# **Project Manual**

for

## Runway 17-35 Approach Improvements CAT II

Issued for Bid



Prepared for

Augusta Aviation Commission Augusta Regional Airport Augusta, GA

Mead & Hunt No. 0119700-221073.01

Prepared by



August 2024

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### **BID FORM**

(Failure to furnish all requested data will be cause for considering BIDDER non-responsive and may render this BID invalid on that basis.)

BID FOR:

BID ITEM #25-161 AUGUSTA REGIONAL AIRPORT RUNWAY 17-35 APPROACH IMPROVEMENTS CAT II

Augusta, Georgia

SUBMITTED TO:

Attn: Procurement Director 535 Telfair Street, Room 605

Augusta, GA 30901

SUBMITTED BY:

Trinity Electrical Services, LLC

Bidder's Name

2317 Golden Isles West

Address

Baxley, GA 31513

City, State and Zip Code

(912) 366-7773 Fax (912) 366-7776 April 14, 2025

Phone / Fax

Date Completed

- The undersigned, hereinafter called Bidder, in compliance with the "Notice to Bidders" accepting all of the terms and conditions of the "Instructions to Bidders," including without limitation those dealing with the disposition of the Bid Security; proposes and agrees, if awarded the Contract, to enter into an agreement with the Owner utilizing the form Contract included in the Bid Documents. Bidder shall furnish all materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the work to be performed under the Contract within the time indicated in the contract, in full and complete accordance with the shown, noted, described and reasonably intended requirements of the Contract Documents, to the full and entire satisfaction of the Owner, for the amounts contained in this Bid Schedule.
- 2. This Bidder's bid shall remain open for ninety (90) days after the day of Bid opening. If awarded a contract, Bidder will sign the Contract and submit the Contract Security and other documents required by the Contract Documents within fifteen (15) calendar days after the date indicated in Owner's Notice of Award.
- 3. In submitting this Bid, the Bidder represents that:
  - a. Bidder has become thoroughly familiar with the terms and conditions of the Bid Documents accepting the same as sufficient to indicate understanding of all the conditions and requirements under the Contract which will be executed for the Work.
  - b. Bidder has examined the site and locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as Bidder deems necessary.

- c. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm or corporation to refrain from submitting a bid; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
- d. No member of the Augusta Board of Commissioners, Aviation Commission or other officers or employees of said Owner Is interested directly or indirectly in the bid or in any portion of the bid or in the Contract or any part of the Contract which may be awarded the undersigned on the basis of such bid without such full disclosure being made.
- e. It is a condition of this bid and any subsequent contract entered into pursuant to this bid, and it shall be made a condition of each subcontract entered into pursuant to the prime contract that the Contractor and any subcontractor shall not require any laborer to mechanic employed in the performance of the contract to work in surroundings or under working conditions which are unsatisfactory, hazardous, or dangerous to his/her health or safety, as determined under Construction Safety and Health Standards, Title 29, CFR Part 1518 36FR7340, promulgated by the U.S. Secretary of Labor, in accordance with Section 107 of the Contract Work hours and Safety Standards act, Stat. 96; that is further condition of this bid that Bidder shall be solely responsible for the enforcement of such Construction and Health Standards, and that Bidder fully understands that the Owner and its authorized representatives will not assume any liability resulting from the Contractor's failure to police and enforce all such standards.
- f. The description under each bid item, being briefly stated, implies, although it does not mention, all incidentals and that the prices stated are intended to cover all such work, materials and incidentals as constitute Bidder's obligations as described in the Specifications, and any details not specifically mentioned, but evidently included in the Contract shall be compensated for in the item which most logically includes it.
- g. The unit prices bid include all applicable taxes and fees. Bids shall also include appropriate provisions for price escalation for materials and labor including but not limited to increases in federal, state and local sales taxes and income or FICA taxes.

### 4. Contract Time: Bidder agrees that:

- a. The work will be completed within the timeframes described in the General Provisions and the Construction Documents.
- b. Bidder shall commence work with an adequate force and equipment at the time stated in the Notice to Proceed and complete all work by the date established in said Notice. Bidder shall not work overtime or on Saturdays, Sundays, or legal holldays except as specifically allowed by the Contract Documents and approved by the Owner.
- c. The quantities of work listed in the Bid Schedules are APPROXIMATE and are assumed solely for the comparison of bids. Compensation will be based upon the unit price bid and the ACTUAL quantities of work performed in accordance with the Contract Documents and as accepted by the ENGINEER.
- 5. Bid Schedule: See attached Pages BF-3 through BF-5.

## BID SCHEDULE - BASE BID

Location of Project: Bid Item #25-161 Augusta Regional Airport, Augusta, Georgia Title of Project: Runway 17-35 Approach Improvements CAT II

Line No.	Item No.	Item Description	Est. Qty.	Units	Unit Price	Bid Amount
1	C-102.1a	Installation, Maintenance, and Removal of Silt Fence Type C	950	LF	2.50	2,375.00
	Written Un	it Price Two Dollars and Fifty Ce	ents			
2	C-102.1b	Erosion Control Mobilization	1	LS	7,200.00	7,200.00
	Written Un	it Price Seven Thousand Two H	undred	Dollars		
3	C-102.1c	Emergency Erosion Control Mobilization	1	LS	7,000.00	7,000.00
	Written Un	it Price Seven Thousand Dollars	5		,	
4	C-105.1	Mobilization, Cleanup, and Demobilization	1	LS	72,010.00	72,010.00
	Written Un	It Price Seventy-Two Thousand	Ten Do	llars		
5	C-105.2	Airfield Safety and Traffic Control	1	LS	16,800.00	16,800.00
	Written Unit Price Sixteen Thousand Eight Hundred Dollars					
6	NS01-01	Locate and Protect Existing Circuits	1	LS	3,500.00	3,500.00
	Written Unit Price Three Thousand Five Hundred Dollars					
7	NS02-01	Runway 35 Glideslope Antenna Tower - Disconnect/Remove/Install (FAA to Procure)	1	LS	160,900.00	160,900.00
	Written Unit Price One Hundred Sixty Thousand Nine Hundred Dollars					

## BID SCHEDULE - BASE BID

Location of Project: Bid Item #25-161 Augusta Regional Airport, Augusta, Georgia Title of Project: Runway 17-35 Approach Improvements CAT II

Line No.	Item No.	Item Description	Est. Qty.	Units	Unit Price	Bid Amount
8	NS02-02	Runway 35 Glideslope Shelter - Disconnect/Remove/Install (FAA to Procure)	1	LS	98,200.00	98,200.00
	Written Un	it Price Ninety-Eight Thousand T	wo Hun	dred Dol	lars	
9	NS02-03	Runway 35 Localizer Shelter - Disconnect/Remove/Install (FAA to Procure)	1	LS	105,100.00	105,100.00
	Written Un	it Price One Hundred Five Thous	sand On	e Hundre	ed Dollars	
10	NS02-04	Runway 35 14-Element Localizer Antenna - Disconnect/Remove/Install (FAA to Procure)	1	LS	282,600.00	282,600.00
	Written Un	it Price Two Hundred Eighty-Two	o Thous	and Six H	lundred Dollars	
11	NS02-05	Runway 17-35 Cable Removal	1,640	LF	9.50	15,580.00
	Written Ur	nlt Price Nine Dollars and Fifty Cents	12			

Total Base Bid = \$771,265.00

Total Base Bid Written = Seven Hundred Seventy-One Thousand
Two Hundred Sixty-Five Dollars

- Determination of Low Bidder: Low bidder shall be determined based on the total of the base bid.
   Owner shall reserve the right to award the overall project as deemed fit.
   Execution of Contract: Bidder agrees that in case of failure on its part to execute the said Contract
- 7. **Execution of Contract:** Bidder agrees that in case of failure on its part to execute the said Contract and Bonds within fifteen (15) days after the date indicated in the "Notice of Award," the check or bid bond accompanying this bid, and the money payable thereon, shall be paid to the Owner as liquidated damages for such failure; otherwise the Bid Security or check accompanying this bid shall be returned to the undersigned.
- 8. **Documentation:** The following required documents are attached to and made a part of this bid
  - Required Bid Security in the form of a Bid Bond payable to the order of the City of Augusta;
  - b. Performance of Work by Subcontractor List;
  - c. Certificate of Prompt Payment

9.	Name and business address (mailing and	street) of Bidder to which all formal notices shall be sent:
	Trinity Electrical Services, LLC	
	2317 Golden Isles West, Baxley, G	A 315133
10.	The terms used in this bid, which are defin as a part of the Contract Documents, Provisions.	ed in the General Provisions of the Construction Contract have the meanings assigned to them in the General
11.	Bidder hereby acknowledges receipt of th	e following addenda:
	Addendum No.	Date

			all state on the f said corporati		a cor	poration, the name of state in which incorporated
Signed <sup>-</sup>	this	14	day of	April		, 20 <u>25</u>
						Contractor
					Ву:	(Signature of individual, partner or officer signing the Bid)
(SEAL	)					EN214811
<b>\</b>	,					License Number
ATTES	ST:					The Both
NOTE:	If Corporequi	oration.	r is a Corpora . If Contractor	ation, Secreta r is a Partners	ry sh ship, a	ould attest seal. Seal is required if Bidder is a all partners shall execute the bid (add spaces as

## **NOTICE OF AWARD**

TRINITY ELECTRICAL SERVICES, LLC.

AUGUSTA REGIONAL AIRPORT RUNWAY 17-35 APPROACH IMPROVEMENTS CAT II
The Owner has considered the bid submitted by you for the above-described WORK in response to its Advertisement for Bids and Information for Bidders.
You are hereby notified that your bid has been accepted for items in the amount of \$771,265.00.
You are required by the Invitation to Bid to execute the Contract and furnish the required Contractor's Performance and Payment Bonds within fifteen (15) calendar days from the date of this Notice to you.
If you fail to execute said Contract and to furnish said bonds within fifteen (15) days from the date of this Notice said Owner will be entitled to consider all rights arising out of the Owner's acceptance of your bid as abandoned and as a forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law.
You are required to return an acknowledged copy of this NOTICE OF AWARD to the Owner.
Dated this day of, 20
AUGUSTA REGIONAL AIRPORT
BY:
TITLE:
*** ACCEPTANCE OF NOTICE ***
Receipt of the above NOTICE OF AWARD is hereby
acknowledged by
this the day of
BY:
TITLE:

TO:

### PERFORMANCE BOND

(NOTE: THIS BOND IS ISSUED SIMULTANEOUSLY WITH PAYMENT BOND, IN FAVOR OF THE OWNER CONDITIONED FOR THE PAYMENT OF LABOR AND MATERIAL.)

#### KNOW ALL MEN BY THESE PRESENTS:

	That		as Principal,
hereinafter cal	led CONTRACTOR, and		, a
corporation or	ganized and existing under th	ne laws of the State of	, with
RICHMOND Dollars (\$executors, adm	COUNTY COMMISSION as) for the paymen	s Obligee, hereinafter called the ont whereof CONTRACTOR and assigns, jointly and severally,	, as Surety, hereinafter called AND THROUGH THE AUGUSTA-OWNER, in the penal amount of SURETY bind themselves, their heirs, firmly by these presents for the faithful
OWNER for <b>IMPROVEM</b> Augusta Aviat	the construction of AUC ENTS CAT II, Augusta, Go	GUSTA REGIONAL AIRPO eorgia, in accordance with the d gusta-Richmond County Commis	entered into a Contract with <b>PRT RUNWAY 17-35 APPROACH</b> rawings and specifications issued by the sion, which contract is by reference made
promptly and full force and	faithfully perform said Contra		is such that, if CONTRACTOR shall null and void; otherwise, it shall remain in
	The SURETY hereby wa	ives notice of any alteration or ex	stension of time made by the OWNER.
the OWNER h	aving performed OWNER's		NER to be in default under the Contract, ETY may promptly remedy the default, or
(1)	Complete the Contract in	accordance with its terms and co	onditions, or
(2)	upon determination by SU elects, upon determination responsible bidder, arrang Work progresses (even the or contracts of completic completion less the bala damages for which the SU hereof. The term "balan"	JRETY of the lowest responsive as in by the OWNER and the SURInge for a contract between such big ough there should be a default or a contract under this paragramice of the Contract price; but in JRETY may be liable hereunder, ce of the Contract price," as use	dance with its terms and conditions, and and responsible bidder, or, if the OWNER ETY jointly of the lowest responsive and dder and OWNER, and make available as a succession of defaults under the contract ph) sufficient funds to pay the cost of lot exceeding, including other costs and the amount set forth in the first paragraph d in this paragraph, shall mean the total are Contract and any amendments thereto,

Any suit under this bond must be instituted before the expiration of two (2) years from the date on

less the amount properly paid by OWNER to CONTRACTOR.

which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the OWNER named herein or the heirs, executors, administrators or successors of the OWNER.

	Signed and sealed this	day of	A.D. 20	
Witness				(Seal)
			(Contractor)	
Attest_		By		(Seal)
		·		(Title)
Witness			(Surety)	(Seal)
Attest		By		(Seal)
				(Title)

## LABOR AND MATERIAL PAYMENT BOND

(NOTE:		THIS BOND IS ISSUED SIMULTANEOUSLY WITH PERFORMANCE BOND, IN FAVOR OF THE OWNER CONDITIONED FOR THE PERFORMANCE OF THE WORK.)			
	KNOV	ALL MEN BY THESE	E PRESENTS:		
	That _			as Principal,	
hereinafter cal	led CONT	RACTOR, and			
a corporation	organized a	and existing under the la	ws of the State of	, with	
RICHMOND claimants as h payment wher	COUNTY erein belov eof CONT	COMMISSION, as Ob	oligee, hereinafter called to of	, as Surety, hereinafter called AND THROUGH THE AUGUSTA- he OWNER, for the use and benefit of Dollars (\$) for the irs, executors, administrators, successors,	
promptly mak to use in the po	Contra 35 AP issued Contra  NOW, e payment erformance	ct with Owner for the co PROACH IMPROVEM by the Augusta Aviation ct is by reference made a THEREFORE, the con to all claimants as herein	mstruction of AUGUSTA MENTS CAT II, in according to a part hereof, and is hereins dition of this obligation is nafter defined, for all laborals obligation shall be void;	entered into a REGIONAL AIRPORT RUNWAY 17- ordance with drawings and specifications a-Richmond County Commission, which after referred to as the CONTRACT.  It is such that, if the CONTRACTOR shall and material used or reasonably required otherwise, it shall remain in full force and	
(1)	subcon use in water,	tractor of the CONTRA the performance of the C	CTOR for labor, material, Contract labor and material	or with the CONTRACTOR or with a or both, used or reasonably required for being construed as to include that part of service or rental of equipment directly	
(2)	OWNI of a pe done o of such claima	ER that every claimant as riod of ninety (90) days r performed, or materials n claimant, prosecute the	s herein defined, who has a fiter the date on which the s were furnished by such c e suit to final judgment for	by jointly and severally agree with the not been paid in full before the expiration last of such claimant's work or labor was laimant, may sue on this bond for the use such sum or sums as may be justly due not be liable for the payment of any costs	
(3)	No sui	t or action shall be comm	nenced hereunder by any c	laimant,	
	(a)	have given written not	ice to any two of the follow	contract with the CONTRACTOR, shall ring: The CONTRACTOR, the OWNER, days after such claimant did or performed	

the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed.

Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the CONTRACTOR, OWNER or SURETY, at any place where an office regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.

- (b) After the expiration of one (1) year following the date on which CONTRACTOR ceased work on said Contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
- (c) Other than in a Georgia state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.
- (4) The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by SURETY of mechanics' liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

	Signed and sealed this	day of	A.D. 20	
Witness			(Contractor)	(Seal)
Attest		Ву		(Seal) (Title)
Witness			(Surety)	(Seal)
Attest		Ву		(Seal)

## NOTICE TO PROCEED

	DATE:
SUBJECT: NOTICE TO PRO PROJECT: AUGUSTA REGI	CEED ONAL AIRPORT RUNWAY 17-35 APPROACH IMPROVEMENTS CAT II,
Gentlemen:	
calendar days following the dat	by notified to commence work in accordance with the Contract, within <u>Ten</u> (10) the first written above, and you are to complete the work within () therefore the date of this notice. The date set for completion of all work is therefore
	AUGUSTA REGIONAL AIRPORT
	BY:
	TITLE:
*** ACCEPT	ANCE OF NOTICE ***
Receipt of the above NOTICE	
this the day of	
TITLE:	

### **CONTRACT**

THIS CONTRACT made and entered into to be effective \_\_\_\_\_\_\_, 20\_\_\_\_ by and between, AUGUSTA GEORGIA, "Augusta," a political subdivision of the State of Georgia, acting through the AUGUSTA AVIATION COMMISSION, whose address is 1501 Aviation Way, Augusta Regional Airport at Bush Field, Augusta, Georgia 30906-9600, hereinafter called "Airport", and <u>Trinity Electrical Services</u>, hereinafter called "Contractor".

#### WITNESSETH:

**WHEREAS**, Augusta is the owner and operator of a full-service commercial airport known as the Augusta Regional Airport;

WHEREAS, Augusta has solicited a bid to IMPROVE RUNWAY 17-35 APPROACH - SPECIAL AUTHORIZATION CAT II, for the Airport;

WHEREAS, the Contractor submitted a bid for said services; and

WHEREAS, Augusta, on behalf of the Airport, accepted the Contractor's Bid for said services;

**NOW THEREFORE,** in consideration of the mutual covenants, promises, and agreements herein contained, Augusta and the Contractor hereby agree as follows:

The Contractor's Services shall be in accordance with the scope of services and all provisions provided herein.

### ARTICLE 1 SCOPE OF THE WORK

1.1 The Contractor hereby agrees to furnish all of the materials and all of the equipment and labor necessary, and to perform all of the work shown on the Plans and described in the specifications for the Project entitled:

#### AUGUSTA REGIONAL AIRPORT RUNWAY 17-35 APPROACH IMPROVEMENTS CAT II,

and in accordance with the requirements and provisions of the Contract Documents as defined in the Provisions hereto attached which are hereby incorporated and made a part of this contract.

#### 1.2 **Definitions**

The following terms have the following meanings whenever used in the Contract Documents (defined below), or in related documents, the terms or pronouns used in place of them shall be defined as follows:

- 1.2.1 **Airport Executive Director**. The person tasked with the day-to-day operations of the Airport.
- 1.2.2 **Augusta Aviation Commission**. The Augusta Regional Airport Aviation Commission tasked with the overall administration of the Airport.
- 1.2.3 Augusta, Georgia or City or Owner. Augusta, Georgia's Commission.

