

INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals are potential bidding proposals. Each proposal contains all certifications and affidavits, a proposal signature sheet and a proposal bid bond.

PREQUALIFICATION

Any contractor who desires to become pre-qualified to bid on work advertised by IDOT must submit the properly completed pre-qualification forms to the Bureau of Construction no later than 4:30 p.m. prevailing time twenty-one days prior to the letting of interest. This pre-qualification requirement applies to first time contractors, contractors renewing expired ratings, contractors maintaining continuous pre-qualification or contractors requesting revised ratings. To be eligible to bid, existing pre-qualification ratings must be effective through the date of the letting.

WHO CAN BID?

Bids will be accepted from only those companies that request and receive written Authorization to Bid from IDOT's Central Bureau of Construction.

REQUESTS FOR AUTHORIZATION TO BID

Contractors wanting to bid on items included in a particular letting must submit the properly completed "Request for Authorization to Bid/or Not For Bid Status" (BDE 124) and the ORIGINAL "Affidavit of Availability: (BC 57) to the proper office no later than 4:30 p.m. prevailing time, three (3) days prior to the letting date.

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?: When a prospective prime bidder submits a "Request for Authorization to Bid or Not for Bid Status" (BDE 124) he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued an **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction and the Chief Procurement Officer that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** will indicate the reason for denial.

ABOUT AUTHORIZATION TO BID: Firms that have not received an Authorization to Bid or Not For Bid Report within a reasonable time of complete and correct original document submittal should contact the department as to the status. Firms unsure as to authorization status should call the Prequalification Section of the Bureau of Construction at the number listed at the end of these instructions. These documents must be received three days before the letting date.

ADDENDA AND REVISIONS: It is the bidder's responsibility to determine which, if any, addenda or revisions pertain to any project they may be bidding. Failure to incorporate all relevant addenda or revisions may cause the bid to be declared unacceptable.

Each addendum or revision will be included with the Electronic Plans and Proposals. Addenda and revisions will also be placed on the Addendum/Revision Checklist and each subscription service subscriber will be notified by e-mail of each addendum and revision issued.

The Internet is the Department's primary way of doing business. The subscription server e-mails are an added courtesy the Department provides. It is suggested that bidders check IDOT's website at <http://www.dot.il.gov/desenv/delett.html> before submitting final bid information.

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

Addenda questions may be directed to the Contracts Office at (217)782-7806 or D&Econtracts@dot.il.gov

Technical questions about downloading these files may be directed to Tim Garman at (217)524-1624 or Timothy.Garman@illinois.gov.

BID SUBMITTAL GUIDELINES AND CHECKLIST

- All pages should be single sided.
- Use the Cover Page that is provided in the Bid Proposal (posted on the IDOT Web Site) as the first page of your submitted bid. It has the Item number in large bold type in the upper left-hand corner of the page.
- Do not use report covers, presentation folders or special bindings and do not staple multiple times on left side like a book. Use only 1 staple in the upper left hand corner.
- Do not include any certificates of eligibility, your authorization to bid, Addendum Letters or affidavit of availability.
- Do not include the Subcontractor Documentation with your bid (pages 30-38).
- Use the envelope cover sheet (provided with the proposal) as the cover for the proposal envelope.
- Do not rely on overnight services to deliver your proposal prior to 10 AM on letting day. It will not be read if it is delivered after 10 AM.
- Do not submit your Substance Abuse Prevention Program (SAPP) with your bid. If you are awarded the contract this form is to be submitted to the Division Construction Engineer at the pre-construction conference.

BID SUBMITTAL CHECKLIST

Cover page (the sheet that has the item number on it) – This should be the first page of your proposal, **followed by your bid (the Pay Items)**. If you are using special software or CBID to generate your schedule of prices, do not include the blank schedule of prices that came with the proposal package.

Page 4 (Item 9) - Check “YES” if you will use a subcontractor(s) with an annual value over \$50,000. Include the subcontractor(s) name, address, general type of work to be performed and the dollar amount. If you will use subcontractor(s) but are uncertain who or the dollar amount; check “YES” but leave the lines blank.

After Page 4 – Insert the following documents: The **Illinois Office Affidavit** (Not applicable to federally funded projects) followed by Cost Adjustments for Steel, Bituminous, and Fuel (if applicable) and the Contractor Letter of Assent (if applicable). The general rule should be, if you don’t know where it goes, put it after page 4.

Page 10 (Paragraph J) - Check “YES” or “NO” whether your company has any business in Iran.

Page 10 (Paragraph K) – (Not applicable to federally funded projects) List the name of the apprenticeship and training program sponsor holding the certificate of registration from the US Department of Labor. If no applicable program exists, please indicate the work/job category. **Your bid will not be read if this is not completed.** Do not include certificates with your bid. Keep the certificates in your office in case they are requested by IDOT.

Page 11 (Paragraph M) – Indicate if your company has hired a lobbyist in connection with the job for which you are submitting the bid proposal.

Page 12 (Paragraph C) - This is a work sheet to determine if a completed Form A is required. It is not part of the form and you do not need to make copies for each Form A that is filled out.

Pages 14-17 (Form A) - One Form A (4 pages) is required for each applicable person in your company. Copies of the Forms can be used and only need to be changed when the financial information changes. The certification signature and date must be original for each letting. **Do not staple the forms together.** If you answered “NO” to all of the questions in Paragraph C (page 12), complete the first section (page 14) with your company information and then sign and date the Not Applicable statement on page 17.

Page 18 (Form B) - If you check “YES” to having other current or pending contracts it is acceptable to use the phrase, “See Affidavit of Availability on file”. **Ownership Certification** (at the bottom of the page) – Check N/A if the Form A you submitted accounts for 100 percent of the company ownership. Check YES if any percentage of ownership falls outside of the parameters that require reporting on the Form A. Checking NO indicates that the Form A you submitted is not correct and you will be required to submit a revised Form A.

Pages 20-21 (Workforce Projection) - Be sure to include the Duration of the Project. It is acceptable to use the phrase “Per Contract Specifications”.

Bid Bond – (After the Proposal Signature Page) Submit your bid bond (if applicable) using the current Bid Bond Form provided in the proposal package. The Power of Attorney page should be stapled to the Bid Bond. If you are using an electronic bond, include your bid bond number on the form and attach the Proof of Insurance printed from the Surety 2000 Web Site.

Disadvantaged Business Utilization Plan and/or Good Faith Effort - The last item in your bid should be the DBE Utilization Plan (SBE 2026), followed by the DBE Participation Statement (SBE 2025) and supporting paperwork. If you have documentation for a Good Faith Effort, it should follow the SBE Forms.

7A

RETURN WITH BID

Proposal Submitted By	
Name	
Address	
City/State	9 Digit Zip Code
Telephone No.	Fax No.
Federal Employer Identification No. (FEIN)	
Email Address	

Letting June 13, 2014

NOTICE TO PROSPECTIVE BIDDERS

This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction.
BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL

Notice to Bidders, Specifications, Proposal, Contract and Contract Bond



**Illinois Department of Transportation
DIVISION OF AERONAUTICS**

**Contract No. BO003
Bolingbrook's Clow International Airport
Bolingbrook, Illinois
Will County
Illinois Project No. 1C5-4303
SBG Project No. 3-17-SBGP-TBD**

For engineering information, contact Ronald M. Hudson, AICP of Hanson Professional Services, Inc. at (630) 368-2059.

FAA rules prohibit the use of escalation clauses for materials. Therefore, the Division of Aeronautics cannot offer any material cost adjustment provisions for projects that utilize Federal funds.

PLEASE MARK THE APPROPRIATE BOX BELOW:

- A Bid Bond is included.
- A Cashier's Check or a Certified Check is included.
- An Annual Bid Bond is included or is on file with IDOT



**Illinois Department
of Transportation**

PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

Taxpayer Identification Number (Mandatory) _____

For the improvement identified and advertised for bids in the Invitation for Bids as:

**Contract No. BO003
Bolingbrook's Clow International Airport
Bolingbrook, Illinois
Will County
Illinois Project No. 1C5-4303
SBG Project No. 3-17-SBGP-TBD**

Construct Replacement Runway 18-36

2. The undersigned bidder will furnish all labor, material and equipment to complete the above described project in a good workmanlike manner as provided in the contract documents provided by the Department of Transportation. This proposal will become part of the contract and the terms and conditions contained in the contract documents shall govern performance and payments.

3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned bidder further declares that he/she has carefully examined the proposal, plans, specifications, addenda, form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this bid proposal he/she waives all right to plead any misunderstanding regarding the same.
4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned bidder further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, or as specified in the special provisions, guaranteeing the faithful performance of the work in accordance with the terms of the contract.
5. **PROPOSAL GUARANTY.** Accompanying this proposal is either a bid bond on the department form, executed by a corporate surety company satisfactory to the department, or a proposal guaranty check consisting of a bank cashier's check or a properly certified check for not less than 5 per cent of the amount bid or for the amount specified in the following schedule:

<u>Amount of Bid</u>		<u>Proposal Guaranty</u>	<u>Amount of Bid</u>		<u>Proposal Guaranty</u>
Up to	\$5,000	\$150	\$2,000,000	to	\$3,000,000
\$5,000	to	\$300	\$3,000,000	to	\$5,000,000
\$10,000	to	\$1,000	\$5,000,000	to	\$7,500,000
\$50,000	to	\$3,000	\$7,500,000	to	\$10,000,000
\$100,000	to	\$5,000	\$10,000,000	to	\$15,000,000
\$150,000	to	\$7,500	\$15,000,000	to	\$20,000,000
\$250,000	to	\$12,500	\$20,000,000	to	\$25,000,000
\$500,000	to	\$25,000	\$25,000,000	to	\$30,000,000
\$1,000,000	to	\$50,000	\$30,000,000	to	\$35,000,000
\$1,500,000	to	\$75,000	over		\$35,000,000

Bank cashier's checks or properly certified checks accompanying proposals will be made payable to the Treasurer, State of Illinois.

If a combination bid is submitted, the proposal guaranties which accompany the individual proposals making up the combination will be considered as also covering the combination bid.

The amount of the proposal guaranty check is _____ \$(_____). If this proposal is accepted and the undersigned will fail to execute contract bond as required herein, it is hereby agreed that the amount of the proposal guaranty will become the property of the State of Illinois, and shall be considered as payment of damages due to delay and other causes suffered by the State because of the failure to execute said contract and contract bond; otherwise, the bid bond will become void or the proposal guaranty check will be returned to the undersigned.

Attach Cashier's Check or Certified Check Here

In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guaranties which would be required for each individual proposal. If the guaranty check is placed in another proposal, state below where it may be found.

The proposal guaranty check will be found in the proposal for:

Item _____

Airport _____

Mark the proposal cover sheet as to the type of proposal guaranty submitted.

RETURN WITH BID

6. **COMBINATION BIDS.** The undersigned bidder further agrees that if awarded the contract for the sections contained in the following combination, he/she will perform the work in accordance with the requirements of each individual contract comprising the combination bid specified in the schedule below, and that the combination bid shall be prorated against each section in proportion to the bid submitted for the same. If an error is found to exist in the gross sum bid for one or more of the individual sections included in a combination, the combination bid shall be corrected as provided in the specifications.

When a combination bid is submitted, the schedule below must be completed in each proposal comprising the combination.

If alternate bids are submitted for one or more of the sections comprising the combination, a combination bid must be submitted for each alternate.

Schedule of Combination Bids

Combination No.	Sections Included in Combination	Combination Bid	
		Dollars	Cents

7. **SCHEDULE OF PRICES.** The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices will govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.
8. **AUTHORITY TO DO BUSINESS IN ILLINOIS.** Section 20-43 of the Illinois Procurement Code (the Code) (30 ILCS 500/20-43) provides that a person (other than an individual acting as a sole proprietor) must be a legal entity authorized to do business in the State of Illinois prior to submitting the bid.
9. **EXECUTION OF CONTRACT.** The Department of Transportation will, in accordance with the rules governing Department procurements, execute the contract and shall be the sole entity having the authority to accept performance and make payments under the contract. Execution of the contract by the Chief Procurement Officer (CPO) or the State Purchasing Officer (SPO) is for approval of the procurement process and execution of the contract by the Department. Neither the CPO nor the SPO shall be responsible for administration of the contract or determinations respecting performance or payment there under except as otherwise permitted in the Code
10. **The services of a subcontractor will be used.**
- Check box Yes
- Check box No

For known subcontractors with subcontracts with an annual value of more than \$50,000, the contract shall include their name, address, general type of work to be performed, and the dollar allocation for each subcontractor. (30 ILCS 500/20-120)

STATE JOB #- - - -

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT NUMBER - B0003

ECMS002 DTGECM03 ECMR003 PAGE 1
 RUN DATE - 05/19/14
 RUN TIME - 183122

COUNTY NAME	CODE	DIST	AIRPORT NAME	FED PROJECT	ILL PROJECT
WILL	197	01	BOLINGBROOK'S CLOW INTERNATIONAL	3-17-SBGP-XX	1C-5 -4303

***** BASE *****

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR108108	1/C #8 5 KV UG CABLE	L.F.	190.000 X		=		
AR108158	1/C #8 5 KV UG CABLE IN UD	L.F.	8,890.000 X		=		
AR109110	ERECT PREFABRICATED VAULT	L.S.	1.000 X		=		
AR109200	INSTALL ELECTRICAL EQUIPMENT	L.S.	1.000 X		=		
AR109535	ELECTRIC SERVCE ENTRANCE	L.S.	1.000 X		=		
AR110202	2" PVC DUCT, DIRECT BURY	L.F.	190.000 X		=		
AR110502	2-WAY CONCRETE ENCASED DUCT	L.F.	409.000 X		=		
AR110504	4-WAY CONCRETE ENCASED DUCT	L.F.	415.000 X		=		
AR110610	ELECTRICAL HANDHOLE	EACH	1.000 X		=		
AR125100	ELEVATED RETROREFLECTIVE MARKER	EACH	86.000 X		=		
AR125410	MITL-STAKE MOUNTED	EACH	14.000 X		=		
AR125442	TAXI GUIDANCE SIGN, 2 CHARACTER	EACH	2.000 X		=		
AR125445	TAXI GUIDANCE SIGN, 5 CHARACTER	EACH	2.000 X		=		
AR125505	MIRL, STAKE MOUNTED	EACH	26.000 X		=		
AR125510	MIRL, BASE MOUNTED	EACH	6.000 X		=		

