



**CALL NO. 303**

**CONTRACT ID. 191209**

**FRANKLIN COUNTY**

**FED/STATE PROJECT NUMBER BC53 07-25 CAPCITY AIR**

**DESCRIPTION CAPITAL CITY AIRPORT REHAB RUNWAY 07-25**

**WORK TYPE MICROSURFACING**

**PRIMARY COMPLETION DATE 21 CALENDAR DAYS**

**LETTING DATE: March 22,2019**

Sealed Bids will be received electronically through the Bid Express bidding service until 10:00 AM EASTERN DAYLIGHT TIME March 22,2019. Bids will be publicly announced at 10:00 AM EASTERN DAYLIGHT TIME.

**NO PLANS ASSOCIATED WITH THIS PROJECT.**

**REQUIRED BID PROPOSAL GUARANTY:** Not less than 5% of the total bid.

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**PART I**  
**SCOPE OF WORK**

## ADMINISTRATIVE DISTRICT - 05

**CONTRACT ID - 191209**

**BC53 07-25 CAPCITY AIR**

**COUNTY - FRANKLIN**

**PCN - DE037CAPAIRPT**

**BC53 07-25 CAPCITY AIR**

CAPITAL CITY AIRPORT REHAB RUNWAY 07-25 CAPITAL CITY AIRFIELD PAVEMENT REHABILITATIONAIRPORT  
CONSTRUCTION

GEOGRAPHIC COORDINATES LATITUDE 38:10:49.00 LONGITUDE 84:54:33.00

**COMPLETION DATE(S):**

21 CALENDAR Days

APPLIES TO ENTIRE CONTRACT

## **CONTRACT NOTES**

### **PROPOSAL ADDENDA**

All addenda to this proposal must be applied when calculating bid and certified in the bid packet submitted to the Kentucky Department of Highways. Failure to use the correct and most recent addenda may result in the bid being rejected.

### **BID SUBMITTAL**

Bidder must use the Department's electronic bidding software. The Bidder must download the bid file located on the Bid Express website ([www.bidx.com](http://www.bidx.com)) to prepare a bid packet for submission to the Department. The bidder must submit electronically using Bid Express.

### **JOINT VENTURE BIDDING**

Joint venture bidding is permissible. All companies in the joint venture must be prequalified in one of the work types in the Qualifications for Bidders for the project. The bidders must get a vendor ID for the joint venture from the Division of Construction Procurement and register the joint venture as a bidder on the project. Also, the joint venture must obtain a digital ID from Bid Express to submit a bid. A joint bid bond of 5% may be submitted for both companies or each company may submit a separate bond of 5%.

### **UNDERGROUND FACILITY DAMAGE PROTECTION**

The contractor shall make every effort to protect underground facilities from damage as prescribed in the Underground Facility Damage Protection Act of 1994, Kentucky Revised Statute KRS 367.4901 to 367.4917. It is the contractor's responsibility to determine and take steps necessary to be in compliance with federal and state damage prevention directives. When prescribed in said directives, the contractor shall submit Excavation Locate Requests to the Kentucky Contact Center (KY811) via web ticket entry. The submission of this request does not relieve the contractor from the responsibility of contacting non-member facility owners, whom shall be contacted through their individual Protection Notification Center. Non-compliance with these directives can result in the enforcement of penalties.

### **REGISTRATION WITH THE SECRETARY OF STATE BY A FOREIGN ENTITY**

Pursuant to KRS 176.085(1)(b), an agency, department, office, or political subdivision of the Commonwealth of Kentucky shall not award a state contract to a person that is a foreign entity required by [KRS 14A.9-010](#) to obtain a certificate of authority to transact business in the Commonwealth ("certificate") from the Secretary of State under [KRS 14A.9-030](#) unless the person produces the certificate within fourteen (14) days of the bid or proposal opening. If the foreign entity is not required to obtain a certificate as provided in [KRS 14A.9-010](#), the foreign entity should identify the applicable exception. Foreign entity is defined within [KRS 14A.1-070](#).

**For all foreign entities required to obtain a certificate of authority to transact business in the Commonwealth, if a copy of the certificate is not received by the contracting agency within the time frame identified above, the foreign entity's solicitation response shall be deemed non-responsive or the awarded contract shall be cancelled.**

Businesses can register with the Secretary of State at <https://secure.kentucky.gov/sos/ftbr/welcome.aspx>.

### **SPECIAL NOTE FOR PROJECT QUESTIONS DURING ADVERTISEMENT**

Questions about projects during the advertisement should be submitted in writing to the Division of Construction Procurement. This may be done by fax (502) 564-7299 or email to [kytc.projectquestions@ky.gov](mailto:kytc.projectquestions@ky.gov). The Department will attempt to answer all submitted questions. The Department reserves the right not to answer if the question is not pertinent or does not aid in clarifying the project intent.

The deadline for posting answers will be 3:00 pm Eastern Daylight Time, the day preceding the Letting. Questions may be submitted until this deadline with the understanding that the later a question is submitted, the less likely an answer will be able to be provided.

The questions and answers will be posted for each Letting under the heading "Questions & Answers" on the Construction Procurement website ([www.transportation.ky.gov/contract](http://www.transportation.ky.gov/contract)). The answers provided shall be considered part of this Special Note and, in case of a discrepancy, will govern over all other bidding documents.

### **HARDWOOD REMOVAL RESTRICTIONS**

The US Department of Agriculture has imposed a quarantine in Kentucky and several surrounding states, to prevent the spread of an invasive insect, the emerald ash borer. Hardwood cut in conjunction with the project may not be removed from the state. Chipping or burning on site is the preferred method of disposal.

### **INSTRUCTIONS FOR EXCESS MATERIAL SITES AND BORROW SITES**

Identification of excess material sites and borrow sites shall be the responsibility of the Contractor. The Contractor shall be responsible for compliance with all applicable state and federal laws and may wish to consult with the US Fish and Wildlife Service to seek protection under Section 10 of the Endangered Species Act for these activities.

### **ACCESS TO RECORDS**

The contractor, as defined in KRS 45A.030 (9) agrees that the contracting agency, the Finance and Administration Cabinet, the Auditor of Public Accounts, and the Legislative Research Commission, or their duly authorized representatives, shall have access to any books, documents, papers, records, or other evidence, which are directly pertinent to this contract for the purpose of financial audit or program review. Records and other prequalification information confidentially

disclosed as part of the bid process shall not be deemed as directly pertinent to the contract and shall be exempt from disclosure as provided in KRS 61.878(1)(c). The contractor also recognizes that any books, documents, papers, records, or other evidence, received during a financial audit or program review shall be subject to the Kentucky Open Records Act, KRS 61.870 to 61.884.

In the event of a dispute between the contractor and the contracting agency, Attorney General, or the Auditor of Public Accounts over documents that are eligible for production and review, the Finance and Administration Cabinet shall review the dispute and issue a determination, in accordance with Secretary's Order 11-004.

April 30, 2018

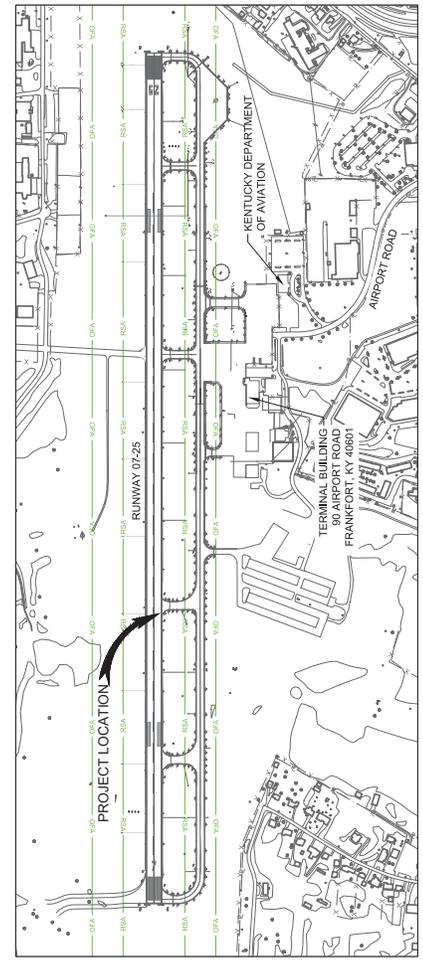
## **SPECIAL NOTE FOR RECIPROCAL PREFERENCE**

### **RECIPROCAL PREFERENCE TO BE GIVEN BY PUBLIC AGENCIES TO RESIDENT BIDDERS**

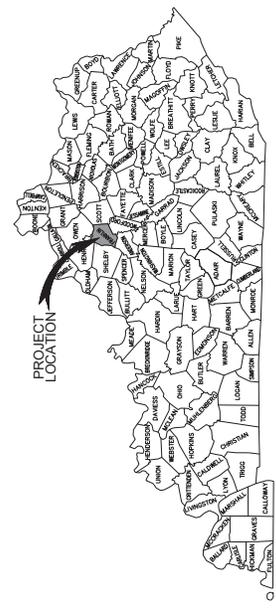
By reference, KRS 45A.490 to 45A.494 are incorporated herein and in compliance regarding the bidders residency. Bidders who want to claim resident bidder status should complete the Affidavit for Claiming Resident Bidder Status along with their bid in the electronic bidding software. Submittal of the Affidavit should be done along the bid in Bid Express.

April 30, 2018

# AIRFIELD PAVEMENT REHABILITATION PROJECT CAPITAL CITY AIRPORT FRANKFORT, KENTUCKY



**VICINITY MAP**  
 NO SCALE  
**GARVER PROJECT NO. 16151131**  
**KDA PROJECT NO. KY 17-84**  
**FEBRUARY 5, 2019**



**LOCATION MAP**

**GARVER**  
 2525 HARRODSBURG ROAD  
 SUITE 405  
 LEXINGTON, KY 40504

REV.	DESCRIPTION	DATE	BY

DIGITALLY SIGNED: 02/07/2019

CAPITAL CITY AIRPORT  
 FRANKFORT, KY  
 AIRFIELD PAVEMENT  
 REHABILITATION PROJECT

COVER

JOB NO.: 16151131  
 DATE: FEB. 5, 2019  
 DESIGNED BY: MDU  
 DRAWN BY: ALT

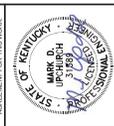
START DATE: 02/05/19  
 END DATE: 02/05/19  
 PROJECT NO.: 16151131  
 DRAWING NO.: G-100

**G-100**  
 DRAWING NUMBER





**GARVER**  
INCORPORATED  
REGISTERED PROFESSIONAL ENGINEERS  
REGISTERED PROFESSIONAL ARCHITECTS  
REGISTERED PROFESSIONAL LAND SURVEYORS  
REGISTERED PROFESSIONAL CIVIL ENGINEERS  
REGISTERED PROFESSIONAL ELECTRICAL ENGINEERS  
REGISTERED PROFESSIONAL MECHANICAL ENGINEERS  
REGISTERED PROFESSIONAL CHEMICAL ENGINEERS  
REGISTERED PROFESSIONAL METEOROLOGICAL ENGINEERS  
REGISTERED PROFESSIONAL AERONAUTICAL ENGINEERS  
REGISTERED PROFESSIONAL ENVIRONMENTAL ENGINEERS  
REGISTERED PROFESSIONAL INDUSTRIAL ENGINEERS  
REGISTERED PROFESSIONAL AGRICULTURAL ENGINEERS  
REGISTERED PROFESSIONAL MINING ENGINEERS  
REGISTERED PROFESSIONAL METALLURGICAL ENGINEERS  
REGISTERED PROFESSIONAL NUCLEAR ENGINEERS  
REGISTERED PROFESSIONAL PETROLEUM ENGINEERS  
REGISTERED PROFESSIONAL TRANSPORTATION ENGINEERS  
REGISTERED PROFESSIONAL MARINE ENGINEERS  
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REGISTERED PROFESSIONAL ACOUSTICAL ENGINEERS  
REGISTERED PROFESSIONAL OPTICAL ENGINEERS  
REGISTERED PROFESSIONAL POLYMER ENGINEERS  
REGISTERED PROFESSIONAL RADIATION ENGINEERS  
REGISTERED PROFESSIONAL THERMAL ENGINEERS  
REGISTERED PROFESSIONAL WIND ENGINEERS  
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REGISTERED PROFESSIONAL WIND ENGINEERS  
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STATE OF KENTUCKY  
DEPARTMENT OF REVENUE  
DIVISION OF GENERAL INVESTIGATION  
REGISTERED PROFESSIONAL ENGINEERS  
REGISTERED PROFESSIONAL ARCHITECTS  
REGISTERED PROFESSIONAL LAND SURVEYORS  
REGISTERED PROFESSIONAL CIVIL ENGINEERS  
REGISTERED PROFESSIONAL ELECTRICAL ENGINEERS  
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REGISTERED PROFESSIONAL WIND ENGINEERS  
REGISTERED PROFESSIONAL BIOMEDICAL ENGINEERS

DISTRICT LICENSED: 0007009

REV.	DATE	DESCRIPTION	BY

FRANKFORT, KY  
CAPITAL CITY AIRPORT  
REHABILITATION PROJECT

SUMMARY OF QUANTITIES

JOB NO.: 16151131  
DATE: FEB. 5, 2019  
DESIGNED BY: MDU  
DRAWN BY: ALT

START DATE: 01/01/2019  
END DATE: 01/01/2019  
PROJECT LOCATION: 16151131  
DRAWING NUMBER: G-102

G-102

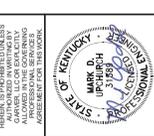
**BIDDING NOTES**

- AWARD OF CONTRACT WILL BE MADE TO THE RESPONSIBLE, RESPONSIBLE, AND QUALIFIED BIDDER WITH THE LOWEST TOTAL COST TO THE OWNER.
- THE FUNDS ALLOCATED FOR THE PERFORMANCE OF THIS PROJECT ARE LIMITED. THE OWNER RESERVES THE RIGHT TO LIMIT THE SCOPE OF WORK. THIS MAY RESULT IN THE ELIMINATION OF SOME ITEMS OF WORK WHICH WILL BE TO STAY WITHIN THE LIMITS OF AVAILABLE FUNDS.
- CONTRACT AWARD SHALL BE MADE BASED ON FUNDING CONSTRAINTS.
- ALL BIDDERS MUST BE PREQUALIFIED WITH THE KENTUCKY TRANSPORTATION CABINET (KYTC) FOR CONSIDERATION OF AWARD.

SUMMARY OF QUANTITIES							
ITEM NO.	KYTC NO.	SPEC NO.	NOTE	DESCRIPTION	UNIT	PLANNED QUANTITY	INSTALLED QUANTITY
1	40000	SS-120-3.1	1	SITE PREPARATION	LS	1	
2	02569	SS-120-3.2		DEMobilIZATION	LS	1	
3	40003	SS-120-3.3	2	LOCKOUT-TAGOUT AND CC REGULATOR CAL PRO	LS	1	
4	40170	SS-152-5.1	3	SHOULDERING	SY	21,130	
5	40047	SS-152-5.2	4	SODDING	SY	21,130	
6	40169	SS-225-5.1		MICROSURFACING-SURFACE COURSE-TYPE B	SOYD	109,790	
7	40112	SS-225-5.2	5	PAVEMENT SURFACE PREPARATION	LS	1	
8	40044	SS-255-5.1		R/W & T/W PAINT - YELLOW WATERBORNE	SOFT	11,995	
9	40043	SS-255-5.2		R/W & T/W PAINT - WHITE WATERBORNE	SOFT	69,450	
10	40168	SS-255-5.3		R/W & T/W PAINT - BLACK	SOFT	47,570	
11	40069	SS-280-5.1	6	PAVEMENT CRACK REPAIR-METHOD 1	LF	10,500	
12	40113	SS-280-5.2	7	PAVEMENT CRACK REPAIR-METHOD 2	LF	39,100	
13	40046	P-631-7.1	8	REFINED COAL TAR EMUL FOR SLURRY COAT	GAL	4,851	

- NOTES:**
- SITE PREPARATION SHALL INCLUDE BUT NOT BE LIMITED TO, THE CONTRACTOR'S RESPONSIBILITY FOR INSTALLING, MAINTAINING, AND REMOVING THE LOW PROFILE BARRICADES AND RUNWAY CLOSURE MARKERS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR LOCKING OR GUARDING THE ACCESS GATE UTILIZE FOR THE HAUL ROAD AT ALL TIMES.
  - LOCKOUT-TAGOUT WILL BE MEASURED AND PAID FOR AT 50% UPON LOCKING OUT THE SYSTEM AND THE FINAL 50% FOR RE-OPENING OF THE AIRFIELD AFTER COMPLETION OF THE TEMPORARY PAVEMENT MARKINGS.
  - SHOULDERING SHALL INCLUDE APPROXIMATELY 550 CY OF FILL AND 300 CY OF CUT. SHOULDERING IS NOT REQUIRED FOR AREAS WHERE EDGE DROP IS LESS THAN 1.5" OR WHERE GRADING WILL CREATE A DRAINAGE DITCH INSIDE THE RSA. TOPSOIL (FILL MATERIAL) SHALL BE OBTAINED OFF-SITE.
  - SODDING SHALL BE ROLLED. IT IS ANTICIPATED TO SOD THE FIRST 8' OFF THE EDGE OF PAVEMENT WHERE SHOULDERING WAS COMPLETED.
  - PAVEMENT SURFACE PREPARATION IS FOR PREPARING THE SURFACE PRIOR TO INSTALLATION OF THE MICROSURFACE. THIS INCLUDES, BUT IS NOT LIMITED TO, CRACKING, CURING, AND SEALING OF THE AIRFIELD PAVEMENT SURFACE. THE CONTRACTOR SHALL PROVIDE GOOD BOND FOR THE APPLICATION OF THE MICRO SURFACE. IF ANY CRACKS ARE OBSERVED IN THESE AREAS, THESE CRACKS SHALL BE REPAIRED PRIOR TO THE REMOVAL OF THE CENTERLINES SHALL BE SUBSIDIARY TO SURFACE PREPARATION.
  - TYPE 1 METHOD SHALL BE USED FOR ALL CRACKS 1" OR LESS IN WIDTH AND WILL BE COMPLETED IN ACCORDANCE WITH DETAIL 1 ON SHEET C-200.
  - TYPE 2 METHOD SHALL BE USED FOR ALL CRACKS GREATER THAN 1" IN WIDTH AND WILL BE COMPLETED IN ACCORDANCE WITH DETAIL 2 ON SHEET C-200. IT IS ANTICIPATED THE LONGITUDINAL JOINTS ALONG THE RUNWAY WILL RECEIVE TYPE 2 CRACK REPAIR AS WELL AS AN ADDITIONAL +/-600 LF OF TYPE CRACK REPAIR AROUND THE T-HANGARS.
  - THIS SEAL COAT SHALL BE BLACK, DURABLE, AND PUEL RESISTANT.





DATE: 02/20/2019  
BY: [Blank]  
DESCRIPTION: [Blank]  
DATE: [Blank]  
REV: [Blank]

**CONSTRUCTION SAFETY AND PHASING PLAN (CSPP) - PAGE 2 OF 2**

RUNWAY DATA					
RUNWAY END NUMBER	AIRPLANE DESIGN GROUP	AIRCRAFT APPROACH CATEGORY	MINIMUM SAFETY AREA PRIOR TO THE THRESHOLD	MINIMUM UNOBSTRUCTED APPROACH SLOPE	RSA WIDTH DIVIDED BY 2
RUNWAY 07	II	C	1,000-FT	34:1	200-FT
RUNWAY 25	II	C	1,000-FT	34:1	200-FT

**AIRFIELD AREAS AFFECTED BY CONSTRUCTION**

OPERATIONAL REQUIREMENTS	EXISTING (NORMAL)	PHASE I
RUNWAY 07-25 ARC	C - II	SAME
RUNWAY 07 APPROACH MINIMUMS	7/8 MILE	SAME
RUNWAY 25 APPROACH MINIMUMS	> 1 MILE	SAME
RUNWAY 07 DECLARED DISTANCES	TORA: 5,500'	CLOSED
	TODA: 5,500'	CLOSED
	ASDA: 5,500'	CLOSED
RUNWAY 25 DECLARED DISTANCES	TORA: 5,500'	CLOSED
	TODA: 5,500'	CLOSED
	ASDA: 5,500'	CLOSED
RUNWAY 07 APPROACH PROCEDURES	LDA: 5,500'	CLOSED
	GPS, VISUAL, LOC, VOR	CLOSED
	GPS, VISUAL	CLOSED
RUNWAY 25 APPROACH PROCEDURES	GPS, VISUAL	CLOSED
	VGSI (PAPI) / REILs	CLOSED
RUNWAY 25 NAV AIDS	VGSI (PAPI) / REILs	CLOSED
TAXIWAY TDG	TDG 2	SAME

NOTE: THE 21 DAY RUNWAY CLOSURE IS THE AMOUNT OF TIME ALLOTTED TO COMPLETE THE PROJECT. THIS 21 DAY CONTRACT TIME TAKES INTO ACCOUNT THE NECESSARY DAYS TO COMPLETE FINAL AIRFIELD MARKINGS (PAINT AND BEADS), A TEMPORARY STOP WORK ORDER SHALL BE ISSUED TO THE CONTRACTOR UPON COMPLETION OF THE TEMPORARY AIRFIELD MARKING AND RE-OPENING OF THE AIRFIELD PAVEMENTS. FINAL STRIPING SHALL BE APPROXIMATELY 30 DAYS LATER.

PROJECT CONTACT INFORMATION		
TROY GAINES	CAPITAL CITY AIRPORT - OPERATIONS	502-564-0089
SCOTT SHANNON	CAPITAL CITY AIRPORT - ASSISTANT DIRECTOR	502-564-0089
MARK UPCHURCH	GARVER PROJECT MANAGER	615-927-6150
CRAIG FARMER	KY DEPARTMENT OF AVIATION - ENGINEER	502-564-0248
TBD	KY DISTRICT 005 - PROJECT MANAGER	502-352-8577
JEREMY LUSH	KY EMERGENCY WARNING SYSTEM (KEWS)	502-564-5397
JIM CARTER	FRANKFORT PLANT BOARD	502-352-4372

**CALL BEFORE YOU DIG**  
**KENTUCKY ONE-CALL 1-800-752-6007**



Know what's below.  
Call before you dig.

15. PROTECTION OF SAFETY AREAS, OBJECT FREE AREAS, OBJECT FREE ZONES, AND APPROACH/DEPARTURE SURFACES.
  - A. RUNWAY SAFETY AREAS (RSA) - NO WORK SHALL BE PERMITTED WITHIN AN ACTIVE RUNWAY SAFETY AREA, IF REQUIRED, ADJUSTMENTS TO THE RSA DIMENSIONS THROUGH RESTRICTED OPERATIONS SHALL BE COORDINATED WITH THE FAA AIRPORTS REGIONAL OR DISTRICT OFFICE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INSURE ADEQUATE DISTANCE PROTECTION FOR BLAST PROTECTION, AS NEEDED, ALL OPEN TRENCHES OR EXCAVATIONS WITHIN THE LIMITS OF THE RSA SHALL BE BACK FILLED OR COVERED PRIOR TO OPENING THE RUNWAY TO OPERATIONS. IN ADDITION, EROSION CONTROL MEASURES SHALL BE PROVIDED IN THE RSA TO PREVENT RUTS, HUMPS, OR DEPRESSIONS INSIDE THE LIMITS OF THE RSA.
  - B. RUNWAY OBJECT FREE AREAS (ROFA) - NO MATERIAL SHALL BE STOCKPILED INSIDE THE LIMITS OF THE ACTIVE ROFA UNLESS APPROVED BY AIR SPACING THROUGH THE APPROPRIATE FAA AIRPORTS REGIONAL OR DISTRICT OFFICE.
  - C. TAXIWAY SAFETY AREAS (TSA) - NO WORK SHALL BE PERMITTED WITHIN AN ACTIVE TSA, IF REQUIRED, ADJUSTMENTS TO THE TAXIWAY TSA DIMENSIONS THROUGH RESTRICTED OPERATIONS SHALL BE COORDINATED WITH THE FAA AIRPORTS REGIONAL OR DISTRICT OFFICE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL INSURE ADEQUATE DISTANCE PROTECTION FOR BLAST PROTECTION, AS NEEDED, ALL OPEN TRENCHES OR EXCAVATIONS WITHIN THE LIMITS OF THE TSA SHALL BE BACK FILLED OR COVERED PRIOR TO OPENING THE TAXIWAY TO OPERATIONS. IN ADDITION, EROSION CONTROL MEASURES SHALL BE PROVIDED IN THE TSA TO PREVENT RUTS, HUMPS, OR DEPRESSIONS INSIDE THE LIMITS OF THE TSA.
  - D. TAXIWAY OBJECT FREE AREAS (TOFA) - NO CONSTRUCTION SHALL BE PERMITTED INSIDE AN ACTIVE TOFA UNLESS THE TAXIWAY HAS BEEN RESTRICTED TO CENTERLINE MARKINGS AND OPERATIONS WITHIN THE TOFA. CENTERLINE REFLECTORS OR LIGHTING, OR APPROPRIATE NOTAMS ARE ISSUED. CONSTRUCTION MAY ALSO BE PERMITTED INSIDE THE TOFA IF A FIVE FOOT WING TIP CLEARANCE IS MAINTAINED FOR ALL CONSTRUCTION EQUIPMENT AND VEHICLES. IN THIS SCENARIO, FLAGGERS AND WING WALKERS MUST BE USED TO DIRECT TRAFFIC THROUGH THE CONSTRUCTION SITE.
  - E. OBSTACLE FREE ZONE (OFZ) - NO PERSONNEL, MATERIAL, OR EQUIPMENT SHALL PENETRATE THE OFZ WHILE THE RUNWAY IS OPEN TO OPERATIONS. THE DIMENSIONS OF THE OFZ ARE AS DEFINED IN FAA AC 150/5300-13 (www.faa.gov).
  - F. APPROACH/DEPARTURE SURFACES - ALL CONTRACTOR PERSONNEL, MATERIALS, AND EQUIPMENT SHALL REMAIN CLEAR OF THE APPLICABLE THRESHOLD SITING SURFACES AS DEFINED IN APPENDIX 2. "RUNWAY END SITING REQUIREMENTS" OF FAA AC 150/5300-13 (www.faa.gov). CONSTRUCTION ACTIVITIES THAT REQUIRE PENETRATION INTO THE THRESHOLD SITING SURFACE SHALL BE ACCOMPLISHED THROUGH DISPLACING OR PARTIALLY CLOSING THE RUNWAY. SUCH CONSTRUCTION ACTIVITIES SHALL REQUIRE COORDINATION WITH THE FAA AIRPORTS REGIONAL OR DISTRICT OFFICE.
16. OTHER LIMITATIONS ON CONSTRUCTION
  - A. PROHIBITIONS - THE USE OF TALL EQUIPMENT (I.E. CRANES, CONCRETE PUMPS) SHALL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER. OPEN FLAME WELDING AND TORCH CUTTING OPERATIONS ARE NOT PERMITTED UNLESS ADEQUATE FIRE SAFETY PRECAUTIONS ARE PROVIDED AND THESE OPERATIONS ARE AUTHORIZED BY THE AIRPORT OPERATOR AND THE ENGINEER.
  - B. ELECTRICAL BLASTING CAPS SHALL NOT BE PERMITTED WITHIN 1,000-FT OF THE AIRPORT PROPERTY. FLARE POTS ARE NOT PERMITTED WITHIN THE AIR OPERATIONS AREA.
  - C. WORK WILL BE CONDUCTED ALONG AN ACTIVE APRON ALL AIRCRAFT HAVE RIGHT-OF-WAY AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING AND MAINTAINING THE LOW-PROFILE BARRICADES TO DELINEATE THE WORK AREA FROM THE ACTIVE APRON.
  - D. CONSTRUCTION PERSONNEL SHALL BE RESTRICTED FROM ALL AIRPORT BUILDINGS UNLESS SPECIFICALLY REQUIRED FOR PERFORMANCE OF WORK. CONTRACTOR SHALL PROVIDE PORTA-JOHN AND TRASH CONTAINER WITH ATTACHABLE LID TO BE USED BY CONSTRUCTION EMPLOYEES.
  - E. CONSTRUCTION SAFETY LIMIT - THE RUNWAY SHALL BE CLOSED WHENEVER ANY WORK OR PERSONNEL ARE WITHIN 200' OF THE RUNWAY CENTERLINE.
  - F. THE INTENT OF THE CONTRACT DOCUMENTS IS TO ORGANIZE AND CONTROL THE WORK SO IT IS ACCOMPLISHED WITH MINIMUM INCONVENIENCE TO THE AIRPORT, AND TO INSURE THE SAFETY OF THE AIRCRAFT MOVEMENTS AT THE AIRPORT DURING THE CONSTRUCTION PERIOD. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH FAA AC 150/5300-25, OPERATION SAFETY ON AIRPORTS DURING CONSTRUCTION, LATEST EDITION.
  - G. ALL CONTRACTOR VEHICLES AND TRAFFIC SHALL REMAIN WITHIN THE DESIGNATED STAGING AREA OR HALT ROUTES.
  - H. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE CONDITION OF THE AIRPORT'S ACCESS GATES. ANY DAMAGE CAUSED BY THE CONTRACTOR OR SUBCONTRACTORS TO THE ACCESS GATES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.



DATE: 02/20/2019  
 DRAWN BY: ALT  
 CHECKED BY: [Blank]  
 PROJECT: CAPITAL CITY AIRPORT REHABILITATION PROJECT  
 SHEET: 14 OF 125

**SAFETY CONTROL DEVICE GENERAL NOTES**

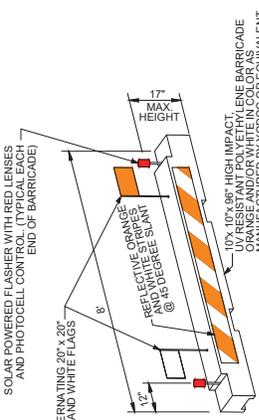
- OWNER TO FURNISH LOW PROFILE BARRICADES.
- CONTRACTOR SHALL MAINTAIN THE LOW PROFILE BARRICADES COMPLETE WITH FLAGS AND BATTERIES DURING THE PROJECT.
- CONTRACTOR SHALL MONITOR SAFETY DEVICES TO MAKE SURE THESE ARE NOT DISPLACED, DAMAGED OR BATTERIES ARE NOT FULLY CHARGED. CONTRACTOR SHALL REPLACE ANY DAMAGED LOW PROFILE BARRICADES AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL HAVE A PERSON ON CALL 24-HOURS A DAY FOR EMERGENCY MAINTENANCE OF AIRPORT HAZARD LIGHTING AND BARRICADES. THE CONTRACTOR SHALL SUBMIT THE CONTACT'S PERSONAL INFORMATION TO THE AIRPORT MANAGER AND ENGINEER.

**ACTIVE PAVEMENT NOTES**

- IF FOOD IS FOUND PRIOR TO AN AIRCRAFT CROSSING THE INTERSECTION, CONTRACTOR SHALL RADIO IMMEDIATELY AND REQUEST AIRCRAFT TO HOLD SHORT UNTIL AREA IS DECLARED FOOD FREE.
- AT NO TIME SHALL ANY CONSTRUCTION VEHICLES OR EQUIPMENT CROSS AN ACTIVE AIRCRAFT MOVEMENT AREA WITHOUT PERMISSION FROM THE ENGINEER AND AT NO TIME SHALL THE VEHICLE CROSS ACTIVE PAVEMENT WITHOUT A VISUAL ESCORT.
- CONTRACTOR SHALL BE FINANCIALLY RESPONSIBLE FOR ANY DAMAGE TO AIRCRAFT AS A RESULT OF FOOD ON THE APRON.

**STAGING AREA NOTES**

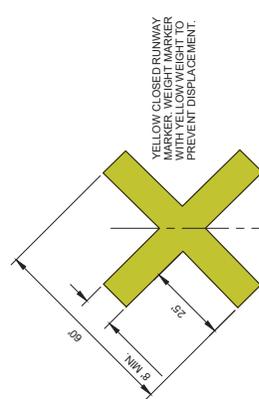
- THE CONTRACTOR'S EMPLOYEES AND VISITORS' VEHICLES SHALL PARK IN THE EMPLOYEES' PARKING AREA AS SHOWN ON THE SAFETY AND PHASING SHEETS.
- ALL DELIVERIES, MATERIAL OR OTHERWISE, SHALL BE MADE TO THE PROPOSED CONTRACTOR'S STAGING AREA UNLESS OTHERWISE APPROVED DURING CONSTRUCTION BY THE ENGINEER AND/OR OWNER.
- THE CONTRACTOR SHALL HAVE A REPRESENTATIVE ON SITE TO RECEIVE ALL DELIVERIES. SHOULD A DELIVERY ARRIVE WITHOUT A CONTRACTOR'S REPRESENTATIVE PRESENT, THE DELIVERY SHALL BE REFUSED AND THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL RESULTING EXPENSES.
- THE LOCATION AND SIZE OF THE CONTRACTOR'S STAGING AREA IS SHOWN FOR REFERENCE ONLY. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS TO DEVELOP AND USE THE SITE FOR STAGING AND OTHER ACTIVITIES AS REQUIRED.
- THE CONTRACTOR MAY DO SOME GRADING AND DRAINAGE WORK TO ADAPT THE STAGING AREA TO SPECIFIC NEEDS. UPON COMPLETION OF THE WORK, THE AREA WILL BE DRESSED AND RESTORED TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER AND OWNER. UPON COMPLETION OF THE CONTRACT WORK, NO PAYMENT WILL BE MADE FOR GRADING OR DRAINAGE WORK ASSOCIATED WITH THE CONTRACTOR'S STAGING AREA.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY CONNECTIONS TO THE STAGING AREA. ALL REQUIRED UTILITIES FOR THE CONTRACTOR'S STAGING AREA SHALL BE COORDINATED WITH THE AIRPORT MANAGER AND ENGINEER. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS TO OBTAIN ANY APPLICABLE METERS AND PERMITS. UTILITY ARRANGEMENTS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.
- NO SEPARATE PAY ITEM SHALL BE MADE FOR ANY ITEM REQUIRED FOR THE CONTRACTOR TO ENCLOSE AND DEVELOP THEIR STAGING AREA.
- THE OWNER SHALL NOT BE RESPONSIBLE FOR ANY LOST OR STOLEN PROPERTY.
- NO EQUIPMENT OR VEHICLES SHALL BE PARKED WITHIN 10 FEET OF ANY AIRPORT OPERATIONS AREA (AOA) PERIMETER FENCE.