- 1.2.4 Engineer. The Work has been designed by Mead & Hunt, Inc., whose corporate headquarters is located at 2240 Deming Way, Middleton, WI 53562, who is hereinafter called Engineer and who is to assume all duties and responsibilities and have the rights and authority assigned to Engineer in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.
- 1.2.5 Project. Augusta Regional Airport Runway 17-35 Runway Improvements (Special Authorization CAT II) Project, including but not limited to the removal of and replacement of the existing LOC Antenna array and associated equipment, removal and replacement of the existing glideslope antenna and associated equipment. See project manual and plans for additional information.
- 1.2.6 **Airport's Administrator**. Airport's Representative shall be the Airport's Executive Director or his designee.
- 1.2.7 **Contractor's Representative(s)**. The Contractor's representative ("Contractor's Representative") for all dealings with Airport shall be \_\_\_\_\_\_\_. Contractor's Representative may be changed upon prior written notice delivered to Owner.
- 1.3 Subject to controlling law, the Owner will refuse to permit the Contractor to use any employee on this job if the Owner reasonably deems that individual unfit to work at the Airport facilities in any respect.
- 1.4 All Contractor employees shall strictly adhere to Airport regulations while on the Airport premises, including but not limited to Augusta, Georgia, County, and Transportation Security Authority (TSA) and Federal Aviation Administration (FAA) regulations governing access to buildings, personal conduct, and possession of prescribed substances, parking, and traffic. The Owner reserves the right to require the removal of Contractor employees from the Project.
- 1.5 **Design, Standards and Practices**. The design, strength, quality of materials, and workmanship must conform to the highest standards of construction practices and/or services.

## ARTICLE II TERM

- 2.1 The Contractor must begin work within ten (10) calendar days of receiving the Notice to Proceed (NTP) from the Owner. It is anticipated the NTP will be issued <u>August 15, 2025</u>. The Contractor will mobilize with sufficient forces such that all work is completed within ninety-five (95) calendar days after the issuance of the NTP. Contract time charges will begin as set forth in Section 80 of the General Provisions
- 2.2 Contractor working times shall be as designated on the Construction Safety & Phasing Plan sheets in the Construction Drawings. At the Owner's discretion, work times may be further restricted.

- 2.3 For additional details please review Section 80 of the attached Specifications.
- 2.4 It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the date of beginning, rate of progress, and the time for completion of the work to be done hereunder are ESSENTIAL CONDITIONS of this Contract. Contractor agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will ensure full completion thereof within the time specified. It is expressly understood and agreed by and between the Contractor and the Owner that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and construction conditions prevailing in this locality.
- 2.5 It is further agreed that <u>time is of the essence</u> of each and every portion of this Contract and the specifications wherein a definite portion and certain length of time is fixed for the performance of any act whatsoever; and where under the Contract an additional time is allowed for the completion of any work, the new time limit fixed by extension shall be the essence of the Contract.

### ARTICLE III LIQUIDATED DAMAGES

3.1 The Contractor acknowledges that time is of the essence with respect to the Work governed by the Contract. The Contractor acknowledges and recognizes that if it fails to achieve Substantial Completion of any portion of the Work within the Contract Time as may be extended in accordance with the terms of this Contract, the Owner will sustain substantial losses as a result of such failure. The Contractor further acknowledges that the Owner will suffer damages that are difficult, if not impossible, to accurately estimate. The Contractor shall be assessed liquidated damages as set forth in Section 80, Execution and Progress, subsection 80-08.

## ARTICLE IV PAYMENT

#### 4.1 The Contract Sum

The Owner shall pay to the Contractor for completion of the Work in strict accordance with the Contract Documents, and in accordance with the unit bid prices submitted on <u>April 14, 2025</u>, with a contract price of \$771,265.00.

#### 4.2 **Progress Payments**

4.2.1 Contractor shall submit Applications for Payment in accordance with Section 90 of the General Provisions but in no case shall submit Applications for Payment more than once per month. Application for Payment will be processed by Engineer as provided in the General Provisions.

4.2.2 Progress payments will be made in an amount equal to the percentage indicated below, but, in each case, less the aggregate of payments previously made and less such amounts as Engineer shall

determine, or Owner may withhold, in accordance with Section 90 of the General Provisions.

1) 90% of Work completed as determined by Engineer.

2) 90% of materials and equipment not incorporated in the Work (but delivered, suitably

stored, and accompanied by documentation satisfactory to Owner as provided in paragraph

90-07 of the General Provisions.)

4.2.3 Within ten (10) business days of receiving each Application for Payment, the Engineer shall either

indicate in writing a recommendation of payment and present the application to the Owner or return

the Application to the Contractor indicating in writing necessary corrections. In the latter case, the

Contractor shall make the corrections and resubmit the application.

4.3 **Invoices**.

Contractor shall submit invoices to:

Mead & Hunt, Inc.

Attn: Edwin Scott

5955 Core Road, Suite 515

North Charleston, SC 29406

4.4 **Retainage and Partial Payments**. If payment request is approved by the Owner, the approved payment

request shall be submitted to the Owner's Finance Department for processing on or before the fifth day of

the following month, and payment (less retainage) shall be made to the Contractor thirty (30) calendar days

after the date the approved payment request is received by the Owner's finance department. If a payment

request is not approved by the Owner, then no payment shall be made to the Contractor until such time as the

Owner approves the payment request. The amount of retainage shall be as follows:

4.4.1 Ten percent (10%) of each partial payment shall be withheld as retainage until the value of fifty

percent (50%) of the Contract Price, including Change Orders and other authorized additions

provided in the Contract, is due;

4.4.2 When fifty percent (50%) of the Contract Price, as described above, becomes due and the manner

of completion of the Work and its progress, quality, and schedule are reasonably satisfactory to the

Owner, and there are no outstanding claims by the Contractor, subcontractors or material suppliers,

the withholding of retainage shall be discontinued.

- 4.4.3 If after discontinuing retainage, the Owner determines that the Work is unsatisfactory or has fallen behind schedule, withholding of ten percent (10%) of each request for payment may be resumed. When the Work has reached Substantial Completion and the Owner determines the Work to be reasonably acceptable, the Contractor shall submit an invoice or other documents as may be required and receive payment thereof within thirty (30) calendar days. If there are any remaining incomplete minor items, an amount equal to two hundred percent (200%) of the value of each item, as determined by the Owner, shall be withheld until such items are complete;
- 4.4.4 The Contractor shall within ten (10) calendar days from its receipt of retainage from the Owner pass through payments to Subcontractors and shall reduce each Subcontractor's retainage in the same manner as the Contractor's retainage is reduced by the Owner. The Subcontractor shall within ten (10) calendar days from the Subcontractor's receipt of retainage pass through payments to lower tier subcontractor's and shall reduce each lower tier subcontractor's retainage in the same manner as the Subcontractor's retainage is reduced.
- 4.4.5 The Contractor and Owner agree to abide by all applicable provisions of Georgia State Law concerning retainage, including but not limited to O.C.G.A. § 13-10-80. If the terms of this Contract concerning retainage conflict with Georgia State Law, Georgia State Law shall govern.

## ARTICLE V FINAL INSPECTION

5.1 Upon notice from the Contractor that the Work is completed, the Owner shall request the Contractor to be available during final inspection of the Work, and shall notify the Contractor of all instances where the Work fails to comply with the Drawings and Specifications, as well as any defects the Owner may discover. At no cost to the Owner, the Contractor shall immediately make such alterations as are necessary to bring the Work into compliance with the Contract, the Drawings, and Specifications.

## ARTICLE XI ACCEPTANCE AND FINAL PAYMENT

6.1 **Final Payment**. Upon final completion and acceptance of the Work in accordance with Section 50 of the General Provisions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said paragraph 90-09.

- 6.2 Before final payment is due the Contractor shall submit evidence satisfactory to the Engineer that all payrolls, material bills, and other indebtedness connected with the work have been paid, except that in case of disputed indebtedness or liens the Contractor may submit in lieu of evidence of payment a surety bond satisfactory to the Owner guaranteeing payment of all such disputed amounts when adjudicated in cases where such payment has not already been guaranteed by surety bond.
- 6.3 The making and acceptance of the final payment shall constitute a waiver of all claims by the Owner other than those arising from unsettled liens, from faulty work appearing within twelve (12) months after final payment, from requirements of the specifications, or from manufacturers' guarantees. It shall also constitute a waiver of all claims by the Contractor except those previously made and still unsettled.
- 6.4 If after the Work has been substantially completed, full completion thereof is materially delayed through no fault of the Contractor, and the Engineer so certifies, the Owner shall upon certificate of the Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

# ARTICLE VII CHANGES

- 7.1 The Owner may, during the Contract period, make changes to the Scope of Work, which may result in changes to the general scope of the Contract and its provisions.
- 7.2 Written/verbal agreements, changes, or amendments to this Contract shall not be binding upon the Owner unless approved and signed by the Owner in advance of performing work.

7.3 Contractor acknowledges that this contract and any changes to it by amendment, modification, change order, or other similar document may have required or may require the legislative authorization of the Augusta Aviation Commission or Augusta, Georgia Board of Commissioners and approval of the Mayor. Under Georgia law, Contractor is deemed to possess knowledge concerning Augusta, Georgia's ability to assume contractual obligations and the consequences of Contractor's provision of goods or services to Augusta, Georgia under an unauthorized contract, amendment, modification, change order or other similar document, including the possibility that the Contractor may be precluded from recovering payment for such unauthorized goods or services. Accordingly, Contractor agrees that if it provides goods or services to Augusta, Georgia under a contract that has not received proper legislative authorization or if the Contractor provides goods or services to Augusta, Georgia in excess of the any contractually authorized goods or services, as required by Augusta, Georgia's Charter and Code, Augusta, Georgia may withhold payment for any unauthorized goods or services provided by Contractor. Contractor assumes all risk of non-payment for the provision of any unauthorized goods or services to Augusta, Georgia, and it waives all claims to payment or to other remedies for the provision of any unauthorized goods or services to Augusta, Georgia, however characterized, including, without limitation, all remedies at law or equity.

## ARTICLE VIII INSURANCE

- 8.1 During the term of this Contract, Contractor shall provide, pay for, and maintain with companies reasonably satisfactory to the Owner the types of insurance as set forth in the Augusta Code, and Georgia Law as the same may be amended from time to time, and as described herein. All insurance shall be issued by insurance companies eligible to do business in the State of Georgia and Best Rated A+ or equivalent. In the event of a conflict between the provisions of the Augusta Code and this Contract, the more stringent requirement shall govern. In no event shall Contractor maintain any insurance less than the requirements set forth in the Augusta Code, as amended.
- 8.2 All liability policies of Contractor and its subcontractors shall provide coverage that includes, or has the same substantive effect as the following:
  - 8.2.1 Augusta, Georgia, the Augusta Aviation Commission, and each of its Commissioners, officers, agents, elected representatives, volunteers, and employees, in their respective capacities as such, shall be additional insured hereunder with respect to the products, premises, and operations of the named insured.
  - 8.2.2 This insurance policy shall apply as primary, and any insurance and/or self-insurance as may be maintained by the Augusta, the Augusta Aviation Commission, or its Commissioners, officers, agents, elected representatives, volunteers, and employees shall apply in excess of, and shall not contribute with insurance provided by this policy."

- 8.2.3 This insurance shall not be materially changed, altered, canceled, or non-renewed until after thirty (30) calendar days advanced written notice has been given to Augusta, Georgia except that only ten (10) calendar days' notice shall be required in the event of cancellation due to non-payment of premium.
- 8.3 All such evidence of insurance shall be in the form of certificates of insurance satisfactory to the Augusta and its Risk Manager, accompanied by a certified true copy of an endorsement to each policy containing the above language. Properly executed certificates of insurance shall evidence the insurance coverage and limits required. The authorized representative of the insurance company shown on the certificate shall sign these certificates. The required policies of insurance shall comply with the laws of the State of Georgia.
- 8.4 If at any time the Executive Director requests a written statement from the insurance company as to any impairment to the aggregate limit, Contractor shall promptly authorize and have delivered such statement to the Augusta Aviation Commission. Contractor authorizes the Augusta Aviation Commission and/or the Augusta's Risk Manager to confirm with Contractor's insurance agents, brokers, and insurance companies all information furnished.
- 8.5 The acceptance of delivery to the Owner of any certificate of insurance evidencing the insurance coverage and limits required under this Contract does not constitute approval or acceptance by the Owner that the insurance requirements in this Contract have been met. No operations shall commence at the Airport unless and until the required certificates of insurance are in effect and approved by the Augusta's Risk Manager.
- 8.6 The Contractor and the Owner understand and agree that the minimum limits of the insurance herein required may, from time to time, become inadequate, and Contractor agrees that it will increase such minimum limits upon receipt of written notice defining the basis of the increase. The Contractor shall furnish the Owner, within sixty (60) calendar days of the effective date thereof, a certificate of insurance evidencing that such insurance is in force.
- 8.7 Contractor's insurance companies or its authorized representative shall give the Owner thirty (30) calendar days prior written notice of any cancellation, intent not to renew, or material reduction in any policy's coverage, except in the application of the Aggregate Limit Provisions. In the event of a reduction to the Aggregate Limit, it is agreed that immediate steps will be taken to have the prior Aggregate Limit reinstated.

8.8 If at any time, the Airport Executive Director requests a written statement from the insurance companies as to any impairment(s) to the Aggregate Limit, prompt authorization and delivery of all requested information will be given to the Augusta Aviation Commission. Renewal Certificates of Insurance must be provided to the Owner as soon as practical but in every instance prior to expiration of current coverage.

8.9 The amounts and types of insurance shall conform to the following minimum requirements with the use of Insurance Service Office policies, forms, and endorsements or broader, where applicable. Notwithstanding the foregoing, the wording of all policies, forms, and endorsements must be reasonably acceptable to the Owner.

8.10 Workers' Compensation and Employer's Liability Insurance shall be maintained in force by Contractor during the term of this Contract for all employees engaged in the operations under this Contract. The limits of coverage shall not be less than:

Workers' Compensation Georgia Statutory

Employer's Liability \$1,000,000.00 Limit Each Accident

\$1,000,000.00 Limit Disease Aggregate

\$1,000,000.00 Limit Disease Each Employee

8.11 **Commercial General Liability** – Occurrence Form. Policy shall include bodily injury, property damage, personal injury, and broad form contractual liability coverage with limits no less than five million dollars (\$5,000,000.00) in Broad Form Comprehensive General Liability insurance.

Automobile Liability Insurance. For any vehicles authorized in writing by the Executive Director to operate on the Aircraft Operating Area (AOA) of the Airport, Automobile Insurance in the minimum amount of Five Million Dollars (\$5,000,000.00) combined single limit coverage. If the Contractor's Comprehensive General Liability coverage includes vehicular operations on the Airport, separate automobile insurance shall not be required. The foregoing insurance shall be endorsed to state that it will be primary to the Augusta, Georgia and the Augusta Aviation Commission's insurance and that the carrier waives its right of subrogation against Augusta, Georgia, the Augusta Aviation Commission, and their officers, agents, elected and appointed officials, representatives, volunteers, and employees. Augusta, Georgia, the Augusta Aviation Commission, and their officers, agents, employees, and elected and appointed officials shall be added as additional insureds on said policies. Said policy shall contain Severability of Interest Clause and shall include contractual liability coverage at least as broad as that given in the most current CA 00 01 ISO form.

8.13 Excess Liability: \$2,000,000.00

Policy must follow form of General Liability Policy and all insurance together for general liability must

total at least a minimum of two million dollars (\$2,000,000.00). Any form of underlying and excess policies

may satisfy such requirement.

8.14 The Commercial General Liability Insurance coverage as required in the paragraph above shall include those

classifications, as listed in Standard Liability Insurance Manuals, which are applicable to the operations of

the Contractor in the performance of this Contract.

8.15 Within sixty (60) calendar days of the effective date thereof or any subsequent term, Contractor shall provide

Owner with certificate(s) of insurance evidencing that such insurance as described herein be in force.

Insurance binder letter(s) or a Certificate(s) of Insurance as described above must be sent to the address

below with a copy to the Owner:

Augusta, Georgia Risk Management

Risk Management 535 Telfair Street

Suite 920

Augusta, GA 30901

(706) 821-2502 (Fax)

8.16 **Subcontractors.** It is the sole responsibility of the general Contractor to ensure that all subcontractors

working under it have separately procured any and all types and limits of insurance that are required

under any and all pertinent local, state, or federal ordinances or resolutions that are suitable for the

particular trade that the subcontractor is performing. It also is the sole responsibility of the general

and/or prime Contractor to ensure that any and all subcontractors or vendors carry types and limits of

insurance not less than those listed herein and that the subcontractors and/or vendors carry and/or

procure endorsements to waive all subrogation rights against and name "Augusta, Georgia, its appointed

and elected Officials, departments, agencies, boards, commissions, its officers, agents, employees, and

volunteers" as additional insureds.

# ARTICLE IX AIRPORT SECURITY REQUIREMENTS

- Ontractor's employees shall be required to operate in Airport's secure areas. Contractor shall be required to obtain the Airport's Security Identification Display Area (SIDA) badges for any employee working in the secured area. Contractor shall comply, at its own expense, with the Transportation Security Administration (TSA) and the Owner's security requirements for the Airport including, but not limited to employee training and badges. Contractor shall cooperate with the TSA and the Owner on all security matters and shall promptly comply with any project security arrangements established by the Owner. Compliance with such security requirements shall not relieve Contractor of its responsibility for maintaining proper security for the abovenoted items, nor shall it be construed as limiting in any manner Contractor's obligation with respect to all applicable federal, state and local laws and regulations and its duty to undertake reasonable action to establish and maintain secure conditions at and around the Project and throughout the Airport. All employees shall be properly badged and comply with all Owner's safety and security rules.
- 9.2 Any Contractor employees assigned to work in a secured area are required to be "badged" or a "badged" Contractor employee must escort them the entire time they are in these secured areas.
- 9.3 To qualify for the badge, individual must be fingerprinted and have a background investigation completed. In addition, the Owner will conduct a background inquiry and require finger printing of all individuals who will be working on the secured side of the Airport screening point. This may also include collection of appropriate criminal history information, contractual and business associations and practices, employment histories, reputation in the business community, and credit reports for the Contractor, as well as, its employees.
- 9.4 Contractor consents to such an inquiry and agrees to make available to the Owner such books and records the Owner deems necessary to conduct the review.
- 9.5 Contractor shall pay all costs associated with providing SIDA badges.
- 9.6 Contractor shall be responsible for any fines assessed by the FAA or TSA as a result of the actions of its employees or subcontractors.

## ARTICLE X REPRESENTATIONS AND WARRANTIES

In order to induce the Owner to enter into this Contract, Contractor hereby represents and warrants that as of the date above written that:

- 10.1 Contractor is duly organized and validly existing in good standing under the laws of the State of \_\_\_\_\_\_ in which it is organized, is qualified to do business in all jurisdictions in which it is operating, and has the power and authority to execute and deliver and to perform its obligations under this Contract and the documents to which it is signatory; and
- 10.2 The execution, delivery, and performance by Contractor and its undersigned representative(s) of this Contract and other documents to which Contractor is a signatory do not require the approval or consent of any other person, entity, or government agency and do not result in any breach of any agreement to which Contractor is a party or by which it is bound; and
- 10.3 The execution, delivery, and performance by Contractor of this Contract and other documents to which it is a signatory have been duly authorized by all necessary action, and constitute legal, valid and binding obligations of Contractor, enforceable against Contractor in accordance with its terms; and
- 10.4 No action, suit, or proceeding to which Contractor is a party is pending or threatened that may restrain or question this Contract, or any other document to which it is a signatory, or the enjoyment of rights or benefits contemplated herein; and
- 10.5 Contractor has all State of Georgia Licenses and permits required for the performance of the Work and shall only use properly licensed and trained persons to perform such services.

