IDOT LETTING: JUNE 12, 2020

CO067 TOTAL SHEETS = 70

CONSTRUCTION PLANS

PHASE 2: RECONSTRUCT TAXIWAY B

COLES COUNTY AIRPORT AUTHORITY
COLES COUNTY MEMORIAL AIRPORT (MTO)
MATTOON-CHARLESTON, COLES COUNTY, ILLINOIS

ILLINOIS PROJECT NO. MTO-4752 SBG PROJECT NO. 3-17-SBGP-156/159

APRIL 17, 2020

Allenville Cooks Mills Mills Mills Mattoon Matt



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.









	19JOBS\19A0001\19A0001D\CAD\AIRPORT\SHEET\C-002-SOQ.DWG	
100	1:\19JOBS\18	

	INDEX TO SHEETS
SHEET NO.	SHEET TITLE
1	COVER SHEET
2	SUMMARY OF QUANTITIES, INDEX TO SHEETS, AND GENERAL NOTES
3	SCOPE OF WORK AND SAFETY PLAN
4	CONSTRUCTION PHASING PLAN - PHASE 1
5	CONSTRUCTION PHASING PLAN - PHASE 2
<u>6</u> 7	CONSTRUCTION PHASING PLAN - PHASE 3 CONSTRUCTION PHASING PLAN - PHASE 4
8	CONSTRUCTION PHASING PLAN - PHASE 5
9	CONSTRUCTION PHASING PLAN - PHASE 6
10	SAFETY NOTES AND DETAILS
11	TYPICAL SECTIONS AND DETAILS
12	REMOVAL PLAN TAXIWAY B STA. 40+00 TO 52+00 AND TAXIWAY B2
13	REMOVAL PLAN TAXIWAY B STA. 52+00 TO 63+00
14	REMOVAL PLAN TAXIWAY B STA. 63+00 TO 75+21.48 AND TAXIWAY B3
15	PLAN AND PROFILE - TAXIWAY B STA. 41+20 TO STA. 51+00
16 17	PLAN AND PROFILE - TAXIWAY B STA, 51+00 TO STA, 64+00
18	PLAN AND PROFILE - TAXIWAY B STA. 64+00 TO STA. 75+22 PLAN AND PROFILE - TAXIWAY B2 & B3
19	PLAN AND PROFILE - TAXIWAY 62 & 63 PLAN AND PROFILE - RUNWAY 6-24
20	UNDERDRAIN PLAN TAXIWAY B STA. 41+00 TO 52+00 AND TAXIWAY B2
21	UNDERDRAIN PLAN TAXIWAY B STA. 52+00 TO 64+00
22	UNDERDRAIN PLAN TAXIWAY B STA. 64+00 TO 75+22 AND TAXIWAY B3
23	DRAINAGE DETAILS
24	STAKING PLAN TAXIWAY B STA. 41+00 TO 48+00 AND RUNWAY 6-24
25	STAKING PLAN TAXIWAY B STA. 48+00 TO 53+00 AND TAXIWAY B2
26	STAKING PLAN TAXIWAY B STA. 53+00 TO 68+00
27	STAKING PLAN TAXIWAY B STA. 68+00 TO 75+22 AND TAXIWAY B3
28	STORMWATER POLLUTION PREVENTION PLAN STORMWATER POLLUTION PREVENTION PLAN DETAILS
29 30	MARKING PLAN TAXIWAY B STA. 41+00 TO 52+00 AND TAXIWAY B2
31	MARKING PLAN TAXIWAY B STA. 41400 TO 52400 AND TAXIWAY B2 MARKING PLAN TAXIWAY B STA. 52400 TO 64400
32	MARKING PLAN TAXIWAY B STA. 64+00 TO 75+22 AND TAXIWAY B3
33	MARKING PLAN TAXIWAY D
34	MARKING DETAILS - SHEET 1
35	MARKING DETAILS - SHEET 2
36	TAXIWAY B CROSS SECTIONS - STA. 41+22 - STA. 43+50
37	TAXIWAY B CROSS SECTIONS - STA. 44+00 - STA. 47+00
38	TAXIWAY B CROSS SECTIONS - STA. 47+50 - STA. 50+00
39	TAXIWAY B CROSS SECTIONS - STA. 50+19 - STA. 52+50
40	TAXIWAY B CROSS SECTIONS - STA. 53+00 - STA. 55+50
41 42	TAXIWAY B CROSS SECTIONS - STA. 56+00 - STA. 58+50 TAXIWAY B CROSS SECTIONS - STA. 59+00 - STA. 61+50
43	TAXIWAY B CROSS SECTIONS - STA: 59+00 - STA: 61+50
44	TAXIWAY B CROSS SECTIONS - STA. 65+00 - STA. 67+50
45	TAXIWAY B CROSS SECTIONS - STA. 68+00 - STA. 70+50
46	TAXIWAY B CROSS SECTIONS - STA. 71+00 - STA. 73+50
47	TAXIWAY B CROSS SECTIONS - STA. 74+00 - STA. 75+00
48	RUNWAY 6-24 CROSS SECTIONS STA. 42+50 - STA. 45+00
49	RUNWAY 6-24 CROSS SECTIONS STA. 45+50 - STA. 46+25
50	TAXIWAY B2 CROSS SECTIONS STA. 1+53 - STA. 2+00
51	TAXIWAY B2 CROSS SECTIONS STA. 2+50 - STA. 5+00
52	TAXIWAY B2 CROSS SECTIONS STA. 5+50 - STA. 6+00
53	TAXIWAY B3 CROSS SECTIONS STA. 1+50 - STA. 3+00
54 55	TAXIWAY B3 CROSS SECTIONS STA. 3+50 - STA. 5+00 AIRFIELD LIGHTING PLAN
56	TAXI GUIDANCE SIGN MODIFICATION PLAN
57	TAXI GUIDANCE SIGN MODIFICATION FLAN TAXI GUIDANCE SIGN SCHEDULE
58	AIRFIELD LIGHTING NOTES
59	TAXI GUIDANCE SIGN DETAILS
60	IN-PAVEMENT RUNWAY LIGHT ADJUSTMENT DETAIL
61	AIRFIELD LIGHTING CABLE SPLICE DETAILS
62	ELECTRICAL NOTES SHEET 1
63	ELECTRICAL NOTES SHEET 2
64	GROUND RESISTANCE TESTING DETAILS
65	GROUNDING NOTES
66	ELECTRICAL LEGEND AND ABBREVIATIONS
67	EXISTING ELECTRICAL ONE LINE DIAGRAM FOR VAULT EXISTING HIGH VOLTAGE WIRING SCHEMATIC FOR RUNWAYS
	EXISTING HIGH VOLTAGE WIRING SCHEMATIC FOR RUNWAYS
68 69	EXISTING HIGH VOLTAGE WIRING SCHEMATIC FOR TWY CKTS 1,3,3A&5

	SUMMARY OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITY	AS-BUILT QUANTITY	
AR125446	TAXI GUIDANCE SIGN, 6 CHARACTER	EACH	1		
AR125932	REPLACE SIGN PANEL	EACH	63		
AR125943	ADJUST INPAVEMENT LIGHT	EACH	1		
AR150510	ENGINEER'S FIELD OFFICE	L.S.	1		
AR150520	MOBILIZATION	L.S.	1		
AR150540	HAUL ROUTE	L.S.	1		
AR152480	SHOULDER ADJUSTMENT	S.Y.	9,575		
AR156510	SILT FENCE	L.F.	448		
AR156530	TEMPORARY SEEDING	ACRE	2		
AR401614	BIT. SURF. CSEMETHOD II, SUPERPAVE	TON	3,800		
AR401630	BITUMINOUS SURFACE TEST SECTION	EACH	1		
AR401640	BITUMINOUS PAVEMENT GROOVING	S.Y.	3,345		
AR401650	BITUMINOUS PAVEMENT MILLING	S.Y.	1,750		
AR401663	LONGITUDINAL JOINT SEALANT	L.F.	7,300		
AR403614	BIT. BASE CSEMETHOD II, SUPERPAVE	TON	4,175		
AR403630	BITUMINOUS BASE TEST SECTION	EACH	1		
AR501120	RUBBLIZE PAVEMENT	S.Y.	31,935		
AR501550	PCC PAVEMENT MILLING	S.Y.	31,935		
AR501910	REMOVE & REPLACE PCC PAVEMENT	S.Y.	34		
AR603510	BITUMINOUS TACK COAT	GAL.	4,800		
AR620520	PAVEMENT MARKING-WATERBORNE	S.F.	11,225		
AR620525	PAVEMENT MARKING-BLACK BORDER	S.F.	10,277		
AR620555	PREFORMED THERMOPLASTIC	S.F.	1,425		
AR620900	PAVEMENT MARKING REMOVAL	S.F.	2,838		
AR705526	6" PERFORATED UNDERDRAIN W/SOCK	L.F.	9,330		
AR705546	6" NON PERFORATED UNDERDRAIN	L.F.	360		
AR705630	UNDERDRAIN INSPECTION HOLE	EACH	7		
AR705635	UNDERDRAIN COLLECTION STRUCTURE	EACH	6		
AR705640	UNDERDRAIN CLEANOUT	EACH	11		
AR705900	REMOVE UNDERDRAIN	L.F.	344		
AR705904	REMOVE UNDERDRAIN CLEANOUT	EACH	6		
AR760708	8" STEEL CASING	L.F.	108		
AR901510	SEEDING	ACRE	2		
AR908510	MULCHING	ACRE	2		

GENERAL NOTES

- PERFORMED AS SHOWN IN THESE PLANS. ALL INCIDENTAL WORK REQUIRED TO COMPLETE THE PROJECT TO THE SATISFACTION OF THE RESIDENT ENGINEER IS TO BE INCLUDED IN THE COSTS OF PERFORMING THESE ITEMS. 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.
- CONSIDERED AS MINIMUM REQUIREMENTS. THEY SHALL NOT PROHIBIT THE ARE SPECIFIED HEREIN, IF APPROVED BY THE ENGINEER.
- CONSTRUCTION ENTRANCE, STAGING AREA, AND HAUL ROUTE. NO EQUIPMENT OR PERSONNEL SHALL BE PERMITTED OUTSIDE THE GENERAL PROJECT AREA.
- CLEAN OF DEBRIS ALL EXISTING AIRFIELD AND ROADWAY PAVEMENTS AT ALL TIMES. ANY DAMAGE TO EXISTING ELECTRICAL, DRAINAGE, AND PAVEMENT STRUCTURES SHALL
- 5. CONTRACTOR IS REQUIRED TO PROVIDE THEIR OWN RESTROOM FACILITIES.
- 6. THE LOCATION OF THE ENGINEER'S FIELD OFFICE WILL BE DETERMINED AT THE
- 7. THE OWNER SHALL HAVE THE RIGHT OF FIRST REFUSAL FOR ALL SALVAGEABLE MATERIAL REMOVED ON THE PROJECT.
- 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.
- 9. THE CONTRACTOR SHALL PROVIDE ONE SET OF PRELIMINARY REDLINED RECORD DRAWINGS TO THE RESIDENT ENGINEER AT THE COMPLETION OF THE PROJECT FOR INCORPORATION INTO THE OFFICIAL RECORD DRAWINGS HE WILL PREPARE.
- 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 AUTHORITIES FOR THE PURPOSE OF LOCATING AND PROTECTING EXISTING UNDERGROUND UTILITIES.
- 11. NPDES PERMIT THIS PROJECT WILL DISTURB MORE THAN 1 ACRE, THEREFORE A NPDES PERMIT IS REQUIRED.
- ACCEPTED BY THE RESIDENT ENGINEER. MATERIALS INSTALLED WITHOUT APPROVAL ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
- 13. <u>CERTIFIED PAYROLLS</u> THE RESIDENT ENGINEER <u>CANNOT</u> FORWARD A CONSTRUCTION REPORT FOR PAYMENT TO THE IDOT-DIVISION OF AERONAUTICS FOR PROCESSING

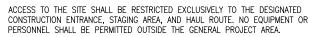
J.U.L.I.E. INFORMATION

COUNTY COLES MATTOON TOWNSHIP. LAFAYETTE SECTION NO.___ 14.15.22.23 ADDRESS_ COLES COUNTY MEMORIAL AIRPORT

4.32 AIRPORT ROAD MATTTON, ILLINOIS 61938

THE PROJECT PAY ITEMS ARE INTENDED TO BE INCLUSIVE OF ALL WORK TO BE

2. THE RULES, REGULATIONS, AND SPECIFICATIONS ENUMERATED HEREIN SHALL BE CONTRACTOR FROM FURNISHING AND INSTALLING HIGHER GRADES OF MATERIAL THAN



4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT AND KEEP BE IMMEDIATELY REPAIRED AT NO ADDITIONAL COST TO THE CONTRACT.

PRE-CONSTRUCTION MEETING

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING PERMITS FOR HAULING ON

10. APPROXIMATE LOCATIONS OF UNDERGROUND UTILITIES ARE SHOWN THROUGHOUT

12. <u>MATERIAL CERTIFICATIONS</u> — MATERIALS <u>CANNOT</u> BE INSTALLED UNTIL <u>ALL</u> THE MATERIAL CERTIFICATIONS FOR THAT ITEM HAVE BEEN RECEIVED, REVIEWED AND

UNTIL ALL CERTIFIED PAYROLLS FOR THAT PERIOD HAVE BEEN RECEIVED.

SUMMARY OF QUANTITIES, INDEX TO SHEETS, AND

GENERAL NOTES

CAD FILE: C-002-SOQ.DWG

REVIEWED BY: KBS 04/16/2020

DESIGN BY: JAP 5/2018

DRAWN BY: JAP 5/2018

Offices Nationwide

1525 S. 6th Street

Springfield, IL 62568

fax: 217-788-2503

Illinois Licensed

PHASE 2:

TAXIWAY B

RECONSTRUCT

IDA No: MTO-4752

3-17-SBGP-156/159

Contract No. CO067

SBG Project No:

NO. DATE

ISSUE: 04/17/2020 PROJECT NO: 19A0001

SHEET TITLE

phone: 217-788-2450

www.hanson-inc.com

Hanson Professional Services Inc.

Professional Service Corporation #184-001084

COLES COUNTY AIRPORT

AUTHORITY

DESCRIPTION

DES DWN REV

UTILITY NOTE

THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY 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.

- . <u>SCOPE OF WORK</u> THE PROPOSED WORK CONSISTS OF RECONSTRUCTING THE EAST HALF OF TAXIWAY "B" BY CONCRETE RUBBLIZATION AND ASPHALT RESURFACING. ASSOCIATED WORK ITEMS INCLUDE PCC PAVEMENT RUBBLIZATION, PAVEMENT MILLING, ASPHALT PAVING, UNDERDRAINS, PAVEMENT MARKING, SHOULDER ADJUSTMENT, SEEDING, AND MULCHING.
- 2. <u>GENERAL</u> THE COLES COUNTY MEMORIAL AIRPORT IS A FAA PART 139, NON-TOWER CONTROLLED, GENERAL AVIATION AIRPORT COMPRISED OF TWO PAVED RUNWAYS AND ONE SOD SHORT TAKEOFF AND LANDING (STOL) RUNWAY. THE PROPOSED EAST PROJECT AREA CONSTRUCTION WILL NECESSITATE THE CLOSING OF THE EAST HALF OF TAXIWAY B, B2 AND B3 FOR THE DURATION OF THE WORK, AND THE PERIODIC CLOSURES OF RUNWAYS 11-29 AND 6-24.
- 3. PROEJCT SCHEDULE THE CONTRACTOR WILL NOT RECEIVE NOTICE-TO-PROCEED WORK UNTIL THE WEEK FOLLOWING THE AIRPORT'S BIENNIAL AIRSHOW ON AUGUST 29, 2020 AT THE EARLIEST. DUE TO ANTICIPATED PROJECT START DATE AND SEASONAL WEATHER/TEMPERATURE CONCERNS, ONLY UNDERDRAIN INSTALLATION WORK ASSOCIATED WITH PHASES 1-3 WILL BE PERMITTED TO TAKE PLACE IN THE FALL OF 2020. UPON COMPLETION OF UNDERDRAIN INSTALLATION, THE PROJECT SITE SHALL BE RESTORED TO AN ACCEPTABLE TO CONDITION TO REOPEN ALL PAVEMENTS TO AIRFIELD TRAFFIC, AND THE PROJECT SUSPENDED LINIT SERBING 2021.
- 3. AT NO TIME MAY RUNWAY 11/29 AND 6/24 BE CLOSED CONCURRENTLY, EXCEPT DURING PHASE 3 WHILE WORKING WITHIN THE RUNWAY INTERSECTION.

- . <u>AIRFIELD SAFETY ASSURANCE</u> AIRFIELD SAFETY SHALL BE HELD PARAMOUNT AT ALL TIMES. ANY INDIVIDUALS RESPONSIBLE FOR INCURSIONS OR POTENTIAL INCURSIONS WITH AIR TRAFFIC DUE TO NON—COMPLIANCE WITH REQUIREMENTS SET FORTH IN THESE PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND FAA ADVISORY CIRCULAR 150/5370—2 (CURRENT EDITION) WILL BE SUBJECT TO AN IMMEDIATE SUSPENSION OF DRIVING PRIVILEGES ON THE AIRPORT OR A COMPLETE RESTRICTION FROM ENTERING THE AIR OPERATIONS AREA ALTOGETHER. THE AIRPORT MANAGER OR RESIDENT ENGINEER/TECHNICIAN MAY STOP THE WORK AT ANY TIME THEY BELIEVE AIRFIELD SAFETY IS BEING COMPROMISED.
- 5. AIRPORT SECURITY WILL BE MAINTAINED AT ALL TIMES. ONLY CONTRACTOR EMPLOYEES SHALL BE ALLOWED WITHIN THE PROJECT LIMITS. GATES SHALL BE CLOSED AT ALL TIMES UNLESS THE CONTRACTOR IS IN A CONTINUOUS HAULING OPERATIONS, DURING WHICH TIME HE WILL PROVIDE A PERSON TO MONITOR THE GATE AREA.
- 6. RADIO CONTROL THE CONTRACTOR WILL BE REQUIRED TO BE IN TWO-WAY RADIO CONTACT WITH THE AIRPORT UNICOM (122.70 MHz) ANY TIME THERE ARE WORKERS OR EQUIPMENT ON THE AIRFIELD.



Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

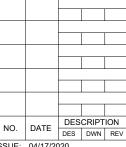
Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159

Contract No. CO067

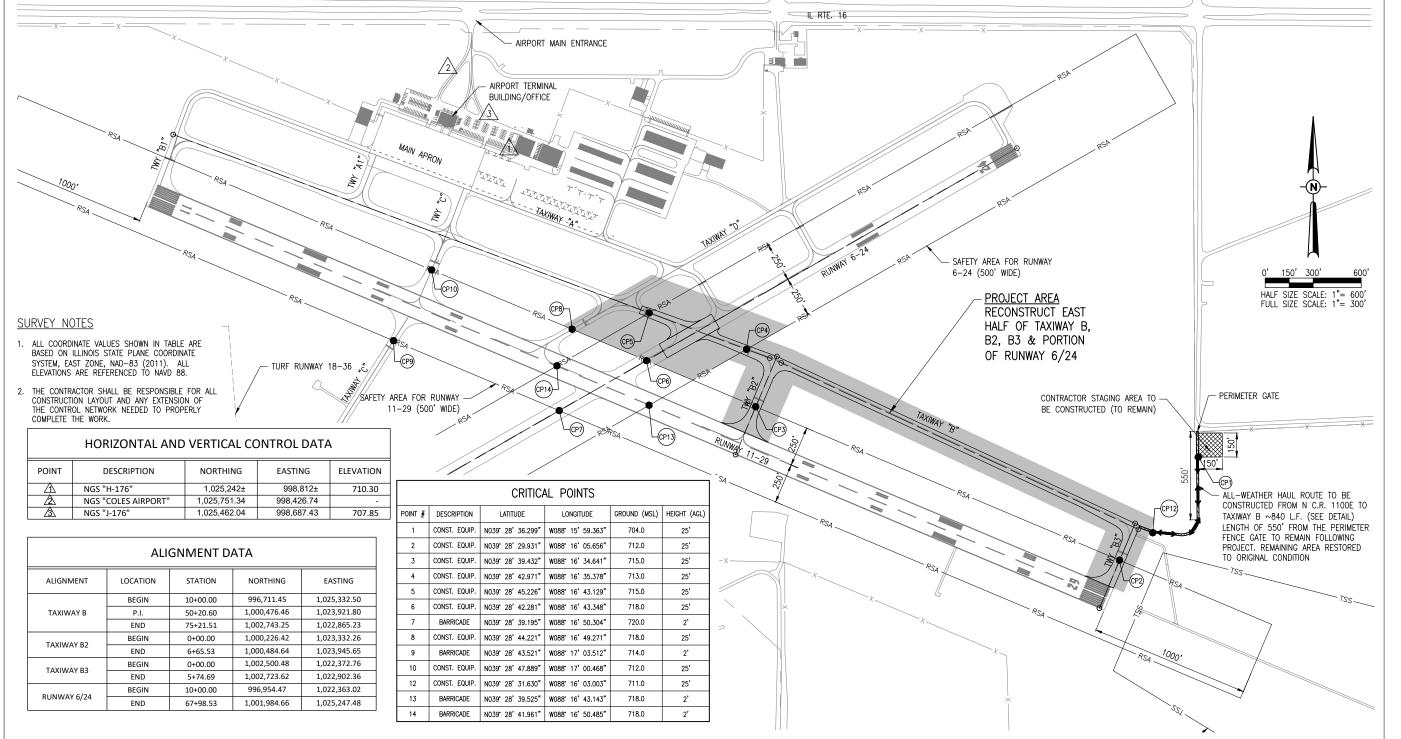


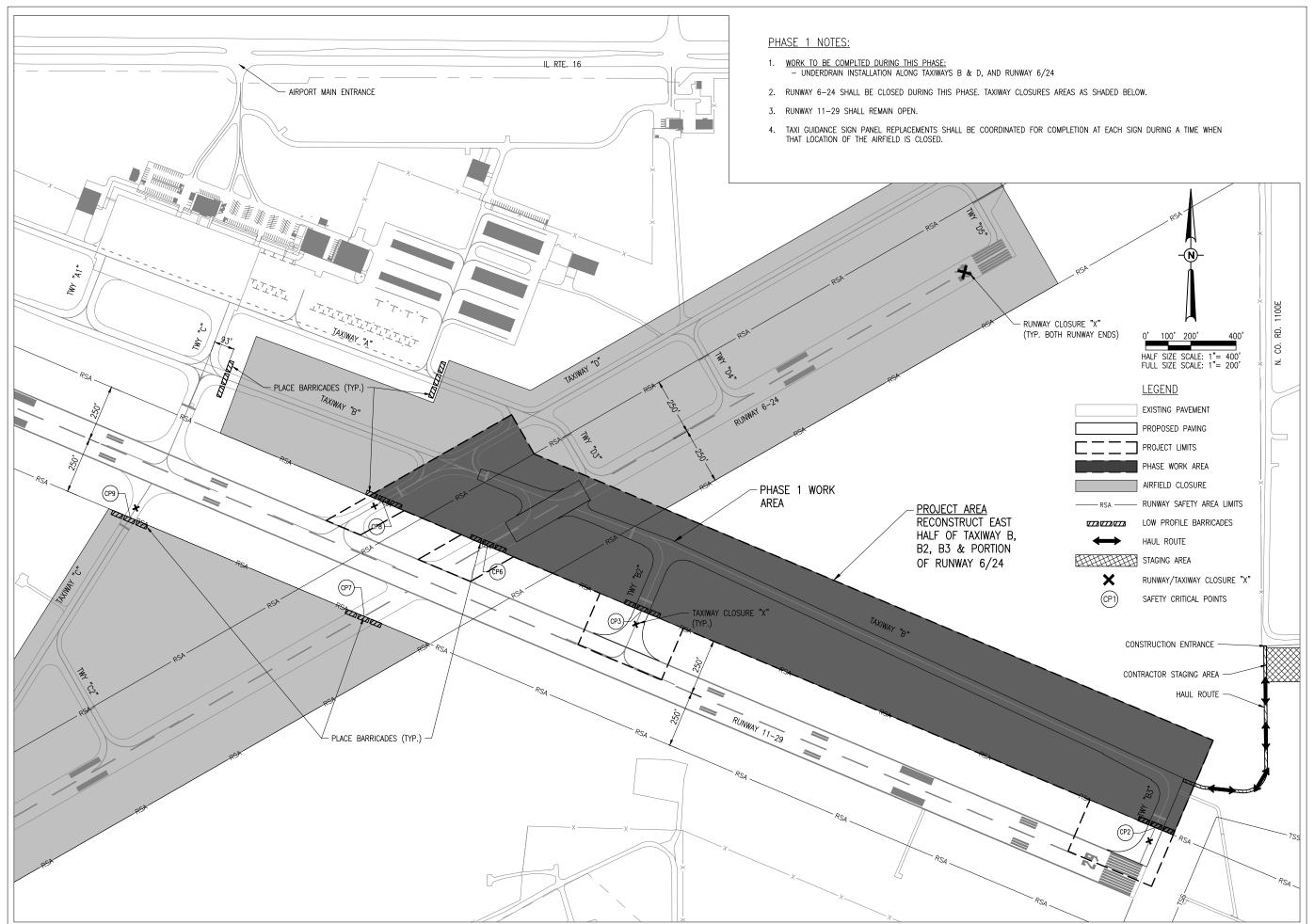
ISSUE: 04/17/2020 PROJECT NO: 19A0001

CAD FILE: C-101-SOW.DWG
DESIGN BY: KBS 05/2019
DRAWN BY: JAP 05/2019
REVIEWED BY: KBS 03/19/2020

SHEET TITLE

SCOPE OF WORK AND SAFETY PLAN







Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed
Professional Service Corporation
#184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

NO.	DATE	DES	CRIPT	ION	
INO.	DATE	DES	DWN	REV	
SUE: 04/17/2020					
ROJEC	CT NO: 1	9A000	1		

PROJECT NO: 19A0001

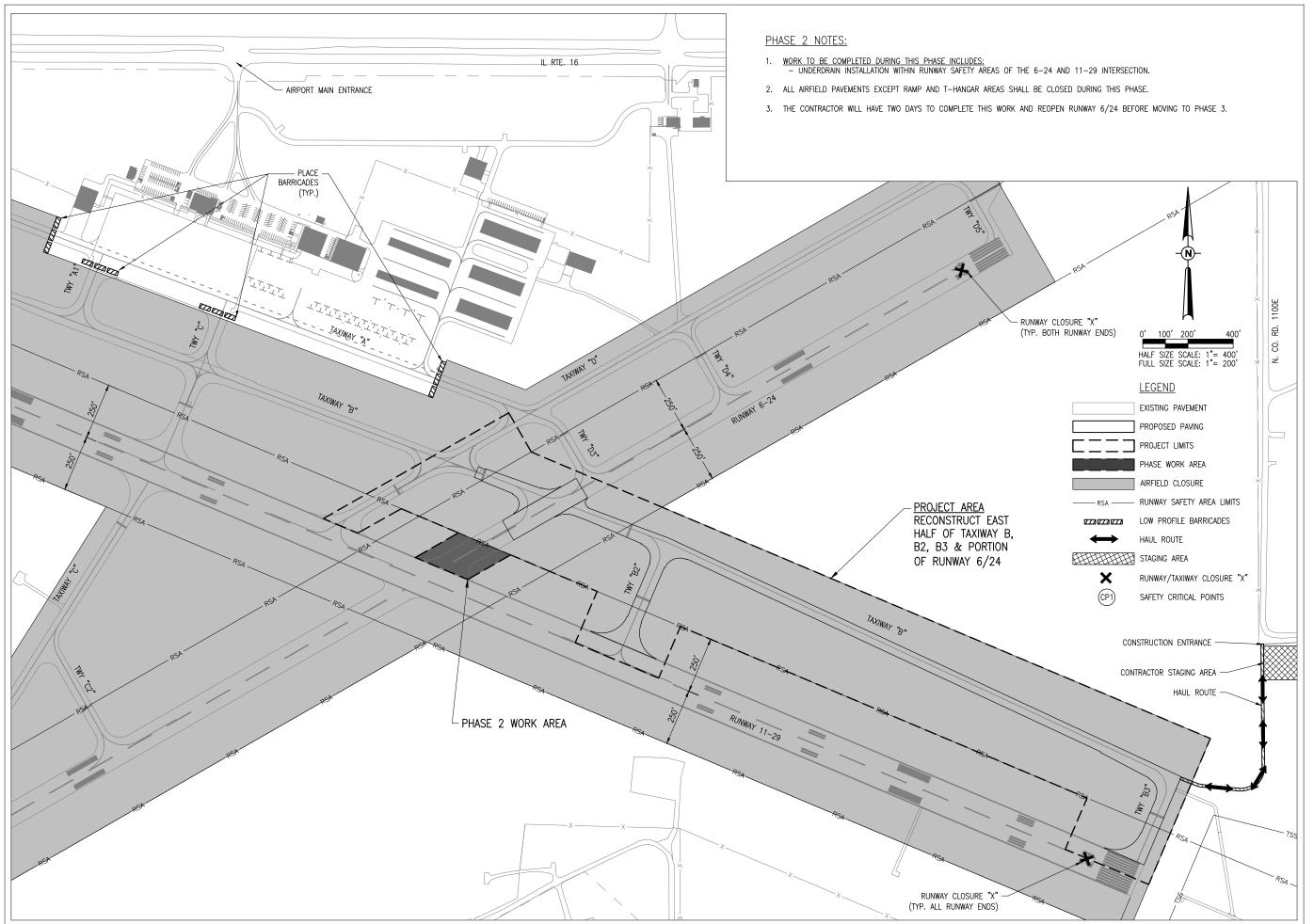
CAD FILE: C-102-CSPP.DWG

DESIGN BY: KBS 10/2019

DRAWN BY: KBS 10/2019
REVIEWED BY: KBS 03/19/20

REVIEWED BY: KBS 03/19/2020

SHEET TITLE





Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL AIRPORT

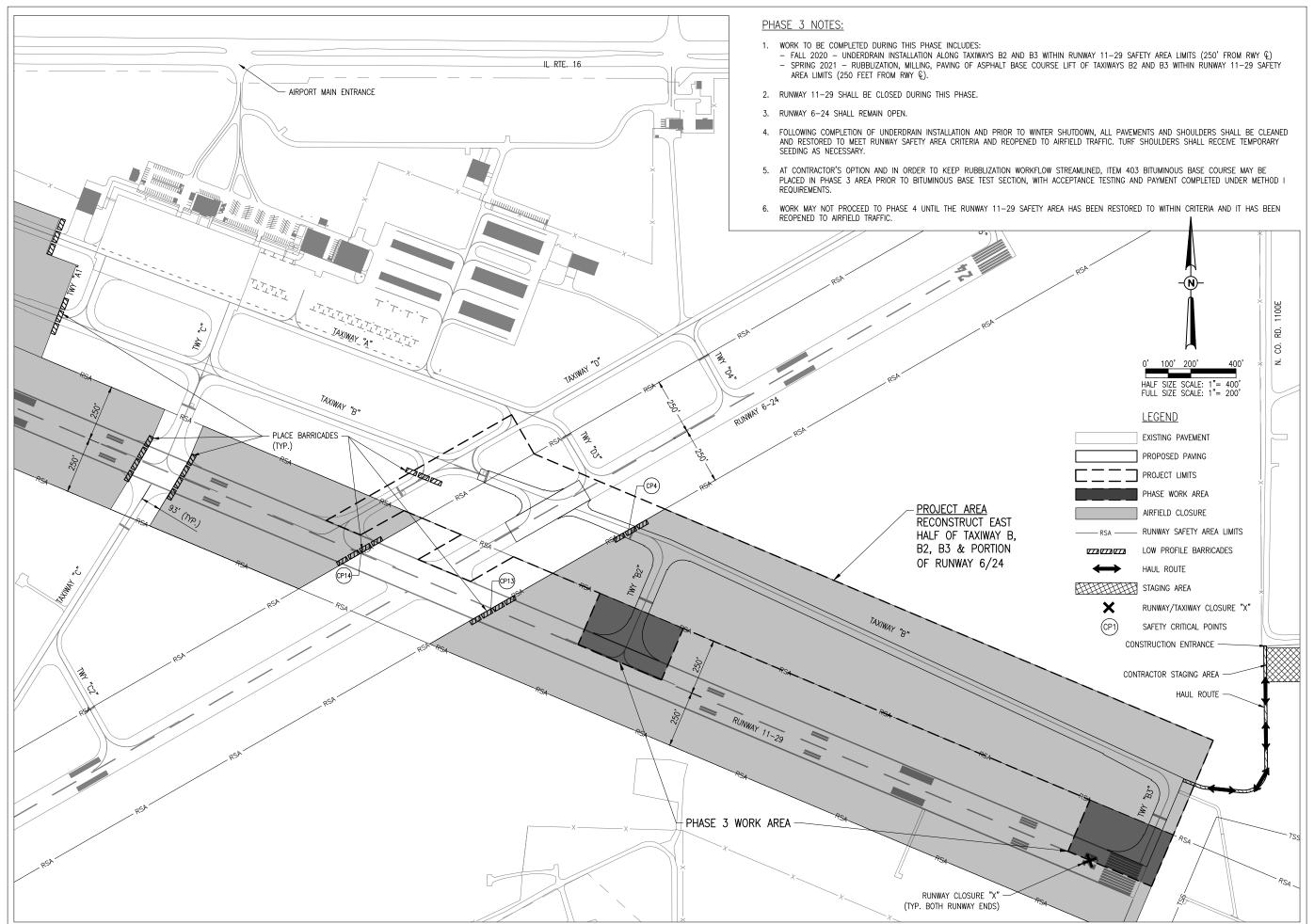
PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