**1 LOW PROFILE AIRCRAFT BARRICADE (OWNER PROVIDED)**  
 SCALE: NONE

**NOTES:**

- OWNER TO FURNISH LOW-PROFILE BARRICADES.
- CONTRACTOR SHALL INSTALL, SECURE, RELOCATE, AND MAINTAIN THE BARRICADES FOR THE DURATION OF THE WORK. CONTRACTOR TO ENSURE BARRICADES ARE UNDAMAGED AND PROPERLY WORKING THROUGH THE PROJECT'S COMPLETION.
- THE CONTRACTOR SHALL ENSURE THE LIGHTS, BATTERY, AND PHOTOCELL ARE IN WORKING ORDER PRIOR TO LEAVING THE SITE EVERY NIGHT. LATEST POSSIBLE TIME TO REPLACE BATTERIES SHALL BE DURING THE DAY. ADVISORY CIRCULAR AND ARE FILLED WITH WATER OR SAND TO PREVENT MOVEMENT.
- BARRICADES SHALL BE LOCATED AS DEFINED IN THE CONSTRUCTION SAFETY AND PHASING PLAN (CSPH) WITH A MAXIMUM SPACING OF 16' O.C. OR AS DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL REPLACE ANY DAMAGED LOW PROFILE BARRICADES AT NO ADDITIONAL COST TO THE OWNER.
- LIGHTS MUST BE RED, EITHER STEADY BURNING OR FLASHING, AND MUST MEET THE LUMINANCE REQUIREMENTS OF THE STATE HIGHWAY DEPARTMENT. LIGHTS MUST BE MOUNTED ON BARRICADES AND SPACED AT NO MORE THAN 10 FEET. BARRICADES MUST BE OPERATED DURING SUNSET AND SUNRISE AND DURING PERIODS OF LOW VISIBILITY. CONTRACTOR SHALL ENSURE AIRPORT IS OPEN TO OPERATIONS. THE LIGHTS MAY BE BATTERY POWERED OR OPERATED BY PHOTOCELL, IF OPERATED BY PHOTOCELL, THE CONTRACTOR SHALL BE RESPONSIBLE TO TURN THEM ON MANUALLY DURING LOW-VISIBILITY SITUATIONS.
- UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL RETURN BARRICADES TO THE OWNER (BY TRUCK) TO OWNER AND STORE THEM IN THE OWNER'S STORAGE FACILITY.



**2 CLOSED RUNWAY MARKERS (OWNER PROVIDED)**  
 SCALE: NONE

**NOTES:**

- OWNER TO FURNISH RUNWAY CLOSURE MARKERS FOR PROJECT.
- CONTRACTOR SHALL INSTALL, MAINTAIN, AND REMOVE RUNWAY CLOSURE MARKERS AND RETURN TO OWNER AT THE COMPLETION OF THE PROJECT.
- CLOSED RUNWAY MARKERS SHALL BE CENTERED OVER RUNWAY DESIGNATOR DURING CLOSURE UNLESS OTHERWISE SHOWN ON THE DRAWINGS. MARKERS SHALL BE FIRMLY SECURED TO THE SURFACE OF THE GROUND. THESE WEIGHTED DEVICES (SAND BAGS) SHALL BE THE SAME COLOR AS THE CLOSURE MARKER. CONTRACTOR SHALL SUBMIT WEIGHTED DEVICES PRIOR TO USE. WHITE TOP-SOIL BAGS WILL NOT BE PERMITTED.
- ALL LABOR AND MATERIAL REQUIRED FOR THE INSTALLATION, SUBSTITUTION, AND REMOVAL SHALL BE CONSIDERED SUBSIDIARY TO "SITE PREPARATION".
- THE CONTRACTOR SHALL ENSURE ALL REQUIRED NOTAMS HAVE BEEN FILED AND THE PROPER SAFETY DEVICES ARE PROPERLY INSTALLED BEFORE PERFORMING ANY WORK WITHIN THE AOA.
- CONTRACTOR IS RESPONSIBLE THAT ALL AIRFIELD LIGHTING, BEACON, AND OTHER NAVAIDS ARE SHUT OFF AND THE PILOT CONTROL LIGHTING IS NOT IN OPERATION DURING RUNWAY CLOSURE.
- RUNWAY CLOSURE MARKERS WILL BE PLACED A MIN. 20 FT FROM RUNWAY PAVEMENT END FOR SHORT PERIODS OF TIME TO ALLOW FOR WORK ON THE END OF THE RUNWAY.
- UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL RETURN THE RUNWAY CLOSURE MARKERS TO THE OWNER AND STORE THEM IN THE OWNER'S STORAGE FACILITY.
- WHILE RUNWAY CLOSURE MARKERS ARE PLACED OUTBOARD RUNWAY PAVEMENT, CONTRACTOR SHALL ENSURE THE GRASS IS NOT DESTROYED. ANY GRASS DESTROYED SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

REV.	DATE	DESCRIPTION	BY

**SAFETY NOTES**

FRANKFORD, KY  
 CAPITAL CITY AIRPORT  
 REHABILITATION PROJECT

JOB NO. - 16151131  
 DATE: FEB. 5, 2019  
 DESIGNED BY: MDU  
 DRAWN BY: ALT

START DATE: 02/20/19  
 END DATE: 02/20/19  
 DRAWING NUMBER

**G-202**

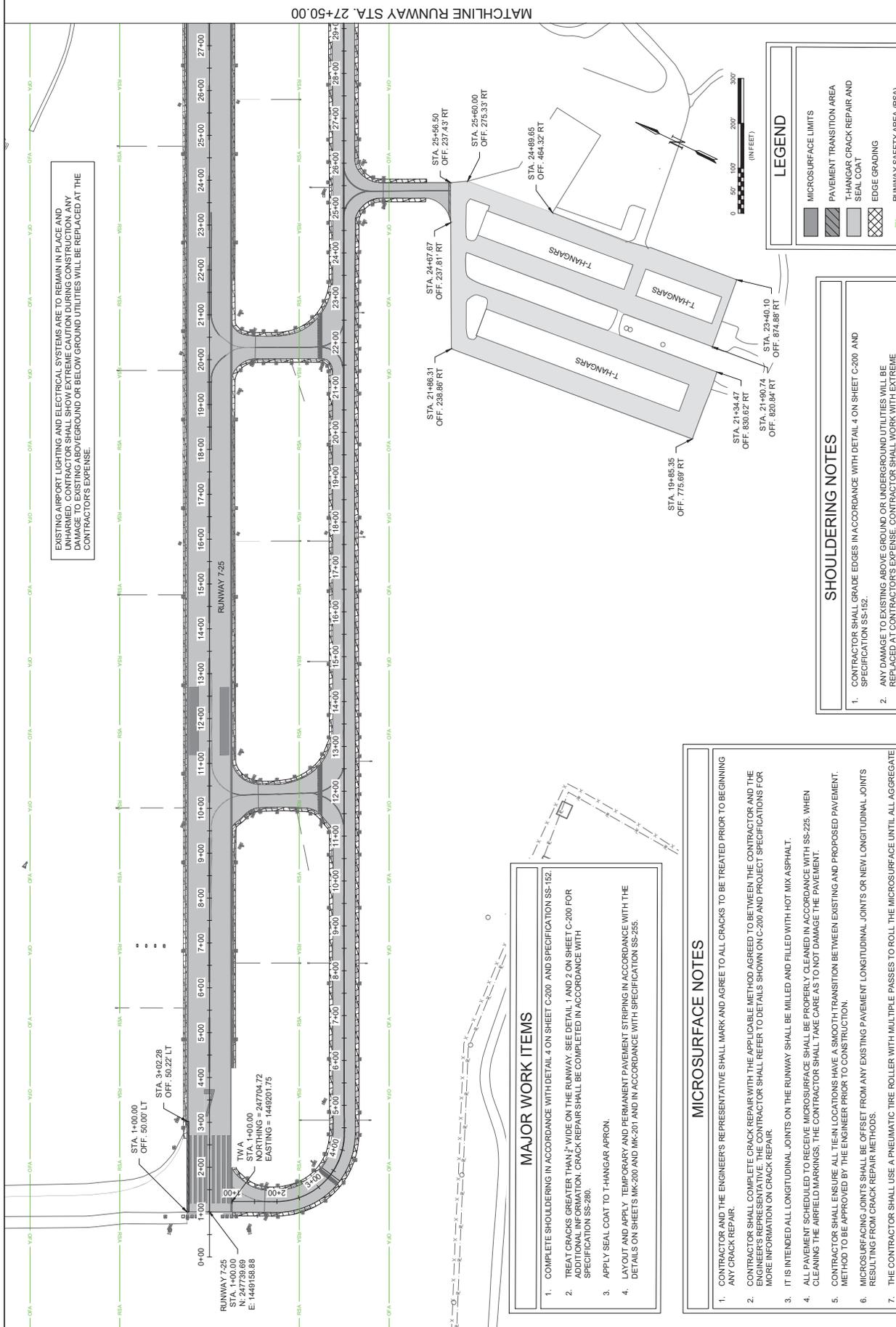






REV.	DATE	DESCRIPTION

REHABILITATION PAYMENT PROJECT
CAPITAL CITY AIRPORT
FRANKFORT, KY
PAVEMENT REHABILITATION PLAN 1
JOB NO.: 16151131
DATE: FEB. 5, 2019
DESIGNED BY: MDU
DRAWN BY: ALT
DATE PLOTTED ON: 02/27/2019 10:58:00 AM
SCALE: 1"=40'
DRAWING NUMBER
C-100



### LEGEND

- MICROSURFACE LIMITS
- PAVEMENT TRANSITION AREA
- T-HANGAR CRACK REPAIR AND SEAL COAT
- EDGE GRADING
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBJECT FREE AREA (OFA)

### SHOULDERING NOTES

- CONTRACTOR SHALL GRADE EDGES IN ACCORDANCE WITH DETAIL 4 ON SHEET C-200 AND SPECIFICATION SS-102.
- ANY DAMAGE TO EXISTING ABOVE GROUND OR UNDERGROUND UTILITIES WILL BE REPLACED AT CONTRACTOR'S EXPENSE. CONTRACTOR SHALL WORK WITH EXTREME CAUTION AS THERE IS A COUNTERPOISE WIRE LOCATED APPROXIMATELY 8' BELOW EXISTING SURFACE BETWEEN THE PAVEMENT EDGE AND THE LIGHTS.

### MAJOR WORK ITEMS

- COMPLETE SHOULDERING IN ACCORDANCE WITH DETAIL 4 ON SHEET C-200 AND SPECIFICATION SS-102.
- TREAT CRACKS GREATER THAN 1/2" WIDE ON THE RUNWAY. SEE DETAIL 1 AND 2 ON SHEET C-200 FOR ADDITIONAL INFORMATION. CRACK REPAIR SHALL BE COMPLETED IN ACCORDANCE WITH SPECIFICATION SS-280.
- APPLY SEAL COAT TO T-HANGAR APRON.
- LAYOUT AND APPLY TEMPORARY AND PERMANENT PAVEMENT STRIPING IN ACCORDANCE WITH THE DETAILS ON SHEETS MRC-200 AND MKC-201 AND IN ACCORDANCE WITH SPECIFICATION SS-265.

### MICROSURFACE NOTES

- CONTRACTOR AND THE ENGINEER'S REPRESENTATIVE SHALL MARK AND AGREE TO ALL CRACKS TO BE TREATED PRIOR TO BEGINNING ANY CRACK REPAIR.
- CONTRACTOR SHALL COMPLETE CRACK REPAIR WITH THE APPLICABLE METHOD AGREED TO BETWEEN THE CONTRACTOR AND THE ENGINEER'S REPRESENTATIVE. THE CONTRACTOR SHALL REFER TO DETAILS SHOWN ON C-200 AND PROJECT SPECIFICATIONS FOR MORE INFORMATION ON CRACK REPAIR.
- IT IS INTENDED ALL LONGITUDINAL JOINTS ON THE RUNWAY SHALL BE MILLED AND FILLED WITH HOT MIX ASPHALT.
- ALL PAVEMENT SCHEDULED TO RECEIVE MICROSURFACE SHALL BE PROPERLY CLEANED IN ACCORDANCE WITH SS-225. WHEN CLEANING THE AIRFIELD MARKINGS, THE CONTRACTOR SHALL TAKE CARE AS TO NOT DAMAGE THE PAVEMENT.
- CONTRACTOR SHALL ENSURE ALL TIE-IN LOCATIONS HAVE A SMOOTH TRANSITION BETWEEN EXISTING AND PROPOSED PAVEMENT. METHOD TO BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
- MICROSURFACING JOINTS SHALL BE OFFSET FROM ANY EXISTING PAVEMENT LONGITUDINAL JOINTS OR NEW LONGITUDINAL JOINTS RESULTING FROM CRACK REPAIR METHODS.
- THE CONTRACTOR SHALL USE A PNEUMATIC TIRE ROLLER WITH MULTIPLE PASSES TO ROLL THE MICROSURFACE UNTIL ALL AGGREGATE IS NOTICEABLY EMBEDDED IN THE EMULSION AND TO THE SATISFACTION OF THE ENGINEER.

File: L:\2019\16151131 - Capital City Air Rwy and TWA Overly Drawings\F12-C100-PA.dwg Plot Date: 2/27/2019 9:48 AM Plotter used: AutoCAD PDF (General Documentation).pcx



**GARVER**  
INCORPORATED  
1988  
100 EAST MAIN STREET  
FRANKFORT, KY 40601  
TEL: 502/223-7700  
WWW.GARVERKY.COM

STATE OF KENTUCKY  
JULY 1998  
REGISTERED PROFESSIONAL ENGINEER  
NO. 10000

REV.	DATE	DESCRIPTION

DATE PLOTTED: 02/07/2019

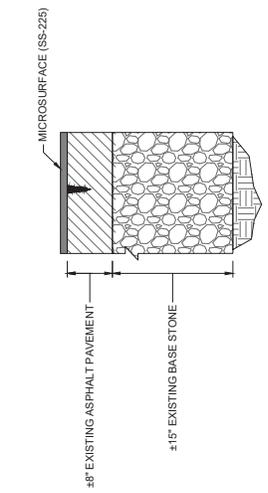
REHABILITATION PROJECT  
CAPITAL CITY AIRPORT  
FRANKFORT, KY

PAVEMENT REHABILITATION DETAILS

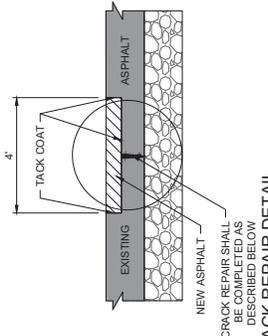
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DATE: FEB. 5, 2019  
DESIGNED BY: MDU  
DRAWN BY: ALT

START DATE: 02/07/2019  
END DATE: 02/07/2019

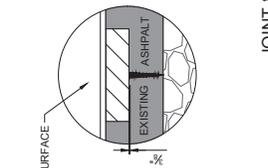
DRAWING NUMBER  
**C-200**



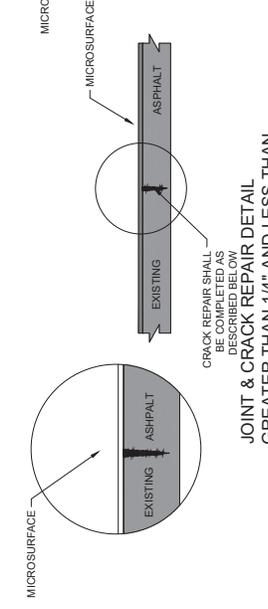
3 MICROSURFACE PAVEMENT SECTION  
SCALE: NONE



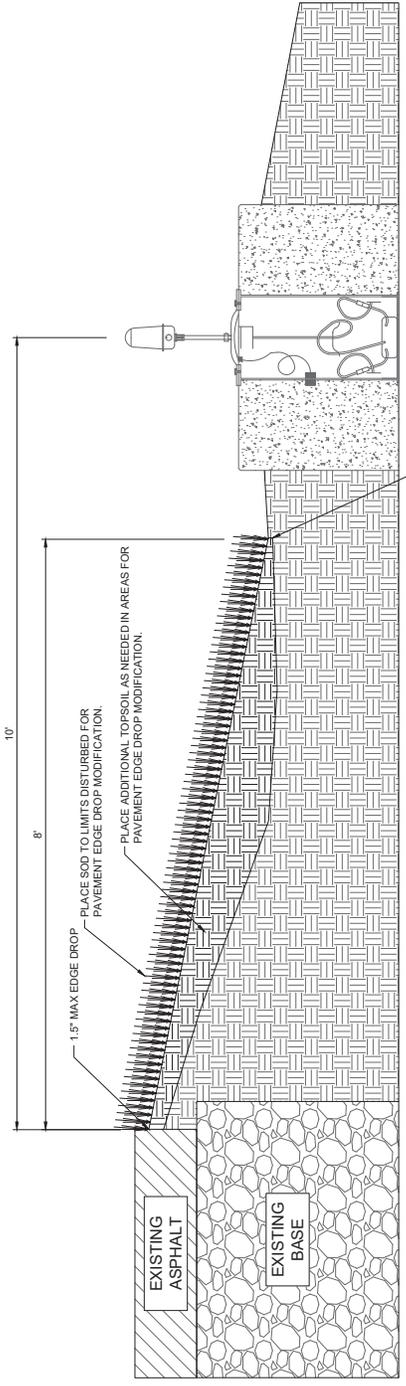
2 JOINT & CRACK REPAIR DETAIL  
GREATER THAN 1" (TYPE 2 METHOD)  
SCALE: NONE



1 JOINT & CRACK REPAIR DETAIL  
GREATER THAN 1/4" AND LESS THAN OR EQUAL TO 1" (TYPE 1 METHOD)  
SCALE: NONE



- NOTES:
- CONTRACTOR TO VERIFY WITH ENGINEER CRACKS THAT SHALL BE REPAIRED. PAYMENT WILL NOT BE MADE FOR CRACKS REPAIRED OUTSIDE OF THE SCOPE OF WORK, OR WITHOUT THE DIRECTION OF THE ENGINEER.
  - CLEAN CRACK WITH A HOT AIR LANCE, APPLY SOIL STERILANT, AND REPAIR WITH APPROVED CRACK SEALANT MATERIAL. THE CRACKS SHALL BE CLEAN AND DRY PRIOR TO PLACING ANY CRACK SEALANT MATERIAL.
  - INSTALL SEALANT IN CRACKS UNTIL FULL AND FLUSH WITH PAVEMENT SURFACE. OVERBRAND WILL BE ALLOWED BUT SHALL NOT EXCEED 2 INCHES IN WIDTH (1" EITHER SIDE OF CRACK). MAXIMUM ALLOWABLE OVERBRAND IS 3/4" THICKNESS.
  - MEASUREMENT AND PAYMENT FOR CRACK REPAIR SHALL BE MADE IN ACCORDANCE WITH ITEM SS-280.
  - CONTRACTOR TO VERIFY WITH ENGINEER CRACKS THAT SHALL BE REPAIRED. PAYMENT WILL NOT BE MADE FOR CRACK REPAIR MADE OUTSIDE OF THE SCOPE OF WORK, OR WITHOUT THE DIRECTION OF THE ENGINEER. IT IS INTENDED ALL LONGITUDINAL JOINTS ON THE RUNWAY SHALL RECEIVE THIS CRACK REPAIR TREATMENT.
  - FOR PAVEMENT SECTIONS LESS THAN 5" THICK FULL DEPTH ASPHALT REMOVAL WILL BE REQUIRED.
  - SAWOUT OR MILL OUT AN AREA 4-FT WIDE AT A MINIMUM OF 2" DEEP (MAX. 3"). EXTEND THE SAWOUT OR MILL OUT THE AREA A MINIMUM OF 12" BEYOND THE DISTRESSED PAVEMENT AREA.
  - AFTER REMOVING THE ASPHALT, ANY RESIDUAL CRACKS SHALL BE TREATED WITH CRACK SEALANT AS DIRECTED BY THE ENGINEER. CLEAN CRACK WITH A HOT AIR LANCE, APPLY SOIL STERILANT, AND CRACK SEALANT.
  - AS REQUIRED, INSTALL SEALANT IN CRACKS LEAVING APPROXIMATELY 3/8" LOW IN THE CRACK WITH NO SEALANT ON THE PAVEMENT SURFACE. NO OVERBRAND WILL BE ALLOWED. BOTTOM AND SIDES OF THE REPAIR AREA.
  - INSTALL NEW ASPHALT TO FILL THE PATCH AREA. TACK COAT SHALL BE APPLIED TO THE BOTTOM AND SIDES OF THE REPAIR AREA.
  - MEASUREMENT AND PAYMENT FOR CRACK REPAIR SHALL BE MADE IN ACCORDANCE WITH ITEM (SS-280)



4 SHOULDER DETAIL  
SCALE: NONE

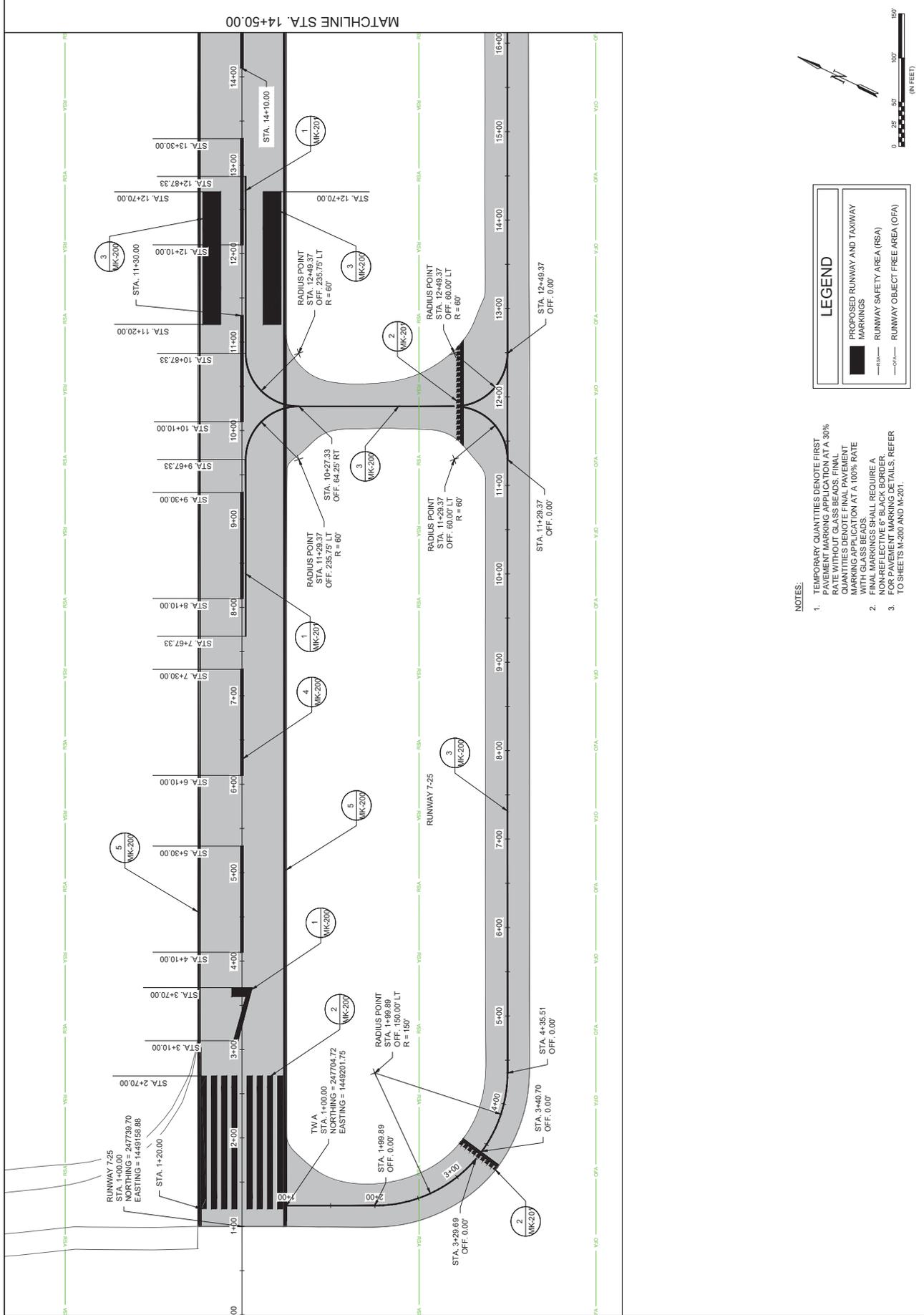
- NOTES:
- TOPSOIL SHALL CONFORM TO KYTC STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION 627.10 "TOPSOIL".



REV.	DATE	DESCRIPTION	BY

DISTALLY REVISION: 8/07/2019

REHABILITATION PAYMENT PROJECT  
 CAPITAL CITY AIRPORT  
 FRANKFORT, KY  
 MARKING LAYOUT  
 PLAN 1  
 JOB NO.: 16151131  
 DATE: FEB. 5, 2019  
 DESIGNED BY: MDU  
 DRAWN BY: ALT  
 DRAWING NUMBER  
**MK-100**



MATCHLINE STA. 14+50.00

**LEGEND**

- PROPOSED RUNWAY AND TAXIWAY MARKINGS
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBJECT FREE AREA (OFA)

- NOTES:**
- TEMPORARY QUANTITIES DENOTE FIRST PAVEMENT MARKING APPLICATION AT A 30% RATE WITHOUT GLASS BEADS. FINAL QUANTITIES DENOTE FINAL PAVEMENT MARKING APPLICATION AT A 100% RATE WITH GLASS BEADS.
  - FINAL MARKINGS SHALL REQUIRE A NON-REFLECTIVE 6" BLACK BORDER. FOR PAVEMENT MARKING DETAILS, REFER TO SHEETS M-200 AND M-201.



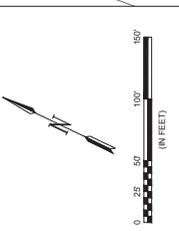
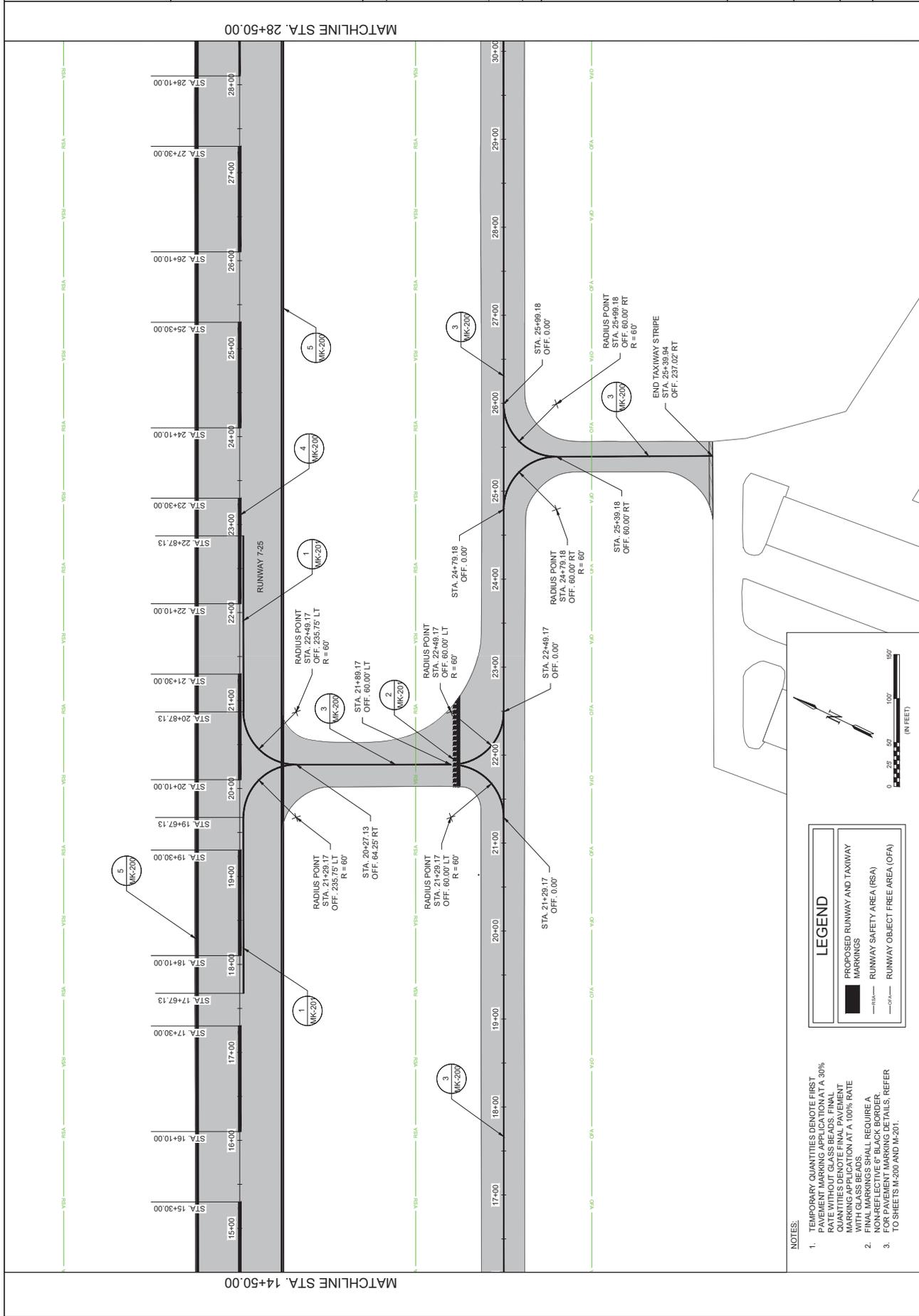
REV.	DATE	DESCRIPTION	BY

DISTALLY SIGNED: 6/07/2019

REHABILITATION PROJECT  
 CAPITAL CITY AIRPORT  
 FRANKFORT, KY

JOB NO.: 16151131  
 DATE: FEB. 5, 2019  
 DESIGNED BY: MDU  
 DRAWN BY: ALT

START DATE: 01/20/19  
 END DATE: 02/05/19  
 DRAWING NUMBER  
**MK-101**



**LEGEND**

	PROPOSED RUNWAY AND TAXIWAY MARKINGS
	RUNWAY SAFETY AREA (RSA)
	RUNWAY OBJECT FREE AREA (OFA)

- NOTES:**
- TEMPORARY QUANTITIES DENOTE FIRST PAVEMENT MARKING APPLICATION AT A 30% RATE WITHOUT GLASS BEADS. FINAL QUANTITIES DENOTE FINAL PAVEMENT APPLICATION AT A 100% RATE WITH GLASS BEADS.
  - FINAL MARKINGS SHALL REQUIRE A NON-REFLECTIVE 6" BLACK BORDER.
  - FOR PAVEMENT MARKING DETAILS, REFER TO SHEETS M-200 AND M-201.

MATCHLINE STA. 14+50.00

MATCHLINE STA. 28+50.00

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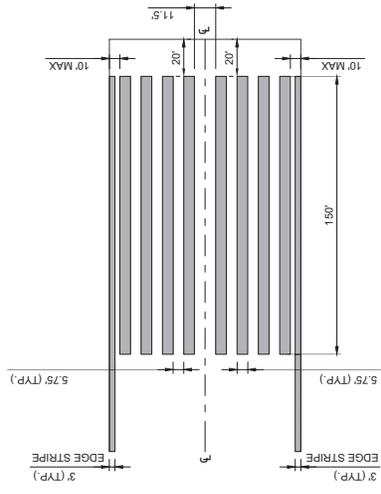






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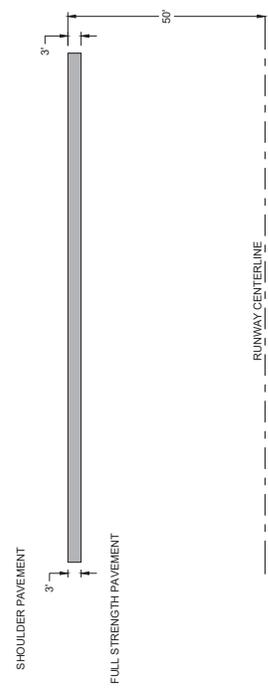
FRANKFORD, KY  
 CAPITAL CITY AIRPORT  
 AIRFIELD PAVEMENT  
 REHABILITATION PROJECT  
 MARKING DETAILS 1  
 JOB NO.: 16151131  
 DATE: FEB. 5, 2019  
 DESIGNED BY: MDU  
 DRAWN BY: ALT  
 STATE OF KENTUCKY  
 PROFESSIONAL ENGINEER  
 MARK A. HARKNESS  
 NO. 19003  
 EXPIRES 12/31/2024  
 DRAWING NUMBER  
**MK-200**



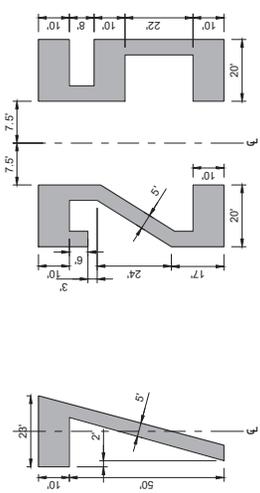
**2 RUNWAY THRESHOLD MARKINGS**  
 SCALE: NONE  
 NOTE:  
 1. ALL MARKINGS ARE WHITE.  
 2. BLACK OUTLINE SHALL BE PAINTED ALONG ALL STRIPE EDGES AND SHALL BE 6" (BLACK OUTLINE NOT SHOWN FOR CLARITY OF MARKING DIMENSIONS).



