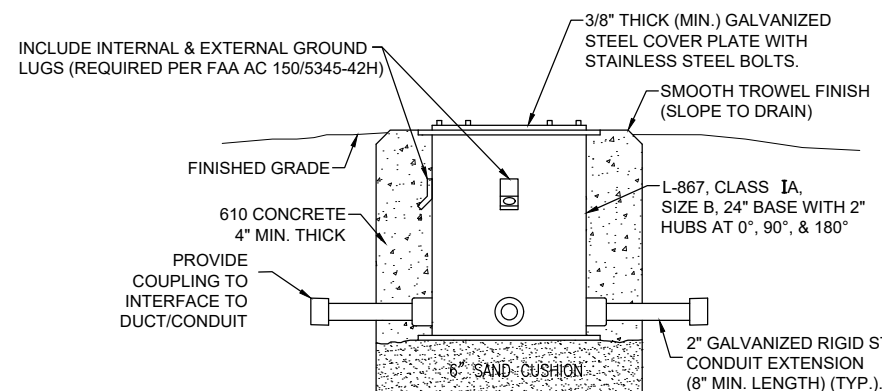


ANCHORING DETAIL  
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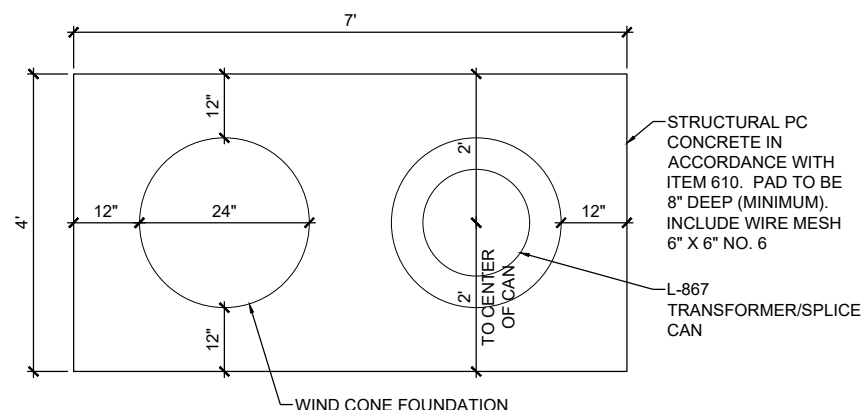


## NOTES

1. 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).
2. 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.
3. SUPPLEMENTAL WIND CONES SHALL BE FAA APPROVED TYPE L-806(L) WITH LIGHT EMITTING DIODE ILLUMINATION, STYLE I-B (INTERNALLY ILLUMINATED), 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.
4. 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.
5. 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.
6. 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.
7. FOR EACH GROUNDING ELECTRODE SYSTEM (GROUND ROD) THE CONTRACTOR SHALL TEST THE MADE ELECTRODE GROUNDING SYSTEM WITH A 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.
8. RESTORE TURF AREAS AFFECTED BY WIND CONE INSTALLATION.



WIND CONE TRANSFORMER CAN DETAIL  
"NOT TO SCALE"



CONCRETE PAD PLAN VIEW  
'NOT TO SCALE'

### INTERNALLY LIGHTED L806 WIND CONE (SERIES CIRCUIT TYPE)

"NOT TO SCALE"

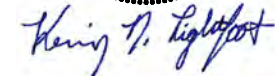
**FOR BID**





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

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DATE SIGNED: 3/14/2025

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RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
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AND B1 INTERSECTION

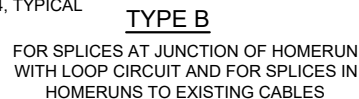
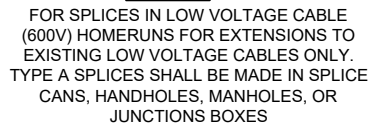
IDA NO.: CPS-5078  
CONTRACT NO.: SD064

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
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DESIGN BY: KNL 3/5/2025  
DRAWN BY: CWS 3/7/2025  
REVIEWED BY: KNL 3/11/2025

**SHEET TITLE**

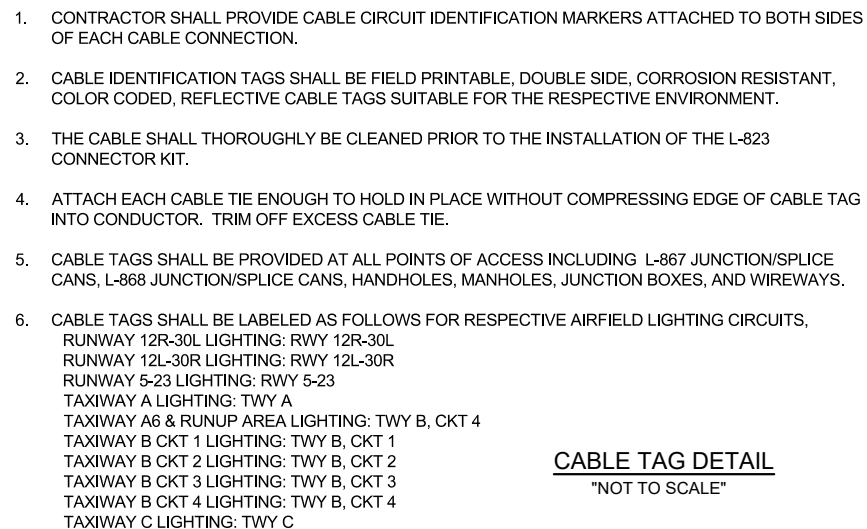
## AIRFIELD LIGHTING CABLE SPLICE DETAILS



CABLE SPLICES  
"NOT TO SCALE"



FOR TAP SPLICES IN LOW VOLTAGE (600V) CABLE. SPLICES SHALL BE RATED AND LISTED SUITABLE FOR DIRECT BURIAL LOCATIONS. FOR SPLICES UP TO #2 AWG CONDUCTOR, SPLICES SHALL BE WYE RESIN TYPE POWER CABLE TAP SPLICE KIT SUITABLE FOR THE RESPECTIVE CABLES AND RESPECTIVE APPLICATION.



CABLE TAG DETAIL  
"NOT TO SCALE"

**FOR BID**

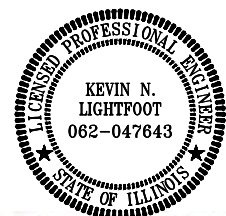




ST. LOUIS  
DOWNTOWN AIRPORT

**BI-STATE DEVELOPMENT**  
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ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: E-507-DETL.DWG

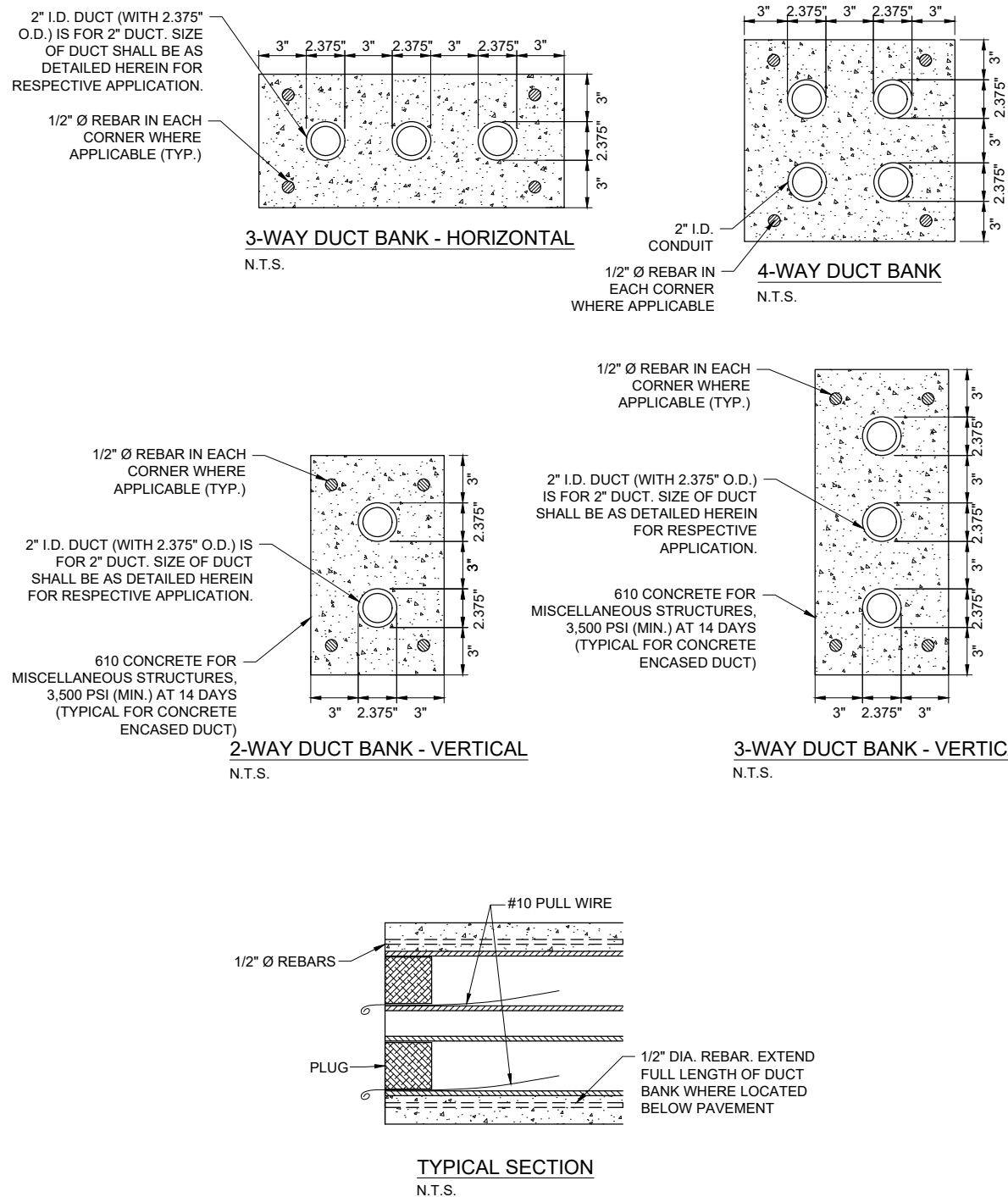
DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

REVIEWED BY: KNL 3/11/2025

SHEET TITLE

### DUCT BANK DETAILS AND NOTES



## DUCT INSTALLATION NOTES

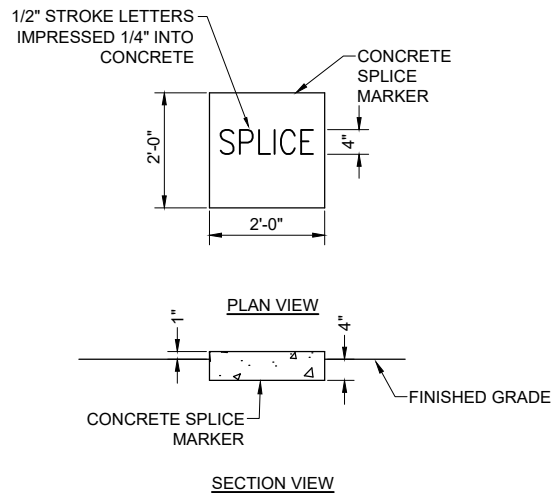
1. DIMENSIONS FOR CONCRETE COVERAGE AND SEPARATION BETWEEN DUCTS ARE MINIMUM.
2. INCLUDE DUCT SPACERS AS MANUFACTURED BY UNDERGROUND DEVICES INC., CARLON, OR APPROVED EQUAL TO MAINTAIN PROPER SEPARATION OF CONDUITS.
3. PROVIDE REBAR WHERE APPLICABLE TO ACCOMMODATE INTERFACE OF CONCRETE ENCASED DUCT BANKS 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

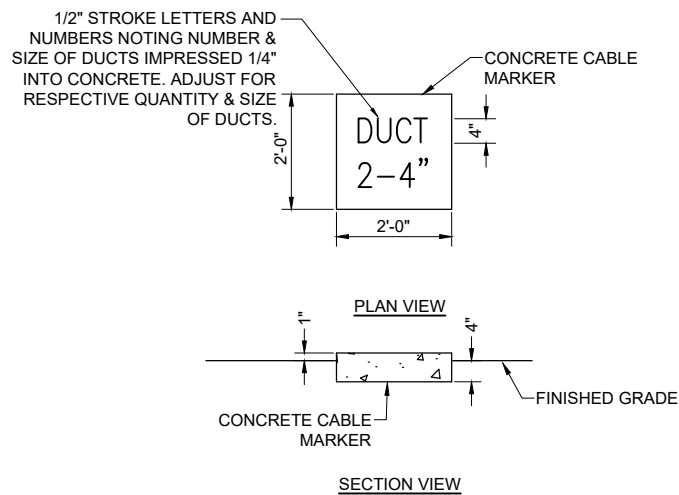
1. ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) MOST CURRENT ISSUE IN FORCE, THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS 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.
  2. CONTRACTOR SHALL KEEP A COPY OF THE LATEST NEC IN FORCE ON SITE AT ALL TIMES DURING CONSTRUCTION FOR USE AS A REFERENCE.
  3. 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).
  4. 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 WHATEVER 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.
  5. 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.
  6. 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.
  7. 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.
  8. 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.
  9. 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.
  10. 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.
  11. INSTALLATION OF CONDUIT AND DUCTS SHALL CONFORM TO ITEM 110 AIRPORT UNDERGROUND ELECTRICAL DUCT BANKS AND CONDUITS.
  12. 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.
  13. 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.
  14. 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.
  15. A PULL WIRE SHALL BE INSTALLED IN EACH CONDUIT OR DUCT TO BE LEFT VACANT.
  16. 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.
  17. CONTROL CABLES SHALL BE RUN IN SEPARATE DUCTS FROM POWER CABLES.
  18. HOMERUN CABLES FOR A RESPECTIVE CIRCUIT SHALL BE INSTALLED IN THE SAME RACEWAY OR DUCT.
  19. 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.
  20. CONTRACTOR SHALL COORDINATE DUCT MARKING WITH AIRPORT.
  21. 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**

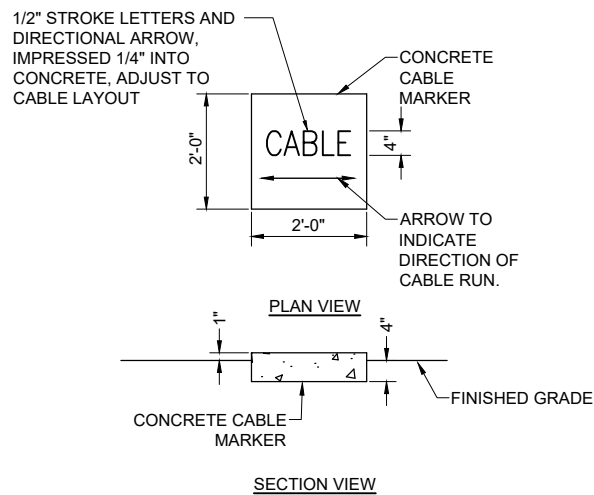
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1\23\JOBS\23A000\DCAD\AIRPORT\1\SHEET\2025 CPS-5078 COMBINED SHEETS\IE-508-DETL



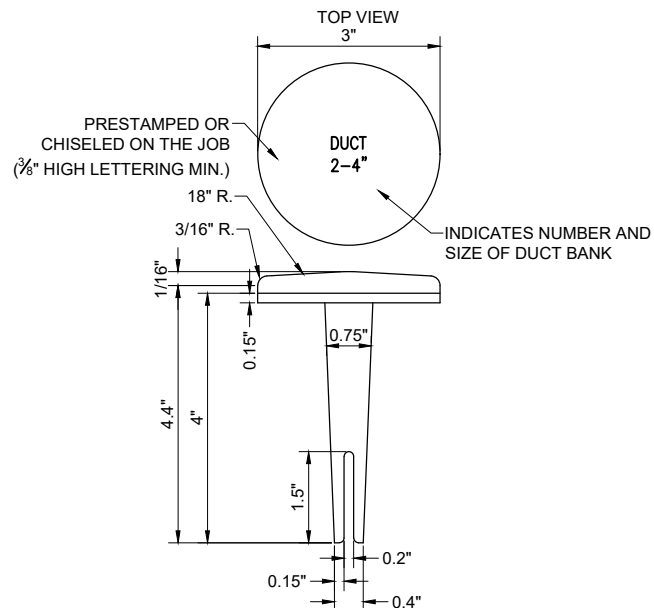
**TURF SPLICE MARKERS**  
"NOT TO SCALE"