NO.	DATE	DES	CRIPT	ION	
NO.	DATE	DES	DWN	REV	
SUE: 04/17/2020					
ROJEC	CT NO: 1	9A000	1		

PROJECT NO: 19A0001 CAD FILE: C-102-CSPP.DWG DESIGN BY: KBS 10/2019 DRAWN BY: KBS 10/2019 REVIEWED BY: KBS 03/19/2020

SHEET TITLE





Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES CONTY MEMORIAL AIRFORT

PHASE 2: RECONSTRUCT TAXIWAY B

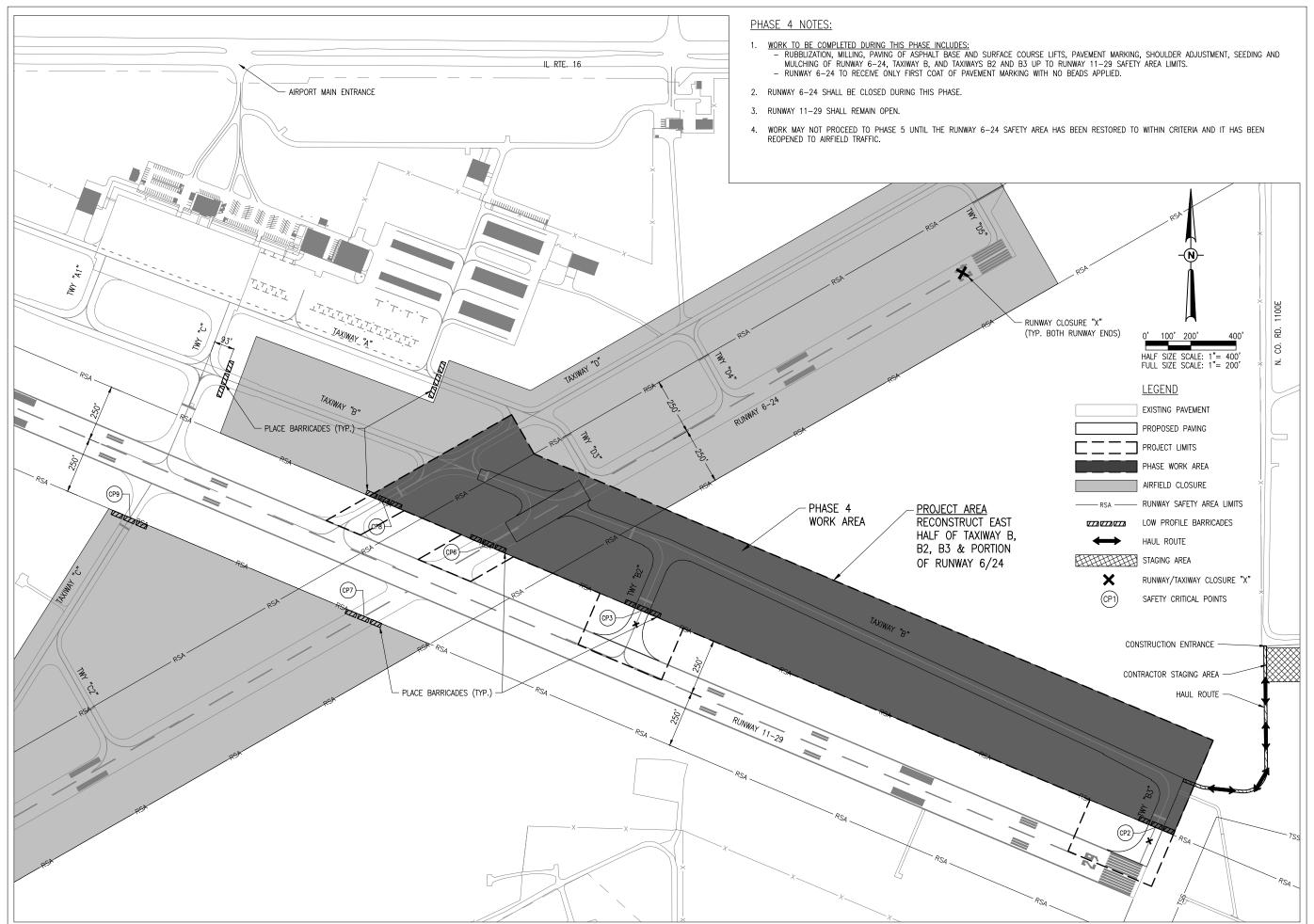
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

NO. DATE DESCRIPTION DES DWN REV ISSUE: 04/17/2020

PROJECT NO: 19A0001
CAD FILE: C-102-CSPP.DWG
DESIGN BY: KBS 10/2019

DESIGN BY: KBS 10/2019
DRAWN BY: KBS 10/2019
REVIEWED BY: KBS 03/19/2020

SHEET TITLE





Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed
Professional Service Corporation
#184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

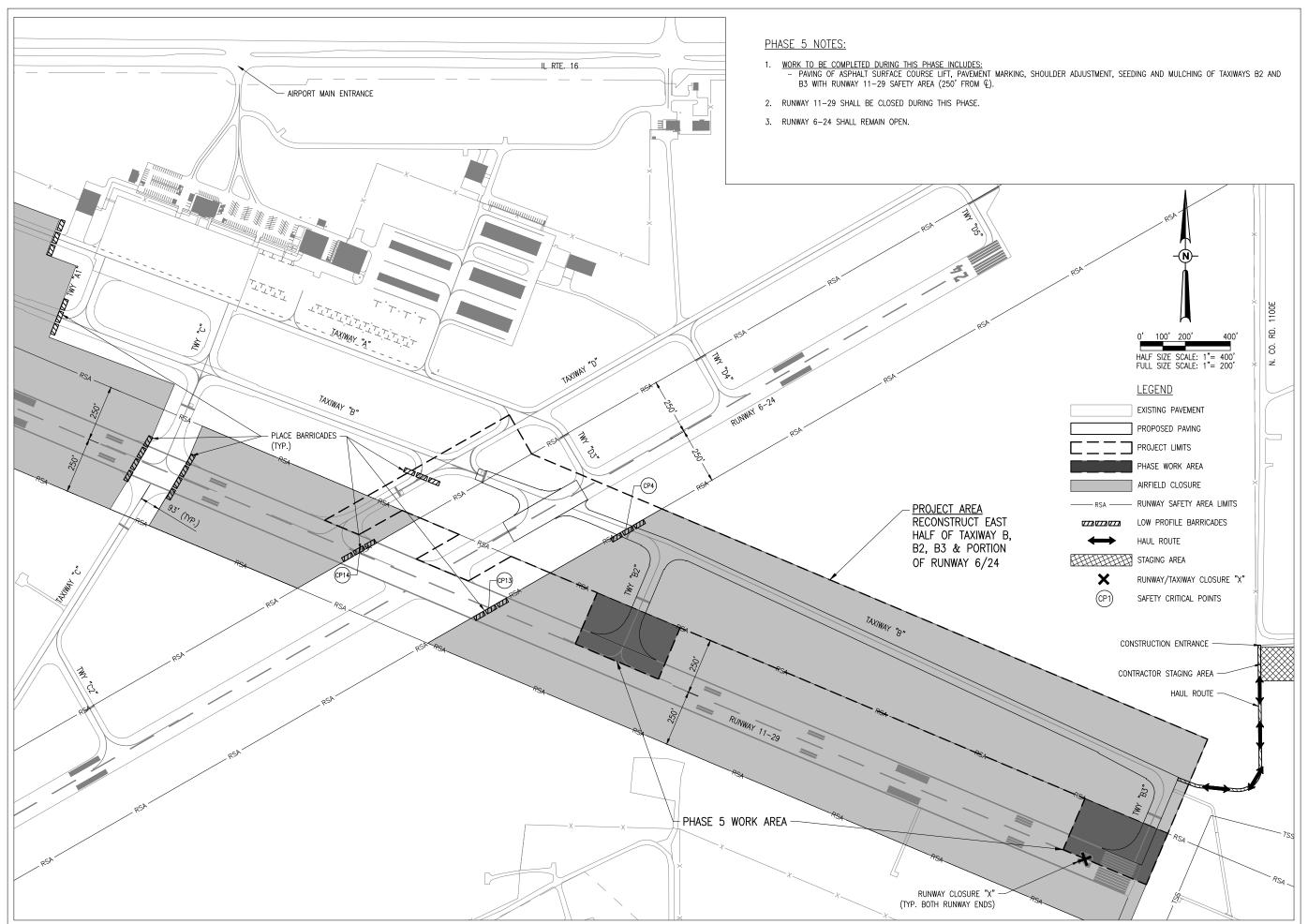
NO.	DATE	DES	CRIPT	ION		
NO.	DATE	DES	DWN	REV		
ISSUE:	04/17/20	020				
PROJEC	CT NO: 1	9A000	1			
CAD FILE: C-102-CSPP.DWG						
DESIGN	DESIGN BY: KBS 10/2019					
DRAWN	BY: KBS	S 10/20)19			

ONSTRUCTIO

SHEET TITLE

CONSTRUCTION PHASING PLAN -PHASE 4

REVIEWED BY: KBS 03/19/2020





Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

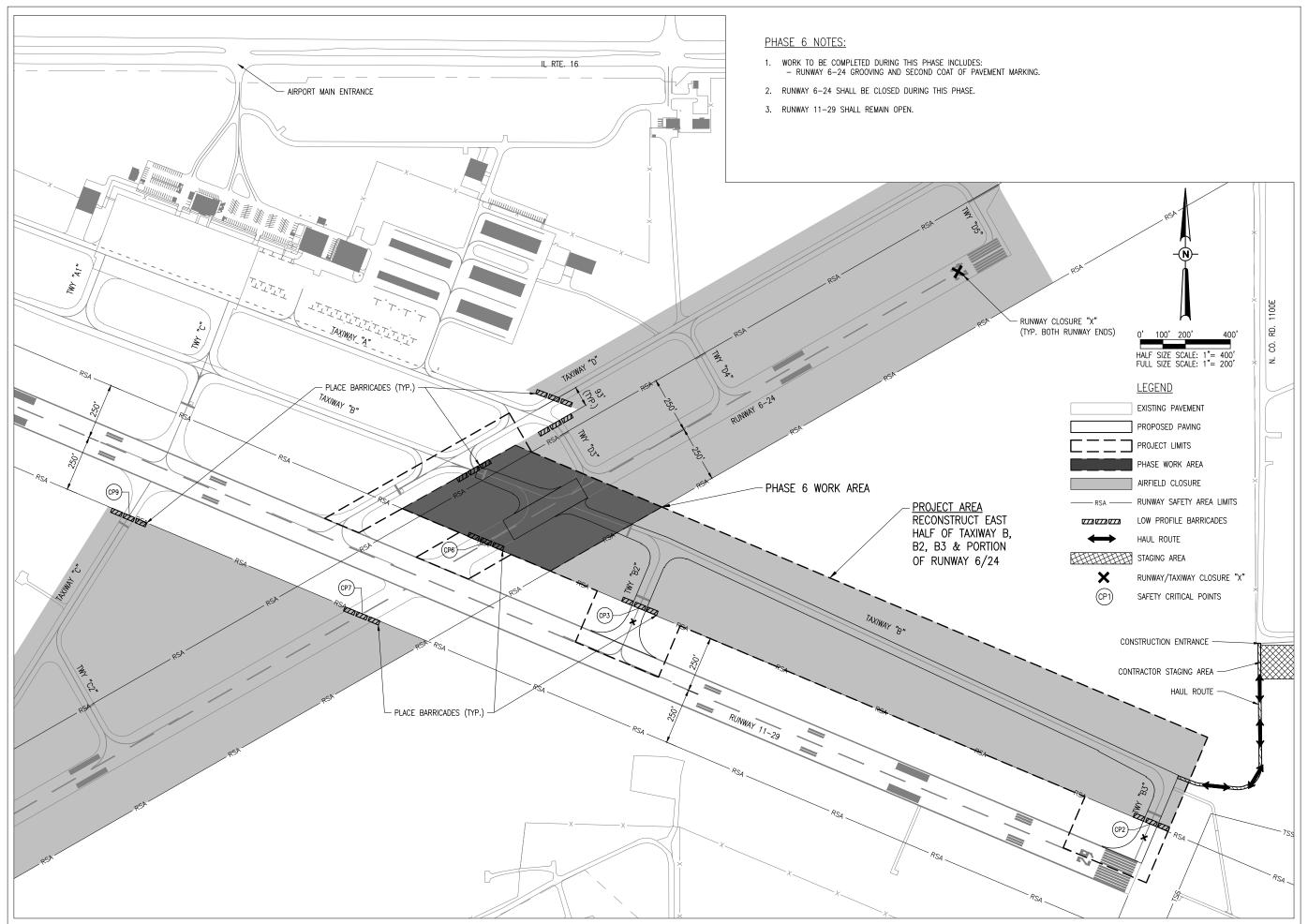
NO. DATE DESCRIPTION
DES DWN REV

ISSUE: 04/17/2020
PROJECT NO: 19A0001

DRAWN BY: KBS 10/2019 REVIEWED BY: KBS 03/19/2020

CAD FILE: C-102-CSPP.DWG DESIGN BY: KBS 10/2019

SHEET TITLE





Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed
Professional Service Corporation
#184-001084



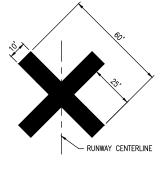
PHASE 2: RECONSTRUCT TAXIWAY B

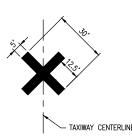
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

	1					
NO.	DATE	DES	CRIPT	ION		
NO.	DATE	DES	DWN	REV		
SSUE:	04/17/20	020				
ROJECT NO: 19A0001						
AD FILE: C-102-CSPP.DWG						

DESIGN BY: KBS 10/2019
DRAWN BY: KBS 10/2019
REVIEWED BY: KBS 03/19/2020

SHEET TITLE





- TEMPORARY "CLOSED RUNWAY" AND "CLOSED TAXIWAY" MARKINGS SHALL BE "AVIATION YELLOW"
- TEMPORARY "CLOSED RUNWAY" AND "CLOSED TAXIWAY" MARKINGS SHALL BE CONSTRUCTED OF PLYWOOD, DOUBLE-LAYERED SNOW FENCE OR APPROVED FABRIC AND SHALL BE SECURED TO PAVEMENT BY SANDBAGS OR OTHER APPROVED METHOD.
- TEMPORARY "CLOSED RUNWAY" MARKINGS SHALL BE PLACED OVER THE RUNWAY DESIGNATION NUMBERS UNLESS OTHERWISE DIRECTED BY THE RESIDENT ENGINEER/TECHNICIAN.
- COST FOR PROVIDING, PLACING, MAINTAINING, RELOCATING AND REMOVING "CLOSED RUNWAY" AND "CLOSED TAXIWAY" MARKINGS SHALL BE INCLUDED AS AN INCIDENTAL COST TO THE CONTRACT, UNLESS OTHERWISE NOTED.

TEMPORARY CLOSURE CROSS DETAIL

NOT TO SCALE

8'-0"

ALTERNATING ORANGE AND
WHITE 20" X 20" FLAGS (TYP.)

PAINT 12" ALTERNATING STRIPES
REFLECTIVE ORANGE AND WHITE

HIGH IMPACT, UV RESISTANT POLYETHYLENE 10"
X 96" X 10" ORANGE AND/OR WHITE IN COLOR

SOLAR OR BATTERY POWERED FLASHER WITH
RED LENS (TYP. BOTH ENDS OF BARRICADE).

LOW PROFILE AIRCRAFT BARRICADE DETAIL

BARRICADE NOTES

- 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.
- BARRICADES SHALL BE INTERLOCKED END TO END OVER THE LENGTH OF THE PAVEMENT WHERE PROTECTING OPEN RUNWAYS, AND SPACED END TO END A MAXIMUM OF 4 FEET IN OTHER ALL OTHER AREAS. BARRICADES ARE TO BE SET BACK FROM THE ACTIVE RUNWAY OR TAXIWAY CENTERLINE THE DISTANCE AS SHOWN ON THE PLANS.
- 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) UNIESS NOTED OTHERWISE.
- 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 FXIST WHICH TEND TO OBSCURE VISION.
- BARRICADES SHALL BE SECURED TO THE GROUND BY APPROVED METHODS TO PREVENT MOVEMENT BY PROP WASH, JET BLAST OR OTHER WIND CURRENTS.
- 6. 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.
- COST FOR PROVIDING, PLACING, MAINTAINING, RELOCATING AND REMOVING BARRICADES SHALL BE INCLUDED AS AN INCIDENTAL COST TO THE CONTRACT, UNLESS OTHERWISE NOTED.

SAFETY NOTES

- 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.
- 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.
- 3. 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.
- 4. PRIOR TO ACCESSING THE AIRFIELD, ANY DESIGNATED CONTRACTOR OR SUBCONTRACTOR EMPLOYEES WHO WILL BE OPERATING OR ESCORTING A VEHICLE ON AN ACTIVE AREA OF THE AIRFIELD MUST ATTEND A 1 HOUR AIRFIELD SAFETY TRAINING AND ORIENTATION PROVIDED BY THE AIRPORT. PRIOR TO THE TRAINING, THE EMPLOYEES MUST BE FAMILIAR WITH THE "FAA GUIDE TO GROUND VEHICLE OPERATIONS", AND KEEP A HARD COPY IN THE VEHICLE FOR REFERENCE. THE GUIDE CAN BE FOUND AT:
 - https://www.faa.gov/airports/runway_safety/media/Ground_Vehicle_Guide_Proof_Final.pdf
- NO CONSTRUCTION VEHICLES SHALL BE DRIVEN ACROSS ANY ACTIVE AIRFIELD PAVEMENT AREA WITHOUT AN APPROPRIATE ESCORT. CONSTRUCTION EQUIPMENT OR CONSTRUCTION ACTIVITY WILL NOT BE PERMITTED WITHIN 250' OF ANY ACTIVE RUNWAY CENTERLINE OR WITHIN 93' OF ANY OTHER ACTIVE AIRPORT TAXIWAY OR APRON.
- 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.
- 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.
- NO CONSTRUCTION MATERIAL STOCKPILES SHALL BE LOCATED WITHIN 500' 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.
- 9. 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.
- 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 WITHOUT THE APPROVAL OF THE AIRPORT MANAGER AND ADDITIONAL AIRSPACE APPROVAL BY THE FAA. AIRSPACE APPROVALS REQUIRE CONSIDERABLE LEAD TIME AND SHOULD BE REQUESTED WELL IN ADVANCE
- 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 SWEPT, 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. CONTRACTOR SHALL TAKE MEASURES TO AVOID TRACKING BITUMINOUS TACK COAT ASSOCIATED WITH PAVING PROJECTS ONTO ADJACENT PAVEMENT AREAS, ESPECIALLY GROOVED RUNWAY PAVEMENTS, UNLESS SUFFICIENT PROTECTION HAS BEEN APPLIED. HEAVY TRACKING OR DAMAGE TO ADJACENT PAVEMENTS AND GROOVED SURFACES MAY BE CAUSE FOR STOPPING THE WORK UNTIL ACCEPTABLE PROTECTION OR CHANGE IN WORK METHODS HAS BEEN PROVIDED.
- 15. 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.
- ALL AIRCRAFT AND AIRPORT OPERATIONS HAVE THE RIGHT-OF-WAY. CONTRACTOR TO YIELD TO VEHICLES AND REMAIN CLEAR AT ALL TIMES.
- 17. 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
- 18. CONTRACTOR SHALL MARK HAZARDOUS AREA WITH STEADY-BURNING OR FLASHING RED LIGHTS DURING PERIODS OF LOW VISIBILITY AS REQUIRED.
- 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.
- 20. CONTRACTOR SHALL MOVE MAINTENANCE OF TRAFFIC COMPONENTS AT THE WRITTEN DIRECTION OF THE RESIDENT ENGINEER/TECHNICIAN AT NO ADDITIONAL COST.
- 21. CONTRACTOR SHALL NOT REMOVE THE BARRICADES WITHOUT THE APPROVAL BY THE RESIDENT ENGINEER/TECHNICIAN.
- 22. 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.
- 23. THE CONTRACTOR SHALL UTILIZE WATER AND/OR CHEMICALS APPROVED BY THE RESIDENT FINGINFER/TECHNICIAN AS NECESSARY TO CONTROL DUST.
- 24. THE CONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING MEASURES TO CONTROL OR AVOID CREATING ATTRACTANTS TO WILDLIFE. MEASURES MAY INCLUDE CONTINUOUSLY REMOVING ANY WASTE OR LOOSE MATERIALS, PLACEMENT OF MATERIALS IN APPROPRIATE STORAGE CONTAINERS, PROPERLY MAINTAINING FENCES AND GATES TO PREVENT ACCESS, AND PREVENTING PONDING OF WATER THROUGHOUT THE SITE.
- 25. UNLESS SPECIFIED OTHERWISE, COST FOR SAFETY, STAGING, AND TRAFFIC MAINTENANCE ITEMS IS TO BE CONSIDERED INCIDENTAL TO THE PROJECT. SEPARATE PAYMENT SHALL NOT BE MADE.
- 26. THE CONTRACTOR SHALL HAVE THE SAFETY PLAN COMPLIANCE DOCUMENT (SPCD), AS DETAILED IN THE SPECIAL PROVISIONS, SUBMITTED AND APPROVED PRIOR TO BEING ISSUED "NOTICE TO PROCFED"
- 27. ALL RUNWAY/TAXIWAY CLOSURES SHALL BE COORDINATED WITH AIRPORT MANAGEMENT A MINIMUM OF 7 DAYS BEFORE THE DESIRED CLOSING TIME TO ALLOW FOR THE PROPER COORDINATION.
 AIRPORT MANAGEMENT HAS COMPLETE AUTHORITY IN DETERMINING WHEN THE RUNWAY/TAXIWAY MAY BE CLOSED.
- 28. RUNWAY/TAXIWAY CLOSURE PROCEDURES:
 - CONTACT THE AIRPORT MANAGEMENT OR ASSIGNED REPRESENTATIVE A MINIMUM OF 7 DAYS BEFORE THE DESIRED CLOSING TIME...
 - BEFORE THE DESIRED CLUSING TIME.

 ISSUANCE OF NOTAM AND DEACTIVATION OF THE APPLICABLE AIRFIELD LIGHTING AND NAVAIDS

 BY THE AIRPORT MANAGEMENT AND/OR FAA.
 - PLACEMENT OF CROSSES AND BARRICADES.
 - ONLY AT THE TIME THAT ALL OF THE ABOVE ARE COMPLETED MAY ANY CONSTRUCTION OPERATIONS BEGIN WITHIN THE RUNWAY/TAXIWAY AIR OPERATIONS AREA.

RUNWAY/TAXIWAY RE-OPENING PROCEDURES:

- ENSURE ALL PERSONNEL, EQUIPMENT AND MATERIALS ARE CLEAR OF THE AIR OPERATIONS AREA
- INSPECT THE AREA FOR LOOSE OR TRACKED DEBRIS, PAVEMENT DROP—OFFS, AND OPEN TRENCHES.
- CONTACT AIRPORT MANAGEMENT OR REPRESENTATIVE FOR FINAL INSPECTION OF THE AREA.
 REMOVE BARRICADES AND CROSSES.
- ACTIVATION OF THE AIRFIELD LIGHTING AND NAVAIDS AND CANCELLATION OF THE NOTAM BY THE AIRPORT MANAGEMENT AND/OR FAA.

HANSON Engineering | Planning | Allled Services

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed
Professional Service Corporation
#184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

	NO.	DATE	DES	CRIPT	ION
	NO.	DATE	DES	DWN	REV
i	SSUE:	04/17/20)20		

ISSUE: 04/17/2020 PROJECT NO: 19A0001

CAD FILE: C-104-SPDET.DWG
DESIGN BY: JAP 05/2018
DRAWN BY: JAP 05/2018

REVIEWED BY: KBS 04/16/2020

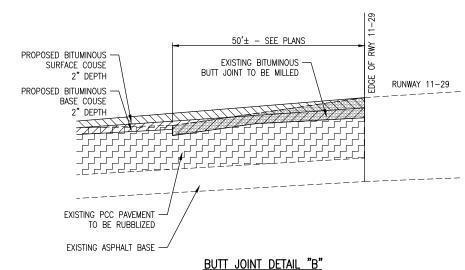
SHEET TITLE

SAFETY NOTES AND DETAILS

TYPICAL SECTION "A-A" - TAXIWAY B

MATCH EXIST. (TYP.) 10' 8 11'' DROP-OFF AT PAVEMENT EDGE (TYP.) EXISTING GROUND 7

TYPICAL SECTION "B-B" - RUNWAY 6-24 NOT TO SCALE

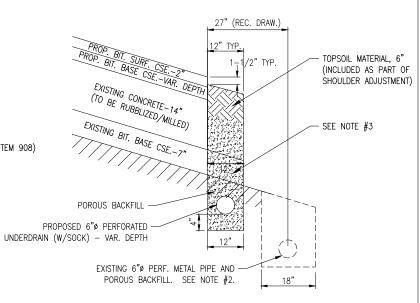


TXY B2/RWY 11-29 AND TXY B3/RWY 11-29

NOT TO SCALE

LEGEND FOR TYPICAL SECTION A-A

- 1) PROPOSED BITUMINOUS SURFACE COURSE 2" DEPTH (ITEM 401)
- 2) PROPOSED BITUMINOUS TACK COAT APPLIED AT 0.05-0.15 GAL./S.Y. (ITEM 603)
- 3) PROPOSED BITUMINOUS BASE COURSE 2" DEPTH (ITEM 403)
- 4) PROPOSED CONCRETE PAVEMENT RUBBLIZATION 14" DEPTH (ITEM 501120)
- PROPOSED VAR.-DETPH CONCRETE PAVEMENT MILLING (FOLLOWING RUBBLIZATION) (ITEM 501550)
- PROPOSED SHOULDER ADJUSTMENT (ITEM 152), SEEDING (ITEM 901), & HYDRO-MULCH (ITEM 908)
- 7) PROPOSED UNDERDRAIN SEE DETAIL (ITEM 705)
- 8) PROPOSED LONGITUDINAL JOINT SEALANT (ITEM 401663) CENTERLINE JOINT ONLY
- 9 EXISTING BITUMINOUS BASE, 7"



TYPICAL SECTION FOR EDGE DRAINS

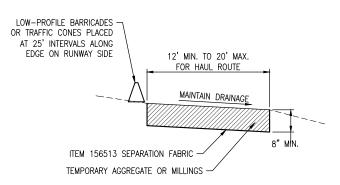
NOT TO SCALE

LEGEND FOR TYPICAL SECTION B-B

- PROPOSED BITUMINOUS SURFACE COURSE 2" DEPTH (ITEM 401)
- 2 PROPOSED BITUMINOUS TACK COAT APPLIED AT 0.05-0.15 GAL./S.Y. (ITEM 603)
- (3) PROPOSED BITUMINOUS BASE COURSE 2" DEPTH (ITEM 403)
- 4 PROPOSED CONCRETE PAVEMENT RUBBLIZATION 14" DEPTH (ITEM 501120)
- 5 PROPOSED VAR.—DETPH CONCRETE PAVEMENT MILLING (FOLLOWING RUBBLIZATION) (ITEM 501550)
- 6) PROPOSED SHOULDER ADJUSTMENT (ITEM 152), SEEDING (ITEM 901), & HYDRO-MULCH (ITEM 908)
- 7) PROPOSED UNDERDRAIN SEE DETAIL (ITEM 705)
- (8) PROPOSED LONGITUDINAL JOINT SEALANT (ITEM 401663) ALL PAVING JOINTS
- 9 EXISTING BITUMINOUS BASE, 7"

NOTES:

- MILLING OF CONCRETE PAVEMENT TO GRADE SHALL TAKE PLACE FOLLOWING PAVEMENT RUBBLIZATION.
- EXISTING UNDERDRAINS SHALL BE REMOVED AND PAID FOR WHERE CALLED OUT IN THE PLANS. THEY SHALL BE PLUGGED AND ABANDONED IN ANY OTHER AREAS WHERE ENCOUNTERED AS AN INCIDENTAL ITEM.
- 3. REMOVAL OR TRENCHING THROUGH EXISTING EXTENDED 12" WIDE BITUMINOUS BASE, AND THE ORIGINAL BITUMINOUS RUNWAY PAVEMENT UNDER TAXIWAY B SHALL BE INCIDENTAL TO THE PROPOSED UNDERDRAIN INSTALLATION.



HAUL ROUTE/STAGING AREA DETAIL N.T.S.

NOTES:

- HAUL ROUTE TO BE REMOVED AND RESTORED TO ORIGINAL
 CONDITION AT COMPLETION OF PROJECT UNLESS OTHERWISE SHOWN
 TO REMAIN. RESTORATION INCLUDES TILLAGE OF ANY EXISTING
 FARM GROUND NECESSARY DUE TO COMPACTION.
- RESIDENT ENGINEER/TECHNICIAN WILL CONFIRM HAUL ROUTE LIMITS/LOCATION PRIOR TO INSTALLATION. CONTRACTOR MAY INCREASE WIDTH/DEPTH OF HAUL ROUTE AT THEIR EXPENSE IF NECESSARY. MAX SIZE OF STAGING AREA IS 150' X 150'.
- 3. ALL WORK AND MATERIALS INVOLVING HAUL ROUTE SHALL BE PAID FOR UNDER ITEM AR150540 "HAUL ROUTE" PER LUMP SUM.



Offices Nationwide www.hanson-inc.com

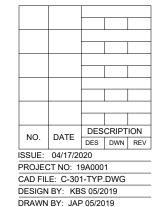
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed
Professional Service Corporation
#184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



TYPICAL SECTIONS AND DETAILS

REVIEWED BY: KBS 04/16/2020

SHEET TITLE

GRADE ANY SURFACE PITS OR IRREGULARITIES, AND ROLL THE SURFACE WITH A SMOOTH DRUM ROLLER.



Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT AUTHORATY

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

DESCRIPTION NO. DATE DES DWN REV

ISSUE: 04/17/2020 PROJECT NO: 19A0001 CAD FILE: C-111-REM.DWG

DESIGN BY: JAP 05/2018 DRAWN BY: JAP 05/2018 REVIEWED BY: KBS 04/16/2020

SHEET TITLE

FULL SIZE SCALE: 1":

REMOVAL PLAN TAXIWAY B STA. 40+00 TO 52+00 AND **TAXIWAY B2**

HANSON Engineering | Planning | Allied Services

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

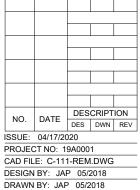
Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159

Contract No. CO067



REVIEWED BY: KBS 04/16/2020

SHEET TITLE

REMOVAL PLAN TAXIWAY B STA. 52+00 TO 63+00



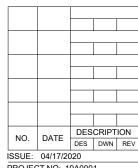
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT AUTHORITY

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

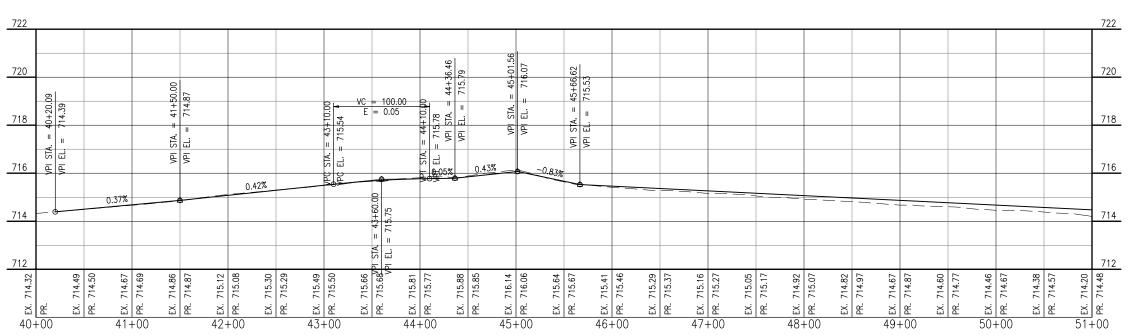


PROJECT NO: 19A0001

CAD FILE: C-111-REM.DWG DESIGN BY: JAP 05/2018 DRAWN BY: JAP 05/2018 REVIEWED BY: KBS 04/16/2020

SHEET TITLE

REMOVAL PLAN TAXIWAY B STA. 63+00 TO 75+21.48 AND TAXIWAY B3

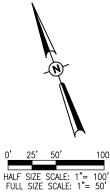


PROFILE VIEW - TAXIWAY B STA. 41+20 TO STA. 51+00

EXISTING PAVEMENT

PROPOSED PAVEMENT

PROPOSED SHOULDER ADJUSTMENT



HANSON Engineering | Planning | Allied Service

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed
Professional Service Corporation
#184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES CONTY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

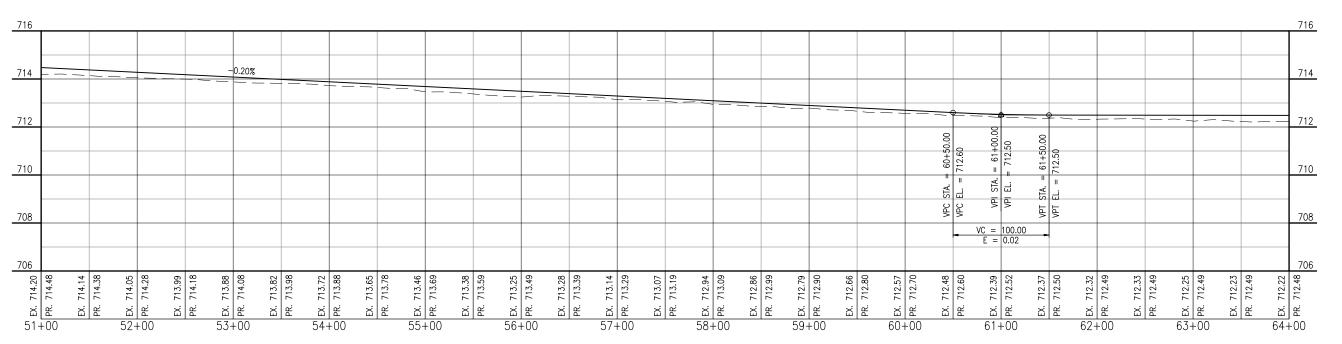
_					
Γ					
Γ					
	NO.	DATE	DES	CRIPT	ION
	NO.	DATE	DES	DWN	REV
Į.	ISSUE: 04/17/2020				
	DBO IECT NO: 1040001				

ISSUE: 04/17/2020 PROJECT NO: 19A0001 CAD FILE: C-701-PNP.DWG

DESIGN BY: JRH 05/08/2019
DRAWN BY: JRH 05/08/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

PLAN AND PROFILE -TAXIWAY B STA. 41+20 TO STA. 51+00 PLAN VIEW - TAXIWAY B STA. 41+20 TO STA. 51+00



PROFILE VIEW - TAXIWAY B STA. 41+20 TO STA. 51+00

LEGEND

EXISTING PAVEMENT

PROPOSED PAVING AREA

AR152480 SHOULDER ADJUSTMENT
AR901510 SEEDING
AR908510 MULCHING



0' 25' 50' 100' HALF SIZE SCALE: 1"= 100' FULL SIZE SCALE: 1"= 50' HANSON Engineering | Planning | Allied Servi

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed
Professional Service Corporation
#184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COMMY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

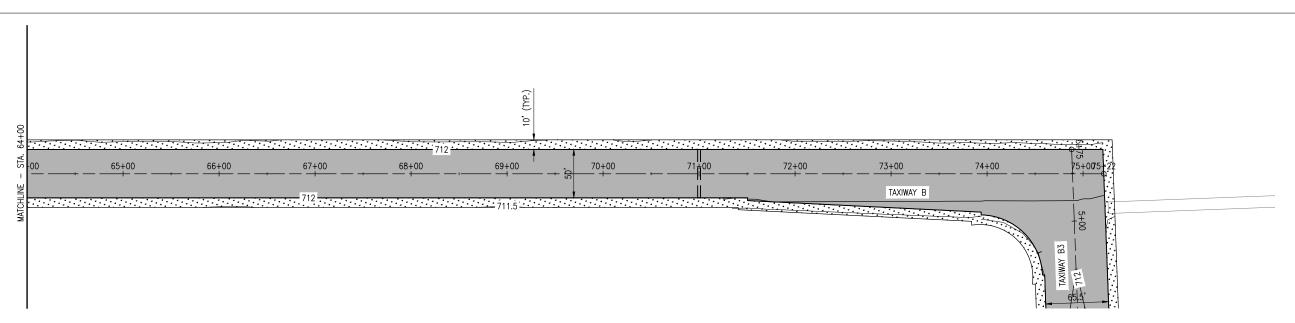
	NO.	DATE	DES	CRIPT	ION
	INO.	DATE	DES	DWN	REV
i	ISSUE: 04/17/2020				
ĺ	PROJEC	CT NO: 1	9A000	1	

| DES | DWN | F | ISSUE: 04/17/2020 | PROJECT NO: 19A0001 | CAD FILE: C-701-PNP.DWG | DESIGN BY: JRH 05/08/2019 | DRAWN BY: JRH 05/08/2019