**5 RUNWAY CENTERLINE MARKINGS**  
 SCALE: NONE  
 NOTE:  
 1. ALL MARKINGS ARE WHITE.  
 2. BLACK OUTLINE SHALL BE PAINTED ALONG ALL STRIPE EDGES AND SHALL BE 6" (BLACK OUTLINE NOT SHOWN FOR CLARITY OF MARKING DIMENSIONS).

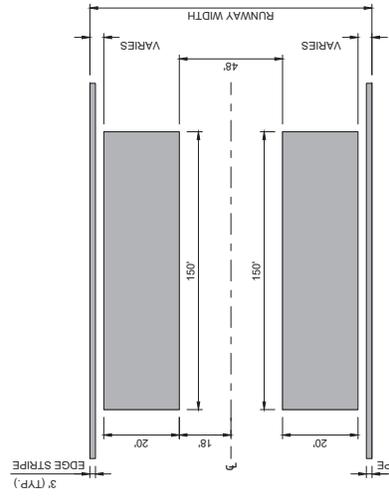


**5 CONTINUOUS RUNWAY EDGE MARKINGS**  
 SCALE: NONE  
 NOTE:  
 1. ALL RUNWAY EDGE MARKINGS SHALL BE REFLECTIVE WHITE WITH A 6" NON-REFLECTIVE BLACK OUTLINE (BLACK OUTLINE NOT SHOWN FOR CLARITY OF MARKING DIMENSIONS).



MARKING AREA = 500 SF    MARKING AREA = 646 SF    MARKING AREA = 750 SF  
 OUTLINE AREA = 35 SF    OUTLINE AREA = 107 SF    OUTLINE AREA = 111 SF

**1 RUNWAY DESIGNATION NUMERALS AND LETTERS**  
 SCALE: NONE  
 NOTES:  
 1. ALL MARKINGS ARE REFLECTIVE WHITE WITH NON-REFLECTIVE BLACK OUTLINE (BLACK OUTLINE NOT SHOWN FOR CLARITY OF MARKING DIMENSIONS).  
 2. RUNWAY DESIGNATION NUMERALS TO HAVE OUTER EDGES CENTERED ON RUNWAY CENTERLINE SPACED 15-FT APART.  
 3. ALL VERTICAL STROKES ARE 5FT IN WIDTH, UNLESS OTHERWISE NOTED.



**3 RUNWAY AIMING POINT MARKINGS**  
 SCALE: NONE  
 NOTE:  
 1. ALL MARKINGS ARE WHITE.  
 2. BLACK OUTLINE SHALL BE PAINTED ALONG ALL STRIPE EDGES AND SHALL BE 6" (BLACK OUTLINE NOT SHOWN FOR CLARITY OF MARKING DIMENSIONS).

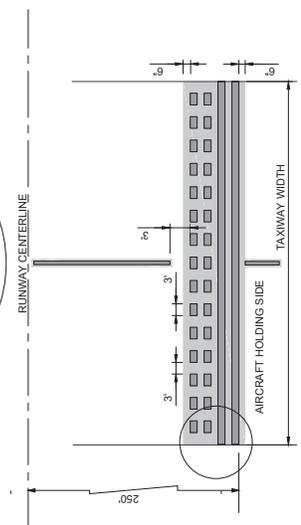
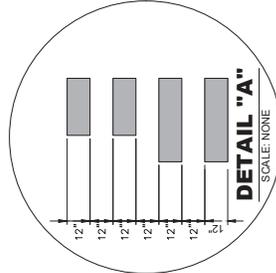


REV.	DATE	DESCRIPTION	BY

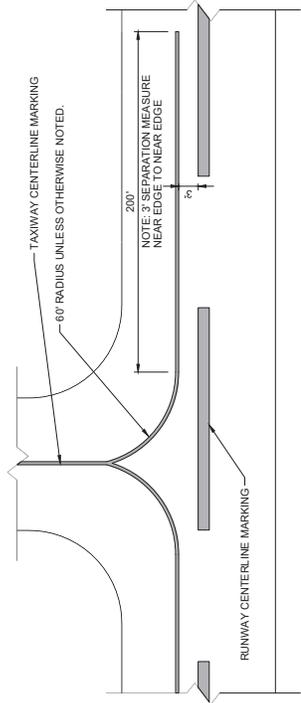
DISTALLY REVISION: 02/07/2019

FRANKFORD, KY  
 CAPITAL CITY AIRPORT  
 REHABILITATION PROJECT  
 AIRFIELD PAVEMENT

MARKING DETAIL \$2  
 JOB NO.: 16151131  
 DATE: FEB. 5, 2019  
 DESIGNED BY: MDU  
 DRAWN BY: ALT  
 START DATE: 02/05/2019  
 END DATE: 02/05/2019  
 DRAWING NUMBER  
**MK-201**



**NOTE:**  
 1. ALL MARKINGS SHALL BE REFLECTIVE YELLOW WITH A 6" NON-REFLECTIVE BLACK OUTLINE (BLACK OUTLINE NOT SHOWN FOR CLARITY OF MARKING DIMENSIONS).



**NOTES:**  
 1. 3' OF SPACING FROM EDGE OF TAXIWAY CENTERLINE TO EDGE OF RUNWAY CENTERLINE MARKINGS.  
 2. ALL TAXIWAY LEAD ON MARKINGS SHALL BE REFLECTIVE YELLOW WITH A 6" NON-REFLECTIVE BLACK OUTLINE (BLACK OUTLINE NOT SHOWN FOR CLARITY OF MARKING DIMENSIONS).



**NOTE:**  
 1. ALL TAXIWAY MARKINGS SHALL BE REFLECTIVE YELLOW WITH A 6" NON-REFLECTIVE BLACK OUTLINE (BLACK OUTLINE NOT SHOWN FOR CLARITY OF MARKING DIMENSIONS).

# SPECIFICATIONS AND CONTRACT DOCUMENTS



CAPITAL CITY AIRPORT (FFT)  
FRANKFORT, KENTUCKY

## AIRFIELD PAVEMENT REHABILITATION PROJECT

KDA PROJECT NO. KY17-84

Prepared For:

**Kentucky Transportation Cabinet**  
**Department of Aviation**

February 5, 2019



000001 – CERTIFICATIONS

<b>AIRFIELD PAVEMENT REHABILITATION PROJECT</b> <b>GARVER PROJECT NO. 16151131</b> <b>KDA PROJECT NO. KY17-84</b>	
I hereby certify that the applicable portions of this project plans and specifications were prepared by me or under my direct supervision and that I am a duly Licensed Engineer under the laws of the State of Kentucky.	
<b>SEAL AND SIGNATURE</b>	<b>APPLICABLE DIVISION OR PROJECT RESPONSIBILITY</b>
Mark Upchurch, P.E.  Digitally Signed: February 5, 2019	Plans and Specifications

<b>GARVER, LLC CERTIFICATE OF AUTHORIZATION:</b>
<b>KY ENGINEERING PERMIT NO. 1944</b>
Expiration Date: December 31, 2019

**CAPITAL CITY AIRPORT**  
**AIRFIELD PAVEMENT REHABILITATION**

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<sup>1</sup> Website for KYTC Specifications:

<http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx>

<sup>2</sup> Mobilization included in SS-120-1 Site Preparation

12/21/2018

AC 150/5370-10H

**GENERAL PROVISIONS****SECTION 10 DEFINITION OF TERMS**

When the following terms are used in these specifications, in the contract, or in any documents or other instruments pertaining to construction where these specifications govern, the intent and meaning shall be defined as follows:

<b>Paragraph Number</b>	<b>Term</b>	<b>Definition</b>
<b>10-01</b>	<b>AASHTO</b>	The American Association of State Highway and Transportation Officials.
<b>10-02</b>	<b>Access Road</b>	The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public roadway.
<b>10-03</b>	<b>Advertisement</b>	A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.
<b>10-04</b>	<b>Airport</b>	Airport means an area of land or water which is used or intended to be used for the landing and takeoff of aircraft; an appurtenant area used or intended to be used for airport buildings or other airport facilities or rights of way; airport buildings and facilities located in any of these areas, and a heliport.
<b>10-05</b>	<b>Airport Improvement Program (AIP)</b>	A grant-in-aid program, administered by the Federal Aviation Administration (FAA).
<b>10-06</b>	<b>Air Operations Area (AOA)</b>	The term air operations area (AOA) shall mean any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operation area shall include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway, or apron.
<b>10-07</b>	<b>Apron</b>	Area where aircraft are parked, unloaded or loaded, fueled and/or serviced.
<b>10-08</b>	<b>ASTM International (ASTM)</b>	Formerly known as the American Society for Testing and Materials (ASTM).
<b>10-09</b>	<b>Award</b>	The Owner's notice to the successful bidder of the acceptance of the submitted bid.
<b>10-10</b>	<b>Bidder</b>	Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a proposal for the work contemplated.
<b>10-11</b>	<b>Building Area</b>	An area on the airport to be used, considered, or intended to be used for airport buildings or other airport facilities or rights-of-way together with all airport buildings and facilities located thereon.
<b>10-12</b>	<b>Calendar Day</b>	Every day shown on the calendar.

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Paragraph Number	Term	Definition
10-13	<b>Certificate of Analysis (COA)</b>	The COA is the manufacturer's Certificate of Compliance (COC) including all applicable test results required by the specifications.
10-14	<b>Certificate of Compliance (COC)</b>	The manufacturer's certification stating that materials or assemblies furnished fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer's authorized representative.
10-15	<b>Change Order</b>	A written order to the Contractor covering changes in the plans, specifications, or proposal quantities and establishing the basis of payment and contract time adjustment, if any, for work within the scope of the contract and necessary to complete the project.
10-16	<b>Contract</b>	<p>A written agreement between the Owner and the Contractor that establishes the obligations of the parties including but not limited to performance of work, furnishing of labor, equipment and materials and the basis of payment.</p> <p>The awarded contract includes but may not be limited to: Advertisement, Contract form, Proposal, Performance bond, payment bond, General provisions, certifications and representations, Technical Specifications, Plans, Supplemental Provisions, standards incorporated by reference and issued addenda.</p>
10-17	<b>Contract Item (Pay Item)</b>	A specific unit of work for which a price is provided in the contract.
10-18	<b>Contract Time</b>	The number of calendar days or working days, stated in the proposal, allowed for completion of the contract, including authorized time extensions. If a calendar date of completion is stated in the proposal, in lieu of a number of calendar or working days, the contract shall be completed by that date.
10-19	<b>Contractor</b>	The individual, partnership, firm, or corporation primarily liable for the acceptable performance of the work contracted and for the payment of all legal debts pertaining to the work who acts directly or through lawful agents or employees to complete the contract work.
10-20	<b>Contractors Quality Control (QC) Facilities</b>	The Contractor's QC facilities in accordance with the Contractor Quality Control Program (CQCP).
10-21	<b>Contractor Quality Control Program (CQCP)</b>	Details the methods and procedures that will be taken to assure that all materials and completed construction required by the contract conform to contract plans, technical specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors.
10-22	<b>Control Strip</b>	A demonstration by the Contractor that the materials, equipment, and construction processes results in a product meeting the requirements of the specification.

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Paragraph Number	Term	Definition
10-23	<b>Construction Safety and Phasing Plan (CSPP)</b>	The overall plan for safety and phasing of a construction project developed by the airport operator, or developed by the airport operator's consultant and approved by the airport operator. It is included in the invitation for bids and becomes part of the project specifications.
10-24	<b>Drainage System</b>	The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.
10-25	<b>Engineer</b>	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for engineering, inspection, and/or observation of the contract work and acting directly or through an authorized representative.
10-26	<b>Equipment</b>	All machinery, together with the necessary supplies for upkeep and maintenance; and all tools and apparatus necessary for the proper construction and acceptable completion of the work.
10-27	<b>Extra Work</b>	An item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Owner's Engineer or Resident Project Representative (RPR) to be necessary to complete the work within the intended scope of the contract as previously modified.
10-28	<b>FAA</b>	The Federal Aviation Administration. When used to designate a person, FAA shall mean the Administrator or their duly authorized representative.
10-29	<b>Federal Specifications</b>	The federal specifications and standards, commercial item descriptions, and supplements, amendments, and indices prepared and issued by the General Services Administration.
10-30	<b>Force Account</b>	<p><b>a.</b> Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis.</p> <p><b>b.</b> Owner Force Account - Work performed for the project by the Owner's employees.</p>
10-31	<b>Intention of Terms</b>	Whenever, in these specifications or on the plans, the words "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer and/or Resident Project Representative (RPR) is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer and/or RPR, subject in each case to the final determination of the Owner.

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Paragraph Number	Term	Definition
		Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.
10-32	<b>Lighting</b>	A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.
10-33	<b>Major and Minor Contract Items</b>	A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20% of the total amount of the award contract. All other items shall be considered minor contract items.
10-34	<b>Materials</b>	Any substance specified for use in the construction of the contract work.
10-35	<b>Modification of Standards (MOS)</b>	Any deviation from standard specifications applicable to material and construction methods in accordance with FAA Order 5300.1.
10-36	<b>Notice to Proceed (NTP)</b>	A written notice to the Contractor to begin the actual contract work on a previously agreed to date. If applicable, the Notice to Proceed shall state the date on which the contract time begins.
10-37	<b>Owner</b>	The term "Owner" shall mean the party of the first part or the contracting agency signatory to the contract. Where the term "Owner" is capitalized in this document, it shall mean airport Sponsor only. The Owner for this project is Kentucky Transportation Cabinet.
10-38	<b>Passenger Facility Charge (PFC)</b>	Per 14 Code of Federal Regulations (CFR) Part 158 and 49 United States Code (USC) § 40117, a PFC is a charge imposed by a public agency on passengers enplaned at a commercial service airport it controls.
10-39	<b>Pavement Structure</b>	The combined surface course, base course(s), and subbase course(s), if any, considered as a single unit.
10-40	<b>Payment bond</b>	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will pay in full all bills and accounts for materials and labor used in the construction of the work.
10-41	<b>Performance bond</b>	The approved form of security furnished by the Contractor and their own surety as a guaranty that the Contractor will complete the work in accordance with the terms of the contract.

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Paragraph Number	Term	Definition
10-42	Plans	The official drawings or exact reproductions which show the location, character, dimensions and details of the airport and the work to be done and which are to be considered as a part of the contract, supplementary to the specifications. Plans may also be referred to as 'contract drawings.'
10-43	Project	The agreed scope of work for accomplishing specific airport development with respect to a particular airport.
10-44	Proposal	The written offer of the bidder (when submitted on the approved proposal form) to perform the contemplated work and furnish the necessary materials in accordance with the provisions of the plans and specifications.
10-45	Proposal guaranty	The security furnished with a proposal to guarantee that the bidder will enter into a contract if their own proposal is accepted by the Owner.
10-46	Quality Assurance (QA)	Owner's responsibility to assure that construction work completed complies with specifications for payment.
10-47	Quality Control (QC)	Contractor's responsibility to control material(s) and construction processes to complete construction in accordance with project specifications.
10-48	Quality Assurance (QA) Inspector	An authorized representative of the Engineer and/or Resident Project Representative (RPR) assigned to make all necessary inspections, observations, tests, and/or observation of tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.
10-49	Quality Assurance (QA) Laboratory	The official quality assurance testing laboratories of the Owner or such other laboratories as may be designated by the Engineer or RPR. May also be referred to as Engineer's, Owner's, or QA Laboratory.
10-50	Resident Project Representative (RPR)	The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for all necessary inspections, observations, tests, and/or observations of tests of the contract work performed or being performed, or of the materials furnished or being furnished by the Contractor, and acting directly or through an authorized representative.
10-51	Runway	The area on the airport prepared for the landing and takeoff of aircraft.
10-52	Runway Safety Area (RSA)	A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to aircraft. See the construction safety and phasing plan (CSPP) for limits of the RSA.
10-53	Safety Plan Compliance Document (SPCD)	Details how the Contractor will comply with the CSPP.

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Paragraph Number	Term	Definition
10-54	Specifications	A part of the contract containing the written directions and requirements for completing the contract work. Standards for specifying materials or testing which are cited in the contract specifications by reference shall have the same force and effect as if included in the contract physically.
10-55	Sponsor	A Sponsor is defined in 49 USC § 47102(24) as a public agency that submits to the FAA for an AIP grant; or a private Owner of a public-use airport that submits to the FAA an application for an AIP grant for the airport.
10-56	Structures	Airport facilities such as bridges; culverts; catch basins, inlets, retaining walls, cribbing; storm and sanitary sewer lines; water lines; underdrains; electrical ducts, manholes, handholes, lighting fixtures and bases; transformers; navigational aids; buildings; vaults; and, other manmade features of the airport that may be encountered in the work and not otherwise classified herein.
10-57	Subgrade	The soil that forms the pavement foundation.
10-58	Superintendent	The Contractor's executive representative who is present on the work during progress, authorized to receive and fulfill instructions from the RPR, and who shall supervise and direct the construction.
10-59	Supplemental Agreement	A written agreement between the Contractor and the Owner that establishes the basis of payment and contract time adjustment, if any, for the work affected by the supplemental agreement. A supplemental agreement is required if: (1) in scope work would increase or decrease the total amount of the awarded contract by more than 25%; (2) in scope work would increase or decrease the total of any major contract item by more than 25%; (3) work that is not within the scope of the originally awarded contract; or (4) adding or deleting of a major contract item.
10-60	Surety	The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds that are furnished to the Owner by the Contractor.
10-61	Taxilane	A taxiway designed for low speed movement of aircraft between aircraft parking areas and terminal areas.
10-62	Taxiway	The portion of the air operations area of an airport that has been designated by competent airport authority for movement of aircraft to and from the airport's runways, aircraft parking areas, and terminal areas.
10-63	Taxiway/Taxilane Safety Area (TSA)	A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an aircraft. See the construction safety and phasing plan (CSPP) for limits of the TSA.

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Paragraph Number	Term	Definition
10-64	Work	The furnishing of all labor, materials, tools, equipment, and incidentals necessary or convenient to the Contractor's performance of all duties and obligations imposed by the contract, plans, and specifications.
10-65	Working day	A working day shall be any day other than a legal holiday, Saturday, or Sunday on which the normal working forces of the Contractor may proceed with regular work for at least six (6) hours toward completion of the contract. When work is suspended for causes beyond the Contractor's control, it will not be counted as a working day. Saturdays, Sundays and holidays on which the Contractor's forces engage in regular work will be considered as working days.
10-66	Owner Defined terms	See Construction Safety and Phasing Plan (CSPP) for any additional Owner defined terms.

**END OF SECTION 10**



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## SECTION 20 PROPOSAL REQUIREMENTS AND CONDITIONS

Unless modified herein, Section 20 Proposal Requirements and Conditions shall follow those listed in the KYTC Standard Specifications Section 102 "Bidding Requirements and Conditions"

~~20-01 Advertisement (Notice to Bidders). See project advertisement.~~

~~20-02 Qualification of bidders. Each bidder shall submit evidence of competency and evidence of financial responsibility to perform the work to the Owner at the time of bid opening.~~

~~Evidence of competency, unless otherwise specified, shall consist of statements covering the bidder's past experience on similar work, and a list of equipment and a list of key personnel that would be available for the work.~~

~~Each bidder shall furnish the Owner satisfactory evidence of their financial responsibility. Evidence of financial responsibility, unless otherwise specified, shall consist of a confidential statement or report of the bidder's financial resources and liabilities as of the last calendar year or the bidder's last fiscal year. Such statements or reports shall be certified by a public accountant. At the time of submitting such financial statements or reports, the bidder shall further certify whether their financial responsibility is approximately the same as stated or reported by the public accountant. If the bidder's financial responsibility has changed, the bidder shall qualify the public accountant's statement or report to reflect the bidder's true financial condition at the time such qualified statement or report is submitted to the Owner.~~

~~Unless otherwise specified, a bidder may submit evidence that they are prequalified with the State Highway Division and are on the current "bidder's list" of the state in which the proposed work is located. Evidence of State Highway Division prequalification may be submitted as evidence of financial responsibility in lieu of the certified statements or reports specified above.~~

~~20-03 Contents of proposal forms. The Owner's proposal forms state the location and description of the proposed construction; the place, date, and time of opening of the proposals; and the estimated quantities of the various items of work to be performed and materials to be furnished for which unit bid prices are asked. The proposal form states the time in which the work must be completed, and the amount of the proposal guaranty that must accompany the proposal. The Owner will accept only those Proposals properly executed on physical forms or electronic forms provided by the Owner. Bidder actions that may cause the Owner to deem a proposal irregular are given in paragraph 20-09 *Irregular proposals*.~~

A prebid conference is required on this project to discuss as a minimum, the following items: material requirements; submittals; Quality Control/Quality Assurance requirements; the construction safety and phasing plan including airport access and staging areas; and unique airfield paving construction requirements. *The prebid conference shall be held at the time and location specified in the memo released by the Kentucky Transportation Cabinet (KYTC).*

~~20-04 Issuance of proposal forms. The Owner reserves the right to refuse to issue a proposal form to a prospective bidder if the bidder is in default for any of the following reasons:~~

~~a. Failure to comply with any prequalification regulations of the Owner, if such regulations are cited, or otherwise included, in the proposal as a requirement for bidding.~~

~~b. Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts in force with the Owner at the time the Owner issues the proposal to a prospective bidder.~~

~~c. Documented record of Contractor default under previous contracts with the Owner.~~

~~d. Documented record of unsatisfactory work on previous contracts with the Owner.~~

~~20-05 Interpretation of estimated proposal quantities. An estimate of quantities of work to be done and materials to be furnished under these specifications is given in the proposal. It is the result of careful calculations and is believed to be correct. It is given only as a basis for comparison of proposals and the award of the contract. The Owner does not expressly, or by implication, agree that the actual quantities involved will correspond exactly therewith; nor shall the bidder plead misunderstanding or deception~~

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because of such estimates of quantities, or of the character, location, or other conditions pertaining to the work. Payment to the Contractor will be made only for the actual quantities of work performed or materials furnished in accordance with the plans and specifications. It is understood that the quantities may be increased or decreased as provided in the Section 40, paragraph 40-02, Alteration of Work and Quantities, without in any way invalidating the unit bid prices.

**20-06 Examination of plans, specifications, and site.** The bidder is expected to carefully examine the site of the proposed work, the proposal, plans, specifications, and contract forms. Bidders shall satisfy themselves to the character, quality, and quantities of work to be performed, materials to be furnished, and to the requirements of the proposed contract. The submission of a proposal shall be prima facie evidence that the bidder has made such examination and is satisfied to the conditions to be encountered in performing the work and the requirements of the proposed contract, plans, and specifications.

**20-07 Preparation of proposal.** ~~The bidder shall submit their proposal on the forms furnished by the Owner. All blank spaces in the proposal forms, unless explicitly stated otherwise, must be correctly filled in where indicated for each and every item for which a quantity is given. If so requested, the bidder shall state the price (written in ink or typed) both in words and numerals which they propose for each pay item furnished in the proposal. In case of conflict between words and numerals, the words, unless obviously incorrect, shall govern.~~

~~The bidder shall correctly sign the proposal in ink. If the proposal is made by an individual, their name and post office address must be shown. If made by a partnership, the name and post office address of each member of the partnership must be shown. If made by a corporation, the person signing the proposal shall give the name of the state where the corporation was chartered and the name, titles, and business address of the president, secretary, and the treasurer. Anyone signing a proposal as an agent shall file evidence of their authority to do so and that the signature is binding upon the firm or corporation.~~

**20-08 Responsive and responsible bidder.** A responsive bid conforms to all significant terms and conditions contained in the Owner's invitation for bid. It is the Owner's responsibility to decide if the exceptions taken by a bidder to the solicitation are material or not and the extent of deviation it is willing to accept.

A responsible bidder has the ability to perform successfully under the terms and conditions of a proposed procurement, as defined in 2 CFR § 200.318(h). This includes such matters as Contractor integrity, compliance with public policy, record of past performance, and financial and technical resources.

**20-09 Irregular proposals.** ~~Proposals shall be considered irregular for the following reasons:~~

~~a. If the proposal is on a form other than that furnished by the Owner, or if the Owner's form is altered, or if any part of the proposal form is detached.~~

~~b. If there are unauthorized additions, conditional or alternate pay items, or irregularities of any kind that make the proposal incomplete, indefinite, or otherwise ambiguous.~~

~~c. If the proposal does not contain a unit price for each pay item listed in the proposal, except in the case of authorized alternate pay items, for which the bidder is not required to furnish a unit price.~~

~~d. If the proposal contains unit prices that are obviously unbalanced.~~

~~e. If the proposal is not accompanied by the proposal guaranty specified by the Owner.~~

~~f. If the applicable Disadvantaged Business Enterprise information is incomplete.~~

~~The Owner reserves the right to reject any irregular proposal and the right to waive technicalities if such waiver is in the best interest of the Owner and conforms to local laws and ordinances pertaining to the letting of construction contracts.~~

**20-10 Bid guarantee.** ~~Each separate proposal shall be accompanied by a bid bond, certified check, or other specified acceptable collateral, in the amount specified in the proposal form. Such bond, check, or collateral, shall be made payable to the Owner.~~

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**20-11 Delivery of proposal.** See KYTC requirements.

**20-12 Withdrawal or revision of proposals.** ~~A bidder may withdraw or revise (by withdrawal of one proposal and submission of another) a proposal provided that the bidder's request for withdrawal is received by the Owner by email before the time specified for opening bids. Revised proposals must be received at the place specified in the advertisement before the time specified for opening all bids.~~

**20-13 Public opening of proposals.** ~~Proposals shall be opened, and read, publicly at the time and place specified in the advertisement. Bidders, their authorized agents, and other interested persons are invited to attend. Proposals that have been withdrawn (by written or telegraphic request) or received after the time specified for opening bids shall be returned to the bidder unopened.~~

**20-14 Disqualification of bidders.** ~~A bidder shall be considered disqualified for any of the following reasons:~~

~~a. Submitting more than one proposal from the same partnership, firm, or corporation under the same or different name.~~

~~b. Evidence of collusion among bidders. Bidders participating in such collusion shall be disqualified as bidders for any future work of the Owner until any such participating bidder has been reinstated by the Owner as a qualified bidder.~~

~~c. If the bidder is considered to be in "default" for any reason specified in paragraph 20-04, *Issuance of Proposal Forms*, of this section.~~

**20-15 Discrepancies and Omissions.** A Bidder who discovers discrepancies or omissions with the project bid documents shall immediately notify the Owner's Engineer of the matter. A bidder that has doubt as to the true meaning of a project requirement may submit to the Owner's Engineer a written request for interpretation no later than 7 days prior to bid opening.

Any interpretation of the project bid documents by the Owner's Engineer will be by written addendum issued by the Owner. The Owner will not consider any instructions, clarifications or interpretations of the bidding documents in any manner other than written addendum.

**END OF SECTION 20**

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### SECTION 30 AWARD AND EXECUTION OF CONTRACT

Unless modified herein, Section 30 Award and Execution of Contract shall follow those listed in the KYTC Standard Specifications Section 103 "Award and Execution of Contract."

~~**30-01 Consideration of proposals.** After the proposals are publicly opened and read, they will be compared on the basis of the summation of the products obtained by multiplying the estimated quantities shown in the proposal by the unit bid prices. If a bidder's proposal contains a discrepancy between unit bid prices written in words and unit bid prices written in numbers, the unit bid price written in words shall govern.~~

Until the award of a contract is made, the Owner reserves the right to reject a bidder's proposal for any of the following reasons:

~~a. If the proposal is irregular as specified in Section 20, paragraph 20-09, *Irregular Proposals*.~~

~~b. If the bidder is disqualified for any of the reasons specified Section 20, paragraph 20-14, *Disqualification of Bidders*.~~

In addition, until the award of a contract is made, the Owner reserves the right to reject any or all proposals, waive technicalities, if such waiver is in the best interest of the Owner and is in conformance with applicable state and local laws or regulations pertaining to the letting of construction contracts; advertise for new proposals; or proceed with the work otherwise. All such actions shall promote the Owner's best interests.

~~**30-02 Award of contract.** The award of a contract, if it is to be awarded, shall be made within [—] calendar days of the date specified for publicly opening proposals the time referenced in the Advertisement and the Proposal, unless otherwise specified herein.~~

If the Owner elects to proceed with an award of contract, the Owner will make award to the responsible bidder whose bid, conforming with all the material terms and conditions of the bid documents, is the lowest in price.

~~**30-03 Cancellation of award.** The Owner reserves the right to cancel the award without liability to the bidder, except return of proposal guaranty, at any time before a contract has been fully executed by all parties and is approved by the Owner in accordance with paragraph 30-07 *Approval of Contract*.~~

~~**30-04 Return of proposal guaranty.** All proposal guaranties, except those of the two lowest bidders, will be returned immediately after the Owner has made a comparison of bids as specified in the paragraph 30-01, *Consideration of Proposals*. Proposal guaranties of the two lowest bidders will be retained by the Owner until such time as an award is made, at which time, the unsuccessful bidder's proposal guaranty will be returned. The successful bidder's proposal guaranty will be returned as soon as the Owner receives the contract bonds as specified in paragraph 30-05, *Requirements of Contract Bonds*.~~

~~**30-05 Requirements of contract bonds.** At the time of the execution of the contract, the successful bidder shall furnish the Owner a surety bond or bonds that have been fully executed by the bidder and the surety guaranteeing the performance of the work and the payment of all legal debts that may be incurred by reason of the Contractor's performance of the work. The surety and the form of the bond or bonds shall be acceptable to the Owner. Unless otherwise specified in this subsection, the surety bond or bonds shall be in a sum equal to the full amount of the contract.~~

~~**30-06 Execution of contract.** The successful bidder shall sign (execute) the necessary agreements for entering into the contract and return the signed contract to the Owner, along with the fully executed surety bond or bonds specified in paragraph 30-05, *Requirements of Contract Bonds*, of this section, within the time specified in the proposal. 15 calendar days from the date mailed or otherwise delivered to the successful bidder.~~

~~**30-07 Approval of contract.** Upon receipt of the contract and contract bond or bonds that have been executed by the successful bidder, the Owner shall complete the execution of the contract in accordance with local laws or ordinances, and return the fully executed contract to the Contractor. Delivery of the fully executed contract to the Contractor shall constitute the Owner's approval to be bound by the successful bidder's proposal and the terms of the contract.~~

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~~**30-08 Failure to execute contract.** Failure of the successful bidder to execute the contract and furnish an acceptable surety bond or bonds within the period specified in paragraph 30-06, *Execution of Contract*, of this section shall be just cause for cancellation of the award and forfeiture of the proposal guaranty, not as a penalty, but as liquidated damages to the Owner.~~

**END OF SECTION 30**

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## SECTION 40 SCOPE OF WORK

Unless modified herein, Section 40 Scope of work shall follow those listed in the KYTC Standard Specifications Section 104 "Scope of Work."

**40-01 Intent of contract.** The intent of the contract is to provide for construction and completion, in every detail, of the work described. It is further intended that the Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work in accordance with the plans, specifications, and terms of the contract.

**40-02 Alteration of work and quantities.** The Owner reserves the right to make such changes in quantities and work as may be necessary or desirable to complete, in a satisfactory manner, the original intended work. Unless otherwise specified in the Contract, the Owner's Engineer or RPR shall be and is hereby authorized to make, in writing, such in-scope alterations in the work and variation of quantities as may be necessary to complete the work, provided such action does not represent a significant change in the character of the work.

For purpose of this section, a significant change in character of work means: any change that is outside the current contract scope of work; any change (increase or decrease) in the total contract cost by more than 25%; or any change in the total cost of a major contract item by more than 25%.

Work alterations and quantity variances that do not meet the definition of significant change in character of work shall not invalidate the contract nor release the surety. Contractor agrees to accept payment for such work alterations and quantity variances in accordance with Section 90, paragraph 90-03, *Compensation for Altered Quantities*.

Should the value of altered work or quantity variance meet the criteria for significant change in character of work, such altered work and quantity variance shall be covered by a supplemental agreement.

~~Supplemental agreements shall also require consent of the Contractor's surety and separate performance and payment bonds. If the Owner and the Contractor are unable to agree on a unit adjustment for any contract item that requires a supplemental agreement, the Owner reserves the right to terminate the contract with respect to the item and make other arrangements for its completion.~~

**40-03 Omitted items.** The Owner, the Owner's Engineer or the RPR may provide written notice to the Contractor to omit from the work any contract item that does not meet the definition of major contract item. Major contract items may be omitted by a supplemental agreement. Such omission of contract items shall not invalidate any other contract provision or requirement.

Should a contract item be omitted or otherwise ordered to be non-performed, the Contractor shall be paid for all work performed toward completion of such item prior to the date of the order to omit such item. Payment for work performed shall be in accordance with Section 90, paragraph 90-04, *Payment for Omitted Items*.

**40-04 Extra work.** Should acceptable completion of the contract require the Contractor to perform an item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, Owner may issue a Change Order to cover the necessary extra work. Change orders for extra work shall contain agreed unit prices for performing the change order work in accordance with the requirements specified in the order, and shall contain any adjustment to the contract time that, in the RPR's opinion, is necessary for completion of the extra work.

When determined by the RPR to be in the Owner's best interest, the RPR may order the Contractor to proceed with extra work as provided in Section 90, paragraph 90-05, *Payment for Extra Work*. Extra work that is necessary for acceptable completion of the project, but is not within the general scope of the work covered by the original contract shall be covered by a supplemental agreement as defined in Section 10, paragraph 10-59, *Supplemental Agreement*.

If extra work is essential to maintaining the project critical path, RPR may order the Contractor to commence the extra work under a Time and Material contract method. Once sufficient detail is available to establish

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the level of effort necessary for the extra work, the Owner shall initiate a change order or supplemental agreement to cover the extra work.

Any claim for payment of extra work that is not covered by written agreement (change order or supplemental agreement) shall be rejected by the Owner.