**TURF DUCT MARKERS**  
"NOT TO SCALE"



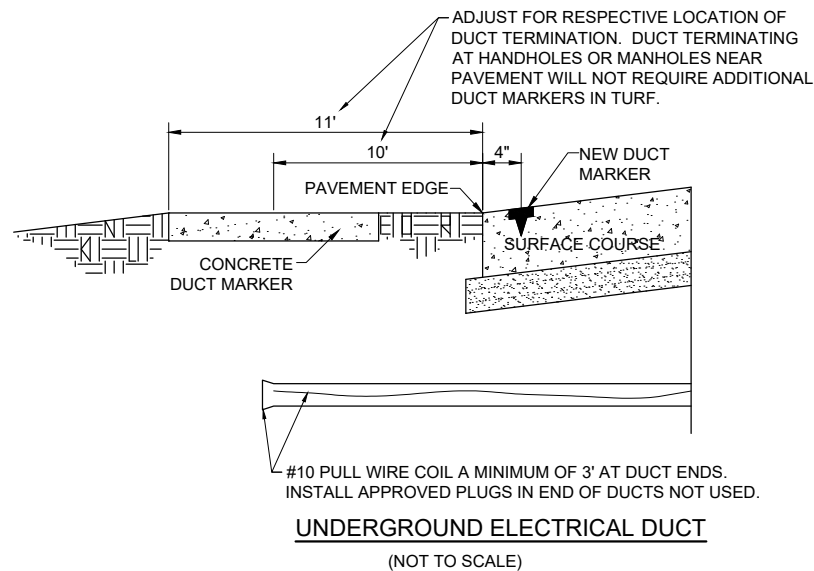
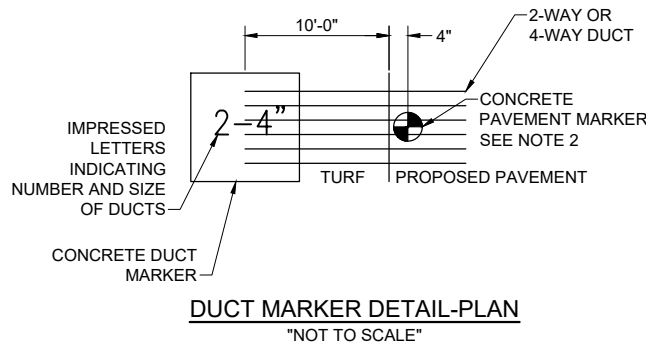
**TURF CABLE MARKERS**  
"NOT TO SCALE"



**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.



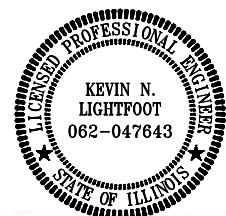
**CABLE & DUCT MARKER NOTES:**

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 OF RECORD.
8. THE CABLE AND SPLICE MARKERS MUST IDENTIFY THE CIRCUITS TO WHICH THE CABLES BELONG. FOR EXAMPLE: TWY A, TWY B.
9. LOCATIONS OF ENDS OF ALL UNDERGROUND DUCTS MUST BE IDENTIFIED BY DUCT MARKERS.



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

COVERING ELECTRICAL DESIGN



*Kevin N. Lightfoot*

DATE SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: E-508-DETL.DWG

DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

REVIEWED BY: KNL 3/11/2025

SHEET TITLE

CABLE AND DUCT  
MARKER DETAILS

FOR BID

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GENERAL NOTES

1.

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.
2.

CONTRACTOR SHALL KEEP A COPY OF THE LATEST NEC IN FORCE ON SITE AT ALL TIMES DURING CONSTRUCTION FOR USE AS A REFERENCE.
3.

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).
4.

THE CONTRACTOR SHALL ASCERTAIN THAT ALL LIGHTING SYSTEM COMPONENTS FURNISHED BY HIM, INCLUDING FAA APPROVED EQUIPMENT, ARE COMPATIBLE IN ALL RESPECTS WITH EACH OTHER AND THE REMAINDER OF THE NEW/EXISTING SYSTEM. ANY NONCOMPATIBLE COMPONENTS FURNISHED BY THIS CONTRACTOR SHALL BE REPLACED BY HIM AT NO ADDITIONAL COST TO THE AIRPORT SPONSOR WITH A SIMILAR UNIT, APPROVED BY THE ENGINEER (DIFFERENT MODEL OR DIFFERENT MANUFACTURER) THAT IS COMPATIBLE WITH THE REMAINDER OF THE AIRPORT LIGHTING SYSTEM.
5.

IN CASE THE CONTRACTOR ELECTS TO FURNISH AND INSTALL AIRPORT LIGHTING EQUIPMENT REQUIRING ADDITIONAL WIRING, TRANSFORMERS, ADAPTORS, MOUNTINGS, ETC., TO THOSE SHOWN ON THE DRAWINGS AND/OR LISTED IN THE SPECIFICATION, ANY COST FOR THESE ITEMS SHALL BE INCIDENTAL TO THE EQUIPMENT COST.
6.

THE CONTRACTOR INSTALLED EQUIPMENT (INCLUDING FAA APPROVED) SHALL NOT GENERATE ANY ELECTROMAGNETIC INTERFERENCE IN THE EXISTING AND/OR NEW COMMUNICATIONS, WEATHER, AIR NAVIGATION, AND AIR TRAFFIC CONTROL EQUIPMENT. ANY EQUIPMENT GENERATING SUCH INTERFERENCE SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST WITH THE EQUIPMENT MEETING THE APPLICABLE SPECIFICATIONS AND NOT GENERATING ANY INTERFERENCE.
7.

WHEN A SPECIFIC TYPE, STYLE, CLASS, ETC. OF FAA APPROVED EQUIPMENT IS SPECIFIED ONLY THAT TYPE, STYLE, CLASS, WILL BE ACCEPTABLE, EVEN THOUGH EQUIPMENT OF OTHER TYPES STYLES, CLASSES, ETC. MAY BE APPROVED.
8.

ANY AND ALL INSTRUCTIONS FROM THE RESIDENT ENGINEER/RESIDENT TECHNICIAN TO THE CONTRACTOR REGARDING CHANGES IN OR DEVIATIONS FROM THE PLANS AND SPECIFICATIONS SHALL BE IN WRITING WITH COPIES SENT TO THE AIRPORT SPONSOR AND THE ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF AERONAUTICS. THE CONTRACTOR SHALL NOT ACCEPT ANY VERBAL INSTRUCTIONS FROM THE RESIDENT ENGINEER/RESIDENT TECHNICIAN REGARDING ANY CHANGES FROM THE PLANS AND SPECIFICATIONS.
9.

A MINIMUM OF THREE COPIES OF THE INSTRUCTION BOOK SHALL BE SUPPLIED WITH EACH DIFFERENT TYPE OF EQUIPMENT. THE BOOKS DESCRIBING A MORE SOPHISTICATED TYPE OF EQUIPMENT, SUCH AS REGULATORS, PAPI, REIL, ETC. AS A MINIMUM SHALL CONTAIN THE FOLLOWING:

A.

A DETAILED DESCRIPTION OF THE OVERALL EQUIPMENT AND ITS INDIVIDUAL COMPONENTS.

B.

THEORY OF OPERATION INCLUDING THE FUNCTION OF EACH COMPONENT.

C.

INSTALLATION INSTRUCTION.

D.

START-UP INSTRUCTIONS.

E.

PREVENTATIVE MAINTENANCE REQUIREMENTS.

F.

CHART FOR TROUBLE-SHOOTING.

G.

COMPLETE POWER AND CONTROL DETAILED WIRING DIAGRAM(S), SHOWING EACH CONDUCTOR/CONNECTION/COMPONENT - "BLACK" BOXES ARE NOT ACCEPTABLE. THE DIAGRAM OF THE NARRATIVE SHALL SHOW VOLTAGE/CURRENTS/WAVE SHAPES AT STRATEGIC LOCATIONS TO BE USED WHEN CHECKING AND/OR TROUBLE-SHOOTING THE EQUIPMENT. WHEN THE EQUIPMENT HAS SEVERAL MODES OF OPERATION, SUCH AS SEVERAL BRIGHTNESS STEPS, THESE PARAMETERS SHALL BE INDICATED FOR ALL DIFFERENT MODES.

H.

PARTS LIST WHICH WILL INCLUDE ALL MAJOR AND MINOR COMPONENTS SUCH AS RESISTORS, DIODES, ETC. IT SHALL INCLUDE A COMPLETE NOMENCLATURE OF EACH COMPONENT AND, IF APPLICABLE, THE NAME OF ITS MANUFACTURER AND THE CATALOG NUMBER.

I.

SAFETY INSTRUCTIONS.

POWER AND CONTROL NOTES

1.

PROVIDE LEGEND PLATES FOR ALL ELECTRICAL EQUIPMENT TO IDENTIFY FUNCTION, CIRCUIT VOLTAGE AND PHASE. WHERE THE EQUIPMENT CONTAINS FUSES, ALSO IDENTIFY THE FUSE OR FUSE LINK AMPERE RATING. WHERE THE EQUIPMENT DOES NOT HAVE SUFFICIENT AREA TO INSTALL LEGEND PLATES, THE LEGEND PLATES SHALL BE INSTALLED ON THE WALL NEXT TO THE UNIT. LEGEND PLATES SHALL BE WEATHERPROOF ENGRAVED PLASTIC OR PHENOLIC MATERIAL, 1/4" HIGH BLACK LETTERS ON A WHITE BACKGROUND UNLESS NOTED OTHERWISE. SECURE WITH WEATHERPROOF ADHESIVE AND MACHINE SCREWS. FURNISH ADDITIONAL LEGEND PLATES WHERE REQUIRED BY CODE, FOR ADDITIONAL EQUIPMENT, AS DETAILED HEREIN ON THE PLANS, AND AS NOTED IN THE SPECIAL PROVISION SPECIFICATIONS.
2.

COLOR CODE ALL PHASE WIRING BY THE USE OF COLORED WIRE INSULATION AND/OR COLORED TAPE. WHERE TAPE IS USED, THE WIRE INSULATION SHALL BE BLACK. BLACK AND RED SHALL BE USED FOR PHASE CONDUCTORS ON 120/240VAC SINGLE-PHASE, THREE WIRE SYSTEMS AND BLACK, RED AND BLUE SHALL BE USED FOR PHASE CONDUCTORS ON 208/120VAC THREE-PHASE, FOUR WIRE SYSTEMS. NEUTRAL CONDUCTORS, SIZE NO. 6 AWG OR SMALLER, SHALL BE IDENTIFIED BY A CONTINUOUS WHITE OR NATURAL GRAY OUTER FINISH ALONG ITS ENTIRE LENGTH. NEUTRAL CONDUCTORS LARGER THAN NO. 6 AWG SHALL BE IDENTIFIED EITHER BY A CONTINUOUS WHITE OR NATURAL GRAY OUTER FINISH ALONG ITS ENTIRE LENGTH OR BY THE USE OF WHITE TAPE AT ITS TERMINATIONS AND INSIDE ACCESSIBLE WIREWAYS. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR SIZES (AWG OR KCMIL).
3.

ALL BRANCH CIRCUIT CONDUCTORS CONNECTED TO A PARTICULAR PHASE SHALL BE IDENTIFIED WITH THE SAME COLOR. THE COLOR CODING SHALL BE EXTENDED TO THE POINT OF UTILIZATION.
4.

IN CONTROL WIRING THE SAME COLOR SHALL BE USED THROUGHOUT THE SYSTEM FOR THE SAME FUNCTION, SUCH AS 10%, 30%, 100% BRIGHTNESS CONTROL, ETC.
5.

LOW VOLTAGE (600 V.) AND HIGH VOLTAGE (5000 V.) CONDUCTORS SHALL BE INSTALLED IN SEPARATE WIREWAYS.
6.

NEATLY LACE WIRING IN DISTRIBUTION PANELS, WIREWAYS, SWITCHES AND JUNCTION/PULL BOXES.
7.

THE MINIMUM SIZE OF PULL/JUNCTION BOXES, REGARDLESS OF THE QUANTITY AND SIZE OF THE CONDUCTORS SHOWN, SHALL BE AS FOLLOWS:

A.

IN STRAIGHT PULLS THE LENGTH OF THE BOX SHALL NOT BE LESS THAN EIGHT TIMES THE TRADE DIAMETER OF THE LARGER CONDUIT. THE TOTAL AREA (INCLUDING THE CONDUIT CROSS-SECTIONAL AREA) OF A BOX END SHALL BE AT LEAST 3 TIMES GREATER THAN THE TOTAL TRADE CROSS-SECTIONAL AREA OF THE CONDUITS TERMINATING AT THE END.

B.

IN ANGLE PULLS OR 'U' PULLS THE DISTANCE BETWEEN EACH CONDUIT ENTRY INSIDE THE BOX AND THE OPPOSITE WALL OF THE BOX SHALL NOT BE LESS THAN SIX (6) TIMES THE TRADE DIAMETER OF THE LARGEST CONDUIT. THIS DISTANCE SHALL BE INCREASED FOR ADDITIONAL ENTRIES BY THE AMOUNT OF THE SUM OF THE DIAMETERS OF ALL OTHER CONDUIT ENTRIES ON THE SAME WALL AS THE BOX. THE DISTANCE BETWEEN CONDUIT ENTRIES ENCLOSING THE SAME CONDUCTOR SHALL NOT BE LESS THAN SIX TIMES THE TRADE DIAMETER OF THE LARGEST CONDUIT.
8.

A RUN OF CONDUIT BETWEEN TERMINATIONS AT EQUIPMENT ENCLOSURES, SQUARE DUCTS AND PULL/JUNCTION BOXES, SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL), INCLUDING THOSE BENDS LOCATED IMMEDIATELY AT THE TERMINATIONS, CAST, CONDUIT TYPE OUTLETS SHALL NOT BE TREATED AS PULL/JUNCTION BOXES.
9.

EQUIPMENT CABINETS SHALL NOT BE USED AS PULL/JUNCTION BOXES. ONLY WIRING TERMINATING AT THE EQUIPMENT SHALL BE BROUGHT INTO THESE ENCLOSURES.
10.

SPLICES AND JUNCTION POINTS SHALL BE PERMITTED ONLY IN JUNCTION BOXES, DUCTS EQUIPPED WITH REMOVABLE COVERS, AND AT EASILY ACCESSIBLE LOCATIONS.
11.

CIRCUIT BREAKERS IN POWER DISTRIBUTION PANEL(S) SHALL BE THERMAL-MAGNETIC MOLDED CASE, PERMANENT TRIP WITH 100 AMPERE, MINIMUM FRAME.
12.

DUAL LUGS SHALL BE USED WHERE TWO (2) WIRES, SIZE NO. 6 OR LARGER, ARE TO BE CONNECTED TO THE SAME TERMINAL.
13.

ALL INTERIOR WALL MOUNTED EQUIPMENT ENCLOSURES SHALL BE MOUNTED ON HOT DIPPED GALVANIZED STEEL STRUT SUPPORT, OR STAINLESS STEEL STRUT SUPPORT, WITH CORROSION RESISTANT HARDWARE. PROVIDE ZINC RICH PAINT APPLIED TO FIELD CUTS OF GALVANIZED STEEL SUPPORT TO MINIMIZE THE POTENTIAL FOR CORROSION PER THE RESPECTIVE STRUT SUPPORT MANUFACTURER'S RECOMENTATIONS.
14.

SUPPORT FOR EXTERIOR MOUNTED EQUIPMENT SHALL USE STAINLESS STEEL STRUT SUPPORT WITH STAINLESS STEEL HARDWARE.
15.

CONDUITS FOR ELECTRIC SERVICE ENTRANCE AND FEEDERS SHALL BE AS DETAILED HEREIN ON THE PLANS. WHERE GALVANIZED RIGID STEEL CONDUIT IS SPECIFIED IT SHALL HAVE THREADED FITTINGS. SET SCREW TYPE FITTINGS WILL NOT BE ACCEPTABLE. CONDUITS FOR UNDERGROUND APPLICATIONS SHALL BE AS DETAILED HEREIN. CONDUITS FOR GROUNDING ELECTRODE CONDUCTORS OR INDIVIDUAL GROUNDING CONDUCTORS SHALL BE SCHEDULE 40 OR SCHEDULE 80 PVC.
16.

PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT AT CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION OR WHERE FLEXIBILITY IS REQUIRED. LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6, SUITABLE FOR GROUNDING, SUNLIGHT RESISTANT, AND RESISTANT TO OIL, GASOLINE, AND GREASE. LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO MOTORS, TRANSFORMERS, & CONSTANT CURRENT REGULATORS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. 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.
17.

UNLESS OTHERWISE SHOWN, ALL EXPOSED CONDUITS SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES WITH THE LINES OF THE STRUCTURE.
18.

ALL STEEL CONDUITS, FITTINGS, NUTS, BOLTS, ETC. SHALL BE GALVANIZED.
19.

USE CONDUIT BUSHINGS AT EACH CONDUIT TERMINATION. WHERE NO. 4 AWG OR LARGER UNDERGROUND WIRE IS INSTALLED, USE INSULATED BUSHINGS.
20.

USE DOUBLE LOCK NUTS AT EACH CONDUIT TERMINATION.
21.

WRAP ALL PRIMARY AND SECONDARY POWER 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, HIGH VOLTAGE ELECTRICAL INSULATING TAPE SHALL BE 3M SCOTCH 130C (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.
22.

UNLESS OTHERWISE NOTED, ALL SINGLE CONDUCTOR CONTROL WIRING SHALL BE NO. 12 AWG. COPPER MINIMUM.
23.