BOLINGBROOK'S,CLOW INTERNATIONAL
WILL

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - B0003

ECMS002 DTGECM03 ECMR003 PAGE 2
RUN DATE - 05/19/14
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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR125545	MI THRESHOLD LIGHT BASE MTD	EACH	16.000 X		=		
AR150510	ENGINEER'S FIELD OFFICE	L.S.	1.000 X		=		
AR150520	MOBILIZATION	L.S.	1.000 X		=		
AR150540	HAUL ROUTE	L.S.	1.000 X		=		
AR152410	UNCLASSIFIED EXCAVATION	C.Y.	90,975.000 X		=		
AR152441	ON-SITE BORROW	C.Y.	5,990.000 X		=		
AR152442	OFFSITE BORROW EXCAVATION	C.Y.	118,295.000 X		=		
AR156510	SILT FENCE	L.F.	3,364.000 X		=		
AR156511	DITCH CHECK	EACH	67.000 X		=		
AR156513	SEPARATION FABRIC	S.Y.	35,211.000 X		=		
AR156520	INLET PROTECTION	EACH	29.000 X		=		
AR156531	EROSION CONTROL BLANKET	S.Y.	36,374.000 X		=		
AR156545	RIPRAP-GRADATION NO. 5	S.Y.	27.000 X		=		
AR209606	CRUSHED AGG. BASE COURSE - 6"	S.Y.	35,253.000 X		=		
AR401614	BIT. SURF. CSE.-METHOD II, SUPERP	TON	4,051.000 X		=		

BOLINGBROOK'S CLOW INTERNATIONAL
WILL

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - B0003

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RUN TIME - 183122

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR401630	BITUMINOUS SURFACE TEST SECTION	EACH	1.000 X		=		
AR401650	BITUMINOUS PAVEMENT MILLING	S.Y.	23,805.000 X		=		
AR401660	SAW & SEAL BIT. JOINTS	L.F.	735.000 X		=		
AR401665	BITUMINOUS PAVEMENT SAWING	L.F.	1,208.000 X		=		
AR401910	REMOVE & REPLACE BIT. PAVEMENT	S.Y.	64.000 X		=		
AR403614	BIT. BASE CSE.-METHOD II, SUPERPA	TON	8,095.000 X		=		
AR403630	BITUMINOUS BASE TEST SECTION	EACH	1.000 X		=		
AR501604	4" PCC SIDEWALK	S.F.	42.000 X		=		
AR602510	BITUMINOUS PRIME COAT	GAL.	10,260.000 X		=		
AR603510	BITUMINOUS TACK COAT	GAL.	10,250.000 X		=		
AR620520	PAVEMENT MARKING-WATERBORNE	S.F.	23,266.000 X		=		
AR620525	PAVEMENT MARKING-BLACK BORDER	S.F.	668.000 X		=		
AR701512	12" RCP, CLASS IV	L.F.	672.000 X		=		
AR701518	18" RCP, CLASS IV	L.F.	593.000 X		=		
AR701524	24" RCP, CLASS IV	L.F.	692.000 X		=		

BOLINGBROOK'S CLOW INTERNATIONAL
WILL

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - B0003

ECMS002 DTGECM03 ECMR003 PAGE 4
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RUN TIME - 183122

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR701530	30" RCP, CLASS IV	L.F.	1,144.500 X		=		
AR701536	36" RCP, CLASS IV	L.F.	94.500 X		=		
AR701542	42" RCP, CLASS IV	L.F.	1,009.000 X		=		
AR701900	REMOVE PIPE	L.F.	431.000 X		=		
AR705506	6" PERFORATED UNDERDRAIN	L.F.	7,017.000 X		=		
AR705630	UNDERDRAIN INSPECTION HOLE	EACH	10.000 X		=		
AR705640	UNDERDRAIN CLEANOUT	EACH	10.000 X		=		
AR751411	INLET-TYPE A	EACH	8.000 X		=		
AR751412	INLET-TYPE B	EACH	2.000 X		=		
AR751540	MANHOLE 4'	EACH	1.000 X		=		
AR751550	MANHOLE 5'	EACH	3.000 X		=		
AR751560	MANHOLE 6'	EACH	4.000 X		=		
AR751567	MANHOLE 7'	EACH	3.000 X		=		
AR751568	MANHOLE 8'	EACH	2.000 X		=		
AR751569	MANHOLE 9'	EACH	1.000 X		=		

BOLINGBROOK'S CLOW INTERNATIONAL
WILL

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - B0003

ECMS002 DTGECM03 ECMR003 PAGE 5
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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR752412	PRECAST REINFORCED CONC. FES 12"	EACH	4.000 X		=		
AR752418	PRECAST REINFORCED CONC. FES 18"	EACH	1.000 X		=		
AR752430	PRECAST REINFORCED CONC. FES 30"	EACH	1.000 X		=		
AR752442	PRECAST REINFORCED CONC. FES 42"	EACH	1.000 X		=		
AR752512	GRATING FOR CONC. FES 12"	EACH	4.000 X		=		
AR752518	GRATING FOR CONC. FES 18"	EACH	1.000 X		=		
AR752530	GRATING FOR CONC. FES 30"	EACH	1.000 X		=		
AR752542	GRATING FOR CONC. FES 42"	EACH	1.000 X		=		
AR800907	INFILTRATION TRENCH	L.F.	319.000 X		=		
AR800927	GRANULAR DRAINAGE SUBBASE - 6"	S.Y.	35,211.000 X		=		
AR803001	REMOVE AIRFIELD LIGHT	EACH	44.000 X		=		
AR803002	TURF REINFORCING MAT	S.Y.	2,503.000 X		=		
AR803003	CONCRETE CABLE BOTTOM	S.Y.	958.000 X		=		
AR803004	CLEARING TREES 0-1.5' BUTT DIA.	EACH	49.000 X		=		
AR803005	CLEARING TREES 1.5-3.0' BUTT DIA.	EACH	32.000 X		=		

BOLINGBROOK'S CLOW INTERNATIONAL
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ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
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ECMS002 DTGECM03 ECMR003 PAGE 6
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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR803006	STUMP REMOVAL 0-1.5' BUTT DIA.	EACH	49.000 X		=		
AR803007	STUMP REMOVAL 1.5-3.0' BUTT DIA.	EACH	32.000 X		=		
AR803008	TEMPORARY SEED AND MULCH	ACRE	29.600 X		=		
AR803009	FIELD PIPE COLLAR	EACH	1.000 X		=		
AR803010	CONSERVATION COVER	ACRE	4.100 X		=		
AR901510	SEEDING	ACRE	21.700 X		=		
AR904510	SODDING	S.Y.	18,377.000 X		=		
AR905510	TOPSOILING (FROM ON SITE)	C.Y.	16,976.000 X		=		
AR908510	MULCHING	ACRE	17.700 X		=		
				SUBTOTAL BASE		\$	

***THE DEPARTMENT RESERVES THE RIGHT TO AWARD THIS CONTRACT ON THE
***BASIS OF ANY OF THE ALTERNATES OR COMBINATION THEREOF.

BOLINGBROOK'S CLOW INTERNATIONAL
WILL

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - B0003

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***** ALT 1 *****

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AS108158	1/C #8 5 KV UG CABLE IN UD	L.F.	287.000 X			=	
AS110504	4-WAY CONCRETE ENCASED DUCT	L.F.	36.000 X			=	
AS125100	ELEVATED RETROREFLECTIVE MARKER	EACH	2.000 X			=	
AS125410	MITL - STAKE MOUNTED	EACH	8.000 X			=	
AS125445	TAXI GUIDANCE SIGN, 5 CHARACTER	EACH	1.000 X			=	
AS156513	SEPARATION FABRIC	S.Y.	1,001.000 X			=	
AS209606	CRUSHED AGG. BASE COURSE - 6"	S.Y.	1,001.000 X			=	
AS401614	BIT. SURF. CSE.-METHOD II, SUPERP	TON	115.000 X			=	
AS403614	BIT. BASE CSE.-METHOD II, SUPERPA	TON	230.000 X			=	
AS602510	BITUMINOUS PRIME COAT	GAL.	288.000 X			=	
AS603510	BITUMINOUS TACK COAT	GAL.	288.000 X			=	
AS620520	PAVEMENT MARKING-WATERBORNE	S.F.	712.000 X			=	
AS620525	PAVEMENT MARKING-BLACK BORDER	S.F.	151.000 X			=	
AS800927	GRANULAR DRAINAGE SUBBASE - 6"	S.Y.	1,001.000 X			=	

SUBTOTAL ALT 1 \$

BOLINGBROOK'S CLOW INTERNATIONAL
WILL

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - B0003

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CONTRACT - B0003

SUMMARY OF TOTAL ALTERNATES		
	DOLLARS	CTS
TOTAL BASE \$		
TOTAL ALT 1 \$		

NOTE:

1. EACH PAY ITEM SHOULD HAVE A UNIT PRICE AND A TOTAL PRICE.
2. THE UNIT PRICE SHALL GOVERN IF NO TOTAL PRICE IS SHOWN OR IF THERE IS A DISCREPANCY BETWEEN THE PRODUCT OF THE UNIT PRICE MULTIPLIED BY THE QUANTITY.
3. IF A UNIT PRICE IS OMITTED, THE TOTAL PRICE WILL BE DIVIDED BY THE QUANTITY IN ORDER TO ESTABLISH A UNIT PRICE.
4. A BID MAY BE DECLARED UNACCEPTABLE IF NEITHER A UNIT PRICE NOR A TOTAL PRICE IS SHOWN.

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STATE REQUIRED ETHICAL STANDARDS GOVERNING CONTRACT PROCUREMENT: ASSURANCES, CERTIFICATIONS AND DISCLOSURES

I. GENERAL

A. Article 50 of the Code establishes the duty of all State CPOs, SPOs, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

B. In order to comply with the provisions of Article 50 and to carry out the duty established therein, all bidders are to adhere to ethical standards established for the procurement process, and to make such assurances, disclosures and certifications required by law. Except as otherwise required in subsection III, paragraphs J-M, by execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances has been read and understood, that each certification is made and understood, and that each disclosure requirement has been understood and completed.

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for the CPO to void the contract, and may result in the suspension or debarment of the bidder or subcontractor. If a false certification is made by a subcontractor, the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the States' request after a finding that the subcontractor's certification was false.

I acknowledge, understand and accept these terms and conditions.

II. ASSURANCES

The assurances hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

A. Conflicts of Interest

Section 50-13. Conflicts of Interest.

(a) Prohibition. It is unlawful for any person holding an elective office in this State, holding a seat in the General Assembly, or appointed to or employed in any of the offices or agencies of state government and who receives compensation for such employment in excess of 60% of the salary of the Governor of the State of Illinois, or who is an officer or employee of the Capital Development Board or the Illinois Toll Highway Authority, or who is the spouse or minor child of any such person to have or acquire any contract, or any direct pecuniary interest in any contract therein, whether for stationery, printing, paper, or any services, materials, or supplies, that will be wholly or partially satisfied by the payment of funds appropriated by the General Assembly of the State of Illinois or in any contract of the Capital Development Board or the Illinois Toll Highway Authority.

(b) Interests. It is unlawful for any firm, partnership, association or corporation, in which any person listed in subsection (a) is entitled to receive (i) more than 7 1/2% of the total distributable income or (ii) an amount in excess of the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(c) Combined interests. It is unlawful for any firm, partnership, association, or corporation, in which any person listed in subsection (a) together with his or her spouse or minor children is entitled to receive (i) more than 15%, in the aggregate, of the total distributable income or (ii) an amount in excess of 2 times the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(d) Securities. Nothing in this Section invalidates the provisions of any bond or other security previously offered or to be offered for sale or sold by or for the State of Illinois.

(e) Prior interests. This Section does not affect the validity of any contract made between the State and an officer or employee of the State or member of the General Assembly, his or her spouse, minor child or any combination of those persons if that contract was in existence before his or her election or employment as an officer, member, or employee. The contract is voidable, however, if it cannot be completed within 365 days after the officer, member, or employee takes office or is employed.

The current salary of the Governor is \$177,412.00. Sixty percent of the salary is \$106,447.20.

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The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-13, or that an effective exemption has been issued by the Board of Ethics to any individual subject to the Section 50-13 prohibitions pursuant to the provisions of Section 50-20 of the Code and Executive Order Number 3 (1998). Information concerning the exemption process is available from the Department upon request.

B. Negotiations

Section 50-15. Negotiations.

It is unlawful for any person employed in or on a continual contractual relationship with any of the offices or agencies of State government to participate in contract negotiations on behalf of that office or agency with any firm, partnership, association, or corporation with whom that person has a contract for future employment or is negotiating concerning possible future employment.

The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-15, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

C. Inducements

Section 50-25. Inducement.

Any person who offers or pays any money or other valuable thing to any person to induce him or her not to bid for a State contract or as recompense for not having bid on a State contract is guilty of a Class 4 felony. Any person who accepts any money or other valuable thing for not bidding for a State contract or who withholds a bid in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-25, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

D. Revolving Door Prohibition

Section 50-30. Revolving door prohibition.

CPOs, SPOs, procurement compliance monitors, their designees whose principal duties are directly related to State procurement, and executive officers confirmed by the Senate are expressly prohibited for a period of 2 years after terminating an affected position from engaging in any procurement activity relating to the State agency most recently employing them in an affected position for a period of at least 6 months. The prohibition includes, but is not limited to: lobbying the procurement process; specifying; bidding; proposing bid, proposal, or contract documents; on their own behalf or on behalf of any firm, partnership, association, or corporation. This Section applies only to persons who terminate an affected position on or after January 15, 1999.

The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-30, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

E. Reporting Anticompetitive Practices

Section 50-40. Reporting anticompetitive practices.

When, for any reason, any vendor, bidder, contractor, CPO, SPO, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, offers, contractors, proposers, or employees of the State, a notice of the relevant facts shall be transmitted to the Attorney General and the CPO.