**40-05 Maintenance of traffic.** It is the explicit intention of the contract that the safety of aircraft, as well as the Contractor's equipment and personnel, is the most important consideration. The Contractor shall maintain traffic in the manner detailed in the Construction Safety and Phasing Plan (CSPP).

a. It is understood and agreed that the Contractor shall provide for the free and unobstructed movement of aircraft in the air operations areas (AOAs) of the airport with respect to their own operations and the operations of all subcontractors as specified in Section 80, paragraph 80-04, *Limitation of Operations*. It is further understood and agreed that the Contractor shall provide for the uninterrupted operation of visual and electronic signals (including power supplies thereto) used in the guidance of aircraft while operating to, from, and upon the airport as specified in Section 70, paragraph 70-15, *Contractor's Responsibility for Utility Service and Facilities of Others*.

b. With respect to their own operations and the operations of all subcontractors, the Contractor shall provide marking, lighting, and other acceptable means of identifying personnel, equipment, vehicles, storage areas, and any work area or condition that may be hazardous to the operation of aircraft, fire-rescue equipment, or maintenance vehicles at the airport in accordance with the construction safety and phasing plan (CSPP) and the safety plan compliance document (SPCD).

c. When the contract requires the maintenance of an existing road, street, or highway during the Contractor's performance of work that is otherwise provided for in the contract, plans, and specifications, the Contractor shall keep the road, street, or highway open to all traffic and shall provide maintenance as may be required to accommodate traffic. The Contractor, at their expense, shall be responsible for the repair to equal or better than preconstruction conditions of any damage caused by the Contractor's equipment and personnel. The Contractor shall furnish, erect, and maintain barricades, warning signs, flag person, and other traffic control devices in reasonable conformity with the Manual on Uniform Traffic Control Devices (MUTCD) (<http://mutcd.fhwa.dot.gov/>), unless otherwise specified. The Contractor shall also construct and maintain in a safe condition any temporary connections necessary for ingress to and egress from abutting property or intersecting roads, streets or highways.

**40-06 Removal of existing structures.** All existing structures encountered within the established lines, grades, or grading sections shall be removed by the Contractor, unless such existing structures are otherwise specified to be relocated, adjusted up or down, salvaged, abandoned in place, reused in the work or to remain in place. The cost of removing such existing structures shall not be measured or paid for directly, but shall be included in the various contract items.

Should the Contractor encounter an existing structure (above or below ground) in the work for which the disposition is not indicated on the plans, the Resident Project Representative (RPR) shall be notified prior to disturbing such structure. The disposition of existing structures so encountered shall be immediately determined by the RPR in accordance with the provisions of the contract.

Except as provided in Section 40, paragraph 40-07, *Rights in and Use of Materials Found in the Work*, it is intended that all existing materials or structures that may be encountered (within the lines, grades, or grading sections established for completion of the work) shall be used in the work as otherwise provided for in the contract and shall remain the property of the Owner when so used in the work.

~~**40-07 Rights in and use of materials found in the work.** Should the Contractor encounter any material such as (but not restricted to) sand, stone, gravel, slag, or concrete slabs within the established lines, grades, or grading sections, the use of which is intended by the terms of the contract to be embankment, the Contractor may at their own option either:~~

~~a. Use such material in another contract item, providing such use is approved by the RPR and is in conformance with the contract specifications applicable to such use; or,~~

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- ~~b. Remove such material from the site, upon written approval of the RPR; or~~
- ~~c. Use such material for the Contractor's own temporary construction on site; or,~~
- ~~d. Use such material as intended by the terms of the contract.~~

~~Should the Contractor wish to exercise option a., b., or c., the Contractor shall request the RPR's approval in advance of such use.~~

~~Should the RPR approve the Contractor's request to exercise option a., b., or c., the Contractor shall be paid for the excavation or removal of such material at the applicable contract price. The Contractor shall replace, at their expense, such removed or excavated material with an agreed equal volume of material that is acceptable for use in constructing embankment, backfills, or otherwise to the extent that such replacement material is needed to complete the contract work. The Contractor shall not be charged for use of such material used in the work or removed from the site.~~

~~Should the RPR approve the Contractor's exercise of option a., the Contractor shall be paid, at the applicable contract price, for furnishing and installing such material in accordance with requirements of the contract item in which the material is used.~~

~~It is understood and agreed that the Contractor shall make no claim for delays by reason of their own exercise of option a., b., or c.~~

~~The Contractor shall not excavate, remove, or otherwise disturb any material, structure, or part of a structure which is located outside the lines, grades, or grading sections established for the work, except where such excavation or removal is provided for in the contract, plans, or specifications.~~

**40-08 Final cleanup.** Upon completion of the work and before acceptance and final payment will be made, the Contractor shall remove from the site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, and stumps or portions of trees. The Contractor shall cut all brush and woods within the limits indicated and shall leave the site in a neat and presentable condition. Material cleared from the site and deposited on adjacent property will not be considered as having been disposed of satisfactorily, unless the Contractor has obtained the written permission of the property Owner.

**END OF SECTION 40**

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## SECTION 50 CONTROL OF WORK

Unless modified herein, Section 50 Control of Work Shall follow those listed in the KYTC Standard Specifications Section 105 "Control of Work"

**50-01 Authority of the Resident Project Representative (RPR).** The RPR has final authority regarding the interpretation of project specification requirements. The RPR shall determine acceptability of the quality of materials furnished, method of performance of work performed, and the manner and rate of performance of the work. The RPR does not have the authority to accept work that does not conform to specification requirements.

**50-02 Conformity with plans and specifications.** All work and all materials furnished shall be in reasonably close conformity with the lines, grades, grading sections, cross-sections, dimensions, material requirements, and testing requirements that are specified (including specified tolerances) in the contract, plans, or specifications.

If the RPR finds the materials furnished, work performed, or the finished product not within reasonably close conformity with the plans and specifications, but that the portion of the work affected will, in their opinion, result in a finished product having a level of safety, economy, durability, and workmanship acceptable to the Owner, the RPR will advise the Owner of their determination that the affected work be accepted and remain in place. The RPR will document the determination and recommend to the Owner a basis of acceptance that will provide for an adjustment in the contract price for the affected portion of the work. Changes in the contract price must be covered by contract change order or supplemental agreement as applicable.

If the RPR finds the materials furnished, work performed, or the finished product are not in reasonably close conformity with the plans and specifications and have resulted in an unacceptable finished product, the affected work or materials shall be removed and replaced or otherwise corrected by and at the expense of the Contractor in accordance with the RPR's written orders.

The term "reasonably close conformity" shall not be construed as waiving the Contractor's responsibility to complete the work in accordance with the contract, plans, and specifications. The term shall not be construed as waiving the RPR's responsibility to insist on strict compliance with the requirements of the contract, plans, and specifications during the Contractor's execution of the work, when, in the RPR's opinion, such compliance is essential to provide an acceptable finished portion of the work.

The term "reasonably close conformity" is also intended to provide the RPR with the authority, after consultation with the Sponsor and FAA, to use sound engineering judgment in their determinations to accept work that is not in strict conformity, but will provide a finished product equal to or better than that required by the requirements of the contract, plans and specifications.

The RPR will not be responsible for the Contractor's means, methods, techniques, sequences, or procedures of construction or the safety precautions incident thereto.

**50-03 Coordination of contract, plans, and specifications.** The contract, plans, specifications, and all referenced standards cited are essential parts of the contract requirements. If electronic files are provided and used on the project and there is a conflict between the electronic files and hard copy plans, the hard copy plans shall govern. A requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, calculated dimensions will govern over scaled dimensions; contract technical specifications shall govern over contract general provisions, plans, cited standards for materials or testing, and cited advisory circulars (ACs); contract general provisions shall govern over plans, cited standards for materials or testing, and cited ACs; plans shall govern over cited standards for materials or testing and cited ACs. If any paragraphs contained in the Special Provisions conflict with General Provisions or Technical Specifications, the Special Provisions shall govern.

From time to time, discrepancies within cited testing standards occur due to the timing of the change, edits, and/or replacement of the standards. If the Contractor discovers any apparent discrepancy within standard

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test methods, the Contractor shall immediately ask the RPR for an interpretation and decision, and such decision shall be final.

The Contractor shall not take advantage of any apparent error or omission on the plans or specifications. In the event the Contractor discovers any apparent error or discrepancy, Contractor shall immediately notify the Owner or the designated representative in writing requesting their written interpretation and decision.

**50-04 List of Special Provisions.** See Special Provisions.

**50-05 Cooperation of Contractor.** The Contractor shall be supplied with up to three hard copies or an electronic PDF of the plans and specifications. The Contractor shall have available on the construction site at all times one hardcopy each of the plans and specifications. Additional hard copies of plans and specifications may be obtained by the Contractor for the cost of reproduction.

The Contractor shall give constant attention to the work to facilitate the progress thereof, and shall cooperate with the RPR and their inspectors and with other Contractors in every way possible. The Contractor shall have a competent superintendent on the work at all times who is fully authorized as their agent on the work. The superintendent shall be capable of reading and thoroughly understanding the plans and specifications and shall receive and fulfill instructions from the RPR or their authorized representative.

*Contractor shall, upon receipt of the notice of the award, designate in writing to the Engineer for approval the name of the superintendent who will be in charge of the Contractor's operations. It is a strict require of this contract that the superintendent be permanently assigned to the project for the duration of the work. Once assigned to the project, the Superintendent cannot be removed by the Contractor without the prior written consent of the Engineer. The Superintendent shall have at least 10 years of airport construction experience (or other qualifications satisfactory to the Owner) on the construction at air carrier airports. Now work of any type shall be performed on the job site during the absence of the designated representative, in the case that nighttime work is present.*

**50-06 Cooperation between Contractors.** The Owner reserves the right to contract for and perform other or additional work on or near the work covered by this contract.

When separate contracts are let within the limits of any one project, each Contractor shall conduct the work not to interfere with or hinder the progress of completion of the work being performed by other Contractors. Contractors working on the same project shall cooperate with each other as directed.

Each Contractor involved shall assume all liability, financial or otherwise, in connection with their own contract and shall protect and hold harmless the Owner from any and all damages or claims that may arise because of inconvenience, delays, or loss experienced because of the presence and operations of other Contractors working within the limits of the same project.

The Contractor shall arrange their work and shall place and dispose of the materials being used to not interfere with the operations of the other Contractors within the limits of the same project. The Contractor shall join their work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others.

**50-07 Construction layout and stakes.** The Engineer/RPR shall establish necessary horizontal and vertical control. The establishment of Survey Control and/or reestablishment of survey control shall be by a State Licensed Land Surveyor. Contractor is responsible for preserving integrity of horizontal and vertical controls established by Engineer/RPR. In case of negligence on the part of the Contractor or their employees, resulting in the destruction of any horizontal and vertical control, the resulting costs will be deducted as a liquidated damage against the Contractor.

Prior to the start of construction, the Contractor will check all control points for horizontal and vertical accuracy and certify in writing to the RPR that the Contractor concurs with survey control established for the project. All lines, grades and measurements from control points necessary for the proper execution and control of the work on this project will be provided to the RPR. The Contractor is responsible to establish all layout required for the construction of the project.

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Copies of survey notes will be provided to the RPR for each area of construction and for each placement of material as specified to allow the RPR to make periodic checks for conformance with plan grades, alignments and grade tolerances required by the applicable material specifications. Surveys will be provided to the RPR prior to commencing work items that cover or disturb the survey staking. Survey(s) and notes shall be provided in the following format(s): AutoCAD Civil 3D

~~Laser, GPS, String line, or other automatic control shall be checked with temporary control as necessary. In the case of error, on the part of the Contractor, their surveyor, employees or subcontractors, resulting in established grades, alignment or grade tolerances that do not concur with those specified or shown on the plans, the Contractor is solely responsible for correction, removal, replacement and all associated costs at no additional cost to the Owner.~~

*Construction Staking and Layout includes but is not limited to:*

- a. *Marking Layout*
- b. *Construction Safety Area*

No direct payment will be made, unless otherwise specified in contract documents, for this labor, materials, or other expenses. The cost shall be included in the price of the bid for the various items of the Contract.

**50-08 Authority and duties of Quality Assurance (QA) inspectors.** *The Kentucky Transportation Cabinet will be responsible for quality assurance testing and reporting. However, it will be responsible of the Contractor to supply the Cabinet or the RPR the materials necessary for testing. QA inspectors shall be authorized to inspect all work done and all material furnished. Such QA inspection may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. QA inspectors are not authorized to revoke, alter, or waive any provision of the contract. QA inspectors are not authorized to issue instructions contrary to the plans and specifications or to act as foreman for the Contractor.*

QA Inspectors are authorized to notify the Contractor or their representatives of any failure of the work or materials to conform to the requirements of the contract, plans, or specifications and to reject such nonconforming materials in question until such issues can be referred to the RPR for a decision.

**50-09 Inspection of the work.** All materials and each part or detail of the work shall be subject to inspection. The RPR shall be allowed access to all parts of the work and shall be furnished with such information and assistance by the Contractor as is required to make a complete and detailed inspection.

If the RPR requests it, the Contractor, at any time before acceptance of the work, shall remove or uncover such portions of the finished work as may be directed. After examination, the Contractor shall restore said portions of the work to the standard required by the specifications. Should the work thus exposed or examined prove acceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be paid for as extra work; but should the work so exposed or examined prove unacceptable, the uncovering, or removing, and the replacing of the covering or making good of the parts removed will be at the Contractor's expense.

Provide advance written notice to the RPR of work the Contractor plans to perform each week and each day. Any work done or materials used without written notice and allowing opportunity for inspection by the RPR may be ordered removed and replaced at the Contractor's expense.

Should the contract work include relocation, adjustment, or any other modification to existing facilities, not the property of the (contract) Owner, authorized representatives of the Owners of such facilities shall have the right to inspect such work. Such inspection shall in no sense make any facility owner a party to the contract, and shall in no way interfere with the rights of the parties to this contract.

**50-10 Removal of unacceptable and unauthorized work.** All work that does not conform to the requirements of the contract, plans, and specifications will be considered unacceptable, unless otherwise determined acceptable by the RPR as provided in paragraph 50-02, *Conformity with Plans and Specifications*.

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Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner in accordance with the provisions of Section 70, paragraph 70-14, *Contractor's Responsibility for Work*.

No removal work made under provision of this paragraph shall be done without lines and grades having been established by the RPR. Work done contrary to the instructions of the RPR, work done beyond the lines shown on the plans or as established by the RPR, except as herein specified, or any extra work done without authority, will be considered as unauthorized and will not be paid for under the provisions of the contract. Work so done may be ordered removed or replaced at the Contractor's expense.

Upon failure on the part of the Contractor to comply with any order of the RPR made under the provisions of this subsection, the RPR will have authority to cause unacceptable work to be remedied or removed and replaced; and unauthorized work to be removed and recover the resulting costs as a liquidated damage against the Contractor.

**50-11 Load restrictions.** The Contractor shall comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the work. A special permit will not relieve the Contractor of liability for damage that may result from the moving of material or equipment.

The operation of equipment of such weight or so loaded as to cause damage to structures or to any other type of construction will not be permitted. Hauling of materials over the base course or surface course under construction shall be limited as directed. No loads will be permitted on a concrete pavement, base, or structure before the expiration of the curing period. The Contractor, at their own expense, shall be responsible for the repair to equal or better than preconstruction conditions of any damage caused by the Contractor's equipment and personnel.

**50-12 Maintenance during construction.** The Contractor shall maintain the work during construction and until the work is accepted. Maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and forces so that the work is maintained in satisfactory condition at all times.

In the case of a contract for the placing of a course upon a course or subgrade previously constructed, the Contractor shall maintain the previous course or subgrade during all construction operations.

All costs of maintenance work during construction and before the project is accepted shall be included in the unit prices bid on the various contract items, and the Contractor will not be paid an additional amount for such work.

**50-13 Failure to maintain the work.** Should the Contractor at any time fail to maintain the work as provided in paragraph 50-12, *Maintenance during Construction*, the RPR shall immediately notify the Contractor of such noncompliance. Such notification shall specify a reasonable time within which the Contractor shall be required to remedy such unsatisfactory maintenance condition. The time specified will give due consideration to the exigency that exists.

Should the Contractor fail to respond to the RPR's notification, the Owner may suspend any work necessary for the Owner to correct such unsatisfactory maintenance condition, depending on the exigency that exists. Any maintenance cost incurred by the Owner, shall be recovered as a liquidated damage against the Contractor.

**50-14 Partial acceptance.** If at any time during the execution of the project the Contractor substantially completes a usable unit or portion of the work, the occupancy of which will benefit the Owner, the Contractor may request the RPR to make final inspection of that unit. If the RPR finds upon inspection that the unit has been satisfactorily completed in compliance with the contract, the RPR may accept it as being complete, and the Contractor may be relieved of further responsibility for that unit. Such partial acceptance and beneficial occupancy by the Owner shall not void or alter any provision of the contract.

**50-15 Final acceptance.** Upon due notice from the Contractor of presumptive completion of the entire project, the RPR and Owner will make an inspection. If all construction provided for and contemplated by the contract is found to be complete in accordance with the contract, plans, and specifications, such

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inspection shall constitute the final inspection. The RPR shall notify the Contractor in writing of final acceptance as of the date of the final inspection.

If, however, the inspection discloses any work, in whole or in part, as being unsatisfactory, the RPR will notify the Contractor and the Contractor shall correct the unsatisfactory work. Upon correction of the work, another inspection will be made which shall constitute the final inspection, provided the work has been satisfactorily completed. In such event, the RPR will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

**50-16 Claims for adjustment and disputes.** If for any reason the Contractor deems that additional compensation is due for work or materials not clearly provided for in the contract, plans, or specifications or previously authorized as extra work, the Contractor shall notify the RPR in writing of their intention to claim such additional compensation before the Contractor begins the work on which the Contractor bases the claim. If such notification is not given or the RPR is not afforded proper opportunity by the Contractor for keeping strict account of actual cost as required, then the Contractor hereby agrees to waive any claim for such additional compensation. Such notice by the Contractor and the fact that the RPR has kept account of the cost of the work shall not in any way be construed as proving or substantiating the validity of the claim. When the work on which the claim for additional compensation is based has been completed, the Contractor shall, within 10 calendar days, submit a written claim to the RPR who will present it to the Owner for consideration in accordance with local laws or ordinances.

Nothing in this subsection shall be construed as a waiver of the Contractor's right to dispute final payment based on differences in measurements or computations.

**END OF SECTION 50**

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## SECTION 60 CONTROL OF MATERIALS

Unless modified herein, the proposal requirements and conditions shall follow those listed in the KYTC Standard Specifications Section 106 "Control of Materials."

**60-01 Source of supply and quality requirements.** The materials used in the work shall conform to the requirements of the contract, plans, and specifications. Unless otherwise specified, such materials that are manufactured or processed shall be new (as compared to used or reprocessed).

In order to expedite the inspection and testing of materials, the Contractor shall furnish documentation to the RPR as to the origin, composition, and manufacture of all materials to be used in the work. Documentation shall be furnished promptly after execution of the contract but, in all cases, prior to delivery of such materials.

At the RPR's option, materials may be approved at the source of supply before delivery. If it is found after trial that sources of supply for previously approved materials do not produce specified products, the Contractor shall furnish materials from other sources.

~~The Contractor shall furnish airport lighting equipment that meets the requirements of the specifications; and is listed in AC 150/5345-53, Airport Lighting Equipment Certification Program and Addendum, that is in effect on the date of advertisement.~~

**60-02 Samples, tests, and cited specifications.** All materials used in the work shall be inspected, tested, and approved by the RPR before incorporation in the work unless otherwise designated. Any work in which untested materials are used without approval or written permission of the RPR shall be performed at the Contractor's risk. Materials found to be unacceptable and unauthorized will not be paid for and, if directed by the RPR, shall be removed at the Contractor's expense.

Unless otherwise designated, quality assurance tests will be made by and at the expense of the Owner in accordance with the cited standard methods of ASTM, American Association of State Highway and Transportation Officials (AASHTO), federal specifications, Commercial Item Descriptions, and all other cited methods, which are current on the date of advertisement for bids.

The testing organizations performing on-site quality assurance field tests shall have copies of all referenced standards on the construction site for use by all technicians and other personnel. Unless otherwise designated, samples for quality assurance will be taken by a qualified representative of the RPR. All materials being used are subject to inspection, test, or rejection at any time prior to or during incorporation into the work. Copies of all tests will be furnished to the Contractor's representative at their request after review and approval of the RPR.

A copy of all Contractor QC test data shall be provided to the RPR daily, along with printed reports, in an approved format, on a weekly basis. After completion of the project, and prior to final payment, the Contractor shall submit a final report to the RPR showing all test data reports, plus an analysis of all results showing ranges, averages, and corrective action taken on all failing tests.

The Contractor shall employ a Quality Control (QC) testing organization to perform all Contractor required QC tests in accordance with Item C-100 Contractor Quality Control Program (CQCP).

**60-03 Certification of compliance/analysis (COC/COA).** The RPR may permit the use, prior to sampling and testing, of certain materials or assemblies when accompanied by manufacturer's COC stating that such materials or assemblies fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a certificate of compliance in which the lot is clearly identified. The COA is the manufacturer's COC and includes all applicable test results.

Materials or assemblies used on the basis of certificates of compliance may be sampled and tested at any time and if found not to be in conformity with contract requirements will be subject to rejection whether in place or not.

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The form and distribution of certificates of compliance shall be as approved by the RPR.

When a material or assembly is specified by "brand name or equal" and the Contractor elects to furnish the specified "or equal," the Contractor shall be required to furnish the manufacturer's certificate of compliance for each lot of such material or assembly delivered to the work. Such certificate of compliance shall clearly identify each lot delivered and shall certify as to:

- a. Conformance to the specified performance, testing, quality or dimensional requirements; and,
- b. Suitability of the material or assembly for the use intended in the contract work.

The RPR shall be the sole judge as to whether the proposed "or equal" is suitable for use in the work.

The RPR reserves the right to refuse permission for use of materials or assemblies on the basis of certificates of compliance.

~~60-04 Plant inspection. The RPR or their authorized representative may inspect, at its source, any specified material or assembly to be used in the work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the work and to obtain samples required for acceptance of the material or assembly.~~

~~Should the RPR conduct plant inspections, the following conditions shall exist:~~

~~a. The RPR shall have the cooperation and assistance of the Contractor and the producer with whom the Contractor has contracted for materials.~~

~~b. The RPR shall have full entry at all reasonable times to such parts of the plant that concern the manufacture or production of the materials being furnished.~~

~~c. If required by the RPR, the Contractor shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Place office or working space in a convenient location with respect to the plant.~~

~~It is understood and agreed that the Owner shall have the right to retest any material that has been tested and approved at the source of supply after it has been delivered to the site. The RPR shall have the right to reject only material which, when retested, does not meet the requirements of the contract, plans, or specifications.~~

**60-05 Engineer/ Resident Project Representative (RPR) field office.** *Not applicable.*

**60-06 Storage of materials.** *Section 106.08 of the KYTC Standard Specifications shall be modified as follows: Materials shall be stored to assure the preservation of their quality and fitness for the work. Stored materials, even though approved before storage, may again be inspected prior to their use in the work. Stored materials shall be located to facilitate their prompt inspection. The Contractor shall coordinate the storage of all materials with the RPR. Materials to be stored on airport property shall not create an obstruction to air navigation nor shall they interfere with the free and unobstructed movement of aircraft. Unless otherwise shown on the plans and/or CSPP, the storage of materials and the location of the Contractor's plant and parked equipment or vehicles shall be as directed by the RPR. Private property shall not be used for storage purposes without written permission of the Owner or lessee of such property. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the RPR a copy of the property Owner's permission.*

All storage sites on private or airport property shall be restored to their original condition by the Contractor at their expense, except as otherwise agreed to (in writing) by the Owner or lessee of the property.

**60-07 Unacceptable materials.** Any material or assembly that does not conform to the requirements of the contract, plans, or specifications shall be considered unacceptable and shall be rejected. The Contractor shall remove any rejected material or assembly from the site of the work, unless otherwise instructed by the RPR.

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Rejected material or assembly, the defects of which have been corrected by the Contractor, shall not be returned to the site of the work until such time as the RPR has approved its use in the work.

**60-08 Owner furnished materials.** The Contractor shall furnish all materials required to complete the work, except those specified, if any, to be furnished by the Owner. Owner-furnished materials shall be made available to the Contractor at the location specified. *Anticipated owner-furnished materials include the Runway Closure Markers and the low-profile barricades. The Contractor shall be responsible for providing the necessary maintenance and items to secure the markers and barricades to the ground and/or pavement.*

All costs of handling, transportation from the specified location to the site of work, storage, and installing Owner-furnished materials shall be included in the unit price bid for the contract item in which such Owner-furnished material is used.

After any Owner-furnished material has been delivered to the location specified, the Contractor shall be responsible for any demurrage, damage, loss, or other deficiencies that may occur during the Contractor's handling, storage, or use of such Owner-furnished material. The Owner will deduct from any monies due or to become due the Contractor any cost incurred by the Owner in making good such loss due to the Contractor's handling, storage, or use of Owner-furnished materials.

**END OF SECTION 60**

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## SECTION 70 LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC

Unless modified herein, section 70 legal Regulations and responsibility to public shall follow those in the KYTC Standard Specifications Section 107 "legal Relations and Responsibilities to Public."

**70-01 Laws to be observed.** The Contractor shall keep fully informed of all federal and state laws, all local laws, ordinances, and regulations and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the work, or which in any way affect the conduct of the work. The Contractor shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees; and shall protect and indemnify the Owner and all their officers, agents, or servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor or the Contractor's employees.

**70-02 Permits, licenses, and taxes.** The Contractor shall procure all permits and licenses, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful execution of the work.

**70-03 Patented devices, materials, and processes.** If the Contractor is required or desires to use any design, device, material, or process covered by letters of patent or copyright, the Contractor shall provide for such use by suitable legal agreement with the Patentee or Owner. The Contractor and the surety shall indemnify and hold harmless the Owner, any third party, or political subdivision from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright, and shall indemnify the Owner for any costs, expenses, and damages which it may be obliged to pay by reason of an infringement, at any time during the execution or after the completion of the work.

**70-04 Restoration of surfaces disturbed by others.** *In addition to the requirements listed in Section 170.12 of the KYTC Standard Specifications,* The Owner reserves the right to authorize the construction, reconstruction, or maintenance of any public or private utility service, FAA or National Oceanic and Atmospheric Administration (NOAA) facility, or a utility service of another government agency at any time during the progress of the work. ~~To the extent that such construction, reconstruction, or maintenance has been coordinated with the Owner, such authorized work (by others) must be shown on the plans and is indicated as follows:~~

Except as listed above, the Contractor shall not permit any individual, firm, or corporation to excavate or otherwise disturb such utility services or facilities located within the limits of the work without the written permission of the RPR.

Should the Owner of public or private utility service, FAA, or NOAA facility, or a utility service of another government agency be authorized to construct, reconstruct, or maintain such utility service or facility during the progress of the work, the Contractor shall cooperate with such Owners by arranging and performing the work in this contract to facilitate such construction, reconstruction or maintenance by others whether or not such work by others is listed above. When ordered as extra work by the RPR, the Contractor shall make all necessary repairs to the work which are due to such authorized work by others, unless otherwise provided for in the contract, plans, or specifications. It is understood and agreed that the Contractor shall not be entitled to make any claim for damages due to such authorized work by others or for any delay to the work resulting from such authorized work.

**70-05 Federal Participation.** ~~The United States Government has agreed to reimburse the Owner for some portion of the contract costs. The contract work is subject to the inspection and approval of duly authorized representatives of the FAA Administrator. No requirement of this contract shall be construed as making the United States a party to the contract nor will any such requirement interfere, in any way, with the rights of either party to the contract.~~

**70-06 Sanitary, health, and safety provisions.** The Contractor's worksite and facilities shall comply with applicable federal, state, and local requirements for health, safety and sanitary provisions.

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**70-07 Public convenience and safety.** The Contractor shall control their operations and those of their subcontractors and all suppliers, to assure the least inconvenience to the traveling public. Under all circumstances, safety shall be the most important consideration.

The Contractor shall maintain the free and unobstructed movement of aircraft and vehicular traffic with respect to their own operations and those of their own subcontractors and all suppliers in accordance with Section 40, paragraph 40-05, *Maintenance of Traffic*, and shall limit such operations for the convenience and safety of the traveling public as specified in Section 80, paragraph 80-04, *Limitation of Operations*.

The Contractor shall remove or control debris and rubbish resulting from its work operations at frequent intervals, and upon the order of the RPR. If the RPR determines the existence of Contractor debris in the work site represents a hazard to airport operations and the Contractor is unable to respond in a prompt and reasonable manner, the RPR reserves the right to assign the task of debris removal to a third party and recover the resulting costs as a liquidated damage against the Contractor.

**70-08 Construction Safety and Phasing Plan (CSPP).** The Contractor shall complete the work in accordance with the approved Construction Safety and Phasing Plan (CSPP) developed in accordance with AC 150/5370-2, Operational Safety on Airports During Construction. The CSPP are located in the plan set. ~~is on sheet(s) [ ] of the project plans.~~

**70-09 Use of explosives.** The use of explosives is not permitted on this project.

**70-10 Protection and restoration of property and landscape.** The Contractor shall be responsible for the preservation of all public and private property, and shall protect carefully from disturbance or damage all land monuments and property markers until the Engineer/RPR has witnessed or otherwise referenced their location and shall not move them until directed.

The Contractor shall be responsible for all damage or injury to property of any character, during the execution of the work, resulting from any act, omission, neglect, or misconduct in manner or method of executing the work, or at any time due to defective work or materials, and said responsibility shall not be released until the project has been completed and accepted.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the non-execution thereof by the Contractor, the Contractor shall restore, at their expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, or otherwise restoring as may be directed, or the Contractor shall make good such damage or injury in an acceptable manner.

**70-11 Responsibility for damage claims.** The Contractor shall indemnify and hold harmless the Engineer/RPR and the Owner and their officers, agents, and employees from all suits, actions, or claims, of any character, brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Workmen's Compensation Act," or any other law, ordinance, order, or decree. Money due the Contractor under and by virtue of their own contract considered necessary by the Owner for such purpose may be retained for the use of the Owner or, in case no money is due, their own surety may be held until such suits, actions, or claims for injuries or damages shall have been settled and suitable evidence to that effect furnished to the Owner, except that money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that he or she is adequately protected by public liability and property damage insurance.

**70-12 Third party beneficiary clause.** It is specifically agreed between the parties executing the contract that it is not intended by any of the provisions of any part of the contract to create for the public or any member thereof, a third-party beneficiary or to authorize anyone not a party to the contract to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of the contract.

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**70-13 Opening sections of the work to traffic.** If it is necessary for the Contractor to complete portions of the contract work for the beneficial occupancy of the Owner prior to completion of the entire contract, such "phasing" of the work must be specified below and indicated on the approved Construction Safety and Phasing Plan (CSPP) and the project plans. When so specified, the Contractor shall complete such portions of the work on or before the date specified or as otherwise specified.

Upon completion of any portion of work listed above, such portion shall be accepted by the Owner in accordance with Section 50, paragraph 50-14, *Partial Acceptance*.

No portion of the work may be opened by the Contractor until directed by the Owner in writing. Should it become necessary to open a portion of the work to traffic on a temporary or intermittent basis, such openings shall be made when, in the opinion of the RPR, such portion of the work is in an acceptable condition to support the intended traffic. Temporary or intermittent openings are considered to be inherent in the work and shall not constitute either acceptance of the portion of the work so opened or a waiver of any provision of the contract. Any damage to the portion of the work so opened that is not attributable to traffic which is permitted by the Owner shall be repaired by the Contractor at their expense.

The Contractor shall make their own estimate of the inherent difficulties involved in completing the work under the conditions herein described and shall not claim any added compensation by reason of delay or increased cost due to opening a portion of the contract work.

The Contractor must conform to safety standards contained AC 150/5370-2 and the approved CSPP.

Contractor shall refer to the plans, specifications, and the approved CSPP to identify barricade requirements, temporary and/or permanent markings, airfield lighting, guidance signs and other safety requirements prior to opening up sections of work to traffic.

**70-14 Contractor's responsibility for work.** Until the RPR's final written acceptance of the entire completed work, excepting only those portions of the work accepted in accordance with Section 50, paragraph 50-14, *Partial Acceptance*, the Contractor shall have the charge and care thereof and shall take every precaution against injury or damage to any part due to the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before final acceptance and shall bear the expense thereof except damage to the work due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to acts of God such as earthquake, tidal wave, tornado, hurricane or other cataclysmic phenomenon of nature, or acts of the public enemy or of government authorities.

If the work is suspended for any cause whatever, the Contractor shall be responsible for the work and shall take such precautions necessary to prevent damage to the work. The Contractor shall provide for normal drainage and shall erect necessary temporary structures, signs, or other facilities at their own expense. During such period of suspension of work, the Contractor shall properly and continuously maintain in an acceptable growing condition all living material in newly established planting, seeding, and sodding furnished under the contract, and shall take adequate precautions to protect new tree growth and other important vegetative growth against injury.

**70-15 Contractor's responsibility for utility service and facilities of others.** As provided in paragraph 70-04, *Restoration of Surfaces Disturbed by Others*, the Contractor shall cooperate with the owner of any public or private utility service, FAA or NOAA, or a utility service of another government agency that may be authorized by the Owner to construct, reconstruct or maintain such utility services or facilities during the progress of the work. In addition, the Contractor shall control their operations to prevent the unscheduled interruption of such utility services and facilities.

To the extent that such public or private utility services, FAA, or NOAA facilities, or utility services of another governmental agency are known to exist within the limits of the contract work, the approximate locations have been indicated on the plans and/or in the contract documents.

It is understood and agreed that the Owner does not guarantee the accuracy or the completeness of the location information relating to existing utility services, facilities, or structures that may be shown on the

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plans or encountered in the work. Any inaccuracy or omission in such information shall not relieve the Contractor of the responsibility to protect such existing features from damage or unscheduled interruption of service.

It is further understood and agreed that the Contractor shall, upon execution of the contract, notify the Owners of all utility services or other facilities of their plan of operations. Such notification shall be in writing addressed to "The Person to Contact" as provided in this paragraph and paragraph 70-04, *Restoration of Surfaces Disturbed By Others*. A copy of each notification shall be given to the RPR.