ARTICLE XI NOTICES

11.1 **Delivery**. All notices given by either party to the other under this Contract must be in writing and delivered

by: (i) regular mail, postage prepaid; (ii) certified or registered mail; (iii) facsimile; or (iv) hand - delivery,

to the parties at the addresses and facsimile numbers set forth in the Clause titled "Addresses".

11.2 **Receipt.** Notices sent by mail will be deemed to be received upon deposit in the mail, properly addressed.

Notices sent by certified or registered mail will be deemed to be received upon the date of the

acknowledgment. Notices sent by facsimile will be deemed to be received upon successful transmission to

the proper facsimile number. Notices delivered by hand- delivery will be deemed to be received upon

acceptance by the respective party or its agent.

11.3 Change of Address or Facsimile Number. Either party may, at any time, change its respective address or

facsimile number by sending written notice to the other party of the change.

11.4 Addresses.

To OWNER: To CONTRACTOR:

Augusta Regional Airport

Attn: Executive Director Attn:

1501 Aviation Way

Augusta, Georgia 30906

Telephone: (706) 798-3236 Telephone:

Fax: (706) 798-1551 Fax:

With a copy to:

Augusta General Counsel Augusta Richmond County Department of Law 535 Telfair St.

Building 3000

Augusta, GA 30901 Fax: (706) 842-5556

## ARTICLE XII INDEMNIFICATION AND HOLD HARMLESS

12.1 Except where, and to the extent caused by the gross negligence of Augusta, Georgia, the Augusta Aviation Commission, their agents, employees, contractors, officers, or Contractor shall protect, defend, reimburse, indemnify, and hold Augusta, Georgia, the Augusta Aviation Commission, its members, agents, employees, and elected officers and each of them, free and harmless at all times as set forth in Augusta, Georgia Code, and particularly Article 1, Chapter 3, Division 1, Section 1-3-8.5, Indemnity and Insurance, as the same may be amended from time to time, and described herein. In the event of a conflict between the provisions of the Augusta Code and this Contract, the broader requirement shall govern.

## ARTICLE XIII PERMITS

13.1 Contractor shall obtain and maintain at all times all necessary licenses, permits, and certifications to perform the work described in the Contract. Contractor shall furnish copies of all licenses, permits, and certifications to the Administrator.

## ARTICLE XIV WORK PERMITS REQUIRED

14.1 Contractor agrees and acknowledges that its employees and agent's employees, as well as any subcontractors or subcontractors' personnel, working on the Contract must be United States citizens, or must be lawfully admitted for residence and be permitted to work in the United States under the Immigration and Naturalization Act, 8 U.S.C. 1101, et. seq.

### ARTICLE XV FEDERAL WORK AUTHORIZATION

Pursuant to O.C.G.A. §13-10-91 and Georgia Department of Labor Rule 300-10-1-.02, the Owner cannot enter a contract for the physical performance of services unless the Contractor and its Subcontractors register and participate in the Federal Work Authorization Program to verify specific information on all new employees.

- 15.2 The Contractor certifies that it has complied and will continue to comply with O.C.G.A. § 13-10-91 and Georgia Department of Labor Rule 300-10-1-.02.
- 15.3 The Contractor agrees to sign an affidavit evidencing its compliance with O.C.G.A. § 13-10-91 and Georgia Department of Labor Rule 300-10-1-.02. The signed affidavit is attached to this Contract as an exhibit
- 15.4 The Contractor agrees that in the event that it employs or contracts with any Subcontractor(s) in connection with this Contract, the Contractor will secure from each Subcontractor an affidavit that indicates the employee-number category applicable to that Subcontractor and certifies the Subcontractor's current and continuing compliance with O.C.G.A. § 13-10-91 and Georgia Department of Labor Rule 300-10-1-.02. Any signed Subcontractor affidavit(s) obtained in connection with this Contract shall be attached hereto as an exhibit.

# ARTICLE XVI MISCELLANEOUS CONTRACT PROVISIONS

#### 16.1 Independent Contractor/Subcontractor

Contractor is acting, in performance of this Contract, as an independent contractor. Personnel supplied by the Contractor or its agents or subcontractors hereunder are not the Owner's employees or agents and Contractor assumes full responsibility for their acts. Contractor shall be solely responsible for the payment of compensation to Contractor's employees. The Owner shall not be responsible for payment of Worker's Compensation, disability benefits, and unemployment insurance or for withholding and paying employment taxes for any Contractor employee, or Contractor's subcontractors or its agent's employees, but such responsibility shall be solely that of Contractor. This clause of the contract does not prevent the Airport from requiring Contractor to have its employees follow normal rules and guidelines for work performance, redirecting the efforts of the employees to meet the needs of the facilities, performing safety or from requiring Contractor to perform the requirements of this Contract satisfactorily, according to the General Conditions, Scope of Services, Performance Work Statement, Service Performance Standards, and Methods described herein.

#### 16.2 Force Majeure

Neither party hereto shall be considered in default in the performance of its obligations hereunder to the extent that the performance of any such obligation, except the payment of money, is prevented or delayed by any cause, existing or future, which is beyond the reasonable control of the affected party, or by a strike, lockout or other labor difficulty, the settlement of which shall be within the sole discretion of the party involved.

- Each party hereto shall give notice promptly to the other of the nature and extent of any Force Majeure claimed to delay, hinder, or prevent performance of the services under this Contract. In the event either party is prevented or delayed in the performance of this obligation because of such Force Majeure, there shall be an equitable adjustment of the schedule. In the event there is a fluctuation in the costs or price associated with the project due to occurrence of a force majeure event, such price differential shall be borne by the party claiming the force majeure delay. However, if the party claiming the delay can show good faith efforts to mitigate the costs and demonstrates that the party's action, inaction, or omission did not contribute to the price or costs fluctuation, said increased costs shall be borne equally by both parties.
- 16.2.3 Contractor will not be liable for failure to perform or for delay in performance because of Force Majeure, including the following:
  - 16.2.3.1 any cause beyond its reasonable control;
  - 16.2.3.2 any act of God;
  - 16.2.3.3 inclement weather;
  - 16.2.3.4 earthquake;
  - 16.2.3.5 fire;
  - 16.2.3.6 explosion;
  - 16.2.3.7 flood;
  - 16.2.3.8 strike or other labor dispute;
  - any shortage or disruption of or inability to obtain labor, material, manufacturing facilities, power, fuel, or transportation from unusual sources, or any other;
  - 16.2.3.10 delay or failure to act of any governmental or military authority;
  - 16.2.3.11 any war, hostility or invasion;
  - 16.2.3.12 any embargo, sabotage, civil disturbance, riot or insurrection;
  - 16.2.3.13 any legal proceedings;
  - 16.2.3.14 failure to act by Contractor's suppliers due to any cause which Contractor is not responsible, in whole or in part; or,
  - 16.2.3.15 any disease, epidemic, or pandemic.

#### 16.3 Commercial Activities

Neither Contractor nor its employees may establish any commercial activity or issue concessions or permits of any kind to third parties for establishing activities at the Airport.

16.4 **Records and Audit** 

Contractor and its subcontractors shall maintain records and accounts in connection with all aspects in the

performance of this Contract, including those, which will accurately document incurred costs, both direct

and indirect, of whatever nature, during and for a period of three (3) years from the expiration or other

termination of this Contract, unless otherwise specified by applicable law. The Owner may examine and

copy, at all reasonable times, with advance notification, those records and accounts. Contractor shall

maintain all records in a central location in Augusta, Georgia.

16.5 **Contingent Fees** 

Contractor warrants that it has not employed or retained any company or person, other than a bona fide

employee working for Contractor, to solicit or secure this Contract; and that Contractor has not paid or

agreed to pay any company, association, corporation, firm or person, other than a bona fide employee

working for Contractor, any fee, commission, percentage, gift or any other consideration contingent upon or

resulting from the award or making of this Contract. For the breach or violation of this warranty and upon a

finding after notice and hearing, the Owner may terminate the Contract and, at its discretion, may deduct

from the Contract sum, or otherwise recover the full amount of any such fee, commission, percentage, gift

or consideration.

16.6 **Rights and Remedies** 

The rights and remedies of the Owner provided in this paragraph are not exclusive and are in addition to any

other rights and remedies provided by law or under this Contract.

16.7 **Non-Appropriations** 

Notwithstanding anything contained in this Contract, if sufficient funds have not been appropriated to

support continuation of this Contract for an additional calendar year or an additional term of the Contract,

this Contract shall terminate absolutely and without further obligation on the part of the Owner at the close

of the calendar year of its execution or if the Owner suspends performance pending the appropriation of

funds.

16.8 **Assignment** 

Without the prior written consent of the Owner, Contractor may not assign, transfer, or convey any of its

interests under this Contract, nor delegate any of its obligations or duties under this Contract except as

provided herein.

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Augusta Regional Airport, Augusta Georgia

- 16.8.1 Consent of the Owner Required. Any assignment of this Contract or rights under this Contract, in whole or part, without the prior written consent of the Owner will be void, except that, upon ten (10) calendar days prior written notice to the Owner, Contractor may assign monies due or to become due under this Contract. Any assignment of monies will be subject to proper setoffs in favor of the Owner and to any deductions provided for in this Contract.
- 16.8.2 **No Relief of Responsibilities.** No assignment will be approved which would relieve Contractor of its responsibilities under this Contract.
- 16.9 **Parties Bound**. This Contract will be binding upon and inure to the benefit of the Owner and Contractor and their respective successors and assigns.
- 16.10 **No Partnership or Joint Venture**. Nothing contained in this Contract will be deemed to create a partnership or joint venture between the Owner and Contractor or cause the Owner to be responsible for the debts or obligations of Contractor or any other party. Contractor must not represent to anyone that its relationship to the Owner is other than as the Owner's Contractor. Contractor must act as an independent agent and not as the agent of the Owner in performing this Contract and shall maintain complete control over its employees and all of its lower-tier suppliers and subcontractors. Nothing contained in this Contract or any lower tier purchase order or subcontract awarded by Contractor will create any contractual relationship between any lower-tier supplier or subcontractor and the Owner. No act or direction of the Owner shall be deemed to be the exercise of supervision or control of the Contractor's performance hereunder.

#### 16.11 Waiver

The failure of the Owner to seek redress for any violation of or to insist upon the strict performance of, any term of this Contract will not prevent a subsequent violation of this Contract from being actionable by the Owner. The provision in this Contract of any particular remedy will not preclude the Owner from any other remedy.

#### 16.12 Compliance with Applicable Laws and Regulations

Contractor covenants and agrees that it, its agents and employees shall comply with all Georgia, county, state, and federal laws, Airport Rules and Regulations, and Augusta, Georgia Ordinances applicable to the work to be performed under this Contract, and that it shall obtain all necessary permits, and pay all license fees and taxes to comply therewith. Further, Contractor agrees that it, its agents, and employees will abide by all rules, regulations, and policies of Airport during the term of this Contract, including any renewal periods.

16.13 **Patent Indemnity** 

Except as otherwise provided, the Contractor shall indemnify Augusta, Georgia and its Board of

Commissioners, officers, agents, and employees against liability, including costs and expenses for

infringement upon any letters or patent of the United States arising out of the performance of this Contract

or out of the use or disposal by or for the account of the Owner of supplies furnished or construction work

performed hereunder.

16.14 Use of Augusta, Georgia Landfill

Contractor shall dispose of all debris and trash from the Airport will be transported to and disposed of at the

Augusta, Georgia Solid Waste Landfill in accordance with local and state regulations. The Contractor shall

provide evidence of proper disposal through manifests, which shall include the types of material disposed

of, the name and location of the disposal facility, date of disposal, and all related fees.

16.15 Inspection

The Owner may, at reasonable times, inspect the part of the plant, place of business, or work site of a

contractor or subcontractor or subunit thereof which is pertinent to the performance of the contract.

16.16 Temporary Suspension or Delay of Performance of Contract

To the extent that it does not alter the scope of this Contract the Owner may unilaterally order a temporary

stopping of the work or delaying of the work to be performed by the Contractor under this Contact.

16.17 Entire Agreement

This Contract, together with all of the attachments shall constitute the entire agreement between the parties

and any prior understanding or representation of any kind preceding the date of this Contract shall not be

binding upon either party except to the extent incorporated in this Contract.

16.18 Governing Law

This Contract will be construed under Georgia law, including the Georgia Uniform Commercial Code; all

remedies available under that code are applicable to this Contract. Contractor and the Owner fix jurisdiction

and venue for any action brought with respect to this Contract in Augusta, Georgia.

Runway 17-35 Approach Improvements CAT II Augusta Regional Airport, Augusta Georgia Issued for Bid Contract Forms August 16, 2024

nai / inport, / tagasta Georgia

### 16.19 **Legal Construction**

If any provision contained in this Contract is held to be invalid, illegal, or unenforceable, that invalidity, illegality, or unenforceability will not affect any other provision of this Contract and this Contract will be construed as if the invalid, illegal, or unenforceable provision had never been contained in this Contract.

#### 16.20 Prior Contracts Superseded

This Contract and the attachments constitute the sole and only agreement between Contractor and Owner with respect to the subject matter of this Contract and supersede any prior understandings or written or oral contracts respecting the subject matter of this Contract.

#### 16.21 Counterparts

This Contract may be executed concurrently in one or more counterparts, each of which will be deemed an original, but all of which will together constitute one (1) Contract.

#### 16.22 Further Acts

Owner and Contractor each agrees to perform any additional acts and execute and deliver any additional documents as may reasonably be necessary in order to carry out the provisions and affect the intent of this Contract.

**IN WITNESS WHEREOF,** the parties hereto have caused this Contract to be executed by their appropriate officials, as of the date first written above.

[SIGNATURES ON THE FOLLOWING PAGE]

Garnett L. Johnson, Mayor
Attest: Lena J. Bonner, Clerk of Commission
AUGUSTA AVIATION COMMISSION
Ronic West, Aviation Commission Chair
Attest:
CONTRACTOR
Sworn to and subscribed before me
this day of, 202
Notary Public
My commission expires:

(NOTARIAL SEAL)

**AUGUSTA, GEORGIA** 

# **Part 1 – General Contract 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:

Paragraph Number	Term	Definition
10-01	AASHTO	The American Association of State Highway and Transportation Officials.
10-02	Access Road	The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public roadway.
10-03	Advertisement	A public announcement, as required by local law, inviting bids for work to be performed and materials to be furnished.
10-04	Airport	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.
10-05	Airport Improvement Program (AIP)	A grant-in-aid program, administered by the Federal Aviation Administration (FAA).
10-06	Air Operations Area (AOA)	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.
10-07	Apron	Area where aircraft are parked, unloaded or loaded, fueled and/or serviced.
10-08	ASTM International (ASTM)	Formerly known as the American Society for Testing and Materials (ASTM).
10-09	Award	The Owner's notice to the successful bidder of the acceptance of the submitted bid.

Paragraph Number	Term	Definition
10-10	Bidder	Any individual, partnership, firm, or corporation, acting directly or through a duly authorized representative, who submits a bid for the work contemplated.
10-11	Bid	The written offer of the Bidder (when submitted on the approved bid form) to perform the contemplated work and furnish the necessary materials in accordance with the provisions of the plans and specifications.
10-12	Bid guaranty	The security furnished with a bid to guarantee that the Bidder will enter into a contract if his or her bid is accepted by the owner.
10-13	Building Area	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.
10-14	Calendar Day	Every day shown on the calendar.
10-15	Certificate of Analysis (COA)	The COA is the manufacturer's Certificate of Compliance (COC) including all applicable test results required by the specifications.
10-16	Certificate of Compliance (COC)	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.
10-17	Change Order	A written order to the Contractor covering changes in the plans, specifications, or bid 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.
10-18	Contract	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.  The awarded contract includes but may not be limited to: Advertisement, Contract form, Bid, Performance bond,
		payment bond, General provisions, certifications and representations, Technical Specifications, Plans, Supplemental Provisions, standards incorporated by reference and issued addenda.

Paragraph Number	Term	Definition
10-19	Contract Item (Pay Item)	A specific unit of work for which a price is provided in the contract.
10-20	Contract Time	The number of calendar days or working days, stated in the bid, allowed for completion of the contract, including authorized time extensions. If a calendar date of completion is stated in the bid, in lieu of a number of calendar or working days, the contract shall be completed by that date.
10-21	Contractor	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.
10-22	Contractors Quality Control (QC) Facilities	The Contractor's QC facilities in accordance with the Contractor Quality Control Program (CQCP).
10-23	Contractor Quality Control Program (CQCP)	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.
10-24	Control Strip	A demonstration by the Contractor that the materials, equipment, and construction processes results in a product meeting the requirements of the specification.
10-25	Construction Safety and Phasing Plan (CSPP)	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.
10-26	Drainage System	The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.
10-27	Engineer	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.

Paragraph Number	Term	Definition
10-28	Equipment	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.
10-29	Extra Work	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.
10-30	FAA	The Federal Aviation Administration. When used to designate a person, FAA shall mean the Administrator or their duly authorized representative.
10-31	Federal Specifications	The federal specifications and standards, commercial item descriptions, and supplements, amendments, and indices prepared and issued by the General Services Administration.
10-32	Force Account	<ul> <li>a. Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis.</li> <li>b. Owner Force Account - Work performed for the project by the Owner's employees.</li> </ul>
10-33	Intention of Terms	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.  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.

Paragraph Number	Term	Definition
10-34	Lighting	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.
10-35	Major and Minor Contract Items	A major contract item shall be any item that is listed in the bid, 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.
10-36	Materials	Any substance specified for use in the construction of the contract work.
10-37	Modification of Standards (MOS)	Any deviation from standard specifications applicable to material and construction methods in accordance with FAA Order 5300.1.
10-38	Notice to Proceed (NTP)	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.
10-39	Owner	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 Augusta Regional Airport.
10-40	Passenger Facility Charge (PFC)	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.
10-41	Pavement Structure	The combined surface course, base course(s), and subbase course(s), if any, considered as a single unit.
10-42	Payment bond	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.
10-43	Performance bond	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.

Paragraph Number	Term	Definition
10-44	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.'
10-45	Project	The agreed scope of work for accomplishing the work in this contract.
10-46	Proposal	Where the term "proposal" is used in the Federal or FAA Technical Specifications, it shall be interpreted to mean "bid" for this Project.
10-47	Quality Assurance (QA)	Owner's responsibility to assure that construction work completed complies with specifications for payment.
10-48	Quality Control (QC)	Contractor's responsibility to control material(s) and construction processes to complete construction in accordance with project specifications.
10-49	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.
10-50	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.
10-51	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.
10-52	Runway	The area on the airport prepared for the landing and takeoff of aircraft.

Paragraph Number	Term	Definition
10-53	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.
10-54	Safety Plan Compliance Document (SPCD)	Details how the Contractor will comply with the CSPP.
10-55	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.
10-56	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.
10-57	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.
10-58	Subgrade	The soil that forms the pavement foundation.
10-59	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.
10-60	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.

Paragraph Number	Term	Definition
10-61	Surety	The corporation, partnership, or individual, other than the Contractor, executing payment or performance bonds that are furnished to the Owner by the Contractor.
10-62	Taxilane	A taxiway designed for low speed movement of aircraft between aircraft parking areas and terminal areas.
10-63	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.
10-64	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.
10-65	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.
10-66	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.