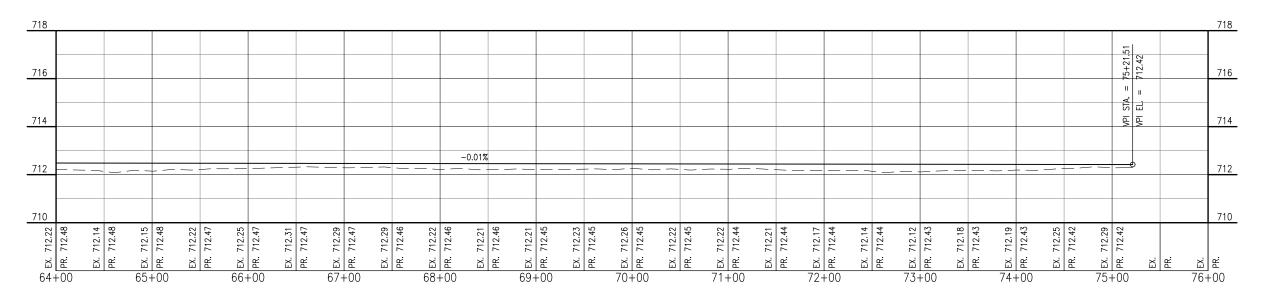
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

PLAN AND PROFILE -TAXIWAY B STA. 51+00 TO STA. 64+00



PLAN VIEW - TAXIWAY B STA. 41+20 TO STA. 51+00



PROFILE VIEW - TAXIWAY B STA. 41+20 TO STA. 51+00

LEGEND

EXISTING PAVEMENT

PROPOSED PAVING AREA

AR152480 SHOULDER ADJUSTMENT
AR901510 SEEDING
AR908510 MULCHING



HALF SIZE SCALE: 1"= 100' FULL SIZE SCALE: 1"= 50' HANSON Engineering | Planning | Allied Services

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL ARPORT

PHASE 2: RECONSTRUCT TAXIWAY B

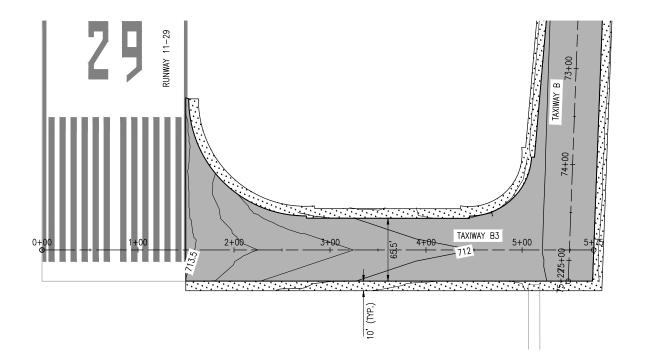
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

NO.	DATE	DES	CRIPT	ION
NO.	DATE	DES	DWN	RE
SSUE:	04/17/20	020		
PROJEC	CT NO: 1	9A000	1	

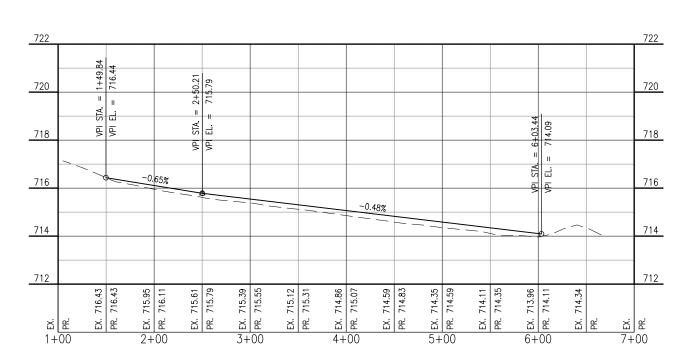
ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-701-PNP.DWG
DESIGN BY: JRH 05/08/2019
DRAWN BY: JRH 05/08/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

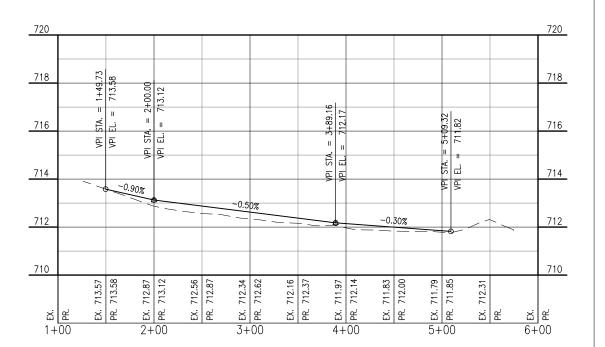
PLAN AND PROFILE -TAXIWAY B STA. 64+00 TO STA. 75+22



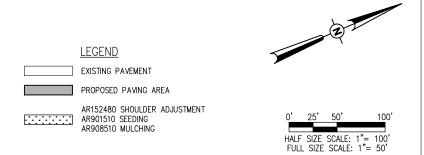
<u>PLAN VIEW - TAXIWAY B3</u>



PROFILE VIEW - TAXIWAY B2



PROFILE VIEW - TAXIWAY B3



HANSON Engineering | Planning | Allied Services

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLESCIPATY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

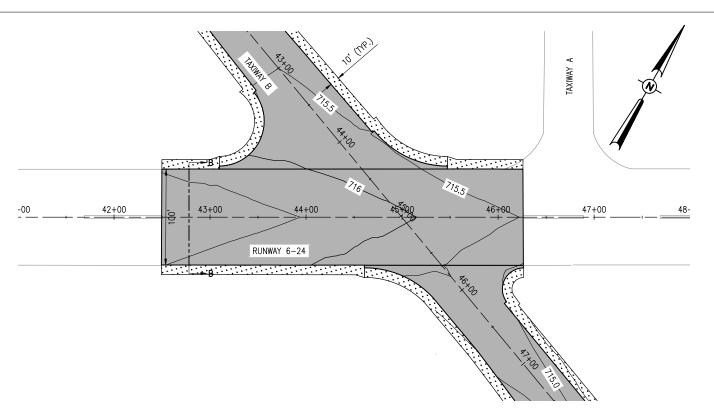
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

	NO.	DATE	DES	CRIPT	ION
	INO.	DATE	DES	DWN	REV
ISSUE: 04/17/2020					
i	PROJECT NO: 19A0001				

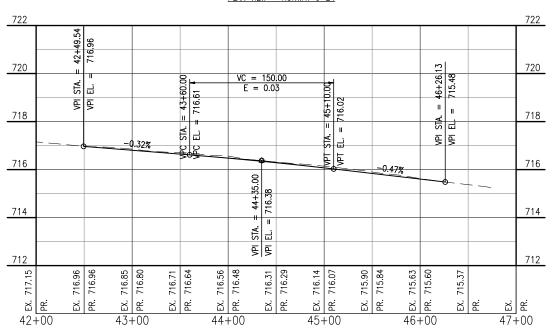
CAD FILE: C-701-PNP.DWG
DESIGN BY: JRH 05/08/2019
DRAWN BY: JRH 05/08/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

PLAN AND PROFILE - TAXIWAY B2 & B3



PLAN VIEW - RUNWAY 6-24



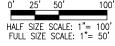
PROFILE VIEW - RUNWAY 6-24

EXISTING PAVEMENT

PROPOSED PAVING AREA

AR152480 SHOULDER ADJUSTMENT
AR901510 SEEDING
AR908510 MULCHING

AR905530 TOPSOILING (4" THICKNESS)
AR901510 SEEDING
AR908510 MULCHING





Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159

Contract No. CO067

	NO.	DATE	DESCRIPTION			
	NO.	DATE	DES	DWN	REV	
i	ISSUE: 04/17/2020					

PROJECT NO: 19A0001 CAD FILE: C-701-PNP.DWG

DESIGN BY: JRH 05/08/2019 DRAWN BY: JRH 05/08/2019 REVIEWED BY: KBS 04/16/2020

SHEET TITLE

PLAN AND PROFILE -RUNWAY 6-24



www.hanson-inc.com

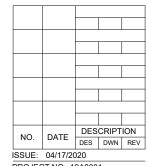
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



PROJECT NO: 19A0001

CAD FILE: C-130-DRPL.DWG DESIGN BY: JAP 05/2018 DRAWN BY: JAP 05/2018 REVIEWED BY: KBS 04/16/2020

SHEET TITLE

UNDERDRAIN PLAN TAXIWAY B STA. 41+00 TO 52+00 AND **TAXIWAY B2**



Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



PROJECT NO: 19A0001

CAD FILE: C-130-DRPL.DWG

DESIGN BY: JAP 05/2018

DRAWN BY: JAP 05/2018

REVIEWED BY: KBS 04/16/2020

SHEET TITLE

UNDERDRAIN PLAN TAXIWAY B STA. 52+00 TO 64+00



Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT AUTHORITY

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

NO.	DATE	DESCRIPTION			
NO.		DES	DWN	RE	
ISSUE: 04/17/2020					
DDO IDOTNIO 1010001					

CAD FILE: C-130-DRPL.DWG

DRAWN BY: JAP 05/2018 REVIEWED BY: KBS 04/16/2020

SHEET TITLE

UNDERDRAIN PLAN TAXIWAY B STA. 64+00 TO 75+22 AND **TAXIWAY B3**

J NOT TO SCALE



Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed
Professional Service Corporation
#184-001084

AUTHORITY
COLES COUNTY AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

NO. DATE DESCRIPTION
DES DWN REV

ISSUE: 04/17/2020
PROJECT NO: 19A0001

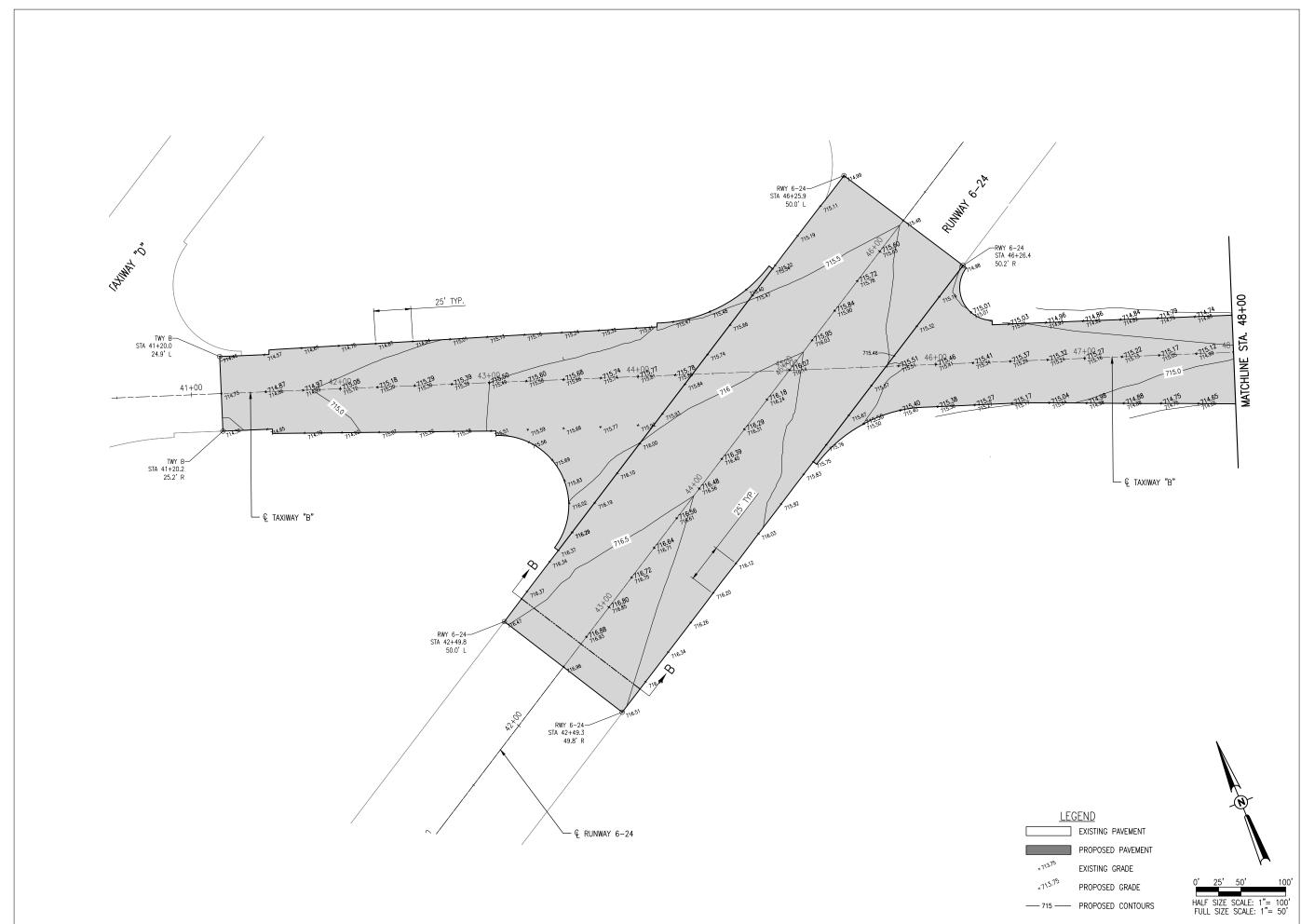
PROJECT NO: 19A0001 CAD FILE: C-131-DRN.DWG DESIGN BY: JAP 05/2018

DRAWN BY: JAP 05/2018

REVIEWED BY: KBS 04/16/2020

SHEET TITLE

DRAINAGE DETAILS





Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

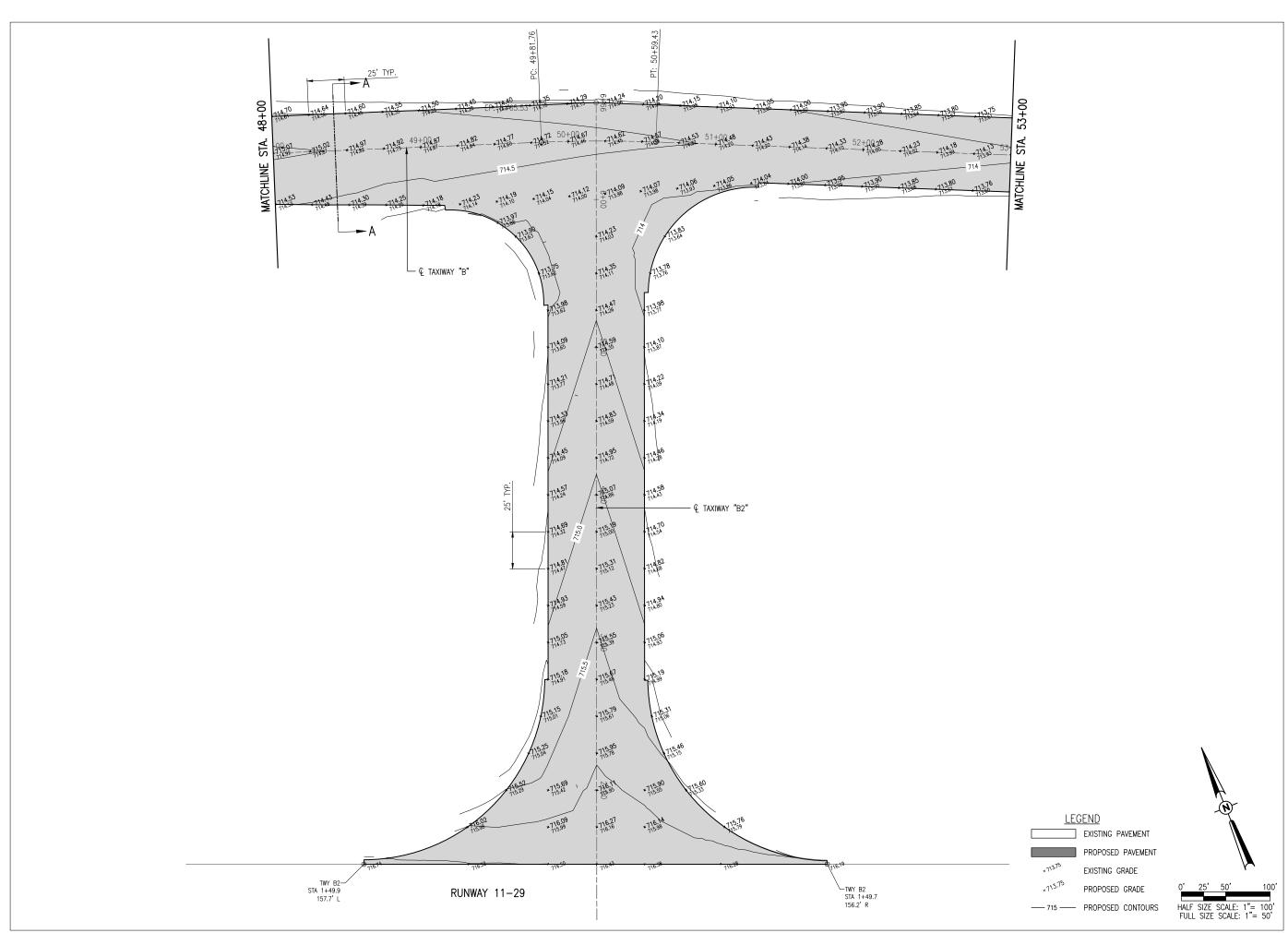
NO. DATE DESCRIPTION
DES DWN REV
ISSUE: 04/17/2020
PROJECT NO: 19A0001

CAD FILE: C-161-STK.DWG DESIGN BY: JAP 05/2018

DRAWN BY: JAP 05/2018
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

STAKING PLAN TAXIWAY B STA. 41+00 TO 48+00 AND RUNWAY 6-24





Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

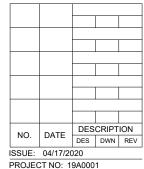
Illinois Licensed Professional Service Corporation #184-001084

AUTHORITY
COLES COUNTY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159

Contract No. CO067



ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-161-STK.DWG
DESIGN BY: JAP 05/2018
DRAWN BY: JAP 05/2018

REVIEWED BY: KBS 04/16/2020

SHEET TITLE

STAKING PLAN TAXIWAY B STA. 48+00 TO 53+00 AND TAXIWAY B2

HANSON Engineering | Palming | Allied Service

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

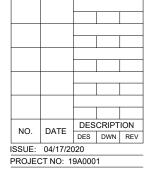
Illinois Licensed
Professional Service Corporation
#184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL ARPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159

Contract No. CO067



PROJECT NO: 19A0001
CAD FILE: C-161-STK.DWG
DESIGN BY: JAP 05/2018

DRAWN BY: JAP 05/2018 REVIEWED BY: KBS 04/16/2020

SHEET TITLE

LEGEND

EXISTING PAVEMENT

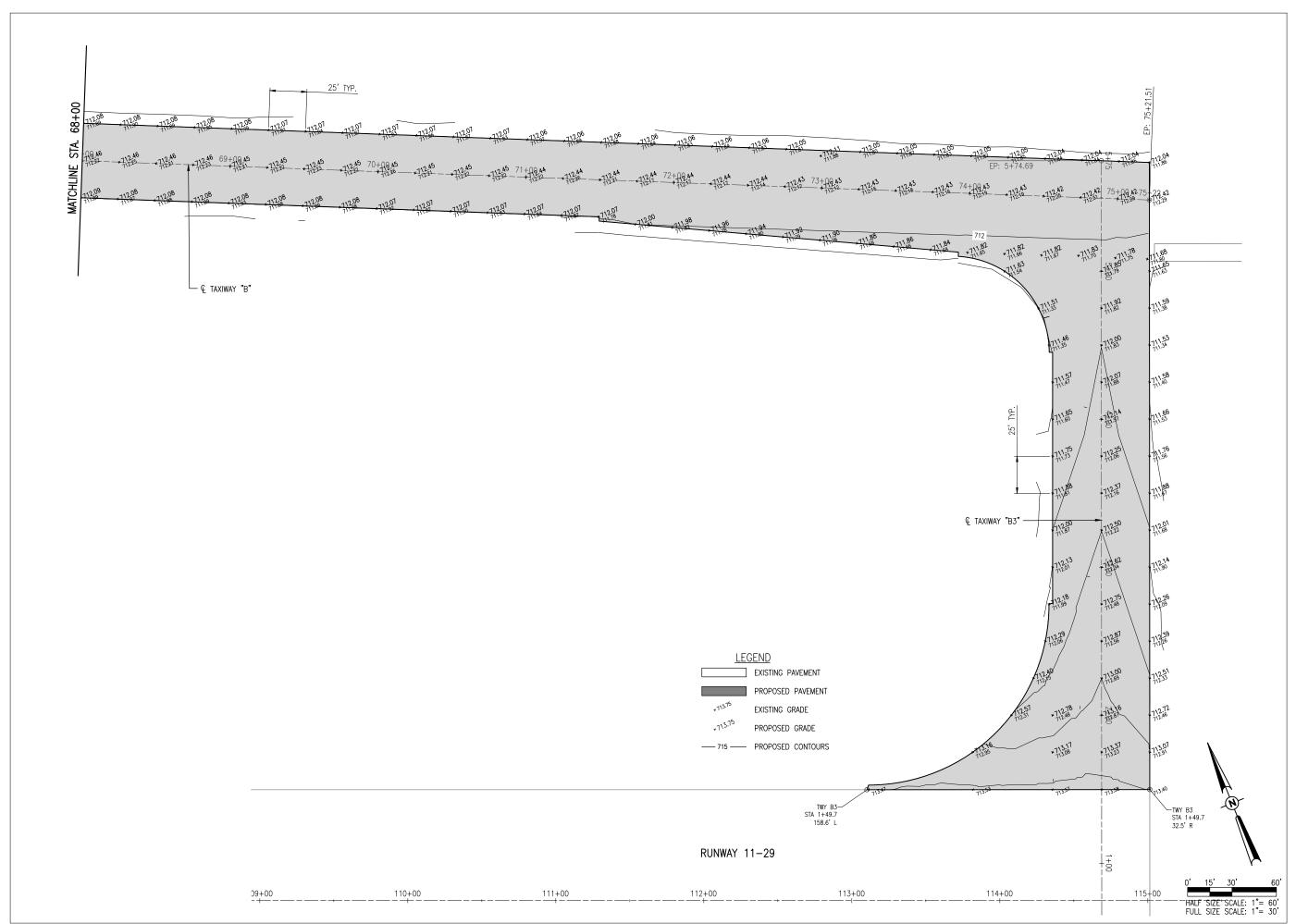
EXISTING GRADE
PROPOSED GRADE

HALF SIZE SCALE: 1"= 60' FULL SIZE SCALE: 1"= 30'

PROPOSED PAVEMENT

---- 715 ---- PROPOSED CONTOURS

STAKING PLAN TAXIWAY B STA. 53+00 TO 68+00





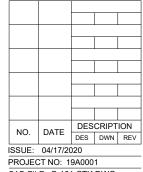
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

AUTHORITY
COLES COUNTY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



PROJECT NO: 19A0001

CAD FILE: C-161-STK.DWG

DESIGN BY: JAP 05/2018

DRAWN BY: JAP 05/2018

SHEET TITLE

STAKING PLAN TAXIWAY B STA. 68+00 TO 75+22 AND TAXIWAY B3

REVIEWED BY: KBS 04/16/2020



Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

NO.	DATE	DES	CRIPT	ION
NO.	DATE	DES	DWN	REV
SSUE:	04/17/20	020		
PROJEC	CT NO: 1	9A000	1	
CAD FIL	E: C-59	1-SWF	DWG	
DESIGN	IDV. IAI	D 05/	2010	

DESIGN BY: JAP 05/2018

DRAWN BY: JAP 05/2018

REVIEWED BY: KBS 04/16/2020

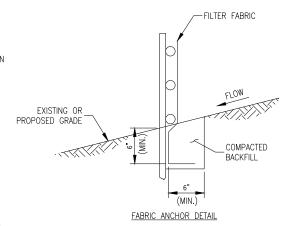
SHEET TITLE

STORMWATER POLLUTION PREVENTION PLAN

- 1. FENCE POST SHALL BE EITHER STEEL "T" LINE POST OR HARDWOOD POST WITH A MINIMUM SECTIONAL AREA OF 2.0 SQUARE INCHES. A CARPENTER'S (NOMINAL) 2"x2" POST WILL MEET SPECIFICATIONS.
- TOP AND BOTTOM WIRE OF WIRE FABRIC SHALL BE MINIMUM GAGE NO. 9. INTERMEDIATE WIRES OF THE WIRE FABRIC SHALL BE MINIMUM GAGE NO. 11.
- 3. WIRE FABRIC SHALL BE SECURELY FASTENED TO FENCE POSTS WITH NO. 9 GAGE WIRE MINIMUM. FOUR (4) FASTENERS PER POST REQUIRED.
- 4. FILTER FABRIC SHALL BE SECURELY FASTENED TO WIRE FABRIC AND POSTS WITH TIES OR STAPLES SPACED AT 12" APART AT THE TOP, MIDDLE AND
- 5. WHEN TWO SECTIONS OF FILTER FABRIC MEET, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED AND ATTACHED TO THE WIRE FABRIC AT A POST.
- 6. FILTER FABRIC SHALL BE IN ACCORDANCE WITH SPECIAL PROVISIONS WITH APPARENT OPENING SIZE (AOS) OF AT LEAST 40 FOR NONWOVEN AND WOVEN. THE FABRIC MUST MEET THE APPLICABLE STANDARDS OF AASHTO 288-00 (Article IV, Section B.1.j.1.f.i, AS AMENDED), OR EQUIVALENT.

NOTES:

- 1. A MAXIMUM OF 5 FEET IS USED FOR POST-TO-POST SPACING.
- SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
- 3. ALL STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE.
- 4. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. PERIODIC INSPECTION SHALL BE PERFORMED AND REQUIRED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.
- 5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED AND REPLACED WHEN BULGES DEVELOP IN THE SILT FENCE.
- 6. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE ROUTED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE (E.G. SEDIMENT TRAP, SEDIMENT BASIN, OR OTHER APPROPRIATE MEASURE).
- 7. FENCE POSTS SHALL BE REMOVED WHEN DIRECTED AT PROJECT END.
- THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY.



NO. 9 (MIN.

4 PFR POST

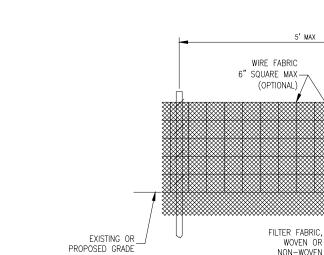
(TYP.

WIRE FASTENER

STEEL POST OR HARDWOOD

POST (SEE

NOTE 1)





INLET

CATCH BASIN OR NOTES:

PROPOSED SILT FENCE, SEE

PLAN SHEETS

- FILTER FABRIC SHALL BE EMBEDDED 8" INTO
- 2. INSPECTION SHALL BE FREQUENT AND REPAIR/REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED
- SILT FENCE SHALL BE REMOVED WHEN IT HAS SERVED ITS USEFULNESS AT THE DIRECTION OF THE AIRPORT REPRESENTATIVE OR OWNER SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE. CONTRACTOR SHALL PLACE SEED AND MULCH PER LANDSCAPING PLAN. COST OF REMOVAL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR SILT FENCE.
- AREAS DISTURBED OUTSIDE OF CONSTRUCTION LIMITS DURING PLACEMENT OF INLET PROTECTION TO BE RE-GRADED, SEEDED AND MULCHED, COST INCIDENTAL TO SILT FENCE.
- 5. FENCE AND POSTS SHALL BE REMOVED WHEN DIRECTED AT PROJECT END.
- 6. PAID UNDER AR156510 SILT FENCE.

SILT FENCE AT MANHOLES IN PERVIOUS AREAS

WIRE AND FILTER **FABRIC**

STORM WATER POLLUTION PREVENTION NOTES

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 DRAINAGE FEATURES AND VEGETATIVE MEASURES SHALL BE PROVIDED AS SOON AS POSSIBLE

ELEVATION

THE MAINTENANCE OF ALL STORM WATER POLLUTION PREVENTION MEASURES IS INCIDENTAL TO THE

POLLUTION PREVENTION MEASURES

THE CONTRACTOR SHALL BE REQUIRED TO IMPLEMENT AND MAINTAIN STORM WATER POLLUTION PREVENTION PRACTICES AND MEASURES PRIOR TO THE STRIPPING OF EXISTING VEGETATION WHEREVER 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.

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.

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

ADDITIONAL STORMWATER POLLUTION PREVENTION MEASURES ARE EXISTING ON SITE LOCATED AT DRAINAGE FACILITIES AND ALONG THE PROPERTY LINE.

SEDIMENTATION AND EROSION CONTROL NOTES:

- A. SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
- FOR THOSE DEVELOPMENTS THAT REQUIRE A DESIGNATED EROSION CONTROL INSPECTOR
- (DECI), INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM: UPON COMPLETION OF SEDIMENT AND RUNOFF CONTROL MEASURES (INCLUDING PERIMETER CONTROLS AND DIVERSIONS), PRIOR TO PROCEEDING WITH ANY OTHER FARTH DISTURBANCE OR GRADING
- AFTER EVERY SEVEN (7) CALENDAR DAYS OR STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.
- C. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES. THE PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL
- D. A STABILIZED MAT OF CRUSHED STONE MEETING IDOT GRADATION CA-01 AND/OR RR-01 UNDERLAIN WITH FILTER FABRIC AND IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL, OR OTHER APPROPRIATE MEASURE(S) AS APPROVED BY THE ENFORCEMENT OFFICER, SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE, SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT OF WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN.
- DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) CALENDAR DAYS FOLLOWING THE END OF ACTIVE HYDROLOGIC DISTURBANCE OR
- ALL STOCKPILES SHALL HAVE APPROPRIATE MEASURES TO PREVENT EROSION, STOCKPILES SHALL NOT BE PLACED IN FLOOD PRONE AREAS OR WETLANDS AND DESIGNATED BUFFERS.
- SLOPES STEEPER THAN 3H:1V SHALL BE STABILIZED WITH APPROPRIATE MEASURES AS APPROVED BY THE ENFORCEMENT OFFICER.
- APPROPRIATE EROSION CONTROL BLANKET SHALL BE INSTALLED ON ALL INTERIOR DETENTION BASIN SIDE SLOPES BETWEEN THE NORMAL WATER LEVEL AND HIGH WATER LEVEL
- STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY AN APPROPRIATE SEDIMENT CONTROL MEASURE
- K. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION, DISCHARGES SHALL BE ROUTED THROUGH AN APPROVED ANIONIC POLYMER DEWATERING SYSTEM OR A SIMILAR MEASURE AS APPROVED BY THE ENFORCEMENT OFFICER. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE ENFORCEMENT OFFICER, OR APPROVED REPRESENTATIVE, MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.
- L. IF INSTALLED SOIL EROSION AND SEDIMENT CONTROL MEASURES DO NOT MINIMIZE SEDIMENT LEAVING THE DEVELOPMENT SITE, ADDITIONAL MEASURES SUCH AS ANIONIC POLYMERS OR FILTRATION SYSTEMS MAY BE REQUIRED BY THE ENFORCEMENT OFFICER.
- ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE PROPERTY OWNER SHALL BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND REPAIR
- ALL TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO
- THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, ENFORCEMENT OFFICER, OR OTHER GOVERNING AGENCY.



www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159

Contract No. CO067

	NO.	DATE	DESCRIPTION				
	INO.	DATE	DES	DWN	REV		
ISSUE: 04/17/2020							

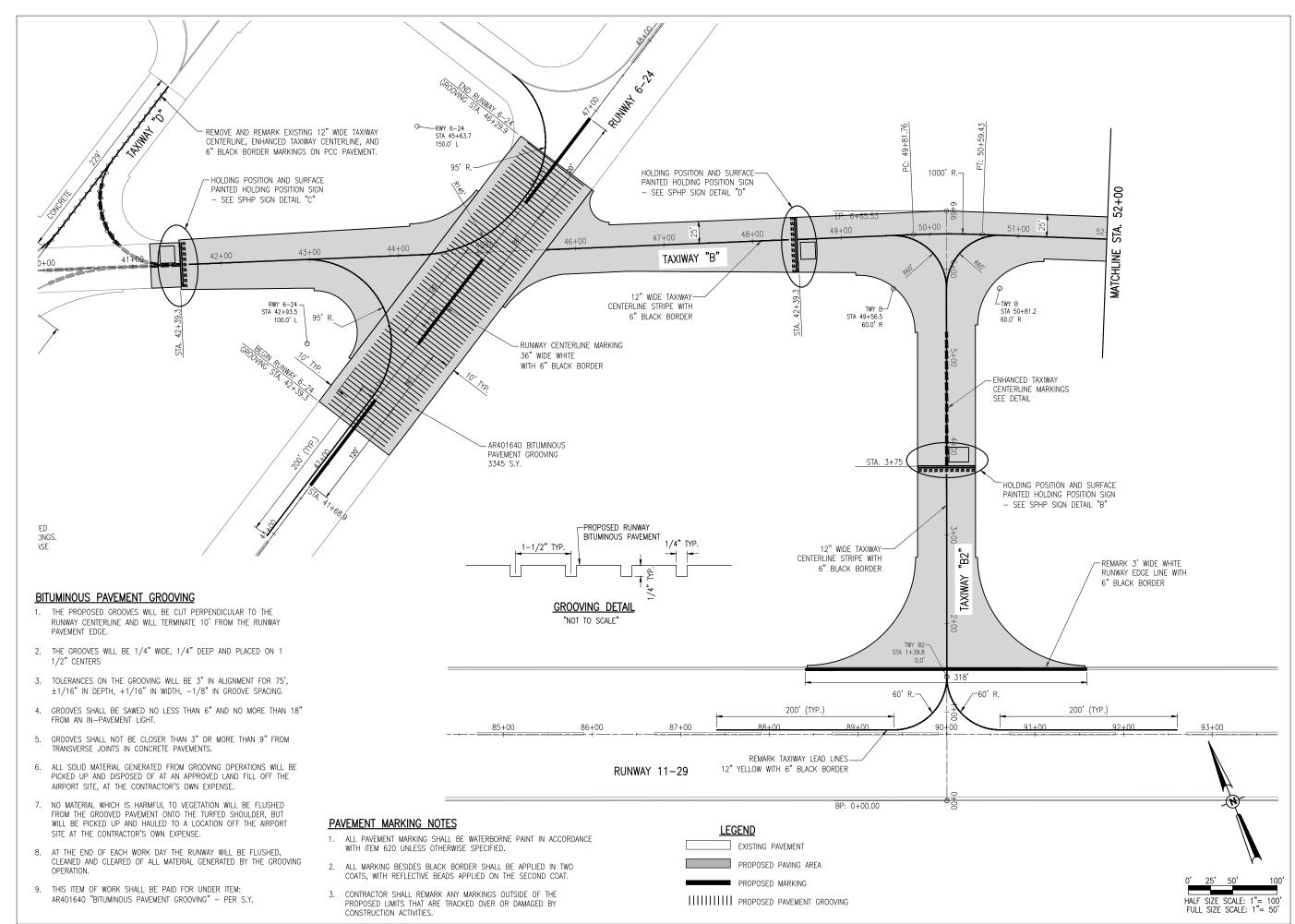
PROJECT NO: 19A0001

CAD FILE: C-591-SWP.DWG DESIGN BY: JAP 05/2018 DRAWN BY: JAP 05/2018

REVIEWED BY: KBS 04/16/2020

SHEET TITLE

STORMWATER **POLLUTION** PREVENTION PLAN **DETAILS**





Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

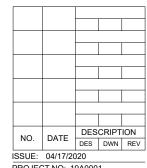
Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159

Contract No. CO067



ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-151-MRK.DWG
DESIGN BY: JAP 05/2018

DRAWN BY: JAP 05/2018
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

MARKING PLAN TAXIWAY B STA. 41+00 TO 52+00 AND TAXIWAY B2

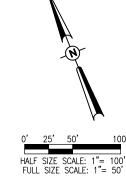
MARKING AND GROOVING SCHEDULE	
AR620900 PAVEMENT MARKING REMOVAL	AREA (S.F.)
TWY D - N. OF TWY B	834
TWY D - S. OF TWY B	2004
TOTAL MARKING REMOVAL	2838
AR620520 PAVEMENT MARKING-WATERBORNE - WHITE	AREA (S.F.)
RUNWAY 11-29 EDGE LINES	1473
RUNWAY 6-24 CENTERLINE STRIPES	1080
TOTAL WHITE	2553
AR620520 PAVEMENT MARKING-WATERBORNE - YELLOW	AREA (S.F.)
TAXIWAY CENTERLINE AND LEAD IN STRIPE	7290
TAXIWAY HOLD LINES	884
TAXIWAY ENHANCED CENTERLINES	498
TOTAL YELLOW	8672
AR620525 PAVEMENT MARKING-BLACK BORDER - 6"	AREA (S.F.)
RUNWAY 11-29 EDGE LINES	491
RUNWAY 6-24 CENTERLINE STRIPE	372
TAXIWAY CENTERLINE AND LEAD IN STRIPE	7294
TAXIWAY HOLD LINES	1706
TAXIWAY ENHANCED CENTERLINES	414
TOTAL BLACK	10277
AR620555 PERFORMED THERMOPLASTIC	AREA (S.F.)
SURFACE PAINTED HOLDING POSITIONS (INCL. RED)	1261
SURFACE PAINTED HOLDING POSITIONS (BLACK BORDER)	164
TOTAL THERMOPLASTIC	1425
AR401640 BITUMINOUS PAVEMENT GROOVING	AREA (S.Y.)
RUNWAY 6-24	3345
TOTAL GROOVING	3345

94+00	95+00	96+00	97+00	98+00	99+00	100+00	101+00	102+00	103+00
		RUNWAY	11–29						

PAVEMENT MARKING NOTES

- 1. ALL PAVEMENT MARKING SHALL BE WATERBORNE PAINT IN ACCORDANCE WITH ITEM 620 UNLESS OTHERWISE SPECIFIED.
- 2. ALL MARKING BESIDES BLACK BORDER SHALL BE APPLIED IN TWO COATS, WITH REFLECTIVE BEADS APPLIED ON THE SECOND COAT.
- 3. CONTRACTOR SHALL REMARK ANY MARKINGS OUTSIDE OF THE PROPOSED LIMITS THAT ARE TRACKED OVER OR DAMAGED BY CONSTRUCTION ACTIVITIES.