In addition to the general written notification provided, it shall be the responsibility of the Contractor to keep such individual Owners advised of changes in their plan of operations that would affect such Owners.

Prior to beginning the work in the general vicinity of an existing utility service or facility, the Contractor shall again notify each such Owner of their plan of operation. If, in the Contractor's opinion, the Owner's assistance is needed to locate the utility service or facility or the presence of a representative of the Owner is desirable to observe the work, such advice should be included in the notification. Such notification shall be given by the most expeditious means to reach the utility owner's "Person to Contact" no later than two normal business days prior to the Contractor's commencement of operations in such general vicinity. The Contractor shall furnish a written summary of the notification to the RPR.

The Contractor's failure to give the two days' notice shall be cause for the Owner to suspend the Contractor's operations in the general vicinity of a utility service or facility.

Where the outside limits of an underground utility service have been located and staked on the ground, the Contractor shall be required to use hand excavation methods within 3 feet (1 m) of such outside limits at such points as may be required to ensure protection from damage due to the Contractor's operations.

Should the Contractor damage or interrupt the operation of a utility service or facility by accident or otherwise, the Contractor shall immediately notify the proper authority and the RPR and shall take all reasonable measures to prevent further damage or interruption of service. The Contractor, in such events, shall cooperate with the utility service or facility owner and the RPR continuously until such damage has been repaired and service restored to the satisfaction of the utility or facility owner.

The Contractor shall bear all costs of damage and restoration of service to any utility service or facility due to their operations whether due to negligence or accident. The Owner reserves the right to deduct such costs from any monies due or which may become due the Contractor, or their own surety.

**70-15.1 FAA facilities and cable runs.** The Contractor is hereby advised that the construction limits of the project include existing facilities and buried cable runs that are owned, operated and maintained by the FAA. The Contractor, during the execution of the project work, shall comply with the following:

a. The Contractor shall permit FAA maintenance personnel the right of access to the project work site for purposes of inspecting and maintaining all existing FAA owned facilities.

b. The ~~Contractor~~ *Engineer* shall provide notice to the FAA Air Traffic Organization (ATO)/Technical Operations/System Support Center (SSC) Point-of-Contact through the airport *Engineer* a minimum of seven (7) calendar days prior to commencement of construction activities in order to permit sufficient time to locate and mark existing buried cables and to schedule any required facility outages.

c. If execution of the project work requires a facility outage, the Contractor shall contact the FAA Point-of-Contact a minimum of 72 hours prior to the time of the required outage.

d. Any damage to FAA cables, access roads, or FAA facilities during construction caused by the Contractor's equipment or personnel whether by negligence or accident will require the Contractor to repair or replace the damaged cables, access road, or FAA facilities to FAA requirements. The Contractor shall not bear the cost to repair damage to underground facilities or utilities improperly located by the FAA.

e. If the project work requires the cutting or splicing of FAA owned cables, the FAA Point-of-Contact shall be contacted a minimum of 72 hours prior to the time the cable work commences. The FAA reserves the right to have a FAA representative on site to observe the splicing of the cables as a condition of

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acceptance. All cable splices are to be accomplished in accordance with FAA specifications and require approval by the FAA Point-of-Contact as a condition of acceptance by the Owner. The Contractor is hereby advised that FAA restricts the location of where splices may be installed. If a cable splice is required in a location that is not permitted by FAA, the Contractor shall furnish and install a sufficient length of new cable that eliminates the need for any splice.

**70-16 Furnishing rights-of-way.** The Owner will be responsible for furnishing all rights-of-way upon which the work is to be constructed in advance of the Contractor's operations.

**70-17 Personal liability of public officials.** In carrying out any of the contract provisions or in exercising any power or authority granted by this contract, there shall be no liability upon the Engineer, RPR, their authorized representatives, or any officials of the Owner either personally or as an official of the Owner. It is understood that in such matters they act solely as agents and representatives of the Owner.

**70-18 No waiver of legal rights.** Upon completion of the work, the Owner will expeditiously make final inspection and notify the Contractor of final acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Owner be precluded or stopped from recovering from the Contractor or their surety, or both, such overpayment as may be sustained, or by failure on the part of the Contractor to fulfill their obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor, without prejudice to the terms of the contract, shall be liable to the Owner for latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Owner's rights under any warranty or guaranty.

**70-19 Environmental protection.** The Contractor shall comply with all federal, state, and local laws and regulations controlling pollution of the environment. The Contractor shall take necessary precautions to prevent pollution of streams, lakes, ponds, and reservoirs with fuels, oils, asphalts, chemicals, or other harmful materials and to prevent pollution of the atmosphere from particulate and gaseous matter.

**70-20 Archaeological and historical findings.** Unless otherwise specified in this subsection, the Contractor is advised that the site of the work is not within any property, district, or site, and does not contain any building, structure, or object listed in the current National Register of Historic Places published by the United States Department of Interior.

Should the Contractor encounter, during their operations, any building, part of a building, structure, or object that is incongruous with its surroundings, the Contractor shall immediately cease operations in that location and notify the RPR. The RPR will immediately investigate the Contractor's finding and the Owner will direct the Contractor to either resume operations or to suspend operations as directed.

Should the Owner order suspension of the Contractor's operations in order to protect an archaeological or historical finding, or order the Contractor to perform extra work, such shall be covered by an appropriate contract change order or supplemental agreement as provided in Section 40, paragraph 40-04, *Extra Work*, and Section 90, paragraph 90-05, *Payment for Extra Work*. If appropriate, the contract change order or supplemental agreement shall include an extension of contract time in accordance with Section 80, paragraph 80-07, *Determination and Extension of Contract Time*.

**70-21 Insurance Requirements.** As required in the Special Provisions or as required by Kentucky Transportation Cabinet.

**END OF SECTION 70**

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## SECTION 80 EXECUTION AND PROGRESS

Unless modified herein, Section 80 Execution and Progress shall follow those listed in the KYTC Standard Specifications Section 108 "Prosecution and Progress."

**80-01 Subletting of contract.** The Owner will not recognize any subcontractor on the work. The Contractor shall at all times when work is in progress be represented either in person, by a qualified superintendent, or by other designated, qualified representative who is duly authorized to receive and execute orders of the Resident Project Representative (RPR).

The Contractor shall perform, with his organization, an amount of work equal to at least 30 percent of the total contract cost.

Should the Contractor elect to assign their contract, said assignment shall be concurred in by the surety, shall be presented for the consideration and approval of the Owner, and shall be consummated only on the written approval of the Owner.

The Contractor shall provide copies of all subcontracts to the RPR 14 days prior to being utilized on the project. As a minimum, the information shall include the following:

- Subcontractor's legal company name.
- Subcontractor's legal company address, including County name.
- Principal contact person's name, telephone and fax number.
- Complete narrative description, and dollar value of the work to be performed by the subcontractor.
- Copies of required insurance certificates in accordance with the specifications.
- Minority/ non-minority status.

**80-02 Notice to proceed (NTP).** The Owners notice to proceed will state the date on which contract time commences. The Contractor is expected to commence project operations within 10 days of the NTP date. The Contractor shall notify the RPR at least 24 hours in advance of the time contract operations begins. The Contractor shall not commence any actual operations prior to the date on which the notice to proceed is issued by the Owner.

**80-03 Execution and progress.** Unless otherwise specified, the Contractor shall submit their coordinated construction schedule showing all work activities for the RPR's review and acceptance at least 10 days prior to the start of work *and in advance of the preconstruction meeting*. The Contractor's progress schedule, once accepted by the RPR, will represent the Contractor's baseline plan to accomplish the project in accordance with the terms and conditions of the Contract. The RPR will compare actual Contractor progress against the baseline schedule to determine that status of the Contractor's performance. The Contractor shall provide sufficient materials, equipment, and labor to guarantee the completion of the project in accordance with the plans and specifications within the time set forth in the proposal.

If the Contractor falls significantly behind the submitted schedule, the Contractor shall, upon the RPR's request, submit a revised schedule for completion of the work within the contract time and modify their operations to provide such additional materials, equipment, and labor necessary to meet the revised schedule. Should the execution of the work be discontinued for any reason, the Contractor shall notify the RPR at least 48 hours in advance of resuming operations.

The Contractor shall not commence any actual construction prior to the date on which the NTP is issued by the Owner.

The Contractor shall maintain the work schedule and provide an update and analysis of the progress schedule on a monthly basis, or as otherwise specified in the contract. Submission of the work schedule

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shall not relieve the Contractor of overall responsibility for scheduling, sequencing, and coordinating all work to comply with the requirements of the contract.

**80-04 Limitation of operations.** The Contractor shall control their operations and the operations of their subcontractors and all suppliers to provide for the free and unobstructed movement of aircraft in the air operations areas (AOA) of the airport.

When the work requires the Contractor to conduct their operations within an AOA of the airport, the work shall be coordinated with airport operations (through the RPR) at least 48 hours prior to commencement of such work. The Contractor shall not close an AOA until so authorized by the RPR and until the necessary temporary marking, signage and associated lighting is in place as provided in Section 70, paragraph 70-08, *Construction Safety and Phasing Plan (CSPP)*.

When the contract work requires the Contractor to work within an AOA of the airport on an intermittent basis (intermittent opening and closing of the AOA), the Contractor shall maintain constant communications as specified; immediately obey all instructions to vacate the AOA; and immediately obey all instructions to resume work in such AOA. Failure to maintain the specified communications or to obey instructions shall be cause for suspension of the Contractor's operations in the AOA until satisfactory conditions are provided. The areas of the AOA identified in the Construction Safety Phasing Plan (CSPP) ~~and as listed below~~, cannot be closed to operating aircraft to permit the Contractor's operations on a continuous basis and will therefore be closed to aircraft operations intermittently ~~as follows~~:

The Contractor shall be required to conform to safety standards contained in AC 150/5370-2, Operational Safety on Airports During Construction and the approved CSPP.

**80-04.1 Operational safety on airport during construction.** All Contractors' operations shall be conducted in accordance with the approved project Construction Safety and Phasing Plan (CSPP) and the Safety Plan Compliance Document (SPCD) and the provisions set forth within the current version of AC 150/5370-2, Operational Safety on Airports During Construction. The CSPP included within the contract documents conveys minimum requirements for operational safety on the airport during construction activities. The Contractor shall prepare and submit a SPCD that details how it proposes to comply with the requirements presented within the CSPP.

The Contractor shall implement all necessary safety plan measures prior to commencement of any work activity. The Contractor shall conduct routine checks to assure compliance with the safety plan measures.

The Contractor is responsible to the Owner for the conduct of all subcontractors it employs on the project. The Contractor shall assure that all subcontractors are made aware of the requirements of the CSPP and SPCD and that they implement and maintain all necessary measures.

No deviation or modifications may be made to the approved CSPP and SPCD unless approved in writing by the Owner. The necessary coordination actions to review Contractor proposed modifications to an approved CSPP or approved SPCD can require a significant amount of time.

**80-05 Character of workers, methods, and equipment.** The Contractor shall, at all times, employ sufficient labor and equipment for prosecuting the work to full completion in the manner and time required by the contract, plans, and specifications.

All workers shall have sufficient skill and experience to perform properly the work assigned to them. Workers engaged in special work or skilled work shall have sufficient experience in such work and in the operation of the equipment required to perform the work satisfactorily.

Any person employed by the Contractor or by any subcontractor who violates any operational regulations or operational safety requirements and, in the opinion of the RPR, does not perform his work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the RPR, be removed immediately by the Contractor or subcontractor employing such person, and shall not be employed again in any portion of the work without approval of the RPR.

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Should the Contractor fail to remove such person or persons, or fail to furnish suitable and sufficient personnel for the proper execution of the work, the RPR may suspend the work by written notice until compliance with such orders.

All equipment that is proposed to be used on the work shall be of sufficient size and in such mechanical condition as to meet requirements of the work and to produce a satisfactory quality of work. Equipment used on any portion of the work shall not cause injury to previously completed work, adjacent property, or existing airport facilities due to its use.

When the methods and equipment to be used by the Contractor in accomplishing the work are not prescribed in the contract, the Contractor is free to use any methods or equipment that will accomplish the work in conformity with the requirements of the contract, plans, and specifications.

When the contract specifies the use of certain methods and equipment, such methods and equipment shall be used unless otherwise authorized by the RPR. If the Contractor desires to use a method or type of equipment other than specified in the contract, the Contractor may request authority from the RPR to do so. The request shall be in writing and shall include a full description of the methods and equipment proposed and of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor will be fully responsible for producing work in conformity with contract requirements. If, after trial use of the substituted methods or equipment, the RPR determines that the work produced does not meet contract requirements, the Contractor shall discontinue the use of the substitute method or equipment and shall complete the remaining work with the specified methods and equipment. The Contractor shall remove any deficient work and replace it with work of specified quality, or take such other corrective action as the RPR may direct. No change will be made in basis of payment for the contract items involved nor in contract time as a result of authorizing a change in methods or equipment under this paragraph.

**80-06 Temporary suspension of the work.** The Owner shall have the authority to suspend the work wholly, or in part, for such period or periods the Owner may deem necessary, due to unsuitable weather, or other conditions considered unfavorable for the execution of the work, or for such time necessary due to the failure on the part of the Contractor to carry out orders given or perform any or all provisions of the contract.

In the event that the Contractor is ordered by the Owner, in writing, to suspend work for some unforeseen cause not otherwise provided for in the contract and over which the Contractor has no control, the Contractor may be reimbursed for actual money expended on the work during the period of shutdown. No allowance will be made for anticipated profits. The period of shutdown shall be computed from the effective date of the written order to suspend work to the effective date of the written order to resume the work. Claims for such compensation shall be filed with the RPR within the time period stated in the RPR's order to resume work. The Contractor shall submit with their own claim information substantiating the amount shown on the claim. The RPR will forward the Contractor's claim to the Owner for consideration in accordance with local laws or ordinances. No provision of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather or for any other delay provided for in the contract, plans, or specifications.

If it becomes necessary to suspend work for an indefinite period, the Contractor shall store all materials in such manner that they will not become an obstruction nor become damaged in any way. The Contractor shall take every precaution to prevent damage or deterioration of the work performed and provide for normal drainage of the work. The Contractor shall erect temporary structures where necessary to provide for traffic on, to, or from the airport.

**80-07 Determination and extension of contract time.** The number of calendar days shall be stated in the proposal and contract and shall be known as the Contract Time.

If the contract time requires extension for reasons beyond the Contractor's control, it shall be adjusted as follows:

**80-07.1 Contract time based on calendar days.** Contract Time based on calendar days shall consist of the number of calendar days stated in the contract counting from the effective date of the Notice to Proceed

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and including all Saturdays, Sundays, holidays, and non-work days. All calendar days elapsing between the effective dates of the Owner's orders to suspend and resume all work, due to causes not the fault of the Contractor, shall be excluded.

At the time of final payment, the contract time shall be increased in the same proportion as the cost of the actually completed quantities bears to the cost of the originally estimated quantities in the proposal. Such increase in the contract time shall not consider either cost of work or the extension of contract time that has been covered by a change order or supplemental agreement. Charges against the contract time will cease as of the date of final acceptance.

**80-08 Failure to complete on time.** For each calendar day or working day, as specified in the contract, that any work remains uncompleted after the contract time (including all extensions and adjustments as provided in paragraph 80-07, *Determination and Extension of Contract Time*) the sum specified in the contract and proposal as liquidated damages (LD) will be deducted from any money due or to become due the Contractor or their own surety. Such deducted sums shall not be deducted as a penalty but shall be considered as liquidation of a reasonable portion of damages including but not limited to additional engineering services that will be incurred by the Owner should the Contractor fail to complete the work in the time provided in their contract. *Liquidated damages shall be as stipulated in the Special Provisions.*

*Construction time shall be as included in the Proposal and Contract. ~~The maximum construction time allowed for Schedules [ ] will be the sum of the time allowed for individual schedules but not more than [ ] days.~~* Permitting the Contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the Owner of any of its rights under the contract.

**80-09 Default and termination of contract.** The Contractor shall be considered in default of their contract and such default will be considered as cause for the Owner to terminate the contract for any of the following reasons, if the Contractor:

- a. Fails to begin the work under the contract within the time specified in the Notice to Proceed, or
- b. Fails to perform the work or fails to provide sufficient workers, equipment and/or materials to assure completion of work in accordance with the terms of the contract, or
- c. Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or
- d. Discontinues the execution of the work, or
- e. Fails to resume work which has been discontinued within a reasonable time after notice to do so, or
- f. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or
- g. Allows any final judgment to stand against the Contractor unsatisfied for a period of 10 days, or
- h. Makes an assignment for the benefit of creditors, or
- i. For any other cause whatsoever, fails to carry on the work in an acceptable manner.

Should the Owner consider the Contractor in default of the contract for any reason above, the Owner shall immediately give written notice to the Contractor and the Contractor's surety as to the reasons for considering the Contractor in default and the Owner's intentions to terminate the contract.

If the Contractor or surety, within a period of 10 days after such notice, does not proceed in accordance therewith, then the Owner will, upon written notification from the RPR of the facts of such delay, neglect, or default and the Contractor's failure to comply with such notice, have full power and authority without violating the contract, to take the execution of the work out of the hands of the Contractor. The Owner may appropriate or use any or all materials and equipment that have been mobilized for use in the work and are acceptable and may enter into an agreement for the completion of said contract according to the terms and

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provisions thereof, or use such other methods as in the opinion of the RPR will be required for the completion of said contract in an acceptable manner.

All costs and charges incurred by the Owner, together with the cost of completing the work under contract, will be deducted from any monies due or which may become due the Contractor. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay to the Owner the amount of such excess.

**80-10 Termination for national emergencies.** The Owner shall terminate the contract or portion thereof by written notice when the Contractor is prevented from proceeding with the construction contract as a direct result of an Executive Order of the President with respect to the execution of war or in the interest of national defense.

When the contract, or any portion thereof, is terminated before completion of all items of work in the contract, payment will be made for the actual number of units or items of work completed at the contract price or as mutually agreed for items of work partially completed or not started. No claims or loss of anticipated profits shall be considered.

Reimbursement for organization of the work, and other overhead expenses, (when not otherwise included in the contract) and moving equipment and materials to and from the job will be considered, the intent being that an equitable settlement will be made with the Contractor.

Acceptable materials, obtained or ordered by the Contractor for the work and that are not incorporated in the work shall, at the option of the Contractor, be purchased from the Contractor at actual cost as shown by receipted bills and actual cost records at such points of delivery as may be designated by the RPR.

Termination of the contract or a portion thereof shall neither relieve the Contractor of their responsibilities for the completed work nor shall it relieve their surety of its obligation for and concerning any just claim arising out of the work performed.

**80-11 Work area, storage area and sequence of operations.** The Contractor shall obtain approval from the RPR prior to beginning any work in all areas of the airport. No operating runway, taxiway, or air operations area (AOA) shall be crossed, entered, or obstructed while it is operational. The Contractor shall plan and coordinate work in accordance with the approved CSPP and SPCD.

**END OF SECTION 80**

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**SECTION 90 MEASUREMENT AND PAYMENT**

Unless modified herein, Section 90 Measurement and Payment shall follow those listed in the KYTC Standard Specifications Section 109 "Measurement and Payment."

**90-01 Measurement of quantities.** All work completed under the contract will be measured by the RPR, or their authorized representatives, using United States Customary Units of Measurement.

The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice.

Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures (or leave-outs) having an area of 9 square feet (0.8 square meters) or less. Unless otherwise specified, transverse measurements for area computations will be the neat dimensions shown on the plans or ordered in writing by the RPR.

Unless otherwise specified, all contract items which are measured by the linear foot such as electrical ducts, conduits, pipe culverts, underdrains, and similar items shall be measured parallel to the base or foundation upon which such items are placed.

The term "lump sum" when used as an item of payment will mean complete payment for the work described in the contract. When a complete structure or structural unit (in effect, "lump sum" work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.

When requested by the Contractor and approved by the RPR in writing, material specified to be measured by the cubic yard (cubic meter) may be weighed, and such weights will be converted to cubic yards (cubic meters) for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the RPR and shall be agreed to by the Contractor before such method of measurement of pay quantities is used.

**MEASUREMENT AND PAYMENT TERMS**

Term	Description
<b>Excavation and Embankment Volume</b>	In computing volumes of excavation, the average end area method will be used unless otherwise specified.
<b>Measurement and Proportion by Weight</b>	The term "ton" will mean the short ton consisting of 2,000 pounds avoirdupois. All materials that are measured or proportioned by weights shall be weighed on accurate, independently certified scales by competent, qualified personnel at locations designated by the RPR. If material is shipped by rail, the car weight may be accepted provided that only the actual weight of material is paid for. However, car weights will not be acceptable for material to be passed through mixing plants. Trucks used to haul material being paid for by weight shall be weighed empty daily at such times as the RPR directs, and each truck shall bear a plainly legible identification mark.
<b>Measurement by Volume</b>	Materials to be measured by volume in the hauling vehicle shall be hauled in approved vehicles and measured therein at the point of delivery. Vehicles for this purpose may be of any size or type acceptable for the materials hauled, provided that the body is of such shape that the actual contents may be readily and accurately determined. All vehicles shall be loaded to at least their water level capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery.
<b>Asphalt Material</b>	Asphalt materials will be measured by the gallon or ton. When measured by volume, such volumes will be measured at 60°F (16°C) or will be corrected to the

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Term	Description
	<p>volume at 60°F (16°C) using ASTM D1250 for asphalts. Net certified scale weights or weights based on certified volumes in the case of rail shipments will be used as a basis of measurement, subject to correction when asphalt material has been lost from the car or the distributor, wasted, or otherwise not incorporated in the work. When asphalt materials are shipped by truck or transport, net certified weights by volume, subject to correction for loss or foaming, will be used for computing quantities.</p>
<b>Cement</b>	<p>Cement will be measured by the ton or hundredweight.</p>
<b>Structure</b>	<p>Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.</p>
<b>Timber</b>	<p>Timber will be measured by the thousand feet board measure (MFBM) actually incorporated in the structure. Measurement will be based on nominal widths and thicknesses and the extreme length of each piece.</p>
<b>Plates and Sheets</b>	<p>The thickness of plates and galvanized sheet used in the manufacture of corrugated metal pipe, metal plate pipe culverts and arches, and metal cribbing will be specified and measured in decimal fraction of inch.</p>
<b>Miscellaneous Items</b>	<p>When standard manufactured items are specified such as fence, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gauge, unit weight, section dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in cited specifications, manufacturing tolerances established by the industries involved will be accepted.</p>
<b>Scales</b>	<p>Scales must be tested for accuracy and serviced before use. Scales for weighing materials which are required to be proportioned or measured and paid for by weight shall be furnished, erected, and maintained by the Contractor, or be certified permanently installed commercial scales. Platform scales shall be installed and maintained with the platform level and rigid bulkheads at each end.</p> <p>Scales shall be accurate within 0.5% of the correct weight throughout the range of use. The Contractor shall have the scales checked under the observation of the RPR before beginning work and at such other times as requested. The intervals shall be uniform in spacing throughout the graduated or marked length of the beam or dial and shall not exceed 0.1% of the nominal rated capacity of the scale, but not less than one pound. The use of spring balances will not be permitted.</p> <p>In the event inspection reveals the scales have been "overweighing" (indicating more than correct weight) they will be immediately adjusted. All materials received subsequent to the last previous correct weighting-accuracy test will be reduced by the percentage of error in excess of 0.5%.</p> <p>In the event inspection reveals the scales have been under-weighing (indicating less than correct weight), they shall be immediately adjusted. No additional payment to the Contractor will be allowed for materials previously weighed and recorded.</p> <p>Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the RPR can safely and conveniently view them.</p> <p>Scale installations shall have available ten standard 50-pound weights for testing the weighing equipment or suitable weights and devices for other approved equipment.</p>

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Term	Description
	All costs in connection with furnishing, installing, certifying, testing, and maintaining scales; for furnishing check weights and scale house; and for all other items specified in this subsection, for the weighing of materials for proportioning or payment, shall be included in the unit contract prices for the various items of the project.
<b>Rental Equipment</b>	Rental of equipment will be measured by time in hours of actual working time and necessary traveling time of the equipment within the limits of the work. Special equipment ordered in connection with extra work will be measured as agreed in the change order or supplemental agreement authorizing such work as provided in paragraph 90-05 <i>Payment for Extra Work</i> .
<b>Pay Quantities</b>	When the estimated quantities for a specific portion of the work are designated as the pay quantities in the contract, they shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the RPR. If revised dimensions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the authorized changes in the dimensions.

**90-02 Scope of payment.** The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials, for performing all work under the contract in a complete and acceptable manner, and for all risk, loss, damage, or expense of whatever character arising out of the nature of the work or the execution thereof, subject to the provisions of Section 70, paragraph 70-18, *No Waiver of Legal Rights*.

When the "basis of payment" subsection of a technical specification requires that the contract price (price bid) include compensation for certain work or material essential to the item, this same work or material will not also be measured for payment under any other contract item which may appear elsewhere in the contract, plans, or specifications.

**90-03 Compensation for altered quantities.** When the accepted quantities of work vary from the quantities in the proposal, the Contractor shall accept as payment in full, so far as contract items are concerned, payment at the original contract price for the accepted quantities of work actually completed and accepted. No allowance, except as provided for in Section 40, paragraph 40-02, *Alteration of Work and Quantities*, will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor which results directly from such alterations or indirectly from their own unbalanced allocation of overhead and profit among the contract items, or from any other cause.

**90-04 Payment for omitted items.** As specified in Section 40, paragraph 40-03, *Omitted Items*, the RPR shall have the right to omit from the work (order nonperformance) any contract item, except major contract items, in the best interest of the Owner.

Should the RPR omit or order nonperformance of a contract item or portion of such item from the work, the Contractor shall accept payment in full at the contract prices for any work actually completed and acceptable prior to the RPR's order to omit or non-perform such contract item.

Acceptable materials ordered by the Contractor or delivered on the work prior to the date of the RPR's order will be paid for at the actual cost to the Contractor and shall thereupon become the property of the Owner.

In addition to the reimbursement hereinbefore provided, the Contractor shall be reimbursed for all actual costs incurred for the purpose of performing the omitted contract item prior to the date of the RPR's order. Such additional costs incurred by the Contractor must be directly related to the deleted contract item and shall be supported by certified statements by the Contractor as to the nature the amount of such costs.

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**90-05 Payment for extra work.** Extra work, performed in accordance with Section 40, paragraph 40-04, *Extra Work*, will be paid for at the contract prices or agreed prices specified in the change order or supplemental agreement authorizing the extra work.

**90-06 Partial payments.** Partial payments will be made to the Contractor at least once each month as the work progresses. Said payments will be based upon estimates, prepared by the RPR, of the value of the work performed and materials complete and in place, in accordance with the contract, plans, and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored in accordance with paragraph 90-07, *Payment for Materials on Hand*. No partial payment will be made when the amount due to the Contractor since the last estimate amounts to less than five hundred dollars. *Retainage shall be as specified in the Kentucky Transportation Cabinet specifications and as specified in the Contract.*

It is understood and agreed that the Contractor shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders or supplemental agreements, except when such excess quantities have been determined by the RPR to be a part of the final quantity for the item of work in question.

No partial payment shall bind the Owner to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment as provided in paragraph 90-09, *Acceptance and Final Payment*.

The Contractor shall deliver to the Owner a complete release of all claims for labor and material arising out of this contract before the final payment is made. If any subcontractor or supplier fails to furnish such a release in full, the Contractor may furnish a bond or other collateral satisfactory to the Owner to indemnify the Owner against any potential lien or other such claim. The bond or collateral shall include all costs, expenses, and attorney fees the Owner may be compelled to pay in discharging any such lien or claim.

**90-07 Payment for materials on hand.** Partial payments may be made to the extent of the delivered cost of materials to be incorporated in the work, provided that such materials meet the requirements of the contract, plans, and specifications and are delivered to acceptable sites on the airport property or at other sites in the vicinity that are acceptable to the Owner. Such delivered costs of stored or stockpiled materials may be included in the next partial payment after the following conditions are met:

- a. The material has been stored or stockpiled in a manner acceptable to the RPR at or on an approved site.
- b. The Contractor has furnished the RPR with acceptable evidence of the quantity and quality of such stored or stockpiled materials.
- c. The Contractor has furnished the RPR with satisfactory evidence that the material and transportation costs have been paid.
- d. The Contractor has furnished the Owner legal title (free of liens or encumbrances of any kind) to the material stored or stockpiled.
- e. The Contractor has furnished the Owner evidence that the material stored or stockpiled is insured against loss by damage to or disappearance of such materials at any time prior to use in the work.

It is understood and agreed that the transfer of title and the Owner's payment for such stored or stockpiled materials shall in no way relieve the Contractor of their responsibility for furnishing and placing such materials in accordance with the requirements of the contract, plans, and specifications.

In no case will the amount of partial payments for materials on hand exceed the contract price for such materials or the contract price for the contract item in which the material is intended to be used.

No partial payment will be made for stored or stockpiled living or perishable plant materials.

The Contractor shall bear all costs associated with the partial payment of stored or stockpiled materials in accordance with the provisions of this paragraph.

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**90-08 Payment of withheld funds.** At the Contractor's option, if an Owner withholds retainage in accordance with the methods described in paragraph 90-06 *Partial Payments*, the Contractor may request that the Owner deposit the retainage into an escrow account. The Owner's deposit of retainage into an escrow account is subject to the following conditions:

a. The Contractor shall bear all expenses of establishing and maintaining an escrow account and escrow agreement acceptable to the Owner.

b. The Contractor shall deposit to and maintain in such escrow only those securities or bank certificates of deposit as are acceptable to the Owner and having a value not less than the retainage that would otherwise be withheld from partial payment.

c. The Contractor shall enter into an escrow agreement satisfactory to the Owner.

d. The Contractor shall obtain the written consent of the surety to such agreement.

**90-09 Acceptance and final payment.** When the contract work has been accepted in accordance with the requirements of Section 50, paragraph 50-15, *Final Acceptance*, the RPR will prepare the final estimate of the items of work actually performed. The Contractor shall approve the RPR's final estimate or advise the RPR of the Contractor's objections to the final estimate which are based on disputes in measurements or computations of the final quantities to be paid under the contract as amended by change order or supplemental agreement. The Contractor and the RPR shall resolve all disputes (if any) in the measurement and computation of final quantities to be paid within 30 calendar days of the Contractor's receipt of the RPR's final estimate. If, after such 30-day period, a dispute still exists, the Contractor may approve the RPR's estimate under protest of the quantities in dispute, and such disputed quantities shall be considered by the Owner as a claim in accordance with Section 50, paragraph 50-16, *Claims for Adjustment and Disputes*.

After the Contractor has approved, or approved under protest, the RPR's final estimate, and after the RPR's receipt of the project closeout documentation required in paragraph 90-11, *Contractor Final Project Documentation*, final payment will be processed based on the entire sum, or the undisputed sum in case of approval under protest, determined to be due the Contractor less all previous payments and all amounts to be deducted under the provisions of the contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

If the Contractor has filed a claim for additional compensation under the provisions of Section 50, paragraph 50-16, *Claims for Adjustments and Disputes*, or under the provisions of this paragraph, such claims will be considered by the Owner in accordance with local laws or ordinances. Upon final adjudication of such claims, any additional payment determined to be due the Contractor will be paid pursuant to a supplemental final estimate.

**90-10 Construction warranty.**

a. In addition to any other warranties in this contract, the Contractor warrants that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, workmanship, or design furnished, or performed by the Contractor or any subcontractor or supplier at any tier.

b. This warranty shall continue for a period of one year from the date of final acceptance of the work, except as noted. If the Owner takes possession of any part of the work before final acceptance, this warranty shall continue for a period of one year from the date the Owner takes possession.

c. The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Owner real or personal property, when that damage is the result of the Contractor's failure to conform to contract requirements; or any defect of equipment, material, workmanship, or design furnished by the Contractor.

d. The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for one year from the date of repair or replacement.

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e. The Owner will notify the Contractor, in writing *or via phone call*, within seven (7) days after the discovery of any failure, defect, or damage. *If the Contractor is notified with a phone call, the Engineer shall follow up with an email for documentation purposes.*

f. If the Contractor fails to remedy any failure, defect, or damage within 14 days after receipt of notice, the Owner shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

g. With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall: (1) Obtain all warranties that would be given in normal commercial practice; (2) Require all warranties to be executed, in writing, for the benefit of the Owner, as directed by the Owner, and (3) Enforce all warranties for the benefit of the Owner.

h. This warranty shall not limit the Owner's rights with respect to latent defects, gross mistakes, or fraud.

**90-11 Contractor Final Project Documentation.** Approval of final payment to the Contractor is contingent upon completion and submittal of the items listed below. The final payment will not be approved until the RPR approves the Contractor's final submittal. The Contractor shall:

a. Provide two (2) copies of all manufacturers warranties specified for materials, equipment, and installations.

b. Provide weekly payroll records (not previously received) from the general Contractor and all subcontractors.

c. Complete final cleanup in accordance with Section 40, paragraph 40-08, *Final Cleanup*.

d. Complete all punch list items identified during the Final Inspection.

e. Provide complete release of all claims for labor and material arising out of the Contract.

f. Manufacturer's certifications for all items incorporated in the work.

g. Security for Construction Warranty.

h. Equipment commissioning documentation submitted, if required.

**END OF SECTION 90**

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## **SECTION A – FEDERAL AVIATION ADMINISTRATION REQUIREMENTS**

Sections A-01 thru A-025 are not applicable to this project and have been removed from the specifications.  
This project is 100% State funded.

## **SECTION B – STATE TERMS AND CONDITIONS**

### **B-01 GENERAL**

The intent of these specifications is to outline the requirements set forth by the FAA and the State of Kentucky; however, this document does not include all applicable State laws. All requirements set forth by the State of Kentucky for bidding, bonding, and wages shall be included by reference herein. If for any reason that the Federal and/or State requirements conflict with the requirements set forth in this contract, the more stringent of the requirements shall govern.

### **B-02 KENTUCKY AIRPORT ZONING COMMISSION (KAZC)**

There is no KAZC permit required on this project.