The bidder assures the Department that it has not failed to report any relevant facts concerning the practices addressed in Section 50-40 which may involve the contract for which the bid is submitted.

F. Confidentiality

Section 50-45. Confidentiality.

Any CPO, SPO, designee, or executive officer who willfully uses or allows the use of specifications, competitive bid documents, proprietary competitive information, proposals, contracts, or selection information to compromise the fairness or integrity of the procurement, bidding, or contract process shall be subject to immediate dismissal, regardless of the Personnel code, any contract, or any collective bargaining agreement, and may in addition be subject to criminal prosecution.

The bidder assures the Department that it has no knowledge of any fact relevant to the practices addressed in Section 50-45 which may involve the contract for which the bid is submitted.

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G. Insider Information

Section 50-50. Insider information.

It is unlawful for any current or former elected or appointed State official or State employee to knowingly use confidential information available only by virtue of that office or employment for actual or anticipated gain for themselves or another person.

The bidder assures the Department that it has no knowledge of any facts relevant to the practices addressed in Section 50-50 which may involve the contract for which the bid is submitted.

I acknowledge, understand and accept these terms and conditions for the above assurances.

III. CERTIFICATIONS

The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. Section 50-2 of the Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible CPO whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

A. Bribery

Section 50-5. Bribery.

(a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

(1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

(2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

(b) Businesses. No business shall be barred from contracting with any unit of State or local government, or subcontracting under such a contract, as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

(1) the business has been finally adjudicated not guilty; or

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

(c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50.5.

B. Felons

Section 50-10. Felons.

(a) Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

(b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

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C. Debt Delinquency

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The bidder or contractor or subcontractor, respectively, further acknowledges that the CPO may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

D. Prohibited Bidders, Contractors and Subcontractors

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

F. Educational Loan

Section 3 of the Educational Loan Default Act provides no State agency shall contract with an individual for goods or services if that individual is in default, as defined in Section 2 of this Act, on an educational loan. Any contract used by any State agency shall include a statement certifying that the individual is not in default on an educational loan as provided in this Section.

The bidder, if an individual as opposed to a corporation, partnership or other form of business organization, certifies that the bidder is not in default on an educational loan as provided in Section 3 of the Act.

G. Bid-Rigging/Bid Rotating

Section 33E-11 of the Criminal Code of 2012 provides:

(a) Every bid submitted to and public contract executed pursuant to such bid by the State or a unit of local government shall contain a certification by the prime contractor that the prime contractor is not barred from contracting with any unit of State or local government as a result of a violation of either Section 33E-3 or 33E-4 of this Article.

(b) A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

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A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

The bidder certifies that it is not barred from contracting with the Department by reason of a violation of either Section 33E-3 or Section 33E-4.

H. International Anti-Boycott

Section 5 of the International Anti-Boycott Certification Act provides every contract entered into by the State of Illinois for the manufacture, furnishing, or purchasing of supplies, material, or equipment or for the furnishing of work, labor, or services, in an amount exceeding the threshold for small purchases according to the purchasing laws of this State or \$10,000.00, whichever is less, shall contain certification, as a material condition of the contract, by which the contractor agrees that neither the contractor nor any substantially-owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act.

The bidder makes the certification set forth in Section 5 of the Act.

I. Drug Free Workplace

The Illinois "Drug Free Workplace Act" applies to this contract and it is necessary to comply with the provisions of the "Act" if the contractor is a corporation, partnership, or other entity (including a sole proprietorship) which has 25 or more employees.

The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace in compliance with the provisions of the Act.

J. Disclosure of Business Operations in Iran

Section 50-36 of the Code, 30ILCS 500/50-36 provides that each bid, offer, or proposal submitted for a State contract shall include a disclosure of whether or not the Company acting as the bidder, offeror, or proposing entity, or any of its corporate parents or subsidiaries, within the 24 months before submission of the bid, offer, or proposal had business operations that involved contracts with or provision of supplies or services to the Government of Iran, companies in which the Government of Iran has any direct or indirect equity share, consortiums or projects commissioned by the Government of Iran, or companies involved in consortiums or projects commissioned by the Government of Iran and either of the following conditions apply:

- (1) More than 10% of the Company's revenues produced in or assets located in Iran involve oil-related activities or mineral-extraction activities; less than 75% of the Company's revenues produced in or assets located in Iran involve contracts with or provision of oil-related or mineral-extraction products or services to the Government of Iran or a project or consortium created exclusively by that government; and the Company has failed to take substantial action.
- (2) The Company has, on or after August 5, 1996, made an investment of \$20 million or more, or any combination of investments of at least \$10 million each that in the aggregate equals or exceeds \$20 million in any 12-month period, which directly or significantly contributes to the enhancement of Iran's ability to develop petroleum resources of Iran.

The terms "Business operations", "Company", "Mineral-extraction activities", "Oil-related activities", "Petroleum resources", and "Substantial action" are all defined in the Code.

Failure to make the disclosure required by the Code shall cause the bid, offer or proposal to be considered not responsive. The disclosure will be considered when evaluating the bid, offer, or proposal or awarding the contract. The name of each Company disclosed as doing business or having done business in Iran will be provided to the State Comptroller.

Check the appropriate statement:

Company has no business operations in Iran to disclose.

Company has business operations in Iran as disclosed in the attached document.

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K. Apprenticeship and Training Certification (Does not apply to federal aid projects)

In accordance with the provisions of Section 30-22 (6) of the Code, the bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Department, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontracted work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. **The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project as reported on the Construction Employee Workforce Projection (Form BC-1256) and returned with the bid is accounted for and listed.**

NA-FEDERAL

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract.

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L. Political Contributions and Registration with the State Board of Elections.

Sections 20-160 and 50-37 of the Code regulate political contributions from business entities and any affiliated entities or affiliated persons bidding on or contracting with the state. Generally under Section 50-37, any business entity, and any affiliated entity or affiliated person of the business entity, whose current year contracts with all state agencies exceed an awarded value of \$50,000, are prohibited from making any contributions to any political committees established to promote the candidacy of the officeholder responsible for the awarding of the contracts or any other declared candidate for that office for the duration of the term of office of the incumbent officeholder or a period 2 years after the termination of the contract, whichever is longer. Any business entity and affiliated entities or affiliated persons whose state contracts in the current year do not exceed an awarded value of \$50,000, either alone or in combination with contracts not exceeding \$50,000, are prohibited from making any political contributions to any political committee established to promote the candidacy of the officeholder responsible for awarding the pending contract during the period beginning on the date the invitation for bids or request for proposals is issued and ending on the day after the date of award or selection if the entity was not awarded or selected. Section 20-160 requires certification of registration of affected business entities in accordance with procedures found in Section 9-35 of The Election Code

By submission of a bid, the contractor business entity acknowledges and agrees that it has read and understands Sections 20-160 and 50-37 of the Code, and that it makes the following certification:

The undersigned business entity certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. If the business entity is required to register, the CPO shall verify that it is in compliance on the date the bid or proposal is due. The CPO shall not accept a bid or proposal if the business entity is not in compliance with the registration requirements.

These requirements and compliance with the above referenced statutory sections are a material part of the contract, and any breach thereof shall be cause to void the contract under Section 50-60 of the Code. This provision does not apply to Federal-aid contracts.

M. Lobbyist Disclosure

Section 50-38 of the Code requires that any bidder or offeror on a State contract that hires a person required to register under the Lobbyist Registration Act to assist in obtaining a contract shall:

- (i) Disclose all costs, fees, compensation, reimbursements, and other remunerations paid or to be paid to the lobbyist related to the contract,
- (ii) Not bill or otherwise cause the State of Illinois to pay for any of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration, and
- (iii) Sign a verification certifying that none of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration were billed to the State.

This information, along with all supporting documents, shall be filed with the agency awarding the contract and with the Secretary of State. The CPO shall post this information, together with the contract award notice, in the online Procurement Bulletin.

Pursuant to Subsection (c) of this Section, no person or entity shall retain a person or entity to attempt to influence the outcome of a procurement decision made under the Code for compensation contingent in whole or in part upon the decision or procurement. Any person who violates this subsection is guilty of a business offense and shall be fined not more than \$10,000.

Bidder acknowledges that it is required to disclose the hiring of any person required to register pursuant to the Illinois Lobbyist Registration Act (25 ILCS 170) in connection with this contract.

Bidder has not hired any person required to register pursuant to the Illinois Lobbyist Registration Act in connection with this contract.

Or

Bidder has hired the following persons required to register pursuant to the Illinois Lobbyist Registration Act in connection with the contract:

Name and address of person: _____
All costs, fees, compensation, reimbursements and other remuneration paid to said person: _____

I acknowledge, understand and accept these terms and conditions for the above certifications.

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IV. DISCLOSURES

- A. The disclosures hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The bidder further certifies that the Department has received the disclosure forms for each bid.

The CPO may void the bid, or contract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, the CPO may void the contract and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all bids of more than \$25,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the contract. Furthermore, pursuant to Section 5-5, the Procurement Policy Board may review a proposal, bid, or contract and issue a recommendation to void a contract or reject a proposal or bid based on any violation of the Code or the existence of a conflict of interest as provided in subsections (b) and (d) of Section 50-35.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

The current annual salary of the Governor is \$177,412.00

In addition, all disclosures shall indicate any other current or pending contracts, proposals, leases, or other ongoing procurement relationships the bidding entity has with any other unit of state government and shall clearly identify the unit and the contract, proposal, lease, or other relationship.

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. **The forms must be included with each bid.**

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on Form A must be signed and dated by a person that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES _____ NO _____
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES _____ NO _____
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES _____ NO _____
4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES _____ NO _____

(Note: Only one set of forms needs to be completed per person per bid even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The bidder must determine each individual in the bidding entity or the bidding entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable.** The person signing can be, but does not have to be, the person for which the form is being completed. The bidder is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the NOT APPLICABLE STATEMENT of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

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Form B: Instructions for Identifying Other Contracts & Procurement Related Information

Disclosure Form B must be completed for each bid submitted by the bidding entity. *Note: Checking the NOT APPLICABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be completed, checked, and dated or the bidder may be considered nonresponsive and the bid will not be accepted.*

The Bidder shall identify, by checking Yes or No on Form B, whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the bidder only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the bidder must do one of the following:

Option I: If the bidder did not submit an Affidavit of Availability to obtain authorization to bid, the bidder must list all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Do not include IDOT contracts. Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included. Bidders who submit Affidavits of Availability are suggested to use Option II.

Option II: If the bidder is required and has submitted an Affidavit of Availability in order to obtain authorization to bid, the bidder may write or type "See Affidavit of Availability" which indicates that the Affidavit of Availability is incorporated by reference and includes all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. For any contracts that are not covered by the Affidavit of Availability, the bidder must identify them on Form B or on an attached sheet(s). These might be such things as leases.

RETURN WITH BID

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

Contractor Name, Legal Address, City, State, Zip, Telephone Number, Email Address, Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). Vendors desiring to enter into a contract with the State of Illinois must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for bids in excess of \$25,000, and for all open-ended contracts. A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions. The current salary of the Governor is \$177,412.00.

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than 60% of the annual salary of the Governor. (Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)

FOR INDIVIDUAL (type or print information) NAME: ADDRESS Type of ownership/distributable income share: stock sole proprietorship partnership other: (explain on separate sheet) % or \$ value of ownership/distributable income share:

2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services. Yes No

If your answer is yes, please answer each of the following questions.

- 1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois State Toll Highway Authority? Yes No
2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, provide the name of the State agency for which you are employed and your annual salary.

RETURN WITH BID

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor? Yes _____ No _____
4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes _____ No _____

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment for services in the previous 2 years. Yes _____ No _____

If your answer is yes, please answer each of the following questions.

1. Is your spouse or any minor children currently an officer or employee of the Capital Development Board or the Illinois State Toll Highway Authority? Yes _____ No _____
2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____
-
3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor? Yes _____ No _____
4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes _____ No _____

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years. Yes _____ No _____

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter Yes _____ No _____

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes _____ No _____

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes _____ No _____

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government. Yes _____ No _____

RETURN WITH BID

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes____ No____

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections
Yes____ No____

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.
Yes____ No____

3. Communication Disclosure.

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s): _____

RETURN WITH BID

4. Debarment Disclosure. For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below:

Name of person(s): _____

Nature of disclosure: _____

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.

Completed by: _____ Date _____
Signature of Individual or Authorized Officer

NOT APPLICABLE STATEMENT

Under penalty of perjury, I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page.

_____ Date _____
Signature of Authorized Officer

The bidder has a continuing obligation to supplement these disclosures under Sec. 50-35 of the Code.

RETURN WITH BID

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Other Contracts & Procurement Related Information Disclosure

Contractor Name, Legal Address, City, State, Zip, Telephone Number, Email Address, Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of \$25,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The BIDDER shall identify whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes _____ No _____ If "No" is checked, the bidder only needs to complete the signature box on the bottom of this page.

2. If "Yes" is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature of Authorized Representative, Date

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership.

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

Yes No N/A (Form A disclosure(s) established 100% ownership)

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

The following requirements of the Illinois Department of Human Rights' Rules and Regulations are applicable to bidders on all construction contracts advertised by the Illinois Department of Transportation:

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

- (a) All bidders on construction contracts shall complete and submit, along with and as part of their bids, a Bidder's Employee Utilization Form (Form BC-1256) setting forth a projection and breakdown of the total workforce intended to be hired and/or allocated to such contract work by the bidder including a projection of minority and female employee utilization in all job classifications on the contract project.
- (b) The Department of Transportation shall review the Employee Utilization Form, and workforce projections contained therein, of the contract awardee to determine if such projections reflect an underutilization of minority persons and/or women in any job classification in accordance with the Equal Employment Opportunity Clause and Section 7.2 of the Illinois Department of Human Rights' Rules and Regulations for Public Contracts adopted as amended on September 17, 1980. If it is determined that the contract awardee's projections reflect an underutilization of minority persons and/or women in any job classification, it shall be advised in writing of the manner in which it is underutilizing and such awardee shall be considered to be in breach of the contract unless, prior to commencement of work on the contract project, it submits revised satisfactory projections or an acceptable written affirmative action plan to correct such underutilization including a specific timetable geared to the completion stages of the contract.
- (c) The Department of Transportation shall provide to the Department of Human Rights a copy of the contract awardee's Employee Utilization Form, a copy of any required written affirmative action plan, and any written correspondence related thereto. The Department of Human Rights may review and revise any action taken by the Department of Transportation with respect to these requirements.