THE FOLLOWING SHALL APPLY TO RELAY/CONTACTOR PANELS/ENCLOSURES:

A.

FOR INTERIOR LOCATIONS ALL COMPONENTS SHALL BE MOUNTED IN NEMA 12 (DUST TIGHT) ENCLOSURE(S) WITH VERTICALLY HINGED COVERS. FOR EXTERIOR/OUTDOOR LOCATIONS ALL COMPONENTS SHALL BE MOUNTED IN NEMA 4X STAINLESS STEEL ENCLOSURE(S) WITH VERTICALLY HINGED COVERS. ALL CONDUIT ENTRIES INTO NEMA 4, 4X ENCLOSURES SHALL HAVE NEMA 4 HUBS LISTED SUITABLE FOR THE RESPECTIVE ENCLOSURE TO MAINTAIN THE NEMA 4, 4X RATING OF THE ENCLOSURE.

B.

THE ENCLOSURE(S) SHALL HAVE AMPLE SPACE FOR THE CIRCUIT COMPONENTS, TERMINAL BLOCKS AND INCOMING AND INTERNAL WIRING.

C.

ALL CONTROL CONDUCTOR TERMINATIONS SHALL BE OF THE OPEN-EYE CONNECTOR/SCREW TYPE. SOLDERED CLOSED-EYE TERMINATIONS, OR TERMINATIONS WITHOUT CONNECTORS ARE NOT ACCEPTABLE.

D.

WHEN THE ENCLOSURE COVER IS OPENED, ALL CIRCUIT COMPONENTS, WIRING AND TERMINALS SHALL BE EXPOSED AND ACCESSIBLE WITHOUT REMOVAL OF ANY PANELS, COVERS, ETC., EXCEPT THOSE COVERING HIGH VOLTAGE COMPONENTS.

E.

ACCESS TO, OR REMOVAL OF A CIRCUIT COMPONENT OR TERMINAL BLOCK WILL NOT REQUIRE THE REMOVAL OF ANY OTHER CIRCUIT COMPONENT OR TERMINAL BLOCK.

F.

EACH CIRCUIT COMPONENT SHALL BE CLEARLY IDENTIFIED INDICATING ITS CORRESPONDING NUMBER SHOWN ON THE DRAWINGS AND ITS FUNCTION.

G.

A COMPLETE WIRING DIAGRAM SHALL BE MOUNTED ON THE INSIDE OF THE COVER. THE DIAGRAM SHALL REPRESENT EACH CONDUCTOR BY A SEPARATE LINE.

H.

THE DIAGRAM SHALL IDENTIFY EACH CIRCUIT COMPONENT AN NUMBERING AND COLOR OF EACH TERMINAL CONDUCTOR AND TERMINAL.

I.

ALL WIRING SHALL BE NEATLY TRAINED AND LACED.

J.

MINIMUM WIRE SIZE SHALL BE NO. 12 AWG.
24.

THE ABOVE GENERAL NOTES & POWER AND CONTROL NOTES ARE BASED ON DEPT. OF TRANSPORTATION FAA GREAT LAKES REGION ELECTRICAL NOTES SUBMITTED BY AL GRIGAITIS, DATE: 2/11/1987 AND HAVE BEEN UPDATED BY KEVIN LIGHTFOOT TO ACCOMMODATE CODE CHANGES, FAA ADVISORY CIRCULAR CHANGES, AND OTHER RESPECTIVE APPLICATIONS.



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

COVERING ELECTRICAL DESIGN



*Kevin N. Lightfoot*

DATE SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION			
		DES	DWN	REV	

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: E-002-NOTES.DWG  
DESIGN BY: KNL 3/5/2025  
DRAWN BY: CWS 3/7/2025  
REVIEWED BY: KNL 3/11/2025

SHEET TITLE

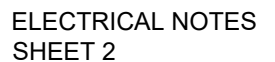
ELECTRICAL NOTES  
SHEET 1

FOR BID

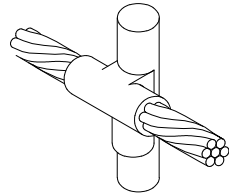
MAR 14, 2025 10:04 AM GROVE02594  
\\1123JOBS\23A0001\DCAD\AIRPORT\SHEET\2025 CPS-5078 COMBINED SHEETS\E-003-NOTES

- ENTRANCES INTO L-867 BASES SHALL HAVE CONDUIT COUPLINGS OR REDUCERS TO INTERFACE UNIT DUCT/CONDUIT TO L-867 BASE HUBS, OR SHALL BE SEALED WITH HEAT SHRINK.
21. GALVANIZED/PAINTED EQUIPMENT/COMPONENT SURFACES SHALL NOT BE DAMAGED BY DRILLING, FILING, ETC. DRAIN HOLES IN METAL TRANSFORMER HOUSINGS SHALL BE MADE BEFORE GALVANIZING.
22. EDGE LIGHT NUMBERING TAGS SHALL BE FACING THE PAVEMENT.
23. CABLE/SPLICE/DUCT MARKERS SHALL BE PRECAST CONCRETE OF THE SIZE SHOWN. LETTERS/NUMBERS/ARROWS FOR THE LEGEND TO BE IMPRESSED INTO THE TOPS OF THE MARKERS SHALL BE PRE-ASSEMBLED AND SECURED IN THE MOLD BEFORE THE CONCRETE IS POURED. LEGEND INSCRIBED BY HAND IN WET CONCRETE SHALL NOT BE ACCEPTABLE.
24. ALL UNDERGROUND CABLE RUNS SHALL BE IDENTIFIED BY CABLE MARKERS AT 200 FEET MAXIMUM SPACING, WITH AN ADDITIONAL MARKER AT EACH CHANGE OF DIRECTION OF THE CABLE RUN. CABLE MARKERS SHALL BE INSTALLED IMMEDIATELY ABOVE THE CABLES.
25. THERE SHALL BE NO SPLICES BETWEEN THE ISOLATION TRANSFORMERS. L-823 CONNECTORS ARE ALLOWED AT TRANSFORMER CONNECTIONS ONLY, UNLESS OTHERWISE SHOWN.
26. APPLY AN OXIDE INHIBITING, ANTI-SEIZING COMPOUND TO ALL SCREWS, NUTS AND BREAKAGE COUPLING THREADS.
27. LOCATIONS OF ENDS OF ALL UNDERGROUND DUCTS SHALL BE IDENTIFIED BY DUCT MARKERS.
28. WHERE A PARALLEL, CONSTANT VOLTAGE PAPI SYSTEM IS PROVIDED, THE "T" SPLICES SHALL BE OF THE CAST TYPE.
29. CONCRETE USED FOR SLABS, FOOTINGS, BACKFILL AROUND TRANSFORMER HOUSINGS, MARKINGS, ETC. SHALL BE 3500 PSI (MINIMUM) AT 14 DAYS, IN ACCORDANCE WITH ITEM 610 STRUCTURAL PORTLAND CEMENT CONCRETE.
30. ALL POWER AND CONTROL CABLES IN MAN/HAND HOLES SHALL BE TAGGED. USE EMBOSSED COPPER STRIPS TO BE ATTACHED AT BOTH ENDS TO THE CABLE BY THE USE OF PLASTIC STRIPS. MINIMUM OF TWO TAGS SHALL BE PROVIDED ON EACH CABLE IN A MAN/HAND HOLE-ONE AT THE CABLE ENTRANCE AND ONE AT THE CABLE EXIT.
31. 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. 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 ABOVE GROUND UTILITIES.
32. WHEN PREPARING CABLE FOR SPLICES, THE CONTRACTOR SHALL USE A CABLE STRIPPER/PENCILLER WHENEVER CABLE CONNECTIONS ARE MADE.
33. THE ABOVE AIRFIELD LIGHTING NOTES ARE BASED ON DEPT. OF TRANSPORTATION FAA GREAT LAKES REGION ELECTRICAL NOTES SUBMITTED BY AL GRIGAITIS, DATE: 2/11/1987 AND HAVE BEEN UPDATED BY KEVIN LIGHTFOOT TO ACCOMMODATE CODE CHANGES, FAA ADVISORY CIRCULAR CHANGES, AND OTHER RESPECTIVE APPLICATIONS.

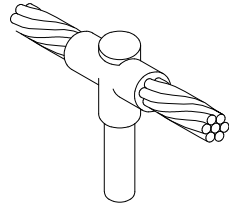
1. GROUNDING FOR RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS SHALL BE AS DETAILED ON THE PLANS AND AS SPECIFIED HEREIN. A GROUND ROD MUST BE INSTALLED AT EACH LIGHT FIXTURE, TAXI GUIDANCE SIGN AND L-867/L-868 BASE. THE PURPOSE OF THE LIGHT BASE GROUND IS TO PROVIDE A DEGREE OF PROTECTION FOR MAINTENANCE PERSONNEL FROM POSSIBLE CONTACT WITH AN ENERGIZED LIGHT BASE OR MOUNTING STAKE THAT MAY RESULT FROM A SHORTED POWER CABLE OR ISOLATION TRANSFORMER. A LIGHT BASE GROUND SHALL BE INSTALLED AT EACH TRANSFORMER BASE/LIGHT CAN ASSOCIATED WITH RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS. A LIGHT BASE GROUND SHALL ALSO BE INSTALLED AT EACH STAKE MOUNTED LIGHT FIXTURE. A LIGHT BASE GROUND SHALL BE INSTALLED AND CONNECTED TO THE METAL FRAME OF EACH TAXI GUIDANCE SIGN AS DETAILED ON THE PLANS AND IN ACCORDANCE WITH THE RESPECTIVE TAXI GUIDANCE SIGN MANUFACTURER RECOMMENDATIONS. THE LIGHT BASE GROUND SHALL BE A #6 AWG BARE COPPER CONDUCTOR BONDED TO THE GROUND LUG ON THE RESPECTIVE L-867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE AND A 3/4-INCH DIAMETER BY 10-FOOT LONG (MINIMUM) UL LISTED COPPER CLAD GROUND ROD. CONNECTIONS TO GROUND LUGS ON THE L-867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE SHALL BE WITH A UL LISTED GROUNDING CONNECTOR. CONNECTIONS TO LIGHT BASES MAY ALSO BE MADE WITH A UL 467 LISTED PIPE CLAMP CONNECTED TO THE GRSC NIPPLE EXTENDING FROM A THREADED LIGHT BASE HUB. CONNECTIONS TO GROUND RODS SHALL BE MADE WITH EXOTHERMIC WELD TYPE CONNECTORS, CADWELD BY PENTAIR ERICO PRODUCTS, INC., THERMOWELD BY CONTINENTAL INDUSTRIES, INC., ULTRAWELD BY HARGER, OR APPROVED EQUAL. EXOTHERMIC WELD CONNECTIONS SHALL BE INSTALLED IN CONFORMANCE WITH THE RESPECTIVE MANUFACTURER'S DIRECTIONS USING MOLDS AS REQUIRED FOR EACH RESPECTIVE APPLICATION. BOLTED CONNECTIONS WILL NOT BE PERMITTED AT GROUND RODS. TOP OF GROUND RODS SHALL BE BURIED 12 INCHES MINIMUM BELOW GRADE, UNLESS SPECIFIED OTHERWISE HEREIN, FOR RESPECTIVE APPLICATIONS.
2. PER THE REQUIREMENTS OF FAA AC 150/5340-30J DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS, CHAPTER 12, PART 12.6 "LIGHT FIXTURE BONDING" IT NOTES THE FOLLOWING: BOND THE LIGHT FIXTURE TO THE LIGHT BASE INTERNAL GROUND LUG VIA A NO. 6 AWG STRANDED COPPER WIRE RATED 600 VOLTS WITH GREEN XHHW, THWN-2, OR OTHER SUITABLE INSULATION, BARE STRANDED CONDUCTOR OR A BRAIDED GROUND STRAP OF EQUIVALENT CURRENT RATING. THE BONDING CONDUCTOR LENGTH MUST BE SUFFICIENT TO ALLOW THE REMOVAL OF THE LIGHT FIXTURE FROM THE LIGHT BASE FOR ROUTINE MAINTENANCE. SEE THE LIGHT FIXTURE MANUFACTURER'S INSTRUCTIONS FOR PROPER METHODS OF ATTACHING A BONDING WIRE TO THE FIXTURE.
3. STEEL USED TO MANUFACTURE GROUND RODS SHALL BE 100 PERCENT DOMESTIC STEEL.
4. CLEAN ALL METAL SURFACES BEFORE MAKING GROUND CONNECTIONS. METALLIC SURFACES TO BE JOINED SHALL BE PREPARED BY THE REMOVAL OF ALL NON-CONDUCTIVE MATERIAL PER 2023 NATIONAL ELECTRICAL CODE ARTICLE 250-12.
5. THE RESISTANCE TO GROUND OF THE RESPECTIVE MOUNTING STAKE OR LIGHT BASE (WITH GROUND ROD CONNECTED) MUST BE 25 OHMS OR LESS.
6. FOR EACH AIRFIELD LIGHT FIXTURE, TAXI GUIDANCE SIGN, DISTANCE REMAINING SIGN, JUNCTION STRUCTURE/L-867 BASE/L-868 BASE, OR OTHER AIRFIELD LIGHT FIXTURE, THE CONTRACTOR SHALL TEST THE MADE ELECTRODE GROUND SYSTEM WITH AN INSTRUMENT SPECIFICALLY DESIGNED FOR TESTING GROUNDING SYSTEMS. TEST RESULTS SHALL BE RECORDED FOR EACH AIRFIELD LIGHT FIXTURE AND EACH TAXI GUIDANCE SIGN INSTALLATION. IF GROUND RESISTANCE EXCEEDS 25 OHMS, LONGER GROUND RODS OR ADDITIONAL GROUND RODS MIGHT BE REQUIRED. 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.
7. SAFETY OF PERSONNEL IS THE PRIORITY. PROTECTION OF EQUIPMENT IS SECONDARY. PLEASE BE AWARE THAT GROUNDING DOES NOT GUARANTEE YOU WILL NOT RECEIVE A SHOCK, BE INJURED, OR KILLED FROM DEFECTIVE OR DAMAGED EQUIPMENT OR MATERIALS. PROPER GROUNDING WILL HOWEVER SIGNIFICANTLY REDUCE THE POSSIBILITY OF SHOCK, INJURY, OR DEATH. PLEASE FOCUS ON SAFETY OF PERSONNEL AT ALL TIMES.



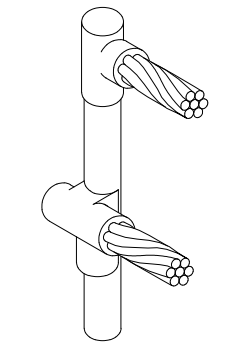
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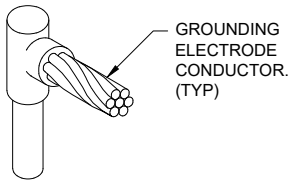
CABLE TO GROUND ROD