## **SECTION C – LOCAL TERMS AND CONDITIONS**

### **C-01 CONTRACTOR'S INSURANCE**

Insurance shall meet the requirements of the Kentucky Transportation Cabinet (KYTC).

### **C-02 UTILITIES**

All work in this contract shall be in accordance with the Kentucky Underground Facilities Damage Prevention Act. The Contractor shall abide by the most current edition of this Act.

Underground utilities exist within and adjacent to the limits of construction. An attempt has been made to locate these utilities on the plans. However, all existing utilities may not be shown and the actual locations of the utilities may vary from the locations shown.

The Contractor shall be responsible for the protection of all existing utilities, structures, equipment, or improvements crossed by or adjacent to his construction operations. Where existing utilities, service lines, structures, equipment, etc. are cut, broken, or damaged, the Contractor shall replace or repair immediately these items with the same type of original material and construction or better, at his own expense to the satisfaction of the Owner and the Engineer. After damage discovery, the Contractor shall immediately coordinate with the Owner and the Engineer on the complete repair and/or replacement work required. Following written notice of work required, the Contractor shall expeditiously begin and finish this work with all labor and materials required. All repair and/or replacement work, labor, and materials shall be supplied and installed by the Contractor. If the Contractor fails to promptly perform the repair work and correct all deficiencies, the Owner shall have the option of remedying the defects and any expenses incurred by the Owner shall be withheld from the Contractor's payments.

### **C-03 LEGAL HOLIDAYS**

Legal holidays shall be as specified in the Kentucky Transportation Department of Highways, *Standard Specifications for Road and Bridge Construction*, 2012.

### **C-04 CLEAN UP**

From time to time, the Contractor shall clean up the site, including any work areas at the airport, in order that the site presents a neat appearance and the progress of the work not be impeded. One such period of clean up shall immediately precede final inspection.

Immediately following acceptance of the work by the Owner, the Contractor shall remove all temporary plant, equipment, surplus materials, and debris resulting from his operations, and leave the site in a condition fully acceptable to the Owner.

### **C-05 PROJECT MEETINGS AND COORDINATION**

A preconstruction conference will be called by the Engineer at a time convenient to the Owner and before the issuance of the "Notice to Proceed". The Engineer and the Contractor and such subcontractors as the Contractor may desire shall attend this meeting with the Owner.

The Owner and/or Engineer will call such coordination conferences as may seem expedient to him for the purpose of assuring coordination of the work covered by this Contract. The Contractor shall attend all such conferences. This in no way relieves the Contractor of his responsibility to fully coordinate his work under this Contract.

## **C-06 LIQUIDATED DAMAGES FOR DELAY**

The number of CALENDAR DAYS allowed for completion of the project is stipulated in the Proposal and in the Contract and shall be known as the Contract Time. The Contractor agrees that time is a critical element for this Contract. Loss will accrue to the Owner due to delayed completion of the work; and the cost to the Owner of the administration of the Contract, including engineering, inspection, and supervision, will be increased as the time occupied in the work is lengthened. The Contractor agrees that for each day of delay beyond the number of CALENDAR DAYS herein agreed upon for the completion of the work herein specified and contracted for, the Owner may withhold, permanently, from the Contractor's total compensation, the sum of One Thousand Two-Hundred Fifty Dollars (\$1,250) as stipulated damages for each day of such delay.

It is understood and agreed by and between the Owner and the Contractor that the time of completion herein set out is a reasonable time. The Contractor shall perform fully, entirely, and in an acceptable manner, the work contracted for within the contract time stated in the Contract. The contract time shall be counted from ten days after the effective date of the "Notice to Proceed", or the date work commences, whichever occurs first; and shall include all Sundays, holidays, and non-work days. All calendar days elapsing between the effective dates of any orders of the Engineer for suspension of the prosecution of the work, due to the fault of the Contractor, shall be counted as elapsed contract time, and shall not be considered for an extension of time.

Extensions of time for completion, will be as stipulated in the General Provisions.

The Engineer or other authorized representative of the Owner shall keep a written record sufficient for determination as to the inclusion of that day in the computation of Contract time. This record shall be available for examination by the Contractor during normal hours of work as soon as feasible after the first of each construction month. In case of disagreement between the representative of the Owner and the Contractor, as to the classification of any day, the matter shall be referred to the Owner whose decision shall be final.

If the Contractor finds it impossible for reasons beyond his control to complete the work within the Contract time as specified, or as extended in accordance with the provisions of this subsection, he may, at any time prior to the expiration of the Contract time as extended, make a written request to the Engineer for an extension of time setting forth the reasons which he believes will justify the granting of his request. The Contractor's plea that insufficient time was specified is not a valid reason for extension of time. If the Engineer finds that the work was delayed because of conditions beyond the control and without the fault of the Contractor, he may recommend to the Owner that the contract time be extended as conditions justify. If the Owner extends the contract, the extended time for completion shall then be in full force and effect, the same as though it were the original time for completion.

The amount of all extensions of time for whatever reason granted shall be determined by the Owner. In general, only actual and not hypothetical days of delay will be considered. The Owner shall have authority to grant additional extensions of time as the Owner may deem justifiable.

## **C-07 CARE OF WORK**

The Contractor shall avoid damage, as a result of his operations, to existing sidewalks, streets, curbs, pavements, utilities (except those which are to be replaced or removed), adjoining property, equipment, etc., and he shall at his own expense completely repair any damage thereto caused by his operations, to the satisfaction of the Owner and Engineer. After damage discovery, the Contractor shall immediately coordinate with the Owner and the Engineer on the complete repair and/or replacement work required. Following written notice of work required, the Contractor shall expeditiously begin and finish this work with all labor and materials required. All repair and/or replacement work, labor, and materials shall be supplied and installed by the Contractor. If the Contractor fails to promptly perform the repair work and correct all deficiencies, the Owner

shall have the option of remedying the defects and any expenses incurred by the Owner shall be withheld from the Contractor's payments.

#### **C-08 QUALITY ASSURANCE/MATERIALS TESTING**

The Kentucky Transportation Cabinet shall be responsible for quality assurance testing as stated in these specifications; however, the Contractor shall be responsible for payment of any subsequent tests made necessary by previous unsatisfactory tests. In this event, the Owner's quality assurance representative shall conduct the additional testing and payment for such tests shall be directly deducted from the Contractor's payment. The Contractor shall pay for additional testing at the Owner's contract rate. *The Contractor shall also be responsible with supplying the materials to be tested by the Department.*

#### **C-09 RECORD DOCUMENTS**

The Contractor shall keep one record copy of all Specifications, Drawings, Addenda, Modifications, Shop Drawings and samples at the site, in good order, and annotated to show all changes made during the construction process. In addition, the Contractor shall note any differences between locations of underground existing facilities shown in the plans and the actual location located during construction. These record documents shall be available to the Engineer for examination and shall be delivered to the Engineer upon completion of the work.

#### **C-10 CONTRACTOR/SUBCONTRACTOR/SUPPLIER LEGAL DISPUTES**

Any fees, expenses, charges, fines or other costs borne by the Owner as a result of legal disputes or lawsuits between the contractor and his subcontractors, or between the contractor and his suppliers, shall be deducted from monies due or which may thereafter become due the contractor.

#### **C-11 GENERAL GUARANTY**

Neither the final certificate of payment nor any provision in the Contract nor partial or entire use of the improvements embraced in this contract by the Owner or the public shall constitute an acceptance of work not done in accordance with the Contract or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting there, which shall appear within a period of 12 months from the date of final acceptance of the work. The Contractor will be responsible for all costs associated with construction observation and oversight for the repair work. The Owner will give notice of defective materials and work with reasonable promptness. In the event repair work is required, the Contractor shall remedy any defects and pay for any damage to other work resulting there, which shall appear within a period of 12 months from the date of the acceptance of the repair work.

#### **C-12 CONTRACTOR'S RELEASE AND AFFIDAVIT**

At the project's completion, the Contractor shall execute the attached Release and Lien Waiver to release all claims against the Owner arising under and by virtue of his Contract. The date of the Release shall be that agreed to for the final acceptance of the project with the Owner.

#### **C-13 SUBMITTALS**

The Contractor shall prepare and submit information required by the individual Specification sections sufficiently in advance of the related work to allow an appropriate review time by the Engineer. The types of submittals are indicated in the individual Specification sections.

During the preconstruction conference, the Contractor shall review his submittal schedule and procedures, including notifying the Engineer whether electronic submittals or paper submittals will be provided for all

submittal packages in the project. Mixing of package types will not be allowed. The Contractor shall provide one of the following submittal package types:

1. Submit electronic submittals via email as PDF electronic files directly to the Engineer's designated representative, or post these PDF electronic files directly to the Engineer's FTP site specifically established for this project. Electronic submittals shall be in Adobe Acrobat (\*.PDF) format and shall be legible when printed.

Email Submittals to Mark Upchurch at [MDUpchurch@GarverUSA.com](mailto:MDUpchurch@GarverUSA.com)

Submittals shall be neat, organized, and easy to interpret. Assemble complete submittal package into a single indexed electronic file or hard cover bound book, incorporating submittal requirements of an individual Specification section, and the transmittal form with unique submittal numbering system, and electronic links or tabs enabling navigation to each item. Unless approved otherwise by the Engineer, all submittals for the individual Specification section shall be submitted at one time.

Submittals must come directly from the Prime Contractor; submittals from subcontractors or suppliers will not be reviewed.

Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review. Faxed submittals or submittals with extremely small or otherwise unreadable print will not be accepted. Submittals not required by the Contract Documents will be returned by the Engineer without action.

The Contractor shall retain complete copies of submittals on project site. Use only final submittals that are marked with approval notation from Engineer's submittal review stamp with comments form.

Resubmittals shall continue the unique, sequential, submittal numbering system. Resubmittals without unique numbering, example resubmittals transmitted as 005A or 005REV, are unacceptable and will be returned un-reviewed.

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#### END OF SPECIAL PROVISIONS

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**RELEASE OF LIEN**

FROM: Contractor's Name: \_\_\_\_\_

Address: \_\_\_\_\_

TO: Owner's Name: \_\_\_\_\_

Address: \_\_\_\_\_

DATE OF CONTRACT: \_\_\_\_\_

Upon receipt of the final payment and in consideration of that amount, the undersigned does hereby release the Owner and its agents from any and all claims arising under or by virtue of this Contract or modification thereof occurring from the undersigned's performance in connection with the

\_\_\_\_\_

project.

Contractor's Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires:  
\_\_\_\_\_

**CONTRACTOR'S AFFIDAVIT**

FROM: Contractor's Name: \_\_\_\_\_

Address: \_\_\_\_\_

TO: Owner's Name: \_\_\_\_\_

Address: \_\_\_\_\_

DATE OF CONTRACT: \_\_\_\_\_

I hereby certify that all claims for material, labor, and supplies entered into contingent and incident to the construction or used in the course of the performance of the work on the

\_\_\_\_\_

project have been fully satisfied.

Contractor's Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires:  
\_\_\_\_\_

The Surety Company consents to the release of the retained percentage on this project with the understanding that should any unforeseen contingencies arise having a right of action on the bond that the Surety Company will not waive liability through the consent to the release of the retained percentage.

Dated: \_\_\_\_\_

Surety Company: \_\_\_\_\_

By: \_\_\_\_\_  
Resident Agent, State of Kentucky

## ITEM SS-101 SAFETY PLAN COMPLIANCE DOCUMENT (SPCD)

### DESCRIPTION

101-1.1 The Contractor shall thoroughly review the approved Construction Safety and Phasing Plan (CSPP) and shall comply with approved CSPP. The Contractor shall certify such compliance by completing the attached SPCD and submitting to the Engineer for approval.

**Contractor Safety Plan Compliance Documents**

Owner Name:  Kentucky Transportation Cabinet Department of Aviation

Airport:  Capital City Airport

Project Description:  Airfield Pavement Rehabilitation Project

Contractor: \_\_\_\_\_

Each item listed below corresponds to a specific section of the approved CSPP. The Contractor shall certify that he/she will comply with each section of the approved CSPP. Each certified section with a "no" response must be fully explained in an attachment to the SPCD. The document shall be signed and dated by a principle or owner in the Contractor's company. All other requested information shall be completed by the Contractor and submitted to the Engineer for approval as part of the SPCD.

1. **Section 1 - Correspondence:** This project shall be completed in accordance with Section 1 "Coordination" of the approved Construction Safety Plan Compliance Document.

<b>Owner:</b> Kentucky Transportation Cabinet	
<b>Contact:</b> Craig Farmer, PE	<b>Phone:</b> 502-564-0248
<b>Engineer:</b> Garver	
<b>Project Manager:</b> Mark Upchurch, PE	<b>Phone:</b> 615-927-6150
<b>Construction Observer:</b>	<b>Phone:</b>
<b>Materials Testing:</b>	<b>Phone:</b>
<b>Contractor:</b>	
<b>Project Manager:</b>	<b>Phone:</b>
<b>Superintendent:</b>	<b>Phone:</b>
<b>Subcontractors:</b>	<b>Phone:</b>

Yes \_\_\_\_\_ No \_\_\_\_\_

2. **Section 2 - Phasing:** This project shall be completed in accordance with Section 2 "Phasing" of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

3. **Section 3 - Areas of Operations Affected by Construction Activity:** This project shall be completed in accordance with Section 3 "Areas of Operations Affected by Construction Activity" of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

4. **Section 4 – Protection of Navigational Aids (NAVAIDS):** This project shall be completed in accordance with Section 4 “Protection of Navigational Aids (NAVAIDS)” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

5. **Section 5 – Contractor Access:** This project shall be completed in accordance with Section 5 “Contractor Access” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

6. **Section 6 – Wildlife Management:** This project shall be completed in accordance with Section 6 “Wildlife Management” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

7. **Section 7 – Foreign Object Debris (FOD) Management:** This project shall be completed in accordance with Section 7 “Foreign Object Debris (FOD) Management” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

8. **Section 8 – Hazardous Materials (HAZMAT) Management:** This project shall be completed in accordance with Section 8 “Hazardous Materials (HAZMAT) Management” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

9. **Section 9 – Notification of Construction Activities:** This project shall be completed in accordance with Section 9 “Notification of Construction Activities” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

10. **Section 10 – Inspection Requirements:** This project shall be completed in accordance with Section 10 “Inspection Requirements” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

11. **Section 11 – Underground Utilities:** This project shall be completed in accordance with Section 11 “Underground Utilities” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

12. **Section 12 – Penalties:** This project shall be completed in accordance with Section 12 “Penalties” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

13. **Section 13 – Special Conditions:** This project shall be completed in accordance with Section 13 “Special Conditions” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

14. **Section 14 – Runway and Taxiway Visual Aids:** This project shall be completed in accordance with 14 “Runway and Taxiway Visual Aids” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

15. **Section 15 – Marking and Signs for Access Routes:** This project shall be completed in accordance with Section 15 “Marking and Signs for Access Routes” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

16. **Section 16 – Hazard Marking and Lighting:** This project shall be completed in accordance with Section 16 “Hazard Marking and Lighting” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

17. **Section 17 – Protection of Safety Areas, Object Free Areas, Object Free Zones, and Approach / Departure Surfaces:** This project shall be completed in accordance with Section 17 “Protection of Safety Areas, Object Free Areas, Object Free Zones, and Approach / Departure Surfaces” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

18. **Section 18 – Other Limitations on Construction:** This project shall be completed in accordance with Section 18 “Other Limitations on Construction” of the approved Construction Safety Plan Compliance Document.

Yes \_\_\_\_\_ No \_\_\_\_\_

I certify that, for the project identified herein, the responses to the foregoing items are correct as marked, and that I shall comply with the approved Construction Safety and Plan.

Signed: \_\_\_\_\_  
Contractor's Authorized Representative

Date: \_\_\_\_\_

\_\_\_\_\_  
Print Name and Title of Contractor's Representative

**END OF ITEM SS-101**

## ITEM SS-110 KYTC STANDARD SPECIFICATION ITEM FOR CONSTRUCTION

### GENERAL

110-1.1 The standard specifications of the Kentucky Transportation Cabinet (KYTC) are bound in a book titled Standard Specifications for Road and Bridge Construction. These specifications are referred to herein as "Standard Specifications." The latest edition shall apply. A copy of these "Standard Specifications" may be obtained from the KYTC at their customary charge.

**END OF ITEM SS-110**

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## ITEM SS-120 SITE PREPARATION

### DESCRIPTION

120-1.1 This item covers the preparation of the site for construction of the proposed improvements. The attention of the bidder is directed to the necessity for careful examination of the entire project site to determine, at the time of bid preparation, the full extent of work to be done under the items "Mobilization" and "Demobilization". The entire job site shall be cleared of all man-made obstructions and debris, of whatever nature, and made ready in all respects for the construction of the proposed improvements.

The item "Site Preparation" shall include:

1. Mobilization
2. Lighted Barricades and Runway Closure Markings
3. Contractor's Staging/Parking Areas
4. Airport Security Requirements
5. Airport Safety Requirements
6. Lockout / Tagout Program
7. Instrument Control
8. Clean Up

The item "Demobilization" shall include:

1. Final clean-up
2. Costs incurred after acceptable completion of construction operations on the project

### CONSTRUCTION METHODS

120-2.1 MOBILIZATION. The Contractor shall consider and include his cost for providing personnel, equipment, materials, bonds, etc. required for the prosecution of the work under this item. The contractor shall document the preconstruction conditions of all park and airfield pavements, structures, electrical, and other general structures within the project area. Documentation shall be made available to the Engineer upon request. And damage noticed after the mobilization phase will be repaired by the Contractor at no additional cost to the Owner.

As described in the Standard Specifications subsection 110.01 Mobilization, the Contractor shall not bid an amount for Mobilization that exceeds five (5) percent of the sum of the total amounts for all items in the bid proposal, excluding "Site Preparation" and "Demobilization".

120-2.2 LIGHTED BARRICADES AND RUNWAY CLOSURE MARKERS. The Owner will furnish both runway closure markers and low-profile lighted barricades. It will be the responsibility of the Contractor to install, maintain, and remove closed runway markings in accordance with details on the plans and as directed by the Engineer. The Contractor shall return runway closure markers to Owner at the end of the project. The Contractor shall be responsible for providing adequate material to secure the closure markers and barricades to the airfield pavements. Bags filled with either sand or gravel for weight of markers shall be of same aviation yellow color as marker and of sufficient quantity to secure to pavement under all weather conditions. When possible, the Contractor shall place the closure markers on the runway designators. If the closure markers shall be installed on the ground, the Contractor will be required to seed, water, and protect the discolored/dead grass at the end of the project at no additional cost to the Owner.

The Contractor shall install, maintain, and remove the low profile lighted barricades. The lighted barricades shall be placed at the locations shown on the plans. All low profile lighted barricades shall be constructed/maintained in accordance with AC 150/5370-2F Operational Safety on Airports During

Construction. The Contractor shall inventory the existing condition of the low profile barricades and runway closure markers. The Contractor will be responsible for replacing any damaged or lost low profile barricades or runway closure markers.

All work involved in the installation, maintenance, relocation, and removal of low profile lighted barricades and closed runway markings will not be measured for separate payment, but will be considered subsidiary to the bid item "Site Preparation".

120-2.3 CONTRACTOR'S STAGING/PARKING AREAS. The Contractor may elect to use the staging area designated on the plans for staging equipment and employee parking. This area is to the east of the t-hangars. The Contractor shall review the staging areas displayed on the plans. At no time shall the Contractor's equipment be stored on the airport's terminal apron or on any active airfield pavement. All deliveries of material to the airport shall be sent to the following address attention to the Contractor. A Contractor's representative shall be on-site to accept the materials. The Owner reserves the right to reject any and all shipments delivered to site without a contractor representative.

Capital City Airport  
Attention: Contractor  
90 Airport Road  
Frankfort, Kentucky 40601

All areas used or otherwise occupied by the Contractor for his operations shall be cleaned, re-graded, and seeded with mulch, as directed by the Engineer, prior to the final acceptance of the project by the Airport. All work involved in the preparation and restoration of areas used or occupied by the Contractor, including clearing, grubbing, subgrade stabilization, re-grading, seeding, mulching and installing and removing fence, will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation".

120-2.4 AIRPORT SECURITY REQUIREMENTS. The Contractor shall abide by the Airport Security requirements that are outlined in the Construction Safety and Phasing Plan (CSPP) of the plans. The Contractor shall be responsible for ensuring the access gate is locked or gated at all times. The Contractor shall be responsible for providing a lock and key or gate guard for the entire length of the project. If the Contractor elects to have a gate guard, the gate guard shall be an employee of the Contractor and shall be vetted and approved by the Airport staff. The gate guard shall be responsible for only permitting construction employees, engineers, or airport staff to the project site. Any costs associated with the Airport Security requirements will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation".

120-2.5 AIRPORT SAFETY REQUIREMENTS. The Contractor shall abide by the Airport Safety requirements that are outlined in the Construction Safety and Phasing Plan (CSPP) of the plans. All costs associated with the Airport Safety requirements will not be measured for separate payment but will be considered subsidiary to the bid item "Site Preparation".

120-2.6 LOCKOUT / TAGOUT PROGRAM. The Contractor shall submit a complete copy of an electrical energy source Lockout/Tagout Program in accordance with Part 1910 – Occupational Safety and Health Standards (OSHA) Subpart S – Electrical, that meets the requirements of 29 CFR 1910.147, The Control of Hazardous Energy (Lockout/Tagout), including requirements listed in 1910.331 through 1910.335. Implementation of the Lockout/Tagout Program and the related safety requirements are the sole responsibility of the Contractor. It should be noted, the Contractor will be required to lockout-tagout the system once (1) during the project as the runway will be closed for the duration of the project. All work involved in the preparation and implementation of the Lockout/Tagout Program will not be measured for separate payment, but will be considered subsidiary to the bid item "Lockout-Tagout and CC Regulator Cal Pro"

120-2.7 INSTRUMENT CONTROL. The Contractor will be furnished survey baselines and benchmarks to control the work as shown on the Plans. The Contractor shall be responsible for the additional instrument control necessary to layout and construct the work. The Contractor's instrument control of the work shall not be measured for separate payment, but will be considered subsidiary to the bid item "Site Preparation".

Marking layout will be required. The Contractor shall provide a licensed surveyor to complete the marking layout.

120-2.8 CLEAN UP. From time to time, the Contractor shall clean up the site in order that the site presents a neat appearance and that the progress of work will not be impeded. One such clean up shall immediately precede final inspection.

Immediately following acceptance of the work by the Owner, the Contractor shall remove all temporary equipment, surplus materials, and debris resulting from his operations, and leave the site in a condition fully acceptable to the Owner.

120-2.10 DEMOBILIZATION. Includes all work and operations necessary to accomplish final clean-up to move personnel, equipment, supplies and incidentals from the project site; and to accomplish all other work that must be performed, including costs that must be incurred, after acceptable completion of construction operations on the project.

It shall be set at minimum of \$1,000 or 1.5 percent of the sum of the total amounts bid for all other items in the Bid Proposal, excluding "Site Preparation", "Demobilization" and contingent amounts established for adjustments and incentives.

Payment for this item will not be released to the Contractor until all work performed has been accepted by the Owner, Engineer and KDA and shall follow all other requirements referenced in various sections of these specifications where "retainage" is referenced.

#### MEASUREMENT AND PAYMENT

120-3.1 Site Preparation will be measured as a lump sum complete item. Work completed and accepted under this item will be paid for at the contract lump sum price bid for "Site Preparation," which price shall be full compensation for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

Periodic payments will be made under this item in proportion to the amount of work accomplished, as determined by the Engineer.

120-3.2 Demobilization will be measured as lump sum complete item. Work completed and accepted under this item will be paid for at the contract lump sum price bid for "Demobilization" which shall be full compensation for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Demobilization will be paid for according to the following schedule:

- 1) 25 percent upon formal acceptance of the project.
- 2) 50 percent when the final estimate is submitted to the district office
- 3) 25 percent when the final estimate is paid

120-3.3 Lockout-Tagout will be measured as a lump sum complete item. Work completed and accepted under this item will be paid for at the contract lump sum price bid for "Lockout-Tagout and CC Regulator Cal Pro". It is anticipated 50% to be paid for when the lighting system is shut down and the next 50% when the lighting system is restored and the airfield open. It should be noted, the Contractor will be required to lockout-tagout the system once (1) during the project as the runway will be closed for the duration of the project.

Lockout-Tagout will be paid for according to the following schedule:

- 1) 50 percent upon lockout of the lighting system.
- 2) 50 percent once the lighting system is restored and the airfield opened.

Payment will be made under:

Item SS-120-3.1	Site Preparation - per Lump Sum
Item SS-120-3.2	Demobilization – per Lump Sum
Item SS-120-3.3	Lockout-Tagout and CC Regulator Cal Pro – per Lump Sum

**END OF ITEM SS-120**

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## ITEM SS-152 SHOULDERING

### DESCRIPTION

152-2.1 This item covers stripping, stockpiling, shaping, placing, and compacting all soil materials within the limits of the work in accordance with these specifications and at the locations shown on the plans or as directed by the Engineer.

152-2.2 This section covers the furnishing and placing of approved Zoysia sod, fertilizer, and water to form solid mats on areas shown on the Plans or as directed by the Engineer.

### MATERIALS

152-2.1 Topsoil. Unless modified herein, Topsoil shall be furnished and placed in accordance with applicable sections listed in Section 212 Erosion Control of the KYTC Standard Specifications for Road and Bridge Construction. Topsoil shall be obtained from an approved off-site location conforming to the subsection 827.10 "Topsoil". Topsoil shall be removed from an approved off-site source, distributed, shaped, and lightly compacted to a depth of 4 inches. The disturbed area shall be prepared for seeding in accordance with subsection 212.03.03. The Contractor shall provide certified documentation that the off-site top soil meets the requirements listed in subsection 827.10. An example of acceptable topsoil composition per KYTC is as follows:

Clay	40% maximum
Silt	70% maximum
Sand	60% maximum
Organic Material	2% minimum, 10% maximum
pH	6.0 minimum and 7.0 maximum

152-2.3 Sod. Materials and work shall be in accordance with Section 827 Erosion Control Materials SODDING of the Standard Specifications for Road and Bridge Construction, Kentucky Transportation Cabinet, 2012 Edition, except as herein modified or augmented. The sod shall be Zoysia sod and the Contractor shall obtain approval of sod source from the Engineer prior to cutting. A form for source of approval includes a certification from the State Entomologist.

### CONSTRUCTION METHODS

152-3.1 General. Before beginning any grading operations, the area shall be staked out by the Contractor and approved by the Engineer.

152-3.2 Preparation of Embankment. Before beginning any embankment, the areas where the embankment is to be made shall be stripped or disked to a minimum depth of four inches. Topsoil obtained from the stripping operations shall be salvaged and stockpiled for later use. The Contractor shall use caution as there are base mounted lights in the area as well as counterpoise wire. The counterpoise wire is roughly 5 feet off edge of pavement and at a depth of 8 inches. However, the Contractor shall verify the location of the counterpoise as to not damage it during shouldering operations. Any damage to the counterpoise shall be repaired by the Contractor at no additional cost to the owner. All lights, bases, signs, and NAVAIDs are scheduled to remain and shall be protected during construction. Some hand work maybe required around the edge lights.

If it is necessary to interrupt existing surface drainage, sewers or under-drainage, conduits, utilities, or similar underground structures the Contractor shall be responsible for and shall take all necessary precautions to preserve them or provide temporary services. When such facilities are encountered, the Contractor shall notify the Engineer, who shall arrange for their removal if necessary. The Contractor shall, at his/her own expense, satisfactorily repair or pay the cost of all damage to such facilities or structures which may result from any of the Contractor's operations during the period of the contract.

Along the edges of airfield pavement, topsoil shall be placed to provide a 1.5 inch drop-off from the edge of the

new pavement surface to ground level and provide grading from the pavement edge to the shoulder as shown in the plans. The shoulder shall be graded as to maintain a positive drainage away from the airfield pavements.

152-3.3 Shouldering. Site grading shall be performed in accordance with the plans and as directed by the Engineer. Areas along all newly pavement edges shall be regraded to promote positive drainage away from the pavement edge and at no time shall the edge drop from the finished pavement surface to the compacted finished topsoil grade exceed 1.5 inch. After grading operations are complete, the previously salvaged topsoil shall be spread over the graded area in a uniform thickness with a compacted depth of no less than 4-inches unless otherwise approved by the Engineer.

Excess soil material may be disposed of on-site in a location approved by the Owner.

After completion of the site grading and placement of the topsoil, the Contractor shall place topsoil and sodding to the limits previously staked out in accordance with the plans and specifications. Patches of bare spots, ruts, divots, isolated areas and erosion gullies shall be reworked and reseeded as necessary until substantial growth is established to the satisfaction of the Owner and the Engineer before final payment will be approved.

152-3.4 Sodding. Areas to be sodded shall be shaped and graded to an elevation in such manner that they will, after placement of sod, conform to the grades shown on the plans and as described in Section 152-3.2.

After grading of areas has been completed and before applying fertilizer and limestone, areas to be sodded shall be raked or otherwise cleared of stones larger than 2 inches in any diameter, sticks, stumps, and other debris which might interfere with sodding, growth of grasses, or subsequent maintenance of grass-covered areas. If any damage by erosion or other causes occurs after grading of areas and before beginning the application of fertilizer and ground limestone, the Contractor shall repair such damage. This may include filling gullies, smoothing irregularities, and repairing other incidental damage.

Sodding shall be performed only during the seasons when satisfactory results can be expected. Frozen sod shall not be used and sod shall not be placed upon frozen soil. Sod may be transplanted during periods of drought with the approval of the Engineer, provided the sod bed is watered to moisten the soil to a depth of at least 4 inches immediately prior to laying the sod.

The sod shall be moist and shall be placed on a moist earth bed. Pitch forks shall not be used to handle sod, and dumping from vehicles shall not be permitted.

The sod shall be delivered in rolls and placed by rolling the sod into place. The sod shall immediately be pressed firmly into contact with the sod bed by tamping or rolling with approved equipment to provide a true and even surface, and ensure knitting without displacement of the sod or deformation of the surfaces of sodded areas. Where the sod may be displaced during sodding operations, the workmen, when replacing it, shall work from ladders or treaded planks to prevent further displacement. Screened soil of good quality shall be used to fill all cracks between sods. The quantity of the fill soil shall not cause smothering of the grass.

Some hand work may be required around the light bases and sign bases. When hand work is required, the sod shall be carefully placed by hand, edge to edge and with staggered joints, in rows at right angles to the slopes, commencing at the base of the area to be sodded and working upward.

Where the grades are such that the flow of water will be from paved surfaces across sodded areas, the surface of the soil in the sod after compaction shall be set approximately one inch below the pavement edge. Where the flow will be over the sodded areas and onto the paved surfaces around manholes and inlets, the surface of the soil in the sod after compaction shall be placed flush with pavement edges.

On slopes steeper than one (1) vertical to 2-1/2 horizontal and in v-shaped or flat-bottom ditches or gutters, the sod shall be pegged with wooden pegs not less than 12 inches in length and have a cross-sectional area of not less than 3/4 sq inch. The pegs shall be driven flush with the surface of the sod.

Immediately following the sodding operations, all areas shall be cleaned of all debris, excess sod, topsoil, or other objectionable matter. All such clean-up operations shall be completed before sodded areas are measured for payment as described below.

The Contractor shall provide general care for the sodded areas as soon as the sod has been laid and shall continue until final inspection and acceptance of the work. Adequate water and watering equipment must be on hand before sodding begins, and sod shall be kept moist until it has become established and its continued growth assured. In all cases, watering shall be done in a manner that will avoid erosion from the application of excessive quantities and will avoid damage to the finished surface. The Contractor shall be responsible for furnishing the water required to water the sod.

When the surface has become gullied or otherwise damaged during the period covered by this contract, the affected areas shall be repaired to re-establish the grade and the condition of the soil, as directed by the Engineer, and shall then be re-sodded

#### METHOD OF MEASUREMENT

152-4.1 Shouldering shall be measured and paid for by the unit price bid per square yard, approved and accepted by the Engineer. There will be no separate measurement of payment for stripping, placing and compacting topsoil, as these items shall be included in the unit price bid.

152-4.2 Areas covered by living sod completed and accepted will be measured by the square yard to the nearest square yard.

#### BASIS OF PAYMENT

152-5.1 Payment for "Shouldering" shall be made at the contract unit price per square yard. This price shall be full compensation for furnishing all materials, labor, equipment, tools, and incidentals necessary to complete the item.

152-5.2 Solid sodding acceptably completed, and measured as provided above, will be paid for at the contract unit price per square yard bid for "SODDING," which price shall be full compensation for furnishing and placing all materials, including sod, fertilizer, and water; for clean-up work; and for all equipment, tools, labor and incidentals necessary to complete the work.

Payment will be made under:

- Item SS-152-5.1 Shouldering – per Square Yard
- Item SS-152-5.2 Sodding – per Square Yard

**END OF ITEM SS-152**

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## ITEM SS-225 MICROSURFACE

### DESCRIPTION

225-1.1 This work consists of constructing a cold-laid, polymer-modified, emulsified asphalt pavement course to fill ruts or provide an intermediate or surface course for existing pavements. The paving mixture is composed of a polymer-modified emulsified asphalt, crushed aggregate, mineral filler, water, and possibly other additives. Follow the requirements outlined in ASTM D 6372, Standard Practice for Design, Testing, and Construction of microsurfacing, with modifications as found in this note. Apply this material according to the locations shown in the plans or as established by the Engineer.

Unless otherwise noted, Section references herein are to the Kentucky Department's Standard Specifications for Road and Bridge Construction, current edition. All applicable portions of the Department's Standard Specifications apply unless specifically modified herein.

### MATERIALS

225-2.1 MINERAL FILLER. Use Portland Cement Type I, Conforming to Section 801. Mineral filler shall not exceed 2.0% by weight of the overall mix design unless otherwise approved by the Engineer.