RETURN WITH BID

**Contract No. BO003
Bolingbrook's Clow International Airport
Bolingbrook, Illinois
Will County
Illinois Project No. 1C5-4303
SBG Project No. 3-17-SBGP-TBD**

PART II. WORKFORCE PROJECTION - continued

- B. Included in "Total Employees" under Table A is the total number of **new hires** that would be employed in the event the undersigned bidder is awarded this contract.

The undersigned bidder projects that: (number) _____ new hires would be recruited from the area in which the contract project is located; and/or (number) _____ new hires would be recruited from the area in which the bidder's principal office or base of operation is located.

- C. Included in "Total Employees" under Table A is a projection of numbers of persons to be employed directly by the undersigned bidder as well as a projection of numbers of persons to be employed by subcontractors.

The undersigned bidder estimates that (number) _____ persons will be directly employed by the prime contractor and that (number) _____ persons will be employed by subcontractors.

PART III. AFFIRMATIVE ACTION PLAN

- A. The undersigned bidder understands and agrees that in the event the foregoing minority and female employee utilization projection included under **PART II** is determined to be an underutilization of minority persons or women in any job category, and in the event that the undersigned bidder is awarded this contract, he/she will, prior to commencement of work, develop and submit a written Affirmative Action Plan including a specific timetable (geared to the completion stages of the contract) whereby deficiencies in minority and/or female employee utilization are corrected. Such Affirmative Action Plan will be subject to approval by the contracting agency and the **Department of Human Rights**.
- B. The undersigned bidder understands and agrees that the minority and female employee utilization projection submitted herein, and the goals and timetable included under an Affirmative Action Plan if required, are deemed to be part of the contract specifications.

Company _____

Telephone Number _____

Address _____

NOTICE REGARDING SIGNATURE

The Bidder's signature on the Proposal Signature Sheet will constitute the signing of this form. The following signature block needs to be completed only if revisions are required.

Signature: _____ Title: _____ Date: _____

Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.

Table A - Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.

Table B - Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.

Table C - Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

RETURN WITH BID

ADDITIONAL FEDERAL REQUIREMENTS

In addition to the Required Contract Provisions for Federally funded airport construction contracts, all bidders make the following certifications.

A. By the execution of this proposal, the signing bidder certifies that the bidding entity has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This statement made by the undersigned bidder is true and correct under penalty of perjury under the laws of the United States.

B. CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY

1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause?
Yes____ No____

2. If your answer is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? Yes____ No____

RETURN WITH BID

**Contract No. BO003
Bolingbrook's Clow International Airport
Bolingbrook, Illinois
Will County
Illinois Project No. 1C5-4303
SBG Project No. 3-17-SBGP-TBD**

PROPOSAL SIGNATURE SHEET

The undersigned bidder hereby makes and submits this bid on the subject Proposal, thereby assuring the Department that all requirements of the Invitation for Bids and rules of the Department have been met, that there is no misunderstanding of the requirements of paragraph 3 of this Proposal, and that the contract will be executed in accordance with the rules of the Department if an award is made on this bid.

Firm Name _____

(IF AN INDIVIDUAL) Signature of Owner _____

Business Address _____

Firm Name _____

By _____

(IF A CO-PARTNERSHIP) Business Address _____

Name and Address of All Members of the Firm:

Corporate Name _____

By _____

(IF A CORPORATION) Signature of Authorized Representative _____

Typed or printed name and title of Authorized Representative _____

(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW) Attest _____

Signature _____

Business Address _____

Corporate Name _____

By _____

(IF A JOINT VENTURE) Signature of Authorized Representative _____

Typed or printed name and title of Authorized Representative _____

Attest _____

Signature _____

Business Address _____

If more than two parties are in the joint venture, please attach additional signature sheet



Sponsor _____ Item No. _____

IL Proj. No. _____ SBG Pr. No. _____ Letting Date _____

KNOW ALL MEN BY THESE PRESENTS, That We _____

_____ as PRINCIPAL, and _____

_____ as SURETY, are held jointly, severally and firmly bound unto the SPONSOR identified above, in the penal sum of 5 percent of the total bid price, or for the amount specified in Section 6, Proposal Guaranty of the Proposal Document, whichever is the lesser sum, well and truly to be paid unto said SPONSOR, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH, that whereas, the PRINCIPAL has submitted a bid proposal to the SPONSOR through its AGENT, the State of Illinois, Department of Transportation, Division of Aeronautics, for the improvement designated by the Transportation Bulletin Item Number and Letting Date indicated above.

NOW, THEREFORE, if the SPONSOR through its AGENT shall accept the bid proposal of the PRINCIPAL; and if the PRINCIPAL shall, and as specified in the bidding and contract documents, submit a DBE Utilization Plan that is accepted and approved by the AGENT; and if, after the award by AGENT on behalf of SPONSOR, the PRINCIPAL shall enter into a contract in accordance with the terms of the bidding and contract documents, including evidence of the required insurance coverages and providing such bond as specified with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof; or if, in the event of the failure of the PRINCIPAL to make the required DBE submission or to enter into such contract and to give the specified bond, the PRINCIPAL pays to the SPONSOR the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the SPONSOR may contract with another party to perform the work covered by said bid proposal, then this obligation shall be null and void, otherwise, it shall remain in full force and effect.

IN THE EVENT the SPONSOR acting through its AGENT determines the PRINCIPAL has failed to comply with any requirement as set forth in the preceding paragraph, then SURETY shall pay the penal sum to the SPONSOR within fifteen (15) days of written demand therefor. If SURETY does not make full payment within such period of time, the AGENT may bring an action to collect the amount owed. SURETY is liable to the SPONSOR and to the AGENT for all its expenses, including attorney's fees, incurred in any litigation in which SPONSOR or AGENT prevail either in whole or in part.

In TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers _____ day of _____ A.D., _____ .

PRINCIPAL

SURETY

(Company Name)

(Company Name)

By _____
(Signature & Title)

By: _____
(Signature of Attorney-in-Fact)

Notary Certification for Principal and Surety

STATE OF ILLINOIS,
County of _____

I, _____, a Notary Public in and for said County, do hereby certify that _____ and _____
(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of _____ A.D. _____

My commission expires _____

Notary Public

In lieu of completing the above section of the Proposal Bid Form, the Principal may file an Electronic Bid Bond. By signing the proposal and marking the check box next to the Signature and Title line below, the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the SPONSOR through its AGENT under the conditions of the bid bond as shown above.

Electronic Bid Bond ID# _____

Company / Bidder Name _____

Signature and Title _____



This Annual Proposal Bid Bond shall become effective at 12:01 AM (CDST) on _____ and shall be valid until _____ 11:59 PM (CDST).

KNOW ALL PERSONS BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

as SURETY, and held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in the bid proposal under "Proposal Guaranty" in effect on the date of the Invitation for Bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH that whereas, the PRINCIPAL may submit bid proposal(s) to the STATE OF ILLINOIS, acting through the Department of Transportation, for various improvements published in the Transportation Bulletin during the effective term indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal(s) of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents; and if, after award by the Department, the PRINCIPAL shall enter into a contract in accordance with the terms of the bidding and contract documents including evidence of the required insurance coverages and providing such bond as specified with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof; or if, in the event of the failure of the PRINCIPAL to enter into such contract and to give the specified bond, the PRINCIPAL pays to the Department the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the Department may contract with another party to perform the work covered by said bid proposal, then this obligation shall be null and void, otherwise, it shall remain in full force and effect.

IN THE EVENT the Department determines the PRINCIPAL has failed to comply with any requirement as set forth in the preceding paragraph, then Surety shall pay the penal sum to the Department within fifteen (15) days of written demand therefor. If Surety does not make full payment within such period of time, the Department may bring an action to collect the amount owed. Surety is liable to the Department for all its expenses, including attorney's fees, incurred in any litigation in which it prevails either in whole or in part.

In TESTIMONY WHEREOF, the said PRINCIPAL has caused this instrument to be signed by its officer _____ day of _____ A.D., _____.

In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer _____ day of _____ A.D., _____.

(Company Name)

(Company Name)

By _____
(Signature and Title)

By _____
(Signature of Attorney-in-Fact)

Notary for PRINCIPAL

Notary for SURETY

STATE OF _____
COUNTY OF _____

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)

Signed and attested before me on _____ (date)

by _____
(Name of Notary Public)

by _____
(Name of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Date Commission Expires)

(Date Commission Expires)

In lieu of completing the above section of the Annual Proposal Bid Bond form, the Principal may file an Electronic Bid Bond. By signing the proposal(s) the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.

Electronic Bid Bond ID #	Company/Bidder Name	Signature and Title
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This bond may be terminated, at Surety's request, upon giving not less than thirty (30) days prior written notice of the cancellation/termination of the bond. Said written notice shall be issued to the Illinois Department of Transportation, Chief Contracts Official, 2300 South Dirksen Parkway, Springfield, Illinois, 62764, and shall be served in person, by receipted courier delivery or certified or registered mail, return receipt requested. Said notice period shall commence on the first calendar day following the Department's receipt of written cancellation/termination notice. Surety shall remain firmly bound to all obligations herein for proposals submitted prior to the cancellation/termination. Surety shall be released and discharged from any obligation(s) for proposals submitted for any letting or date after the effective date of cancellation/termination.



PROPOSALS

for construction work advertised for bids by the
Illinois Department of Transportation

Item No.	Item No.	Item No.

Submitted By:

Name:
Address:
Phone No.

Bidders should use an IDOT proposal envelope or affix this form to the front of a 10" x 13" envelope for the submittal of bids. If proposals are mailed, they should be enclosed in a second or outer envelope addressed to:

Engineer of Design and Environment - Room 326
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764

NOTICE

Individual bids, including Bid Bond and/or supplemental information if required, should be securely stapled.

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

None of the following material needs to be returned with the bid package unless the special provisions require documentation and/or other information to be submitted.

Contract No. BO003
Bolingbrook's Clow International Airport
Bolingbrook, Illinois
Will County
Illinois Project No. 1C5-4303
SBG Project No. 3-17-SBGP-TBD



Illinois Department of Transportation

SUBCONTRACTOR DOCUMENTATION

Public Acts 96-0795, 96-0920, and 97-0895 enacted substantial changes to the provisions of the Code (30 ILCS 500). Among the changes are provisions affecting subcontractors. The Contractor awarded this contract will be required as a material condition of the contract to implement and enforce the contract requirements applicable to subcontractors that entered into a contractual agreement with a total value of \$50,000 or more with a person or entity who has a contract subject to the Code and approved in accordance with Section 80-01 of the Illinois Standard Specifications for Construction of Airports.

If the Contractor seeks approval of subcontractors to perform a portion of the work, and approval is granted by the Department, the Contractor shall provide a copy of the subcontract to the Illinois Department of Transportation's CPO upon request within 15 calendar days after execution of the subcontract.

Financial disclosures required pursuant to Section 50-35 of the Code must be submitted for all applicable subcontractors. The subcontract shall contain the certifications required to be made by subcontractors pursuant to Article 50 of the Code. This Notice to Bidders includes a document incorporating all required subcontractor certifications and disclosures for use by the Contractor in compliance with this mandate. The document is entitled State Required Ethical Standards Governing Subcontractors.

RETURN WITH SUBCONTRACT

STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

Article 50 of the Code establishes the duty of all State CPOs, SPOs, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

The certifications hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed should the Department approve the subcontractor. The CPO may terminate or void the contract approval if it is later determined that the bidder or subcontractor rendered a false or erroneous certification. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

Section 50-2 of the Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible CPO whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

A. Bribery

Section 50-5. Bribery.

(a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

(1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

(2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

(b) Businesses. No business shall be barred from contracting with any unit of State or local government, or subcontracting under such a contract, as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

(1) the business has been finally adjudicated not guilty; or

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract to which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

(c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50.5.

B. Felons

Section 50-10. Felons.

(a.) Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

(b.) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

RETURN WITH SUBCONTRACT

C. Debt Delinquency

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The bidder or contractor or subcontractor, respectively, further acknowledges that the CPO may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

D. Prohibited Bidders, Contractors and Subcontractors

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

The undersigned, on behalf of the subcontracting company, has read and understands the above certifications and makes the certifications as required by law.

<hr/>		
Name of Subcontracting Company		
<hr/>		<hr/>
Authorized Officer		Date

RETURN WITH SUBCONTRACT

SUBCONTRACTOR DISCLOSURES

I. DISCLOSURES

- A. The disclosures hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed. The subcontractor further certifies that the Department has received the disclosure forms for each subcontract.

The CPO may void the bid, contract, or subcontract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, CPO may void the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all subcontracts with a total value of \$50,000 or more from subcontractors identified in Section 20-120 of the Code shall be accompanied by disclosure of the financial interests of the subcontractor. This disclosed information for the subcontractor, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the Prime Contractor's contract. Furthermore, pursuant to this Section, the Procurement Policy Board may recommend to allow or void a contract or subcontract based on a potential conflict of interest.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the subcontracting entity or its parent entity, whichever is less, unless the subcontractor is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

The current annual salary of the Governor is \$177,412.00.

In addition, all disclosures shall indicate any other current or pending contracts, subcontracts, proposals, leases, or other ongoing procurement relationships the subcontracting entity has with any other unit of state government and shall clearly identify the unit and the contract, subcontract, proposal, lease, or other relationship.

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. **The forms must be included with each bid.**

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the subcontractor is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on the second page of Form A must be signed and dated by a person that is authorized to execute contracts for the subcontracting company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity?
YES _____ NO _____
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES _____ NO _____
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the subcontracting entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES _____ NO _____
4. Does anyone in your organization receive greater than 5% of the subcontracting entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES _____ NO _____

(Note: Only one set of forms needs to be completed per person per subcontract even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The subcontractor must determine each individual in the subcontracting entity or the subcontracting entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable.** The person signing can be, but does not have to be, the person for which the form is being completed. The subcontractor is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the NOT APPLICABLE STATEMENT on page 2 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

RETURN WITH SUBCONTRACT

Form B: Instructions for Identifying Other Contracts & Procurement Related Information

Disclosure Form B must be completed for each subcontract submitted by the subcontracting entity. *Note: Checking the NOT APPLICABLE STATEMENT on Form A does not allow the subcontractor to ignore Form B. Form B must be completed, checked, and dated or the subcontract will not be approved.*

The Subcontractor shall identify, by checking Yes or No on Form B, whether it has any pending contracts, subcontracts, leases, bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the subcontractor only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the subcontractor must list all non-IDOT State of Illinois agency pending contracts, subcontracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts or subcontracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included.