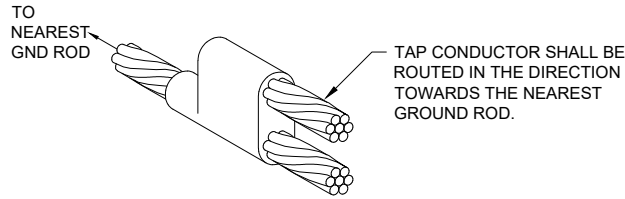
CABLE TO GROUND ROD



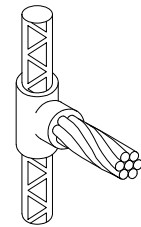
CABLES TO GROUND ROD



CABLE TO GROUND ROD



CABLE TO CABLE  
HORIZONTAL PARALLEL TAP

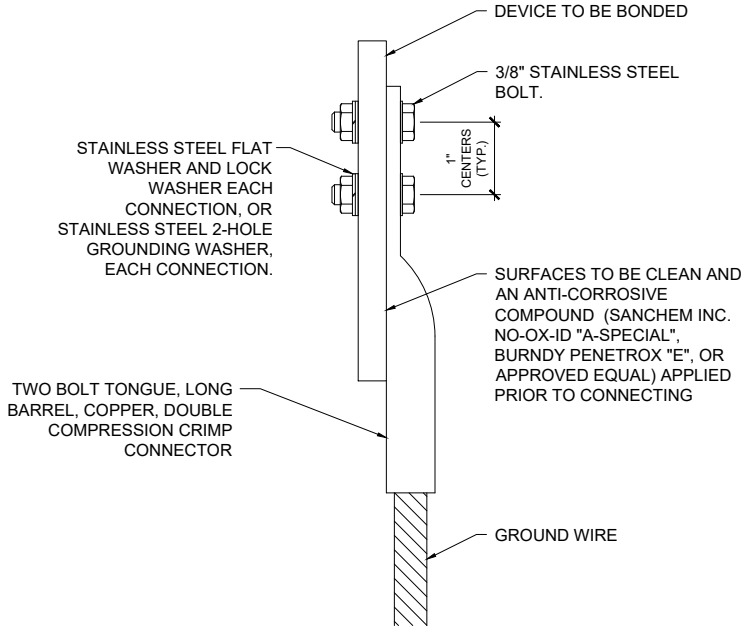


CABLE TO REBAR

DETAIL NOTES

- KNOWLEDGEABLE AND QUALIFIED PERSONNEL SHALL PERFORM EXOTHERMIC WELD CONNECTIONS TO ENSURE GOOD, SAFE, & RELIABLE CONNECTIONS. ALL BELOW GRADE CONNECTIONS TO GROUND RODS & GROUND RING CONDUCTORS SHALL BE EXOTHERMIC WELD TYPE CONNECTIONS. EXOTHERMIC WELDS SHALL BE CADWELD AS MANUFACTURED BY PENTAIR ERICO PRODUCTS, ULTRAWELD AS MANUFACTURED BY HARGER LIGHTNING PROTECTION & GROUNDING EQUIPMENT, OR THERMOWELD AS MANUFACTURED BY CONTINENTAL INDUSTRIES OR APPROVED EQUAL. VERIFY PROPER SIZES, MOLDS, TYPES, AND REQUIREMENTS FOR THE RESPECTIVE APPLICATION WITH THE MANUFACTURER, AND INSTALL PER THEIR DIRECTIONS.
- INDIVIDUAL GROUNDING ELECTRODE CONDUCTORS SHALL NOT BE INSTALLED IN METAL CONDUIT. INSTALL GROUNDING ELECTRODE CONDUCTORS IN SCHED 80 PVC CONDUIT AS REQUIRED IN FOUNDATIONS, FOR PROTECTION, WHERE ENTERING ENCLOSURES, ETC. WHERE PLASTIC CONDUIT IS USED FOR INDIVIDUAL GROUND WIRES, DO NOT COMPLETELY ENCIRCLE THE CONDUIT WITH FERROUS AND/OR MAGNETIC MATERIALS. WHERE METAL CLAMPS ARE INSTALLED USE NYLON BOLTS, NUTS, WASHERS, & SPACERS TO INTERRUPT A COMPLETE METALLIC PATH FROM ENCIRCLING THE CONDUIT. THIS IS REQUIRED TO AVOID GIRDLING OF GROUND CONDUCTORS. GIRDLING OF A GROUND CONDUCTOR IS THE RESULT OF PLACING THE CONDUCTOR IN A RING OF MAGNETIC MATERIAL. THIS RING COULD BE A METALLIC CONDUIT, U-BOLT OR STRUT SUPPORT PIPE CLAMP, OR OTHER SUPPORT HARDWARE. THE RESULT OF GIRDLING GROUND CONDUCTORS SIGNIFICANTLY INCREASES THE INDUCTIVE IMPEDANCE OF THE GROUND CONDUCTOR. INDUCTIVE AND CAPACITIVE IMPEDANCE IS A TYPE OF RESISTANCE THAT OPPOSES THE FLOW OF ALTERNATING CURRENT. ANY INCREASE IN THE IMPEDANCE OF A GROUND CONDUCTOR REDUCES ITS ABILITY TO EFFECTIVELY MITIGATE RADIO FREQUENCY NOISE IN THE GROUND SYSTEM. THE CONDITION WHERE A GROUND CONDUCTOR IS GIRDLED DURING A LIGHTNING STRIKE RESULTS IN PHENOMENA KNOWN AS SURGE IMPEDANCE LOADING. SURGE IMPEDANCE LOADING IS A RESULT OF VOLTAGE AND CURRENT REACHING 500,000 VOLTS AND 10,000 AMPS FOR A SHORT DURATION. GIRDLING FURTHER INCREASES THE IMPEDANCE AT LIGHTNING FREQUENCIES OF 100 KILOHERTZ TO 100 MEGAHERTZ. AT THESE POWER AND FREQUENCY LEVELS ANY INCREASE IN THE IMPEDANCE OF THE GROUND CONDUCTOR MUST BE CONTROLLED. DURING LIGHTNING DISCHARGE CONDITIONS A LOW INDUCTIVE IMPEDANCE PATH IS MORE IMPORTANT THAN A LOW DC RESISTANCE PATH.
- ALL APPLICATIONS TO GALVANIZED STEEL OR PAINTED STEEL, SHALL REMOVE GALVANIZING AND/OR PAINT & CLEAN THE SURFACE TO EXPOSE BARE STEEL BEFORE MAKING EXOTHERMIC WELD CONNECTION.

EXOTHERMIC WELD DETAILS

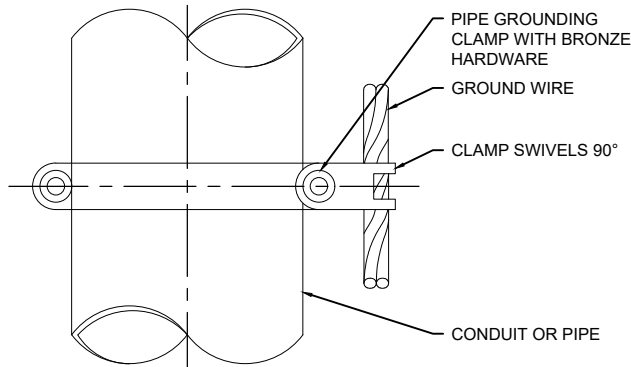
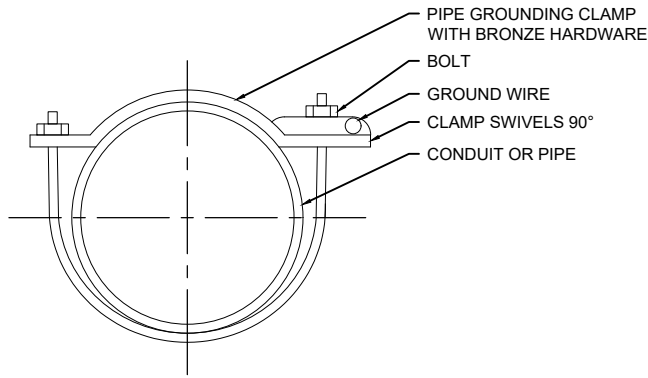


2 HOLE LONG BARREL COMPRESSION LUG TABLE (OR APPROVED EQUAL)			
WIRE SIZE	BURNDY CAT. NO.	THOMAS & BETTS CAT. NO.	PENN-UNION CAT. NO.
#8 AWG STRANDED	YA8C-2TC38	256-30695-1157	BBLU-8D-2TC38
#6 AWG SOLID	YA8C-2TC38 OR YGA6C-2TC38E2G1	(CONTACT MFR)	(CONTACT MFR)
#6 AWG STRANDED	YA6C-2TC38	256-30695-1158	BBLU-6D-2TC38
#4 AWG STRANDED	YA4C-2TC38	256-30695-1159	BBLU-4D-2TC38
#2 AWG STRANDED	YA2C-2TC38	256-30695-1160	BBLU-2D-2TC38
#2 AWG SOLID	YA3C-2TC38	256-30695-1160	BBLU-3D-2TC38
#1/0 AWG STRANDED	YA25-2TC38	256-30695-1162	BBLU-1/0D-2TC38
#2/0 AWG STRANDED	YA26-2TC38	256-30695-1116	BBLU-2/0D-2TC38
#3/0 AWG STRANDED	YA27-2TC38	54816BE	BBLU-3/0D-2TC38
#4/0 AWG STRANDED	YA28-2TC38	256-30695-1117	BBLU-4/0D-2TC38

NOTES

- IT IS IMPORTANT TO HAVE GOOD SECURE GROUND CONNECTIONS THAT WILL WITHSTAND WEATHER CONDITIONS AND MAINTAIN CONTINUITY TO GROUND. OFTEN WEATHER CONDITIONS CAN AFFECT GROUNDING CONNECTIONS THAT RESULT IN LOOSE CONNECTIONS AND UNSAFE CONDITIONS.
- SAFETY OF PERSONNEL IS THE PRIORITY. PROTECTION OF EQUIPMENT IS SECONDARY.
- THE GROUND WIRE CONNECTIONS TO EQUIPMENT LOCATED ABOVE GRADE, SHALL BE WITH 2 HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE DEVICE WITH 3/8-INCH STAINLESS STEEL BOLTS, NUTS, AND WASHERS OR WITH THE RESPECTIVE EQUIPT MANUFACTURER'S LUG OR TERMINAL WHERE APPLICABLE. THIS ALSO APPLIES TO CONNECTIONS TO GROUND BUS BARS.
- HARGER LIGHTING PROTECTION AND GROUNDING EQUIPMENT ALSO MANUFACTURERS TWO HOLE LONG BARREL COMPRESSION LUGS.
- EACH CONNECTION SHALL BE COATED WITH A CORROSION PREVENTATIVE COMPOUND (SANCHEM INC. NO-OX-ID "A-SPECIAL", BURNDY PENETROX E, OR APPROVED EQUAL) BEFORE JOINING. ALL COPPER BUS BARS SHALL BE CLEANED PRIOR TO MAKING CONNECTIONS TO REMOVE SURFACE OXIDATION. CLEAN SURFACES, OF RESPECTIVE DEVICES TO BE BONDED, TO BARE METAL, PER NEC 250-12.

GROUNDING LUG CONNECTION DETAIL



PIPE GROUNDING CLAMP TABLE (OR APPROVED EQUAL)		
BURNDY CAT. NO.	THOMAS & BETTS CAT. NO.	PIPE SIZE
GAR3902-BU	3902BU	1/2" - 1"
GAR3903-BU	3903BU	1 1/4" - 2"
GAR3904-BU	3904BU	2 1/2" - 3 1/2"
GAR3905-BU	3905BU	4" - 5"
GAR3906-BU	3906BU	6"

NOTES

- EACH PIPE GROUNDING CLAMP SHALL HAVE BRONZE HARDWARE, BE CORROSION RESISTANT, SUITABLE FOR DIRECT BURIAL IN EARTH OR CONCRETE, & UL 467 LISTED.
- FOR APPLICATIONS SUBJECT TO ADDITIONAL CORROSION, PROVIDE PIPE GROUNDING CLAMPS WITH TINNED COATED BRONZE HARDWARE
- HARGER CPC AND APC SERIES PIPE GROUNDING CLAMPS PROPERLY SIZED FOR THE RESPECTIVE PIPE AND GROUND WIRE ARE ALSO ACCEPTABLE.
- PENN-UNION TYPE "GPL" SERIES PIPE GROUNDING CLAMPS PROPERLY SIZED FOR THE RESPECTIVE PIPE AND GROUND WIRE ARE ALSO ACCEPTABLE.

PIPE/CONDUIT GROUNDING CLAMP DETAIL



Offices Nationwide  
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1525 South Sixth Street  
Springfield, Illinois 62703-2886  
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BI-STATE DEVELOPMENT  
ST. LOUIS DOWNTOWN AIRPORT  
6100 Archview Drive  
Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



DATE SIGNED: 3/14/2025  
LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

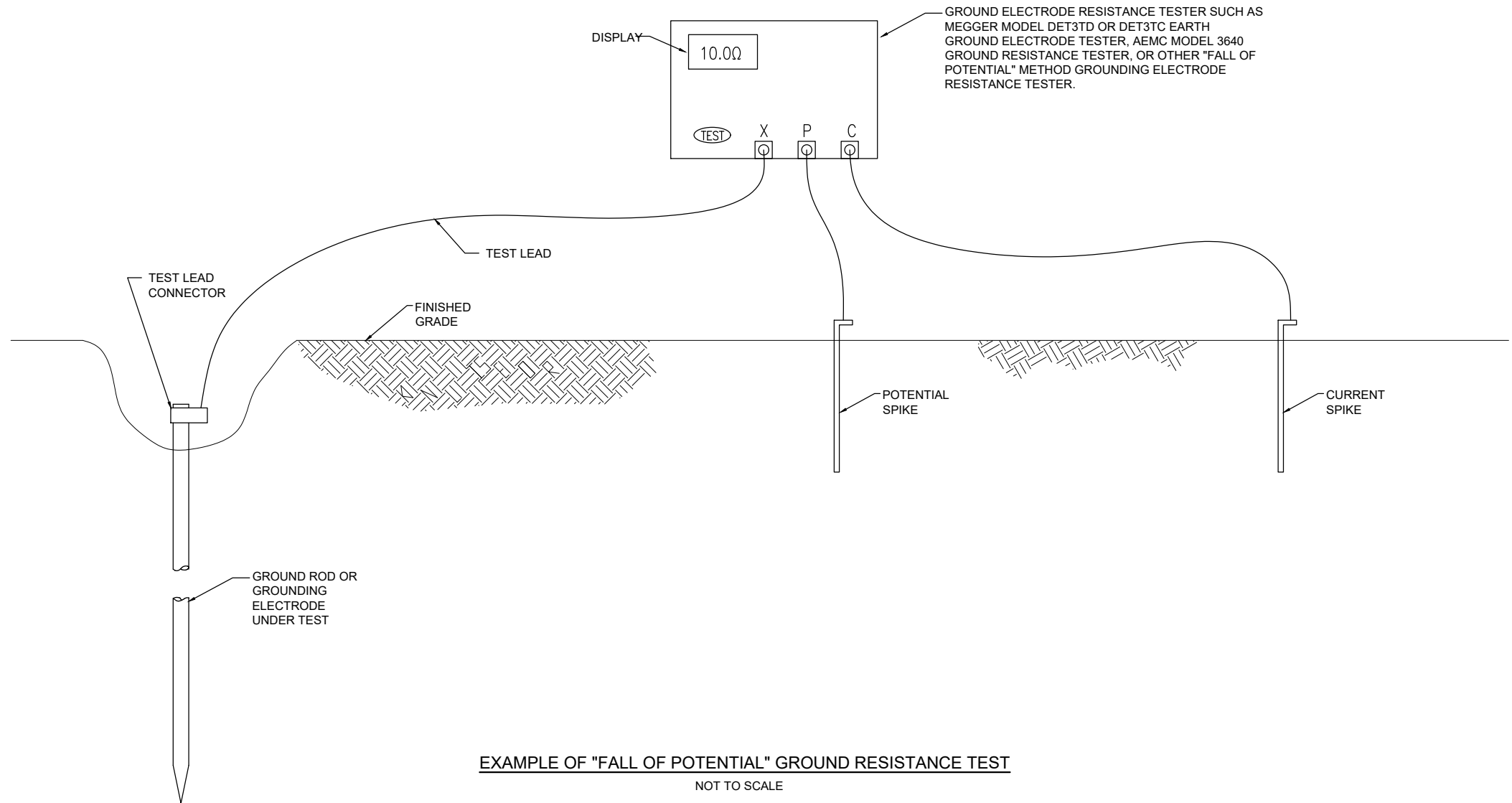
ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: E-509-DETL.DWG  
DESIGN BY: KNL 3/5/2025  
DRAWN BY: CWS 3/7/2025  
REVIEWED BY: KNL 3/11/2025

SHEET TITLE

GROUNDING DETAILS

FOR BID

MAR 14, 2025 10:04 AM GROVE02594  
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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 OF RECORD; KEVIN LIGHTFOOT FOR FURTHER DIRECTIONS. COPIES OF GROUND ROD TEST RESULTS SHALL BE FURNISHED TO THE RESIDENT ENGINEER/RESIDENT TECHNICIAN, AND THE PROJECT ENGINEER OF RECORD.
- 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 OF RECORD FOR FURTHER DIRECTIONS. ALSO REFER TO EOR-062-047643 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 OF RECORD.
- 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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DOWNTOWN AIRPORT