## **Section 20 Bid Requirements and Conditions**

**20-01 Advertisement (Notice to Bidders).** Refer to the Invitation to Bid for information regarding the advertising dates, prebid conferences, availability of documents, and bid submittal deadlines. Bidders shall not contact any members of the Augusta Aviation Commission, Augusta Board of Commissioners or any Airport consultant in conjunction with this solicitation. Any unauthorized contact with members of the Augusta Aviation Commission, Augusta Board of Commissioners or Airport consultants shall be grounds for rejection of the Bidder's bid.

# Scope of Work

Augusta Regional Airport Runway 17-35 Runway Improvements Project (Special Authorization - CAT II), including but not limited to the removal of and replacement of the existing LOC Antenna array and associated equipment, removal and replacement of the existing glideslope antenna and associated equipment. See project manual and plans for additional information.

The project shall be complete and ready for final inspection within 95 days total from the effective date of Notice-to Proceed.

# **Bonding Requirements**

Bidders will submit a bid guaranty in the form of a bid bond, certified check, cashier's check or bank money order in the amount of not less than ten (10) percent of the total bid. The bid guaranty will be made payable to Augusta Aviation Commission. If the selected contractor fails to provide the required materials and/or execute the contract within fifteen (15) days after being furnished with the necessary contract and bond forms, the bid guaranty will be forfeited to the Sponsor (in accordance with Section 30-07 of the General Provisions). The successful Bidder will be required to furnish satisfactory 100 percent performance bond as well as labor and material bond.

The Bid Advertisement provides the following information for Bidders:

- time and place for submitting sealed bids;
- description of the proposed work;
- instructions about obtaining bid forms, plans, and specifications;
- Contractor's requirements (license, registration, etc.);
- required Federal Provisions solicitation language;
- the bid guaranty required; and
- the Owner's right to reject any and all bids.

**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 Georgia Department of Transportation (GDOT) are on the current "Bidder's list." Evidence of GDOT prequalification may be submitted as evidence of financial responsibility in lieu of the certified statements or reports specified above.

**20-03** Contents of bid forms. The Owner's bid forms state the location and description of the proposed construction; the place, date, and time of opening of the bids; 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 bid form states the time in which the work must be completed, and the amount of the bid guaranty that must accompany the bid. The Owner will accept only those bids properly executed on physical forms or electronic forms provided by the Owner. Bidder actions that may cause the Owner to deem a bid irregular are given in paragraph 20-09 *Irregular bids*.

**20-04 Issuance of bid forms**. The Owner reserves the right to refuse to issue a bid 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 bid 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 bid 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 bid quantities. An estimate of quantities of work to be done and materials to be furnished under these specifications is given in the bid. It is the result of careful calculations and is believed to be correct. It is given only as a basis for comparison of bids 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 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 bid, 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 bid 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 bid.** The Bidder shall submit their bid on the forms furnished by the Owner. All blank spaces in the bid forms, unless explicitly stated otherwise, must be correctly filled in where indicated for each and every item for which a quantity is given. 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 bid. In case of conflict between words and numerals, the words, unless obviously incorrect, shall govern.

The Bidder shall correctly sign the bid in ink. If the bid 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 bid 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 bid 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 bids. Bids shall be considered irregular for the following reasons:
- **a.** If the bis 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 bid form is detached.
- **b.** If there are unauthorized additions, conditional or alternate pay items, or irregularities of any kind that make the bid incomplete, indefinite, or otherwise ambiguous.
- **c.** If the bid does not contain a unit price for each pay item listed in the bid, except in the case of authorized alternate pay items, for which the Bidder is not required to furnish a unit price.
  - **d.** If the bid contains unit prices that are obviously unbalanced.
  - e. If the bid is not accompanied by the bid guaranty specified by the Owner.
  - **f.** If the applicable Disadvantaged Business Enterprise information is incomplete.

The Owner reserves the right to reject any irregular bid 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 bid shall be accompanied by a bid bond, certified check, or other specified acceptable collateral, in the amount specified in the bid form. Such bond, check, or collateral shall be made payable to the Owner.
- **20-11 Delivery of bid.** Each bid submitted shall be placed in a sealed envelope plainly marked with the project number, location of airport, and name and business address of the Bidder on the outside. When sent by mail, preferably registered, the sealed bid, marked as indicated above, should be enclosed in an additional envelope. No bid will be considered unless received at the place specified in the advertisement or as modified by Addendum before the time specified for opening all bids. Bids received after the bid opening time shall be returned to the Bidder unopened.
- **20-12 Withdrawal or revision of bids**. A Bidder may withdraw or revise (by withdrawal of one bid and submission of another) a bid provided that the Bidder's request for withdrawal is received by the Augusta

Procurement Department by email before the time specified for opening bids. Revised bids must be received at the place specified in the advertisement before the time specified for opening all bids.

- **20-13 Public opening of bids**. Bids 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. Bids 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 bid 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 Bid 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 **30** 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.

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#### Section 30 Award and Execution of Contract

**30-01 Consideration of bids**. After the bids 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 bid by the unit bid prices. If a Bidder's bid 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 bid for any of the following reasons:

- **a.** If the bid is irregular as specified in Section 20, paragraph 20-09, *Irregular Bids*.
- **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 bids, 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 bids; 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 **120** calendar days of the date specified for publicly opening bids, 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 bid 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 bid guaranty**. All bid 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 Bids*. Bid 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 bid guaranty will be returned. The successful Bidder's bid 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 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 bid and the terms of the contract.

**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 bid guaranty, not as a penalty, but as liquidated damages to the Owner.

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# **Section 40 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 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) (<a href="http://mutcd.fhwa.dot.gov/">http://mutcd.fhwa.dot.gov/</a>), 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,
  - **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.

#### Section 50 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

Runway 17-35 Approach Improvements CAT II Augusta Regional Airport, Augusta Georgia standard 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. None

**50-05** Cooperation of Contractor. The Contractor shall be supplied with five 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.

**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.

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 Civil3D 2022 or newer.

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.

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. 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*.

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 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.

#### **Section 60 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 and electronic copies, 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.

**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.

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. The Contractor shall provide dedicated space for the use of the engineer, RPR, and inspectors, as a field office for the duration of the project. This space shall be located conveniently near the construction and shall be separate from any space used by the Contractor. The Contractor shall furnish water, sanitary facilities, heat, air conditioning, and electricity.

No direct payment will be made for the Engineer's field office building or labor, materials, ground rental, or other expense in connection therewith. The Contractor and his/her superintendent shall provide all reasonable facilities to enable to the Engineer to inspect the workmanship and materials entering into the work.

**60-06 Storage of materials**. 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.

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.

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.

# Section 70 Legal Regulations and Responsibility 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**. 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.

Except as shown on the Construction Plans, 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.

**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 is on sheet(s) G-081 through G-084 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.

**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.

# 1. Work Area 1A.

- Scope of Work Disconnection, removal, and salvage of existing loc antenna array and associated equipment/materials as shown on sheet E-101 and installation of new loc antenna array and associated materials/equipment on existing foundation as shown on sheet E-201.
- **Duration** 34 calendar days. (Concurrent with WA 1B)
- Work Area G-083 in the Construction Plans.

### 2. Work Area 1B.

- Scope of Work Disconnection, removal, and salvage of existing glideslope antenna and associated equipment/materials as shown on sheet E-102 and installation of new glideslope antenna and associated materials/equipment on existing foundation as shown on sheet E-202.
- **Duration** 34 calendar days. (Concurrent with WA 1A).
- Work Area G-083 in the Construction Plans.

## 3. Work Area 2.

- Scope of Work Splicing of existing runway 17-35 series circuit, removal of existing series circuit loop conductors, and disconnecting & salvaging of the existing FAA RLIM equipment within the old electrical vault as shown on sheet E-103.
- **Duration** 1 calendar day.
- Work Area G-084 in the Construction Plans.

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.

# **FAA Technical Operations:**

Matthew Johnson, Augusta System Support System

Federal Aviation Administration

Office: (706) 798-5198 Cell: (706) 832-4931

## **Augusta Regional Airport:**

Tyler Good, Director of Operations (706) 796-3236

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 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 shall provide notice to the FAA Air Traffic Organization (ATO)/Technical Operations/System Support Center (SSC) Point-of-Contact through the airport Owner 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.** 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.

**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*.

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## **Section 80 Execution 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 25 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.

**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. 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 bid.

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 24 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 weekly basis, or as otherwise specified in the contract. Submission of the work schedule 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. Refer to the Construction Safety and Phasing Plans for restrictions.

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.

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 complete 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 bid 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 and including all Saturdays, Sundays, holidays, and non-workdays. 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 bid. 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 bid 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.

Work Area	<b>Liquidated Damages Cost</b>	Allowed Construction Time	
1A & 1B	\$1,000 per day	34	
2	\$1,000 per day	1	

The maximum construction time allowed for Work Area 1A & 1B shall be 34 calendar days total. The maximum construction time allowed for Work Area 2 shall be 1 calendar day.

The maximum construction time allowed for will be 95 calendar days, including 60 days of Mobilization. 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 wavier 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 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** 

# **Section 90 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		
Excavation and Embankment Volume	In computing volumes of excavation, the average end area method will be used unless otherwise specified.		
Measurement and Proportion by Weight	The term "ton" will mean the short ton consisting of 2,000 pounds (907 km) 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.		

Term	Description		
Measurement by Volume	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.		
Asphalt Material	Asphalt materials will be measured by the gallon (liter) or ton (kg). When measured by volume, such volumes will be measured at 60°F (16°C) or will be corrected to the 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.		
Cement	Cement will be measured by the ton (kg) or hundredweight (km).		
Structure	Structures will be measured according to neat lines shown on the plans or as altered to fit field conditions.		
Timber	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.		
Plates and Sheets	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.		
Miscellaneous Items	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.		

Term	Description
Scales	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.
	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 (454 grams). The use of spring balances will not be permitted.
	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%.
	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.
	Beams, dials, platforms, and other scale equipment shall be so arranged that the operator and the RPR can safely and conveniently view them.
	Scale installations shall have available ten standard 50-pound (2.3 km) weights for testing the weighing equipment or suitable weights and devices for other approved equipment.
	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.
Rental Equipment	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> .
Pay Quantities	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 bid, 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.

**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.

The Contractor is required to pay all subcontractors for satisfactory performance of their contracts no later than 30 days after the Contractor has received a partial payment. The Owner must ensure prompt and full payment of retainage from the prime Contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed. A subcontractor's work is satisfactorily completed

when all the tasks called for in the subcontract have been accomplished and documented as required by the Owner. When the Owner has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.

- a. From the total of the amount determined to be payable on a partial payment, 10 percent of such total amount will be deducted and retained by the Owner for protection of the Owner's interests. Unless otherwise instructed by the Owner, the amount retained by the Owner will be in effect until the final payment is made except as follows:
- (1) Contractor may request release of retainage on work that has been partially accepted by the Owner in accordance with Section 50-14. Contractor must provide a certified invoice to the RPR that supports the value of retainage held by the Owner for partially accepted work.
- (2) In lieu of retainage, the Contractor may exercise at its option the establishment of an escrow account per paragraph 90-08.
- b. The Contractor is required to pay all subcontractors for satisfactory performance of their contracts no later than 30 days after the Contractor has received a partial payment. Contractor must provide the Owner evidence of prompt and full payment of retainage held by the prime Contractor to the subcontractor within 30 days after the subcontractor's work is satisfactorily completed. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented as required by the Owner. When the Owner has made an incremental acceptance of a portion of a prime contract, the work of a subcontractor covered by that acceptance is deemed to be satisfactorily completed.
- c. When at least 95% of the work has been completed to the satisfaction of the RPR, the RPR shall, at the Owner's discretion and with the consent of the surety, prepare estimates of both the contract value and the cost of the remaining work to be done. The Owner may retain an amount not less than twice the contract value or estimated cost, whichever is greater, of the work remaining to be done. The remainder, less all previous payments and deductions, will then be certified for payment to the Contractor.

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 bid 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.

- **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 Runway 17-35 Approach Improvements CAT II

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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.
- **e.** The Owner will notify the Contractor, in writing, within seven (7) days after the discovery of any failure, defect, or damage.
- **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.** Provide a certified statement signed by the subcontractors, indicating actual amounts paid to the Disadvantaged Business Enterprise (DBE) subcontractors and/or suppliers associated with the project.
  - **g.** When applicable per state requirements, return copies of sales tax completion forms.
  - **h.** Manufacturer's certifications for all items incorporated in the work.
  - i. All required record drawings, as-built drawings or as-constructed drawings.
  - **j.** Project Operation and Maintenance (O&M) Manual(s).
  - k. Security for Construction Warranty.
  - **l.** Equipment commissioning documentation submitted, if required.

**END OF SECTION 90** 

### SUPPLEMENTAL PROVISIONS

# AIRPORT SAFETY AND SECURITY REQUIREMENTS

#### PART 1 - GENERAL

### 1.1 SUMMARY

- A. The Contractor shall carry out its operations in a manner that will cause a minimum of interference with air traffic and shall be required to cooperate with the Federal Aviation Administration (FAA), the Airport, Airport tenants and users, and other contractors working in the area. All work shall be completed in accordance with the Contract Documents including FAA Advisory Circular 150/5370-2G, Operational Safety on Airports During Construction or current edition as of bid date.
- B. The Contractor shall supply, place, maintain, move and store the items listed herein, as appropriate, to facilitate construction and protect air traffic. The Contractor shall maintain an adequate extra supply of these items on site.
- C. These provisions are to enhance the existing language listed in the General Terms & Conditions. All or parts of the contents will apply to the Contractor's contract depending upon the sequence in which the phases are conducted.
- D. The Airport has the right to monitor the Contractors' operations for safety performance, workmanship, protection of operations, work progress, housekeeping, and compliance to design specifications (Contractor shall still be responsible for assuring safe work practices). It is a general practice that the Airport will work through the Contractor's supervision and not directly with the employee. The Airport has the right to participate with and investigate any accident or incident.
- E. Contractor shall develop and implement a system for assessing appropriate requirements applicable to its employees, including removal from Airport property, for violation of safety laws statutes, codes, ordinances and regulations, safety requirements specified by the Contract, including, without limitation, any other condition that presents a safety hazard to the employee or others. Contractor shall prepare and maintain a detailed written report of each instance where it has assessed discipline for a safety related infraction including identification of the employee, the nature of the infraction and the discipline assessed.
- F. Contractor shall be required to develop, at a minimum, a comprehensive post-accident drug and alcohol testing program that includes post-accident and random testing in accordance with Department of Transportation (DOT) Drug and Alcohol Testing 49 Code of Federal Regulations (CFR) Part 40.

# 1.2 DEFINITIONS

- A. Safety Program The Contractor shall submit its Safety Program to the Airport and obtain approval prior to the start of construction. The Safety Program shall be prepared in accordance with the FAA Advisory Circular 150/5370-2G (Operational Safety on Airports During Construction), or current edition as of bid date. The Safety Program includes, but is not limited to the following:
  - 1. Contractor's Corporate Safety Policy
  - 2. Contractor's Site-Specific Safety Plan
  - 3. Construction Safety and Phasing Plan (CSPP) The Contractor shall abide by the CSPP, approved by the FAA and provided by the Airport.
  - 4. Safety Plan Compliance Document (SPCD) The SPCD details how the Contractor will comply with the CSPP. The Contractor shall prepare the SPCD and obtain approval by the Airport prior to issuance of the Notice to Proceed

#### **PRODUCTS**

- 1.3 WARNING LIGHTS. Warning lights shall meet the requirements of FAA Advisory Circular 150/5370-2G (Operational Safety on Airport During Construction), or current edition as of bid date or as amended during the term of the contract. The Contractor's vehicles shall meet the requirements of FAA Advisory Circular 150/5210-5D (Painting, Marking, and Lighting of Vehicles Used on an Airport), or current edition as of bid date or as amended during the term of the contract.
- 1.4 LOW PROFILE BARRICADES. Low profile barricades shall be in accordance with the details in the Contract Documents and meet the requirements of FAA Advisory Circular 150/5370-2G, or current edition as of bid date or as amended during the term of the contract. The barricades shall be furnished, maintained and relocated during each phase by the Contractor. Barricades shall be as detailed and installed per the drawings along the affected pavement edge or access to a closed runway, taxiway or apron.
- 1.5 SAFETY BARRICADES. Safety barricades shall be furnished and installed at the locations as indicated on the Contract Documents and/or directed by the Engineer. Safety barricades shall be 32" 36" tall and 6' long. Safety barricades shall be water fillable with a maximum empty weight of 85 pounds and a minimum filled weight of 700 pounds. There shall be an equal number of orange and white to allow for the colors to be staggered upon assembly. They shall be interlockable and marked with alternating orange and white reflective tape on each side. The Contractor shall supply two (2) solar powered red flashing lights per barricade that can be attached to the top of the barricades.
- 1.6 VACUUM SWEEPER. The power vacuum sweepers shall be Tymco, Model HSP-600 or Elgin Model Crosswind or an approved equal. A broom type sweeper may be allowed by the Engineer depending upon construction activity on aircraft operations area. The Contractor shall provide a

# PART 2 - EXECUTION

### 2.1 General Information

- A. All Contractors shall comply with the following:
  - 1. All applicable Occupational Safety and Health Administration (OSHA), Federal Aviation Administration (FAA), Federal Aviation Regulations (FAR), Transportation Security Administration (TSA) Part 1542, Department of Transportation (DOT), Federal, State, and Local safety standards.
  - 2. Other reasonable safety rules and practices as may be established from time to time by the Airport.
- B. In compliance with FAA AC 150/5370-2G, or current edition as of bid date or as amended during the term of the contract date, the Contractor shall prepare a Safety Plan Compliance Document (SPCD). This document shall include a general statement by the Contractor that it has read and shall adhere to the CSPP. Any details not identifiable for the CSPP should be included within the SPCD. The SPCD is similar to the CSPP but shall not contain duplicate information. The Contractor shall submit the SPCD to the Airport for approval prior to the start of construction. The SPCD shall include but not be limited to the following checklist as applicable to the scope of the project:
  - 1. **Coordination.** Discuss details of proposed safety meetings with the Airport operator and with Contractor's employees and subcontractors.
  - 2. **Phasing**. Discuss proposed construction schedule elements, including:
    - i. Duration of each phase.
    - ii. Daily start and finish of construction, including "night only" construction.
    - iii. Duration of construction activities during:
      - 1. Normal runway operations.
      - 2. Closed runway operations.
      - 3. Modified runway "Aircraft Reference Code" usage.
  - 3. **Areas and operations affected by the construction activity.** These areas and operations should be identified in the CSPP and should not require an entry in the SPCD.
  - 4. **Protection of NAVAIDS.** Discuss specific methods proposed to protect operating NAVAIDS.
  - 5. **Contractor access.** Provide the following:
    - i. Details on how the Contractor will maintain the integrity of the Airport security fence (contract security officers, daily log of construction personnel, and other).