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**Form A
Subcontractor: Financial
Information & Potential Conflicts
of Interest Disclosure**

Subcontractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). Subcontractors desiring to enter into a subcontract of a State of Illinois contract must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all open-ended contracts. **A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.**

The current annual salary of the Governor is \$177,412.00.

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the SUBCONTRACTOR (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than 60% of the annual salary of the Governor. **(Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)**

FOR INDIVIDUAL (type or print information)	
NAME:	_____
ADDRESS	_____
Type of ownership/distributable income share:	
stock _____	sole proprietorship _____ Partnership _____ other: (explain on separate sheet):
% or \$ value of ownership/distributable income share: _____	

2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services. Yes _____ No _____

If your answer is yes, please answer each of the following questions.

- Are you currently an officer or employee of either the Capitol Development Board or the Illinois State Toll Highway Authority? Yes _____ No _____
- Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, provide the name the State agency for which you are employed and your annual salary _____

RETURN WITH SUBCONTRACT

- 3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor? Yes _____ No _____
- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes _____ No _____

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment services in the previous 2 years. Yes _____ No _____

If your answer is yes, please answer each of the following questions.

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois State Toll Highway Authority? Yes _____ No _____
- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____
- 3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes _____ No _____
- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes _____ No _____

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years. Yes _____ No _____

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes _____ No _____

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes _____ No _____

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes _____ No _____

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government. Yes _____ No _____

RETURN WITH SUBCONTRACT

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes _____ No _____

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes _____ No _____

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes _____ No _____

3. Communication Disclosure.

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s): _____

RETURN WITH SUBCONTRACT

4. Debarment Disclosure. For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below:

Name of person(s): _____

Nature of disclosure: _____

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.

Completed by:

Signature of Individual or Authorized Officer

Date

NOT APPLICABLE STATEMENT

Under penalty of perjury, I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the SUBCONTRACTOR listed on the previous page.

Signature of Authorized Officer

Date

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Subcontractor: Other Contracts & Procurement Related Information Disclosure

Form with fields: Subcontractor Name, Legal Address, City, State, Zip, Telephone Number, Email Address, Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The SUBCONTRACTOR shall identify whether it has any pending contracts, subcontracts, including leases, bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes _____ No _____

If "No" is checked, the subcontractor only needs to complete the signature box on the bottom of this page.

2. If "Yes" is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature box with fields: Signature of Authorized Officer, Date

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership.

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

Yes No N/A (Form A disclosure(s) established 100% ownership)



NOTICE TO BIDDERS

1. **TIME AND PLACE OF OPENING BIDS.** Sealed proposals for the improvement described herein will be received by the Department of Transportation. Electronic bids are to be submitted to the electronic bidding system (ICX-Integrated Contractors Exchange). Paper-based bids are to be submitted to the Chief Procurement Officer for the Department of Transportation in care of the Chief Contracts Official at the Harry R. Hanley Building, 2300 South Dirksen Parkway in Springfield, Illinois until 10:00 o'clock a.m., June 13, 2014. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.

2. **DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. BO003
Bolingbrook's Clow International Airport
Bolingbrook, Illinois
Will County
Illinois Project No. 1C5-4303
SBG Project No. 3-17-SBGP-TBD**

Construct Replacement Runway 18-36

3. **INSTRUCTIONS TO BIDDERS.**

(a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 10-18 of the Illinois Standard Specifications for Construction of Airports, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.

(b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.

4. **AWARD CRITERIA AND REJECTION OF BIDS.** This contract will be awarded within 60 calendar days to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the proposal and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities. After the 60 day award period has expired, the low bidder has the option to continue to hold his/her bid or request to be released from the bid obligation. Requests to withdraw a bid after the 60 day award period has expired must be made in writing to IDOT's Division of Aeronautics.

5. **PRE-BID CONFERENCE.** There will be a pre-bid conference held at N/A at the Bolingbrook's Clow International Airport administration building. For engineering information, contact Ronald M. Hudson, AICP of Hanson Professional Services, Inc. at (630) 368-2059.

6. **DISADVANTAGED BUSINESS POLICY.** The DBE goal for this contract is 10.0%.

7. **SPECIFICATIONS AND DRAWINGS.** The work shall be done in accordance with the Illinois Standard Specifications for Construction of Airports, the Illinois Division of Aeronautics Supplemental Specifications and Recurring Special Provisions, the Special Provisions dated May 9, 2014 and the Construction Plans dated May 9, 2014 as approved by the Department of Transportation, Division of Aeronautics.

8. BIDDING REQUIREMENTS AND BASIS OF AWARD. When alternates are included in the proposal, the following shall apply:

a. Additive Alternates

(1) Bidders must submit a bid for the Base Bid and for all Additive Alternates.

(2) Award of this contract will be made to the lowest responsible qualified bidder computed as follows:

The lowest aggregate amount of (i) the Base Bid plus (ii) any Additive Alternate(s) which the Department elects to award.

The Department may elect not to award any Additive Alternates. In that case, award will be to the lowest responsible qualified bidder of the Base Bid.

b. Optional Alternates

(1) Bidders must submit a bid for the Base Bid and for either Alternate A or Alternate B or for both Alternate A and Alternate B.

(2) Award of this contract will be made to the lowest responsible qualified bidder computed as follows:

The lower of the aggregate of either (i) the Base Bid plus Alternate A or (ii) the Base Bid plus Alternate B.

9. CONTRACT TIME. The Contractor shall complete all work within the specified contract time. Any calendar day extension beyond the specified contract time must be fully justified, requested by the Contractor in writing, and approved by the Engineer, or be subject to liquidated damages.

The contract time for this contract is 218 calendar days.

10. INDEPENDENT WEIGHT CHECKS. The Department reserves the right to conduct random unannounced independent weight checks on any delivery for bituminous, aggregate or other pay item for which the method of measurement for payment is based on weight. The weight checks will be accomplished by selecting, at random, a loaded truck and obtaining a loaded and empty weight on an independent scale. In addition, the department may perform random weight checks by obtaining loaded and empty truck weights on portable scales operated by department personnel.

11. GOOD FAITH COMPLIANCE. The Illinois Department of Transportation has made a good faith effort to include all statements, requirements, and other language required by federal and state law and by various offices within federal and state governments whether that language is required by law or not. If anything of this nature has been left out or if additional language etc. is later required, the bidder/contractor shall cooperate fully with the Department to modify the contract or bid documents to correct the deficiency. If the change results in increased operational costs, the Department shall reimburse the contractor for such costs as it may find to be reasonable.

By Order of the
Illinois Department of Transportation

Susan R. Shea, Ph.D.,
Director, Division of Aeronautics

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS
FEDERAL-AID PROJECT

REQUIRED CONTRACT PROVISIONS FOR AIRPORT IMPROVEMENT PROGRAM AND FOR OBLIGATED SPONSORS

The work in this contract is included in the Federal Aviation Administration (FAA) Airport Improvement Program and is being undertaken and accomplished by the Illinois Department of Transportation, Division of Aeronautics and the Municipality, hereinafter called the Co-Sponsors, in accordance with the terms and conditions of a Grant Agreement between the Co-Sponsors and the United States, under the Airport and Airway Improvement Act of 1982 (Public Law 97-248; Title V, Section 501 et seq., September 3, 1982; 96 Stat. 671; codified at 49 U.S.C Section 2201 et seq.) and Part 152 of the Federal Aviation Regulations (14 CFR Part 152), pursuant to which the United States has agreed to pay a certain percentage of the costs of the Project that are determined to be allowable Project costs under the Act. The United States is not a party to this contract and no reference in this contract to FAA or representative thereof, or to any rights granted to the FAA or any representative thereof, or the United States, by the contract, makes the United States a party to this contract.

Federal laws and regulations require that certain contract provisions be included in certain contracts, requests for proposals, or invitations to bid whether or not the contracts are federally-funded. This requirement is established within the grant assurances. Other contract provisions are required to be in federally-funded contracts, including all subcontracts. For the purposes of determining requirements for contract provisions, the term contract includes subcontracts.

The type and magnitude of a project determines whether a provision is required. Certain Federal provisions have dollar thresholds that define when they are applicable.

Consent of Assignment. The Contractor shall obtain the prior written consent of the Co-Sponsors to any proposed assignment of any interest in or part of this contract.

PROVISIONS FOR ALL CONSTRUCTION CONTRACTS

ACCESS TO RECORDS AND REPORTS (Title 49 CFR Part 18.36(i), 49 CFR Part 18.42)

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Co-Sponsors, the Federal Aviation Administration, and the Comptroller General of the United States or any of their duly authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts, and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all other pending matters are closed.

BUY AMERICAN PREFERENCE (Title 49 USC § 50101)

- (a) The Aviation Safety and Capacity Expansion Act of 1990 provides that preference be given to steel and manufactured products produced in the United States when funds are expended pursuant to a grant issued under the Airport Improvement Program (AIP).
- (b) Any and all steel products used in the performance of this contract by the Contractor, subcontractors, producers, and suppliers are required to adhere to the Illinois Steel Products Procurement Act, which requires that all steel items be of 100 percent domestic origin and manufacture. Any products listed under the Federal Aviation Administration's (FAA) nationwide approved list of "Equipment Meeting Buy American Requirements" shall be deemed as meeting the requirements of the Illinois Steel Products Procurement Act.
- (c) The successful bidder will be required to assure that only domestic steel and domestically manufactured products will be used by the Contractor, subcontractors, producers, and suppliers in the performance of this contract. The North American Free Trade Agreement (NAFTA) specifically excluded federal grant programs such as the AIP. Therefore, NAFTA does not change the requirement to comply with the Buy American requirement in the Act. Exceptions to this are for products, other than steel, that:
 - (1) the FAA has determined, under the Aviation Safety and Capacity Expansion Act of 1990, are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality;
 - (2) the FAA has determined, under the Aviation Safety and Capacity Expansion Act of 1990, that domestic preference would be inconsistent with the public interest;
 - (3) the FAA has determined that inclusion of domestic material will increase the cost of the overall project contract by more than 25 percent; or
 - (4) the FAA has determined, under the Aviation Safety and Capacity Expansion Act of 1990,

- (i) the cost of components and subcomponents produced in the United States is more than 60 percent of the cost of all components of the facility or equipment, and
- (ii) final assembly of the facility or equipment has occurred in the United States.

The FAA must grant waivers for any items that are included in these above exceptions. Bidders can review items already approved under the FAA nationwide approved list of "Equipment Meeting Buy American Requirements" on the FAA website, which do not require a specific FAA waiver.

All waivers are the responsibility of the Contractor, must be obtained prior to the Notice to Proceed, and must be submitted to the Division of Aeronautics for review and approval before being forwarded to the FAA. Any products used on the project that cannot meet the domestic requirement, and for which a waiver prior to the Notice to Proceed was not obtained, will be rejected for use and subject to removal and replacement with no additional compensation, and the contractor deemed non-responsive.

CIVIL RIGHTS – GENERAL (49 USC § 47123)

The Contractor agrees that it will comply with the pertinent statutes, Executive Orders and such rules as are promulgated to ensure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance.

This provision binds the contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

This provision also obligates the tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport through the Airport Improvement Program, except where Federal assistance is to provide, or is in the form of personal property; real property or interest therein; structures or improvements thereon.

In these cases the provision obligates the party or any transferee for the longer of the following periods:

- (a) the period during which the property is used by the airport sponsor or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits; or
- (b) the period during which the airport sponsor or any transferee retains ownership or possession of the property.

CIVIL RIGHTS -TITLE VI ASSURANCES (49 CFR Part 21)

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor shall comply with the Regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
2. **Nondiscrimination:** The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Co-Sponsors or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Co-Sponsors or the FAA, as appropriate, and shall set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Co-Sponsor shall impose such contract sanctions as it or the FAA may determine to be appropriate, including, but not limited to:

- a. Withholding of payments to the contractor under the contract until the contractor complies, and/or
 - b. Cancellation, termination, or suspension of the contract, in whole or in part.
6. Incorporation of Provisions: The contractor shall include the provisions of paragraphs 1 through 5 in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Co-Sponsor or the FAA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Co-Sponsor to enter into such litigation to protect the interests of the Co-Sponsor and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

DISADVANTAGED BUSINESS ENTERPRISES (Title 49 CFR Part 26)

Contract Assurance (§26.13) - The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate.

Prompt Payment (§26.29) - The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 15 days from the receipt of each payment the prime contractor receives from the Department. The prime contractor agrees further to return retainage payments to each subcontractor within 15 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Department. This clause applies to both DBE and non-DBE subcontractors.

ENERGY CONSERVATION REQUIREMENTS (Title 49 CFR Part 18.36)

The contractor agrees to comply with mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163)

LOBBYING AND INFLUENCING FEDERAL EMPLOYEES (Title 49 CFR Part 20)

The bidder or offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have paid or will be paid, by or behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an Officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (20 CFR Part 1910)

The United States Department of Labor Occupational Safety & Health Administration (OSHA) can provide information any specific clauses or assurances pertaining to the Occupational Safety and Health Act of 1970 required to be inserted in solicitations, contracts or subcontracts.

RIGHTS TO INVENTIONS (49 CFR Part 18.36)

All rights to inventions and materials generated under this contract are subject to Illinois law and to regulations issued by the FAA and the Co-Sponsors of the Federal grant under which this contract is executed.

TRADE RESTRICTION CLAUSE (49 CFR Part 30)

The Contractor or subcontractor, by submission of an offer and/or execution of a contract, certifies that it:

- a. is not owned or controlled by one or more citizens or nationals of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);

- b. has not knowingly entered into any contract or subcontract for this project with a Contractor that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list.
- c. has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to a Contractor or subcontractor who is unable to certify to the above. If the Contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on the said list for use on the project, the Federal Aviation Administration may direct, through the Co-Sponsors, cancellation of the contract at no cost to the Government.