HANSON Engineering | Planning | Allied Services

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL ARPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

	NO.	DATE	DESCRIPTION			
	INO.	DATE	DES	DWN	REV	
ISSUE: 04/17/2020						
PROJECT NO: 19A0001						
	CAD FIL	E: C-15	1-MRK	.DWG		

DRAWN BY: JAP 05/2018
REVIEWED BY: KBS 04/16/2020
SHEET TITLE

DESIGN BY: JAP 05/2018

..........

MARKING PLAN TAXIWAY B STA. 52+00 TO 64+00

HANSON Engineering | Planning | Allied Services

Offices Nationwide www.hanson-inc.com

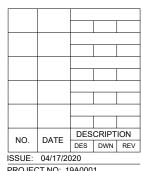
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

AUTHORITY
COLES COUNTY AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



PROJECT NO: 19A0001

CAD FILE: C-151-MRK.DWG

DESIGN BY: JAP 05/2018

DRAWN BY: JAP 05/2018

REVIEWED BY: KBS 04/16/2020

SHEET TITLE

MARKING PLAN TAXIWAY B STA. 64+00 TO 75+22 AND TAXIWAY B3



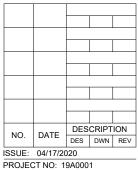
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT AUTHORITY

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

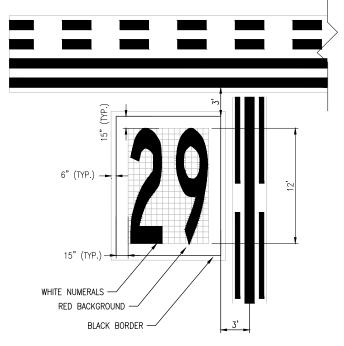


ISSUE: 04/17/2020 PROJECT NO: 19A0001 CAD FILE: C-151-MRK.DWG

DESIGN BY: JAP 05/2018 DRAWN BY: JAP 05/2018 REVIEWED BY: KBS 04/16/2020

SHEET TITLE

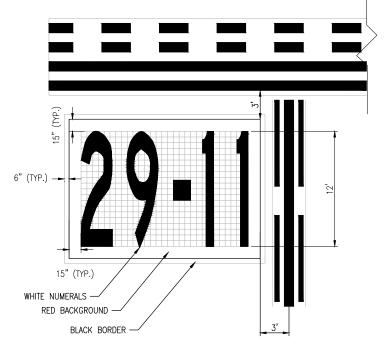
MARKING PLAN TAXIWAY D



SURFACE PAINTED HOLDING POSITION SIGN DETAIL "A"

NOTE: GRID SHOWN FOR PROPER SIZING OF INSCRIPTIONS

- NOT TO BE PAINTED. GRID SPACING IS 0.60 FEET.



SURFACE PAINTED HOLDING POSITION SIGN DETAIL "B"

NOTE: GRID SHOWN FOR PROPER SIZING OF INSCRIPTIONS

- NOT TO BE PAINTED. GRID SPACING IS 0.60 FEET.



1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COMMY MEMORIAL AIRFORT

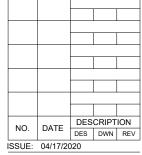
PHASE 2: RECONSTRUCT TAXIWAY B

NOTE: ALL SURFACE PAINTED HOLDING POSITION

IN THE SPECIAL PROVISIONS.

SIGNS, INCLUDING BACKGROUND AND BLACK BORDER, SHALL BE PREFORMED THERMOPLASTIC AS DETAILED

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

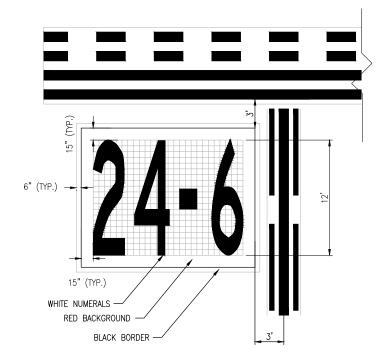


ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-152-MRK-DET.DWG
DESIGN BY: JAP 05/06/2019
DRAWN BY: JAP 05/06/2019

REVIEWED BY: KBS 04/16/2020

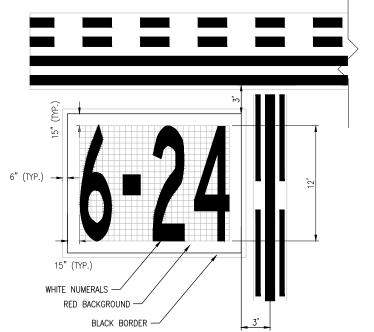
SHEET TITLE

MARKING DETAILS -SHEET 1



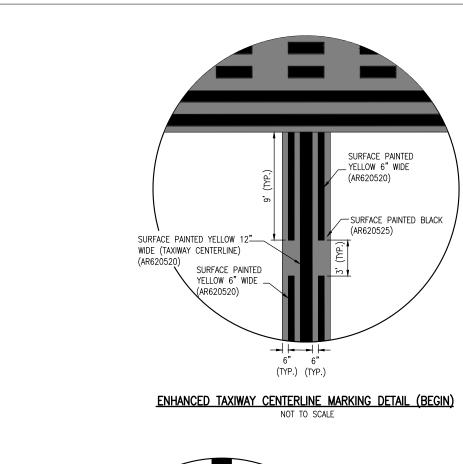
SURFACE PAINTED HOLDING POSITION SIGN DETAIL "C"

NOTE: GRID SHOWN FOR PROPER SIZING OF INSCRIPTIONS
- NOT TO BE PAINTED. GRID SPACING IS 0.60 FEET.



SURFACE PAINTED HOLDING POSITION SIGN DETAIL "D"

NOTE: GRID SHOWN FOR PROPER SIZING OF INSCRIPTIONS
- NOT TO BE PAINTED. GRID SPACING IS 0.60 FEET.



SURFACE PAINTED YELLOW 6" WIDE (AR620520) -SURFACE PAINTED BLACK (AR620525) SURFACE PAINTED YELLOW 12"__ WIDE (TAXIWAY CENTERLINE) (AR620520) SURFACE PAINTED YELLOW 6" WIDE (AR620520) (TYP.) (TYP.)

ENHANCED TAXIWAY CENTERLINE MARKING DETAIL (END)

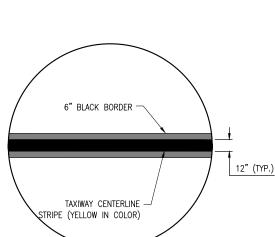
-SEE RUNWAY HOLDING POSITON DETAIL 9' (TYP.) 3' (TYP.) RLACK-150' (SEE NOTE OUTLINE

ENHANCED TAXIWAY CENTERLINE MARKING NOTES:

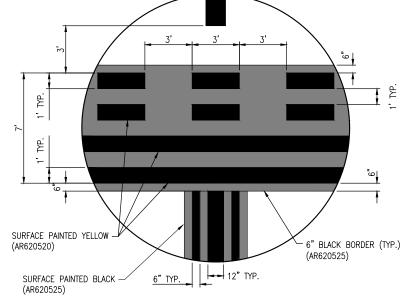
- 1. TAXIWAY CENTERLINE MARKINGS SHALL BE YELLOW IN COLOR AND OUTLINED IN BLACK.
- 2. TAXIWAY CENTERLINE MARKINGS SHALL BE ENHANCED FOR 150-FT PRIOR TO A RUNWAY HOLDING POSITION MARKING, UNLESS NOTED OTHERWISE. FOR A CURVED TAXIWAY CENTERLINE, THIS DISTANCE SHALL BE MEASURED ALONG THE CENTERLINE BEING ENHANCED TO A DISTANCE OF 150-FT.
- 3. 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
- 4. 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.
- 5. ENHANCED TAXIWAY CENTERLINE MARKINGS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF FAA AC 150/5340-1, STANDARDS FOR AIRPORT MARKING.
- 6. IF THE CONTRACTOR ELECTS TO "BLOCK PAINT" THE BLACK PAINT AND THEN PAINT EITHER YELLOW OR WHITE PAINT OVER THE BLACK PAINT; ONLY THE VISIBLE BLACK PAINT WILL BE ELIGIBLE FOR

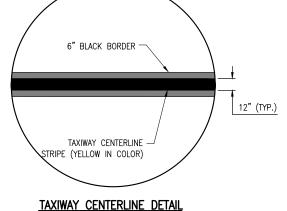
WHITE RUNWAY STRIPE WITH

6" BLACK BORDER (TYP.)









NOT TO SCALE

HOLDING POSITION DETAIL NOT TO SCALE

-3' TYP. EDGE TO EDGE RWY - YELLOW TAXIWAY STRIPE WITH 6" BLACK BORDER (TYP.) RUNWAY CENTERLINE/TAXIWAY LEAD LINE DETAIL

Offices Nationwide www.hanson-inc.com

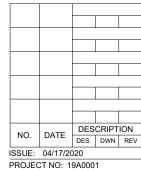
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT AUTHORITY

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

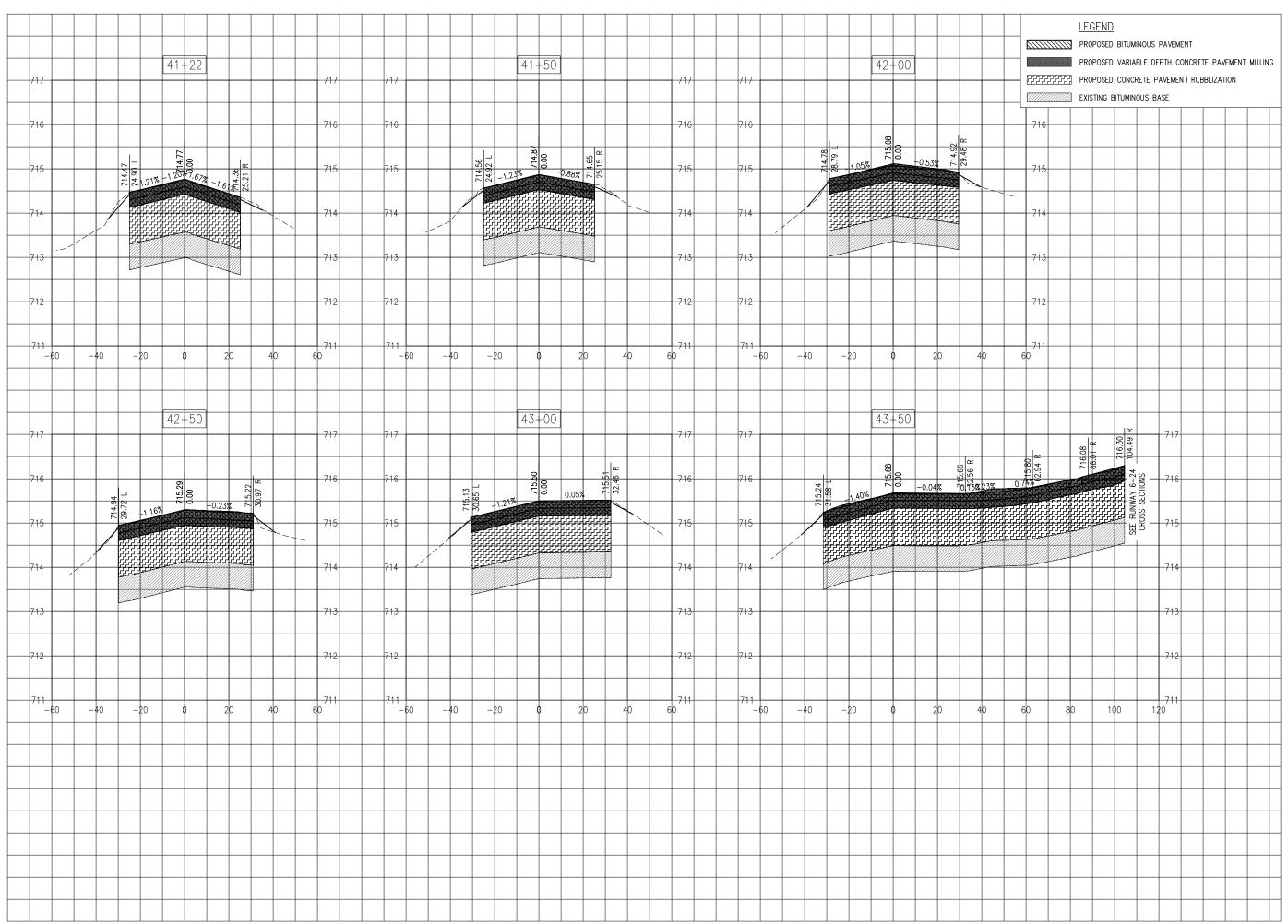


CAD FILE: C-152-MRK-DET.DWG DESIGN BY: JAP 05/06/2019

DRAWN BY: JAP 05/06/2019 REVIEWED BY: KBS 04/16/2020

SHEET TITLE

MARKING DETAILS -SHEET 2





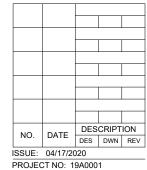
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

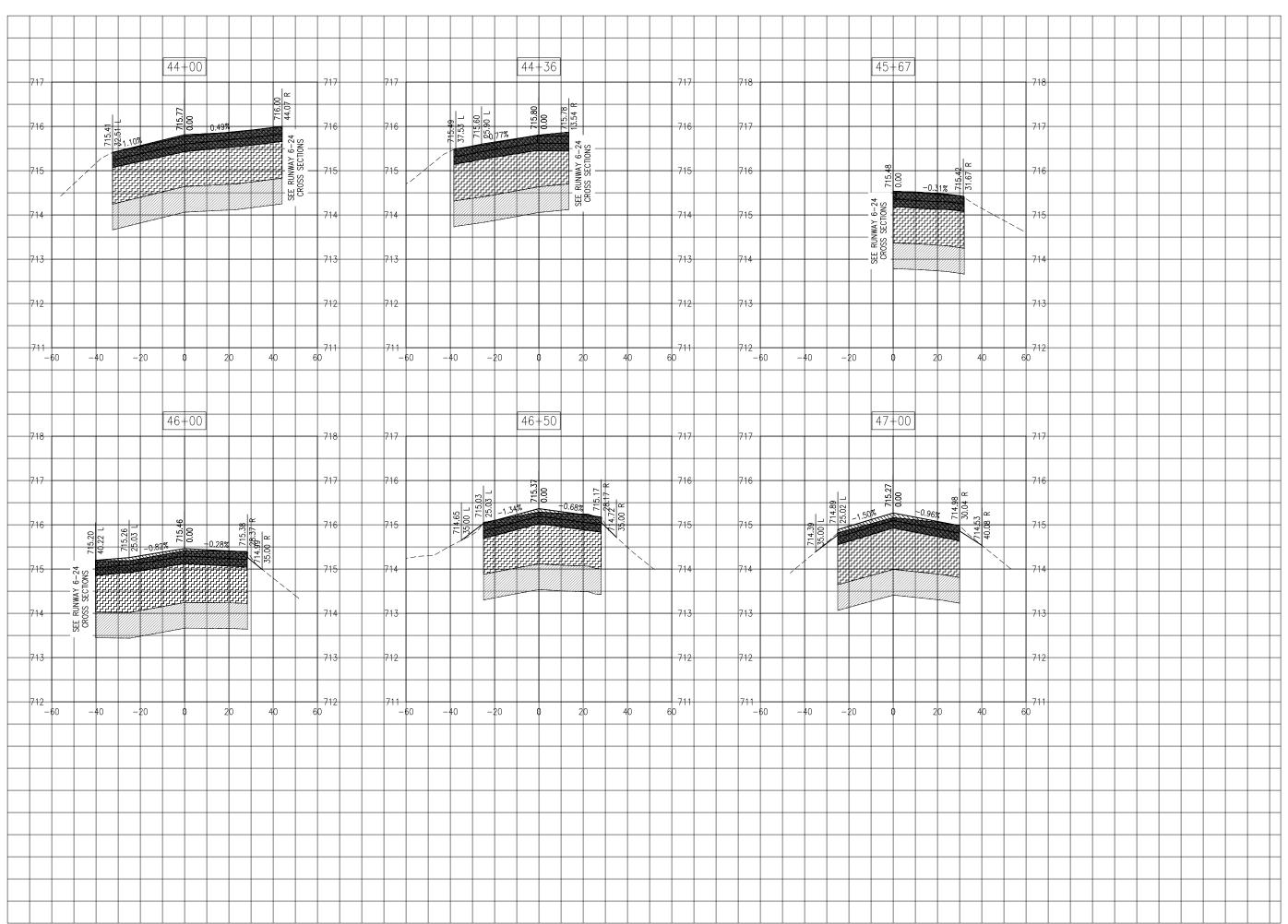
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B CROSS SECTIONS - STA. 41+22 - STA. 43+50





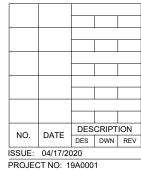
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

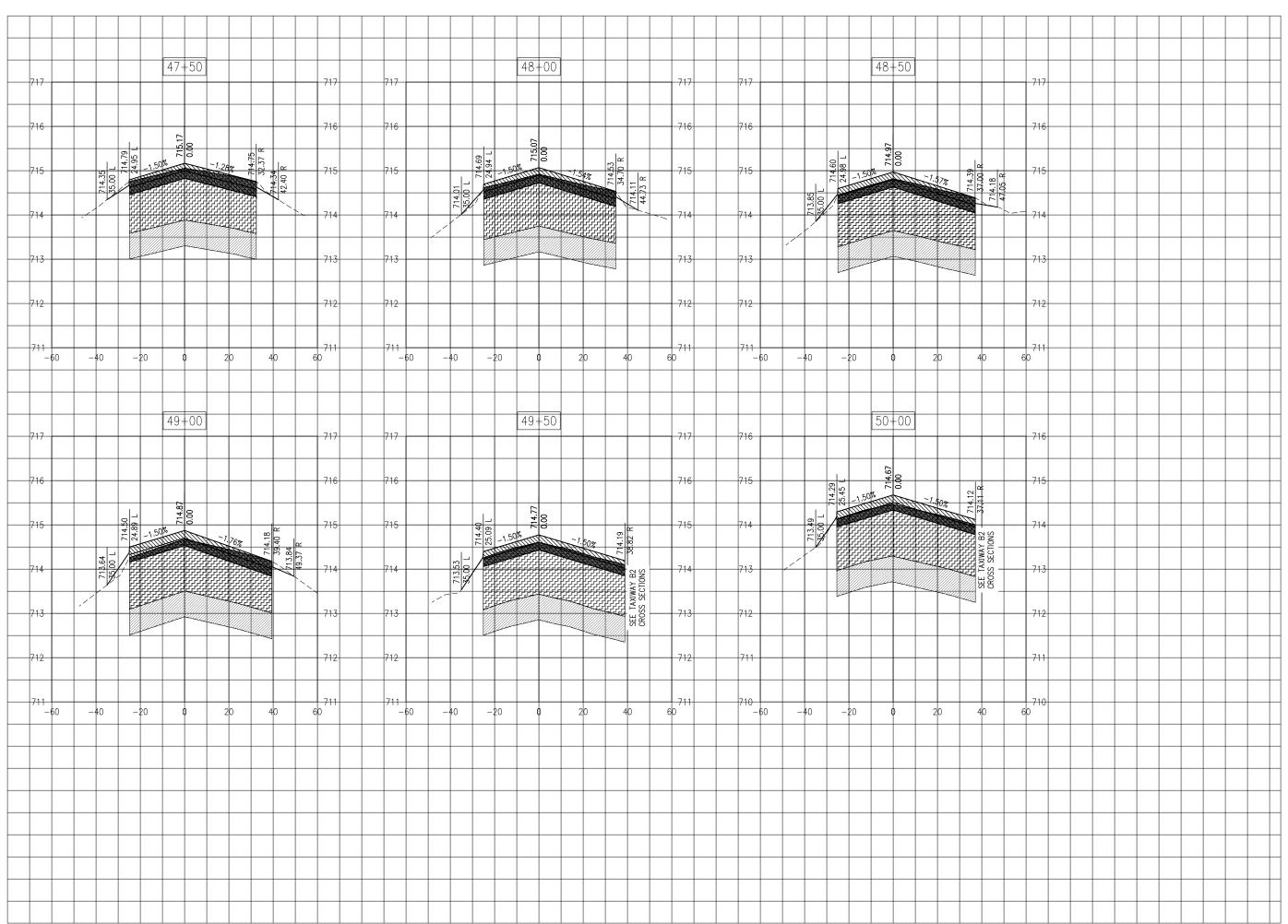
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B CROSS SECTIONS - STA. 44+00 - STA. 47+00





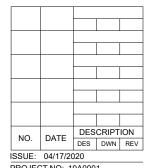
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

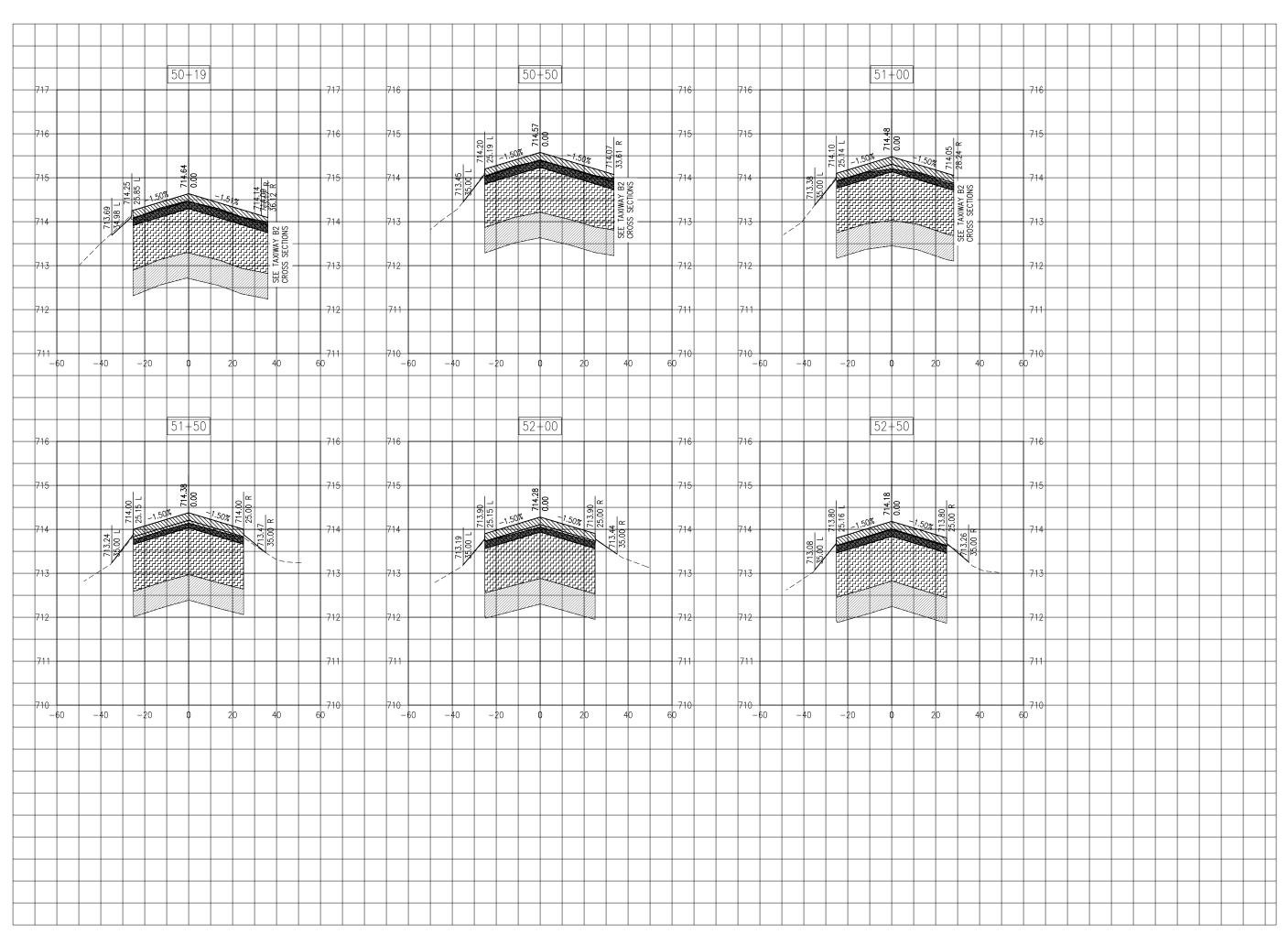
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B CROSS SECTIONS - STA. 47+50 - STA. 50+00





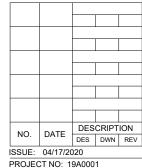
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



PROJECT NO: 19A0001

CAD FILE: C-301-XS.DWG

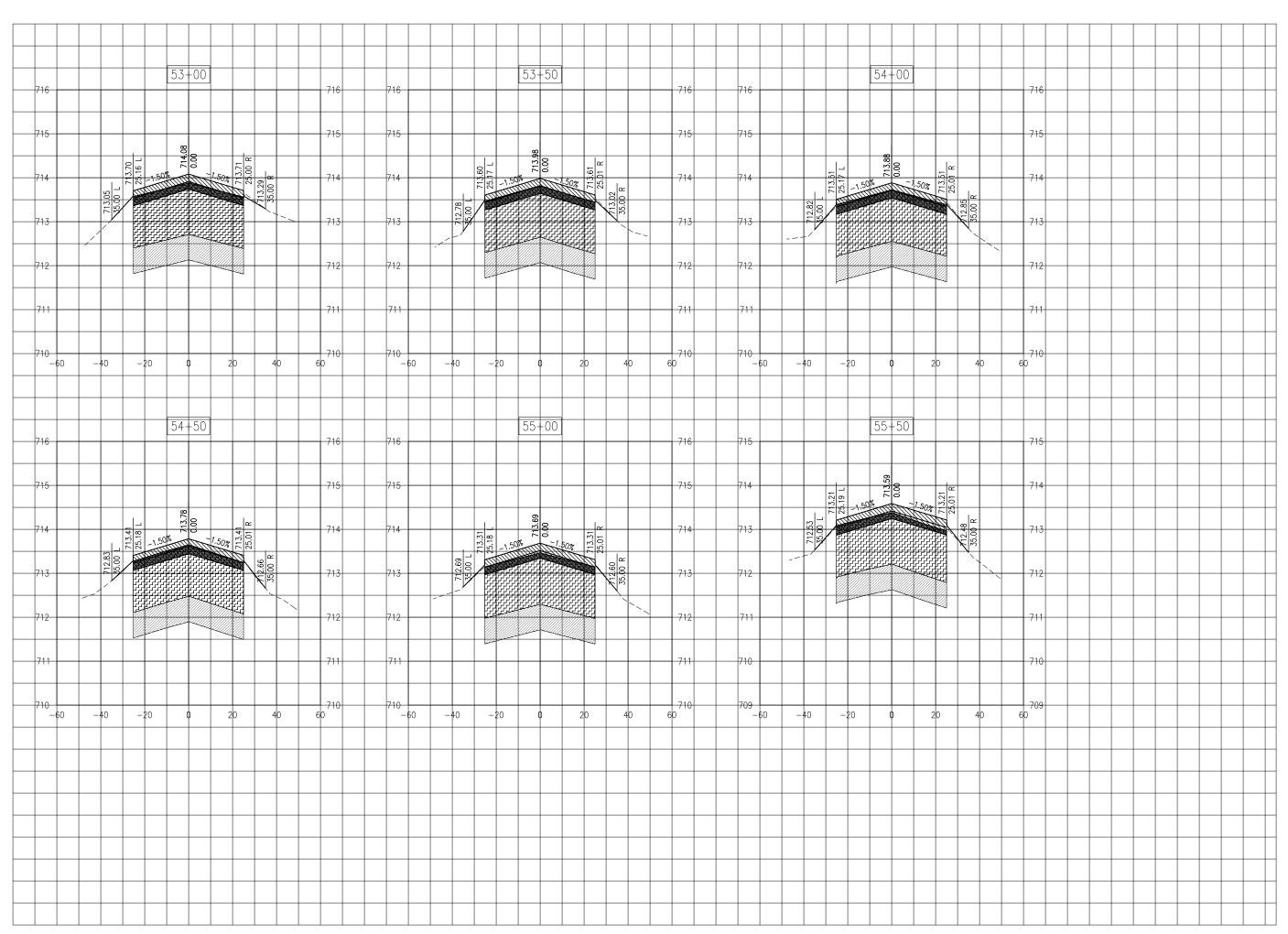
DESIGN BY: KWS 05/2019

DRAWN BY: NLD 05/2019

REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B CROSS SECTIONS - STA. 50+19 - STA. 52+50





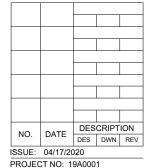
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

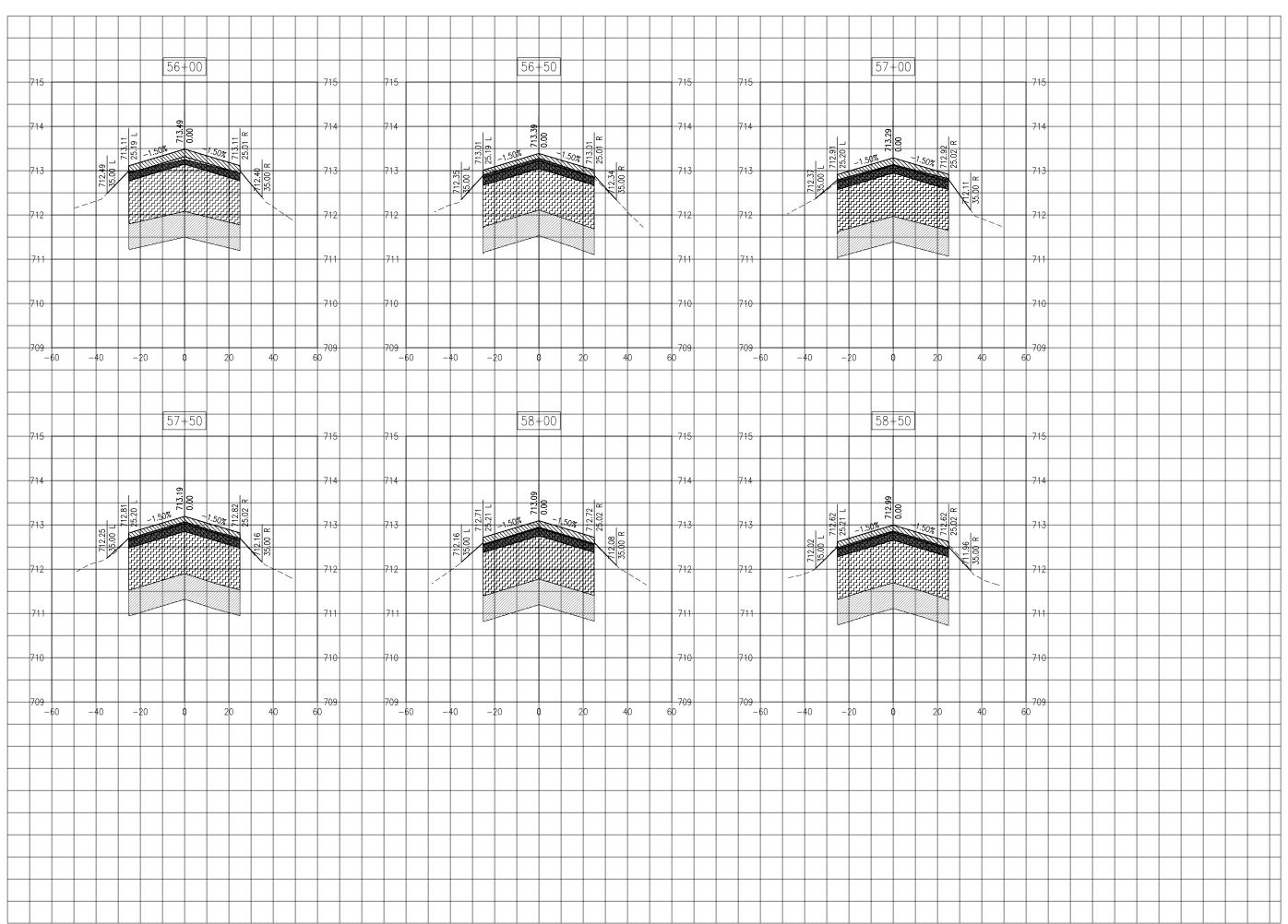


ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019

SHEET TITLE

TAXIWAY B CROSS SECTIONS - STA. 53+00 - STA. 55+50

REVIEWED BY: KBS 04/16/2020





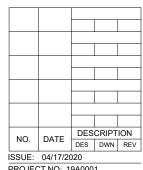
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