- ii. Listing of individual requiring driver training (for certificated airports and as requested).
- iii. Radio communications.
  - 1. Types of radios and backup capabilities.
  - 2. Who will be monitoring radios.
  - 3. Who to contact if the Air Traffic Control Tower (ATCT) cannot reach the Contractor's designated person by radio.
  - 4. Details on how the Contractor will escort material delivery vehicles.
- 6. Wildlife management. Discuss the following:
  - i. Methods and procedures to prevent wildlife attraction.
  - ii. Wildlife reporting procedures.
- 7. **Foreign Object Debris (FOD) management.** Discuss equipment and methods for control of FOD, including construction debris and dust.
- 8. **Hazardous material (HAZMAT) management.** Discuss equipment and methods for responding to hazardous spills.
- 9. **Notification of construction activities.** Provide the following:
  - i. Contractor points of contact.
  - ii. Contractor emergency contact.
  - iii. Listing of all equipment greater than 10 feet in height or other requested equipment proposed for use on the Airport and the time frame for submitting 7460-1 forms not previously submitted by the Airport operator.
  - iv. Batch plant details, including 7460-1 submittal.
- 10. **Inspection requirements.** Discuss daily (or more frequent) inspections and special inspection procedures.
- 11. **Underground utilities.** The Contractor is required to perform a ground-penetrating radar (GPR) survey of the entire construction site prior to construction. Discuss all other proposed methods of identifying and protecting underground utilities.
- 12. **Penalties.** Penalties should be identified in the CSPP and should not require an entry in the SPCD.
- 13. **Special conditions.** Discuss proposed actions for each special condition identified in the CSPP.
- 14. **Runway and taxiway visual aids.** Including marking, lighting, signs and visual NAVAIDs. Discuss proposed visual aids including the following:
  - i. Equipment and methods for covering signage and airfield lights.
  - ii. Equipment and methods for temporary closure markings (paint, fabric, other).
  - iii. Types of temporary Visual Guidance Slope Indicators (VGSI).
- 15. **Markings and signs for access routes.** Discuss proposed methods of demarcating access routes for vehicle drivers.
- 16. **Hazard marking and lighting.** Discuss proposed equipment and methods for identifying excavation areas.

- 17. **Protection of runway and taxiway safety areas.** Including object free areas, obstacle free zones, and approach/departure surfaces. Discuss proposed methods of identifying, demarcating, and protecting airport surfaces including:
  - i. Equipment and methods for maintaining Taxiway Safety Area standards.
  - ii. Equipment and methods for separation of construction operations from aircraft operations, including details of barricades.
- 18. **Other limitations on construction** should be identified in the CSPP and should not require an entry in the SPCD.
- C. Regular progress meetings will be conducted during construction. Part of the meeting will be dedicated to safety. During these meetings, the Contractor shall submit to the Airport the following safety information:
  - 1. Estimated man-hours worked from the previous period;
  - 2. Number of accidents from the previous periods;
  - 3. Number of recordable injuries from the previous period; and
  - 4. Summarization of any accident that took place from the previous period.
- D. In estimating the work involved in the Contract, the Contractor shall be familiar with all existing and limiting conditions that will or may have a bearing on the performance of the Contract with regard to safety. Any limiting conditions shall be identified in writing.
- E. All costs related to the required Safety Program shall be included in the Contractor's bid. Costs provided to administer and maintain the Safety Program shall be complete and shall include costs for all required personnel, activities, facilities, media, tools, drug testing, and any specialty equipment required to insure a comprehensive, qualified Safety Program to suit a per week/per shift basis.
- F. Throughout the duration of the Contract, any practice or situation that the Engineer determines to be unsafe or a hindrance to regular Airport operations shall be immediately rectified.
- G. The following publications contain definitions/descriptions of critical Airport operating areas. The areas defined below pertain to airfield safety requirements and are referenced throughout the Contract Documents. Copies of these publications are available from the FAA at <a href="https://www.faa.gov">www.faa.gov</a>.
  - 1. Advisory Circular 150/5370-2G, or current edition as of bid date, "Operational Safety on Airports During Construction": Sets forth guidelines to assist Airport operators in complying with FAR Part 139, "Certification and Operation/Land Airports Serving Certain Air Carriers" and with the requirements of federally funded construction projects.
  - 2. FAR Part 77, "Objects Affecting Navigable Airspace," Current Edition: Establishes standards for determining obstructions to navigable airspace. Civil Airport

imaginary surfaces are defined in the publication. It also sets forth requirements for notice of certain proposed construction or alteration. Notice of construction provides a basis for recommendations for identifying the construction or alteration in accordance with AC 70/7460-1, "Obstruction Marking and Lighting," or current edition as of bid date.

- 3. AC 150/5300-13B, "Airport Design" or current edition as of bid date: Establishes design, operational and maintenance standards for airports. Standard terms used in the Contract Documents are defined below:
  - a. Runway Safety Area (RSA) The defined surface surrounding the runway over which aircraft should, in dry weather, be able to cross at normal operating speeds without incurring significant damage. A safety area is graded, drained and compacted. It is free of any holes, trenches, humps or other significant surface variations or objects, other than those which must be there because of their essential aeronautical function. The safety area requires the capability of supporting maintenance, firefighting, and rescue vehicles under normal (dry) conditions.
  - b. Object Free Area (OFA) An area on the ground centered on a runway, taxiway, or taxilane centerline provided to enhance the safety of aircraft operations by having the area free of objects, except for objects that need to be located in the OFA for air navigations or aircraft ground maneuvering purposes.
  - c. Obstacle Free Zone (OFZ) The OFZ is the airspace below 150 feet above the established Airport elevation and along the runway and extended runway centerline that is required to be clear of all objects, except for frangible visual NAVAIDs that need to be located in the OFZ because of their function, in order to provide clearance protection for aircraft landing or taking off from the runway, and for missed approaches. The OFZ is subdivided as follows:
    - 1) Runway OFZ. The airspace above a surface centered on the runway centerline.
    - 2) Inner-approach OFZ. The airspace above a surface centered on the extended runway centerline. It applies to runways with an approach lighting system.
    - 3) Outer-approach OFZ. The airspace above the surfaces located on the outer edges of the runway OFZ and the inner-approach OFZ. It applies to runways with approach visibility minimums lower than <sup>3</sup>/<sub>4</sub>-statute mile.
  - d. Taxiway Safety Area (TSA) A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an airplane unintentionally departing the taxiway.

- H. The work shall proceed in such a manner as to provide safe conditions for all workers and personnel. The sequence of operations shall be such that maximum protection is afforded to ensure that personnel and workers in the work area are not subject to any dangerous conditions.
- I. Prior to commencement of construction activity, the Contractor shall notify in writing, at least 72 hours in advance, Airport Operations and the Engineer of its intentions to begin construction, stating the proposed time, date, and area of which construction is to occur in order for the appropriate Notice-to-Airmen (NOTAM) to be issued. During the performance of this Contract, the Airport facility shall remain in use to the maximum extent possible. The Contractor shall not allow employees, subcontractors, suppliers, or any other unauthorized persons to enter in any Airport area which may be open for aircraft use.
- J. Should any of the following problems or hazards arise during construction, the Contractor shall immediately rectify/correct the problem or hazard to the satisfaction of the Engineer and the Airport:
  - 1. Trenches, holes, or excavations at or adjacent to any active runway or in safety areas.
  - 2. Unmarked/unlighted holes or excavation at any active apron, taxiway, taxilane, or related safety area.
  - 3. Mounds or piles of earth, construction materials, temporary structures, or other objects in the vicinity of any active taxiway, taxilane, or in a related safety, approach, or departure area.
  - 4. Vehicles or equipment (whether operating or idle) on any active runway, taxiway, taxilane, or in any related safety, approach, or departure area.
  - 5. Vehicles, equipment, excavations, stockpiles, or other materials which could degrade or otherwise interfere with electronic signals from radios or navigational aids (NAVAIDS).
  - 6. Runway surfacing projects resulting in excessive lips greater than 1 inch for runways and exceeding 3 inches for edges between the old shoulder and new surfaces at runway edges and ends.
  - 7. Unmarked utility, NAVAID, weather service, runway lighting, or other power or signal cables that could be damaged during construction.
  - 8. Objects (whether or not marked or flagged) or activities anywhere on or in the vicinity of the Airport which could be distracting, confusing, or alarming to pilots during aircraft operations.
  - 9. Unflagged/unlighted low visibility items (such as tall cranes, drills, and the like) anywhere in the vicinity of active runways, or in any approach or departure area.
  - 10. Misleading or malfunctioning obstruction lights or unlighted/unmarked obstructions in an approach to any active runway.
  - 11. Inadequate approach/departure surfaces needed to assure adequate landing/takeoff clearance over obstructions or work or storage areas.

- 12. Inadequate, confusing or misleading (to user pilots) marking/lighting of runways, taxiways, or taxilanes, including displaced or relocated thresholds.
- Water, dirt, debris, or other transient accumulation which temporarily obscures pavement marking, pavement edges, or derogates visibility of runway/taxiway marking or lighting.
- 14. Inadequate or improper methods of marking, barricading, and lighting of temporarily closed portions of Airport operations areas.
- 15. Trash or other materials with foreign object damage (FOD) potential, whether on runways, taxiways, or aprons, or in related safety areas.
- 16. Inadequate barricading or other marking which is placed to separate construction or maintenance areas from active aircraft operating areas.
- 17. Failure to control vehicle and human access to active aircraft operating areas.
- 18. Construction/maintenance activities or materials which could hamper the response of aircraft rescue and firefighting (ARFF) equipment from reaching all aircraft or any part of the runway/taxiway system, runway approach and departure areas, and aircraft parking locations.
- 19. Bird attractants on Airport, such as edibles (food scraps, etc.), miscellaneous trash, or ponded water.

# **2.2** Contractor Requirements

- A. All persons entering the project area designated as the construction site shall strictly follow Georgia, OSHA, FAA, DOT, and Transportation Safety Administration regulations.
- B. The Contractor shall provide physical barriers along the perimeter of its work site and place signs identifying the area as a construction site. The contractor will install signs along on-site haul roads indicating that speed limit for construction vehicles is 25 mph or 15 mph if on airfield pavements including taxiways and aprons. In some cases where the general public or open airfield is to be protected, additional and/or specialty barriers might be required and will need to be determined by Airport.
- C. The Contractor shall submit an FAA Form 7460-1 at least 60 days prior to any crane erections. All construction involving cranes shall further be coordinated at least 72 hours in advance, excluding weekends, with the Airport Operations. This does not include the time required for airspace review. The following information and actions are required:
  - 1. Location of the Crane.
  - 2. Maximum extendable height.
  - 3. Hours of operation.
  - 4. The top of each crane boom shall be marked by a 3' x 3' orange and white checkered flag each box being 1' square.
  - 5. Each crane shall be lowered at night and during periods of poor visibility as directed by Airport Operations. In the event the crane is approved to remain

extended during the hours from sunset to sunrise, the highest point of the crane boom will be lit with a red obstruction light in accordance with AC 70/7460-1.

- D. These established safety requirements shall govern Contractors and all persons within the designated construction site and are outlined to avoid infractions of common accepted safety practices.
- E. These safety requirements shall not be construed as complete and any requirements of the guidelines in conflict with Georgia, OSHA and FAA shall be superseded by Georgia, OSHA or FAA regulations.
- F. Any individual failing to follow these safety requirements shall be directed by the Contractor to immediately abate the unsafe act, behavior, or equipment.
- G. All Contractor equipment brought onsite for use on or during the construction project shall be kept in a safe operating condition. Worn or damaged equipment shall be repaired, replaced or taken out of service (locked out) and removed from the job site.
- H. Contractor shall keep its work area in a clean and safe condition.
- I. The use of makeshift, defective or inadequate scaffolding, rigging, or staging is prohibited.
- J. The Contractor shall provide barriers, railings or coverings for all areas including, but not limited to, elevated work platforms, holes, excavations, roof openings, along roof edges, manholes, and/or unfinished work causing floor obstructions. Outside excavations, barriers, and safety signs shall be adequately illuminated during darkness.
- K. No Contractor is permitted to use any powered industrial moving equipment, trucks, tools, or ladders owned or rented by, the Airport.
- L. Contractors shall not perform work overhead of any member of the general public. The Contractor shall use physical barriers to prevent access by non-construction personnel to areas with overhead construction work. If the Contractor cannot restrict access to the overhead work area, work will cease until a method of restricting access is developed and implemented.
- M. Welding screens and/or curtains will be used in areas where cutting or welding operations are being performed where non-construction personnel may be exposed to weld flash or sparks. Refer to Airport Hot Work permit requirements.
- N. Tools, equipment or materials shall not be left or placed on beams, overhead walkways, or places where they may fall, causing injury.
  - 1. To prevent possible explosive or incendiary devices from being hidden in areas close to Airport facilities, equipment, aircraft, or vehicles, no containers (tool

- boxes, storage containers, materials trailers) shall be left unsecured or unattended in public areas.
- 2. The Contractor shall not bring any tool through passenger screening. No tools shall be left unsecured in public areas. Any temporary doors that lead to construction areas that are accessible by the public shall be equipped with a push button cipher lock (installed at the Contractor's expense). The access number to the door shall be provided to Airport designees.
- 3. The Contractor is not permitted to carry liquids, gels, or aerosols into sterile areas except for those liquids, gels, or aerosol necessary for operational or medical needs, all of which shall be subject to inspection.
- O. Contractor shall verify and assure that every employee who operates any mobile equipment on Airport properties shall have a current valid driver's license.
- P. The Contractor shall comply with the National Electric Code (NEC) requirements regarding ground fault circuit interrupters for construction field tools and equipment.
- Q. In matters concerning interpretation of the foregoing requirements, the decision of the Airport will be final and binding.
- R. The Contractor shall maintain a Safety Program, for the purpose of safety, security, orientation, education, training, enforcement, and distribution.
- S. If a security system (cameras, gates, lifts, doors, etc.) is going to be taken out of service, the Contractor shall coordinate with the Airport Operations at least three (3) days in advance. Pending certain security threat levels, permission may not be granted to take down a security system.
- T. Potable water line installation will require coordination with the Airport management.
- U. When working on the airfield pavement lighting cans, the Contractor shall assure the electrical systems are locked out, tagged out, and verified there is no hazardous energy.
- V. The Contractor shall not pull any associated airfield lighting electrical cables through manholes, junction cans, pavement cans or through those devices if there are other cables present. All electrical cables shall be locked-out, tagged-out, and de-energized prior to work activities.
- W. Contractor will provide all lighted, low profile, water or sand filled, taxiway/runway barricading.
- X. If working on the Airport Operations Area (AOA), the Contractor will be required to prepare an FAA Safety Plan Compliance Document (SPCD) that is a part of the Safety Program.
- Y. Airfield Rescue and Firefighter (ARFF) roads cannot be taken out of service.

Z. Equipment that is used for material handling on the airfield shall have working headlights and brake lights. Any equipment that exits the AOA onto public roadways is subject to GA DOT regulations.

# 2.3 Fall Hazard Protection Control

A. Fall Hazard Control requires that Contractors comply with fall prevention and protection procedures in accordance with Occupational Safety and health Administration (OSHA) requirements.

### 2.4 Fire Prevention

- A. The Contractor shall provide appropriate fire extinguishers for its employees.
- B. No burning, cutting, welding, or heat generating operation shall be allowed in any area on Airport property without first obtaining permission from Airport Operations.
- C. Oxygen and acetylene cylinders not in use, shall be properly stored and capped, and secured by a chain or rope. All flammable liquids shall be stored in approved safety containers. Oily rags and/or rags soaked with flammable liquids shall be stored in approved safety containers only. Paint and painter's equipment, drop sheets, cleaning materials, shall be stored in a clear area away from any heat generating operation. Lids shall be replaced on all opened paint and/or solvent containers. All solvents shall be stored in approved safety containers

# 2.5 Lock Outs

- A. Examples of energy sources that are required to be locked out and tagged regardless of who has custody are:
  - 1. Any time repairs or modifications are made to electrical systems, either temporary or permanent, they shall be locked out. Locks shall be applied to the main disconnect switch whenever possible. A tag shall accompany all locks.
  - 2. Electrical systems that provide electrical power to equipment, such as pumps and electrical motors, shall be locked out by the Contractor until such time that system is released.
  - 3. Electrical systems that provide electrical power to the airfield signage and lighting.
  - 4. Lines, valves and similar systems that are being tested pneumatically or with Inert gases, such as oxygen, shall be tagged and locked out to prevent an accidental discharge of the pressure within the line. In addition, areas affected by the pneumatic test shall be barricaded against entry and inspected by the Contractor prior to commencement of the test.

- 5. Air lines, hydraulic lines, gas lines, blanking, pressure storage units, valves, capacitors and other such sources that could be inadvertently activated or discharged causing a hazardous condition, shall be locked out, blanked or otherwise neutralized to prevent accidental activation.
- 6. Any steam, natural gas, refrigeration, chemical feed, glycol, water, fuel oil, diesel, and jet fuel lines that could be inadvertently activated or discharged causing a hazardous condition, shall be locked out, blanked or otherwise neutralized to prevent accidental activation and or a hazardous condition. In some cases double block and bleed maybe required.
- B. Access to all electrical systems for both shutdown and reenergizing will be coordinated with Airport maintenance. This includes access to all panels, breakers, switches, relays, substations, and all relevant switch gear.
- C. If more than one employee is required to lockout and tag a circuit or piece of equipment, a multiple padlock device (hasp) shall be used.
- D. This procedure establishes a lockout practice for securing machinery and equipment during periods of construction and maintenance. It is essential that Contractor complies with its lockout procedure to ensure the safety of all employees. A lockout procedure is to render inoperative electrical systems, air lines, hydraulic lines, mechanical devices, pumps, conveyors, fuel, glycol, water, gasoline, jet fuel, pipelines, valves and all other such energy and stored energy systems that may accidentally be energized or discharged while employees are working on them before they are ready and released for service.
- E. Contractor shall administer its own lockout program where not identified by this document. The Contractor shall issue all locks and applicable tags to their foreman, general foreman, superintendents and employees as necessary. The Contractor shall maintain a lock and tag log. Tags are required to have the Contractor's name, phone number, employee name, and supervisor name easily identified on each tag.
- F. After locking out and tagging a circuit, an attempt to energize the equipment shall be made by depressing or turning "on" all starting stations before work begins. In no case shall work begin before circuits and equipment are tested to ensure that they are, in fact, de-energized.
- G. Any employee who removes a tag or lock belonging to another employee or person, or overrides a tag or lock in any way, may be removed from the Airport property. Written authorization has to be obtained from the foreman, general foreman, superintendent and Project Manager of the responsible Contractor when a lock has been left on a piece of equipment and the originator is not available for removal.
- H. When locks and tags are required, Contractors employees working on that system shall notify their appropriate supervisor. The supervisor, or his designee, shall see that

- appropriate locks and tags are provided. When work is completed, the appropriate supervisor is also to be notified when locks and tags are removed.
- I. After equipment or systems are turned over to the Airport, no work or Airport modifications will be performed without compliance to Airport's Lockout/Tagout Program.
- J. There may be some equipment that cannot be physically locked out using any type of device. If a situation exists where equipment cannot be locked out the Contractor shall notify the Airport.