Further, the Contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The Contractor may rely upon the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The Contractor shall provide immediate written notice to the Co-Sponsors if the Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide immediate written notice to the Contractor, if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct, through this Co-Sponsor, cancellation of the contract or subcontract for default at no cost to the Government.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a Contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

VETERAN'S PREFERENCE (Title 49 U.S.C. 47112)

In the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Veterans of the Vietnam era and disabled veterans as defined in Section 515(c)(1) and (2) of the Airport and Airway Improvement Act of 1982. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

BAN ON TEXTING WHILE DRIVING

In accordance with Executive Order 13513, Federal Leadership on Reducing Text Messaging While Driving, October 1, 2009, and DOT Order 3902.10, Text Messaging While Driving, December 30, 2009, the Contractor or subcontractor is encouraged to:

1. Adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers including policies to ban text messaging while driving when performing any work for, or on behalf of, the Federal government, including work relating to a grant or subgrant.
2. Conduct workplace safety initiatives in a manner commensurate with the size of the business, such as:
 - a. Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and
 - b. Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.

The Contractor or subcontractor must insert the substance of this clause on banning texting when driving in all contracts and subcontracts.

PROVISIONS FOR CONSTRUCTION CONTRACTS EXCEEDING \$2,000

COPELAND "ANTI-KICKBACK" ACT (49 CFR § 18.36(i)(4), 29 CFR Parts 3 & 5)

The United States Department of Labor Wage and Hours Division oversees the Copeland "Anti-Kickback" Act requirements. All contracts and subcontracts must meet comply with the Occupational Safety and Health Act of 1970.

United States Department of Labor Wage and Hours Division can provide information regarding any specific clauses or assurances pertaining to the Copeland "Anti-Kickback" Act requirements required to be inserted in solicitations, contracts or subcontracts.

DAVIS BACON LABOR PROVISIONS (29 Part 5)

1. Minimum Wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provision of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraph 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1)The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2)The classification is utilized in the area by the construction industry; and

(3)The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding.

The Federal Aviation Administration shall upon its own action or written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime

Contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such work, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph 5.5(a)(3)(i) of Regulations, 29 CFR Part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor, or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

- (1) That the payroll for the payroll period contains the information required to be maintained under paragraph (3)(i) above and that such information is correct and complete;
- (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR Part 3;
- (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the (write the name of the agency) or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and Trainees

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as a apprentice in such

an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ration permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contract will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(5) Compliance with Copeland Act Requirements.

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

(6) Subcontracts.

The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR Part 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by an subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

(7) Contract Termination: Debarment.

A breach of these contract clauses paragraphs (1) through (10) of this section may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR Part 5.12.

(8) Compliance with Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by referenced in this contract.

(9) Disputes Concerning Labor Standards.

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of Eligibility.

(i) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE) (29 USC § 201, et seq)

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision shall be the minimum paid by contractors and subcontractors to laborers and mechanics.

The most current **General Wage Determination Decisions** (wage rates) are available on the IDOT web site. They are located on the Letting and Bidding page at <http://www.dot.state.il.us/desenv/delett.html>.

In addition, ten (10) days prior to the letting, the applicable Federal wage rates will be e-mailed to subscribers. It is recommended that all contractors subscribe to the Federal Wage Rates List or the Contractor's Packet through IDOT's subscription service.

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates. The instructions for subscribing are at <http://www.dot.state.il.us/desenv/subsc.html>.

PROVISIONS FOR CONSTRUCTION CONTRACTS EXCEEDING \$10,000

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION (Title 41 CFR Part 60-4, Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

APPENDIX A

The following goal for female utilization in each construction craft and trade shall apply to all Contractors holding Federal and federally-assisted construction contracts and subcontracts in excess of \$10,000. The goal is applicable to the Contractor's total on-site construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, federally assisted or nonfederally related construction contract or subcontract.

AREA COVERED (STATEWIDE)

Goals for Women apply nationwide.

GOAL

Goal (percent)

Female Utilization..... 6.9

APPENDIX B

Until further notice, the following goals for minority utilization in each construction craft and trade shall apply to all Contractors holding Federal and federally-assisted construction contracts and subcontracts in excess of \$10,000 to be performed in the respective

geographical areas. The goals are applicable to the Contractor's total on-site construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, federally-assisted or nonfederally related construction contract or subcontract.

<u>Economic Area</u>	<u>Goal (percent)</u>
056 Paducah, KY: Non-SMSA Counties - IL - Hardin, Massac, Pope KY - Ballard, Caldwell, Calloway, Carlisle, Crittenden, Fulton, Graves, Hickman, Livingston, Lyon, McCracken, Marshall	5.2
080 Evansville, IN: Non-SMSA Counties - IL - Edwards, Gallatin, Hamilton, Lawrence, Saline, Wabash, White IN - Dubois, Knox, Perry, Pike, Spencer KY - Hancock, Hopkins, McLean, Mublenberg, Ohio, Union, Webster	3.5
081 Terre Haute, IN: Non-SMSA Counties - IL - Clark, Crawford IN - Parke	2.5
083 Chicago, IL: SMSA Counties: 1600 Chicago, IL - IL - Cook, DuPage, Kane, Lake, McHenry, Will	19.6
3740 Kankakee, IL - IL - Kankakee	9.1
Non-SMSA Counties IL - Bureau, DeKalb, Grundy, Iroquois, Kendall, LaSalle, Livingston, Putnam IN - Jasper, Laporte, Newton, Pulaski, Starke	18.4
084 Champaign - Urbana, IL: SMSA Counties: 1400 Champaign - Urbana - Rantoul, IL - IL - Champaign	7.8
Non-SMSA Counties - IL - Coles, Cumberland, Douglas, Edgar, Ford, Piatt, Vermilion	4.8
085 Springfield - Decatur, IL: SMSA Counties: 2040 Decatur, IL - IL - Macon	7.6
7880 Springfield, IL - IL - Mendard, Sangamon	4.5
Non-SMSA Counties IL - Cass, Christian, Dewitt, Logan, Morgan, Moultrie, Scott, Shelby	4.0
086 Quincy, IL: Non-SMSA Counties	3.1
IL - Adams, Brown, Pike MO - Lewis, Marion, Pike, Ralls	

087 Peoria, IL:	
SMSA Counties:	
1040 Bloomington - Normal, IL -	2.5
IL - McLean	
6120 Peoria, IL -	4.4
IL - Peoria, Tazewell, Woodford	
Non-SMSA Counties -	3.3
IL - Fulton, Knox, McDonough, Marshall, Mason, Schuyler, Stark, Warren	
088 Rockford, IL:	
SMSA Counties:	
6880 Rockford, IL -	6.3
IL - Boone, Winnebago	
Non-SMSA Counties -	4.6
IL - Lee, Ogle, Stephenson	
098 Dubuque, IA:	
Non-SMSA Counties -	0.5
IL - JoDaviess	
IA - Atlamakee, Clayton, Delaware, Jackson, Winnesheik	
WI - Crawford, Grant, Lafayette	
099 Davenport, Rock Island, Moline, IA - IL:	
SMSA Counties:	
1960 Davenport, Rock Island, Moline, IA - IL -	4.6
IL - Henry, Rock Island	
IA - Scott	
Non-SMSA Counties -	3.4
IL - Carroll, Hancock, Henderson, Mercer, Whiteside	
IA - Clinton, DesMoines, Henry, Lee, Louisa, Muscatine	
MO - Clark	
107 St. Louis, MO:	
SMSA Counties:	
7040 St. Louis, MO - IL -	14.7
IL - Clinton, Madison, Monroe, St. Clair	
MO - Franklin, Jefferson, St. Charles, St. Louis, St. Louis City	
Non-SMSA Counties -	11.4
IL - Alexander, Bond, Calhoun, Clay, Effingham, Fayette, Franklin, Greene,	
Jackson, Jasper, Jefferson, Jersey, Johnson, Macoupin, Marion,	
Montgomery, Perry, Pulaski, Randolph, Richland, Union, Washington,	
Wayne, Williamson	
MO - Bollinger, Butler, Cape Girardeau, Carter, Crawford, Dent, Gasconade,	
Iron, Lincoln, Madison, Maries, Mississippi, Montgomery, Perry, Phelps,	
Reynolds, Ripley, St. Francois, St. Genevieve, Scott, Stoddard, Warren,	
Washington, Wayne	

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the provisions and specifications set forth in its federally assisted contracts, and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor will provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction contract and/or subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. This notification will list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the entire State of Illinois for the goal set forth in APPENDIX A and the county or counties in which the work is located for the goals set forth in APPENDIX B.

EQUAL EMPLOYMENT OPPORTUNITY (41 CFR Part 60-1.4, Executive Order 11246)

During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

3. The contractor will send to each labor union or representative of workers with which s/he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedure authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

7. The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provision, including sanctions for noncompliance: *Provided, however*, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

EQUAL EMPLOYMENT OPPORTUNITY SPECIFICATION (Title 41 CFR Part 60-4.3)

1. As used in these specifications:
 - a) "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b) "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c) "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
 - d) "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000. the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction Contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working as such sites or in such facilities.
 - b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractors may have taken.
 - d) Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
 - f) Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreements; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all

management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

- g) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
 - h) Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
 - i) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
 - j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
 - k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
 - l) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n) Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction Contractors and suppliers, including circulation of solicitations to minority and female Contractor associations and other business associations.
 - p) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a Contractor association, joint Contractor-union, Contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specified minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs.

Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy his requirement, Contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

NONSEGREGATED FACILITIES REQUIREMENT (41 CFR PART 60-1.8)

The federally-assisted construction contractor certifies that she or he does not maintain or provide, for his employees, any segregated facilities at any of his establishments and that she or he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally-assisted construction contractor certifies that she or he will not maintain or provide, for his employees, segregated facilities at any of his establishments and that she or he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The federally-assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms, and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directives or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason. The federally-assisted construction contractor agrees that (except where she or he has obtained identical certifications from proposed subcontractors for specific time periods) she or he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that she or he will retain such certifications in his files.

TERMINATION OF CONTRACT (Title 49 CFR Part 18.36)

1. The Co-Sponsor may, by written notice, terminate this contract in whole or in part at any time, either for the Co-Sponsor's convenience or because of failure to fulfill the contract obligations. Upon receipt of such notice services shall be immediately discontinued (unless the notice directs otherwise) and all materials as may have been accumulated in performing this contract, whether completed or in progress, delivered to the Co-Sponsor.
2. If the termination is for the convenience of the Co-Sponsor, an equitable adjustment in the contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed services.
3. If the termination is due to failure to fulfill the Contractor's obligations, the Co-Sponsor may take over the work and prosecute the same to completion by contract or otherwise. In such case, the Contractor shall be liable to the Co-Sponsor for any additional cost occasioned to the Co-Sponsor thereby.
4. If, after notice of termination for failure to fulfill contract obligations, it is determined that the Contractor had not so failed, the termination shall be deemed to have been effected for the convenience of the Co-Sponsor. In such event, adjustment in the contract price shall be made as provided in paragraph 2 of this clause.
5. The rights and remedies of the Co-Sponsor provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

PROVISIONS FOR CONSTRUCTION CONTRACTS EXCEEDING \$25,000

DEBARMENT AND SUSPENSION (2 CFR part 180 (Subpart C), 2 CFR part 1200, DOT Order 4200.5 DOT Suspension & Debarment Procedures & Ineligibility)

CERTIFICATE REGARDING DEBARMENT AND SUSPENSION (BIDDER OR OFFEROR)

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that at the time the bidder or offeror submits its proposal that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

CERTIFICATION REGARDING DEBARMENT AND SUSPENSION (SUCCESSFUL BIDDER REGARDING LOWER TIER PARTICIPANTS)

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>
2. Collecting a certification statement similar to the Certificate Regarding Debarment and Suspension (Bidder or Offeror), above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA later determines that an lower tier participant failed to tell a higher tier that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedy, including suspension and debarment

PROVISIONS FOR CONSTRUCTION CONTRACTS EXCEEDING \$100,000

BREACH OF CONTRACT TERMS (49 CFR Part 18.36 (i) (1))

Any violation or breach of terms of this contract on the part of the Contractor or its subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement. The duties and obligations imposed by the contract documents and the rights and remedies thereunder are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

CLEAN AIR AND WATER POLLUTION CONTROL (49 CFR § 18.36(i)(12))

Contractors and subcontractors agree:

1. That any facility to be used in the performance of the contract or subcontract or to benefit from the contract is no listed on the Environmental Protection Agency (EPA) List of Violating Facilities;
2. To comply with all the requirements of Section 114 of the Clean Air Act, as amended, 42 USC 1857 et seq. and Section 308 of the Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq. relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in Section 114 and Section 308 of the Acts, respectively, and all regulations and guidelines issued thereunder.
3. That, as a condition for the award of this contract, the contractor or subcontractor will notify the awarding official of the receipt of any communication from the EPA indicating that a facility to be used for the performance of or benefit from the contract is under consideration to be listed on the EPA List of Violating Facilities
4. To include or cause to be included in any construction contract or subcontract which exceeds \$100,000 the aforementioned criteria and requirements.

CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS (49 CFR § 18.36 (i)(6))

1. Overtime requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek

2. Violations: Liability for Unpaid Wages; Liquidated Damages:

In the event of any violation of the clause set forth in paragraph 1 above, the Contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 above, in the sum of \$10.00 for each calendar day on which such employee was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 1 above.

3. Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration or the Co-Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 above.

4. Subcontracts.

The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph 1 through 4 and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section.