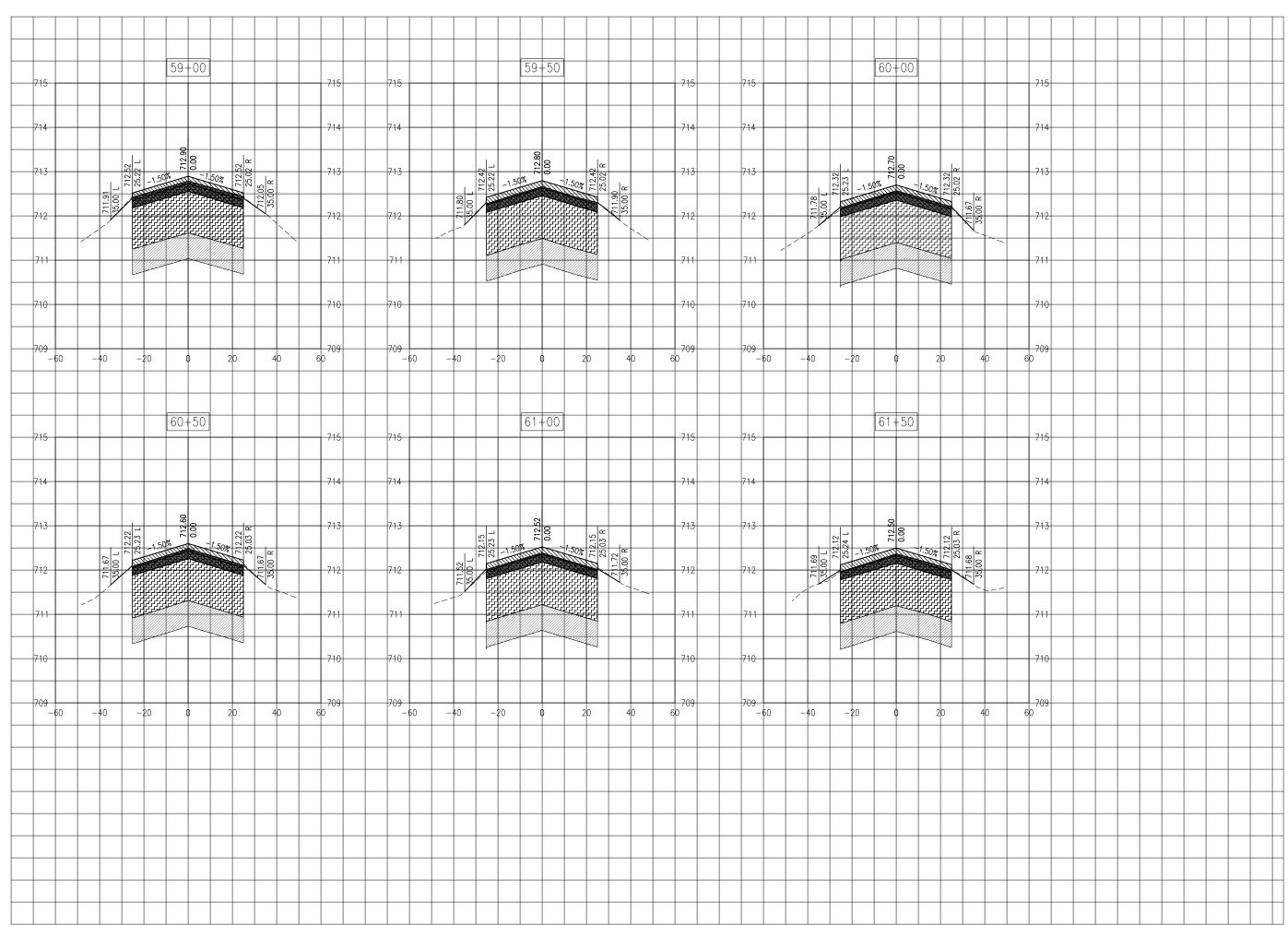


ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019

REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B CROSS SECTIONS - STA. 56+00 - STA. 58+50





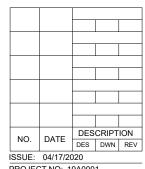
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



PROJECT NO: 19A0001

CAD FILE: C-301-XS.DWG

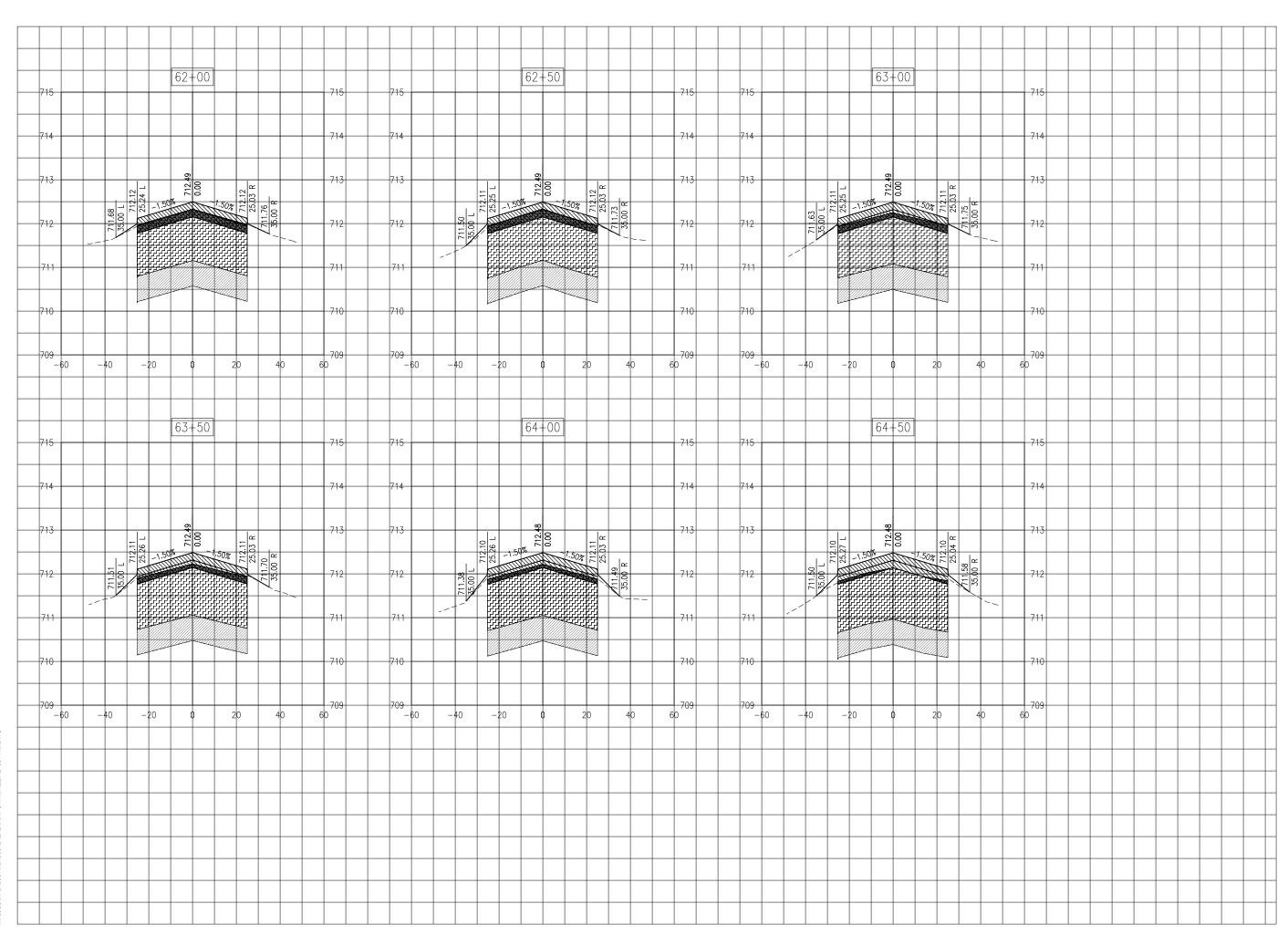
DESIGN BY: KWS 05/2019

DRAWN BY: NLD 05/2019

REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B CROSS SECTIONS - STA. 59+00 - STA. 61+50





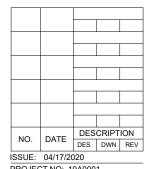
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

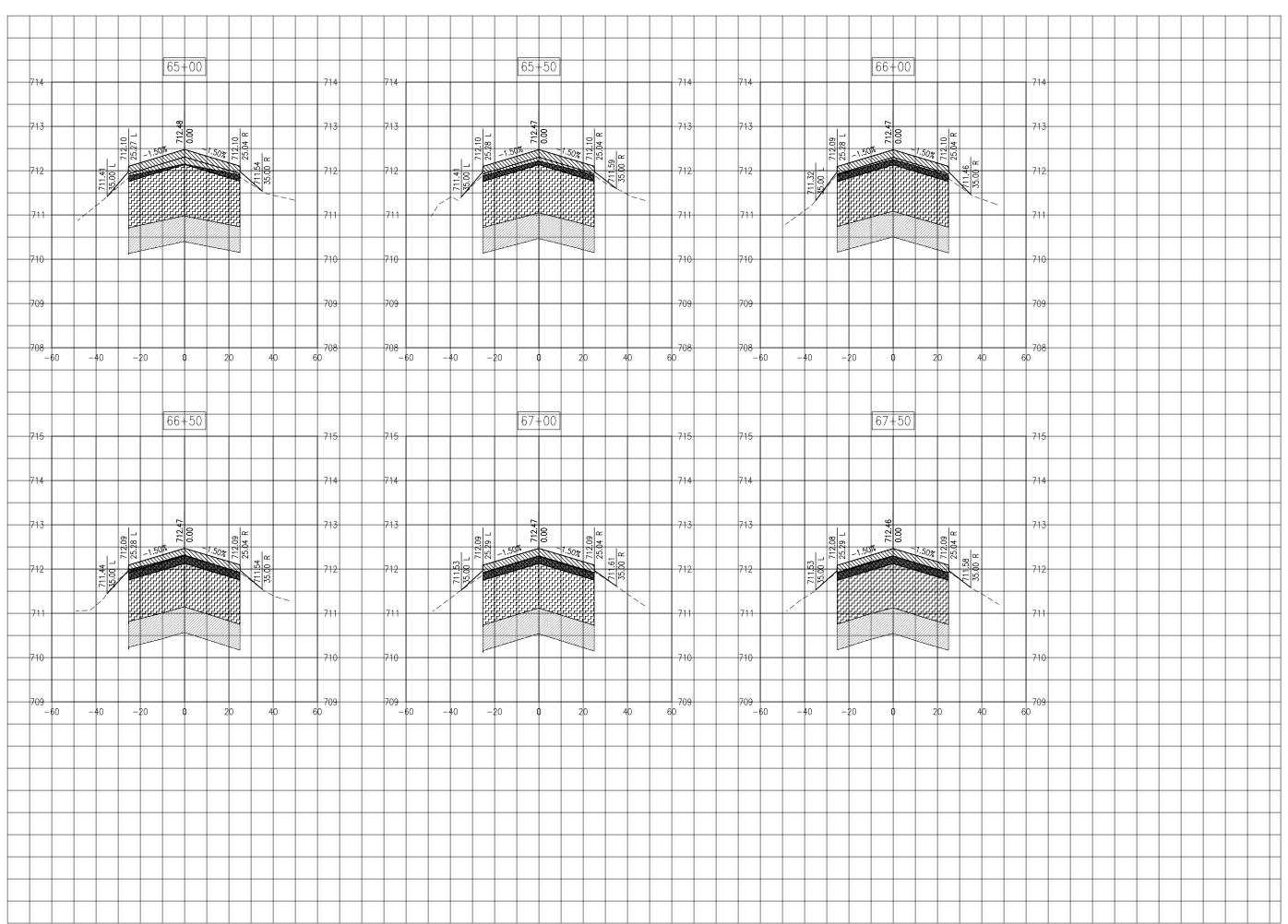


ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019

REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B CROSS SECTIONS -STA.62+00 - STA. 64+50





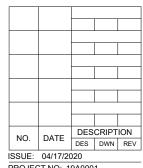
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



PROJECT NO: 19A0001

CAD FILE: C-301-XS.DWG

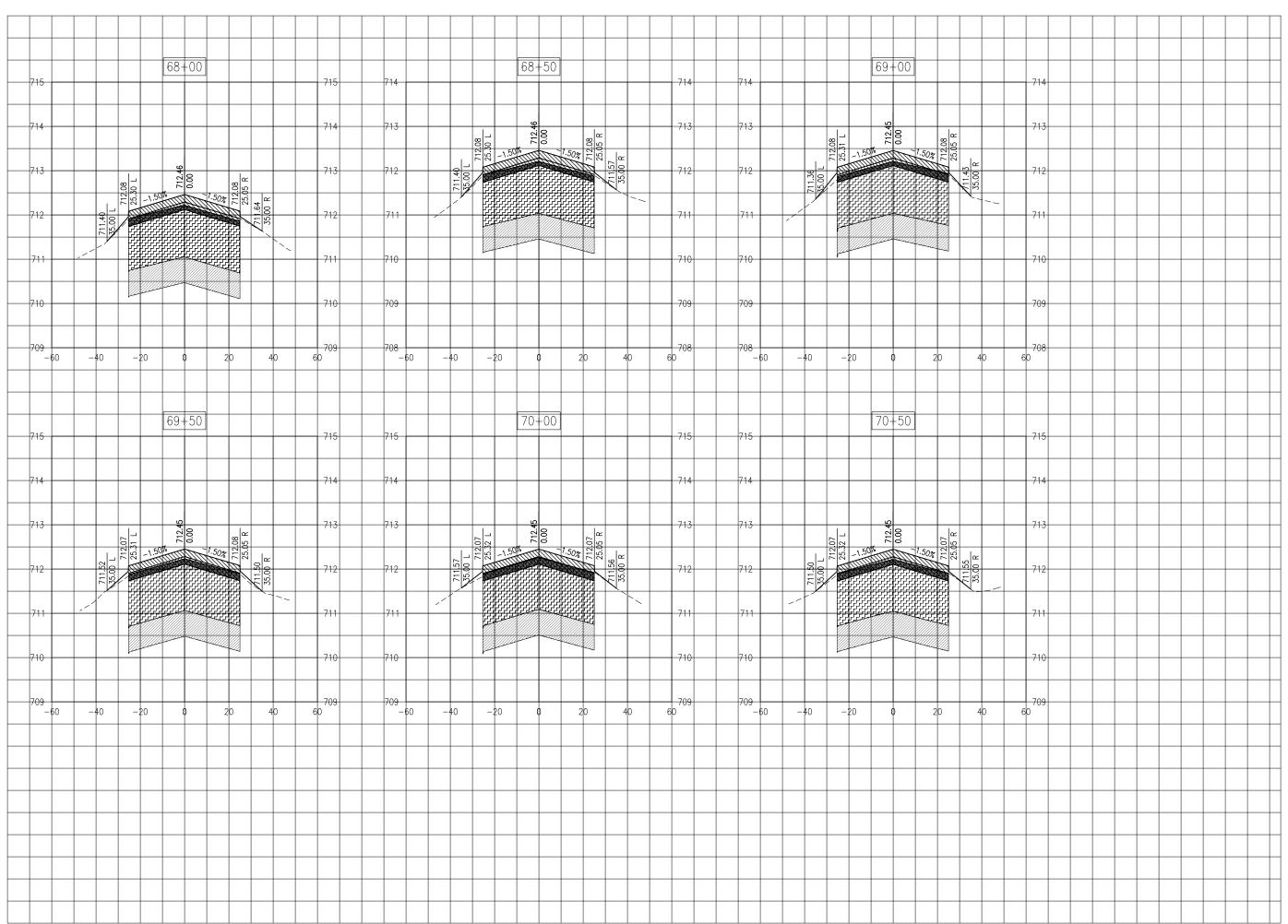
DESIGN BY: KWS 05/2019

DRAWN BY: NLD 05/2019

REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B CROSS SECTIONS - STA. 65+00 - STA. 67+50





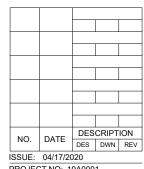
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

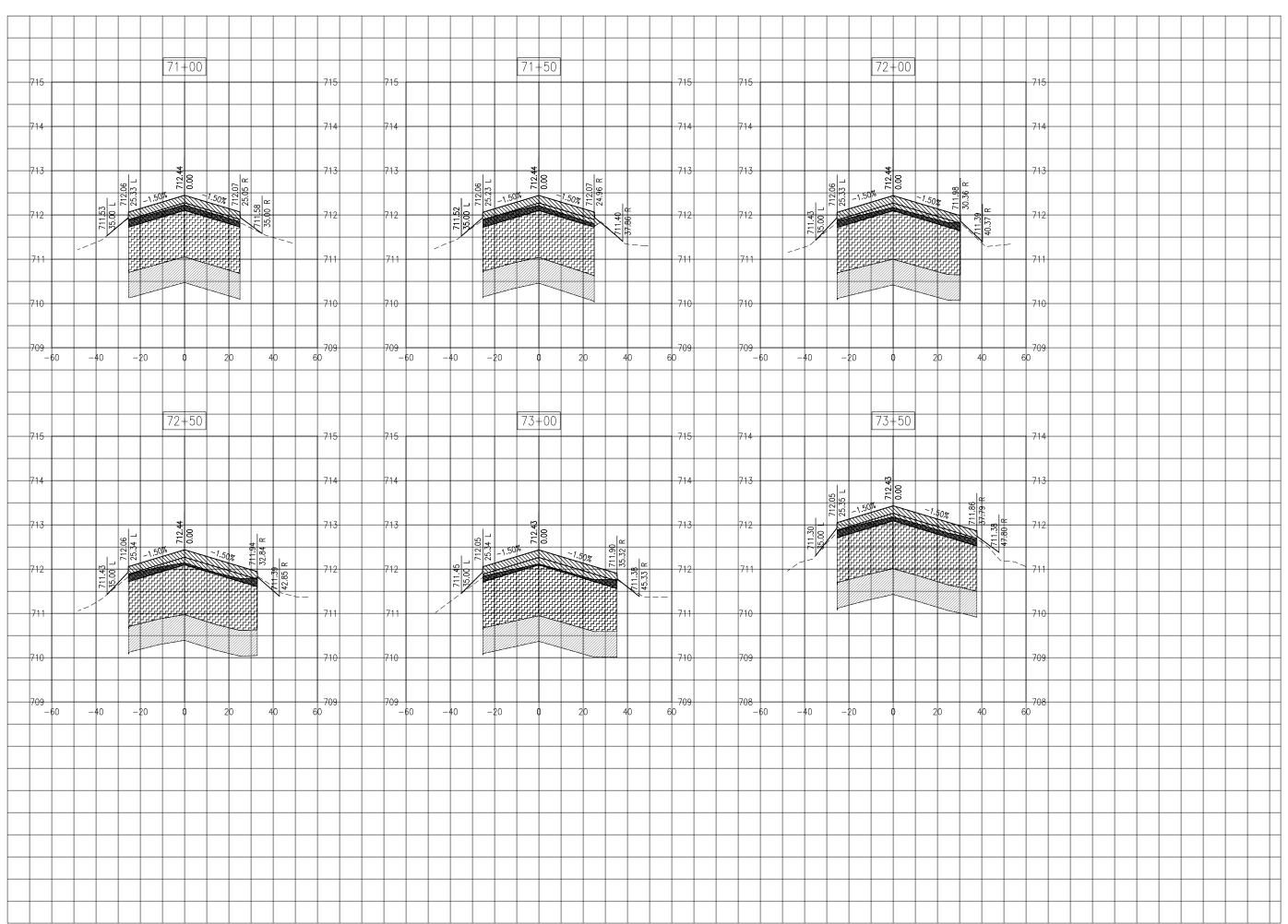


ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019

REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B CROSS SECTIONS - STA. 68+00 - STA. 70+50





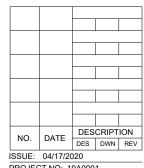
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

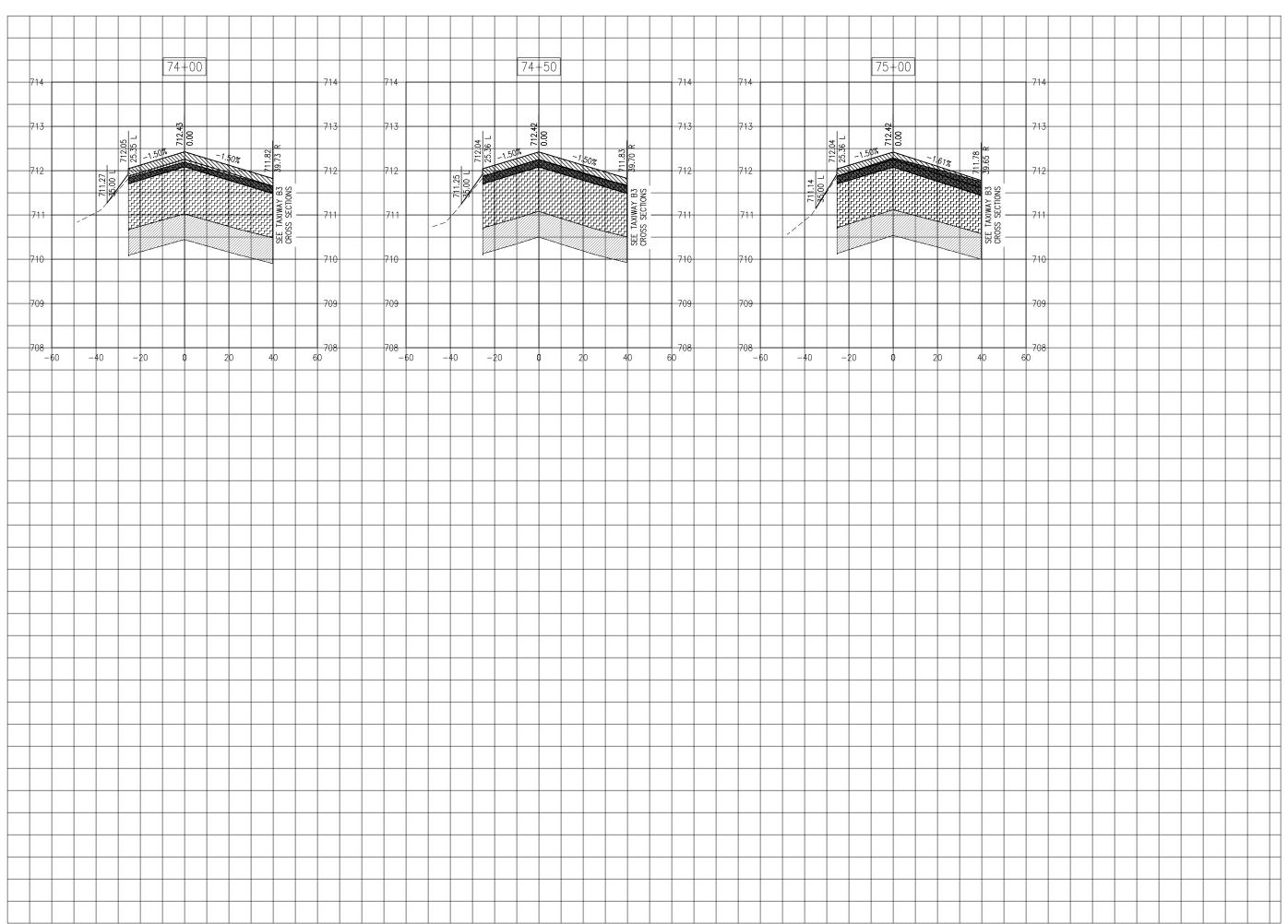
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B CROSS SECTIONS - STA. 71+00 - STA. 73+50





Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

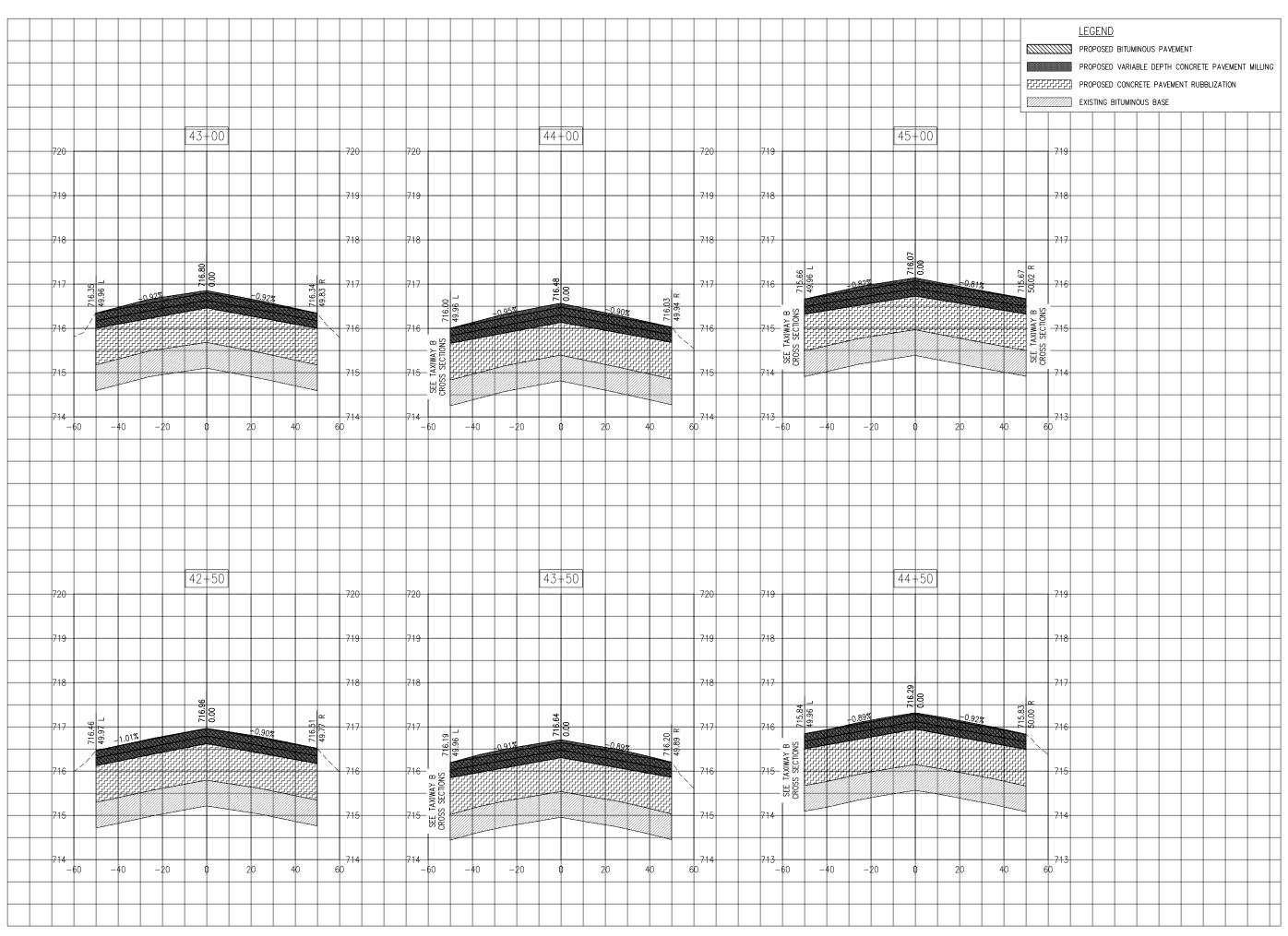
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

NO.	DATE	DES	CRIPT	ION
INO.	DATE	DES	DWN	REV
ISSUE:	04/17/20	020		
	T NO 4	0 4 0 0 0		

ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B CROSS SECTIONS - STA. 74+00 - STA. 75+00





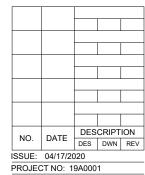
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

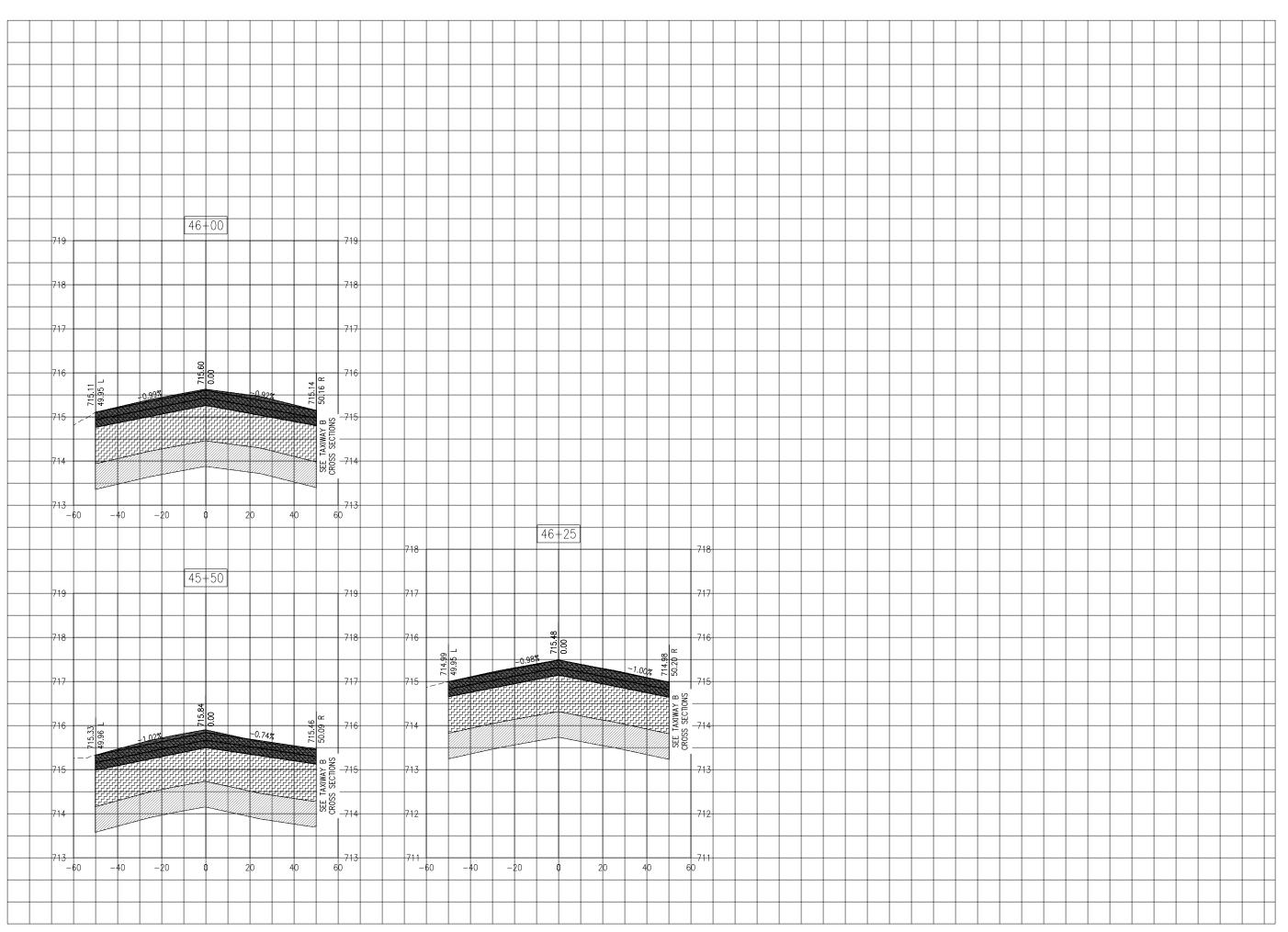
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

RUNWAY 6-24 CROSS SECTIONS STA. 42+50 - STA. 45+00





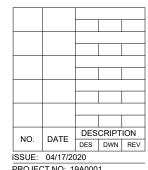
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

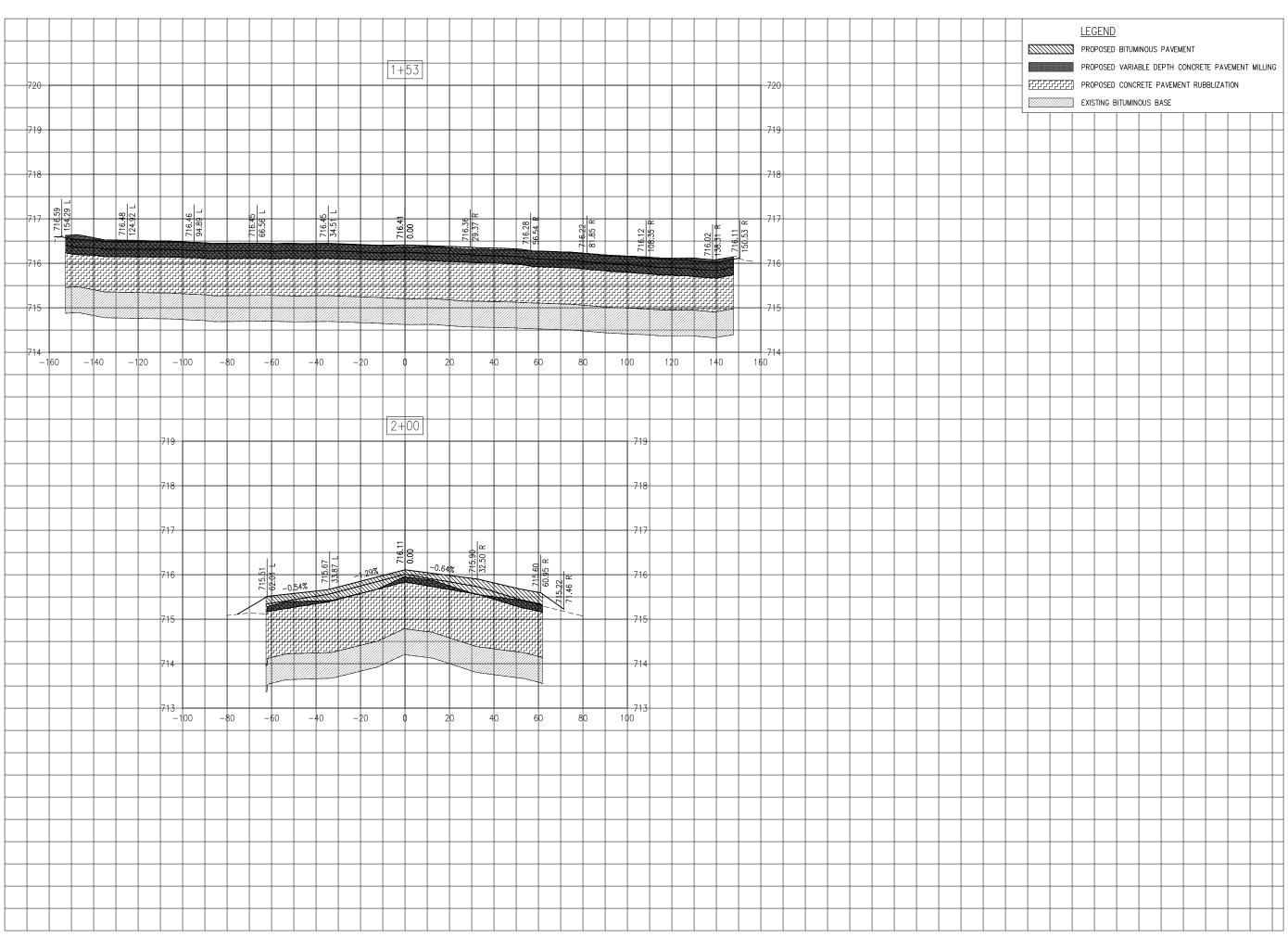
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

RUNWAY 6-24 CROSS SECTIONS STA. 45+50 - STA. 46+25





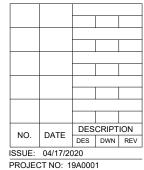
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