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

COVERING ELECTRICAL DESIGN



Kevin N. Lightfoot

DATE SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: E-510-DETL.DWG

DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

REVIEWED BY: KNL 3/11/2025

SHEET TITLE

GROUND  
RESISTANCE  
TESTING DETAILS

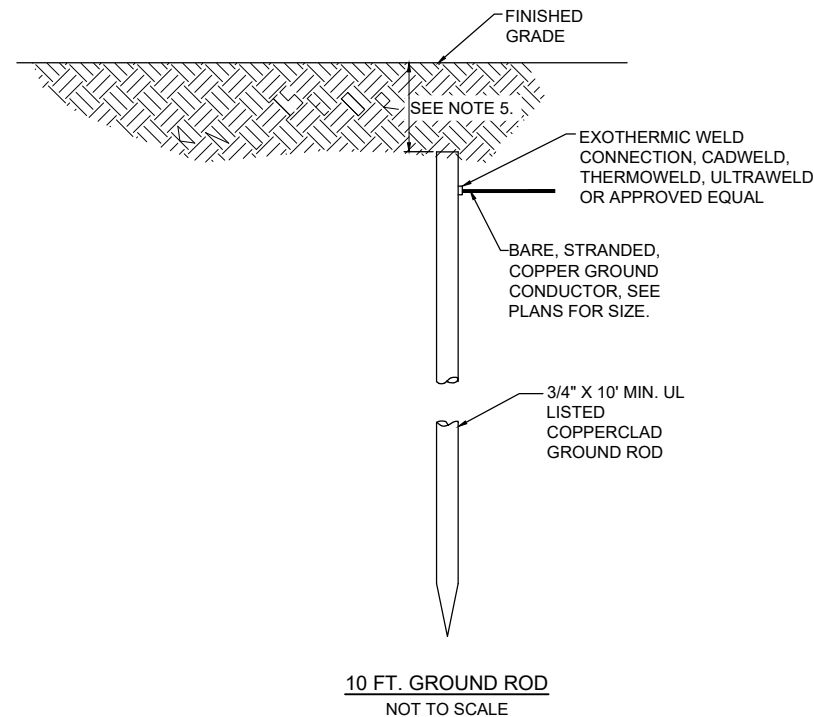
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THE CONTRACTOR SHALL FURNISH AND INSTALL ALL GROUNDING SHOWN ON THE RESPECTIVE CONTRACT DOCUMENTS AND/OR AS MAY BE NECESSARY OR REQUIRED TO MAKE A COMPLETE GROUNDING SYSTEM, AS REQUIRED BY THE LATEST NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) IN FORCE, OTHER APPLICABLE CODES, AND IN ACCORDANCE WITH THE RESPECTIVE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS, INSTRUCTIONS, AND REQUIREMENTS FOR THE PRIORITY OF PROTECTION OF PERSONNEL AND ADDITIONALLY FOR THE PROTECTION OF EQUIPMENT. ALL PERSONNEL ARE RECOMMENDED TO ALSO COMPLY WITH NFPA 70E STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE. THE RELIABILITY OF THE GROUNDING SYSTEM IS DEPENDENT ON CAREFUL, PROPER INSTALLATION, AND CHOICE OF MATERIALS. IMPROPER PREPARATION OF SURFACES TO BE JOINED TO MAKE AN ELECTRICAL PATH, LOOSE JOINTS, OR CORROSION CAN INTRODUCE IMPEDANCE THAT WILL SERIOUSLY IMPAIR THE ABILITY OF THE GROUND PATH TO PROTECT PERSONNEL AND EQUIPMENT AND TO ABSORB TRANSIENTS THAT CAN CAUSE NOISE IN COMMUNICATIONS CIRCUITS. THE FOLLOWING FUNCTIONS ARE PARTICULARLY IMPORTANT TO ENSURE A RELIABLE GROUND SYSTEM:

1. FURNISH AND INSTALL GROUND RODS AS DETAILED HEREIN. GROUND RODS FOR AIRFIELD LIGHTING LIGHT BASE GROUNDS FOR (RUNWAY LIGHTING, TAXIWAY LIGHTING, TAXI GUIDANCE SIGNS, & DISTANCE REMAINING SIGNS) SHALL BE MINIMUM 3/4-IN. DIAMETER BY 10-FT LONG, UL-LISTED COPPER CLAD WITH 10-MIL MINIMUM COPPER COATING. GROUND RODS FOR COUNTERPOISE/LIGHTNING PROTECTION SYSTEM ON THE AIRFIELD SHALL BE MINIMUM 3/4-IN. DIAMETER BY 10-FT. LONG UL-LISTED COPPER CLAD WITH 10-MIL MINIMUM COPPER COATING. GROUND RODS SHALL BE SPACED OR AS DETAILED ON THE RESPECTIVE PLANS, AND IN NO CASE SPACED LESS THAN ONE ROD LENGTH APART. ALL CONNECTIONS TO GROUND RODS AND THE GROUND RING SHALL BE MADE WITH EXOTHERMIC WELD TYPE CONNECTORS, CADWELD BY PENTAIR ERICO PRODUCTS, THERMOWELD BY CONTINENTAL INDUSTRIES, ULTRAWELD BY HARGER, OR APPROVED EQUAL. EXOTHERMIC WELD CONNECTIONS SHALL BE INSTALLED IN CONFORMANCE WITH THE RESPECTIVE MANUFACTURER'S DIRECTIONS USING MOLDS AS REQUIRED FOR EACH RESPECTIVE APPLICATION. BOLTED CONNECTIONS WILL NOT BE PERMITTED AT GROUND RODS OR AT BURIED GROUNDING ELECTRODE CONDUCTORS.
2. CONTRACTOR SHALL TEST EACH MADE ELECTRODE GROUND ROD/GROUND FIELD/GROUND RING WITH AN INSTRUMENT SPECIFICALLY DESIGNED FOR TESTING GROUND FIELD SYSTEMS. IF GROUND RESISTANCE EXCEEDS 25 OHMS, CONTACT THE PROJECT ENGINEER OF RECORD FOR FURTHER DIRECTIONS. ALSO REFER TO EOR-47643 FOR ADDITIONAL INFORMATION ON GROUNDING REQUIREMENTS, WHERE APPLICABLE. COPIES OF GROUND ROD TEST RESULTS SHALL BE FURNISHED TO THE RESIDENT PROJECT REPRESENTATIVE, AND THE PROJECT ENGINEER OF RECORD.
3. ALL PRODUCTS ASSOCIATED WITH THE GROUNDING SYSTEM SHALL BE UL-LISTED AND LABELED.
4. ALL BOLTED OR MECHANICAL CONNECTIONS SHALL BE COATED WITH A CORROSION PREVENTIVE COMPOUND BEFORE JOINING, SANCHEM INC. "NO-OX-ID "A-SPECIAL" COMPOUND, BURNDY PENETROX E, OR APPROVED EQUAL.
5. METALLIC SURFACES TO BE JOINED SHALL BE PREPARED BY THE REMOVAL OF ALL NON-CONDUCTIVE MATERIAL, PER 2020 NATIONAL ELECTRICAL CODE ARTICLE 250-12. ALL COPPER BUS BARS MUST BE CLEANED PRIOR TO MAKING CONNECTIONS TO REMOVE SURFACE OXIDATION.
6. METALLIC RACEWAY FITTINGS SHALL BE MADE UP TIGHT TO PROVIDE A PERMANENT LOW IMPEDANCE PATH FOR ALL CIRCUITS. METAL CONDUIT TERMINATIONS IN ENCLOSURES SHALL BE BONDED TO THE ENCLOSURE WITH UL-LISTED FITTINGS SUITABLE FOR GROUNDING. PROVIDE GROUNDING BUSHINGS WITH BONDING JUMPERS FOR ALL METAL CONDUITS ENTERING SERVICE EQUIPMENT (METER BASE, CT CABINET, MAIN SERVICE BREAKER ENCLOSURE, ETC.). PROVIDE GROUNDING BUSHINGS WITH BONDING JUMPERS FOR ALL METAL CONDUITS ENTERING AN ENCLOSURE THROUGH CONCENTRIC OR ECCENTRIC KNOCKOUTS THAT ARE PUNCHED OR OTHERWISE FORMED SO AS TO IMPAIR THE ELECTRICAL CONNECTION TO GROUND. STANDARD LOCKNUTS OR BUSHINGS SHALL NOT BE THE SOLE MEANS FOR BONDING WHERE A CONDUIT ENTERS AN ENCLOSURE THROUGH A CONCENTRIC OR ECCENTRIC KNOCKOUT.
7. ALL CONNECTIONS, LOCATED ABOVE GRADE, BETWEEN THE DIFFERENT TYPES OF GROUNDING CONDUCTORS SHALL BE MADE USING UL-LISTED DOUBLE COMPRESSION CRIMP TYPE CONNECTORS OR UL-LISTED BOLTED GROUND CONNECTORS. FOR GROUND CONNECTIONS TO ENCLOSURES, CASES AND FRAMES OF ELECTRICAL EQUIPMENT NOT SUPPLIED WITH GROUND LUGS THE CONTRACTOR SHALL DRILL REQUIRED HOLES FOR MOUNTING A BOLTED GROUND CONNECTOR. ALL BOLTED GROUND CONNECTORS SHALL BE BURNDY, THOMAS AND BETTS, OR EQUAL. TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUES IN UL STANDARD 486A TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
8. ALL METAL EQUIPMENT ENCLOSURES, CONDUITS, CABINETS, BOXES, RECEPTACLES, MOTORS, ETC. SHALL BE BONDED TO THE RESPECTIVE GROUNDING SYSTEM.
9. PROVIDE ALL BOXES FOR PROPOSED OUTLETS, SWITCHES, CIRCUIT BREAKERS, ETC. WITH GROUNDING SCREWS. PROVIDE ALL PANELBOARD, SWITCHGEAR, ETC., ENCLOSURES WITH GROUNDING BARS WITH INDIVIDUAL SCREWS, LUGS, CLAMPS, ETC., FOR EACH OF THE GROUNDING CONDUCTORS THAT ENTER THEIR RESPECTIVE ENCLOSURES.
10. EACH NEW FEEDER CIRCUIT AND/OR BRANCH CIRCUIT SHALL INCLUDE AN EQUIPMENT GROUND WIRE. METAL RACEWAY OR CONDUIT SHALL NOT MEET THIS REQUIREMENT. THE EQUIPMENT GROUND WIRE FROM EQUIPMENT SHALL NOT BE SMALLER THAN ALLOWED BY 2020 NEC TABLE 250-122 "MINIMUM SIZE CONDUCTORS OR GROUNDING RACEWAY AND EQUIPMENT." WHEN CONDUCTORS ARE ADJUSTED IN SIZE TO COMPENSATE FOR VOLTAGE DROP, EQUIPMENT-GROUNDING CONDUCTORS SHALL BE ADJUSTED PROPORTIONATELY ACCORDING TO CIRCULAR MIL AREA. ALL EQUIPMENT GROUND WIRES SHALL BE COPPER, EITHER BARE OR INSULATED GREEN IN COLOR. WHERE THE EQUIPMENT GROUNDING CONDUCTORS ARE INSULATED, THEY SHALL BE IDENTIFIED BY THE COLOR GREEN, AND SHALL BE THE SAME INSULATION TYPE AS THE PHASE CONDUCTORS.

11. ALL EXTERIOR METAL CONDUIT, WHERE NOT ELECTRICALLY CONTINUOUS BECAUSE OF MANHOLES, HANDHOLES, NON-METALLIC JUNCTION BOXES, ETC., SHALL BE BONDED TO ALL OTHER METAL CONDUIT IN THE RESPECTIVE DUCT RUN, AND AT EACH END, WITH A COPPER-BONDING JUMPER SIZED IN CONFORMANCE WITH 2020 NEC 250-102. WHERE METAL CONDUITS TERMINATE IN AN ENCLOSURE (SUCH AS A MOTOR CONTROL CENTER, SWITCHBOARD, ETC) WHERE THERE IS NOT ELECTRICAL CONTINUITY WITH THE CONDUIT AND THE RESPECTIVE ENCLOSURE, PROVIDE A BONDING JUMPER FROM THE RESPECTIVE ENCLOSURE GROUND BUS TO THE CONDUIT SIZED PER 2020 NEC 250-102.
12. IT IS THE INTENT OF THIS SPECIFICATION THAT ALL MOTOR FRAMES, PUMP BASES ELECTRICAL EQUIPMENT ENCLOSURES, PANEL HOUSINGS, CONDUITS, BOXES, ETC. HAVE A CONTINUOUS COPPER WIRE GROUND CONNECTION AND SHALL BE POSITIVELY BONDED TO THE RESPECTIVE GROUNDING SYSTEM. CONDUIT CONNECTORS WILL NOT BE CONSIDERED AS ADEQUATE GROUNDING.
13. PROVIDE A POSITIVE GROUND BOND FOR ALL OUTLET BOXES, ELECTRICAL EQUIPMENT ENCLOSURES, GROUNDING RECEPTACLES, TOGGLE SWITCHES, ETC. INSTALL A GROUNDING CONDUCTOR IN ALL WIRE AND CABLE RACEWAYS. GROUND CONDUCTOR TO HAVE 600-VOLT INSULATION AND BE IDENTIFIED BY A CONTINUOUS GREEN COLOR COATING. THEY SHALL BE USED SOLELY FOR GROUNDING PURPOSES AND BE ENTIRELY SEPARATE FROM WHITE GROUNDED NEUTRAL CONDUCTOR, EXCEPT AT SUPPLY SIDE OF SERVICE DISCONNECTING MEANS, WHERE GROUNDING AND NEUTRAL SYSTEMS ARE TO BE CONNECTED TO SERVICE GROUND.
14. EACH AND ALL GROUNDED CASED AND METAL PARTS ASSOCIATED WITH ELECTRICAL EQUIPMENT SHALL BE TESTED FOR CONTINUITY OF CONNECTION WITH GROUND BUS SYSTEM BY CONTRACTOR IN PRESENCE OF OWNER'S REPRESENTATIVE.
15. ALL CONNECTIONS BETWEEN THE DIFFERENT TYPES OF GROUNDING CONDUCTORS ABOVE GRADE SHALL BE MADE USING BOLTED GROUND CONNECTORS. GROUND LUGS SHALL BE PROVIDED IN ALL ENCLOSURES AND WIRING TERMINATION JUNCTION BOXES. EQUIPMENT GROUNDS AND GROUNDING CONDUCTOR SHALL BE CONNECTED TO THESE GROUND LUGS. FOR GROUND CONNECTIONS TO ENCLOSURES, CASES AND FRAMES OF ELECTRICAL EQUIPMENT NOT SUPPLIED WITH GROUND LUGS THE CONTRACTOR SHALL DRILL REQUIRED HOLES FOR MOUNTING A BOLTED GROUND CONNECTOR. ALL BOLTED GROUND CONNECTORS SHALL BE BURNDY, OR EQUAL.
16. BOND ALL NONCURRENT-CARRYING PARTS OF METAL EQUIPMENT TO GROUND SYSTEM.
17. BUILDING STRUCTURAL STEEL SYSTEM SHALL BE BONDED TO ELECTRICAL GROUND SYSTEM.
18. INSTALL GROUNDING ELECTRODE CONDUCTORS, LIGHTNING PROTECTION DOWN CONDUCTORS AND SEPARATE GROUND CONDUCTORS IN SCHEDULE 80 PVC CONDUIT OR EXPOSED WHERE ACCEPTABLE TO LOCAL CODES. WHERE GROUNDING ELECTRODE CONDUCTORS, LIGHTNING PROTECTION DOWN CONDUCTORS OR INDIVIDUAL GROUND CONDUCTORS ARE RUN IN PVC CONDUIT, DO NOT COMPLETELY ENIRCLE CONDUIT WITH FERROUS AND/OR MAGNETIC MATERIALS. USE NON-METALLIC REINFORCED FIBERGLASS STRUT SUPPORT. WHERE METAL CONDUIT CLAMPS ARE INSTALLED, USE NYLON BOLTS, NUTS, WASHERS AND SPACERS TO INTERRUPT A COMPLETE METALLIC PATH FROM ENCIRCLING THE CONDUIT. THIS IS REQUIRED TO AVOID GIRDLING OF GROUND CONDUCTORS.
19. IF LOCAL CODES DICTATE THAT INDIVIDUAL GROUNDING CONDUCTORS MUST BE RUN IN METAL CONDUIT OR RACEWAY, THEN THE CONDUIT OR RACEWAY MUST BE BONDED AT EACH END OF THE RUN WITH A BONDING JUMPER SIZED EQUAL TO THE INDIVIDUAL GROUNDING CONDUCTOR OR AS REQUIRED BY 2020 NEC 250-102 AND/OR 2020 NEC 250.64(E). NOTE THIS DOES NOT APPLY TO AC EQUIPMENT GROUNDING CONDUCTORS RUN WITH AC CIRCUITS. CONFIRM REQUIREMENTS WITH AUTHORITY HAVING JURISDICTION.
20. GROUNDING WORK AFFECTING OPERATIONS AT A FACILITY SHALL BE COORDINATED WITH THE OWNER'S DESIGNATED REPRESENTATIVE(S) AND TO MINIMIZE DOWNTIME TO EXISTING SYSTEMS, THE RESPECTIVE PERSONNEL SHALL COORDINATE WORK AND ANY POWER OUTAGES WITH THE OWNER'S DESIGNATED REPRESENTATIVE(S). ANY SHUTDOWN OF EXISTING SYSTEMS SHALL BE SCHEDULED WITH AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO SHUT DOWN. ALL POWER SYSTEMS (AC OR DC) SHALL HAVE PROVISIONS TO LOCKOUT AND TAGOUT ANY CIRCUIT TO HELP ENSURE THE CIRCUIT IS SAFE TO WORK ON FOR PROTECTION OF PERSONNEL. 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 AND 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 A FACILITY DOES NOT HAVE LOCKOUT/TAGOUT KITS THE RESPECTIVE PERSONNEL SHALL PROVIDE ADEQUATE QUANTITIES OF LOCKOUT/TAGOUT KITS SUITABLE FOR USE WITH THE RESPECTIVE 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 COMPLY WITH OSHA LOCKOUT/TAGOUT REQUIREMENTS. ALL PADLOCKS FOR USE WITH LOCKOUT/TAGOUT PROCEDURES SHALL HAVE A DIFFERENT KEY. PROVIDE LOCKOUT HASPS TO ACCOMMODATE MULTIPLE PADLOCKS WHERE MULTIPLE PEOPLE ARE WORKING ON THE SAME SYSTEM. INCLUDE LOCKOUT TAGS FOR EACH PIECE OF EQUIPMENT REQUIRING SERVICING AND SHUTDOWN. COMPLIANCE WITH LOCKOUT/TAGOUT PROCEDURES AND ALL OTHER SAFETY PROCEDURES AND REQUIREMENTS ARE THE RESPONSIBILITY OF THE RESPECTIVE PERSONNEL WORKING AT THE FACILITY.