225-2.2 AGGREGATE. Provide 100-percent crushed aggregate conforming to Sections 804 and 805. Contrary to Subsection 403.03.03, provide polish-resistant aggregate in the asphalt mixture conforming to the following requirements:

#### **Microsurfacing Type B**

- 100 percent of total combined aggregate is Class B or Class A polish-resistant aggregate.

Contrary to ASTM D 6372, test sand equivalent according to AASHTO T 176, soundness according to Kentucky Method (KM) 64-610, and a maximum LA abrasion resistance of 35 percent when tested according to AASHTO T 96. Ensure all aggregates satisfy ASTM D 6372 for sand equivalent (and be 65 or above), soundness, and LA abrasion listed above.

Do not use mineral aggregates that are inherently porous, such as blast-furnace slag, expanded shale, porous limestone, and lightweight aggregates, in this mixture.

Aggregate shall be free of vegetation, soft particles, clay lumps, dust, and other matter not suitable for microsurfacing.

The Contractor shall be required to notify the Engineering if there is a change in the source of aggregates from what was previously approved. The Contractor shall not bring aggregate to the site without prior approval from the Engineer.

225-2.3 WATER. Conform to Section 803.

225-2.4 EMULSIFIED ASPHALT. The polymer-modified emulsion will be a CQS-1hP conforming to AASHTO M 316 and tested according to T59. Distill sample at 350 °F. In addition, ensure that the emulsified asphalt conforms to the following criteria:

#### **Test**

Ductility at 77 °F (AASHTO T 51)

#### **Criteria**

40 cm (min)

Ensure the asphalt supplied can be found on the List of Approved Materials.

## EQUIPMENT

All equipment necessary for the satisfactory performance of the work shall be on hand and approved before the work is permitted to begin. All equipment, tools, and machines used in the performance of this work shall be maintained in satisfactory working condition.

All trucks shall be covered immediately after loading with a cover of canvas or other suitable material. The cover shall lap down along the sides and rear of the truck bed a minimum of 6 in. and be secured by tie downs at a maximum of 5 ft. spacing along the sides and rear of the truck bed. All trucks must be equipped to meet the above requirements prior to commencing hauling operations.

225-3.1 MIXING EQUIPMENT. Produce the mixture in a self-propelled, front-feed, continuous-loading machine equipped with a conveyer-belt aggregate-delivery system and an interconnected, positive-displacement, water-jacketed gear pump and/or a variable displacement computerized rate control pump, to accurately proportion the aggregate and asphalt emulsion. Locate the mineral filler feed so the proper amount of mineral filler is dropped on the aggregate before discharge into the pug mill. Provide a spray bar to completely pre-wet the aggregate dropping down to the pug mill with additive and water before the introduction of the asphalt emulsion. Provide a twin-shaft, continuous-flow, multi-blade pug mill that is a minimum of 49 in. long. Ensure that the blade size and side clearances meet the equipment manufacturer's recommendations. Introduce the emulsion within the first one-third of the mixer length to ensure proper mixing of all materials before exiting the pug mill.

Equip the machine with opposite-side driving stations to allow full control of the machine from either side. Equip the mixer with a remote, forward-speed control at the rear mixing platform so the rear operator can control the forward speed and level of mixture in the paving or rut box. Provide material control devices that are readily accessible and positioned so the amount of each material used can be determined at any time.

Equip the mixing machine with a water pressure system and nozzle-type spray bar to provide a water spray ahead of and outside the spreader box when required. Apply water at a rate that will dampen the surface but not create free-flowing water ahead of the spreader box.

The mixer shall be equipped with a computerized material monitoring system with integrated material control devices that are readily accessible and positioned so the amount of each material used can be determined at any time. The mixer shall be equipped with a back-up electronic or air actuated materials counter that is capable of recording running count totals for each material being monitored. The mixer shall include an attached radar ground measuring device or comparable device. Each material control device shall be calibrated prior to each mix application and at the discretion of the Engineer. The computer system shall have the capability to record, display, and print the following information:

- Individual sensor counts for emulsion, aggregate, cement, water and additive
- Aggregate, emulsion, and cement output in pounds per minute
- Ground travel distance
- Spread rate in pounds per square yard
- Percentages of emulsion, cement, water and additive
- Cumulative totals of aggregate, emulsion, cement, water and additive
- Scale factor for all materials

The computer system shall be functional at the beginning of work, and throughout the entire work operation. If the computer monitoring system stops working while the job is in progress, the backup counters can be used until the computer system repairs are made.

225-3.2 AGGREGATE EQUIPMENT. In an effort to eliminate oversize materials in the finished mat, aggregate shall be screened directly into the trucks. The inspector shall view the screen for oversized aggregate and if it is found to have gaps, it shall be replaced or repaired before continuing to place the material.

225-3.3 SPREADING EQUIPMENT. If a leveling or surface course is specified, apply the mixture uniformly by means of a conventional spreader box.

A variable width spreader box shall be used. This box shall be designed to apply microsurfacing material and a slurry seal spreader box will not be allowed. The spreader box shall allow the operator to adjust the width of the box during the application process. The box shall be equipped with augers to continually agitate and distribute the materials throughout the box. Ensure that the equipment provides sufficient turbulence to prevent the mix from setting in the box or causing excessive build-up or lumps. To prevent loss of the mixture from the box, attach flexible seals, front and rear, in contact with the road. Operate the spreading equipment in such a manner as to prevent the loss of the mixture on super-elevated curves.

For surface courses, attach a secondary strike-off device to the spreader. Use rubber drags to obtain the desired finish. The texture produced by the rubber drags shall be uniform across the full width of the pass. The drags shall be cleaned as necessary to prevent drags in the surface and to ensure a uniform and acceptable surface texture is achieved. Replace drags having excessive buildup. Do **NOT** use burlap drags.

The spreading equipment shall be thoroughly cleaned at the end of each work day. In addition to cleaning at the end of each work day, the Contractor shall inspect the spreading equipment periodically to prevent any material build up. In the event of material build up, the Contractor shall stop operations and clean the equipment.

#### CONSTRUCTION METHODS

225-4.1 PREPARATION AND PROPORTIONING OF MIXTURES. Submit a complete mix design to the Division of Construction and to the Division of Materials, Asphalt Branch and Aggregate Section. Mix design shall be prepared by an approved laboratory, to verify the compatibility of the aggregate, asphalt emulsion, mineral filler, and other additives. Perform the mix design with the same materials that will be used on the project.

Ensure the mix design has a residual asphalt content, by dry weight of aggregate, of 12.0% to 13.5% for surface courses. Also ensure the mixture contains no reclaimed materials and a mineral filler content between 0.25 and 2.0 percent by dry weight of aggregate.

At a minimum, the mix design shall have a cover letter with the date the mix design was created and reference the project and contract. The mix design shall include the type and percentages (by dry weight of aggregate) for each material in the mix design.

In addition to the mix design information required by KM 64-421, provide the following (all percentages are based on the dry weight of aggregate):

- minimum and maximum percentage of water; and
- percentage of mix-set additives, if required.
- county and contract listed

Provide test results from an accredited laboratory that conform to ASTM D 6372.

Submit the mix design and two full 5-gallon buckets of the aggregate blend for the mixture to the Division of Materials for verification according to Subsection 402.03 a minimum of four weeks prior to initial use for testing and approval.

When requested by the Engineer, the Contractor shall calculate the % asphalt content of the mixture from the equipment computer display readings. If no request is made by the Engineer, the Contractor shall calculate the % asphalt content of the mixture from the equipment computer display readings randomly, a minimum of 3 times a day. The quality control tolerances from the mix design is  $\pm 0.5\%$ .

225-4.2 MIXTURE GRADATION. Mixture shall conform to the requirements listed in the table below:

<b>Gradation of Aggregates</b>	
<b>Sieve Size</b>	<b>Type IA</b>
<i>3/8 in.</i>	<i>100</i>
<i>No. 4</i>	<i>98 - 100</i>
<i>No. 8</i>	<i>85 - 95</i>
<i>No. 16</i>	<i>50 - 75</i>
<i>No. 30</i>	<i>30 - 50</i>
<i>No. 50</i>	<i>18 - 35</i>
<i>No. 100</i>	<i>10 - 21</i>
<i>No. 200</i>	<i>5 - 10</i>
<i>Residual asphalt content percent dry weight of aggregate</i>	<i>8.5% - 12.0%</i>

225-4.3 WEATHER LIMITATIONS. In addition to the applicable requirements in ASTM D 6372, apply the mixture only when rain is not imminent and the existing pavement surface temperature is at least 50°F. The ambient temperature shall be at least 50°F and rising and no forecasted temperatures shall be below 32°F within a 24 hour period after placement. Do not place the material between November 1 and May 1.

225-4.4 SURFACE PREPARATION. All surfaces intended for application shall be thoroughly cleaned of all vegetation, loose material, dirt, or other objectionable material immediately before application of emulsion using a mechanical sweeper , wire hand brooms, vacuum assisted brooms, and blowers.

Remove pavement markings at least 24 hours in advance of paving operations.

Remove any loose crack sealing material in advance of paving operation. Prior to application of the microsurface, the Contractor shall properly seal all cracks in accordance with SS-280.

Remove Existing Thermoplastic markings and clean existing waterborne paint markings prior to the application of the microsurface. See SS-2555 for additional information about cleaning of the airfield pavement markings.

Any vegetation overgrowth along the shoulders shall be cut back from the pavement surface.

No tack coat will be required.

Contractor is required to protect all electrical equipment and fixtures within the project limits from any microsurfacing operations. Any damage to this equipment, shall be repaired by the Contractor at his/her expense.

Contractor is required to protect all pavements NOT included in the project limits.

Contractor shall provide written certification the surface has been properly prepared (cleaned) and ready for application of the microsurface application.

225-4.5 CALIBRATION. Before mix production, calibrate the mixing equipment in the presence of the Engineer. The equipment shall be calibrated with the materials to be used on the project. Generate documentation for the Engineer, including individual calibrations of each material at various settings. Perform a new calibration if there is any change in the mix design. Following calibration and adjustments for changes in the mix design, do not make any further calibration adjustments to the mixing equipment without the Engineer's approval.

225-4.6 APPLICATION. Apply the paving mixture in a manner to fill minor surface irregularities and achieve a uniform surface without causing streaking, drag marks, skips, lumps, or tears. Carry a sufficient

amount of material in the spreader box at all times to ensure complete and uniform coverage. Avoid overloading the spreader box. Do not allow lumping, balling, or unmixed aggregate in the spreader box.

Maintain straight edge lines along shoulders. Do not allow runoff in these areas. Immediately remove excess material from the ends of each run.

Use squeegees and lutes to spread the mixture in areas inaccessible to the spreader box and areas requiring hand-spreading. With the Engineer's approval, adjust the mix-set additive to provide a slower setting time if hand-spreading is needed. Do not adjust the water content. If hand-spreading, pour the mixture in a small windrow along one edge of the surface to be covered, and spread it uniformly by a hand squeegee or lute. Do not over spray the mixture with water by the use of a hose or other equipment. Hand squeegee may be required to ensure microsurface material is applied to the outer edge of the pavement surface.

The Contractor will be required to roll the microsurface prior to opening to aircraft traffic. The rolling operations shall be completed by a pneumatic-tire roller to improve durability. The surface shall be subjected to a minimum of two (2) full passes by the roller. These rolling passes are to be completed as soon as the microsurface will support the roller without damaging the surface. The number of required roller passes will be established on the test strip. The surface shall be rolled until all aggregate is noticeably embedded in the emulsion and to the approval of the engineer. At no time will a steel drum roller be allowed to roll the microsurface.

The fresh microsurface shall be protected by barricades and markers and permitted to dry for four (4) to 24 hours, depending on weather conditions. Any damage to uncured microsurface shall be repaired at the expense of the Contractor.

If the final surface is not uniform in texture, free from streaks, drag marks, lumps, or tears, stop applying mixture and correct the problem. Do not resume work until the engineer is satisfied the problem has been corrected. If surface correction is necessary, due to traffic, rain, or other causes during construction of the project, repair areas of the surface.

The finished surface shall have no more than four (4) tear or drag marks greater than 1/2 inch wide and 4 inch long in any 12-foot by 22-foot section. It shall have no tear or drag marks greater than 1 inch wide and 3 inch long. The finished surface shall have no transverse ripples of 1/4 inch or more in depth, as measured with a 12-foot straightedge laid upon the surface. Adjacent lanes shall be lapped at the edges a minimum of 2 inch with a maximum of 4 inch to provide complete sealing at the overlap. Construction longitudinal and transverse joints shall be neat and uniform without buildup, uncovered areas, or unsightly appearance. All joints shall have no more than 1/4 inch difference in elevation when measured across with a 12-foot straightedge.

If excessive flushing or bleeding occurs within 30 to 60 days after the treatment is applied, corrective work will be required at the contractor's expense.

Upon completion of the project, the Contractor shall sweep the finished surface with a conventional power rotary broom, to remove any potential loose material from the surface. The material removed by sweeping shall be disposed of in a manner satisfactory to the Engineer.

The Contractor is responsible for protecting the newly applied microsurface from damage.

#### ACCEPTANCE AND VERIFICATION

225-5.1 PROPORTION AND SPREAD RATE. Maintain continuous control of the emulsified asphalt-to-dry aggregate proportion to conform to the approved mix design within a tolerance of  $\pm 2$  gal/ton. Ensure the spread rate satisfies the specified quantity of aggregate per square yard on a dry-weight basis.

The Contractor shall calculate the yield of the course being placed from the equipment computer display

readings. If no request is made by the Engineer, the Contractor shall calculate the yield of the course being placed from the equipment computer display readings randomly, a minimum of 3 times a day and at the end of each day(s) of production.

The Department will base acceptance of the emulsified asphalt-to-dry aggregate proportion and the spread rate on the Engineer's summary of daily quantities. The Department will accept a day's application of microsurfacing provided the Engineer's summary indicates conformance with the requirements for proportion and spread rate.

225-5.2 EMULSIFIED ASPHALT. Submit samples of the polymer-modified emulsion to the Division of Materials for testing at a frequency of one sample per lot.

225-5.3 MIXTURE GRADATION. The Department will perform combined-gradation determinations on the aggregates used in the microsurfacing at a frequency of one per day of production. When the combined-gradation fails to meet the master range for the type of aggregate, the entire surface will be rejected

225-5.4 DOCUMENTATION. The Contractor shall maintain a daily report including the following information:

- Aggregate used, ton (dry)
- Microsurfacing emulsion used, ton
- Cement used, ton
- Water used in mixture, gallons
- Additive used in mixture, gallons
- Moisture Content
- Yield, dry aggregate lb/yd<sup>2</sup>
- Square yards placed
- Rate of Application

225-5.5 TEST STRIP CONSTRUCTION. Prior to production application, the Contractor shall place a test section 1,000 ft. in length and one lane wide. The test strip shall demonstrate the mix, rate verification, roller operations, surface texturing, and set time of the material. If handwork will be required on the project, include handwork in the test strip. The test strip shall be placed at the same general time of day as paving is to take place (night or day), and under similar ambient conditions. If aggregate cannot be properly embedded or if excessive drag marks are present in the surface, the emulsion or mixture must be adjusted and another test strip will be required. Upon approval of the test strip, the Contractor can begin full production. Payment will only be made for the first test strip accepted by the Engineer and will be included in the quantity for microsurface application.

225-5.6 QUALITY CONTROL PLAN. The Contractor is responsible for providing a quality control plan associated with the microsurfacing application. This quality control plan shall be presented to all parties at the preconstruction meeting. No work shall commence without an approved quality control plan. At a minimum, the quality control plan shall include the material being tested, the frequency of the tests (sampling), and the corrective actions in lieu of failed test. Contractor shall also include their calibration methods in the quality control plan.

Sieve Analysis of Fine and Coarse Aggregates (AASHTO T27, ASTM C136) – one test per 500 tons of aggregate.

Standard Test Method for Oversized Particles in Emulsified Asphalts (ASTM D6933) – one test per day or one test for each transport load delivered to site, whichever occurs more frequently.

Mineral filler sampling and testing shall be once per day.

METHOD OF MEASUREMENT AND PAYMENT

225-4.1 The surface microsurfacing course shall be measured by the number of square yards, complete and accepted in place.

The width of the pavement course will be based on the width shown on the plans and as directed by the Engineer. The length of pavement will be measured along the centerline of the runway.

225-4.2 Surface Preparation shall be measured and paid for as a lump sum completed item. This shall consist of preparing the surface for installation of the microsurface. This includes, but not limited to, cleaning of the airfield pavement markings and pavement surface.

BASIS OF PAYMENT

255-5.1 The Department will consider the unit bid price per square yard to include all labor, materials, and equipment necessary to complete the work. The Department will make payment for the completed and accepted quantities according to the following:

Test	Specification	100% Pay	90% Pay	80% Pay	50% Pay	0% Pay
CQS-1hP						
Viscosity, 77 ° F (SFS) AASHTO T 59	20 - 100	18 - 110	15 - 17 111 - 120	12 - 14 121 - 130	9 - 11 131 - 140	≤8 ≥ 141
Residue Penetration, 77 °F AASHTO T 59	40 - 90	37 - 98	34 - 36 99 - 108	31 - 33 109 - 120	28 - 30 121 - 130	≤ 27 ≥ 131
Softening Point, AASHTO T 53	≥ 135	≥ 130	127 - 134	128 - 129	126 - 127	≤ 125
Distillation Residue, % AASHTO T 59, 350°F	≥ 62.0	≥ 60.0	59.5	59.0	58.5	≤ 58.4
Sieve, % AASHTO T 59	≤ 0.1	≤ 0.3	0.31 - 0.45	0.46 - 0.60	0.61 - 0.75	≥ 0.76
Residue Elastic Recovery @ 50 ° F, % AASHTO T 301	≥ 60.0	≥ 58.0	57.0	56.0	55.0	≤ 54.9
Residue Ductility @ 77 ° F, cm	≥ 40	≥ 38	37	36	35	≥ 34

If the Department determines that the minimum rate of application has not been obtained for each day of production, then the Department will reduce the bid payment as according to Tables 3, 4, and 5 listed below:

**Table 3**

<b>Payment Based on Rate of Application for 18 lb/yd<sup>2</sup></b>	
<b>Rate of Application of Per Day of Production (lb/sy)</b>	<b>Reduction of Payment (%)</b>
18 and Greater	100
17.9 - 17.5	95
17.4 - 17.0	90
16.9 - 16.5	80
16.4 - 16.0	70
15.9 and Below	50

**Table 4**

<b>Payment Based on Rate of Application for 14 lb/yd<sup>2</sup></b>	
<b>Rate of Application of Per Day of Production (lb/sy)</b>	<b>Reduction of Payment (%)</b>
14 and Greater	100
13.9 - 13.5	95
13.4 - 13.0	90
12.9 - 12.5	80
12.4 - 12.0	70
11.9 and Below	50

**Table 5**

<b>Payment Based on Rate of Application for 24 lb/yd<sup>2</sup></b>	
<b>Rate of Application of Per Day of Production (lb/sy)</b>	<b>Reduction of Payment (%)</b>
24 and Greater	100
23.9 - 23.5	95
23.4 - 23.0	90
22.9 - 22.5	80
22.4 - 22.0	70
21.9 and Below	50

Payment will be made under:

Item SS-225-5.1  
 Item SS-225-5.2

Micro Surfacing-Surface Course – per Square Yard  
 Surface Preparation – Lump Sum

**END OF ITEM SS-225**

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## ITEM SS-255 PAVEMENT MARKING

### DESCRIPTION

255-1.1 This item shall consist of the preparation and painting of numbers, runway markings, and centerline stripes on the airfield in accordance with these specifications and at the locations shown on the plans, or as directed by the Engineer. The terms “paint”, “striping”, and “marking material” as well as “painting” and “application of markings” are interchangeable throughout this specification.

### MATERIALS

255-2.1 PAINT. Materials for pavement marking shall be KYTC waterborne acrylic paint that conforms to the composition requirements in the table below. In general, taxiway centerline pavement markings are yellow and runway pavement markings are white. Waterborne black outline paint will be required on all airfield pavement markings and as noted on the plans. Paint for outlining the markings shall be furnished in black (37038) in accordance with Federal Standard No. 595. The black outline shall be six inches in width. Material for black paint shall be submitted to the Engineer for review prior to application. No black outline will be necessary on the taxiway centerline markings.

**Table 1. Paint Composition:**

Property and Test Method	Yellow	White
Daytime Color (CIELAB) Spectrophotometer using illuminant D65 at 45° illumination and 0° viewing with a 2° observer	L * 81.76 a * 19.79 b * 89.89 Maximum allowable variation of 4.0ΔE*	L * 93.51 a * -1.01 b * 0.70 Maximum allowable variation of 4.0ΔE*
Nighttime Color (CIELAB) Spectrophotometer using illuminant D65 at 45° illumination and 0° viewing with a 2° observer	L * 86.90 a * 24.80 b * 95.45 Maximum allowable variation of 4.0ΔE*	L * 93.45 a * -0.79 b * 0.43 Maximum allowable variation of 4.0ΔE*
Heavy Metal Contents	Comply with 40 CFR 261	Comply with 40 CFR 261
TiO <sub>2</sub> ASTM D4746	NA	10% by wt. of pigment min.
VOC ASTM D2369 and D4017	1.25-lb/gal max.	1.25-lb/gal max.
Contrast Ration (at 15 mils wft.)	0.97	0.99

The Contractor shall furnish manufacturer’s certified test reports for each material shipped to the project. The certified test reports shall include a statement that the materials meet the specification requirements. Clearly state the manufacturer, product name, product code, lot number(s), expiration date, color, sampling method, test results of manufacturer required testing, and quantity delivered. Manufacturer’s test results that are required by the Engineer are those listed in Section 842.03 Manufacturer’s Testing of the Standard Specifications for Road and Bridge Construction, Kentucky Transportation Cabinet, 2012 Edition, or latest edition.

The Contractor will be responsible for providing sufficient material to KYTC representatives for quality control and material testing for the pavement markings to be used on the project.

255-2.2 REFLECTIVE MEDIA. Use beads that will ensure the pavement marking material will meet retroreflectivity requirements. Glass beads shall meet the gradation requirements of at least one of the requirements listed below. The Contractor will be responsible for evaluating the gradation of the selected beads used on this project. The Contractor shall have gradation test results readily available for Engineer’s review.

KYTC Type I Glass Beads  
 FAA TT-B-1325D Type I

FAA TT-B-1325D Type III  
FAA TT-B-1325D Type IV

Glass beads shall be treated with all compatible coupling agents recommended by the manufacturers of the paint and reflective media to ensure adhesion and embedment.

Glass beads shall be distributed upon the marked areas to receive glass beads immediately after final application of the paint. A dispenser shall be furnished that is properly designed for attachment to the marking machine and suitable for evenly dispensing glass beads. Glass beads shall be applied at the rate shown in Table 3. Glass beads shall adhere to the cured paint or all marking operations shall cease until corrections are made. Regular monitoring of glass bead embedment should be performed.

Retroreflectivity requirements shall be those required in Section 713.03.05A "Proving Period - Requirements" of the Standard Specifications for Road and Bridge Construction, Kentucky Transportation Cabinet, 2012 Edition, or latest edition.

KYTC will be responsible for performing and recording the retroreflectivity test results. The Contractor will be responsible for paying for any additional retest resulting from failed tests. Retroreflectivity shall be measured by a portable retro reflectometer according to ASTM E1710 and practices in ASTM D7585 shall be followed for taking retroreflectivity readings with a portable retro reflectometer and computing measurement averages. These measurements shall be taken between 30 and 60 days after installation of final markings.

Minimum retroreflectivity requirements:

White: 300 mcd/lux/square meter  
Yellow: 225 mcd/lux/square meter

### CONSTRUCION METHODS

Pavement Marking shall be constructed in accordance with the applicable requirements of Section 713 of the Standard Specifications for Road and Bridge Construction, Kentucky Transportation Cabinet, 2012 Edition, or latest edition – "Permanent Pavement Striping", unless augmented within this specification.

255-3.1 WEATHER LIMITATIONS. The painting shall be performed only when the surface is dry and when the surface temperature is at least 70°F and rising and at least 5°F above dew point or meeting manufacture's recommendations. Markings shall not be applied when the pavement temperature is greater than 120°F. Markings shall not be applied when the wind speed exceeds 10 mph unless windscreens are used to shroud the material guns.

255-3.2 EQUIPMENT. Equipment shall include the apparatus necessary to properly clean existing surface (*low-pressure water blaster with vacuum recovery system*), a mechanical marking machine, a bead dispensing machine, and such auxiliary hand-painting equipment as may be necessary to satisfactorily complete the job.

The mechanical marker shall be an atomizing spray-type or airless-type marking machine suitable for application of traffic paint. It shall produce an even and uniform film thickness at the required coverage and shall apply markings of uniform cross-sections and clear-cut edges without running or spattering and without over spray.

255-3.3 PREPARATION OF SURFACE FOR MICROSURFACING. Prior to installation of the microsurface, the Contractor shall adequately clean the markings with a combination of bleach, water, and other additives necessary to thoroughly clean the pavement markings and ensure a good bond for the microsurface to the underlying pavement markings. The Contractor shall NOT remove the markings, nor

damage the surrounding airfield pavements. Any damaged caused during the marking removal shall be repaired by the Contractor at no additional cost to the Owner.

The existing runway and taxiway pavement marking stripes shall be cleaned without damaging the existing pavement. The markings shall be removed through the use of high-pressure water or other methods approved by the Engineer before removal operations begin.

**255-3.4 PREPARATION OF SURFACE FOR PAVEMENT MARKINGS.** After the microsurface has been completed and immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other foreign material that would reduce the bond between the paint and the pavement. The area to be painted shall be cleaned by waterblasting or by other methods as required to remove all contaminants without damage to the pavement surface. Use of any chemicals or impact abrasives during surface preparation shall be approved in advance by the Engineer. After the cleaning operations, sweeping, blowing, or rinsing with pressurized water shall be performed to ensure the surface is clean and free of grit or other debris left from the cleaning process.

Prior to the initial application of markings, the Contractor shall certify in writing that the surface has been prepared in accordance with the paint manufacturer's requirements, that the application equipment is appropriate for the type of marking paint and that environmental conditions are appropriate for the material being applied. This certification along with a copy of the paint manufacturer's surface preparation and application requirements must be submitted and approved by the Engineer prior to the initial application of markings.

For rework only, the existing painted surface shall be cleaned by high-pressure water blasting, as required, to remove all foreign material which would reduce the bond between the new paint and the old paint. No separate payment will be made for rework.

**255-3.5 LAYOUT OF MARKINGS.** The proposed markings shall be laid out in advance of the paint application. The marking layout has been provided in the plans. The Contractor is responsible for laying out the markings by a licensed surveyor. Glass beads shall be applied to all final white and yellow pavement markings. The Contractor shall leave time in his/her schedule to complete this layout. No separate measurement or payment will be made for layout of markings.

**255-3.6 APPLICATION.** Paint shall be applied at the locations and to the dimensions and spacing shown on the plans. Paint shall not be applied until the layout and condition of the surface has been approved by the Engineer. The edges of the markings shall not vary from a straight line more than 1/2 inch in 50 feet, and marking dimensions and spacing shall be within the following tolerances:

**Table 2. Tolerances:**

Dimension and Spacing	Tolerance
36 inch or less	±1/2 inch
greater than 36 inch to 6 feet	±1 inch
greater than 6 feet to 60 feet	±2 inch
greater than 60 feet	±3 inch

The paint shall be mixed in accordance with the manufacturer's instructions and applied to the pavement with a marking machine at the rate shown in Table 3. The addition of thinner will not be permitted. When pavement markings are required on a newly placed pavement or surface treatment, the pavement markings shall be completed in two applications. The first application shall be 33% of the application rate specified in Table 1. The second application shall be 100% of the application rate specified in Table 1. A minimum period of 24 hours shall elapse between placement of a new pavement or surface treatment and the first application of pavement marking. A minimum period of 30 days shall elapse between placement of a proposed pavement and the final application of the pavement marking. All glass beads shall only be included in the final application of the pavement markings.

Prior to the initial application of markings, the Contractor shall certify in writing that the surface has been prepared in accordance with the paint manufacturer’s requirements, that the application equipment is appropriate for the marking paint and that environmental conditions are appropriate for the material being applied. This certification along with a copy of the paint manufactures application and surface preparation requirements must be submitted to the Engineer prior to the initial application of markings.

**Table 3. Application Rates For Paint And Glass Beads:**

Material	Paint Application Rate <sup>1</sup>	Glass Bead Application Rate
Yellow Waterborne Paint	Min. of 24.8 gal/mi. (107 ft <sup>2</sup> /gal min. 115 ft <sup>2</sup> /gal max.)	Min. of 6-lb/gal.
White Waterborne Paint	Min. of 24.8 gal/mi. (107 ft <sup>2</sup> /gal min. 115 ft <sup>2</sup> /gal max.)	Min. of 6-lb/gal

<sup>1</sup>Application rates have been modified to meet the requirements for this specific project.

Glass beads shall be distributed upon the white and yellow marked to receive glass beads immediately after final application of the paint. A dispenser shall be furnished that is properly designed for attachment to the marking machine and suitable for dispensing glass beads. Glass beads shall be applied at the rate shown in Table 1. Glass beads shall not be applied to black paint or green paint. Glass beads shall adhere to the cured paint or all marking operations shall cease until corrections are made. Different bead types shall not be mixed. Regular monitoring of glass bead embedment should be performed.

All emptied containers shall be returned to the paint storage area for checking by the Engineer. The containers shall not be removed from the airport or destroyed until authorized by the Engineer.

Prior to the final application of airfield markings, the Contractor shall produce a test strip in the presence of the Engineer. The test strip shall include the application of a minimum of 5 gallons of paint and application of 50 lbs of Type III glass beads. The test strip shall be used to establish thickness/darkness standard for all markings. The test strip shall cover no more than the maximum area prescribed in Table 1 (e.g., for 5 gallons of waterborne paint shall cover no more than 450 square feet).

255-3.7 PROVING PERIOD. Proving period requirements, failures, and corrective work shall meet the requirements of Section 713.03.05 of the Standard Specifications for Road and Bridge Construction, Kentucky Transportation Cabinet, 2012 Edition, or latest edition – “Permanent Pavement Striping”. The Engineer will reserve the right to make final acceptance of pavement markings based on retroreflectivity test results.

255-3.8 PROTECTION AND CLEANUP. After application of the markings, all markings shall be protected from damage until dry. All surfaces shall be protected from excess moisture and/or rain and from disfiguration by spatter, splashes, spillage, or drippings. The Contractor shall remove from the work area all debris, waste, loose or unadhered reflective media, and by-products generated by the surface preparation and application operations to the satisfaction of the Engineer. The Contractor shall dispose of these wastes in strict compliance with all applicable state, local, and Federal environmental statutes and regulations.

METHOD OF MEASUREMENT AND PAYMENT

255-4.1 No separate measurement or payment shall be made for surface preparation associated with preparing the surface prior to installation of the pavement markings. All work associated with cleaning or preparing the surface for layout and pavement marking shall be subsidiary to the individual paint items.

255-4.2 The quantity of pavement markings to be paid for shall be the number of square feet of painting performed in accordance with the specifications and accepted by the Engineer. Reflective media shall not be measured for separate payment but shall be considered subsidiary to runway and taxiway painting items. Measurement for “R/W & T/W Paint - Yellow Waterborne”, “R/W & T/W Paint - White Waterborne” and “R/W & T/W Paint – Black” shall be based on markings installed as shown on the plans and as

described on the summary of quantities plan sheet not to exceed plan quantities. These quantities are believed to be correct and shall be utilized for final marking payment notwithstanding any adjustments to the project by written direction of the Engineer. Should the contractor find discrepancies and/or errors, he/she shall bring the discrepancy and/or error to the attention of the Engineer immediately and corrections shall be made to the marking quantities paid for by change order. No separate payment will be made for black paint markings used to outline the runway hold positions.

If multiple pavement marking applications are specified, temporary pavement markings shall be paid for as 33% of the bid contract bid price for runway and taxiway markings and final pavement markings shall be paid for as 67% of the contract bid price. If either the temporary or final application of pavement markings are not required, the contract quantity shall be adjusted according to the markings actually completed.

255-4.3 No separate payment will be made for black outline paint associated with the runway markings or runway hold position markings.

255-4.4 Surface Preparation of the pavement markings prior to installation of the microsurface, will NOT be measured and paid for under SS-255. Rather this shall be considered subsidiary to the Surface Preparation associated with cleaning of the airfield pavements prior to installation of the microsurface. This shall be measured and paid for under SS-225 Microsurface.

#### BASIS OF PAYMENT

255-5.1 Payment shall be made at the respective contract price per square foot for pavement markings. This price shall be full compensation for furnishing all materials including reflective media if required and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item SS-255-5.1	R/W & T/W Paint - Yellow Waterborne – per Square Foot
Item SS-255-5.2	R/W & T/W Paint - White Waterborne – per Square Foot
Item SS-255-5.3	R/W & T/W Paint - Black – per Square Foot

**END OF ITEM SS-255**

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Airport: Capital City Airport  
 Project Name: Airfield Pavement Improvement Project  
 Project No.: 16151131  
 Marking Contractor: \_\_\_\_\_

Date: \_\_\_\_\_

Min. White 300 mcd/lux/square meter Min. Yellow 225 mcd/lux/square meter

	RW Designator 7	RW Designator 25	RW Centerline Markings	Runway Aiming Bars	Runway Threshold Bars	Runway Edge Stripe	Runway Hold Position Markings	Taxiway Centerline Stripe
Avg. Reading No.								
Reading No.	Reading	Reading	Reading	Reading	Reading	Reading	Reading	Reading
1								
2								
3								
4								
5								
6								
7								
8								
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10								
11								
12								
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General Note: At a minimum, one reading should be taken ever 200 SQ FT

## ITEM SS-280 ASPHALT CRACK & JOINT REPAIR

### DESCRIPTION

280-1.1 This item shall consist of the cleaning, application of soil sterilant and sealing of cracks/joints in the existing asphalt pavement within the areas shown on the plans or as directed by the Engineer. All cracks measuring 1/8-inch wide or wider shall be cleaned and filled/sealed according to this specification and as called out in the plans. The amount of crack cleaning and repair designated in the Plans is estimated.