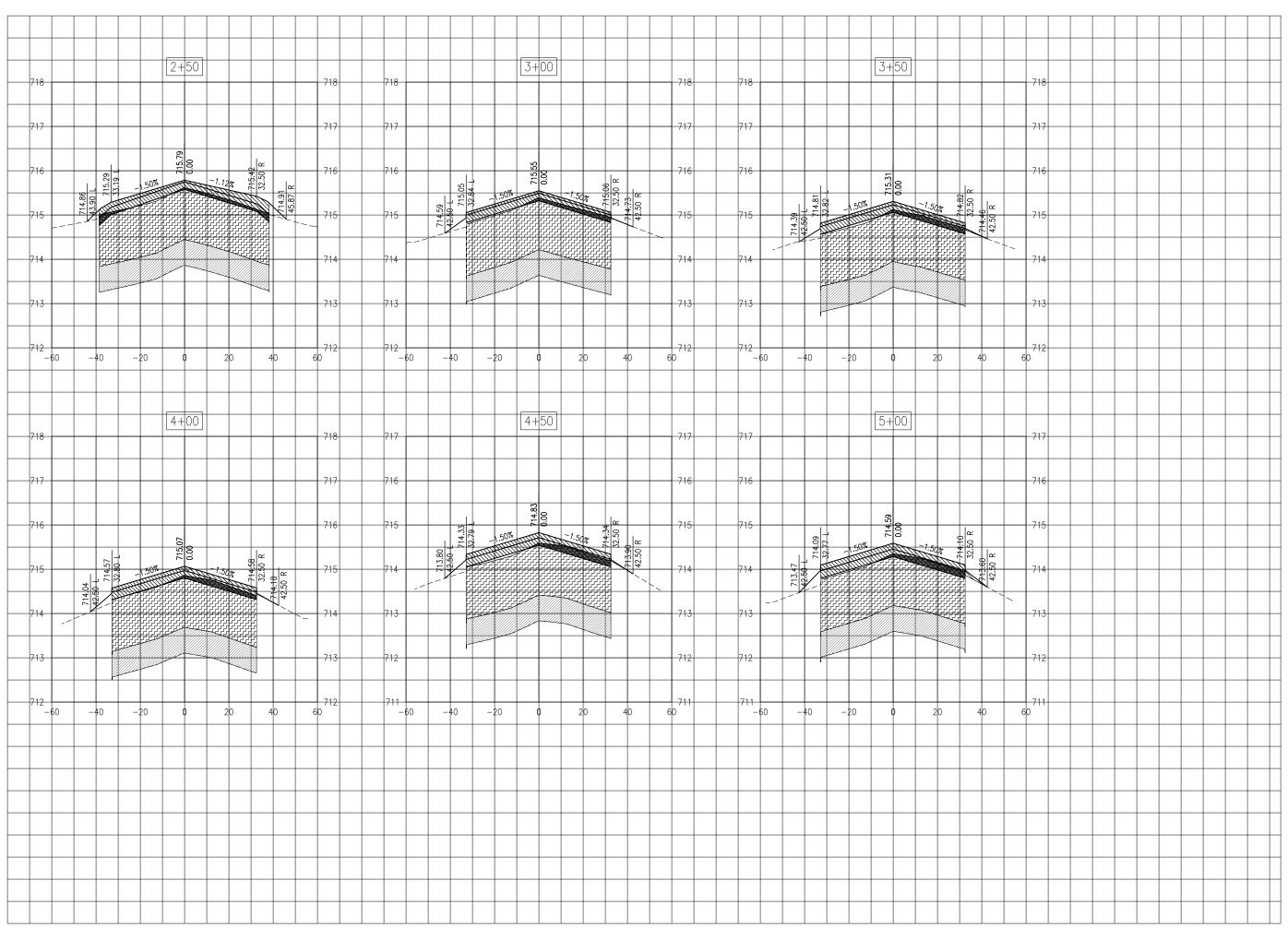
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B2 CROSS SECTIONS STA. 1+53 - STA. 2+00





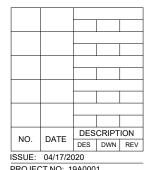
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

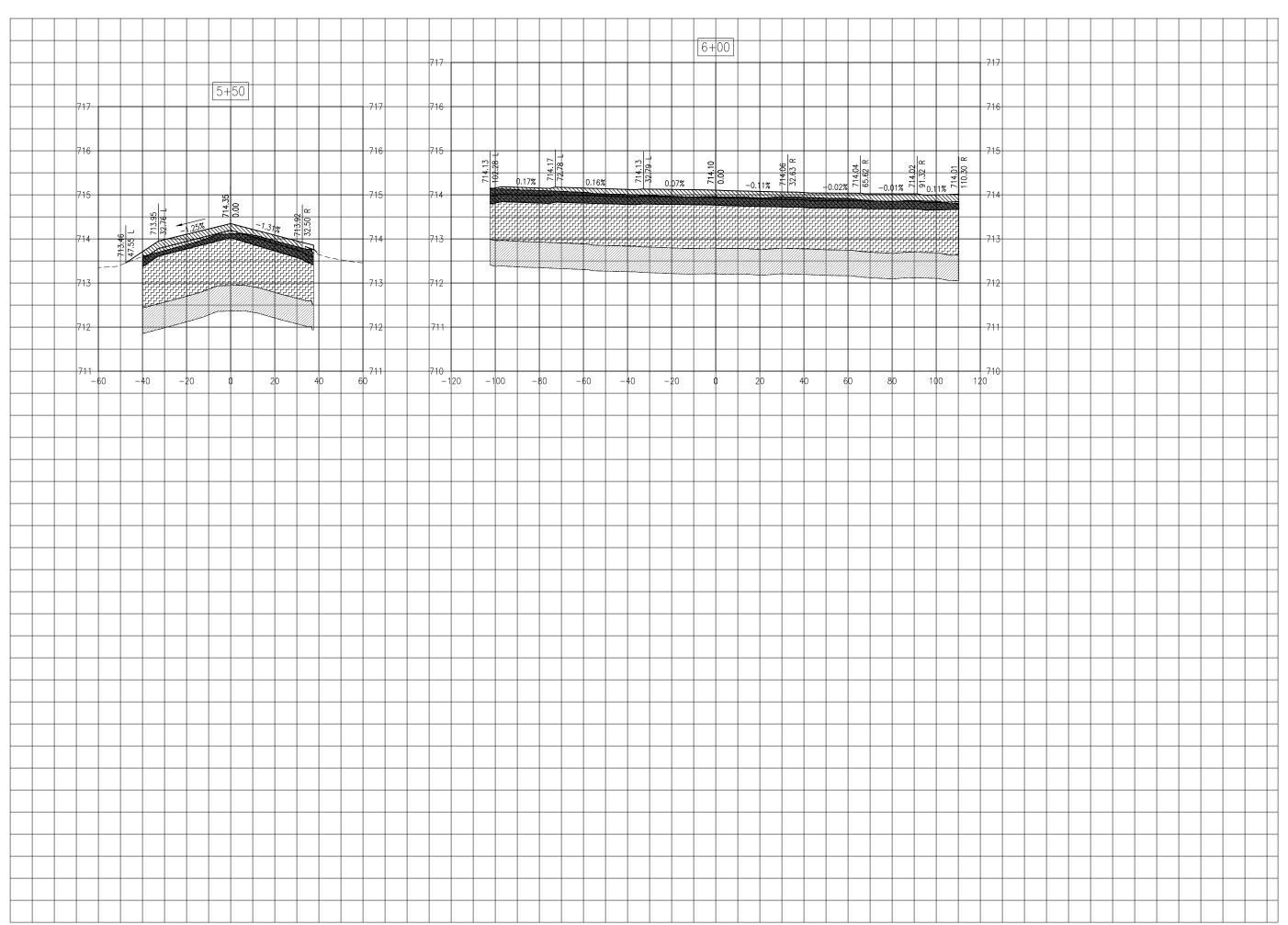


ISSUE: 04/17/2020 PROJECT NO: 19A0001 CAD FILE: C-301-XS.DWG DESIGN BY: KWS 05/2019 DRAWN BY: NLD 05/2019

SHEET TITLE

TAXIWAY B2 CROSS SECTIONS STA. 2+50 - STA. 5+00

REVIEWED BY: KBS 04/16/2020





Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

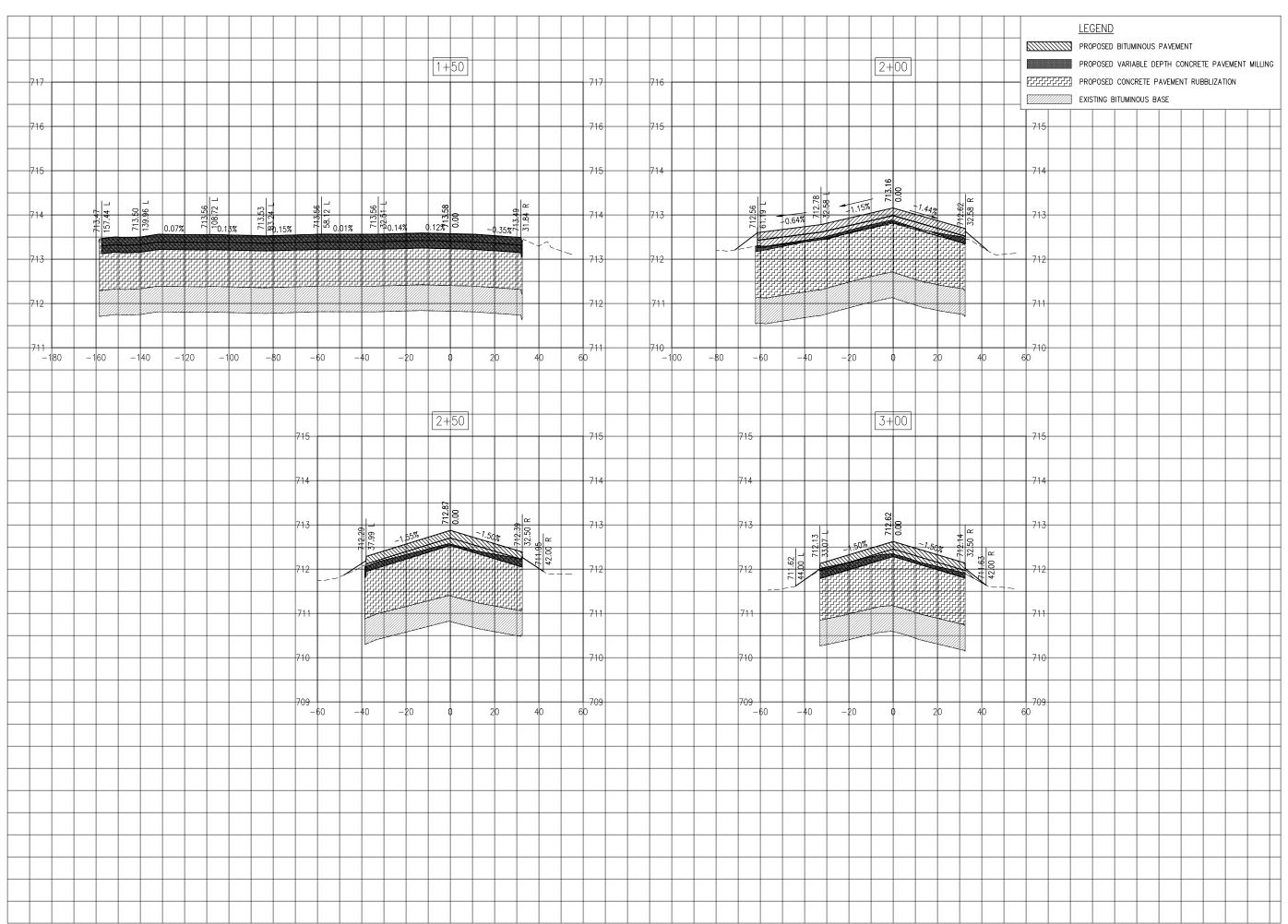
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

NO.	DATE	DES	SCRIPTION	
INO.	DATE	DES	DWN	REV
ISSUE:	04/17/20	020		

ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B2 CROSS SECTIONS STA. 5+50 - STA. 6+00





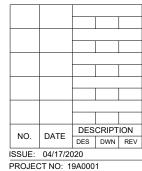
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

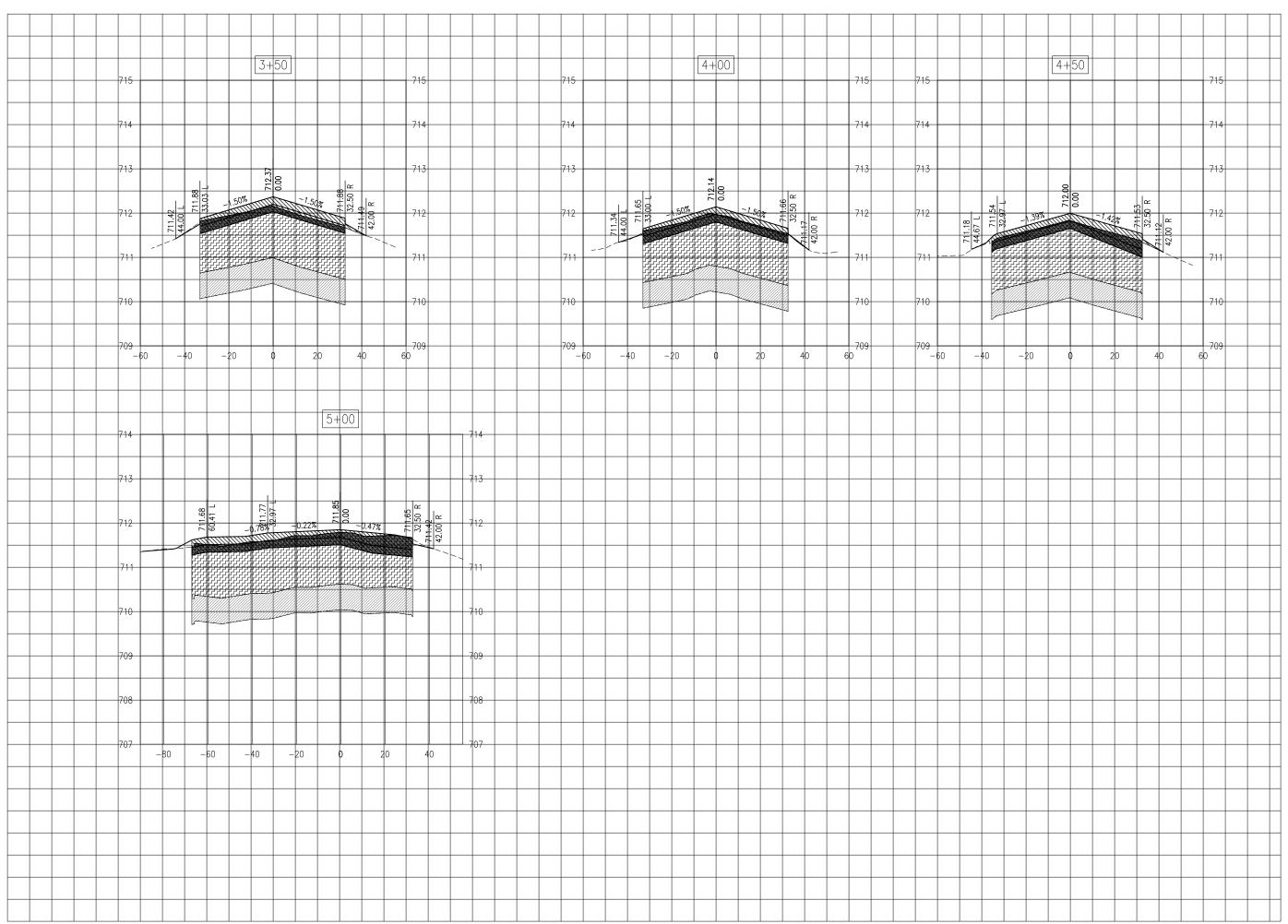
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067



ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B3 CROSS SECTIONS STA. 1+50 - STA. 3+00





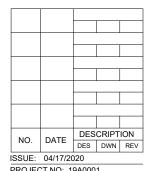
Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

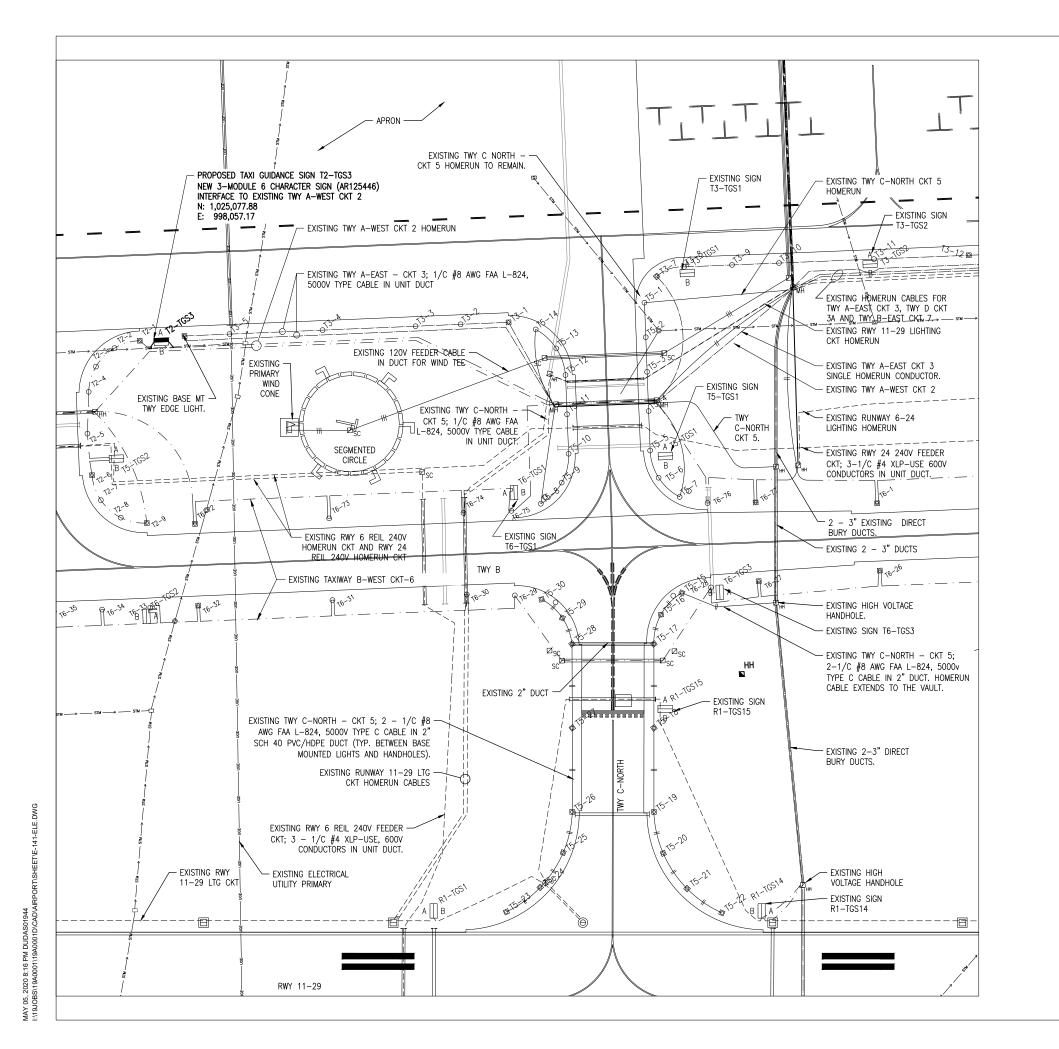
IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

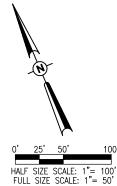


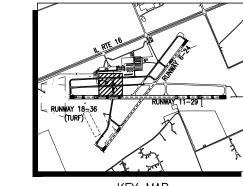
ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: C-301-XS.DWG
DESIGN BY: KWS 05/2019
DRAWN BY: NLD 05/2019
REVIEWED BY: KBS 04/16/2020

SHEET TITLE

TAXIWAY B3 CROSS SECTIONS STA. 3+50 - STA. 5+00







KEY MAP

<u>LEGEND</u>

EXISTING PAVEMENT EXISTING BUILDING EXISTING ELECTRICAL DUCT ---- EXISTING ELECTRICAL CABLE EXISTING 1/C #8AWG, FAA L-824, 5000 VOLT TYPE C UNDERGROUND CABLE IN UNIT DUCT EXISTING CABLES IN 2" DUCT. (SLASHES INDICATE NUMBER OF CABLES). EXISTING TELEPHONE EXISTING UNDERDRAIN EXISTING STORM SEWER EXISTING GAS LINE EXISTING SANITARY EXISTING UNDERGROUND ELECTRIC UTILITY PRIMARY PROPOSED TAXI GUIDANCE SIGN EXISTING TAXI GUIDANCE SIGN EXISTING SLICE CAN EXISTING STAKE MOUNTED TAXIWAY LIGHT 0 EXISTING BASE MOUNTED TAXIWAY LIGHT EXISTING STAKE MOUNTED RUNWAY LIGHT Ш EXISTING BASE MOUNTED RUNWAY LIGHT EXISTING STAKE MOUNTED THRESHOLD LIGHT Φ Φ EXISTING BASE MOUNTED THRESHOLD LIGHT \oplus EXISTING AIRPORT ROTATING BEACON EXISTING UTILITY TRANSFORMER □ ET \square_{MH} EXISTING ELECTRICAL MANHOLE EXISTING ELECTRICAL HANDHOLE O 00 EXISTING CLEAN-OUT

NOTE: REFER TO TAXI GUIDANCE SIGN MODIFICATION PLAN SHEET FOR SIGN PANEL REPLACEMENT LOCATIONS.



Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159

Contract No. CO067

NO. DATE DESCRIPTION
DES DWN REV
ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: E-141-ELE.DWG

DESIGN BY: KNL 05/07/2019 DRAWN BY: CWS 05/08/2019 REVIEWED BY: KNL 06/26/2019

SHEET TITLE

AIRFIELD LIGHTING PLAN



Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COMMY MEMORIAL ARPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159

Contract No. CO067

NO. DATE DESCRIPTION
DES DWN REV

ISSUE: 04/17/2020

PROJECT NO: 19A0001

CAD FILE: E-143-TGS-P.DWG

DESIGN BY: KBS 05/2019

DRAWN BY: JAP 05/2019 REVIEWED BY: KBS 03/19/2020

SHEET TITLE

TAXI GUIDANCE SIGN MODIFICATION PLAN

	TAXI GUIDANCE SIGN SCHEDULE						
SIGN	CATION		ING	PRO	Posed	REMARKS	
NUMBER	LOGATION	SIDE A	SIDE B	SIDE A	SIDE B		
R1-TGS3	TAXIWAY B1 INTERSECTION WITH RUNWAY 11 AT HOLD LINE	B1 11	Bî	NO CHANGE	⊞ B→	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE B PANELS WITH NEW PANELS (2-1 MODULE PANELS).	
R1-TGS6	TAXIWAY B3 INTERSECTION WITH RUNWAY 29 AT HOLD LINE	29	B3	NO CHANGE	←B <mark>ː</mark> ːːːːːːːːːːːːːːːːːːːːːːːːːːːːːːːːːːː	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE B PANELS WITH NEW PANELS (2-1 MODULE PANEL).	
R1-TGS15	TAXIWAY C INTERSECTION WITH RUNWAY 29-11 AT HOLD LINE	C 29 - 11	APRONT	NO CHANGE	←B C B→	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE B PANELS WITH NEW PANELS (3-1 MODULE PANELS).	
R2-TGS1	RUNWAY 24 INTERSECTION WITH TAXIWAY B, WEST SIDE OF RUNWAY 24	APRON.		B ~	NO CHANGE	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE A PANELS WITH NEW PANELS (3-1 MODULE PANELS).	
R2-TGS3	RUNWAY 6 INTERSECTION WITH TAXIWAY B, WEST SIDE OF RUNWAY 6	∠ APRON		∠ B	NO CHANGE	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE A PANELS WITH NEW PANELS (3-1 MODULE PANELS).	
R2-TGS11	TAXIWAY B INTERSECTION WITH RUNWAY 6-24 AT HOLD LINE	6-24	В	NO CHANGE	B 29↑	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE B PANELS WITH NEW PANELS (3-1 MODULE PANELS).	
T2-TGS2	TAXIWAY A INTERSECTION WITH TAXIWAY B	←B A B1→	APRONT	NO CHANGE	B A↑	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE B PANELS WITH NEW PANELS (4-1 MODULE PANELS).	
T2-TGS3	SOUTH SIDE OF APRON NEAR INTERSECTION WITH TAXIWAY A1	←APRON	3	A1	APRONT	NEW 6-CHAR. 3-MODULE SIGN. CONNECT SIGN TO TAXIWAY A-WEST CIRCUIT 2.	
T3-TGS1	SOUTH SIDE OF APRON NEAR INTERSECTION WITH TAXIWAY C	6.29↑ 11→		C	APRONT	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDES A AND B PANELS WITH NEW PANELS (3-1 MODULE PANELS/SIDE-6 TOTAL).	
T3-TGS3	TAXIWAY D AT INTERSECTION WITH TAXIWAY B	¥ 29 11 <i>≯</i>	D	∠B D B⊅	D 24↑	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDES A AND B PANELS WITH NEW PANELS (3-1 MODULE PANELS/SIDE-6 TOTAL).	
T4-TGS1	TAXIWAY B AT WEST SIDE OF ACCESS TAXIWAY A1 TO WEST SIDE OF APRON	←APRON	111	← A1 🖪	NO CHANGE	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE A PANELS WITH NEW PANELS (3-1 MODULE PANELS).	
T5-TGS1	TAXIWAY C AT INTERSECTION WITH TAXIWAY B	← 29 6↑	APRONT	←B→	C	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDES A AND B PANELS WITH NEW PANELS (3-1 MODULE PANELS/SIDE-6 TOTAL).	
T5-TGS2	ACCESS TAXIWAY A1 TO WEST SIDE OF APRON AT INTERSECTION WITH TAXIWAY B	11→		←B→	A1	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE A AND B PANELS WITH NEW PANELS (2-1 MODULE PANELS/SIDE-4 TOTAL).	
T6-TGS1	TAXIWAY B AT INTERSECTION WITH TAXIWAY C AT WEST SIDE OF TAXIWAY C	← A PRON	В	←C B C→	NO CHANGE	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE A PANELS WITH NEW PANELS (3-1 MODULE PANELS).	
T6-TGS2	TAXIWAY B AT EAST SIDE OF ACCESS TAXIWAY A1 TO WEST SIDE OF APRON	APRON →	В	3 A1 →	NO CHANGE	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE A PANELS WITH NEW PANELS (3-1 MODULE PANELS).	
T6-TGS3	TAXIWAY B AT INTERSECTION WITH TAXIWAY C AT EAST SIDE OF TAXIWAY C	APRON→	В	←C	NO CHANGE	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE A PANELS (3-1 MODULE PANELS).	
T6-TGS5	TAXIWAY B AT INTERSECTION WITH TAXIWAY D	₹24 29↑	APRONT	∠DB D⊅	В	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDES A AND B PANELS WITH NEW PANELS (3-1 MODULE PANELS/SIDE-6 TOTAL).	
T7-TGS1	TAXIWAY B2 AT INTERSECTION WITH TAXIWAY B	←A PRON		. <mark>←B</mark> .→	NO CHANGE	EXISTING SIGN TO REMAIN IN PLACE; REPLACE EXISTING SIDE A PANELS WITH NEW PANELS (3-1 MODULE PANELS).	

NOTES:

- 1. EXISTING TAXI GUIDANCE SIGNS REQUIRING PANEL REPLACEMENTS ARE L-858(L), SIZE 1, STYLE 2, CLASS 2 MANUFACTURED BY LUMACURVE, STANDARD SIGNS, INC. CONTRACTOR SHALL FIELD VERIFY EXISTING SIGNS TO CONFIRM REPLACEMENT PANEL SIZES AND REQUIREMENTS.
- 2. THE PROPOSED TAXI GUIDANCE SIGN REPLACEMENT PANELS SHALL CONFORM TO ADVISORY CIRCULAR 150/5345-44 (CURRENT ISSUE IN EFFECT) AND BE FAA-APPROVED FOR TYPE L-858Y(L) DIRECTION, DESTINATION, AND BOUNDARY SIGNS (BLACK LEGEND ON YELLOW BACKGROUND): TYPE L-858R(L) MANDATORY INSTRUCTION SIGN (BLACK OUTLINE ON OUTSIDE EDGE ON WHITE LEGEND ON RED BACKGROUND): AND/OR TYPE L-858L(L) LOCATION SIGN (YELLOW LEGEND AND BORDER ON BLACK BACKGROUND). THE SIGN PANELS SHALL BE MANUFACTURED BY THE ORIGINAL EQUIPMENT MANUFACTURER TO MAINTAIN THE ETL LISTING AND FAA APPROVAL
- 3. SEE SPECIFICATION ITEM L-125 FOR ADDITIONAL REQUIREMENTS ON TAXI GUIDANCE SIGNS.
- 4. SEE "AIRFIELD LIGHTING NOTES" SHEET FOR ADDITIONAL REQUIREMENTS ON TAXI GUIDANCE SIGNS.
- 5. CONTRACTOR SHALL TEST AND RECORD THE EARTH GROUND RESISTANCE FOR THE GROUND ROD AT EACH NEW TAXI GUIDANCE SIGN.
- 6. ALL EXISTING SIGN PANELS TO BE REPLACED SHALL BE TURNED OVER TO THE AIRPORT.

TAXI GUIDANCE SIGN LEGEND

TYPE L-858L(L) LOCATION SIGN - YELLOW LEGEND AND BÓRDER 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,
A→ AND BOUNDARY SIGN - BLACK LEGEND ON A YELLOW BACKGROUND

BLANK - BLACK BACKGROUND



Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT AUTHORITY

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159

Contract No. CO067

NO.	DATE	DES	CRIPT	ION
NO.	DATE	DES	DWN	REV
ISSUE: 04/17/2020				
PRO IFO	T NO: 1	αΔηηη	1	

CAD FILE: E-143-SCHD.DWG

DESIGN BY: KNL 05/05/2019 DRAWN BY: CWS 05/08/2019

REVIEWED BY: KNL 06/26/2019

SHEET TITLE

TAXI GUIDANCE SIGN SCHEDULE

- 2. EXAMINE THE SITE TO DETERMINE THE EXTENT OF THE WORK. CONTRACTOR SHALL FIELD VERIFY EXISTING SITE CONDITIONS.
- VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES PRIOR TO REMOVING, DISCONNECTING, RELOCATING, INSTALLING, OR CONNECTING THE RESPECTIVE AIRFIELD LIGHTING, TAXI SIGN, NAVAID,
- 4. INSTALL AIRFIELD LIGHTS, TAXIWAY LIGHTS, GUIDANCE SIGNS, OTHER AIRFIELD LIGHTING, SPLICE CANS, HANDHOLES, MANHOLES, ELECTRICAL DUCTS, AND CABLE AT THE LOCATIONS SHOWN AND IN COMPLIANCE WITH THE SPECIFICATIONS, SPECIAL PROVISIONS, RESPECTIVE DETAILS, AND MANUFACTURER'S RECOMMENDATIONS
- 5. NEW CABLE FOR RUNWAY AND TAXIWAY LIGHTING CABLE IN AREAS ALONG THE RESPECTIVE PAVEMENT SHALL BE INSTALLED APPROXIMATELY 10' TO 14' FROM THE PAVEMENT EDGE. CABLES SHALL BE PLACED A MINIMUM OF 18" BELOW FINISHED GRADE.
- LIGHTING CABLE FOR RUNWAY AND TAXIWAY LIGHTING SHALL BE 1/C, #8 AWG, FAA L-824, 5000 VOLT, TYPE C UNDERGROUND CABLE IN DUCT OR RACEWAY.
- 7. IN AREAS WHERE THERE IS A CONGESTION OF CABLES OR WHERE THE PROPOSED CABLE CROSSES AN EXISTING CABLE. THE CONTRACTOR IS REQUIRED TO HAND DIG THE TRENCH NECESSARY FOR THE PROPOSED CABLE, AT OTHER LOCATIONS, THE PROPOSED CABLE MAY BE TRENCHED OR PLOWED INTO PLACE, HAND DIGGING, TRENCHING AND/OR PLOWING WILL BE CONSIDERED INCIDENTAL TO THE PROPOSED CABLES AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 8. GROUND ROD MUST BE INSTALLED AT EACH LIGHT FIXTURE AND TAXI SIGN. THE PURPOSE OF THE LIGHT BASE GROUND IS 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, PER NATIONAL ELECTRICAL CODE ARTICLE 250.53 "GROUNDING ELECTRODE SYSTEM INSTALLATION" RESISTANCE FROM THE GROUND ROD/FLECTRODE TO FARTH GROUND MUST BE 25 OHMS OR LESS VIA MEASUREMENT WITH A GROUND TESTER. GROUNDS RODS FOR LIGHT BASE GROUNDS SHALL BE 3/4-INCH BY 10-FEET MINIMUM LENGTH ULL LISTED COPPER-CLAD STEEL SECTIONAL RODS, GROUND RODS SHALL BE PRODUCED. FROM 100% DOMESTIC STEEL. EACH GROUND ROD SHALL BE TESTED AND THE RESULTS RECORDED FOR EACH AIRFIELD LIGHT FIXTURE AND TAXI SIGN INSTALLATION. COPIES OF GROUND SYSTEM TEST RESULTS SHALL BE FURNISHED TO THE PROJECT ENGINEER AND/OR THE RESIDENT
- HOMERUN CABLES FOR A RESPECTIVE CIRCUIT THAT ARE INSTALLED IN CONDUIT OR DUCT SHALL BE RUN TOGETHER IN THE SAME RACEWAY OR DUCT.
- 10. THE RESPECTIVE RUNWAY AND TAXIWAY LIGHTING CCR'S (FOR THE AREAS OF WORK ON THIS PROJECT) SHALL BE TESTED FOR PROPER OPERATION BEFORE REMOVAL WORK. MODIFICATIONS. AND/OR ADDITIONS AND AFTER THE NEW CABLES AND LIGHTING SYSTEM MODIFICATIONS 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 OPERATIONS. CONTRACTOR SHALL REPORT CONCERNS AND/OR DEFICIENCIES TO THE RESIDENT ENGINEER/TECHNICIAN. TEST RESULTS SHALL BE PROVIDED TO THE PROJECT ENGINEER AND RESIDENT ENGINEER/ TECHNICIAN.
- 11. FAA AC 150/5370-10G "STANDARDS FOR SPECIFYING CONSTRUCTION OF AIRPORTS", ITEM L-108 "UNDERGROUND POWER CABLE FOR AIRPORTS", REQUIRES THAT EVERY AIRFIELD LIGHTING CABLE SPLICER SHALL BE QUALIFIED IN MAKING CABLE SPLICES AND TERMINATIONS ON CABLES RATED ABOVE 5,000 VOLTS AC. CABLE SPLICING/TERMINATING PERSONNEL SHALL HAVE A MINIMUM OF THREE (3) YEARS CONTINUOUS EXPERIENCE IN TERMINATING/SPLICING MEDIUM VOLTAGE CABLE.
- 12. OTHER CONSTRUCTION PROJECTS MIGHT BE IN PROGRESS AT THE AIRPORT AT THE SAME TIME AS THIS PROJECT. THE CONTRACTOR WILL BE REQUIRED TO COOPERATE WITH ALL OTHER CONTRACTORS AND THE AIRPORT MANAGER IN THE COORDINATION OF THE WORK.
- 13. OBTAIN APPROVAL FROM THE AIRPORT MANAGER PRIOR TO SHUTTING DOWN A RUNWAY OR TAXIWAY. WHEN A RESPECTIVE RUNWAY IS CLOSED THE RESPECTIVE RUNWAY LIGHTING AND NAVAIDS FOR THAT RUNWAY SHALL BE SHUT OFF. WHEN A RESPECTIVE TAXIWAY IS CLOSED THE RESPECTIVE TAXIWAY LIGHTING FOR THAT TAXIWAY SHALL BE SHUT OFF.
- 14. THE CONTRACTOR IS REQUIRED TO FILL IN ALL HOLES AND DEPRESSIONS RESULTING FROM THE NEW WORK, WITH EARTH MATERIAL. THE AREAS SHALL BE COMPACTED TO PREVENT FUTURE SETTLEMENT AND FERTILIZED. SEEDED, AND MULCHED IN ACCORDANCE WITH ITEMS 901 AND 908
- 15. IN THE EVENT A CONFLICT IS DETERMINED WITH RESPECT TO MANUFACTURER INSTALLATION INSTRUCTIONS, NEC, AND/OR THE CONTRACT DOCUMENTS, CONTACT THE PROJECT ENGINEER FOR