21. NEVER REMOVE, ALTER, OR ATTEMPT TO REPAIR CONDUCTORS OR CONDUIT SYSTEMS PROVIDING GROUNDING OR ELECTRICAL BONDING FOR ANY ELECTRICAL EQUIPMENT UNTIL ALL POWER IS REMOVED FROM EQUIPMENT. WARN ALL PERSONNEL OF THE UNGROUNDED CONDITION OF THE EQUIPMENT. DISPLAY APPROPRIATE WARNING SIGNS, SUCH AS DANGER TAGS, TO WARN PERSONNEL OF THE POSSIBLE HAZARDS.
22. GROUNDING WORK AND MODIFICATIONS SHALL NOT BE PERFORMED DURING A THUNDERSTORM OR WHEN A THUNDERSTORM IS PREDICTED IN THE AREA.
23. PER NFPA 70E STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE IT DEFINES ELECTRICALLY SAFE WORK CONDITION AS "A STATE IN WHICH AN ELECTRICAL CONDUCTOR OR CIRCUIT PART HAS BEEN DISCONNECTED FROM ENERGIZED PARTS, LOCKED/TAGGED IN ACCORDANCE WITH ESTABLISHED STANDARDS. TESTED TO VERIFY THE ABSENCE OF VOLTAGE, AND, IF NECESSARY, TEMPORARILY GROUNDED FOR PERSONNEL PROTECTION." PRIOR TO CONDUCTING TESTS OR WORKING ON EQUIPMENT, VERIFY EQUIPMENT ENCLOSURES AND FRAMES HAVE A GOOD AND SECURE GROUND CONNECTION. FAILURE TO PROPERLY GROUND THIS EQUIPMENT PRESENTS A DANGEROUS HAZARD FOR PERSONNEL WORKING ON THIS SYSTEM.
24. WHERE A CONFLICT IS DETERMINED WITH RESPECT TO GROUNDING REQUIREMENTS PER MANUFACTURER INSTALLATION INSTRUCTIONS, NEC, AND/OR THE CONTRACT DOCUMENTS, CONTACT THE PROJECT ENGINEER OF RECORD; KEVIN LIGHTFOOT FOR FURTHER DIRECTIONS.
25. GROUND RODS SHALL BE PRODUCED FROM 100 PERCENT DOMESTIC STEEL TO COMPLY WITH THE AIRPORT IMPROVEMENT PROGRAM BUY AMERICAN PREFERENCES REQUIREMENT. THE BUY AMERICAN PREFERENCE REQUIREMENTS ESTABLISHED WITHIN 49 USC 50101 REQUIRE THAT ALL STEEL AND MANUFACTURED GOODS USED ON AIP PROJECTS MUST BE PRODUCED IN THE UNITED STATES.



1. TYPE AND MINIMUM NUMBER OF GROUND RODS SHALL BE AS SPECIFIED ON THE PLAN.
2. THE RESISTANCE TO GROUND OF THE GROUNDING SYSTEM SHALL NOT EXCEED 25 OHMS.
3. COST OF GROUND RODS IS INCIDENTAL TO THE ASSOCIATED ITEMS REQUIRING GROUNDING UNLESS OTHERWISE SPECIFIED.
4. GROUND RODS SHALL BE SPACED AS DETAILED ON THE PLANS AND SHALL NOT BE SPACED LESS THAN ONE ROD LENGTH APART.
5. TOP OF GROUND RODS SHALL BE 12" MINIMUM BELOW GRADE UNLESS DETAILED OTHERWISE HEREIN.
6. GROUND RODS FOR SPLICE CANS AND AIRFIELD LIGHTING SHALL BE A MINIMUM 3/4-INCH DIAMETER BY 10-FT LONG UL LISTED COPPER CLAD.
7. FOR OTHER GROUNDING APPLICATIONS NOT DETAILED HEREIN, CONTACT ENGINEER OF RECORD; KEVIN LIGHTFOOT FOR DIRECTIONS.

GROUND RODS  
NOT TO SCALE

**FOR BID**



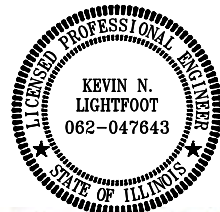
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**ST. LOUIS DOWNTOWN AIRPORT**  
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Cahokia Heights, Illinois 62206

COVERING ELECTRICAL DESIGN



Henry D. Lightfoot

DATE SIGNED: 3/14/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: E-004-NOTES.DWG

























DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

REVIEWED BY: KNL 3/11/2025

**SHEET TITLE**

## GROUNDING NOTES

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:

1. 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.
2. KEEP A COPY OF THE LATEST NEC IN FORCE ON SITE AT ALL TIMES DURING/CONSTRUCTION FOR USE AS A REFERENCE.
3. 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).
4. 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.
5. 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
6. SEE RESPECTIVE SITE PLANS FOR SITE LEGEND INFORMATION.
7. 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.
8. 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".
9. 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.
10. 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.



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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



Henry D. Lightfoot

DATE  
SIGNED: 3/14/2025

LICENSE  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: E-005-LGND.DWG

DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

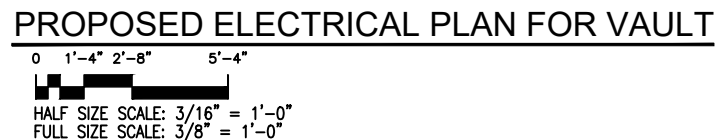
REVIEWED BY: KNL 3/11/2025

**SHEET TITLE**

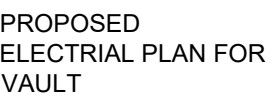
## ELECTRICAL LEGEND AND ABBREVIATIONS

**FOR BID**

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.



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 A 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	<b>REMOVE EXISTING S-1 CUTOUT AND FURNISH AND INSTALL NEW TYPE S-1 CUTOUT IN EXISTING ENCLOSURE. REMOVE EXISTING WIRING AND REPLACE WITH NEW WIRING FROM CCR TO CUTOUT. (TYP EACH TAXIWAY CCR)</b>
27	<b>NEW TAXIWAY B CIRCUIT 3 AND CIRCUIT 4 CCR. INTERFACE CONTROL WIRING TO EXISTING TAXIWAY "B" CIRCUIT 2 CCR SUCH THAT TAXIWAY B CIRCUIT 3 AND CIRCUIT 4 LIGHTING IS CONTROLLED BY L-821 PANEL AT ATCT BY TAXIWAY "B" CONTROL SELECTOR SWITCH.</b>
28	<b>NEW S-1 CUTOUT PAIR (TWO CUTOUTS) WITH NEMA 12 ENCLOSURE FOR TAXIWAY "B" CIRCUIT 3 LIGHTING AND TAXIWAY "B" CIRCUIT 4 LIGHTING. CUTOUTS SHALL BE WIRED TO POWER TWO SERIES CIRCUITS CONNECTED TO ONE CCR.</b>
29	<b>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.</b>
30	<b>EXISTING 30KW TWY B CKT 1 CCR TO BE REPLACED WITH A NEW 15KW L-829 CCR. RELOCATE EXISTING CCR TO STORAGE.</b>
31	<b>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.</b>
32	<b>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.</b>



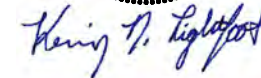
108





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

COVERING ELECTRICAL DESIGN



DATE: 3/14/2025  
SIGNED: 3/14/2025

LICENSE: 11/30/2025  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	RE

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: E-602.DWG

DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

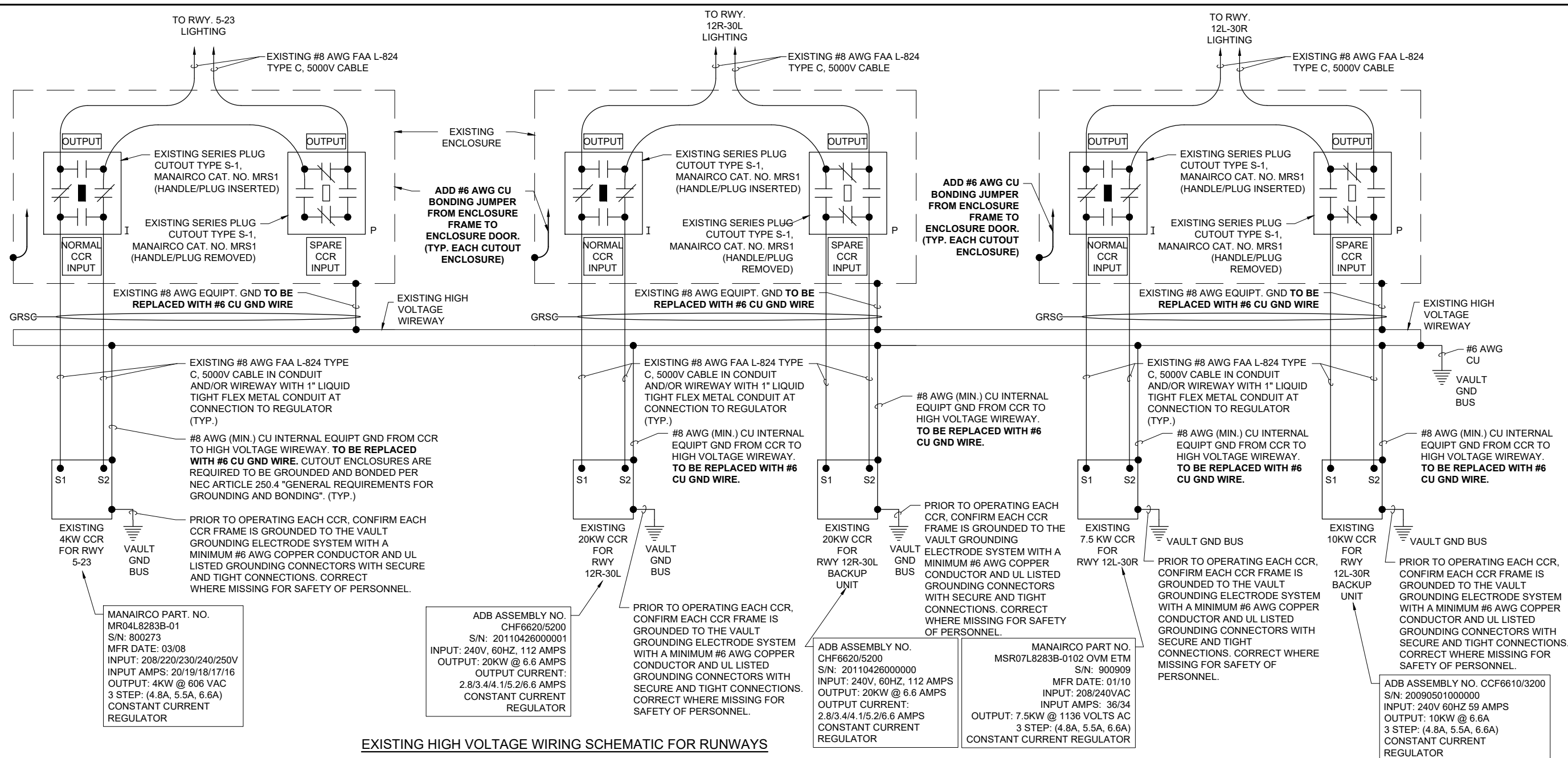
REVIEWED BY: KNL 3/11/2025

**SHEET TITLE**

## EXISTING HIGH VOLTAGE WIRING SCHEMATIC FOR RUNWAYS

**FOR BID**

110



## NOTES

1. 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.
2. EXAMINE THE SITE TO CONFIRM AND FIELD VERIFY EXISTING SITE CONDITIONS.
3. 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.
4. 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.
5. 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.

6. NEVER REMOVE OR INSERT A CUTOUT WITH THE CIRCUIT ENERGIZED. SHUTOFF CIRCUITS PRIOR TO PULLING OR INSERTING A SERIES PLUG CUTOUT.
7. 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."
8. 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.
9. 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.
10. 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

MAR 14, 2025 10:05 AM GROVE02594  
23:JOBS\23A0001D\CAD\AIRPORT\SHEET\2025 CPS-5078 COMBINED SHEETS\E-602



1. 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.
2. EXAMINE THE SITE TO CONFIRM AND FIELD VERIFY EXISTING SITE CONDITIONS.
3. 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.
4. 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.
5. 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.

- ### LEGEND

"CCR" DENOTES CONSTANT  
CURRENT REGULATOR

# FOR BID



111

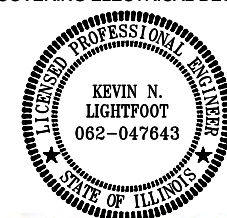
Hanson Professional Services Inc  
1525 South Sixth Street  
Springfield, Illinois 62703-2886  
Telephone: 217.788.2450  
Fax: 217.788.2503



ST. LOUIS  
DOWNTOWN AIRPOR

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

COVERING ELECTRICAL DESIGN



Henry D. Lightfoot

DATE: 3/14/2025  
SIGNED: 3/14/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	RE

ISSUE: MARCH 14, 2025

PROJECT NO: 23A0001D

CAD FILE: E-604.DWG

DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

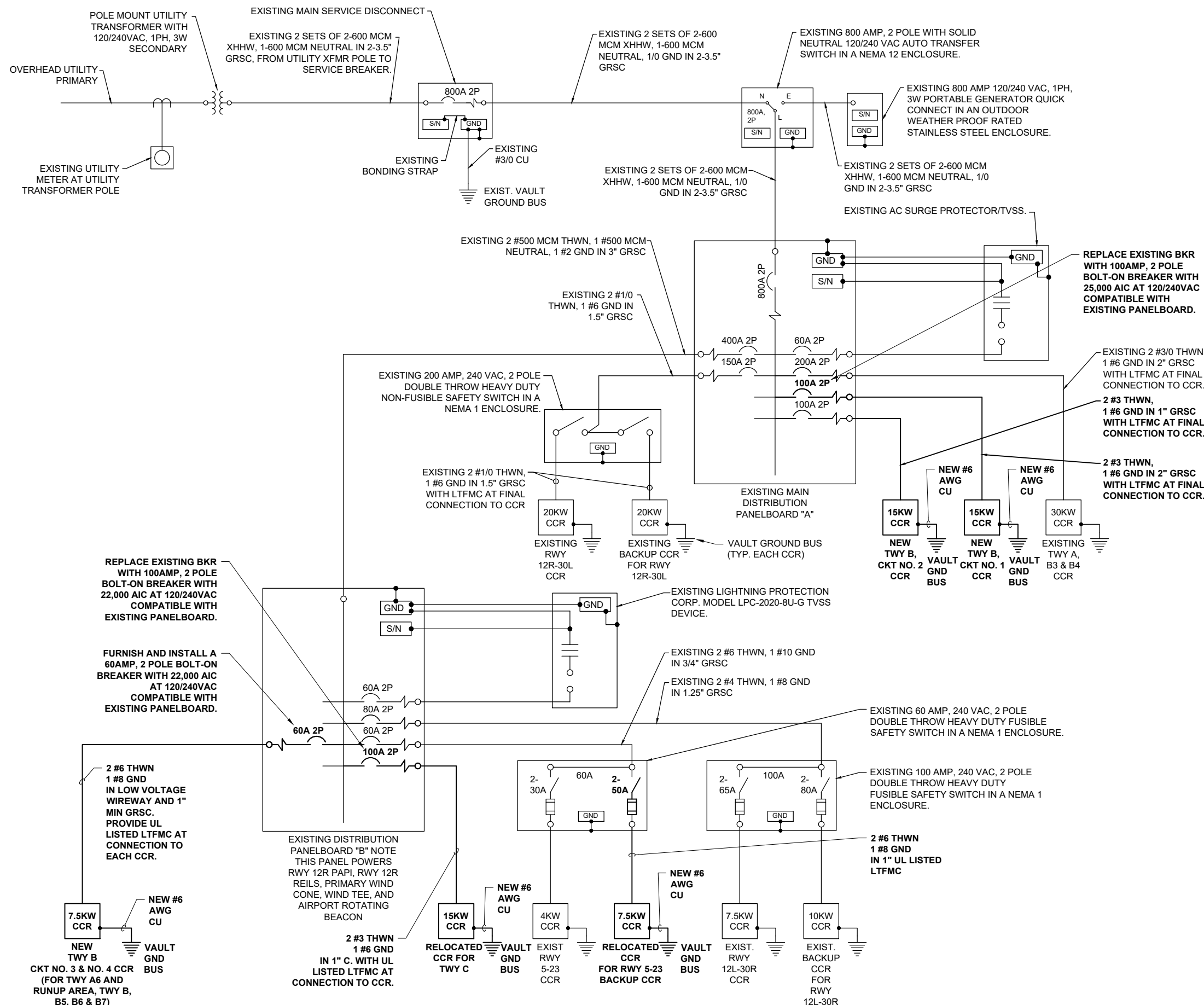
REVIEWED BY: KNI 3/11/2025

SHEET TITLE

# PROPOSED ELECTRICAL ONE-LINE DIAGRAM FOR AIRPORT VAULT

**FOR BID**

112



NOTES:

1. 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).
2. 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.
3. ALL CONDUCTORS/WIRING SHALL BE COPPER.
4. 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:

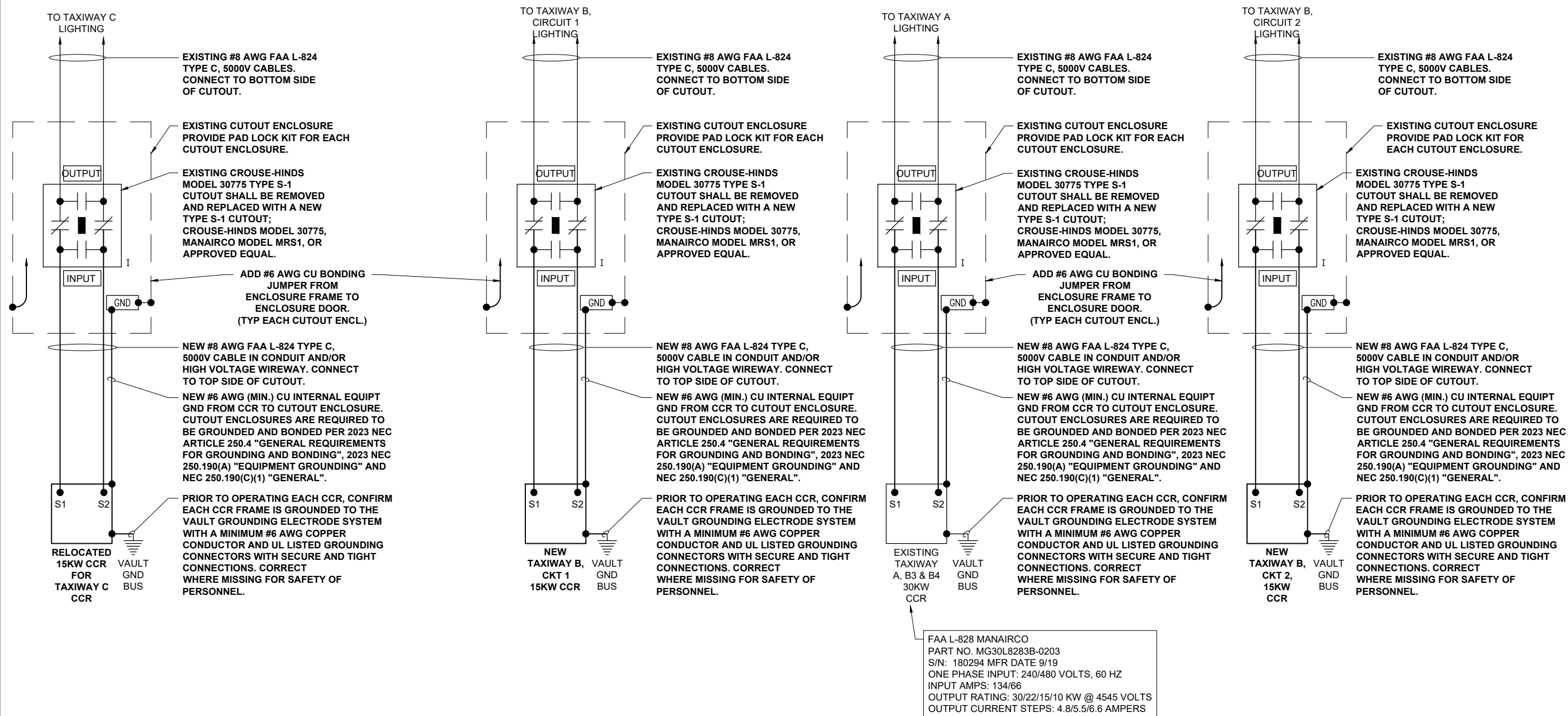
<u>120/240 VAC, 1 PHASE, 3 WIRE</u>	
PHASE A	BLACK
PHASE B	RED
NEUTRAL	WHITE
GROUND	GREEN
5. CONTRACTOR SHALL CONFIRM POWER REQUIREMENTS WITH THE ACTUAL NAMEPLATE ON EACH CONSTANT CURRENT REGULATOR (OR OTHER RESPECTIVE EQUIPMENT) AND ADJUST CIRCUIT BREAKER, FUSES, WIRE SIZES & CONDUIT SIZES TO CONFORM WITH NEC & MANUFACTURER'S RECOMMENDATIONS WHERE APPLICABLE. WIRE SIZES SHOWN ON THE PLANS ARE MINIMUM.
6. 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.
7. 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.
8. EQUIPMENT AND MATERIALS NOT LABELED AS "EXISTING" ARE NEW.

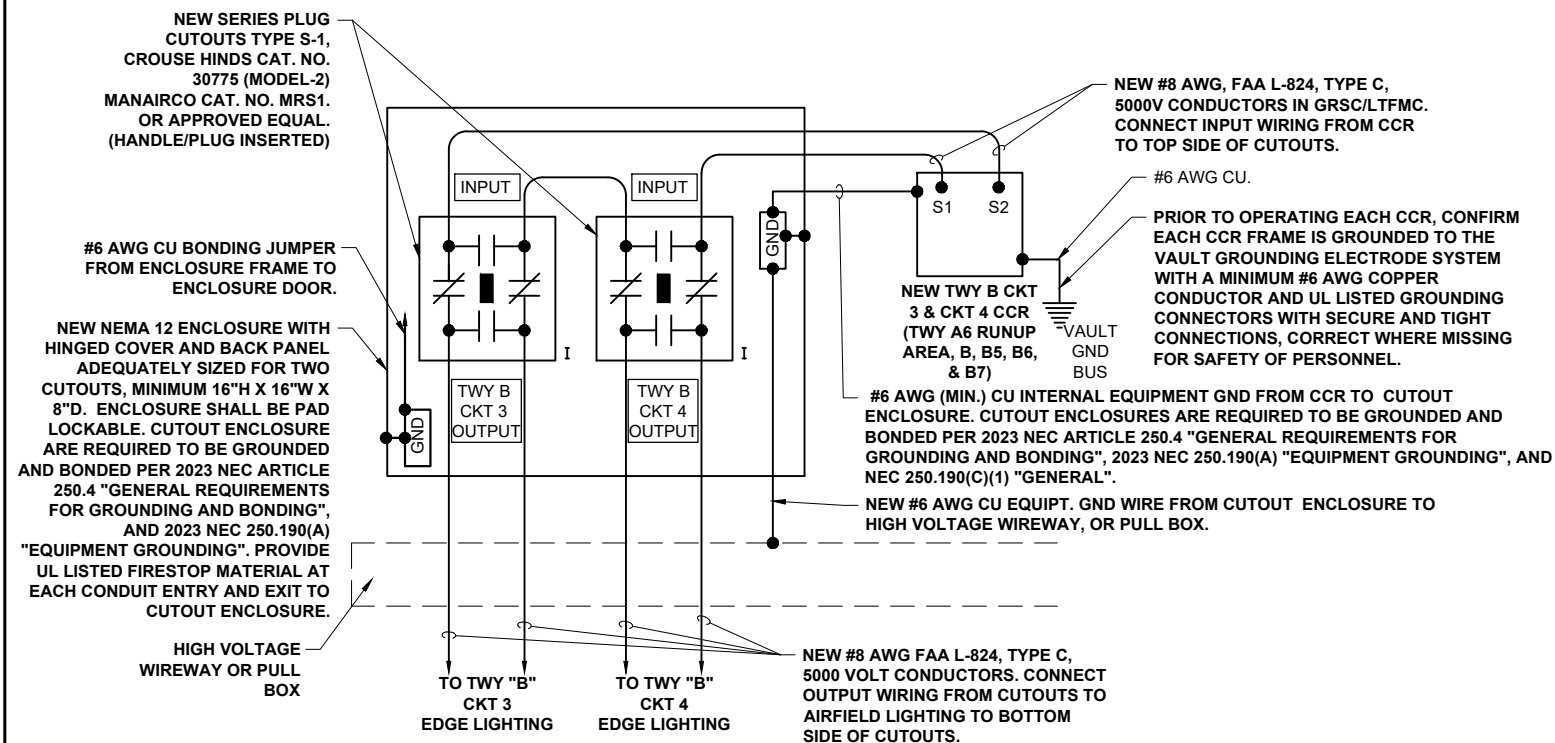


- LEGEND**
- |       |  |
|-------|--|
| "T"   | DENOTES PLUG CUTOUT WITH PLUG INSERTED |
| "P"   | DENOTES PLUG CUTOUT WITH PLUG PULLED   |
| "CCR" | DENOTES CONSTANT CURRENT REGULATOR     |

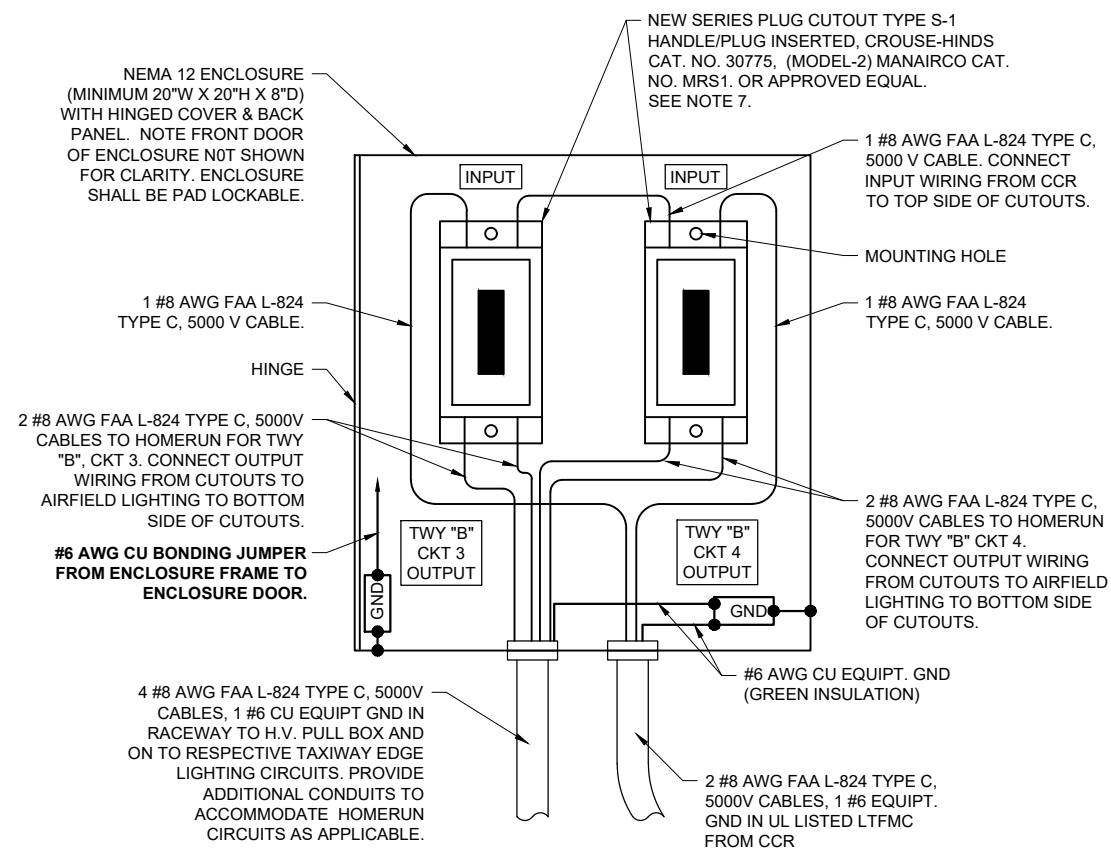
SHEET TITLE

**FOR BID**





NOT TO SCALE



NOT TO SCALE

## NOTES

1. PROVIDE PHENOLIC ENGRAVED LEGEND PLATES FOR EACH CONSTANT CURRENT REGULATOR NOTING THE REGULATOR DESIGNATION AND THE RUNWAY AND/OR TAXIWAY SERVED.
2. 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 "ARC-FLASH HAZARD WARNING". PROVIDE PHENOLIC ENGRAVED LEGEND PLATES FOR EACH CUTOUT TO IDENTIFY THE RESPECTIVE CUTOUT INPUT CONNECTION AND THE RESPECTIVE CUTOUT OUTPUT CONNECTION.
3. PROVIDE PHENOLIC ENGRAVED LEGEND PLATES FOR EACH CUTOUT TO IDENTIFY THE RESPECTIVE CUTOUT INPUT CONNECTION AND THE RESPECTIVE CUTOUT OUTPUT CONNECTION.
4. BOND EACH REGULATOR FRAME TO VAULT GROUND BUS WITH A DEDICATED #6 AWG COPPER BONDING JUMPER.
5. PROVIDE ADEQUATE WORKING SPACE IN FRONT OF EACH CUTOUT ENCLOSURE TO MEET NEC CLEARANCE REQUIREMENTS.
6. 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.
7. SERIES PLUG CUTOUTS SHALL BE TYPE S-1, RATED 5000 VOLTS, 20-AMP. 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 FOR TAXIWAY B LIGHTING CIRCUITS 3 & 4 SHALL BE WIRED TO POWER TWO SEPARATE SERIES LIGHTING CIRCUITS FROM ONE CCR. SERIES CIRCUIT PLUG CUTOUTS SHALL BE SUITABLE FOR NORMAL OPERATION WITH HANDLE PLUG REMOVED TO ACCOMMODATE OPERATING ONE TWY LTG CKT WHILE THE OTHER TWY LTG CKT IS OFF. SERIES PLUG CUTOUTS SHALL BE CROUSE-HINDS CAT. NO. 30775, MANAIRO CAT. NO. MRS1, HUGHEY & PHILLIPS CAT. NO. MRS1 OR APPROVED EQUAL. THE RESPECTIVE MANUFACTURER SHALL CERTIFY IN WRITING THAT THEIR CUTOUT IS SUITABLE AND RATED FOR THE RESPECTIVE APPLICATION.
8. 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.
9. 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.
10. PROVIDE UL LISTED FIRE STOP MATERIAL AT EACH CONDUIT ENTRY AND EXIT TO EACH RESPECTIVE CUTOUT ENCLOSURE.

### LEGEND

**"I"** DENOTES PLUG CUTOUT WITH PLUG INSERTED

"P" DENOTES PLUG CUTOUT WITH PLUG PULLED

"CCR" DENOTES CONSTANT CURRENT REGULATOR



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

COVERING ELECTRICAL DESIGN



Henry D. Lightfoot

DATE: 3/14/2025      LICENSE: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: E-606.DWG  
DESIGN BY: KNL 3/5/2025  
DRAWN BY: CWS 3/7/2025  
REVIEWED BY: KNL 3/11/2025

SHEET TITLE

# PROPOSED HIGH VOLTAGE WIRING SCHEMATIC - TWY B CKTS 3 & 4

**FOR BID**



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LEGEND PLATE SCHEDULE	
DEVICE	LABEL
VAULT MAIN SERVICE DISCONNECT	MAX AVAILABLE FAULT CURRENT AT UTILITY XFMR SECONDARY CALCULATED TO BE _____ AMPS LINE TO LINE _____ AMPS LINE TO NEUTRAL ON (DATE)
VAULT TRANSFER SWITCH	MAX AVAILABLE FAULT CURRENT AT UTILITY XFMR SECONDARY CALCULATED TO BE _____ AMPS LINE TO LINE _____ AMPS LINE TO NEUTRAL ON (DATE)
VAULT MAIN DIST. PANEL "A"	MAX AVAILABLE FAULT CURRENT AT UTILITY XFMR SECONDARY CALCULATED TO BE _____ AMPS LINE TO LINE _____ AMPS LINE TO NEUTRAL ON (DATE). FAULT CURRENT AT VAULT MAIN DIST PANEL WAS CALCULATED TO BE _____ AMPS LINE TO LINE _____ AMPS LINE TO NEUTRAL ON (DATE).
VAULT MAIN DISTRIBUTION PANEL "A"	VAULT MAIN DIST. PANEL "A" 120/240 VAC, 1 PH, 3W FED FROM TERMINAL BUILDING AUTO TRANSFER SWITCH
VAULT MAIN DISTRIBUTION PANEL "A"	CONDUCTOR COLOR CODING SHALL BE AS FOLLOWS: PHASE A - BLACK PHASE B - RED NEUTRAL - WHITE GROUND - GREEN
VAULT DIST. PANEL "B"	MAX AVAILABLE FAULT CURRENT AT UTILITY XFMR SECONDARY CALCULATED TO BE _____ AMPS LINE TO LINE _____ AMPS LINE TO NEUTRAL ON (DATE). FAULT CURRENT AT VAULT DIST PANEL "B" WAS CALCULATED TO BE _____ AMPS LINE TO LINE _____ AMPS LINE TO NEUTRAL ON (DATE).
NEW TAXIWAY B CKT 3 & CKT 4 (TWY A6-RUNUP, B, B5, B6 & B7) CCR	TAXIWAY B CKT 3 & CKT 4 (TWY A6-RUNUP, B, B5, B6 & B7) CCR
CUTOUT ENCLOSURE FOR TWY B CKT 3 & CKT 4 (TWY A6-RUNUP, B, B5, B6 & B7) CCR	TAXIWAY B CKT 3 & CKT 4 (TWY A6-RUNUP, B, B5, B6 & B7) CCR
TOP OF EACH CCR (PROVIDE 12 LEGEND PLATES)	KEEP CLEAR DO NOT STORE MATERIALS ON TOP OF CCR
EACH CUTOUT INPUT SIDE CONNECTION	INPUT
EACH CUTOUT OUTPUT SIDE CONNECTION	OUTPUT
EACH CUTOUT ENCLOSURE	CAUTION OPERATE CUTOUT WITH CCRS SHUT OFF



OSHA-NEC CLEARANCE LABEL FOR PANELBOARDS AND LOAD CENTERS. LABELS SHALL BE APPROXIMATELY 3.5" BY 5". PROVIDE THESE LABELS (OR EQUIVALENT) FOR ALL 120/240 VAC PANELBOARDS AND LOAD CENTERS.