# 2.6 Cranes/Derricks/Lifting Equipment/Rigging

- A. All crane operators shall be thoroughly knowledgeable in the operations of the crane, rigging equipment, and other OSHA requirements relating to lifting.
- B. NOTAMS may be required depending upon the location and height of the lift. Contractor shall contact Airport management prior to any crane activity.
- C. Lifting shall not be done over any employees.
- D. Tag lines shall be used for all lifts greater than 20 feet.
- E. No lifts shall be made when winds are sustained over 25 mph.
- F. Outrigger shall be shored so they do not damage property. Contractor will be responsible for any property damage to paved or concrete surfaces.
- G. A prelift review shall be performed by the Contractor for every critical lift.
- H. A Critical lift shall be defined as a lift with a hoisted load that is within 15% of the maximum load limits (normal) of the equipment that is being used. Before a critical lift is performed the Contractor shall submit a Critical Lift Plan that is prepared and approved by a Professional Engineer that is registered with the State of Georgia. The Critical lift Plan will include the following:
  - Description of the lift
  - Crane Position
  - Lift Height
  - Load Radius
  - Boom and angle
  - Size and weight of load
  - Percent of cranes capacity
  - Personnel involved
  - Rigging plan

- Communications methods
- Ground Conditions
- Inspection Procedures
- Procedures for hosting (if applicable)
- I. The critical lift plan will also document the source (i.e. weight, crane and rigging capacities, inspections, and wind speeds).

# 2.7 Vehicle Operation on the Airport Operations Area (AOA)

- A. All vehicles that enter the AOA shall comply with the following:
  - 1. All vehicles accessing the AOA shall be placarded with a company name and logo or some other form of identification. All lettering shall be a minimum of 4" high.
  - All construction vehicles/mechanized equipment authorized within the Movement Area or related safety areas shall be marked with a flag on a staff attached to the uppermost portion of the vehicle/motorized equipment so that the flag will be readily visible. The flag shall be at least a 3' x 3' square having a checkered pattern of international orange and white squares at least 1' on each side in accordance with FAA Advisory Circular 150/5210-5.D, or current edition as of bid date.
  - 3. During nighttime hours, all equipment operating on the Airport exceeding 15 feet in height shall be lit with a red obstruction light in accordance with FAA Advisory Circular 70/7460-1, or current edition as of bid date. This light is to be located on the uppermost portion of the equipment.
  - 4. All construction equipment that exceeds 20 feet in height are required to be "airspaced" as determined by the FAA Form 7460-1.
- B. Vehicle(s)/equipment shall be operated in a manner that does not interfere with aircraft operations. All vehicle(s)/equipment shall yield right of way to all aircraft and emergency vehicles.
- C. Vehicles/mechanized equipment operators shall obey all traffic signs and markings.
- D. Vehicles/equipment shall not stop or be parked so as to block a driveway, AOA access gate, fire lane or aircraft
- E. Vehicles/equipment shall not stop or be parked in areas other than those prearranged and approved by the Airport management.
- F. No equipment or vehicles may be parked within six feet of an AOA fence.
- G. The established speed limit on the AOA is 15 mph.
- H. Vehicle(s)/equipment shall not be operated by individuals under the influence of any substance which impairs the ability to do so in a safe manner

- I. If an incident occurs on the AOA the incident shall be reported immediately to Airport Operations by contacting (706) 799-5372. Airport management and Airport Operations have the right to investigative all incidents and issue citations. The Contractor is still obligated to produce its own incident report to be submitted to Airport management. The Contractor shall submit an incident report no later than 24 hours after the incident.
- J. Vehicle/mechanized equipment operators are not permitted to move about the Airport outside the designated construction area, at night unless the vehicle has operating head lights, tail lights and brake lights, or is under the escort of a properly lighted vehicle. Head lights shall not be set on high beam when moving about the Airport at night.
- K. Vehicles/mechanized equipment authorized on the Movement Area (runways, taxiways, and ramps) and/or associated safety areas shall be equipped with an electrically powered, amber color, 360-degree omni-direction light, mounted on the vehicle such that it is conspicuous from any direction.
- L. At no time shall a vehicle enter the Movement Area and/or associated safety areas unless it is authorized by the Airfield Operations and is in continuous radio communication with the Control Tower. If a vehicle is not radio equipped to communicate with the Control Tower, an escort vehicle equipped with such a radio shall lead or direct the movement of this vehicle while operating on the Movement Area unless the construction area is completely closed to Airport movement and cordoned off. Coordination of escorts shall be prearranged with the Airport Operation. Any individual authorized unescorted access to the Movement Area or associated safety areas shall have completed the driver training program administered by the Airport Operations department.
- M. Seat belts shall be utilized on equipment/vehicles that are designed for usage.
- N. All vehicles/equipment shall be appropriately secured such that neither aircraft blast nor wind will result in their movement.

# 2.8 Special Construction Rules on the AOA

When airfield construction is being performed on the AOA the following rules will apply unless modified in writing by Airfield Operations.

- A. All construction activities on the AOA shall include a specific Construction Safety Phasing Plan (CSPP) and a Safety Plan Compliance Document (SPCD) as required by the FAA. The SPCD will address compliance to and details required by the CSPP and include any other topics of discussion that might be mentioned during the safety phase planning meeting.
- B. The safety phase planning meeting shall be held prior to mobilization to the AOA.

- C. Any Airport construction and/or alteration requires the completion and submittal of FAA Form 7460-1 Notice of Proposed Construction or Alteration (available from the FAA Air Traffic Division Regional Office), and www.FAA.gov at least 60 days prior to the start of the project. The Engineer will submit this form in advance of the start of construction.
- D. If the Contractor requires any modifications to FAA Form 7460-1 (from the advance submittal) the Contractor shall complete and submit an amended FAA Form 7460-1 reflecting the requested changes.
- E. A copy of all completed FAA Form 7460-1's and the FAA's determination(s) shall be on file with the Airport prior to commencing the erection or construction of the item(s) proposed by the Contractor.
- F. The Contractor shall erect and maintain fencing, barricades, signs and warning devices used to delineate the perimeter of all construction areas, as shown on the plans and/or as approved by the Airport Operations.
- G. All points of entry into the AOA, which are under the Contractor's control, shall be secured and/or guarded and should be coordinated with the Airport Operations.
- H. Deliveries are to be strictly controlled (by the Contractor) using personnel specifically acquainted with these rules. The Contractor shall provide properly manned escort vehicles as required to guide and escort all deliveries to the work area(s).
- I. All barricades, lighting and warning devices used to delineate any construction or hazardous area(s) are to be provided by the Contractor except for lighted runway closure crosses which will be provided by the Airport.
- J. At no time shall personnel, vehicles or equipment be located or enter any of the following areas unless authorized on the plans or by Airport Operations.
  - 1. Within 250 feet parallel to an <u>active</u> runway centerline (to be indicated on the CSPP and/or SPCD).
  - 2. No Stockpiles will be placed within 400 feet parallel to an <u>active</u> runway centerline nor will equipment be left unattended.
  - 3. Within 1,000 feet of the end of <u>active</u> runways (each end to be indicated in the CSPP and/or SPCD)
  - 4. Within 93 feet parallel to an <u>active</u> taxiway centerline operating with Group III aircraft without proper approval.
  - 5. Active NAVAID Critical Areas.
- K. Trenches and/or Excavations: Trenches and/or excavations shall not be allowed in the following areas without closure or restriction of the adjacent Movement Area:
  - 1. Within 250 feet parallel to a runway centerline.

- 2. Within 160 feet parallel to a taxiway centerline operating with Group V aircraft without proper approval.
- 3. Within 1,000 feet of the end of a runway.
- 4. Active NAVAID Critical Areas.
- L. No trenching is allowed under Airport fences without prior approval and coordination with the Airport Operations.
- M. All stockpiled material(s)/supplies shall be constrained in a manner to prevent movement resulting from aircraft blast or wind conditions. Material(s)/supplies shall not be stored within 500 feet of aircraft turning areas or movement areas. Stockpiled material(s)/supplies shall not exceed 15 feet in height unless the Contractor has complied with all requirements for airspace review. All material(s)/supplies shall be positioned so it will not obstruct the line of sight from the Control Tower to the Movement Area.
- N. Stockpiled material shall not be within 6 feet of an Airport perimeter fence.
- O. Nighttime work, not covered by the Contract Documents, requires 72 hours advanced approval, excluding weekends, by the Airport Operations. Lighting for nighttime work shall be shielded and positioned downward so as not to hinder the vision of the air traffic controllers in the control Tower or the pilots of moving aircraft.
- P. Debris, waste, and loose materials shall not be allowed on the Movement Area. If debris and/or loose materials are observed to be on active portions of the Movement Area, the Contractor shall be responsible for correcting the discrepancy immediately. The Contractor shall be responsible for controlling dust problems resulting from construction and clean-up processes.
- Q. The Contractor will be working in an air operations area in which a high degree of care is necessary to control debris and dust. Spilled material on active roadways, runways, taxiways and aprons shall be swept up immediately. The Contractor will be aware that the construction area may be subject to jet blast and significant wind velocities. Dust control measures shall be required to prevent loose material from blowing within or outside the air operations area.
- R. If the Contractor uses, or if a haul road crosses any area used by aircraft, service or emergency vehicles, a vacuum power broom and/or hand sweeping will be used to keep this area clean of debris which could damage aircraft engines or propellers. The Contractor will be liable for any damages that occur. Power brooms and sweepers shall be vacuum capable.
- S. Prior to opening any Runway, Taxiway, Ramp, Apron or Associated Safety Area, that has been closed for construction; the Contractor shall arrange for an inspection by the Airport Operations.

- T. All barricades used by the Contractor to designate an unusable or hazardous area on the AOA, shall be secured in place against movement or jet blast. The Contractor shall ensure that all barricades and hazard lighting are operational prior to departing the construction area at the end of each workday.
- U. In accordance with FAR Part 139, Airport Operations shall, prior to the release of work crews, inspect all areas to ensure that:
  - 1. Paved areas are free of surface variations in accordance with FAR Part 139.
  - 2. All unpaved <u>active</u> safety areas are cleared and graded and have no potentially hazardous ruts, humps, depressions or other surface variations.
  - 3. All trenches or excavations within <u>active</u> Runway and/or Taxiway safety areas are backfilled to support the weight of an aircraft or Aircraft Rescue and Fire Fighting (ARFF) equipment.
  - 4. If the trenches, excavations or hazardous areas have been authorized to remain in place, they are to be adequately plated and marked and lighted.
- V. Location of haul routes on the Airport site shall be as shown on the CSPP or as approved by Airport Operations. All haul routes on the Airport shall be marked, when necessary, and maintained by the Contractor. These routes shall be restored to their original condition upon completion of the construction project.
- W. Construction equipment shall not be permitted to operate upon paved areas unless the equipment has pneumatic tires or special means, approved by the Engineer, provided to protect the pavement.
- X. All construction involving cranes shall be coordinated at least 72 hours in advance, excluding weekends, with the Airport Operations. This does not include the time required for airspace review. The following information is required:
  - 1. Location of the Crane.
  - 2. Maximum extendable height.
  - 3. Hours of operation.
- Y. The top of each crane boom shall be marked by a 3' x 3' orange and white checkered flag—each box being 1' square.
- Z. Each crane shall be lowered at night and during periods of poor visibility as directed by Airport Operations. In the event the crane is approved to remain extended during the hours from sunset to sunrise, the highest point of the crane boom will be lit with a red obstruction light in accordance with AC 70/7460-1Construction Site Access And Haul Roads. The Contractor will not be permitted to use any access or haul roads other than those designated on the contract drawings. Aircraft Rescue and Fire Fighting (ARFF) right-of-way on access roads, haul roads, taxiways, and runways shall not be impeded at any time.

2.9 Foreign Object Debris (FOD) Management. Waste and loose materials capable of causing damage to aircraft landing gears or propellers or capable of being ingested in jet engines, shall not be left or placed on or near active aircraft movement areas. Materials tracked onto these areas shall be continuously removed during the construction project. All waste or loose materials which could attract wildlife shall be carefully controlled and removed on a continuous basis. The Contractor shall have adequate sweeping equipment and adequate dust control equipment on site at all times while the Contractor is working.

**END OF ITEM SP-10** 

# Item C-102 Temporary Air and Water Pollution, Soil Erosion, and Siltation Control

# **DESCRIPTION**

**102-1.** This item shall consist of temporary control measures as shown on the plans or as ordered by the Resident Project Representative (RPR) during the life of a contract to control pollution of air and water, soil erosion, and siltation through the use of silt fences, berms, dikes, dams, sediment basins, fiber mats, gravel, mulches, grasses, slope drains, and other erosion control devices or methods.

Temporary erosion control shall be in accordance with the approved erosion control plan; the approved Construction Safety and Phasing Plan (CSPP) and AC 150/5370-2, *Operational Safety on Airports During Construction*. The temporary erosion control measures contained herein shall be coordinated with the permanent erosion control measures specified as part of this contract to the extent practical to assure economical, effective, and continuous erosion control throughout the construction period.

Temporary control may include work outside the construction limits such as borrow pit operations, equipment and material storage sites, waste areas, and temporary plant sites.

Temporary control measures shall be designed, installed and maintained to minimize the creation of wildlife attractants that have the potential to attract hazardous wildlife on or near public-use airports.

## **MATERIALS**

- **102-2.1 Grass.** Grass that will not compete with the grasses sown later for permanent cover per Item T-901shall be a quick-growing species (such as ryegrass, Italian ryegrass, or cereal grasses) suitable to the area providing a temporary cover. Selected grass species shall not create a wildlife attractant.
- **102-2.2 Mulches.** Mulches may be hay, straw, fiber mats, netting, bark, wood chips, or other suitable material reasonably clean and free of noxious weeds and deleterious materials per Item T-908. Mulches shall not create a wildlife attractant.
- **102-2.3 Fertilizer.** Fertilizer shall be a standard commercial grade and shall conform to all federal and state regulations and to the standards of the Association of Official Agricultural Chemists.
- **102-2.4 Slope drains.** Slope drains may be constructed of pipe, fiber mats, rubble, concrete, asphalt, or other materials that will adequately control erosion.
- **102-2.5 Silt fence.** Silt fence shall consist of polymeric filaments which are formed into a stable network such that filaments retain their relative positions. Synthetic filter fabric shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life. Silt fence shall meet the requirements of ASTM D6461.
- **102-2.6 Other.** All other materials shall meet commercial grade standards and shall be approved by the RPR before being incorporated into the project.

# CONSTRUCTION REQUIREMENTS

**102-3.1 General.** In the event of conflict between these requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.

The RPR shall be responsible for assuring compliance to the extent that construction practices, construction operations, and construction work are involved.

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**102-3.2 Schedule.** Prior to the start of construction, the Contractor shall submit schedules in accordance with the approved Construction Safety and Phasing Plan (CSPP) and the plans for accomplishment of temporary and permanent erosion control work for clearing and grubbing; grading; construction; paving; and structures at watercourses. The Contractor shall also submit a proposed method of erosion and dust control on haul roads and borrow pits and a plan for disposal of waste materials. Work shall not be started until the erosion control schedules and methods of operation for the applicable construction have been accepted by the RPR.

102-3.3 Construction details. The Contractor will be required to incorporate all permanent erosion control features into the project at the earliest practicable time as outlined in the plans and approved CSPP. Except where future construction operations will damage slopes, the Contractor shall perform the permanent seeding and mulching and other specified slope protection work in stages, as soon as substantial areas of exposed slopes can be made available. Temporary erosion and pollution control measures will be used to correct conditions that develop during construction that were not foreseen during the design stage; that are needed prior to installation of permanent control features; or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the project.

Where erosion may be a problem, schedule and perform clearing and grubbing operations so that grading operations and permanent erosion control features can follow immediately if project conditions permit. Temporary erosion control measures are required if permanent measures cannot immediately follow grading operations. The RPR shall limit the area of clearing and grubbing, excavation, borrow, and embankment operations in progress, commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent control measures current with the accepted schedule. If seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified as directed by the RPR.

The Contractor shall provide immediate permanent or temporary pollution control measures to minimize contamination of adjacent streams or other watercourses, lakes, ponds, or other areas of water impoundment as directed by the RPR. If temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled or directed by the RPR, the work shall be performed by the Contractor and the cost shall be incidental to this item.

The RPR may increase or decrease the area of erodible earth material that can be exposed at any time based on an analysis of project conditions.

The erosion control features installed by the Contractor shall be maintained by the Contractor during the construction period.

Provide temporary structures whenever construction equipment must cross watercourses at frequent intervals. Pollutants such as fuels, lubricants, bitumen, raw sewage, wash water from concrete mixing operations, and other harmful materials shall not be discharged into any waterways, impoundments or into natural or manmade channels.

102-3.4 Installation, maintenance and removal of silt fence. Silt fences shall extend a minimum of 16 inches (41 cm) and a maximum of 34 inches (86 cm) above the ground surface. Posts shall be set no more than 10 feet (3 m) on center. Filter fabric shall be cut from a continuous roll to the length required minimizing joints where possible. When joints are necessary, the fabric shall be spliced at a support post with a minimum 12-inch (300-mm) overlap and securely sealed. A trench shall be excavated approximately 4 inches (100 mm) deep by 4 inches (100 mm) wide on the upslope side of the silt fence. The trench shall be backfilled and the soil compacted over the silt fence fabric. The Contractor shall remove and dispose of silt that accumulates during construction and prior to establishment of permanent

erosion control. The fence shall be maintained in good working condition until permanent erosion control is established. Silt fence shall be removed upon approval of the RPR.

# METHOD OF MEASUREMENT

- 102-4.1 Temporary erosion and pollution control work required will be performed as scheduled or directed by the RPR. Completed and accepted work will be measured as follows:
  - a. Temporary seeding and mulching will be measured by the square yard (square meter).
  - **b.** Temporary slope drains will be measured by the linear foot (meter).
- c. Temporary benches, dikes, dams, and sediment basins will be measured by the cubic yard (cubic meter) of excavation performed, including necessary cleaning of sediment basins, and the cubic yard (cubic meter) of embankment placed as directed by the RPR.
  - **d.** All fertilizing will be measured by the ton (kg).
  - e. Installation and removal of silt fence will be measured by the liner foot.
- 102-4.2 Control work performed for protection of construction areas outside the construction limits, such as borrow and waste areas, haul roads, equipment and material storage sites, and temporary plant sites, will not be measured and paid for directly but shall be considered as a subsidiary obligation of the Contractor.

#### **BASIS OF PAYMENT**

102-5.1 Accepted quantities of temporary water pollution, soil erosion, and siltation control work ordered by the RPR and measured as provided in paragraph 102-4.1 will be paid for under:

Item C-102.1a	Installation and Removal of Silt Fence or Silt Sock, Type C - per linear foot
Item C-102.1b	Erosion Control Mobilization – per Lump Sum
Item C-102.1c	Emergency Erosion Control Mobilization – per Lump Sum

Where other directed work falls within the specifications for a work item that has a contract price, the units of work shall be measured and paid for at the contract unit price bid for the various items.

Temporary control features not covered by contract items that are ordered by the RPR will be paid for in accordance with Section 90, paragraph 90-05 Payment for Extra Work.