- 16. SEE SAFETY PLAN AND SAFETY NOTES FOR SAFETY AND CONSTRUCTION REQUIREMENTS.
- 17. EXISTING DUCTS AND CABLES SHALL BE LOCATED AND PROTECTED IN AREAS OF WORK.
- 18. OWNER SHALL BE KEPT INFORMED OF WORK AND SCHEDULES.
- 19. ROUTE NEW CABLES AND DUCTS TO AVOID INTERFERENCES WITH OTHER UTILITIES, LINES, AND
- ALL ABOVEGROUND JUMPERS SHALL BE IN A DUCT WITH ALL CONNECTIONS SEALED. THE CONTRACTOR SHALL SECURE, IDENTIFY AND PLACE ALL TEMPORARY EXPOSED WIRING IN CONDUIT, DUCT, OR UNIT DUCT TO PREVENT ELECTROCUTION AND FIRE IGNITION SOURCES AS PER THE REQUIREMENTS OF FAA 150/5370-2G, OPERATION SAFFTY ON AIRPORTS DURING CONSTRUCTION, SECTION 2.18.3 "LIGHTING AND VISUAL NAVAIDS". ALL LABOR, MATERIALS, AND TIME NECESSARY TO COMPLY WITH THIS REQUIREMENT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 21. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF FAA AC NO. 150/5370-2G (OR MOST CURRENT ISSUE) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".
- 22. CONTRACTOR SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF NFPA 70E STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE.
- 23. WHEN A RESPECTIVE RUNWAY IS CLOSED THE NAVAIDS FOR THAT RUNWAY SHALL BE SHUT OFF. KEEP RESPECTIVE NAVAIDS ACTIVE DURING TIMES WHEN RESPECTIVE RUNWAY IS OPEN. NAVAIDS RECEIVING MAINTENANCE SHALL BE SHUT OFF UNTIL OPERATING PROPERLY.
- 24. CONTRACTOR SHALL INTERFACE AIRFIELD LIGHTING AND/OR TAXI SIGNS TO THE RESPECTIVE AIRFIELD LIGHTING AND ASSOCIATED CIRCUITS.
- 25. 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.
- 26. THE PROPOSED TAXI GUIDANCE SIGNS AND REPLACEMENT PANELS SHALL CONFORM TO ADVISORY CIRCULAR 150/5345-44 (CURRENT ISSUE IN EFFECT) AND BE FAA-APPROVED FOR TYPE L-858Y(L) DIRECTION, DESTINATION, AND BOUNDARY SIGNS (BLACK LEGEND ON YELLOW BACKGROUND); TYPE L-858R(L) MANDATORY INSTRUCTION SIGN (BLACK OUTLINE ON OUTSIDE EDGE OF WHITE LEGEND ON RED BACKGROUND); AND/OR TYPE L-858L(L) LOCATION SIGN (YELLOW LEGEND AND BORDER ON BLACK BACKGROUND). THE REPLACEMENT SIGN PANELS SHALL BE MANUFACTURED BY THE ORIGINAL EQUIPMENT MANUFACTURER TO MAINTAIN THE ETL LISTING AND FAA APPROVAL OF EACH RESPECTIVE
- 27. ALL SIGNS SHALL BE FURNISHED WITH TETHERS. TETHERS SHALL BE 3/16" STAINLESS STEEL AIRCRAFT CABLE WITH A FORMED EYE ON BOTH ENDS. THE TETHER EYE SHALL BE ATTACHED TO THE SIGN AND BASE BY BEING SANDWICHED BETWEEN TWO STAINLESS STEEL FENDER WASHERS, WITH A 1/2" MINIMUM STAINLESS STEEL BOLT. THE TETHER SHALL BE OF SUFFICIENT LENGTH TO HAVE A MINIMUM OF 6" OF SLACK WHEN ATTACHED BETWEEN THE SIGN AND THE SIGN BASE. THE TETHERS AND BONDING CONDUCTORS SHALL BE OF SUFFICIENT LENGTH TO ALLOW THE FRANGIBLE COUPLINGS TO OPERATE WITHOUT RESTRICTIONS AND TO ALLOW THE POWER CABLE TO DISCONNECT IF THE SIGN FALLS OVER. PROVIDE 3" ± 1/2" SLACK IN TETHER AND ALL TETHERS SHALL BE THE SAME LENGTH.
- 28. ALL SIGNS SHALL BE ORIENTATED SUCH THAT THE LONGITUDINAL CENTERLINE OF THE SIGN IS PERPENDICULAR TO THE RESPECTIVE TAXIWAY/RUNWAY CENTERLINE, UNLESS NOTED OTHERWISE
- 29. CONCRETE STEEL REINFORCEMENT SHALL BE TYPE ASTM A615 OR A706 GRADE 60. ALL REINFORCEMENT SHALL HAVE A 3" MINIMUM CONCRETE COVER. REINFORCEMENT MAY BE ADJUSTED TO MISS INTERFERENCES. CONCRETE SHALL CONFORM TO ITEM 610 STRUCTURAL PORTLAND CEMENT
- 30. NO CONNECTION TO AN ACTIVE LIGHTING CIRCUIT WILL BE BROKEN UNTIL THE CIRCUIT HAS BEEN TURNED OFF IN ACCORDANCE WITH NOTE 1.

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 LITHITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL ORTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER/TECHNICIAN SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

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

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

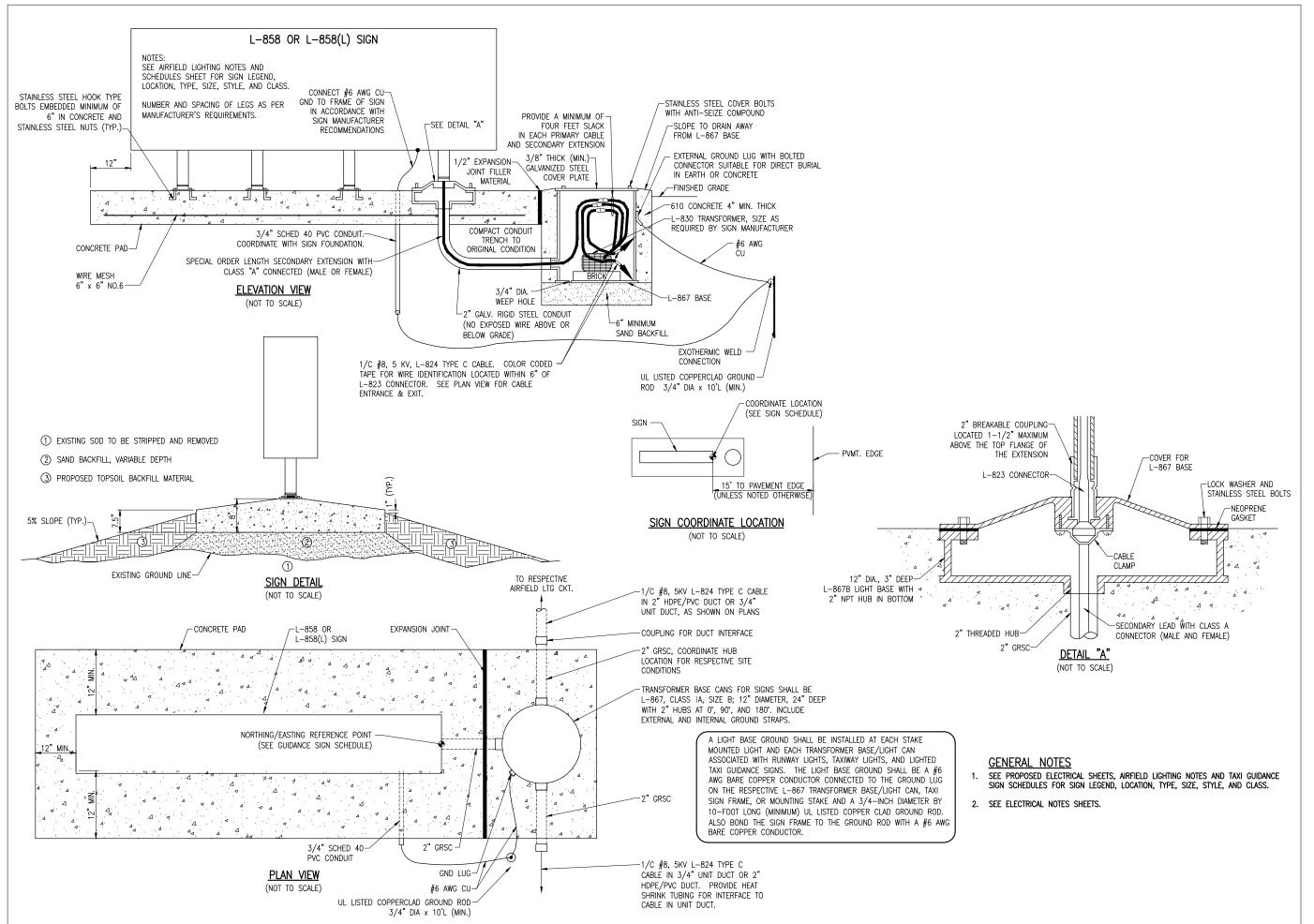
Illinois Licensed Professional Service Corporation #184-001084

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

DESIGN BY: KNI 04/07/2019 DRAWN BY: CWS 04/08/2019 REVIEWED BY: KNL 06/26/2019

SHEET TITLE

AIRFIELD LIGHTING NOTES





Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORATY
COLES COMMY MEMORIAL ARPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

NO. DATE | DESCRIPTION | DES | DWN | REV |
ISSUE: 04/17/2020

ISSUE: 04/17/2020 PROJECT NO: 19A0001 CAD FILE: E-502-ELEC.DWG

CAD FILE: E-502-ELEC.DWG

DESIGN BY: KNL 04/07/2019

DRAWN BY: CWS 04/08/2019

REVIEWED BY: KNL 06/26/2019

SHEET TITLE

TAXI GUIDANCE SIGN DETAILS

- CONTRACTOR SHALL EXAMINE THE SITE TO DETERMINE THE EXTENT OF THE WORK. CONTRACTOR SHALL FIELD VERIFY EXISTING SITE CONDITIONS. CONTRACTOR SHALL FIELD VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES PRIOR TO REMOVING OR DISCONNECTING THE RESPECTIVE AIRFIELD LIGHTING, TAXI SIGN, NAVAID, OR OTHER DEVICE.
- CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF FAA AC NO. 150/5370-2G (OR MOST CURRENT ISSUE) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION"
- 4. CONTRACTOR SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF NFPA 70E - STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE.
- 5. ALL ELECTRICAL EQUIPMENT (INCLUDING AIRFIELD LIGHTING AND NAVAIDS) SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 - NATIONAL ELECTRIC 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.
- 6. PRIOR TO BEGINNING AIRFIELD LIGHTING MODIFICATIONS, CABLE OR DUCT INSTALLATION, AND/OR ANY OTHER WORK THAT MIGHT POSSIBLY AFFECT AIRFIELD LIGHTING SYSTEMS, ALL EXISTING SERIES CIRCUIT CABLES SHALL BE MEGGER TESTED WITH AN INSULATION RESISTANCE TESTER AND RECORDED AT THE VAULT. ALL EXISTING SERIES CIRCUIT CABLE LOOPS SHALL HAVE THE RESISTANCE MEASURED WITH AN OHMMETER AND RECORDED FOR EACH CIRCUIT AT THE VAULT. FACH CONSTANT CURRENT REGULATOR SHALL BE TESTED WITH RESULTS RECORDED. PROVIDE A TRUE RMS AMMETER FOR CURRENT MEASUREMENTS. COPIES OF TEST RESULTS SHALL BE PROVIDED TO THE RESIDENT ENGINEER/RESIDENT TECHNICIAN AND THE RESPECTIVE PROJECT ENGINEER WITHIN 5 BUSINESS DAYS OF CONDUCTING THE RESPECTIVE SET OF TESTS. SEE THE TESTING FORMS IN APPENDIX A, OF THE SPECIAL PROVISION SPECIFICATIONS.
- 7. AFTER AIRFIELD LIGHTING MODIFICATIONS, ADDITIONS, UPGRADES, AND/OR ANY OTHER WORK THAT MIGHT POSSIBLY AFFECT AIRFIELD LIGHTING SYSTEMS HAVE BEEN COMPLETED. SERIES CIRCUIT CABLES SHALL BE MEGGER TESTED WITH AN INSULATION RESISTANCE TESTER AND RECORDED AT THE VAULT. ALL SERIES CIRCUIT CABLE LOOPS SHALL HAVE THE RESISTANCE MEASURED WITH AN OHMMETER AND RECORDED FOR EACH CIRCUIT AT THE VAULT. EACH CONSTANT CURRENT REGULATOR SHALL BE TESTED WITH RESULTS RECORDED. PROVIDE A TRUE RMS AMMETER FOR CURRENT MEASUREMENTS. COPIES OF TEST RESULTS SHALL BE PROVIDED TO THE RESIDENT ENGINEER/RESIDENT TECHNICIAN AND THE RESPECTIVE PROJECT ENGINEER WITHIN 5 BUSINESS DAYS OF CONDUCTING THE RESPECTIVE SET OF TESTS. SEE THE TESTING FORMS IN APPENDIX A, OF THE SPECIAL PROVISION SPECIFICATIONS.
- 8. INSULATION RESISTANCE TESTING EQUIPMENT FOR USE WITH 5,000 VOLT SERIES CIRCUIT CABLES SHALL USE AN INSULATION RESISTANCE TESTER CAPABLE OF TESTING THE CABLES AT 5,000 VOLTS. OLDER SERIES CIRCUIT CABLES AND/OR CABLES IN POOR CONDITION MAY REQUIRE THE TEST VOLTAGE TO BE PERFORMED AT A VOLTAGE LOWER THAN 5,000 VOLTS (EXAMPLE 1,000 VOLTS, 500 VOLTS, OR LESS THAN 500 VOLTS). THE RESPECTIVE TEST VOLTAGE SHALL BE RECORDED FOR EACH CABLE INSULATION RESISTANCE TEST RESULT. INSULATION RESISTANCE TESTING EQUIPMENT FOR USE WITH 600 VOLT RATED CABLES SHALL USE A 500 VOLT INSULATION RESISTANCE TESTER. THE RESPECTIVE TEST VOLTAGE SHALL BE RECORDED FOR EACH CABLE INSULATION RESISTANCE TEST RESULT.
- 9. EXISTING AIRFIELD LIGHITNG, DUCTS, CONDUITS, CABLES, SPLICE CANS, HANDHOLES, AND/OR MANHOLES SCHEDULED TO REMAIN SHALL BE PROTECTED FROM DAMAGE. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING FACILITIES AND COORDINATE THE PAVEMENT REMOVAL WORK TO AVOID AND DAMAGE TO AIRFIELD LIGHTING SYSTEMS AND OTHER FACILITIES.
- 10. IN AREAS WHERE THERE IS A CONGESTION OF CABLES OR WHERE THE PROPOSED CABLE AND DUCT CROSSES AN EXISTING CABLE, THE CONTRACTOR IS REQUIRED TO HAND DIG THE TRENCH NECESSARY FOR THE PROPOSED CABLE AND DUCT. AT OTHER LOCATIONS, THE PROPOSED CABLE AND DUCT MAY BE TRENCHED OR PLOWED INTO PLACE. HAND DIGGING, TRENCHING AND/OR PLOWING WILL BE CONSIDERED INCIDENTAL TO THE PROPOSED CABLES AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. ONLY CABLE IN DUCT OR UNIT DUCT SHALL BE INSTALLED BY PLOWING METHOD.

- 11. CONCRETE STEEL REINFORCEMENT SHALL BE TYPE ASTM A615 OR A706 GRADE 60. ALL REINFORCEMENT SHALL HAVE A 3" MINIMUM CONCRETE COVER. REINFORCEMENT MAY BE ADJUSTED TO MISS INTERFERENCES. CONCRETE SHALL CONFORM TO ITEM 610 STRUCTURAL PORTLAND CEMENT CONCRETE.
- 12. RUNWAY LIGHTING CIRCUITS SHALL BE ACTIVE AT THE END OF EACH CONSTRUCTION DAY FOR AN OPEN RUNWAY. THE CONTRACTOR SHALL PROVIDE TEMPORARY CABLE & CONNECTIONS WHERE NECESSARY TO MAINTAIN A RUNWAY OR TAXIWAY LIGHTING SYSTEM. TEMPORARY CABLE SHALL BE 1/C #8 FAA L-824 5KV UG CABLE IN DUCT OR UNIT DUCT
- 13. ALL ABOVEGROUND JUMPERS SHALL BE IN A DUCT WITH ALL CONNECTIONS SEALED. THE CONTRACTOR SHALL SECURE, IDENTIFY AND PLACE ALL TEMPORARY EXPOSED WIRING IN CONDUIT, DUCT, OR UNIT DUCT TO PREVENT ELECTROCUTION AND FIRE IGNITION SOURCES AS PER THE REQUIREMENTS OF FAA 150/5370-2G, OPERATION SAFETY ON AIRPORTS DURING CONSTRUCTION, SECTION 2.18.3 "LIGHTING AND VISUAL NAVAIDS". ALL LABOR, MATERIALS, AND TIME NECESSARY TO COMPLY WITH THIS REQUIREMENT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 14. HOMERUN CABLES FOR A RESPECTIVE CIRCUIT THAT ARE INSTALLED IN CONDUIT OR DUCT SHALL BE RUN TOGETHER IN THE SAME RACEWAY OR DUCT.
- 15. WHEN A RESPECTIVE RUNWAY IS CLOSED THE RESPECTIVE RUNWAY LIGHTING AND NAVAIDS FOR THAT RUNWAY SHALL BE SHUT OFF.
- 16. PER FAA AC 150/5270-10G "STANDARDS FOR SPECIFYING CONSTRUCTION OF AIRPORTS", ITEM L-108 "UNDERGROUND POWER CABLE FOR AIRPORT", EVERY AIRFIELD LIGHTING CABLE SPLICER SHALL BE QUALIFIED IN MAKING CABLE SPLICES AND TERMINATIONS ON CABLES RATED ABOVE 5,000 VOLTS AC. CABLE SPLICING/TERMINATING PERSONNEL SHALL HAVE A MINIMUM OF THREE (3) YEARS CONTINUOUS EXPERIENCE IN TEMINATING/SPLICING MEDIUM VOLTAGE CABLE.
- 17. 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.
- NO CONNECTION TO AN ACTIVE LIGHTING CIRCUIT WILL BE BROKEN UNTIL THE CIRCUIT HAS BEEN TURNED OFF IN ACCORDANCE WITH NOTE 1.

-EXISTING L-850C LIGHTING FIXTURE TO BE ADJUSTED FOR NEW PAVEMENT. -ITEM P-605 SILICONE JOINT SEALER -PROPOSED L-868B BASE EXTENSION, COORDINATE HEIGHT WITH RESPECTIVE PAVEMENT. EXISTING BASE EXTENSION TO BE REPLACED WITH A NEW BASE EXTENSION TO ACCOMMODATE FINISHED PAVEMENT. -PROPOSED 610 CONCRETE EXTENSION EXISTING FLANGE RING-OF THE LIGHT BASE (HEIGHT TO MATCH EXISTING SPACER RING SURROUNDING PAVEMENT) (IF ORIGINALLY NEEDED--PROPOSED #4 RE-BAR ON ALL FOUR SIDES FOR PROPER ELEVATION) OF THE LIGHT BASE (4" IN LENGTH) PROPOSED BITUMINOUS SURFACE COURSE (VAR. DEPTH) 14" RUBBLIZED CONCRETE PAVEMENT EXISTING 7" BITUMINOUS BASE EXISTING 3" RIGID --EXISTING DOWEL BAR 1 1/4" DIA. 20" LENGTH AND STEEL CONDUIT (NOTE: 15" SPACING AROUND PERIMETER OF THE SOME LIGHTS HAVE LIGHT BASE. CABLE IN UNIT DUCT 4" ENTRIES THROUGH EXISTING STEEL REINFORCING BOTTOM OF CAN.) CAGE (#4 BARS) −¾" WEEP HOLE -EXISTING L-868 -EXISTING L-830 TRANSFORMER NOTE: CABLE IN UNIT DUCT ENTERS THE BOTTOM BASE, SIZE B SIZED FOR FIXTURE OF THE CAN FOR IN-PAVEMENT LIGHTS H25, H31, H69 H73 & H80

> IN-PAVEMENT RUNWAY LIGHT ADJUSTMENT DETAIL "NOT TO SCALE"

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 LITILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER/TECHNICIAN SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

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

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

> **COLES COUNTY AIRPORT** - AUTHORITY

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

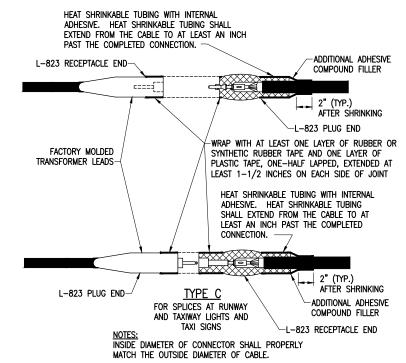
DESCRIPTION NO. DATE DES DWN REV ISSUE: 04/17/2020

PROJECT NO: 19A0001

CAD FILE: E-511-DETL.DWG DESIGN BY: KNI 05/07/2019 DRAWN BY: CWS 05/08/2019 REVIEWED BY: KNL 06/26/2019

SHEET TITLE

IN-PAVEMENT RUNWAY LIGHT ADJUSTMENT DETAIL



HOMERUNS TO EXISTING CABLES

SEAL ENDS OF MOLD WITH TAPE PROVIDED IN SPLICE KIT

LOW VOLTAGE UNDERGROUND TAP SPLICE
FOR TAP SPLICES IN LOW VOLTAGE (600V) CABLE.

-RFSIN

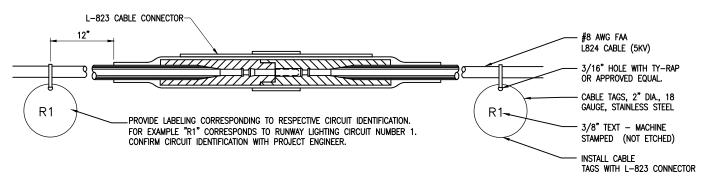
PLASTIC BODY MOLD-

POURING SPOUT

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.

NOTES:

- SPLICE DETAILS ARE PROVIDED FOR NEW WORK AND TO ASSIST IN REPAIRS OF ACCIDENTAL OR UNEXPECTED INTERRUPTIONS AND/OR CUTS TO AIRFIELD LIGHTING CABI FS.
- KEEP ON HAND A MINIMUM OF 10 SETS OF SPLICE KITS FOR L-823 CONNECTORS AND A MINIMUM OF 10 SETS OF TYPE A LOW VOLTAGE SPLICE KITS TO ACCUMENTATE PEPAIRS.
- EVERY AIRFIELD LIGHTING CABLE SPLICER SHALL BE QUALIFIED IN MAKING CABLE SPLICES AND TERMINATIONS ON CABLES RATED AT AND/OR ABOVE 5,000 VOLTS AC TO COMPLY WITH THE REQUIREMENTS OF FAA AC 150/5370-10G ITEM L-108.
- INSIDE DIAMETER OF RESPECTIVE CABLE CONNECTOR SHALL PROPERLY MATCH OUTSIDE DIAMETER OF CABLE.
- 5. WHEN PREPARING CABLE FOR SPLICES, THE CONTRACTOR SHALL USE A CABLE STRIPPER/PENCILLER WHENEVER CABLE CONNECTIONS ARE MADE.
- 6. 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 23, 3M SCOTCH 130C OR APPROVED EQUIVALENT, AND VINYL ELECTRICAL TAPE SHALL BE 3M SCOTCH 50C OR APPROVED EQUIVALENT. TAPES MUST BE RATED SUITABLE FOR THE APPLICATION.
- PROVIDE CABLE TAGS TO IDENTIFY THE RESPECTIVE CIRCUITS ALL POINTS OF ACCESS INCLUDING L-867 BASES, L-868 BASES, HANDHOLES, MANHOLES, JUNCTION BOXES, AND WIREWAYS.
- 8. CONNECTION OF CONDUCTORS MUST BE MADE BY USING CRIMP CONNECTORS AND A CRIMPING TOOL APPROVED BY THE CONNECTOR/LUG MANUFACTURER. THE TOOL MUST PRODUCE A COMPLETE CRIMP BEFORE IT CAN BE REMOVED. FOR THE L-823 CONNECTORS, THE CRIMPING TOOL USED MUST BE LISTED BY THE L-823 KIT MANUFACTURER. MAKE THE NUMBER AND TYPE OF CRIMPS PER THE KIT MANUFACTURER'S INSTRUCTIONS.



- 1. CONTRACTOR SHALL PROVIDE CABLE CIRCUIT IDENTIFICATION MARKERS ATTACHED TO BOTH SIDES OF EACH CABLE CONNECTION.
- 2. CABLE IDENTIFICATION TAGS SHALL BE STAINLESS STEEL OR BRASS.
- 3. THE CABLE SHALL THOROUGHLY BE CLEANED PRIOR TO THE INSTALLATION OF THE L-823 CONNECTOR KIT.
- 4. ATTACH EACH CABLE TIE ENOUGH TO HOLD IN PLACE WITHOUT COMPRESSING EDGE OF CABLE TAG INTO CONDUCTOR. TRIM OFF EXCESS CABLE TIE.
- 5. CABILE TAGS SHALL BE PROVIDED AT ALL POINTS OF ACCESS INCLUDING L-867 BASES, L-868 BASES, HANDHOLES, MANHOLES, JUNCTION BOXES, AND WIREWAYS.

CABLE TAG DETAIL
"NOT TO SCALE"

HANSON Engineering | Planning | Allied Services

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed
Professional Service Corporation
#184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL ARPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

NO.	DATE	DESCRIPTION		ION
INO.	DATE	DES	DWN	REV
ISSUE:	04/17/20	020		

ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: E-503-ELEC.DWG

DESIGN BY: KNL 04/07/2019
DRAWN BY: CWS 04/08/2019
REVIEWED BY: KNL 06/26/2019

SHEET TITLE

AIRFIELD LIGHTING CABLE SPLICE DETAILS 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.

 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.

 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 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 INSTALLED ON THE WALL NEXT TO THE UNIT. LEGEND PLATES SHALL BE WEATHERPROOF ENGRAVED PLASTIC OR PHENOLIC MATERIAL, 1/4" HIGH BIACK 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, ORANGE (FOR HIGH LEG) AND BLUE SHALL BE USED FOR PHASE CONDUCTORS ON 240/120VAC 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.

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

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

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

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

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.

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

 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.

3. 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.

5. 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.

 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.

 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 23, 3M SCOTCH 130C OR APPROVED EQUIVALENT, AND VINYL ELECTRICAL TAPE SHALL BE 3M SCOTCH 8B OR APPROVED EQUIVALENT. TAPES MUST BE RATED SUITABLE FOR THE APPLICATION.

 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.

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 VOI TAGE 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.

ALL WIRING SHALL BE NEATLY TRAINED AND LACED.

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

24. FURNISH & INSTALL A WEATHERPROOF WARNING LABEL FOR EACH METER SOCKET, SERVICE DISCONNECT, SAFETY SWITCH, CUTOUT, PANELBOARD, & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "ARC FLASH HAZARD WARNING".

HANSON Engineering | Planning | Allied Services

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed
Professional Service Corporation
#184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL AIRPORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

	NO.	DATE	DES	ESCRIPTION	ION
		NO. DATE	DES	DWN	REV
	SSLIE	04/17/20	120		

ISSUE: 04/17/2020 PROJECT NO: 19A0001

CAD FILE: E-002-NOTES.DWG
DESIGN BY: KNL 04/07/2019
DRAWN BY: CWS 04/08/2019
REVIEWED BY: KNL 06/26/2019

SHEET TITLE

ELECTRICAL NOTES SHEET 1

NO COMPONENTS OF PRIMARY CIRCUIT SUCH AS CABLE, CONNECTORS AND TRANSFORMERS SHALL BE BROUGHT ABOVE GROUND AT EDGE LIGHTS, SIGNS, REIL,

- THERE SHALL BE NO EXPOSED POWER/CONTROL CABLES BETWEEN THE POINT WHERE THEY LEAVE THE UNDERGROUND (DEB OR L-867 BASES) AND WHERE THEY ENTER THE EQUIPMENT (SUCH AS TAXIWAY SIGNS, PAPI, REIL, ETC.) ENCLOSURES. THESE CABLES SHALL BE ENCLOSED IN RIGID CONDUIT OR IN FLEXIBLE, WATERTIGHT CONDUIT WITH BREAKABLE COUPLING(S) AT THE GRADE OR THE HOUSING COVER, AS SHOWN IN APPLICABLE DETAILS.
- THE JOINTS OF THE L-823 PRIMARY CONNECTORS SHALL BE WRAPPED WITH AT LEAST ONE LAYER OF RUBBER OR SYNTHETIC RUBBER TAPE AND ONE LAYER OF PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1-1/2 INCHES ON EACH SIDE OF THE JOINT, AS SHOWN ON AIRFIELD LIGHTING CABLE SPLICE DETAILS.
- THE CABLE ENTRANCE INTO THE FIELD-ATTACHED L-823 CONNECTORS SHALL BE ENCLOSED BY A HEAT-SHRINKABLE TUBING WITH CONTINUOUS INTERNAL ADHESIVE, AS SHOWN ON AIRFIELD LIGHTING CABLE SPLICE DETAILS.
- 6. L-823 TYPE II, TWO-CONDUCTOR SECONDARY CONNECTORS SHALL BE CLASS 'A' (FACTORY MOLDED).
- THERE SHALL BE NO SPLICES IN THE SECONDARY CABLE(S) WITHIN THE STEMS OF A RUNWAY/TAXIWAY EDGE/THRESHOLD LIGHTING FIXTURE AND THE WIREWAYS LEADING TO TAXIWAY SIGNS AND PAPI/REIL EQUIPMENT.
- ELECTRICAL INSULATING GREASE SHALL BE APPLIED WITHIN THE L-823, SECONDARY, TWO CONDUCTOR CONNECTORS TO PREVENT WATER ENTRANCE. THESE CONNECTORS SHALL NOT BE TAPED.
- DEB ISOLATION TRANSFORMERS SHALL BE BURIED AT A DEPTH OF TEN (10") INCHES ON A LINE CROSSING THE LIGHT AND PERPENDICULAR TO THE RUNWAY/TAXIWAY CENTERLINE AT A LOCATION TWELVE (12") INCHES FROM THE LIGHT OPPOSITE FROM THE RUNWAY/TAXIWAY.
- 10. A SLACK OF THREE (3') FEET, MINIMUM, PLUS DEPTH OF BASE CAN (IF APPLICABLE), SHALL BE PROVIDED IN THE PRIMARY CABLE AT EACH TRANSFORMER/CONNECTOR TERMINATION. AT STAKE-MOUNTED LIGHTS, THE SLACK SHALL BE LOOSELY COILED IMMEDIATELY BELOW THE ISOLATION TRANSFORMER. THERE SHALL BE NO ADDITIONAL PAYMENT FOR CABLE SLACK AND THEREFORE THE QUANTITY OF PROPOSED CABLE SLACK HAS NOT BEEN INCLUDED IN THE RESPECTIVE CABLE PAY ITEMS.
- 11. DIRECTION OF PRIMARY CABLES SHALL BE IDENTIFIED BY COLOR CODING AS FOLLOWS: WHEN FACING LIGHT WITH BACK TO PAVEMENT, CABLE TO THE LEFT IS CODED RED AND CABLE TO RIGHT IS CODED BLUE. THIS APPLIES TO STAKE MOUNTED LIGHTS AND BASE MOUNTED LIGHTS WHERE THE BASE HAS ONLY ONE ENTRANCE.
- 12. L-867 BASES SHALL BE SIZE B, 24" DEEP, CLASS I, UNLESS OTHERWISE NOTED.
- 13. BASE MOUNTED BREAKABLE COUPLINGS SHALL NOT HAVE WEEP HOLES TO THE OUTSIDE. PLUGGED UP HOLES SHALL NOT BE ACCEPTABLE. IT SHALL BE A 1/4" DIAMETER, MINIMUM, OR EQUIVALENT OPENING FOR DRAINAGE FROM THE SPACE AROUND THE SECONDARY CONNECTOR INTO THE L-867 BASE.
- 14. THE ELEVATION OF THE BREAKABLE COUPLING GROOVE SHALL NOT EXCEED 1-1/2 ABOVE THE EDGE OF THE COVER IN CASE OF BASE MOUNTED COUPLINGS, OR THE TOP OF THE STAKE IN CASE OF STAKE MOUNTED COUPLINGS.
- WHERE THE BREAKABLE COUPLING IS NOT AN INTEGRAL PART OF THE LIGHT FIXTURE STEM OR MOUNTING LEG, A BEAD OF SILICON SEAL SHALL BE APPLIED COMPLETELY AROUND LIGHT STEM OR WIREWAY AT BREAKABLE COUPLING TO PROVIDE A WATERTIGHT
- 16. TOPS OF THE STAKES SUPPORTING LIGHT FIXTURES SHALL BE FLUSH WITH THE SURROUNDING GRADE.
- 17. PLASTIC LIGHTING FIXTURE COMPONENTS, SUCH AS LAMP HEADS, STEMS, BREAKABLE COUPLINGS, BASE COVERS, BRACKETS, STAKES, SHALL NOT BE ACCEPTABLE.
- 18. THE TOLERANCE FOR THE HEIGHT OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE: ONE (1) INCH. IN CASE OF STAKE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE MEASURED BETWEEN THE TOP OF THE STAKE AND THE TOP OF THE LENS. IN CASE OF BASE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE MEASURED BETWEEN THE TOP OF THE BASE FLANGE AND THE TOP OF THE LENS, THUS INCLUDING THE BASE COVER, THE FRANGIBLE COUPLING, THE STEM, THE LAMP HOUSING AND THE LENS.
- 19. THE TOLERANCE FOR THE LATERAL SPACING (LIGHT LANE TO RUNWAY/TAXIWAY CENTERLINE) OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE ONE (1) INCH. THIS ALSO APPLIES AT INTERSECTIONS TO LATERAL SPACING BETWEEN LIGHTS OF A RUNWAY/TAXIWAY AND THE INTERSECTING RUNWAY/TAXIWAY.