OSHA WARNING LABEL DETAIL

NOT TO SCALE



OSHA-NEC CLEARANCE LABEL FOR SERIES CIRCUIT DISCONNECT/CUTOUT ENCLOSURES. LABELS SHALL BE APPROXIMATELY 3.5" BY 5". PROVIDE THESE LABELS (OR EQUIVALENT) FOR ALL CUTOUT ENCLOSURES.

OSHA WARNING LABEL DETAIL FOR CUTOUT ENCLOSURES

NOT TO SCALE



"DANGER - LOCKOUT/TAGOUT" SIGN

NOT TO SCALE

PROVIDE ONE SIGN FOR EACH INTERIOR DOOR AT THE VAULT. SIGN SHALL BE APPROXIMATELY 10" H X 14" W.

NOTES:

- LEGEND PLATES SHALL BE WEATHERPROOF ENGRAVED PLASTIC OR PHENOLIC MATERIAL, 1/4" HIGH BLACK LETTERS ON A WHITE BACKGROUND UNLESS NOTED OTHERWISE. SECURE WITH WEATHERPROOF ADHESIVE AND MACHINE SCREWS. FURNISH ADDITIONAL LEGEND PLATES WHERE REQUIRED BY CODE, FOR ADDITIONAL EQUIPMENT, AS DETAILED HEREIN ON THE PLANS, AND AS NOTED IN THE SPECIAL PROVISION SPECIFICATIONS.
- PER 2023 NEC 110.22 "IDENTIFICATION OF DISCONNECTING MEANS". EACH DISCONNECTING MEANS SHALL BE LEGIBLY MARKED TO INDICATE ITS PURPOSE AND IDENTIFY THE POWER SOURCE THAT SUPPLIES THE DISCONNECTING MEANS.
- PER 2023 NEC 408.4 "FIELD MARKING REQUIRED" PART (B) "SOURCE OF SUPPLY", ALL SWITCHBOARDS, SWITCHGEAR, AND PANELBOARDS SUPPLIED BY A FEEDER(S) SHALL BE PERMANENTLY MARKED TO INDICATED EACH DEVICE OR EQUIPMENT WHERE THE POWER ORIGINATES.
- PER 2023 NEC 110.24 "AVAILABLE FAULT CURRENT" PART (A) "FIELD MARKING", SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED IN THE FIELD WITH THE AVAILABLE FAULT CURRENT. FAULT CURRENT INFORMATION TO BE PROVIDED BY SERVING ELECTRIC UTILITY COMPANY OR FROM DATA OBTAINED FROM UTILITY TRANSFORMER NAMEPLATE. CONTACT PROJECT ENGINEER OF RECORD TO CONFIRM FAULT CURRENT CALCULATIONS.
- PER 2023 NEC 408.6 "SHORT-CIRCUIT CURRENT RATING" THE AVAILABLE FAULT CURRENT AND THE DATE, THE CALCULATION WAS PERFORMED SHALL BE FIELD MARKED ON THE ENCLOSURE AT THE POINT OF SUPPLY. FAULT CURRENT INFORMATION TO BE PROVIDED BY SERVING ELECTRIC UTILITY COMPANY OR FROM DATA OBTAINED FROM UTILITY TRANSFORMER NAMEPLATE. CONTACT PROJECT ENGINEER OF RECORD TO CONFIRM FAULT CURRENT CALCULATIONS.
- VERIFY ALL POWER SOURCES TO EQUIPMENT. REPORT ANY VARIATIONS FROM THE SCHEDULE TO AIRPORT MANAGER AND ENGINEER OF RECORD. PROVIDE CORRECTIVE LABELING FOR RESPECTIVE POWER SOURCE WHERE APPLICABLE. SAFETY OF PERSONNEL IS THE PRIORITY.
- FURNISH & INSTALL A WEATHERPROOF WARNING LABEL FOR EACH SAFETY SWITCH, PANELBOARD, LOAD CENTER, CUTOUT, & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "ARC-FLASH HAZARD WARNING".
- PER 2023 NEC 702.7 "SIGNS" PART (A) "STANDBY", A SIGN SHALL BE PLACED AT THE SERVICE-ENTRANCE EQUIPMENT THAT INDICATES THE TYPE AND LOCATION OF EACH ON-SITE OPTIONAL STANDBY POWER SOURCE.
- CONTRACTOR SHALL PROVIDE APPROPRIATE LABELS ON ELECTRICAL EQUIPMENT, IN ACCORDANCE WITH 2024 NFPA 70E ARTICLE 130 WORK INVOLVING ELECTRICAL HAZARDS, PART 130.5 ARC FLASH RISK ASSESSMENT, (H) EQUIPMENT LABELING. WHERE MAXIMUM CALCULATED FAULT CURRENT EXCEEDS 25,000 AMPS CONTACT PROJECT ENGINEER.
- ALL LABELING WILL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE WORK.
- LEGEND PLATES MUST BE PLACED WHERE THEY ARE CLEARLY VISIBLE FOR THE RESPECTIVE EQUIPMENT OR DEVICE. WHERE THE EQUIPMENT/DEVICE DOES NOT HAVE ADEQUATE SPACE TO ACCOMMODATE THE LABEL OR LEGEND PLATE INSTALL THE LABEL/LEGEND PLATE IMMEDIATELY ADJACENT TO OR ABOVE THE RESPECTIVE DEVICE. INCLUDE MOUNTING PLAQUE SUITABLE FOR THE RESPECTIVE ENVIRONMENT.
- PROVIDE PLACARD/SIGNS FOR HALOTRON FIRE EXTINGUISHERS "FOR ELECTRICAL FIRES" WITH ARROW POINTING TO EXTINGUISHER.
- PROVIDE PLACARD/SIGNS FOR CARBON DIOXIDE FIRE EXTINGUISHERS "FOR ELECTRICAL FIRES" WITH ARROW POINTING TO EXTINGUISHER.
- PROVIDE PLACARD/SIGNS FOR ABC DRY CHEMICAL FIRE EXTINGUISHERS "FOR BUILDING FIRES" WITH ARROW POINTING TO EXTINGUISHER.



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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



Kevin N. Lightfoot

DATE SIGNED: 3/14/2025 LICENSE EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

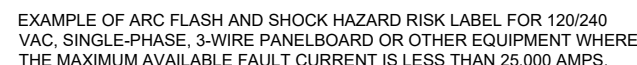
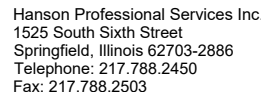
NO.	DATE	DESCRIPTION		
		DES	DWN	REV

ISSUE: MARCH 14, 2025  
PROJECT NO: 23A0001D  
CAD FILE: E-608.DWG  
DESIGN BY: KNL 3/5/2025  
DRAWN BY: CWS 3/7/2025  
REVIEWED BY: KNL 3/11/2025

SHEET TITLE

LEGEND PLATE  
SCHEDULES - 1

FOR BID



PROVIDE THESE LABELS FOR THE FOLLOWING EQUIPMENT:

1. VAULT MAIN SERVICE DISCONNECT.
2. VAULT TRANSFER SWITCH.
3. VAULT MAIN DISTRIBUTION PANEL "A".
4. VAULT MAIN DISTRIBUTION PANEL "B".
5. CONTROL PANEL FOR AIRFIELD NAVAIDS.
6. EACH RELAY INTERFACE PANEL FOR CCRS.
7. DOUBLE THROW SAFETY SWITCH FOR RUNWAY 5-23 CCRS.
8. DOUBLE THROW SAFETY SWITCH FOR RUNWAY 12L-30R CCRS.
9. DOUBLE THROW SAFETY SWITCH FOR RUNWAY 12R-30L CCRS.

NOTES:

1. SIGNS AND LABELS SHALL BE WEATHERPROOF AND/OR SUITABLE FOR THE RESPECTIVE ENVIRONMENT. SECURE WITH WEATHERPROOF ADHESIVE AND MACHINE SCREWS.
2. FURNISH & INSTALL A WEATHERPROOF WARNING LABEL FOR EACH SAFETY SWITCH, PANELBOARD, LOAD CENTER, CUTOUT, & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "ARC-FLASH HAZARD WARNING".
3. FAULT CURRENT INFORMATION TO BE PROVIDED BY SERVING ELECTRIC UTILITY COMPANY OR FROM DATA OBTAINED FROM UTILITY TRANSFORMER NAMEPLATE. CONTACT PROJECT ENGINEER TO CONFIRM FAULT CURRENT CALCULATIONS.
4. CONTRACTOR SHALL PROVIDE APPROPRIATE LABELS ON ELECTRICAL EQUIPMENT, IN ACCORDANCE WITH NFPA 70E ARTICLE 130 WORK INVOLVING ELECTRICAL HAZARDS, PART 130.5 ARC FLASH RISK ASSESSMENT, (H) EQUIPMENT LABELING. WHERE MAXIMUM CALCULATED FAULT CURRENT EXCEEDS 25,000 AMPS CONTACT PROJECT ENGINEER

"DANGER HIGH VOLTAGE KEEP OUT" LABELS, MARKINGS, AND/OR SIGNS ARE REQUIRED FOR EQUIPMENT RATED OVER 1000 VOLTS AC IN ACCORDANCE WITH THE FOLLOWING:

- 2020/2023 NEC 110.34(C) "LOCKED ROOMS OR ENCLOSURES".
- 2020 NEC 300.45 "DANGER SIGNS".
- 2023 NEC 305.12 "DANGER SIGNS".
- 2020/2023 NEC 314.72(E) "SUITABLE COVERS".
- 2020 NEC 490.35 (A) "HIGH-VOLTAGE EQUIPMENT".
- 2023 NEC 495.35 (A) "HIGH-VOLTAGE EQUIPMENT".
- AC 150/5340-26C "MAINTENANCE OF AIRPORT VISUAL AID FACILITIES".



NOT TO SCALE

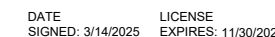
PROVIDE ONE SIGN FOR EACH  
INTERIOR DOOR AT THE VAULT.

PROVIDE WEATHERPROOF WARNING SIGN FOR EACH DOOR TO AIRPORT ELECTRICAL VAULT  
 LABELED "DANGER - HIGH VOLTAGE UNAUTHORIZED PERSONNEL KEEP OUT" PER THE REQUIREMENTS OF NEC 110.34 (C). SIGN SHALL BE APPROXIMATELY 10"H X 14"W OR 14" H X 20" W. NEW SIGNS SHALL REPLACE EXISTING SIGNS ON VAULT DOORS.



NOT TO SCALE

FURNISH AND INSTALL "DANGER - HIGH VOLTAGE KEEP OUT" LABELS/SIGNS FOR HIGH VOLTAGE SECTION OF CONSTANT CURRENT REGULATORS, SERIES CIRCUIT DISCONNECT/CUTOUT ENCLOSURES, HIGH VOLTAGE WIREWAYS, AND HIGH VOLTAGE PULL BOXES. LABELS SHALL BE MINIMUM 3.5"H X 5" W.



RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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

NO.	DATE	DESCRIPTION			
		DES	DWN	RE	

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SHEET TITLE

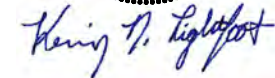
LEGEND PLATE AND  
SIGNAGE  
SCHEDULES - 2

**FOR BID**



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

COVERING ELECTRICAL DESIGN



DATE  
SIGNED: 3/14/2025

LICENSE  
EXPIRES: 11/30/2025

RELOCATE/RECONSTRUCT  
TAXIWAY B, PHASE 3:  
CONSTRUCT FROM  
TAXIWAY B5 TO B7  
AND B1 INTERSECTION

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CONTRACT NO.: SD064

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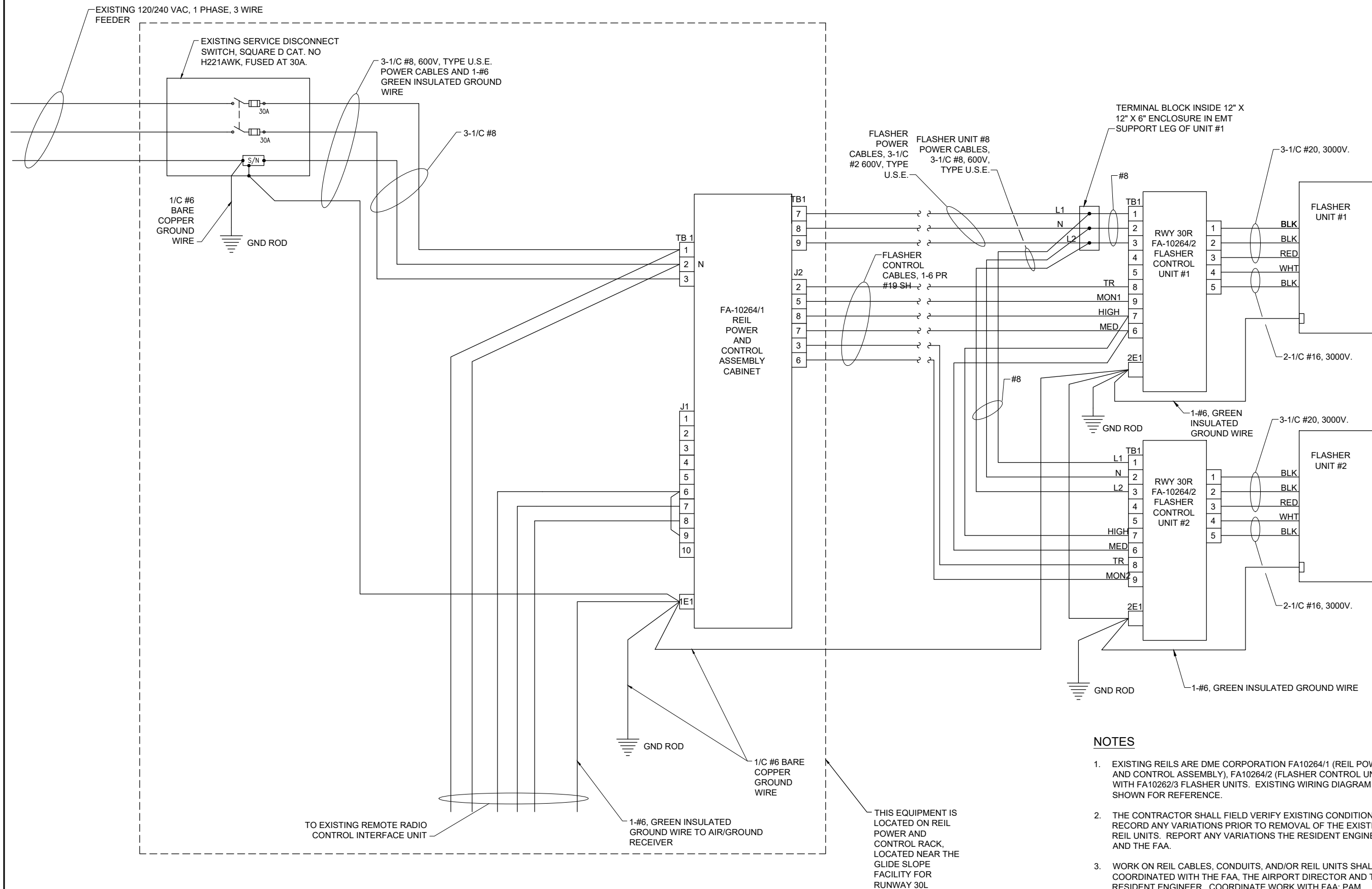
DESIGN BY: KNL 3/5/2025

DRAWN BY: CWS 3/7/2025

REVIEWED BY: KNL 3/11/2025

**SHEET TITLE**

# EXISTING WIRING SCHEMATIC FOR RUNWAY 30R REILS



## NOTES

1. 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.
2. 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.
3. 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.

**FOR BID**