### 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.

Advisory Circulars (AC)

AC 150/5200-33 Hazardous Wildlife Attractants on or Near Airports AC 150/5370-2 Operational Safety on Airports During Construction ASTM International (ASTM)

Standard Specification for Silt Fence Materials **ASTM D6461** 

United States Department of Agriculture (USDA)

FAA/USDA Wildlife Hazard Management at Airports, A Manual for Airport Personnel

# **END OF ITEM C-102**

#### **Item C-105 Mobilization**

- **105-1 Description.** This item of work shall consist of, but is not limited to, work and operations necessary for the movement of personnel, equipment, material and supplies to and from the project site for work on the project except as provided in the contract as separate pay items.
- 105-2 Mobilization limit. Mobilization shall be limited to 10% percent of the total project cost.
- 105-3 Posted notices. Prior to commencement of construction activities, the Contractor must post the following documents in a prominent and accessible place where they may be easily viewed by all employees of the prime Contractor and by all employees of subcontractors engaged by the prime Contractor: Equal Employment Opportunity (EEO) Poster "Equal Employment Opportunity is the Law" in accordance with the Office of Federal Contract Compliance Programs Executive Order 11246, as amended; Davis Bacon Wage Poster (WH 1321) DOL "Notice to All Employees" Poster; and Applicable Davis-Bacon Wage Rate Determination. These notices must remain posted until final acceptance of the work by the Owner.
- **105-4 Engineer/RPR field office.** Not Required.

### METHOD OF MEASUREMENT

- **105-5 Basis of measurement and payment.** Based upon the contract lump sum price for "Mobilization" partial payments will be allowed as follows:
  - a. With first pay request, 25%.
  - **b.** When 25% or more of the original contract is earned, an additional 25%.
  - **c.** When 50% or more of the original contract is earned, an additional 40%.
- **d.** After Final Inspection, Staging area clean-up and delivery of all Project Closeout materials as required by Section 90, paragraph 90-11, *Contractor Final Project Documentation*, the final 10%.

#### BASIS OF PAYMENT

# 105-6 Payment will be made under:

Item C-105.1	Mobilization.	Clean-up, and	l Demobilization –	ner lumr	sum
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Item C-105.2 Airfield Safety and Traffic Control – per lump sum

### 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.

Office of Federal Contract Compliance Programs (OFCCP)

Executive Order 11246, as amended

EEOC-P/E-1 – Equal Employment Opportunity is the Law Poster

United States Department of Labor, Wage and Hour Division (WHD)

WH 1321 - Employee Rights under the Davis-Bacon Act Poster

**END OF ITEM C-105** 

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## **Item P-610 Concrete for Miscellaneous Structures**

#### DESCRIPTION

**610-1.1** This item shall consist of concrete and reinforcement, as shown on the plans, prepared and constructed in accordance with these specifications. This specification shall be used for all concrete other than airfield pavement which are cast-in-place.

#### **MATERIALS**

**610-2.1 General.** Only approved materials, conforming to the requirements of these specifications, shall be used in the work. Materials may be subject to inspection and tests at any time during their preparation or use. The source of all materials shall be approved by the Resident Project Representative (RPR) before delivery or use in the work. Representative preliminary samples of the materials shall be submitted by the Contractor, when required, for examination and test. Materials shall be stored and handled to ensure preservation of their quality and fitness for use and shall be located to facilitate prompt inspection. All equipment for handling and transporting materials and concrete must be clean before any material or concrete is placed in them.

The use of pit-run aggregates shall not be permitted unless the pit-run aggregate has been screened and washed, and all fine and coarse aggregates stored separately and kept clean. The mixing of different aggregates from different sources in one storage stockpile or alternating batches of different aggregates shall not be permitted.

a. Reactivity. Fine aggregate and coarse aggregates to be used in all concrete shall have been tested separately within six months of the project in accordance with ASTM C1260. Test results shall be submitted to the RPR. The aggregate shall be considered innocuous if the expansion of test specimens, tested in accordance with ASTM C1260, does not exceed 0.08% at 14 days (16 days from casting). If the expansion either or both test specimen is greater than 0.08% at 14 days, but less than 0.20%, a minimum of 25% of Type F fly ash, or between 40% and 55% of slag cement shall be used in the concrete mix. If expansion of either the coarse or fine aggregate exceeds 0.08% at 14 days, limit the alkali of the concrete to be less than or equal to 3.0 lb per cubic yard (1.8 kg per cubic meter), calculated in accordance with EB 106.

If the expansion is greater than 0.20% the aggregates shall not be used, and test results for other aggregates must be submitted for evaluation; or aggregates that meet P-501 reactivity test requirements may be utilized.

**610-2.2** Coarse aggregate. The coarse aggregate for concrete shall meet the requirements of ASTM C33 and the requirements of Table 4, Class Designation 5S; and the grading requirements shown below, as required for the project.

## **Coarse Aggregate Grading Requirements**

Maximum Aggregate Size	ASTM C33, Table 3 Grading Requirements (Size No.)
1 1/2 inch (37.5 mm)	467 or 4 and 67
1 inch (25 mm)	57
<sup>3</sup> / <sub>4</sub> inch (19 mm)	67
½ inch (12.5 mm)	7

- **610-2.2.1** Coarse Aggregate susceptibility to durability (D) cracking. Aggregates that have a history of D-cracking shall not be used.
- **610-2.3 Fine aggregate.** The fine aggregate for concrete shall meet all fine aggregate requirements of ASTM C33.
- **610-2.4 Cement.** Cement: ASTM C150, Type I; or ASTM C595, Type IL

## 610-2.5 Cementitious materials.

- **a. Fly ash.** Fly ash shall meet the requirements of ASTM C618, with the exception of loss of ignition, where the maximum shall be less than 6%. Fly ash shall have a Calcium Oxide (CaO) content of less than 15% and a total available alkali content less than 3% per ASTM C311. Fly ash produced in furnace operations using liming materials or soda ash (sodium carbonate) as an additive shall not be acceptable. The Contractor shall furnish the previous three most recent, consecutive ASTM C618 reports for each source of fly ash proposed in the concrete mix, and shall furnish each additional report as they become available during the project. The reports can be used for acceptance or the material may be tested independently by the RPR.
- **b. Slag cement (ground granulated blast furnace (GGBF)).** Slag cement shall conform to ASTM C989, Grade 100 or Grade 120. Slag cement shall be used only at a rate between 25% and 55% of the total cementitious material by mass.
- **610-2.6 Water.** Water used in mixing or curing shall be from potable water sources. Other sources shall be tested in accordance with ASTM C1602 prior to use.
- **610-2.7 Admixtures.** The Contractor shall submit certificates indicating that the material to be furnished meets all of the requirements indicated below. In addition, the RPR may require the Contractor to submit complete test data from an approved laboratory showing that the material to be furnished meets all of the requirements of the cited specifications. Subsequent tests may be made of samples taken by the RPR from the supply of the material being furnished or proposed for use on the work to determine whether the admixture is uniform in quality with that approved.
- **a.** Air-entraining admixtures. Air-entraining admixtures shall meet the requirements of ASTM C260 and shall consistently entrain the air content in the specified ranges under field conditions. The air-entrainment agent and any water reducer admixture shall be compatible.
- **b. Water-reducing admixtures**. Water-reducing admixture shall meet the requirements of ASTM C494, Type A, B, or D. ASTM C494, Type F and G high range water reducing admixtures and ASTM C1017 flowable admixtures shall not be used.

- **c. Other chemical admixtures**. The use of set retarding, and set-accelerating admixtures shall be approved by the RPR. Retarding shall meet the requirements of ASTM C494, Type A, B, or D and set-accelerating shall meet the requirements of ASTM C494, Type C. Calcium chloride and admixtures containing calcium chloride shall not be used.
- **610-2.8 Premolded joint material.** Premolded joint material for expansion joints shall meet the requirements of ASTM 1752.
- **610-2.9 Joint filler.** The filler for joints shall meet the requirements of Item P-605, unless otherwise specified.
- **610-2.10 Steel reinforcement.** Reinforcing shall consist of Welded Steel Wire Fabric conforming to the requirements of ASTM A1064 or ASTM A884.
- **610-2.11 Materials for curing concrete.** Curing materials shall conform to ASTM C309.

## **CONSTRUCTION METHODS**

- **610-3.1 General.** The Contractor shall furnish all labor, materials, and services necessary for, and incidental to, the completion of all work as shown on the drawings and specified here. All machinery and equipment used by the Contractor on the work, shall be of sufficient size to meet the requirements of the work. All work shall be subject to the inspection and approval of the RPR.
- **610-3.2 Concrete Mixture.** The concrete shall develop a compressive strength of 4000 psi in 28 days as determined by test cylinders made in accordance with ASTM C31 and tested in accordance with ASTM C39. The concrete shall contain not less than 470 pounds of cementitious material per cubic yard (280 kg per cubic meter). The water cementitious ratio shall not exceed 0.45 by weight. The air content of the concrete shall be 5% +/- 1.2% as determined by ASTM C231 and shall have a slump of not more than 4 inches (100 mm) as determined by ASTM C143.
- **610-3.3 Mixing.** Concrete may be mixed at the construction site, at a central point, or wholly or in part in truck mixers. The concrete shall be mixed and delivered in accordance with the requirements of ASTM C94 or ASTM C685.

The concrete shall be mixed only in quantities required for immediate use. Concrete shall not be mixed while the air temperature is below 40°F (4°C) without the RPRs approval. If approval is granted for mixing under such conditions, aggregates or water, or both, shall be heated and the concrete shall be placed at a temperature not less than 50°F (10°C) nor more than 100°F (38°C). The Contractor shall be held responsible for any defective work, resulting from freezing or injury in any manner during placing and curing, and shall replace such work at his expense.

Retempering of concrete by adding water or any other material is not permitted.

The rate of delivery of concrete to the job shall be sufficient to allow uninterrupted placement of the concrete.

**610-3.4 Forms**. Concrete shall not be placed until all the forms and reinforcements have been inspected and approved by the RPR. Forms shall be of suitable material and shall be of the type, size, shape, quality, and strength to build the structure as shown on the plans. The forms shall be true to line and grade and shall be mortar-tight and sufficiently rigid to prevent displacement and sagging between supports. The surfaces of forms shall be smooth and free from irregularities, dents, sags, and holes. The Contractor shall be responsible for their adequacy.

The internal form ties shall be arranged so no metal will show in the concrete surface or discolor the surface when exposed to weathering when the forms are removed. All forms shall be wetted with water or with a non-staining mineral oil, which shall be applied immediately before the concrete is placed. Forms shall be constructed so they can be removed without injuring the concrete or concrete surface.

- **610-3.5 Placing reinforcement.** All reinforcement shall be accurately placed, as shown on the plans, and shall be firmly held in position during concrete placement. Bars shall be fastened together at intersections. The reinforcement shall be supported by approved metal chairs. Shop drawings, lists, and bending details shall be supplied by the Contractor when required.
- **610-3.6 Embedded items.** Before placing concrete, all embedded items shall be firmly and securely fastened in place as indicated. All embedded items shall be clean and free from coating, rust, scale, oil, or any foreign matter. The concrete shall be spaded and consolidated around and against embedded items. The embedding of wood shall not be allowed.
- **610-3.7 Concrete Consistency**. The Contractor shall monitor the consistency of the concrete delivered to the project site; collect each batch ticket; check temperature; and perform slump tests on each truck at the project site in accordance with ASTM C143.
- 610-3.8 Placing concrete. All concrete shall be placed during daylight hours, unless otherwise approved. The concrete shall not be placed until the depth and condition of foundations, the adequacy of forms and falsework, and the placing of the steel reinforcing have been approved by the RPR. Concrete shall be placed as soon as practical after mixing, but in no case later than one (1) hour after water has been added to the mix. The method and manner of placing shall avoid segregation and displacement of the reinforcement. Troughs, pipes, and chutes shall be used as an aid in placing concrete when necessary. The concrete shall not be dropped from a height of more than 5 feet (1.5 m). Concrete shall be deposited as nearly as practical in its final position to avoid segregation due to rehandling or flowing. Do not subject concrete to procedures which cause segregation. Concrete shall be placed on clean, damp surfaces, free from running water, or on a properly consolidated soil foundation.
- **610-3.9 Vibration.** Vibration shall follow the guidelines in American Concrete Institute (ACI) Committee 309R, Guide for Consolidation of Concrete.
- **610-3.10 Joints.** Joints shall be constructed as indicated on the plans.
- **610-3.11 Finishing.** All exposed concrete surfaces shall be true, smooth, and free from open or rough areas, depressions, or projections. All concrete horizontal plane surfaces shall be brought flush to the proper elevation with the finished top surface struck-off with a straightedge and floated.
- **610-3.12** Curing and protection. All concrete shall be properly cured in accordance with the recommendations in American Concrete Institute (ACI) 308R, Guide to External Curing of Concrete. The concrete shall be protected from damage until project acceptance.
- **610-3.13 Cold weather placing.** When concrete is placed at temperatures below 40°F (4°C), follow the cold weather concreting recommendations found in ACI 306R, Cold Weather Concreting.
- **610-3.14 Hot weather placing.** When concrete is placed in hot weather greater than 85°F (30 °C), follow the hot weather concreting recommendations found in ACI 305R, Hot Weather Concreting.

## **QUALITY ASSURANCE (QA)**

**610-4.1 Quality Assurance sampling and testing**. Concrete for each day's placement will be accepted on the basis of the compressive strength specified in paragraph 610-3.2. The RPR will sample the concrete in accordance with ASTM C172; test the slump in accordance with ASTM C143; test air content in accordance with ASTM C231;make and cure compressive strength specimens in accordance with ASTM C31; and test in accordance with ASTM C39. The QA testing agency will meet the requirements of ASTM C1077.

The Contractor shall provide adequate facilities for the initial curing of cylinders.

**610-4.2 Defective work.** Any defective work that cannot be satisfactorily repaired as determined by the RPR, shall be removed and replaced at the Contractor's expense. Defective work includes, but is not limited to, uneven dimensions, honeycombing and other voids on the surface or edges of the concrete.

## METHOD OF MEASUREMENT

**610-5.1** Concrete shall be considered incidental and no separate measurement shall be made of concrete complete in place and accepted.

#### BASIS OF PAYMENT

**610-6.1** Payment shall be considered incidental and no separate payment shall be made. This price shall be full compensation for furnishing all materials including reinforcement and embedded items and for all preparation, delivery, installation, and curing of these materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

Payment will be made under:

Item P-610.1 Concrete, incidental to other work items.

## 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 A184	Standard Specification for Welded Deformed Steel Bar Mats for Concrete Reinforcement
ASTM A615	Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
ASTM A704	Standard Specification for Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement
ASTM A706	Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM A775	Standard Specification for Epoxy-Coated Steel Reinforcing Bars
ASTM A884	Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement

ASTM A934	Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars
ASTM A1064	Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete
ASTM C31	Standard Practice for Making and Curing Concrete Test Specimens in the Field
ASTM C33	Standard Specification for Concrete Aggregates
ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C94	Standard Specification for Ready-Mixed Concrete
ASTM C136	Standard Test Method for Sieve or Screen Analysis of Fine and Coarse Aggregates
ASTM C114	Standard Test Methods for Chemical Analysis of Hydraulic Cement
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
ASTM C150	Standard Specification for Portland Cement
ASTM C171	Standard Specification for Sheet Materials for Curing Concrete
ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C260	Standard Specification for Air-Entraining Admixtures for Concrete
ASTM C309	Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete
ASTM C311	Standard Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete
ASTM C494	Standard Specification for Chemical Admixtures for Concrete
ASTM C618	Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
ASTM C666	Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
ASTM C685	Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing
ASTM C989	Standard Specification for Slag Cement for Use in Concrete and Mortars
ASTM C1017	Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete
ASTM C1077	Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation
ASTM C1157	Standard Performance Specification for Hydraulic Cement

ASTM C1260	Standard Test Method for Potential Alkali Reactivity of Aggregates	
	(Marton Dan Mathad)	

(Mortar-Bar Method)

ASTM C1365 Standard Test Method for Determination of the Proportion of Phases in

Portland Cement and Portland-Cement Clinker Using X-Ray Powder

**Diffraction Analysis** 

ASTM C1602 Standard Specification for Mixing Water Used in the Production of

Hydraulic Cement Concrete

ASTM D1751 Standard Specification for Preformed Expansion Joint Filler for Concrete

Paving and Structural Construction (Nonextruding and Resilient Asphalt

Types)

ASTM D1752 Standard Specification for Preformed Sponge Rubber Cork and Recycled

PVC Expansion Joint Fillers for Concrete Paving and Structural

Construction

# American Concrete Institute (ACI)

ACI 305R Hot Weather Concreting
ACI 306R Cold Weather Concreting

ACI 308R Guide to External Curing of Concrete
ACI 309R Guide for Consolidation of Concrete

## **END OF ITEM P-610**

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## ITEM NS01 LOCATE AND PROTECT EXISTING CIRCUITS

# **DESCRIPTION**

**1.1** This Work includes the testing and location of all power and control circuits that are located within the construction area or haul routes: providing temporary connection/cable runs to enable operation as required by construction staging of airport lighting systems during darkness, weekends, holidays, and instrument conditions; prompt repair or replacement of electrical cables or equipment damaged during construction operations; careful handling of any FAA installed cables or equipment encountered during construction; and removal/reinstallation of existing cables.

#### **CONSTRUCTION METHODS**

- **2.1** Immediately prior to construction, obtain meggar test readings of all airport circuits that will be encountered during construction, including those crossed by haul routes or access roads, shall be taken in the presence of the Owner and the Engineer. If the Contractor notes problems in the existing circuits prior to starting Work, these circuits may be repaired by the Owner or noted to the mutual satisfaction of the Contractor and the Owner as not being the responsibility of the Contractor. Test circuits repaired by the Owner once again prior to construction.
- **2.2** Upon completion of construction, in the presence of the Owner, FAA's RE, and the Engineer, meggar test all airport circuits encountered during construction. Repair all portions of circuits that have been damaged during construction.
- **2.3** The excavation, cutting, pulling-out, and reinstallation of existing cables as required in the Contract Documents shall be incidental to this Pay Item. Provide temporary above-ground connections in protective conduit and clearly mark, as shown on Contract Documents or as conditions and environment warrant. All temporary connections shall use connectors meeting FAA and NEC requirements, listed for the intended use. The Contractor's superintendent or on-site representative must remain in communication with the Engineer until such repairs are completed and the lighting system has been checked for operation and accepted by the Owner.
- **2.4** Contractor shall be responsible to notify all work forces of the location and function of these wires. Care shall be taken by the Contractor's forces not to drive over these wires.

## **METHOD OF MEASUREMENT**

**3.1** Locate and protect existing circuits will be measured for payment as a complete unit per lump sum.

## **BASIS OF PAYMENT**

**4.1** Payment will be made at the Contract lump sum price for Locate and Protect Existing Circuits and will be full compensation for furnishing all materials for locating, protecting, and testing existing circuits and for all labor, equipment, tools, and incidentals necessary to complete this Pay Item as required.

Payment will be made under:

Item NS01-01 Locate and Protect Existing Circuits - per Lump Sum

Measurement and Payment will only be made for Pay Items included in the Schedule of Prices. The cost of all Work required by the Contract Documents will be included in the Pay Items contained in the Schedule of Prices.