5. Working Conditions

No Contractor or subcontractor may require any laborer or mechanic employed in the performance of any contract to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to his health or safety as determined under construction safety and health standards (29 CFR 1926) issued by Department of Labor.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF AERONAUTICS

REQUIRED CONTRACT PROVISIONS FOR STATE FUNDED AIRPORT CONSTRUCTION PROJECTS

The following provisions are State of Illinois requirements and are in addition to the REQUIRED CONTRACT PROVISIONS FOR AIRPORT IMPROVEMENT PROGRAM AND FOR OBLIGATED SPONSORS

DISADVANTAGED BUSINESS POLICY

NOTICE: This proposal contains the special provision entitled "Disadvantaged Business Participation." Inclusion of this Special Provision in this contract satisfies the obligations of the Department of Transportation under federal law as implemented by 49 CFR 23 and under the Illinois "Minority and Female Business Enterprise Act."

POLICY: It is public policy that the businesses defined in 49 CFR Part 23 shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with State or Federal funds. Consequently, the requirements of 49 CFR Part 23 apply to this contract.

OBLIGATION: The Contractor agrees to ensure that the businesses defined in 49 CFR Part 23 have the maximum opportunity to participate in the performance of this contract. In this regard, the Contractor shall take all necessary and reasonable steps, in accordance with 49 CFR Part 23, to ensure that the said businesses have the maximum opportunity to compete for and perform portions of this contract. The Contractor shall not discriminate on the basis of race, color, national origin, or sex in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

The Contractor shall include the above Policy and Obligation statements of this Special Provision in every subcontract, including procurement of materials and leases of equipment.

DBE/WBE CONTRACTOR FINANCE PROGRAM: On contracts where a loan has been obtained through the DBE/WBE Contractor Finance Program, the Contractor shall cooperate with the Department by making all payments due to the DBE/WBE Contractor by means of a two-payee check payable to the Lender (Bank) and the Borrower (DBE/WBE Contractor).

BREACH OF CONTRACT: Failure to carry out the requirements set forth above and in the Special Provision shall constitute a breach of contract and may result in termination of the contract or liquidated damages as provided in the special provision.

SPECIAL PROVISION FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION

Revised: August 2, 2011

FEDERAL OBLIGATION: The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE: The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor:

The Contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

OVERALL GOAL SET FOR THE DEPARTMENT: As a requirement of compliance with 49 CFR part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR: This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform **10.0%** of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

- (a) The bidder documents that enough DBE participation has been obtained to meet the goal; or
- (b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES: Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217)785-4611, or by visiting the Department's web site at www.dot.il.gov.

BIDDING PROCEDURES: Compliance with this Special Provision is a material bidding requirement. The failure of the bidder to comply will render the bid not responsive.

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.
- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:
 - (1) The name and address of DBE firms that will participate in the contract;
 - (2) A description, including pay item numbers, of the work each DBE will perform;
 - (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
 - (4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
 - (5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
 - (6) If the contract goal is not met, evidence of good faith efforts.

GOOD FAITH EFFORT PROCEDURE: The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document the good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan commits sufficient commercially useful DBE work performance to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR part 26, Appendix A.

The Utilization Plan will not be approved by the Department if the Utilization Plan does not commit sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts, in other words, efforts done as a matter of form,

are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

(a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.

(1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.

(2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.

(3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

(4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable.

Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.

(5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.

(6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.

(7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.

(8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.

(b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision and that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons why good faith efforts have not been found.

(c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the

Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR part 26.55, the provisions of which govern over the summary contained herein.

- (a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:
 - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
 - (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement.
- (e) DBE as a material supplier:
 - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
 - (2) 100 percent goal credit for the cost of materials or supplies obtained from a DBE manufacturer.
 - (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement.

- (a) **NO AMENDMENT.** No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) **TERMINATION OR REPLACEMENT.** The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in the Special Provision.
- (c) **CHANGES TO WORK.** Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then

a Request for Approval of Subcontractor, Department form BC 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, then a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

- (d) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
- (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
 - (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
 - (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonably competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.
- (e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor, with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the prime Contractor's reasonable, nondiscriminatory bond requirements;
- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to CFR Parts 180, 215 and 1200 or applicable state law;
- (6) You have determined that the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;
- (10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated, or fails to complete its work on the contract for any reason the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established contract goal.

- (f) **PAYMENT RECORDS.** The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) **ENFORCEMENT.** The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (h) **RECONSIDERATION.** Notwithstanding any other provision of the contract, including but not limited to Article 50-17 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

SPECIAL PROVISION FOR SUBCONTRACTOR MOBILIZATION PAYMENTS

Revised: April 1, 2011

To account for the preparatory work and the operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting according to Section 80-01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be equal to 3 percent of the amount of the subcontract reported on form AER 260A submitted for the approval of the subcontractor's work.

The mobilization payment to the subcontractor is an advance payment of the reported amount of the subcontract and is not a payment in addition to the amount of the subcontract; therefore, the amount of the advance payment will be deducted from future progress payments.

This provision shall be incorporated directly or by reference into each subcontract approved by the Department

SPECIAL PROVISION FOR PAYMENTS TO SUBCONTRACTORS

Revised: January 1, 2006

Federal regulations found at 49 CFR §26.29 mandate the Department to establish a contract clause to require Contractors to pay subcontractors for satisfactory performance of their subcontracts and to set the time for such payments.

State law also addresses the timing of payments to be made to subcontractors and material suppliers. Section 7 of the Prompt Payment Act, 30 ILCS 540/7, requires that when a Contractor receives any payment from the Department, the Contractor shall make corresponding, proportional payments to each subcontractor and material supplier performing work or supplying material within 15 calendar days after receipt of the Department payment. Section 7 of the Act further provides that interest in the amount of two percent per month, in addition to the payment due, shall be paid to any subcontractor or material supplier by the Contractor if the payment required by the Act is withheld or delayed without reasonable cause. The Act also provides that the time for payment required and the calculation of any interest due applies to transactions between subcontractors and lower-tier subcontractors and material suppliers throughout the contracting chain.

This Special Provision establishes the required federal contract clause, and adopts the 15 calendar day requirement of the State Prompt Payment Act for purposes of compliance with the federal regulation regarding payments to subcontractors. This contract is subject to the following payment obligations.

When progress payments are made to the Contractor according to Article 90-07 of the Standard Specifications, the Contractor shall make a corresponding payment to each subcontractor and material supplier in proportion to the work satisfactorily completed by each subcontractor and for the material supplied to perform any work of the contract. The proportionate amount of partial payment due to each subcontractor and material supplier throughout the contracting chain shall be determined by the quantities measured or otherwise determined as eligible for payment by the Department and included in the progress payment to the Contractor. Subcontractors and material suppliers shall be paid by the Contractor within 15 calendar days after the receipt of payment from the Department. The Contractor shall not hold retainage from the subcontractors. These obligations shall also apply to any payments made by subcontractors and material suppliers to their subcontractors and material suppliers; and to all payments made to lower tier

subcontractors and material suppliers throughout the contracting chain. Any payment or portion of a payment subject to this provision may only be withheld from the subcontractor or material supplier to whom it is due for reasonable cause.

This Special Provision does not create any rights in favor of any subcontractor or material supplier against the State or authorize any cause of action against the State on account of any payment, nonpayment, delayed payment, or interest claimed by application of the State Prompt Payment Act. The Department will not approve any delay or postponement of the 15 day requirement except for reasonable cause shown after notice and hearing pursuant to Section 7(b) of the State Prompt Payment Act. State law creates other and additional remedies available to any subcontractor or material supplier, regardless of tier, who has not been paid for work properly performed or material furnished. These remedies are a lien against public funds set forth in Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c), and a recovery on the Contractor's payment bond according to the Public Construction Bond Act, 30 ILCS 550.

SPECIAL PROVISION FOR ADDITIONAL STATE REQUIREMENTS FOR FEDERAL-AID CONSTRUCTION CONTRACTS

Effective: February 1, 1969

Revised: January 1, 2010

EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with any provisions of this Equal Employment Opportunity Clause, the Illinois Fair Employment Practices Act or the Fair Employment Practices Commission's Rules and Regulations for Public Contracts, the Contractor may be declared nonresponsible and therefore ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or avoided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

During the performance of this contract, the Contractor agrees as follows:

(1) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

(2) That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (in accordance with the Commission's Rules and Regulations for Public Contracts) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.

(3) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin or ancestry.

(4) That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Fair Employment Practices Commission and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

(5) That it will submit reports as required by the Illinois Fair Employment Practices Commission's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Commission or the contracting agency, and in all respects comply with the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts.

(6) That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Illinois Fair Employment Practices Commission for purposes of investigation to ascertain compliance with the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts.

(7) That it will include verbatim or by reference the provisions of paragraphs 1 through 7 of this clause in every performance subcontract as defined in Section 2.10(b) of the Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every subcontractor; and that it will also so include the provisions or paragraphs 1, 5, 6 and 7 in every supply subcontract as defined in Section 2.10(a) of the Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every such subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by all its subcontractors; and further it will promptly notify the contracting agency and the Illinois Fair Employment Practices Commission in the event any subcontractor fails or refuses to comply therewith. In addition, no Contractor will utilize any subcontractor declared by the Commission to be nonresponsible and therefore ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

SPECIAL PROVISION FOR NPDES CERTIFICATION

In accordance with the provisions of the Illinois Environmental Protection Act, the Illinois Pollution Control Board Rules and Regulations (35 Ill. Adm. Code, Subtitle C, Chapter I), and the Clean Water Act, and the regulations thereunder, this certification is required for all construction contracts that will result in the disturbance of one or more acres total land area.

The bidder certifies under penalty of law that he/she understands the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR100000) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

The Airport Owner or its Agent will:

- 1) prepare, sign and submit the Notice of Intent (NOI)
- 2) conduct site inspections and complete and file the inspection reports
- 3) submit Incidence of Non-Compliance (ION) forms
- 4) submit Notice of Termination (NOT) form

Prior to the issuance of the Notice-to-Proceed, for each erosion control measure identified in the Storm Water Pollution Prevention Plan, the contractor or subcontractor responsible for the control measure(s) must sign the above certification (forms to be provided by the Department).

SPECIAL PROVISION FOR COMPLETION TIME VIA CALENDAR DAYS

It being understood and agreed that the completion within the time limit is an essential part of the contract, the bidder agrees to complete the work within 218 calendar days, unless additional time is granted by the Engineer in accordance with the provisions of the specifications. In case of failure to complete the work on or before the time named herein, or within such extra time as may have been allowed by extensions, the bidder agrees that the Department of Transportation shall withhold from such sum as may be due him/her under the terms of this contract, the costs, as set forth in Section 80-09 Failure to Complete on Time of the Standard Specifications, which costs shall be considered and treated not as a penalty but as damages due to the State from the bidder by reason of the failure of the bidder to complete the work within the time specified in the contract.

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
SECTION 80 PROSECUTION AND PROGRESS

This Special Provision amends the provisions of the Standard Specifications for Construction of Airports, adopted April 1, 2012 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

80-09 FAILURE TO COMPLETE ON TIME.

DELETE: "See contract documents for current schedule of deductions."

ADD:

Schedule of Deductions for Each Day of Overrun in Contract Time			
Original Contract Amount		Daily Charges	
From More Than	To and Including	Calendar Day	Work Day
\$ 0	\$ 100,000	\$ 475	\$ 675
100,000	500,000	750	1,050
500,000	1,000,000	1,025	1,425
1,000,000	3,000,000	1,275	1,725
3,000,000	6,000,000	1,425	2,000
6,000,000	12,000,000	2,300	3,450
12,000,000	And over	6,775	9,525

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
SECTION 90 MEASUREMENT AND PAYMENT

This Special Provision amends the provisions of the Standard Specifications for Construction of Airports, adopted April 1, 2012 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

90-07 PARTIAL PAYMENTS.

DELETE: The entire section.

ADD: Partial payments will be made to the Contractor at least once each month as the work progresses. The payments will be based upon estimates, prepared by the Resident Engineer, 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 the Section 90-08 PAYMENT FOR MATERIALS ON HAND. From the amount of partial payment so determined on Federal-Aid projects, there shall be deducted an amount up to ten percent of the cost of the completed work which shall be retained until all conditions necessary for financial closeout of the project are satisfied. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1,000.00 will be approved for payment other than the final payment. A final voucher for under \$5.00 shall not be paid except through electronic funds transfer. (15 ILCS 405/9(b-1))

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

No partial payment shall bind the Department 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 Section 90-09 ACCEPTANCE AND FINAL PAYMENT.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610) progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor, the Contractor's obligation to pay the subcontractor, and the Contractor's or subcontractor's total loan indebtedness to the Department. The offset shall continue until such time as the entire loan indebtedness is satisfied. The Department will notify the Contractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

In accordance with 49 USC § 47111, the Department will not make payments totaling more than 90 percent of the contract until all conditions necessary for financial closeout of the project are satisfied.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved.

90-10 TRUST AGREEMENT OPTION.

DELETE: The entire section.

SECTION III

SPECIAL PROVISIONS

BOLINGBROOK'S CLOW INTERNATIONAL AIRPORT (1C5)
BOLINGBROOK, WILL COUNTY, ILLINOIS

CONSTRUCT REPLACEMENT RUNWAY 18-36

ILLINOIS PROJECT NO. 1C5-4303
SBG PROJECT NO. 3-17-SBGP-TBD

May 9, 2014



Hanson Professional Services Inc.
815 Commerce Drive, Suite 200
Oak Brook, Illinois 60523
630.990.3800

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GENERAL

These Special Provisions, together with applicable Standard Specifications, Manuals, Policies, Memorandums, Worksheets, Rules and Regulations, Contract Requirements for Airport Improvement Projects, Payroll Requirements and Minimum Wage Rates, which are hereto attached or which by reference are herein incorporated, cover the requirements of the State of Illinois, Department of Transportation (IDOT), Division of Aeronautics (Division) for the following improvement project at Bolingbrook's Clow International Airport, Bolingbrook, Will County, Illinois:

☐ **Construct Replacement Runway 18-36**

This project is to replace Runway 18-36 at Bolingbrook's Clow International Airport including, among other incidental work, the following items:

- Placement of temporary soil erosion control measures.
- Removal of trees.
- Removal of existing runway and connecting taxiway pavements.
- Removal of existing runway lighting.
- Provision of unclassified excavation, on-site borrow excavation and borrow excavation.
- Construction of new storm sewer system.
- Construction of new subsurface underdrain pipe system and structures.
- Addition of new granular drainage subbase, crushed aggregate base course, and hma base and surface course pavements.
- Placement of pavement markings.
- Addition of reflective markers, MIRL and MITL edge lights, threshold lights, and Airfield Guidance Signs.
- Installation of new airfield cable in unit duct.
- Construction of airfield electrical vault and installation and testing of airfield electrical vault equipment.
- Topsoiling, seeding and mulching, and sodding along new pavement edges.