- 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
- 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.
- 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
- 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
- THERE SHALL BE NO SPLICES BETWEEN THE ISOLATION TRANSFORMERS. L-823 CONNECTORS ARE ALLOWED AT TRANSFORMER CONNECTIONS ONLY, UNLESS OTHERWISE
- APPLY AN OXIDE INHIBITING, ANTI-SEIZING COMPOUND TO ALL SCREWS, NUTS AND
- LOCATIONS OF ENDS OF ALL UNDERGROUND DUCTS SHALL BE IDENTIFIED BY DUCT
- WHERE A PARALLEL, CONSTANT VOLTAGE PAPI SYSTEM IS PROVIDED, THE "T" SPLICES SHALL BE OF THE CAST TYPE.
- 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.
- ALL POWER AND CONTROL CABLES IN MAN/HAND HOLES SHALL BE TAGGED. USE EMBOSSED COPPER STRIPS TO BE ATTACHÉD AT BOTH ENDS TO THE CABLE BY THE USE OF PLASTIC STRAPS. 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
- 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.
- WHEN PREPARING CABLE FOR SPLICES, THE CONTRACTOR SHALL USE A CABLE STRIPPER/PENCILLER WHENEVER CABLE CONNECTIONS ARE MADE.

GROUNDING NOTES FOR AIRFIELD LIGHTING

- 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.
- 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.
- STEEL USED TO MANUFACTURE GROUND RODS SHALL BE 100 PERCENT DOMESTIC
- 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 2017 NATIONAL ELECTRICAL CODE ARTICLE 250-12.
- THE RESISTANCE TO GROUND OF THE RESPECTIVE MOUNTING STAKE OR LIGHT BASE (WITH GROUND ROD CONNECTED) MUST BE 25 OHMS OR LESS.
- FOR EACH AIRFIELD LIGHT FIXTURE, TAXI GUIDANCE 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.

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

CAD FILE: E-003-NOTES.DWG DESIGN BY: KNI 04/07/2019 DRAWN BY: CWS 04/08/2019 REVIEWED BY: KNL 06/26/2019

SHEET TITLE

ELECTRICAL NOTES SHEET 2

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

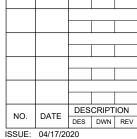
Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159

Contract No. CO067

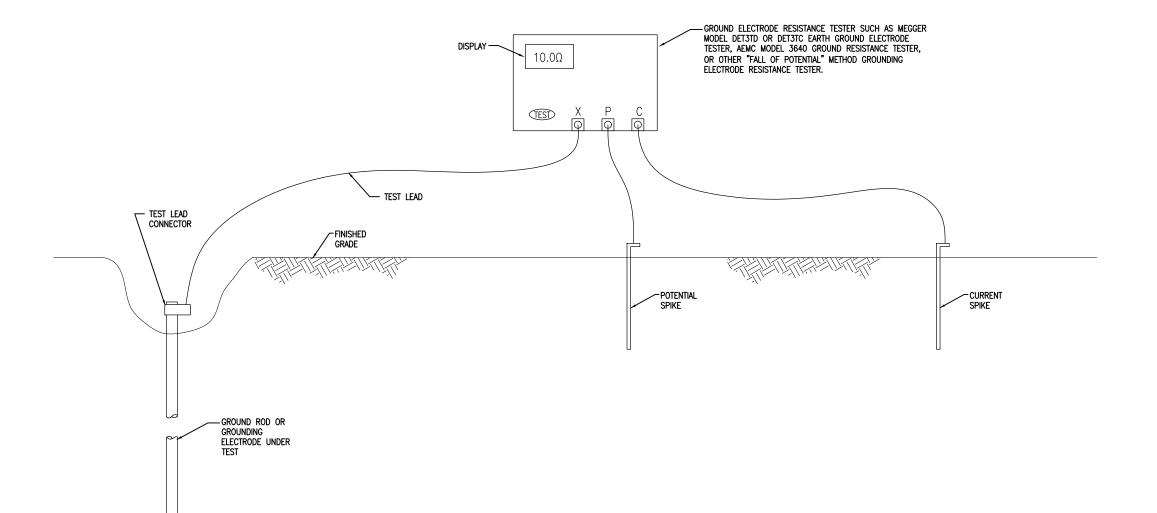


PROJECT NO: 19A0001

CAD FILE: E-510-DETL.DWG DESIGN BY: KNL 04/07/2019 DRAWN BY: CWS 04/08/2019 REVIEWED BY: KNL 06/26/2019

SHEET TITLE

GROUND RESISTANCE **TESTING DETAILS**



NOTES

1. CONTRACTOR SHALL TEST AND RECORD THE RESISTANCE FOR EACH MADE ELECTRODE GROUND ROD/GROUND FIELD/GROUND RING WITH AN INSTRUMENT SPECIFICALLY DESIGNED FOR TESTING GROUNDING ELECTRODE SYSTEMS. IF GROUND RESISTANCE EXCEEDS 25 OHMS, CONTACT THE PROJECT ENGINEER FOR FURTHER DIRECTION. COPIES OF GROUND ROD TEST RESULTS SHALL BE FURNISHED TO THE RESIDENT ENGINEER/RESIDENT TECHNICIAN, AND THE PROJECT ENGINEER.

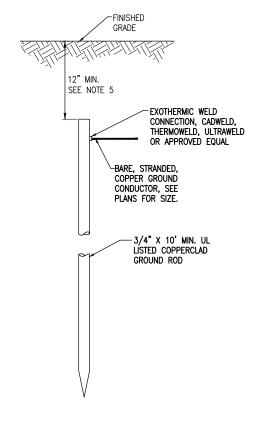
EXAMPLE OF "FALL OF POTENTIAL" GROUND RESISTANCE TEST NOT TO SCALE

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

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL GROUNDING AS MAY BE NECESSARY OR REQUIRED TO MAKE A COMPLETE GROUNDING SYSTEM AS REQUIRED BY THE LATEST NATIONAL ELECTRICAL CODE (NFPA 70) IN FORCE AND FAA-STD-019e (LIGHTNING AND SURGE PROTECTION, GROUNDING, BONDING, AND SHIEDING REQUIREMENTS FOR FACILITIES AND ELECTRONIC EQUIPMENT). 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 SHALL BE MINIMUM 3/4-IN. DIAMETER BY 10-FT LONG, UL-LISTED, COPPER CLAD WITH 10-MIL MINIMUM COPPER COATING (UNLESS DETAILED OTHERWISE HEREIN). 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, 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 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 FOR FURTHER DIRECTION. 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 ENGINEER/RESIDENT TECHNICIAN AND THE PROJECT ENGINEER.
- 3. ALL PRODUCTS ASSOCIATED WITH THE GROUNDING SYSTEM SHALL BE UL-LISTED AND LARFIED
- 4. ALL BOLTED OR MECHANICAL CONNECTIONS SHALL BE COATED WITH A CORROSION PREVENTATIVE COMPOUND BEFORE JOINING, SANCHEM INC. "NO-OX-ID "A-SPECIAL" COMPOUND, BURNDY PENETROX E, OR APPROVED EQUAL.
- METALLIC SURFACES TO BE JOINED SHALL BE PREPARED BY THE REMOVAL OF ALL NON-CONDUCTIVE MATERIAL, PER 2017 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 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 BOLIED 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, DOSSERT CORPORATION, ILSCO CORPORATION, PENN—UNION CORPOPATION, THOMAS & BETTS, OR APPROVED EQUAL. TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUES IN UL STANDARD 486A TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.
- ALL METAL EQUIPMENT ENCLOSURES, CONDUITS, CABINETS, BOXES, RECEPTACLES, MOTORS, ETC. SHALL BE BONDED TO THE RESPECTIVE GROUNDING SYSTEM.
- 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 2017 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, 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 2017 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 2017 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 <u>WILL NOT</u> 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
- IS. 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, DOSSERT CORPORATION, ILSCO CORPORATION, PENN-UNION CORPORATION, THOMAS & BETTS, OR APPROVED 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.
- INSTALL GROUNDING ELECTRODE CONDUCTORS, LIGHTNING PROTECTION DOWN CONDUCTORS AND SEPARATE GROUND CONDUCTORS IN SCHEDULE 40 OR 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 ENCIRCLE 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. 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 ARII ITY 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.
- 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 2017 NEC 250-102. NOTE THIS DOES NOT APPLY TO AC FOUIPMENT GROUNDING CONDUCTORS RUN WITH AC CIRCUITS.
- 20. 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.
- WHERE A CONFLICT IS DETERMINED WITH RESPECT TO GROUNDING REQUIREMENTS PER MANUFACTURER INSTALLATION INSTRUCTIONS, NEC, AND/OR THE CONTRACT DOCUMENTS, CONTACT THE PROJECT ENGINEER FOR FURTHER DIRECTIONS.
- 22. GROUND RODS SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA FROM 100 PERCENT DOMESTIC STEEL TO COMPLY WITH THE AIRPORT IMPROVEMENT PROGRAM BUY AMERICAN REQUIREMENTS AND THE STEEL PRODUCTS PROCUREMENT ACT.



10 FT. GROUND ROD

<u>NOTES</u>

- 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.
- COST OF GROUND RODS IS INCIDENTAL TO THE ASSOCIATED ITEMS REQUIRING GROUNDING UNLESS OTHERWISE SPECIFIED.
- GROUND RODS SHALL BE SPACED AS DETAILED ON THE PLANS AND SHALL NOT BE SPACED LESS THAN ONE ROD LENGTH APART.
- TOP OF GROUND RODS FOR AIRFIELD LIGHT FIXTURES AND TAXI GUIDANCE SIGNS, SHALL BE 12" MINIMUM BELOW GRADE UNLESS DETAILED OTHERWISE HEREIN.
- GROUND RODS FOR INDIVIDUAL SPLICE CANS SHALL BE 3/4-IN DIAMETER BY 10 FOOT LONG. WHERE GROUND RESISTANCE EXCEEDS 25 OHMS FURNISH AND INSTALL A SECOND GROUND ROD SPACED MINIMUM OF 10 FEET APART (ONE ROD LENGTH APART), AND CONNECT TO FIRST GND ROD.

GROUND RODS

NOT TO SCALE



Offices Nationwide

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

IDA No: MTO-4752

NO.	DATE	DES	CRIPT	ION
NO.	DATE	DES	DWN	REV
SSUE:	04/17/20	020		

ISSUE: 04/17/2020
PROJECT NO: 19A0001
CAD FILE: E-004-NOTES.DWG

DESIGN BY: KNL 04/07/2019
DRAWN BY: CWS 04/08/2019
REVIEWED BY: KNL 06/26/2019

SHEET TITLE

GROUNDING NOTES

ELECTRICAL LEGEND - ONE-LINE DIAGRAM

CABLE TERMINATOR/LUG

FUSIBLE DISCONNECT SWITCH

TRANSFORMER

DISCONNECT SWITCH

CIRCUIT BREAKER

**

__

 \sim

	ELECTRICAL LEGEND — SCHEMATIC
⊣⊢	NORMALLY OPEN (N.O.) CONTACT
	NORMALLY CLOSED (N.C.) CONTACT
<u>\$•</u>	STARTER COIL, * = STARTER NUMBER
Or Or	OVERLOAD RELAY CONTACT
©R•	CONTROL RELAY, * = CONTROL RELAY NUMBER
R*	RELAY, * = RELAY NUMBER
~°	TOGGLE SWITCH / 2 POSITION SWITCH
OFF AUTO	2-POSITION SELECTOR SWITCH
HAND T AUTO SOO OOX	3-POSITION SELECTOR SWITCH (H-O-A SHOWN)
	2 POLE DISCONNECT SWITCH
- -	3 POLE DISCONNECT SWITCH
<u>~</u>	PHOTOCELL
	TERMINAL BLOCK, * = TERMINAL NUMBER
-	DEVICE TERMINAL, * = DEVICE TERMINAL NUMBER
_	INTERNAL PANEL WIRING
	FIELD WIRING
	FUSE
GND	GROUND BUS OR TERMINAL
S/N	NEUTRAL BUS
#	GROUND, GROUND ROD, GROUND BUS
0 0	Industrial control relay or Lighting contactor
N P	S1 CUTOUT HANDLE REMOVED
 	S1 CUTOUT HANDLE INSERTED
2%	N.O. THERMAL SWITCH
्र	N.C. THERMAL SWITCH
	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				
С	CONDUIT				
СВ	CIRCUIT BREAKER				
СКТ	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				
HID	HIGH INTENSITY DISCHARGE				
HOA	HAND OFF AUTOMATIC				
HP	HORSEPOWER				
HPS	HIGH PRESSURE SODIUM				
J	JUNCTION BOX				
KVA	KILOVOLT AMPERE(S)				
KW	KILOWATTS				
LC	LIGHTING CONTACTOR				
LTFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT (UL LISTED)				
LTG	LIGHTING				
LP	LIGHTING PANEL				
MAX	MAXIMUM				
мсв	MAIN CIRCUIT BREAKER				
мсм	THOUSAND CIRCULAR MIL				
MDP	MAIN DISTRIBUTION PANEL				
MFR	MANUFACTURER				
МН	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				

EL	ECTRICAL 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
٧	VOLTS
W/	WITH
W /0	WITHOUT
WP	WEATHER PROOF
XFER	TRANSFER
XFMR	TRANSFORMER
AIDD	ODT FOLIDMENT /FACILITY ADDDD //ATIONS

ELECTRICAL ADDREVIATIONS (CONTINUED)

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

NOTES:

- ALL ELECTRICAL EQUIPMENT 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
- 2. KEEP A COPY OF THE LATEST NEC IN FORCE ON SITE AT ALL TIMES DURING/CONSTRUCTION FOR USE AS A REFERENCE.
- VAULT WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT MANAGER AND MAINTENANCE SUPERVISOR, 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).
- IN THE EVENT A CONFLICT IS DETERMINED WITH RESPECT TO MANUFACTURER INSTALLATION INSTRUCTIONS, NEC, AND/OR THE CONTRACT DOCUMENTS, CONTACT THE PROJECT ENGINEER FOR FURTHER DIRECTIONS.
- 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:

120/240 VAC, 1 PHASE, 3 WIRE PHASE A BLACK PHASE B RED **NEUTRAL** GROUND GRFFN

- SEE RESPECTIVE SITE PLANS FOR SITE LEGEND INFORMATION.
- 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 LIFMC THAT IS NOT UL LISTED. CONFIRM LIFMC BEARS THE UL LABEL PRIOR TO INSTALLATION.
- ALL 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.
- CONTRACTOR SHALL FIELD VERIFY EXISTING SITE CONDITIONS. CONTRACTOR SHALL FIELD VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES PRIOR TO REMOVING, DISCONNECTING, ADJUSTING, CONNECTING, OR WORKING ON THE RESPECTIVE AIRFIELD LIGHTING, TAXI SIGN, NAVAID, OR OTHER DEVICE.
- 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, DÚCT, RACEWAY, JUNCTION STRUCTURE OR HANDHOLE.



Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

					RIPTION DWN REV		
	NO.	DATE	DES	CRIPT	ION		
	NO.	DATE	DES	DWN	REV		
	ISSUE: 04/17/2020						
	PROJECT NO: 19A0001						

CAD FILE: E-005-LGND.DWG

DESIGN BY: KNI 04/07/2019 DRAWN BY: CWS 04/08/2019 REVIEWED BY: KNL 06/26/2019

SHEET TITLE

ELECTRICAL LEGEND AND ABBREVIATIONS

- 1. EXISTING ONE-LINE DIAGRAM WIRING IS BASED ON FIELD DATA AND INFORMATION PROVIDED BY OTHERS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND WIRING AND REPORT ANY VARIATIONS TO THE PROJECT ENGINEER AND THE RESIDENT ENGINEER/TECHNICIAN.
- 2. ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT MANAGER/DIRECTOR AND THE AIRPORT MAINTENANCE STAFF. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
- CONTRACTOR SHALL EXAMINE THE SITE TO DETERMINE THE EXTENT OF THE WORK. CONTRACTOR SHALL FIELD VERIFY EXISTING SITE CONDITIONS. CONTRACTOR SHALL FIELD VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES PRIOR TO REMOVING, DISCONNECTING OR CONNECTING THE RESPECTIVE AIRFIELD LIGHTING, TAXI SIGN, NAVAID, OR OTHER DEVICE.
- CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF FAA AC NO. 150/5370-2G (CURRENT ISSUE IN EFFECT) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".
- 5. CONTRACTOR SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF NFPA 70E STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE.
- 6. WHEN A RUNWAY IS CLOSED THE RUNWAY LIGHTING AND ASSOCIATED AIRFIELD NAVAIDS FOR THAT RUNWAY SHALL BE SHUT OFF.
- 7. WHEN A TAXIWAY IS CLOSED THE RESPECTIVE TAXIWAY LIGHTING SHALL BE SHUT OFF.



www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT AUTHORATY

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

	NO.	DATE	DESCRIPTION			
			DES	DWN	REV	
į	ISSUE: 04/17/2020					

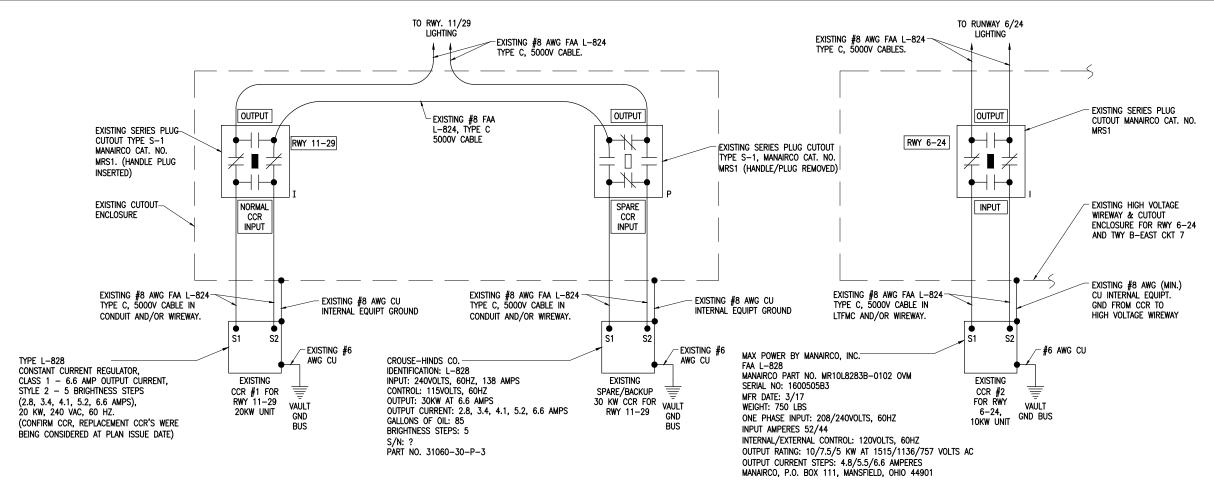
PROJECT NO: 19A0001 CAD FILE: E-601.DWG

DESIGN BY: KNI 04/07/2019 DRAWN BY: CWS 04/08/2019

REVIEWED BY: KNL 06/26/2019

SHEET TITLE

EXISTING ELECTRICAL ONE LINE DIAGRAM FOR **VAULT**



EXISTING HIGH VOLTAGE WIRING SCHEMATIC FOR RUNWAYS

LEGEND

- "I" DENOTES PLUG CUTOUT WITH PLUG INSERTED
- "P" DENOTES PLUG CUTOUT WITH PLUG PULLED

"CCR" DENOTES CONSTANT CURRENT REGULATOR

NOTE: INFORMATION SHOWN ON THIS SHEET IS TO HELP WITH IDENTIFYING EXISTING CONDITIONS.

NOTES:

- 1. KEEP ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS COORDINATED WITH THE AIRPORT MANAGER/DIRECTOR AND RESIDENT ENGINEER/TECHNICIAN. 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. EXAMINE THE SITE TO CONFIRM AND FIELD VERIFY EXISTING SITE CONDITIONS.
- VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES PRIOR TO REMOVING, DISCONNECTING, WORKING ON, RELOCATING, RECONNECTING, AND/OR INSTALLING THE RESPECTIVE AIRFIELD LIGHTING, TAXI SIGN, NAVAID, OR OTHER DEVICES. CONTRACTOR SHALL REPORT ANY VARIATIONS, DEFICIENCIES, AND/OR APPARENT SAFETY CONCERNS TO THE PROJECT ENGINEER AND THE RESIDENT ENGINEER/TECHNICIAN. ALSO REFER TO EOR-47643 WHERE APPLICABLE.
- 4. IDENTIFY EACH RESPECTIVE CIRCUIT PRIOR TO PERFORMING WORK ON THAT CIRCUIT.
- . NEVER PULL A CUTOUT WITH THE CIRCUIT ENERGIZED. SHUT OFF CIRCUITS PRIOR TO PULLING A SERIES PLUG CUTOUT.
- 6. 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.
- 7. CONTRACTOR SHALL 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.
- 8. MEGGER TEST (WITH AN INSULATION RESISTANCE TESTER) AND RECORD EXISTING SERIES CIRCUITS 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. ALSO TEST AND RECORD SERIES CIRCUIT LOOP RESISTANCE, (WITH AN OHMMETER). THESE ARE REQUIRED TESTS IN ACCORDANCE WITH IDOT DIVISION OF AERONAUTICS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS. PROVIDE TEST RESULTS TO THE PROJECT ENGINEER WITHIN 5 BUSINESS DAYS OF CONDUCTING TESTS.
- THE RESPECTIVE RUNWAY AND TAXIWAY LIGHTING CCR'S SHALL BE TESTED FOR PROPER OPERATION BEFORE REMOVAL WORK, MODIFICATIONS, ADDITIONS, AND/OR ANY OTHER WORK THAT MIGHT POSSIBLY AFFECT AIRFIELD LIGHTING SYSTEMS AND AFTER THE RESPECTIVE WORK HAS 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 OPERATIONS. CONTRACTOR SHALL REPORT CONCERNS AND/OR DEFICIENCIES TO THE RESIDENT ENGINEER/TECHNICIAN. TEST RESULTS SHALL BE PROVIDED TO THE PROJECT ENGINEER AND RESIDENT ENGINEER/TECHNICIAN WITHIN 5 BUSINESS DAYS OF CONDUCTING TESTS.
- 10. REFER TO INSTRUCTIONS IN THE VAULT FOR TRANSFER PROCEDURE TO BACKUP CCR FOR RUNWAY 11-29.



Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT
AUTHORITY
COLES COUNTY MEMORIAL ARFORT

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

L								
	NO.	DATE	DESCRIPTION					
			DES	DWN	REV			
IS	ISSUE: 04/17/2020							

PROJECT NO: 19A0001

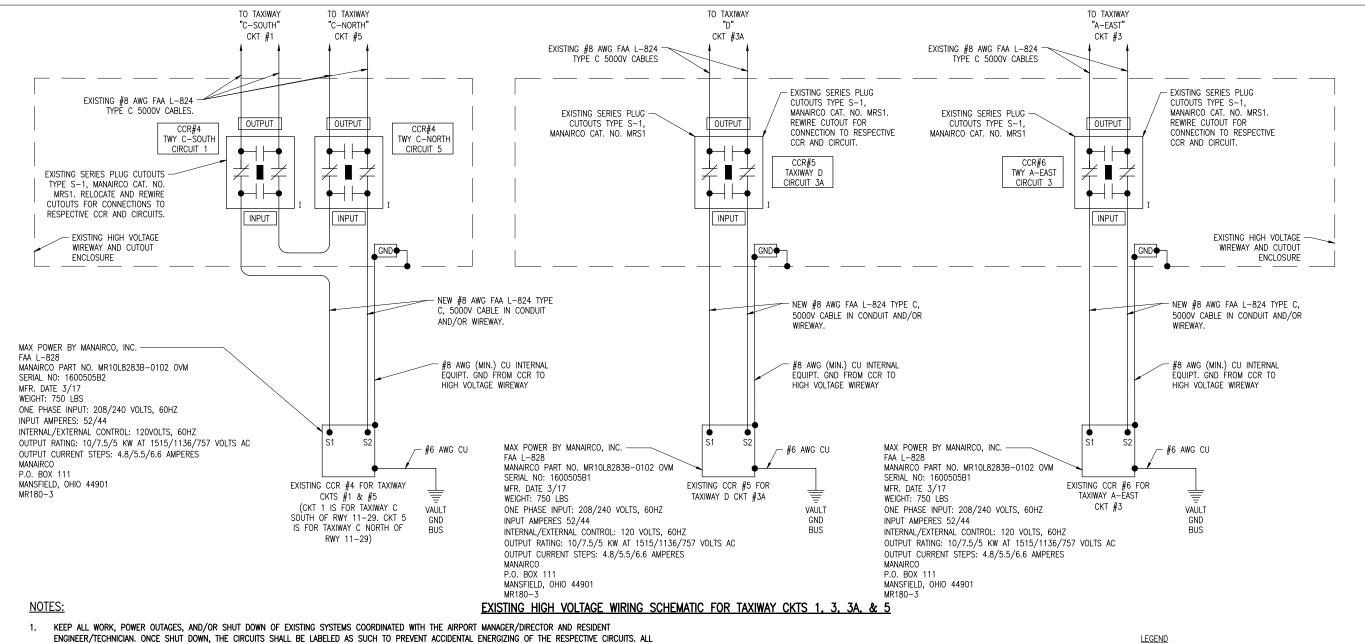
CAD FILE: E-602.DWG

DESIGN BY: KNL 04/07/2019

DESIGN BY: KNL 04/07/2019
DRAWN BY: CWS 04/08/2019
REVIEWED BY: KNL 06/26/2019

SHEET TITLE

EXISTING HIGH VOLTAGE WIRING SCHEMATIC FOR RUNWAYS



ENGINEER/TECHNICIAN. 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. EXAMINE THE SITE TO CONFIRM AND FIELD VERIFY EXISTING SITE CONDITIONS.

- VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES PRIOR TO REMOVING, DISCONNECTING, WORKING ON, RELOCATING, RECONNECTING, AND/OR INSTALLING THE RESPECTIVE AIRFIELD LIGHTING, TAXI SIGN, NAVAID, OR OTHER DEVICES. CONTRACTOR SHALL REPORT ANY VARIATIONS, DEFICIENCIES, AND/OR APPARENT SAFETY CONCERNS TO THE PROJECT ENGINEER AND THE RESIDENT ENGINEER/TECHNICIAN, ALSO REFER TO EOR-47643 WHERE APPLICABLE.
- 4. IDENTIFY EACH RESPECTIVE CIRCUIT PRIOR TO PERFORMING WORK ON THAT CIRCUIT.
- 5. NEVER PULL A CUTOUT WITH THE CIRCUIT ENERGIZED. SHUTOFF CIRCUITS PRIOR TO PULLING A SERIES PLUG CUTOUT.
- THE RESPECTIVE PERSONNEL PERFORMING AIRFIELD LIGHTING WORK, VAULT WORK, AND/OR TESTS SHALL BE FAMILIAR WITH, AND QUALIFIED TO WORK ON, 5000 VOLT AIRFIELD LIGHTING SERIES CIRCUITS, CONSTANT CURRENT REGULATORS, AND ASSOCIATED AIRPORT ELECTRICAL VAULT EQUIPMENT.
- CONTRACTOR SHALL 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
- MEGGER TEST (WITH AN INSULATION RESISTANCE TESTER) AND RECORD EXISTING SERIES CIRCUITS 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. ALSO TEST AND RECORD SERIES CIRCUIT LOOP RESISTANCE, (WITH AN OHMMETER). THESE ARE REQUIRED TESTS IN ACCORDANCE WITH IDOT DIVISION OF AERONAUTICS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS. PROVIDE TEST RESULTS TO THE PROJECT ENGINEER WITHIN 5 BUSINESS DAYS OF CONDUCTING TESTS.
- THE RESPECTIVE RUNWAY AND TAXIWAY LIGHTING CCR'S SHALL BE TESTED FOR PROPER OPERATION BEFORE REMOVAL WORK, MODIFICATIONS, ADDITIONS, AND/OR ANY OTHER WORK THAT MIGHT POSSIBLY AFFECT AIRFIELD LIGHTING SYSTEMS. AND AFTER THE RESPECTIVE WORK HAS 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 OPERATIONS. CONTRACTOR SHALL REPORT CONCERNS AND/OR DEFICIENCIES TO THE RESIDENT ENGINEER/TECHNICIAN. TEST RESULTS SHALL BE PROVIDED TO THE PROJECT ENGINEER AND RESIDENT ENGINEER/TECHNICIAN WITHIN 5 BUSINESS DAYS OF CONDUCTING TESTS.

DENOTES PLUG CUTOUT WITH PLUG INSERTED

"P" DENOTES PLUG CUTOUT WITH PLUG PULLED

"CCR" DENOTES CONSTANT CURRENT REGULATOR

NOTE: INFORMATION SHOWN ON THIS SHEET IS TO HELP WITH IDENTIFYING EXISTING CONDITIONS.

Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084

COLES COUNTY AIRPORT AUTHORATY

PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159 Contract No. CO067

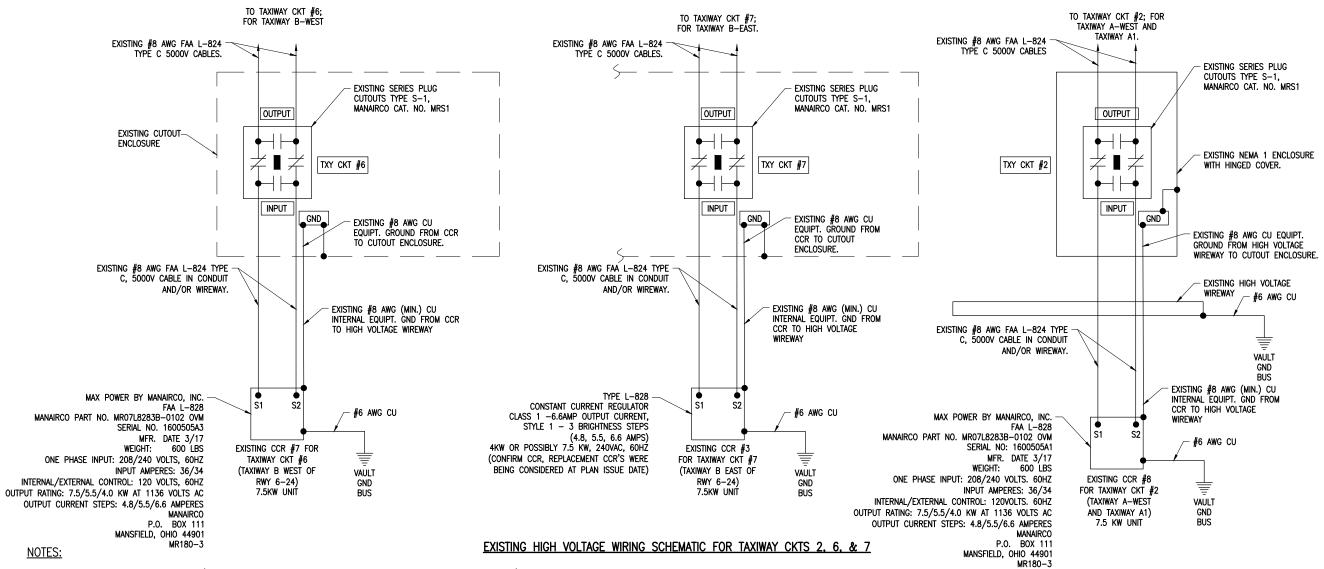
DESCRIPTION NO. DATE DES DWN REV ISSUE: 04/17/2020

PROJECT NO: 19A0001 CAD FILE: E-603.DWG

DESIGN BY: KNI 04/07/2019 DRAWN BY: CWS 04/08/2019 REVIEWED BY: KNL 06/26/2019

SHEET TITLE

EXISTING HIGH VOLTAGE WIRING SCHEMATIC FOR TWY CKTS 1,3,3A&5



- 1. KEEP ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS COORDINATED WITH THE AIRPORT MANAGER/DIRECTOR AND RESIDENT ENGINEER/TECHNICIAN. 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. EXAMINE THE SITE TO CONFIRM AND FIELD VERIFY EXISTING SITE CONDITIONS.
- 3. VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES PRIOR TO REMOVING, DISCONNECTING, WORKING ON, RELOCATING, RECONNECTING, AND/OR INSTALLING THE RESPECTIVE AIRFIELD LIGHTING, TAXI SIGN, NAVAID, OR OTHER DEVICES. CONTRACTOR SHALL REPORT ANY VARIATIONS, DEFICIENCIES, AND/OR APPARENT SAFETY CONCERNS TO THE PROJECT ENGINEER RESIDENT ENGINEER/TECHNICIAN, ALSO REFER TO EOR—47643 WHERE APPLICABLE.
- 4. IDENTIFY EACH RESPECTIVE CIRCUIT PRIOR TO PERFORMING WORK ON THAT CIRCUIT.
- 5. NEVER PULL A CUTOUT WITH THE CIRCUIT ENERGIZED. SHUT OFF CIRCUITS PRIOR TO PULLING A SERIES PLUG CUTOUT.
- 6. 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.
- 7. CONTRACTOR SHALL 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.
- 8. MEGGER TEST (WITH AN INSULATION RESISTANCE TESTER) AND RECORD EXISTING SERIES CIRCUITS 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. ALSO TEST AND RECORD SERIES CIRCUIT LOOP RESISTANCE, (WITH AN OHMMETER). THESE ARE REQUIRED TESTS IN ACCORDANCE WITH IDOT DIVISION OF AERONAUTICS STANDARD SPECIFICATIONS FOR CONSTRUCTION OF AIRPORTS. PROVIDE TEST RESULTS TO THE PROJECT ENGINEER WITHIN 5 BUSINESS DAYS OF CONDUCTING TESTS.
- 9. THE RESPECTIVE RUNWAY AND TAXIWAY LIGHTING CCR'S SHALL BE TESTED FOR PROPER OPERATION BEFORE REMOVAL WORK, MODIFICATIONS, ADDITIONS, AND/OR ANY OTHER WORK THAT MIGHT POSSIBLY AFFECT AIRFIELD LIGHTING SYSTEMS, AND AFTER THE RESPECTIVE WORK HAS 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 OPERATIONS. CONTRACTOR SHALL REPORT CONCERNS AND/OR DEFICIENCIES TO THE RESIDENT ENGINEER/TECHNICIAN. TEST RESULTS SHALL BE PROVIDED TO THE PROJECT ENGINEER AND RESIDENT ENGINEER/TECHNICIAN WITHIN 5 BUSINESS DAYS OF CONDUCTING TESTS.

<u>LEGEND</u>

"I" DENOTES PLUG CUTOUT WITH PLUG INSERTED

P" DENOTES PLUG CUTOUT WITH PLUG PULLED

"CCR" DENOTES CONSTANT CURRENT REGULATOR

NOTE: INFORMATION SHOWN ON THIS SHEET IS TO HELP WITH IDENTIFYING EXISTING CONDITIONS.



Offices Nationwide www.hanson-inc.com

Hanson Professional Services Inc. 1525 S. 6th Street Springfield, IL 62568 phone: 217-788-2450 fax: 217-788-2503

Illinois Licensed Professional Service Corporation #184-001084



PHASE 2: RECONSTRUCT TAXIWAY B

IDA No: MTO-4752 SBG Project No: 3-17-SBGP-156/159

Contract No. CO067

NO.	DATE	DESCRIPTION			
INO.		DES	DWN	REV	
ISSUE: 04/17/2020					
PROJECT NO: 19A0001					
CAD FILE: E-604.DWG					

PROJECT NO: 19A0001

CAD FILE: E-604.DWG

DESIGN BY: KNL 04/07/2019

DRAWN BY: CWS 04/08/2019
REVIEWED BY: KNL 06/26/2019

SHEET TITLE

EXISTING HIGH VOLTAGE WIRING SCHEMATIC FOR TWY CKTS 2,6&7