#### **END OF ITEM NS01**

# ITEM NS02 CAT-II IMPROVEMENTS (ILS)

#### **DESCRIPTION**

**1.1** This item shall consist of improvements related the Runway 35 Instrument Landing System (ILS) at the Augusta Regional Airport (AGS). Airport instrument landing systems furnished or provided, shall be installed in accordance with this Specification, the referenced specifications, and the applicable advisory circulars. The systems are installed at the locations and in accordance with the dimensions, design, and details shown in the Plans. This item shall include the furnishing of all equipment, materials, services, and incidentals necessary to place the systems in operation as completed units to the satisfaction of the Engineer.

Contractor shall install items per this Specifications along with FAA standard 19f and FAA Specification 1391e.

## **EQUIPMENT AND MATERIALS**

## 2.1 General.

- **a.** Airport lighting equipment and materials covered by advisory circulars (AC) shall be approved under the Airport Lighting Equipment Certification Program per AC 150/5345-53, current version.
- **b.** All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification, when requested by the Engineer.
- **c.** Manufacturer's certifications shall not relieve the Contractor of the responsibility to provide materials per these Specifications. Materials supplied and/or installed that do not comply with these Specifications shall be removed (when directed by the Engineer) and replaced with materials that comply with these Specifications at the Contractor's cost.
- **d.** All materials and equipment used to construct this item shall be submitted to the Engineer for approval prior to ordering the equipment. Submittals consisting of marked catalog sheets or shop drawings shall be provided. Submittal data shall be presented in a clear, precise and thorough manner. Original catalog sheets are preferred. Photocopies are acceptable provided they are as good a quality as the original. Clearly and boldly mark each copy to identify products or models applicable to this project. Indicate all optional equipment and delete any non-pertinent data. Submittals for components of electrical equipment and systems shall identify the equipment to which they apply on each submittal sheet. Markings shall be made bold and clear with arrows or circles (**highlighting is not acceptable**). The Contractor is solely responsible for delays in the project that may accrue directly or indirectly from late submissions or resubmissions of submittals.
- **e.** The data submitted shall be sufficient, in the opinion of the Engineer, to determine compliance with the Plans and Specifications. The Contractor's submittals shall be submitted electronically (pdf), tabbed by specification section. The Engineer reserves the right to reject any and all equipment, materials, or procedures that do not meet the system design and the standards and codes, specified in this document.
- **f.** All equipment and materials furnished and installed under this section shall be guaranteed against defects in materials and workmanship for at least twelve (12) months from the date of final acceptance by the Owner, or as otherwise state. The defective materials and/or equipment shall be repaired or replaced, at the Owner's discretion, with no additional cost to the Owner. The Contractor shall be responsible to maintain a minimum insulation resistance per the current edition AC 150/5340-26, Maintenance Airport Visual aid Facilities, Table 5-1 and paragraph 5.1.3.1, with isolation transformers connected in new circuits and new segments of existing circuits through the end of the contract warranty period.

- 2.2 Concrete. Concrete shall conform to FAA Specification FAA-C-1391e.
- 2.3 Conduit. Conduit shall conform to FAA Specification FAA-C-1391e.
- **2.4 Cable and Counterpoise.** Cable and Counterpoise shall conform to FAA Specification FAA-C-1391e and FAA-STD-019f.
- **2.5 Tape.** Electrical tapes shall be Scotch<sup>™</sup> Electrical Tapes –Scotch<sup>™</sup> 88 (1-1/2 inch (38 mm) wide) and Scotch<sup>™</sup> 130C<sup>®</sup> linerless rubber splicing tape (2-inch (50 mm) wide), as manufactured by the Minnesota Mining and Manufacturing Company (3M<sup>™</sup>), or an approved equivalent.
- **2.6 Electrical coating.** Electrical coating shall be Scotchkote<sup>™</sup> as manufactured by 3M<sup>™</sup>, or an approved equivalent.
- 2.7 Detectable warning tape. Detectable warning tape shall conform to FAA Specification FAA-C-1391e.
- **2.8 Cable Connections.** Cable Connections shall conform to FAA specifications within the project bidding documents.
- **2.9 Runway 35 Glideslope Antenna Tower.** The FAA is to provide new glideslope antennas and tower to replace the existing tower. The glideslope antenna tower installation shall be performed by the Contractor and consist of the following:
  - Disconnect and remove existing glideslope tower and antenna system. Utilize crates from new tower to package up removed tower and turn over to the FAA for shipment.
  - Disconnect, remove, and salvage existing safety/ladder system from tower for installation on to the new glideslope tower.
  - Concrete foundation and anchor bolts to remain in place to be utilized to install new glideslope tower
  - Assemble and install new glideslope tower and antenna elements. Antenna elements are to be installed at elevations shown.
  - Power and communication cabling between the shelter and the tower shall be removed with new
    cabling to be installed. Coordinate with FAA's RE for routing and installation. FAA to perform
    connections of all communication cabling.
  - Existing lightning and grounding systems for the tower is to be removed by the contractor. New lightning and grounding system is to be provided by the contractor and installed meeting the FAA specifications and details.
  - Existing conduit system is to be utilized for the new installation. Contractor shall verify all routing and condition of the existing conduit system. Any damaged or un-useable conduit shall be brough to the attention of the Engineer and FAA's RE.
  - Provide and install new obstruction lighting as shown on the detail.

Contractor shall coordinate with FAA's RE and Engineer on all required installation and connections needed to complete a fully operational system. Contractor shall refer to the project plans and details on additional requirements needed to complete the installation. Work under this section shall conform to FAA Specification FAA-C-1391e and FAA-STD-019f.

**2.10 Runway 35 Glideslope Shelter.** The FAA is to provide new glideslope shelter along with new interior equipment as shown in the plans and details to replace the existing shelter. The glideslope shelter installation to be performed by the Contractor and shall consist of the following:

- Disconnect and remove existing glideslope shelter from existing foundation. Concrete foundation shall remain in place for installation of new shelter. Removed shelter shall be returned to the FAA.
   FAA to coordinate shipment of existing shelter.
- Concrete foundation and anchor bolts to remain in place and to be utilized to install new glideslope shelter.
- New shelter to be installed on existing foundation. All exterior conduit to be extended and connected up to the new shelter.
- Existing lightning and grounding systems for the shelter is to be removed by the contractor. New lightning and grounding system is to be provided by the contractor and installed meeting the FAA specifications and details.
- Shelter exterior lightning protection is provided with the shelter. The Contractor is to install exterior components as needed to complete the installation. All underground lightning and grounding system is to be provided and installed by the Contractor as per the detail.
- Existing communication cables as shown on the plans are to be disconnected and pulled back to
  the nearest handhole. Contractor shall field verify routing of all existing cables/conduits. Upon
  installation of the new shelter, communication cables shall be pulled back through conduit and refed
  into the new shelter. Coordinate with the FAA Re on routing. All terminations of the communication
  cable shall be done by the FAA.
- Existing conduit system is to be utilized for the new shelter installation. Contractor shall verify
  conduit entrance location and provide connections as required per the details. Any damaged or unuseable conduit shall be brough to the attention of the Engineer and FAA's RE.
- Contractor shall coordinate with the local utility provider on disconnecting and restoring the
  electrical service for the shelter during the removal of existing and installation of the new shelter.
  Contractor shall verify other system remain in service as directed by the FAA's RE. New electrical
  service conductors is to be provided by the Contractor from the existing disconnect switch to the
  panelboard inside the shelter.

Contractor shall coordinate with FAA's RE and Engineer on all required installation and connections needed to complete a fully operational system. Contractor shall refer to the project plans and details on additional requirements needed to complete the installation. Work under this section shall conform to FAA Specification FAA-C-1391e and FAA-STD-019f.

- **2.11 Runway 35 Localizer Shelter.** The FAA is to provide new localizer shelter along with new interior equipment as shown in the plans and details to replace the existing shelter. The localizer shelter installation to be performed by the Contractor and consist of the following:
  - Disconnect and remove existing localizer shelter from existing foundation. Concrete foundation shall remain in place for installation of new shelter. Removed shelter shall be returned to the FAA. FAA to coordinate shipment of existing shelter.
  - Concrete foundation and anchor bolts to remain in place and to be utilized to install new localizer shelter.
  - New shelter to be installed on existing foundation. All exterior conduit to be extended and connected up to the new shelter.
  - Existing underground lightning and grounding systems for the shelter is to remain in place and reconnected up by the contractor upon the installation of the new shelter.

- Shelter exterior lightning protection is provided with the shelter. The Contractor is to install exterior components as per the detail and connected to the existing underground lightning and grounding systems. The lightning and grounding system is to meet the FAA specifications and details.
- Existing communication cables as shown on the plans are to be disconnected and pulled back to
  the nearest handhole. Contractor shall field verify routing of all existing cables/conduits. Upon
  installation of the new shelter, communication cables shall be pulled back through conduit and refed
  into the new shelter. Coordinate with the FAA Re on routing. All terminations of the communication
  cable shall be done by the FAA.
- Contractor shall coordinate with the local utility provider on disconnecting and restoring the
  electrical service for the shelter during the removal of existing and installation of the new shelter.
  Contractor shall verify other system remain in service as directed by the FAA's RE. New electrical
  service conductors is to be provided by the Contractor from the utility meter to the panelboard inside
  the shelter.

Coordinate with the FAA on all required installation and connections needed to complete a fully operational system. Contractor to coordinate with local utility provider on disconnecting and reconnecting electrical service up to the shelter. Work under this section shall conform to FAA Specification FAA-C-1391e and FAA-STD-019f.

**2.12 Runway 35 14-Element Localizer Antenna.** The FAA is to provide new localizer antenna array to replace the existing antenna. The localizer antenna installation to be performed by the Contractor and consist of the following:

- Disconnect and remove existing localizer antenna array from existing concrete foundations.
   Concrete foundations are to remain in place. Contractor shall use crates from the new antenna array to package up the removed equipment and turn over to the FAA. The FAA is to be responsible for the shipment of the removed equipment.
- Concrete foundation and anchor bolts to remain in place to be utilized to install new localizer antenna array.
- Assemble and install new localizer 14-element array on existing foundation per FAA details and specifications.
- Contractor shall remove existing concrete panel between the antenna array and the adjacent electrical handhole as shown on the plans. Existing conduit is to be exposed and realigned to match the conduit entrances into the new localizer doghouse cabinet. Upon connection, conduit to be backfilled and replace with a new concrete panel. Refer to FAA specifications for concrete requirements.
- Existing power and communication cables between the localizer shelter and antenna array is to be
  disconnected and removed. New power and communication cables is to be provided by the
  Contractor and installed utilizing existing conduits between the two locations. Coordinate with
  FAA's RE for routing and installation. FAA to perform connections on all communication cabling.
  Refer to plan details for type of power and communication cables required.
- Existing underground lightning and grounding systems for the antenna array is to remain in place
  and reconnected up by the contractor upon the installation of the new shelter. New above ground
  lightning protection is at the localizer array to be provided and installed by the Contractor. The
  lightning and grounding system is to meet the FAA specifications and details.

- Existing conduit system is to be utilized for the new installation. Contractor shall verify all routing
  and condition of the existing conduit system. Any damaged or un-useable conduit shall be brough
  to the attention of the Engineer and FAA's RE.
- Contractor is to provide check points at locations shown in the plans and meeting the details for installation. During the commissioning of the system, if additional check points are required by the FAA, the contractor shall provide (2) two additional check points.
- FAA is to be responsible for communication cable connections and tuning of the localizer system.

Contractor shall coordinate with FAA's RE and Engineer on all required installation and connections needed to complete a fully operational system. Contractor shall refer to the project plans and details on additional requirements needed to complete the installation. Work under this section shall conform to FAA Specification FAA-C-1391e and FAA-STD-019f.

**2.13 Runway 17-35 Cable Removal.** The FAA is to disconnect and relocate the existing RLIM equipment from the current location to the new electrical vault. Upon the relocation the FAA is to bring the RLIM equipment back online. After the relocation, the Contractor is to disconnect and remove a section of the runway 17-35 series circuit as shown on the plans. Contractor shall verify actual routing and handhole locations of the runway circuit prior to any removals. Any deviations in the field than what is shown on the plans is to be brought to the attention of the Engineer.

#### CONSTRUCTION

## 3.1 Shipping and Storage.

- a. Equipment should be shipped in suitable packing material to prevent damage during shipping. Equipment and materials should be maintained in new condition and stored in areas protected from weather and physical damage.
- b. Any equipment and materials, in the opinion of the Engineer, damaged during construction or storage shall be replaced by the Contractor at no additional cost to the owner. Painted or galvanized surfaces that are damaged shall be repaired according to manufacturer's recommendations.
- c. Contractor shall immediately inspect FAA provided equipment and notify RE if any damage is discovered. Otherwise, the Contractor shall assume control of the items and shall protect or repair any damage to provided equipment without compensation.
- d. Contractor shall save packing materials for removed FAA equipment deemed salvageable by the Engineer or FAA and to be repackaged and turned over to the FAA. Any unused/unsalvageable materials shall become property of the Contractor and disposed of offsite.
- **3.2 Testing.** The Contractor shall furnish all necessary equipment and appliances for testing the underground cable circuits after installation. Testing requirements shall meet FAA specifications FAA-C-1391e and FAA-STD-019f.

#### **METHOD OF MEASUREMENT**

4.1 **Runway 35 Glideslope Antenna Tower** shall be measured per a lump sum basis to complete the removal of the existing and installation of the new glideslope antenna tower accepted by the Engineer and FAA meeting the project plans, details, and specifications. This bid item shall include removal, packaging, and turning over the antenna/tower and miscellaneous equipment to the FAA, and disposal of unwanted

equipment off site. Also included shall be the installation of the new glideslope tower and components including all the necessary cabling, lightning and grounding as detailed in the plans and specifications to bring the glideslope into operation.

- **4.2 Runway 35 Glideslope Shelter** shall be measured per lump sum basis to complete the removal of the existing shelter and installation of the new glideslope shelter accepted by the Engineer and FAA meeting project plans, details, and specifications. This bid item shall include the removal, packaging, and turning over the shelter and miscellaneous equipment to the FAA, and disposal of unwanted equipment off site Also included shall be the installation of the new glideslope shelter and components including all the necessary cabling, lightning and grounding as detailed in the plans and specifications to bring the glideslope into operation.
- **4.3 Runway 35 Localizer Shelter** shall be measured per lump sum basis to complete the removal of the existing shelter and installation of the new glideslope shelter accepted by the Engineer and FAA meeting project plans, details, and specifications. This bid item shall include the removal, packaging, and turning over the shelter and miscellaneous equipment to the FAA, and disposal of unwanted equipment off site Also included shall be the installation of the new glideslope shelter and components including all the necessary cabling, lightning and grounding as detailed in the plans and specifications to bring the glideslope into operation.
- **4.4 Runway 35 14-Element Localizer Antenna** shall be measured per a lump sum basis to complete the removal of the existing localizer antenna array and installation of the new antenna array accepted by the Engineer and FAA meeting the project plans, details, and specifications. This bid item shall include removal, packaging, and turning over the antenna array and miscellaneous equipment to the FAA, and disposal of unwanted equipment off site. Also include shall be the installation of the new antenna array on existing foundation, all necessary cabling, lightning and grounding as detailed in the plans and specifications to the bring the localizer antenna array into operation.
- **4.5 Runway 17-35 Cable Removal** shall be measured per linear foot removal of existing cable within conduit as directed and accepted by the Engineer meeting the project plans, details, and specifications. This bid item shall include locating the exiting cable and routing, disconnecting and removing sections as shown, testing, and splicing the existing series circuit within an existing handhole to maintain the series circuit operation to the satisfaction of the Engineer.

## **BASIS OF PAYMENT**

- **5.1 Runway 35 Glideslope Antenna Tower** will be paid at the contract unit price per lump sum for the glideslope antenna tower to be removed, turned over to the FAA, new tower assembled, install and accepted by the Engineer and FAA. This price shall include full compensation for removal, packaging, furnishing all materials, labor, equipment, placing of the materials, furnishing and installation of appurtenances and connections to other structures as may be required to complete the item as shown on the plans/details, assembly, conduit connections, hardware, wiring, lightning/grounding cables and rods connections, power and communication cables, testing, incidentals and associated items as are applicable for a complete and operating installation, disposal of unwanted equipment and material off site, and all incidentals necessary to complete the work as detailed in the project plans and specifications.
- **5.2 Runway 35 Glideslope Shelter** will be paid at the contract unit price per lump sum for the glideslope shelter to be removed, turned over to the FAA, new shelter installed and accepted by the Engineer and Runway 17-35 Approach Improvements CAT II

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FAA. This price shall include full compensation for removal, packaging, furnishing all materials, labor, equipment, excavation, backfilling and placing of the materials, furnishing and installation of appurtenances and connections to other structures as may be required to complete the item as shown on the plans/details, assembly, conduit connections, hardware, wiring, lightning/grounding cables and rods, power and communication cables, testing, incidentals and associated items as are applicable for a complete and operating installation, disposal of unwanted equipment and material off site, and all incidentals necessary to complete the work as detailed in the project plans and specifications.

- **5.3 Runway 35 Localizer Shelter** will be paid at the contract unit price per lump sum for the localizer shelter to be removed, turned over to the FAA, new shelter installed and accepted by the Engineer and FAA. This price shall include full compensation for removal, packaging, furnishing all materials, labor, equipment, excavation, backfilling and placing of the materials, furnishing and installation of appurtenances and connections to other structures as may be required to complete the item as shown on the plans/details, assembly, conduit connections, hardware, wiring, grounding cables and rods connections, power and communication cables, testing, incidentals and associated items as are applicable for a complete and operating installation, disposal of unwanted equipment and material off site, and all incidentals necessary to complete the work as detailed in the project plans and specifications.
- **5.4 Runway 35 14-Element Localizer Antenna** will be paid at the contract unit price per lump sum for the localizer antenna to be removed, turned over to the FAA, new localizer antenna array assembled, install and accepted by the Engineer and FAA. This price shall include full compensation for removal, packaging, furnishing all materials, labor, equipment, excavation, backfilling and placing of the materials, furnishing and installation of appurtenances and connections to other structures as may be required to complete the item as shown on the plans/details, assembly, conduit connections, hardware, wiring, grounding cables and rods connections, power and communication cables, testing, incidentals and associated items as are applicable for a complete and operating installation, disposal of unwanted equipment and material off site, and all incidentals necessary to complete the work as detailed in the project plans and specifications.
- **5.5 Runway 17-35 Cable Removal** will be paid at the contract unit price per linear foot of cable removed within existing conduit as directed and accepted by the Engineer. This price shall include full compensation for removal, disposing, splicing existing circuit closed at handhole location shown, and all incidental necessary to complete the work as detailed in the project plans and specifications.

Payment will be made under:

Item NS02-01	Runway 35 Glideslope Antenna Tower - Disconnect/Remove/Install (FAA to Procure)- per Lump Sum
Item NS02-02	Runway 35 Glideslope Shelter - Disconnect/Remove/Install (FAA to Procure)- per Lump Sum
Item NS02-03	Runway 35 Localizer Shelter - Disconnect/Remove/Install (FAA to Procure)-per Lump Sum
Item NS02-04	Runway 35 14-Element Localizer Antenna - Disconnect/Remove/Install (FAA to Procure)- per Lump Sum
Item NS02-05	Runway 17-35 Cable Removal - per Linear Foot

**END OF ITEM NS02**