### MATERIALS

280-2.1 Hot Applied Sealant. Joint sealant shall conform to the standards set forth in ASTM D 6690 Type 1 and approved by the Engineer. Hot-applied sealant shall be used on cracks measuring less than or equal to 1 inch in width.

280-2.2 Hot Mix Asphalt. Hot mix asphalt used for repairing cracks greater than 1-inch shall conform to KYTC CL3 Asphalt Surface Course 0.38D. The Contractor will be required to submit a Job Mix Formula (JMF) to the Engineer for review and approval prior to construction.

The JMF shall be submitted in accordance with KM 64-421. Asphalt cement binder shall conform to ASTM D6373 Performance Grade (PG) 64-22. A certificate of compliance from the manufacturer shall be included with the job mix formula submittal.

The asphalt shall be produced and placed in accordance of the applicable sections listed in Section 403 of the KYTC Standard Specifications for Road and Bridge Construction, unless modified herein.

The asphalt mix (fine and coarse aggregate) shall be free of be of clay, silt, vegetative matter, organic, and other objectionable materials and shall contain no clay balls. In the event, organic material is found in the mix (surface or binder), the entire lot shall be rejected.

The Contractor will be responsible for developing the roller pattern to achieve compaction densities. The two options are listed in subsection 403.03.10 Compaction of the KYTC Standard Specifications for Road and Bridge Construction.

Tack coat shall be SS-1 or SS-1h conforming to Section 806 of the KYTC Standard Specifications for Road and Bridge Construction. Tack coat shall be applied at the rate specified in Section 406.03.03 Application (0.05 gal/SY) of the KYTC Standard Specifications for Road and Bridge Construction.

280-2.3 Soil sterilant shall be approved by the Engineer. Application rate shall be in accordance with manufacturer's recommendations.

### CONSTRUCTION METHODS

280-3.1 GENERAL. All cracks and joints in the existing pavement shall be cleaned, and sealed at the locations as directed by the Engineer. Removal of grass, dirt, or other material existing in the cracks/joints, including existing deteriorated sealant, shall be accomplished by the use of a hot-compressed air lance as described in this specification. Prior to beginning cleaning operations, the Engineer shall approve of all methods, equipment, and materials to be used by the Contractor in performing this item of work. Method of crack/joint repair shall be identified by the Contractor and approved by the Engineer.

280-3.2 CRACK PREPARATION LESS THAN 1-INCH (TYPE 1 METHOD). A high temperature compressed air lance shall be used at all times to blast out any vegetation, dirt, dampness and loose materials from the cracks. Existing crack sealant which is deteriorated shall be removed and cleaned. The high velocity (greater than 90 psi) hot air shall be not less than 2,000 °F in temperature. The air lance

shall operate in a no flame impingement condition and shall have a directional controlled velocity of 330-fps minimum and a combustion temperature at ignition of no less than 2,000 °F. If vegetation is considered a problem by the Engineer on-site, a soil sterilant shall be applied.

280-3.3 CRACK PREPARATION GREATER THAN 1-INCH (TYPE 2 METHOD). Cracks and joints greater than 1-inch for repair shall be marked out and agreed to by the Contractor and the Engineer. The Contractor shall saw cut or mill out an area 4 feet wide by 2 to 3 inches deep centered over the crack. Extend the saw cut or mill out the area a minimum of 12-inches either side of the crack.

The Contractor shall use an air compressor with an operable oil and water trap to clean all cracks with the compressed hot air lance.

If a crack still exist after the milling process has been completed, the crack shall be prepared in accordance with section 280-3.2 and repaired in accordance with section 280-3.5 of this specification.

The Contractor shall apply a tack coat to the bottom and sides of the repair area. The tack coat shall meet the tack coat requirements called out in these specifications and the KYTC specifications.

The Contractor shall use a straight edge to ensure the hot mix asphalt is flush with the surrounding pavement.

280-3.4 CRACK REPAIR METHOD FOR CRACKS LESS THAN 1-INCH IN WIDTH. Cracks/joints shall be sealed with a hot-applied joint sealant material as approved by the Engineer as detailed in section 280-2.1. The cracks shall be filled flush with minimal amount of overband. Overband is permitted on this project and the maximum allowable overband is 1/8".

280-3.5 CRACK REPAIR METHOD FOR CRACKS GREATER THAN 1-INCH IN WIDTH (TYPE 2 METHOD). After the application of the tack coat, the Contractor shall fill the patched area with hot mix asphalt as specified in these specifications. Construction methods shall be as called out in the KYTC Specifications.

280-3.6 CURE TIME. In accordance with the manufacturer's specifications, the Contractor shall allow the appropriate cure time for the sealant and/or patch material between placement of said material and the application of the micro-surface.

280-3.7 WEATHER. Pavement temperature shall be 40° and rising. The surface shall be free of water and the crack shall not be damp. At hot air lance may be used to increase the pavement temperature as approved by the Engineer.

#### METHOD OF MEASUREMENT

280-4.1 Asphalt crack/joint repair will be measured by the linear foot of cracks/joints and in accordance with the specifications and accepted by the Engineer.

#### BASIS OF PAYMENT

280-5.1 Work completed and accepted under this item will be paid for at the contract unit price for asphalt crack repair, which price shall be full compensation for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

- Item SS-280-5.1 Pavement Crack Repair-Method 1 – per Linear Foot
- Item SS-280-5.2 Pavement Crack Repair-Method 2 – per Linear Foot

**END OF ITEM SS-280**

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## ITEM P-631 REFINED COAL TAR EMULSION WITH ADDITIVES, SLURRY SEAL SURFACE TREATMENT

### DESCRIPTION

**631-1.1** This item shall consist of a mixture of emulsified asphalt, mineral aggregate, and water properly proportioned, mixed, and spread on an asphalt pavement surface, including airport pavements serving small airplanes, roads, and other general applications. The purpose of this refined coal tar emulsion product is to provide a fuel-resistant surface where pavements are subjected to fuel spills. The application of the surface treatment shall be in accordance with these specifications and shall conform to the dimensions shown on the plans or as directed by the Resident Project Representative (RPR). *The seal coat shall be placed around the t-hangers after completion of the crack repair.*

**631-1.2 General.** This item shall consist of a mixture of refined coal tar emulsion, mineral aggregate, additives, and water properly proportioned, mixed and applied as a slurry seal on ~~new or~~ existing (aged) asphalt concrete pavement.

### MATERIALS

**631-2.1 Refined coal tar emulsion.** A refined coal tar emulsion prepared from a high temperature refined coal tar conforming to the requirements of ASTM D490 for grade 11-12. The use of oil and water gas tar is not allowed. Base refined coal tar emulsion must conform to all requirements of ASTM D5727.

The Contractor shall provide a copy of the manufacturer's Certificate of Analysis (COA) for the emulsified asphalt delivered to the project. If the asphalt emulsion is diluted at other than the manufacturer's facility, the Contractor shall provide a supplemental COA from an independent laboratory verifying the asphalt emulsion properties.

The COA shall be provided to and approved by the RPR before the emulsified asphalt is applied. The furnishing of the vendor's certified test report for the asphalt material shall not be interpreted as a basis for final acceptance. The manufacturer's COA may be subject to verification by testing the material delivered for use on the project.

**a. Health, safety, and environment.** The Contractor must provide a complete Safety Data Sheet (SDS) in accordance with U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), Regulations (Standards – 29 CFR, 1910.1200) which establishes the requirement and minimum information for the MSDS for hazardous materials. The MSDS, Section II, shall include the Chemical Abstracts Service (CAS) registry numbers for all applicable hazardous ingredients in the coal tar emulsion product. The Contractor must provide the manufacturer's certification that the product complies with the Code of Federal Regulation (CFR) Title 40 – Protection of Environment. The manufacturer's certification shall address compliance for Air Programs, Part 59, National Volatile Organic Compound Emission Standards for Consumer and Commercial Products (for the airport location) and Water Programs, Part 116, Designation of Hazardous Substances.

**631-2.2 Aggregate.** The aggregate shall be washed dry silica sand or boiler slag free of dust, trash, clay, organic materials or other deleterious substances. The aggregate shall meet the gradation in Table 1, when tested in accordance with ASTM C136.

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**Table 1. Gradation of Aggregates\***

Sieve Size		Percent Retained	
		Minimum	Maximum
#20 or coarser	850 µm	0	2
#30	600 µm	0	12
#40	425 µm	2	60
#50	300 µm	5	60
#70	212 µm	5	60
#100	150 µm	5	30
#140	106 µm	0	10
#200	75 µm	0	2
Finer than #200	<75 µm	0	0.3

\* Table 1 represents the maximum range of aggregate gradations. In all cases the refined coal tar emulsion supplier is to give written approval of the aggregate used in the mix design.

**631-2.3 Additive.** As specified by the coal tar emulsion manufacturer. *The coal tar emulsion shall be black, durable, and fuel resistant.*

**631-2.4 Water.** Water used in mixing or curing shall be from potable water sources and at least 50°F (10°C). Other sources shall be tested in accordance with ASTM C1602 prior to use.

**631-2.5 Crack sealant.** Crack sealant *specified in SS-280 and used as crack repair*, shall be certified for compatibility with the refined coal tar emulsion by the manufacturer of the refined coal tar emulsion, and approved by the RPR.

**631-2.6 Oil spot primer.** Oil spot primer shall be certified for compatibility with the refined coal tar emulsion by the manufacturer of the refined coal tar emulsion, and approved by the RPR.

**631-2.7 Pavement primer.** Pavement primer shall be certified for compatibility with the refined coal tar emulsion by the manufacturer of the refined coal tar emulsion, and approved by the RPR.

**COMPOSITION AND APPLICATION**

**631-3.1 Composition.** The refined coal tar emulsion seal coat is to consist of a mixture of refined coal tar emulsion, water, additive and aggregate, and be proportioned as shown in Table 2. The composition must have written approval of the coal tar emulsion manufacturer.

**631-3.2 Quantities of materials per square yard.** The Contractor shall submit the recommended formulation of water, emulsion, aggregate and application rate proposed for use to a testing laboratory together with sufficient materials to verify the formulation at least 7 days prior to the start of ~~operations~~ *construction of the project*. The mix design shall be within the range shown in the below table. No seal coat shall be produced for payment until a mix has been approved by the RPR. The formulation shall pass the fuel resistance test in accordance with ASTM D5727.

The mix for each mixture shall be in effect until modified in writing by the RPR.

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**Table 2. Composition of Mixture Per 100 Gallons of Refined Coal Tar Emulsion**

Application	Refined Coal Tar Emulsion Gallons	Water Gallons	Additive Gallons	Aggregate Pounds	Formula Rate of Application of Mix per Square Yard	
					Minimum Gallons	Maximum Gallons
<b>Prime Coat (where required) as specified by the coal tar emulsion manufacturer</b>						
<b>1st Seal Coat</b>	100	25-70	2-6	300-700	0.12	0.20
<b>2nd Seal Coat</b>	100	25-70	2-6	300-700	0.12	0.20

**631-3.3 Application rate.** Application rates are not to exceed 0.20 gal/yd<sup>2</sup>/coat, and at no time are total coats to exceed 0.51 gal/yd<sup>2</sup>.

**631-3.4 Control strip.** Prior to full production, the Contractor shall prepare a quantity of mixture in the proportions shown in the approved mix design. The amount of mixture shall be sufficient to place a control strip a minimum of 250 square yard at the rate specified in the job mix formula. Separate test sections by a minimum of 200 feet between sections. The test area will be designated by the RPR on a representative section of the pavement to be seal coated. The actual application rate will be determined by the RPR during placement of the control strip and will depend on the condition of the pavement surface.

The control strip shall be used to verify the adequacy of the mix design and to determine the application rate. The same equipment and method of operations shall be used on the control strip that will be used on the remainder of the work.

If the control strip should prove to be unsatisfactory, the necessary adjustments to the job mix formula, mix composition, application rate, placement operations, and equipment shall be made. Additional control strips shall be placed and evaluated, if required. Full production shall not begin without the RPR's approval. Acceptable control strips shall be paid for in accordance with paragraph 631-7.1.

A qualified manufacturer's representative shall be present in the field to assist the Contractor in applying control areas and/or control strips to determine the optimum application rate of both emulsion and sand.

*The testing for fuel resistance shall be included during testing of the control strip. The fuel resistance test takes up to 96 hours. It will be up to the Contractor to proceed with full production of the seal coat application, without the results of the fuel test resistance. The Contractor should note, due to the contract time allotted on the project, no additional time will be permitted to wait on the fuel resistance test results.*

**CONSTRUCTION METHODS**

**631-4.1 Weather limitations.** The seal coat shall not be applied when the surface is wet or when the humidity or impending weather conditions will not allow proper curing. The seal coat shall be applied only when the atmospheric or pavement temperature is 50°F and rising and is expected to remain above 50°F for 24 hours, unless otherwise directed by the RPR.

**631-4.2 Equipment and tools.** The Contractor shall furnish all equipment, tools, and machinery necessary for the performance of the work.

**a. Distributors.** Distributors or spray units used for the spray application of the seal coat shall be self-propelled and capable of uniformly applying 0.12 to 0.55 gallons per square yard of material over the required width of application. Distributors shall be equipped with removable manhole covers, tachometers, pressure gauges, and volume-measuring devices.

The mix tank shall have a mechanically powered, full-sweep, mixer with sufficient power to move and homogeneously mix the entire contents of the tank.

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The distributor shall be equipped with a positive placement pump so that a constant pressure can be maintained on the mixture to the spray nozzles.

**b. Mixing equipment.** The mixing machine shall have a continuous flow mixing unit capable of accurately delivering a predetermined proportion of aggregate, water, and emulsion, and of discharging the thoroughly mixed product on a continuous basis. The mixing unit shall be capable of thoroughly blending all ingredients together and discharging the material to the spreader box without segregation.

**c. Spreading equipment.** Spreading equipment shall be a mechanical-type squeegee distributor attached to the mixing machine, equipped with flexible material in contact with the surface to prevent loss of slurry from the spreader box. It shall be maintained to prevent loss of slurry on varying grades and adjusted to assure uniform spread. There shall be a lateral control device and a flexible strike-off capable of being adjusted to lay the slurry at the specified rate of application. The spreader box shall have an adjustable width. The box shall be kept clean; coal tar emulsion and aggregate build-up on the box shall not be permitted.

**d. Hand squeegee or brush application.** The use of hand spreading application shall be restricted to places not accessible to the mechanized equipment or to accommodate neat trim work at curbs, etc. Material that is applied by hand shall meet the same standards as that applied by machine.

**e. Calibration.** The Contractor shall furnish all equipment, materials and labor necessary to calibrate the equipment. It shall be calibrated to assure that it will produce and apply a mix that conforms to the job mix formula. Commercial equipment should be provided with a method of calibration by the manufacturer. All calibrations shall be made with the approved job materials prior to applying the seal coat to the pavement. A copy of the calibration test results shall be furnished to the RPR.

**631-4.3 Preparation of asphalt pavement surfaces.** Clean pavement surface immediately prior to placing the seal coat by sweeping, flushing well with water leaving no standing water, or a combination of both, so that it is free of dust, dirt, grease, vegetation, oil or any type of objectionable surface film. Remove oil or grease that has not penetrated the asphalt pavement by scraping or by scrubbing with a detergent, then wash thoroughly with clean water. After cleaning, treat these areas with the oil spot primer. Any additional surface preparation, such as crack repair, shall be in accordance with *SS-280 and as shown on the plans Item P-101, paragraph 101-3.6.*

**631-4.4 Mixing.** Blend the coal tar emulsion mixture in the equipment described in paragraph 631-4.2 using the ingredients described in Table 2. The mixing must produce a smooth homogeneous mixture of uniform consistency. (Consult coal tar emulsion supplier for its recommended order of addition of the ingredients.) During the entire mixing and application process, no breaking, segregating or hardening of the emulsion, nor balling or lumping of the sand is to be permitted. Continue to agitate the seal coating mixture in the mixing tank at all times prior to and during application so that a consistent mix is available for application.

Small additional increments of water may be needed to provide a workable consistency, but in no case is the water content to exceed the specified amount.

**631-4.5 Application of slurry seal surface treatment.** The aggregate filled slurry seal surface treatment shall be applied at a uniform rate determined in paragraph 631-3.4.

In order to provide maximum adhesion, the pavement shall be dampened with a fog spray of water if recommended by the supplier. No standing water shall remain on the surface.

If a prime coat is required, mix and apply the prime coat as specified in paragraph 631-3.2.

Apply the first coat uniformly to obtain the rate determined in paragraph 631-3.4.

Each coat shall be allowed to dry and cure initially before applying any subsequent coats. The initial drying shall allow evaporation of water of the applied mixture, resulting in the coating being able to sustain light foot traffic. The initial curing shall enable the mixture to withstand vehicle traffic without damage to the seal coat.

Apply the second coat in the same manner as outlined for the first coat.

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Additional coats shall be applied over the entire surface as directed by the RPR.

The finished surface shall present a uniform texture.

The final coat shall be allowed to dry a minimum of eight hours in dry daylight conditions before opening to traffic, and initially cure enough to support vehicular traffic without damage to the seal coat.

Where marginal weather conditions exist during the eight-hour drying time, additional drying time shall be required. The length of time shall be as specified by the supplier. The surface shall be checked after the additional drying time for trafficability before opening the section to vehicle traffic.

~~Where striping is required, the striping paint used shall meet the requirements of Item P-620, shall be compatible with the seal coat and as recommended by the coal tar emulsion manufacturer. There is no anticipated striping to be in the area to receive a seal coat.~~

#### QUALITY CONTROL (QC)

**631-5.1 Contractor's certification.** The Contractor shall furnish the manufacturer's certification that each consignment of emulsion shipped to the project meets the requirements of ASTM D5727, except that the water content shall not exceed 50%. The certification shall also indicate the solids and ash content of the emulsion and the date the tests were conducted. The certification shall be delivered to the RPR prior to the beginning of work. The manufacturer's certification for the emulsion shall not be interpreted as a basis for final acceptance. Any certification received shall be subject to verification by testing samples received for project use.

The Contractor shall also furnish a certification demonstrating a minimum of three years of experience in the application of coal tar emulsion seal coats.

**631-5.2 Sampling.** A minimum of one sample per day shall be tested for the properties of Table 2. A random sample of approximately one-quarter of the composite mix will be obtained daily by the Contractor and stored in a glass container. The containers shall be sealed against contamination and retained in storage by the Owner for a period of six months. Samples shall be stored at room temperature and not be subjected to freezing temperatures. *The Contractor shall provide the samples to the Kentucky Transportation Cabinet for testing for quality assurance.*

A sample of undiluted coal tar emulsion shall be obtained from each consignment shipped to the job.

**631-5.3 Records.** The Contractor shall maintain an accurate record of each batch of materials used in the formulation of the seal coat and provide the documentation to the RPR daily.

#### METHOD OF MEASUREMENT

**631-6.1** The refined coal tar emulsion with additives shall be measured by the gallon. Only the actual quantity of undiluted refined coal tar emulsion with additives will be measured for payment.

~~**631-6.2** Aggregate shall be measured by the ton (kg) of dry aggregate. No separate measurement or payment will be made for aggregate used in the mixture.~~

#### BASIS OF PAYMENT

**631-7.1** Payment shall be made at the contract unit price per gallon for the refined coal tar emulsion with additives.

~~**631-7.2** Payment shall be made at the contract unit price per ton for dry aggregate.~~

These prices shall be full compensation for furnishing all materials, preparing, mixing, and applying these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-631-7.1                      Refined Coal Tar Emul for Slurry Coat - per gallon

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### REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

#### ASTM International (ASTM)

ASTM C67	Standard Test Method for Sampling and Testing Brick and Structural Clay Tile
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C1602	Standard Specification for Mixing Water Used in the Production of Hydraulic Cement Concrete
ASTM D490	Standard Specification for Road Tar
ASTM D3699	Standard Specification for Kerosine
ASTM D5727	Standard Specification for Emulsified Refined Coal Tar (Mineral Colloid Type)

#### Code of Federal Regulations (CFR)

29 CFR Part 1910.1200	Hazard Communication
40 CFR	Protection of the Environment

**END OF ITEM P-631**

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## ADDENDUM A

### ITEM P-631 FUEL RESISTANCE TEST AND CRITERION

#### 1. Scope

This method determines the resistance of the coal tar emulsion seal coat to kerosene.

#### 2. Apparatus

- 2.1. Two 6" x 6" square 16 gauge sheet metal masks with a 4" x 4" square center removed
- 2.2. 6" x 6" unglazed white ceramic tile with an absorption rate of 10- 18% (determined in accordance with ASTM C67
- 2.3. Brass ring, 2" diameter and 2" high
- 2.4. Kerosene meeting requirements of ASTM D3699
- 2.5. Silicone rubber sealant

#### 3. Procedure

- 3.1. Immerse the ceramic tile in distilled water for a minimum of ten minutes.
- 3.2. Remove excess water from the tile to produce a damp surface before applying the seal coat.
- 3.3. Using the mask described in 2.1 apply one layer of the coal tar emulsion mixture to the tile. Spread even with the top of the mask using a spatula or other straightedge.
- 3.4. Allow the sample to cure for 96 hours at  $77 \pm 2^{\circ}\text{F}$ . and  $50 \pm 10\%$  relative humidity.
- 3.5. Position a second mask on top of the first mask.
- 3.6. Apply a second coat of coal tar emulsion mixture. Spread even with the top of the second mask.
- 3.7. Cure as in step 3.4.
- 3.8. After curing, affix the brass ring to the seal coat on the tile with silicone rubber sealant.
- 3.9. Fill the brass ring with kerosene.
- 3.10. After 24 hours, remove the kerosene from the brass ring, blot dry and immediately examine the film for softness and loss of adhesion. Immediately after the film is examined, break the tile in half, exposing that part of the tile whose film was subjected to the kerosene.
- 3.11. Evaluate for penetration of kerosene through the sealer and loss of adhesion.

4. **Report:** Report the results as pass or fail. Visible evidence of leakage or discoloration shall constitute failure of the fuel resistance test.

5. **Criterion:** A "pass" rating in the fuel resistance test is required prior to full production.

**SPECIAL NOTE FOR PRE-BID CONFERENCE  
FRANKLIN COUNTY  
CAPITAL CITY AIRPORT  
AIRFIELD PAVEMENT REHABILITATION PROJECT**

The Department will conduct a mandatory Pre-Bid Conference of the subject project on **Wednesday, March 13, 2019 at 11:30 AM Eastern** at;

**Kentucky Department of Aviation (Large Conference Room)  
90 Airport Road, Building 400  
Frankfort, Kentucky 40601**

Any company that is interested in bidding on the subject project or being part of a joint venture must be represented at the meeting by **one person of sufficient authority to bind the company**. No individual can represent more than one company. At the meeting a roster will be taken of the representatives present.

The purpose of the conference is to familiarize all prospective bidders with the contract requirements of the contract.

Engineer's representing the Kentucky Transportation Cabinet and Capital City Airport present at the conference will answer questions concerning the project.

**PART II**  
**SPECIFICATIONS AND STANDARD DRAWINGS**

### **SPECIFICATIONS REFERENCE**

Any reference in the plans or proposal to previous editions of the *Standard Specifications for Road and Bridge Construction* and *Standard Drawings* are superseded by *Standard Specifications for Road and Bridge Construction, Edition of 2012* and *Standard Drawings, Edition of 2016*.

## **SUPPLEMENTAL SPECIFICATIONS**

The contractor shall use the Supplemental Specifications that are effective at the time of letting.  
The Supplemental Specifications can be found at the following link:

<http://transportation.ky.gov/Construction/Pages/Kentucky-Standard-Specifications.aspx>

## **PART III**

### **EMPLOYMENT, WAGE AND RECORD REQUIREMENTS**

**TRANSPORTATION CABINET  
DEPARTMENT OF HIGHWAYS**

**LABOR AND WAGE REQUIREMENTS  
APPLICABLE TO OTHER THAN FEDERAL-AID SYSTEM PROJECTS**

- I. Application
- II. Nondiscrimination of Employees (KRS 344)

**I. APPLICATION**

1. These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work or by subcontract. The contractor's organization shall be construed to include only workmen employed and paid directly by the contractor and equipment owned or rented by him, with or without operators.

2. The contractor shall insert in each of his subcontracts all of the stipulations contained in these Required Provisions and such other stipulations as may be required.

3. A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

3. If the contractor is in control of apprenticeship or other training or retraining, including on-the-job training programs, he shall not discriminate against an individual because of his race, color, religion, national origin, sex, disability or age forty (40) and over, in admission to, or employment in any program established to provide apprenticeship or other training.

4. The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. The contractor will take such action with respect to any subcontract or purchase order as the administrating agency may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Revised: January 25, 2017

**II. NONDISCRIMINATION OF EMPLOYEES**

**AN ACT OF THE KENTUCKY  
GENERAL ASSEMBLY TO PREVENT  
DISCRIMINATION IN EMPLOYMENT  
KRS CHAPTER 344  
EFFECTIVE JUNE 16, 1972**

The contract on this project, in accordance with KRS Chapter 344, provides that during the performance of this contract, the contractor agrees as follows:

1. The contractor shall not fail or refuse to hire, or shall not discharge any individual, or otherwise discriminate against an individual with respect to his compensation, terms, conditions, or privileges of employment, because of such individual's race, color, religion, national origin, sex, disability or age (forty and above); or limit, segregate, or classify his employees in any way which would deprive or tend to deprive an individual of employment opportunities or otherwise adversely affect his status as an employee, because of such individual's race, color, religion, national origin, sex, disability or age forty (40) and over. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor shall not print or publish or cause to be printed or published a notice or advertisement relating to employment by such an employer or membership in or any classification or referral for employment by the employment agency, indicating any preference, limitation, specification, or discrimination, based on race, color, religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, except that such a notice or advertisement may indicate a preference, limitation, or specification based on religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, when religion, national origin, sex, or age forty (40) and over, or because the person is a qualified individual with a disability, is a bona fide occupational qualification for employment.

## EXECUTIVE BRANCH CODE OF ETHICS

In the 1992 regular legislative session, the General Assembly passed and Governor Brereton Jones signed Senate Bill 63 (codified as KRS 11A), the Executive Branch Code of Ethics, which states, in part:

KRS 11A.040 (7) provides:

No present or former public servant shall, within six (6) months following termination of his office or employment, accept employment, compensation, or other economic benefit from any person or business that contracts or does business with, or is regulated by, the state in matters in which he was directly involved during the last thirty-six (36) months of his tenure. This provision shall not prohibit an individual from returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment, or for which he received, prior to his state employment, a professional degree or license, provided that, for a period of six (6) months, he personally refrains from working on any matter in which he was directly involved during the last thirty-six (36) months of his tenure in state government. This subsection shall not prohibit the performance of ministerial functions, including but not limited to filing tax returns, filing applications for permits or licenses, or filing incorporation papers, nor shall it prohibit the former officer or public servant from receiving public funds disbursed through entitlement programs.

KRS 11A.040 (9) states:

A former public servant shall not represent a person or business before a state agency in a matter in which the former public servant was directly involved during the last thirty-six (36) months of his tenure, for a period of one (1) year after the latter of:

- a) The date of leaving office or termination of employment; or
- b) The date the term of office expires to which the public servant was elected.

This law is intended to promote public confidence in the integrity of state government and to declare as public policy the idea that state employees should view their work as a public trust and not as a way to obtain private benefits.

If you have worked for the executive branch of state government within the past six months, you may be subject to the law's prohibitions. The law's applicability may be different if you hold elected office or are contemplating representation of another before a state agency.

Also, if you are affiliated with a firm which does business with the state and which employs former state executive-branch employees, you should be aware that the law may apply to them.

In case of doubt, the law permits you to request an advisory opinion from the Executive Branch Ethics Commission, 3 Fountain Place, Frankfort, Kentucky 40601; telephone (502) 564-7954.

Revised: January 27, 2017

### **Kentucky Equal Employment Opportunity Act of 1978**

The requirements of the Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) shall apply to this Contract. The apparent low Bidder will be required to submit EEO forms to the Division of Construction Procurement, which will then forward to the Finance and Administration Cabinet for review and approval. No award will become effective until all forms are submitted and EEO/CC has certified compliance. The required EEO forms are as follows:

- EEO-1: Employer Information Report
- Affidavit of Intent to Comply
- Employee Data Sheet
- Subcontractor Report

These forms are available on the Finance and Administration's web page under ***Vendor Information, Standard Attachments and General Terms*** at the following address:  
**<https://www.eProcurement.ky.gov>**.

Bidders currently certified as being in compliance by the Finance and Administration Cabinet may submit a copy of their approval letter in lieu of the referenced EEO forms.

For questions or assistance please contact the Finance and Administration Cabinet by email at **[finance.contractcompliance@ky.gov](mailto:finance.contractcompliance@ky.gov)** or by phone at 502-564-2874.

# EMPLOYEE RIGHTS UNDER THE FAIR LABOR STANDARDS ACT

THE UNITED STATES DEPARTMENT OF LABOR WAGE AND HOUR DIVISION

## FEDERAL MINIMUM WAGE

# \$7.25

 PER HOUR

BEGINNING JULY 24, 2009

**OVERTIME PAY** At least 1½ times your regular rate of pay for all hours worked over 40 in a workweek.

**CHILD LABOR** An employee must be at least **16** years old to work in most non-farm jobs and at least **18** to work in non-farm jobs declared hazardous by the Secretary of Labor.

Youths **14** and **15** years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs under the following conditions:

**No more than**

- **3** hours on a school day or **18** hours in a school week;
- **8** hours on a non-school day or **40** hours in a non-school week.

Also, work may not begin before **7 a.m.** or end after **7 p.m.**, except from June 1 through Labor Day, when evening hours are extended to **9 p.m.** Different rules apply in agricultural employment.

**TIP CREDIT** Employers of “tipped employees” must pay a cash wage of at least \$2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee’s tips combined with the employer’s cash wage of at least \$2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference. Certain other conditions must also be met.

**ENFORCEMENT** The Department of Labor may recover back wages either administratively or through court action, for the employees that have been underpaid in violation of the law. Violations may result in civil or criminal action.

Employers may be assessed civil money penalties of up to \$1,100 for each willful or repeated violation of the minimum wage or overtime pay provisions of the law and up to \$11,000 for each employee who is the subject of a violation of the Act’s child labor provisions. In addition, a civil money penalty of up to \$50,000 may be assessed for each child labor violation that causes the death or serious injury of any minor employee, and such assessments may be doubled, up to \$100,000, when the violations are determined to be willful or repeated. The law also prohibits discriminating against or discharging workers who file a complaint or participate in any proceeding under the Act.

### ADDITIONAL INFORMATION

- Certain occupations and establishments are exempt from the minimum wage and/or overtime pay provisions.
- Special provisions apply to workers in American Samoa and the Commonwealth of the Northern Mariana Islands.
- Some state laws provide greater employee protections; employers must comply with both.
- The law requires employers to display this poster where employees can readily see it.
- Employees under 20 years of age may be paid \$4.25 per hour during their first 90 consecutive calendar days of employment with an employer.
- Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.

For additional information:



# 1-866-4-USWAGE

(1-866-487-9243)

TTY: 1-877-889-5627



# WWW.WAGEHOUR.DOL.GOV

**PART IV**  
**INSURANCE**

## INSURANCE

The Contractor shall procure and maintain the following insurance in addition to the insurance required by law:

- 1) Commercial General Liability-Occurrence form – not less than \$2,000,000 General aggregate, \$2,000,000 Products & Completed Aggregate, \$1,000,000 Personal & Advertising, \$1,000,000 each occurrence.
- 2) Automobile Liability- \$1,000,000 per accident
- 3) Employers Liability:
  - a) \$100,000 Each Accident Bodily Injury
  - b) \$500,000 Policy limit Bodily Injury by Disease
  - c) \$100,000 Each Employee Bodily Injury by Disease
- 4) The insurance required above must be evidenced by a Certificate of Insurance and this Certificate of Insurance must contain one of the following statements:
  - a) "policy contains no deductible clauses."
  - b) "policy contains \_\_\_\_\_ (amount) deductible property damage clause but company will pay claim and collect the deductible from the insured."
- 5) **KENTUCKY WORKMEN'S COMPENSATION INSURANCE.** The contractor shall furnish evidence of coverage of all his employees or give evidence of self-insurance by submitting a copy of a certificate issued by the Workmen's Compensation Board.

The cost of insurance is incidental to all contract items. All subcontractors must meet the same minimum insurance requirements.

**PART V**  
**BID ITEMS**

### PROPOSAL BID ITEMS

191209

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Report Date 2/21/19

#### Section: 0001 - PAVING

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0010	40000		SITE PREPARATION	1.00	LS		\$	
0020	40003		LOCKOUT-TAGOUT AND CC REGULATOR CAL PRO	1.00	LS		\$	
0030	40043		R/W & T/W PAINT-WHITE WATERBORNE	69,450.00	SQFT		\$	
0040	40044		R/W & T/W PAINT-YELLOW WATERBORNE	11,995.00	SQFT		\$	
0050	40046		REFINED COAL TAR EMUL FOR SLURRY COAT	4,851.00	GAL		\$	
0060	40047		SODDING	21,130.00	SQYD		\$	
0070	40069		PAVEMENT CRACK REPAIR-METHOD 1	10,500.00	LF		\$	
0080	40112		PAVEMENT SURFACE PREPARATION	1.00	LS		\$	
0090	40113		PAVEMENT CRACK REPAIR-METHOD 2	39,100.00	LF		\$	
0100	40168		R/W & T/W PAINT-BLACK	47,570.00	SQFT		\$	
0110	40169		MICROSURFACING-SURFACE COURSE - TYPE B	109,790.00	SQYD		\$	
0120	40170		SHOULDERING	21,130.00	SQYD		\$	

#### Section: 0002 - DEMOBILIZATION &/OR MOBILIZATION

LINE	BID CODE	ALT	DESCRIPTION	QUANTITY	UNIT	UNIT PRIC	FP	AMOUNT
0130	02569		DEMOBILIZATION	1.00	LS		\$	