As Additive Alternate No. 01, the HMA paving of Access Taxiway B shall also be furnished. The award of this additive will be determined in accordance with the Contract documents.

This Project is actively seeking FAA discretionary funding, and contract award will not occur until all funds are in place. While these funds are being finalized, it is not expected that construction will begin before May, 2015.

GOVERNING SPECIFICATIONS AND RULES AND REGULATIONS

The Illinois Standard Specifications for Construction of Airports, State of Illinois Department of Transportation, Division of Aeronautics, adopted April 1, 2012, as revised (Standard Specifications), shall govern the Project except as otherwise revised or noted in these Special Provisions dated May 9, 2014. All references to IDOT Specifications refer to Standard Specifications for Road and Bridge Construction, Illinois Department of Transportation, adopted January 1, 2012, as revised. Resolution of conflicts with any part or parts of said Specifications shall be in accordance with Section 50-03 of the Standard Specifications.

ILLINOIS DEPARTMENT OF TRANSPORTATION, DIVISION OF AERONAUTICS
MANUALS, POLICIES, MEMORANDUMS AND WORKSHEETS

The Illinois Department of Transportation, Division of Aeronautics, Manuals, Policies, Memorandums and Worksheets that are incorporated into this Project by reference are listed below. Also provided is a notation as to whether all or a portion of each applicable Manual, Policy, Memorandum and Worksheet has been modified by these Special Provisions.

It is the Bidder's and Contractor's responsibility to review and incorporate into their bid and work, the requirements contained in these Manuals, Policies, Memorandums and Worksheets. Copies of each manual, policy, memorandum and worksheet can be found on the Illinois Division of Aeronautics webpage at <http://www.dot.state.il.us/aero/aviamanual.html>.

Manuals

<u>Title</u>	<u>Modified by Special Provisions</u>
Airport Construction Documentation Manual <i>(Updated 10/2012)</i>	No
Manual for Documentation of Airport Materials <i>(Updated 4/01/2010)</i>	No

Policies

<u>No.</u>	<u>Title</u>	<u>Modified by Special Provisions</u>
18-08.1	Acceptance Procedure for Finely Divided Minerals Used in Portland Cement Concrete and Other Applications <i>(Updated 1/01/2012)</i>	No
87-2	Density Acceptance of Bituminous Pavements <i>(Updated 2/20/2014)</i>	No
87-4	Determination of Bulk Specific Gravity (d) of Compacted Bituminous Mixes <i>(Updated 2/20/2014)</i>	No
96-1	Item 610, Structural Portland Cement Concrete: Job Mix Formula Approval and Production Testing <i>(Updated 4/01/2010)</i>	No
96-3	Requirements for Quality Assurance on Projects with Bituminous Concrete Paving <i>(Updated 2/20/2014)</i>	No
97-2	Pavement Marking Paint Acceptance	No
2001-1	Requirements for Cold Weather Concreting <i>(Updated 4/01/2010)</i>	No
2003-1	Requirements for Laboratory, Testing, Quality Control, and Paving of Superpave Bituminous Concrete Mixtures for Airports <i>(Updated 4/01/2010)</i>	No

Memorandums and Worksheets

<u>Title</u>	<u>Modified by Special Provisions</u>
Bituminous Mix Design Memorandum	No
Comparison Samples Memorandum <i>(Updated 2/20/2014)</i>	No
Cold Weather Concreting Plan	No
Hot Mix Asphalt (HMA) Quality Control Plan Template	No

DIVISION I

GENERAL PROVISIONS

SECTION 10

DEFINITION OF TERMS

The Work shall be provided in accordance with Section 10 of the Standard Specifications.

SECTION 20

ADVERTISEMENT, BIDDING, AWARD, AND CONTRACT EXECUTION

The Work shall be provided in accordance with Section 20 of the Standard Specifications.

SECTION 40

SCOPE OF WORK

Revise Section 40 of the Standard Specifications as follows:

40-05 MAINTENANCE OF TRAFFIC. Add the following Paragraphs:

"Construction of the project shall be performed in accordance with the guidelines specified in FAA Advisory Circular 150/5370-2 (current issue). Any Contractor activities required for Project safety shall be incidental to the Contract.

"A Construction Phasing Plan detailing the sequencing of the Contractor's Work throughout the Project is included in the Plans. The Contractor shall provide his written acceptance of the Project Construction Staging Plan at the Pre-construction Conference. Any and all changes to the Construction Phasing Plan that may be requested by the Contractor must be approved by the Project Engineer and the Airport Owner. It shall be the Contractor's responsibility to provide sufficient advance notice of any proposed phasing change to permit consideration and approval by the Project Engineer and the Airport Owner. The Contractor shall not be entitled to any extra compensation nor extension to the Contract time because of a staging change request nor for any time necessary in receiving the required approvals.

"The Contractor shall not have access to any part of the active airfield (runways, taxiways or aprons) for any equipment or personnel without the approval of the Resident Engineer and the Airport Owner. Activities within the Airport Operations Area (AOA) are subject to federal access control. Because of the high requirements for airport security and safety, the following requirements must be adhered to:

- All employees of the Contractor shall park their personal vehicles in the designated equipment parking and storage area. Each person or vehicle entering the Contractor area shall do so in accordance with the policies and procedures of the Airport Owner. The Contractor will transport the workers from the parking areas to the work area. Only Contractor vehicles will be allowed outside of the proposed equipment storage and parking areas.
- The Contractor will be required to be in contact with Airport Operations. This will keep the Contractor in contact with Airport personnel and enable the Airport personnel to immediately contact the Contractor in case of an aeronautical emergency that would require action by the Contractor and/or his personnel.

"The Contractor shall erect and maintain, at no cost to the Contract, directional and informational signs for the Contractor's access routes at the existing construction entrance and for the Contractor's route within the Airport, as noted on the Plans, or as directed by the Resident Engineer. The Contractor shall secure any permits for hauling on local streets or State highways as required.

"The Contractor shall keep all of his equipment and personnel at least 15 feet from the edge of any active roadway or auto parking pavement. When his activities require working within 15 feet of the road/pavement edge, the Contractor shall provide for traffic control in accordance with IDOT Specifications (highway standards).

"Work in or near active runways will not be permitted during this Project, except as shown in the Construction and Safety Notes and Details and the Phasing Plan, and as recommended in FAA Advisory Circular 150/5370-2 (current issue), "Operational Safety on Airports During Construction".

"The Contractor shall remain within the Construction Limits Line shown in the Plans. When outside these limits, all Contractor activities shall remain more than 125 feet from the centerline and 400 feet from the end of active Runway 18-36. For work near taxiways and aprons, the Contractor's personnel and equipment must remain at least 44.5 feet from an active Category I taxiway centerline, and ten (10) feet from active aprons. When construction operations must be conducted within these separations, the pavement must be closed to aircraft activity by the Contractor by providing temporary barricades as shown in the Plans, and in the case of runway pavements, closed runway markers.

"Open trenches, excavations and stockpiled material at the construction site shall be delineated with the use of barricades during hours of restricted visibility and/or darkness. No open trenches shall be allowed within the Runway Safety Area (RSA) or the Taxiway Safety Area (TSA) when the runway or taxiway is open to air traffic (including overnight). The RSA is defined as 60 feet from the centerline and 240 feet from the end of Runway 18-36. The TSA is measured at 24.5 feet from the Category I taxiway centerline. No vertical drop of greater than 3-inches in height from pavement edge to earth grade or earth grade to earth grade within the RSA or TSA will be permitted when the runway or taxiway is open to air traffic. The Contractor will have steel plates on-site to allow for the rapid covering of trenches or earth drops in the event of unexpected work stoppages for weather or airport emergencies.

"All Airport taxiways are classified as Category I.

"Contractor's equipment shall extend no higher than that shown in the Phasing Plan for each stage. For Stage 1, the maximum height is 19 feet, for Stage 2, the maximum height is 25 feet, and for Stage 3, the maximum height is 12 feet. Cranes shall not be used during instrument weather conditions or at night. Cranes shall be lowered when not in use. **All notes and details shown for each stage on the Phasing Plan are applicable to this Project. NOTE: Helicopter activity will be occurring to and from the Airport terminal Area throughout the Project, and the Contractor shall adhere to all safety rules regarding this activity.**

"The Contractor must notify the Resident Engineer and the airport Owner five (5) days in advance of any required partial or complete closing of any taxiway or apron. **Closing of Runway 18-36 in Stage 2 shall require 14 days advance notice.** The date, time and scheduled duration of the closing must be approved by the Resident Engineer and the Airport Owner. The Contractor shall notify the Resident Engineer and Airport Owner 72 hours in advance of the Contractor's closing of other active roadways, airfield or roadway lighting circuits, or other Airport facilities.

"All work shall be completed in accordance with the approved Project Safety Plan, issued by the Illinois Division of Aeronautics.

"Failure to use these prescribed procedures or adhere to the safety requirements will result in the suspension of work."

SECTION 50

CONTROL OF WORK

Revise Section 50 of the Standard Specifications as follows:

50-06 CONSTRUCTION LAYOUT STAKES. Add the following to RESPONSIBILITY OF THE CONTRACTOR, Paragraph G:

"These grades shall be furnished by the Contractor to the Project Engineer and shall include: the final grade for subgrade for new pavements established under Item 152; the final lift of granular drainage subbase for new pavements furnished under Item 800927; the final lift of crushed aggregate base course furnished under Item 209; the first **and** last lift of HMA base course furnished under Item 403, and; the final pavement surface furnished under Item 501. Surveying shall also be furnished by the Contractor after any constructed surface for which deviations from Plan grade elevations and slopes that are greater than those allowed in the Standard Specifications or Special Provisions are identified by the Resident Engineer."

50-12 LOAD RESTRICTIONS. Add the following:

"By submitting his bid, the Contractor acknowledges that the existing Airport pavements are of the "light-duty" type, requiring his consideration of construction vehicle weights. Any damage to existing Airport pavements shall be repaired by the Contractor at his own expense and to the satisfaction of the Airport Owner and the Resident Engineer.

"The Contractor shall acquaint himself with the load restrictions of all local streets, roadways and highways intended for use as access/haul roads, and shall secure all permits for their use, with any cost incidental to the Contract.

"The Contractor shall erect and maintain, at no cost to the Contract, directional and informational signs for the Contractor's access routes at the existing construction entrance and for the Contractor's route within the Airport Operations Area, as noted on the Plans or as directed by the Resident Engineer."

SECTION 60

CONTROL OF MATERIALS

Revise Section 60 of the Standard Specifications as follows:

60-05 RESIDENT ENGINEER'S FIELD OFFICE. Add the following:

"The Contractor will be required to furnish and maintain a Resident Engineer's Field Office throughout the Project, in accordance with Item 150510 ENGINEER'S FIELD OFFICE."

SECTION 70

LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC

The Work shall be provided in accordance with Section 70 of the Standard Specifications.

SECTION 80

PROSECUTION AND PROGRESS

The Work shall be provided in accordance with Section 80 of the Standard Specifications.

SECTION 90

MEASUREMENT AND PAYMENT

The Work shall be provided in accordance with Section 90 of the Standard Specifications.

DIVISION II

PAVING CONSTRUCTION DETAILS

EARTHWORK

ITEM 150510

ENGINEER'S FIELD OFFICE

Revise Item 150510 of the Standard Specifications as follows:

CONSTRUCTION METHODS

150-2.1 Add the following to the first Paragraph:

"Should sanitary facilities that are an integral part of the office not be practicable, temporary toilet facilities shall be provided. The temporary facilities must be of a size to **permit use by access-challenged** persons. A **separate** facility for hand washing must also be available and maintained. Solid waste disposal consisting of two (2) waste baskets and an outside trash container of sufficient size to accommodate a weekly-provided pick-up shall be furnished."

Replace Item H. in the list of equipment to be furnished by the Contractor with the following:

"H. One (1) telephone, with touch tone, where available, and telephone answering machine connected to one dedicated phone line, or a cellular phone with voicemail, for exclusive use by the Resident Engineer."

Replace Item I. in the list of equipment to be furnished by the Contractor with the following:

"I. One dry process copy machine (including maintenance and operating supplies) capable of both collating and reproducing prints up to a Ledger Size (11" by 17"); the copier shall be interconnected with Items J. and N. to permit printing directly from the router and the scanner (a separate printer (with maintenance and operating supplies) may also be permitted)."

Replace Item J. in the list of equipment to be furnished by the Contractor with the following:

"J. One (1) Windows[®]-compatible scanner configured to operate with the wireless router furnished in this item (Item N. as added to the list of items to be furnished), and capable of producing images of documents sized up to 11 inch by 17 inch, for the exclusive use by the Resident Engineer."

Add the following to the list of equipment to be furnished by the Contractor:

"N. Available for the exclusive use of the Resident Engineer, an Internet service connection using telephone DSL, cable broadband, or wireless (4G minimum speed) technology. Additionally, an 802.11g/n wireless router shall be provided, which will allow connection by the Resident Engineer and up to four engineer staff.

"O. One (1) 800 watt, 0.8 cubic foot microwave oven.

"P. Two (2) 28-quart wastebaskets with 8-gallon trash bags.

"Q. One (1) first aid cabinet - fully equipped."

Add the following:

"NOTE: Item K. in the Standard Specifications for this item shall be deleted."

BASIS OF PAYMENT

150-3.1 Revise this Section to read:

"The building fully equipped as specified herein will be paid for at the Contract unit price per lump sum for Engineer's Field Office. This price shall include all utility costs and shall reflect the salvage value of the building, equipment, and furniture, which become the property of the Contractor after release by the Resident Engineer. All telephone calls within Area Code 815 and to Area Codes 217, 224, 312, 331, 630, 708, 773, 779, 815 and 847 shall be included in the cost of the Engineer's Field Office. The Resident Engineer shall reimburse the Contractor for all long distance calls outside of these area codes.

"Payment will be made under:

"Item AR150510 Engineer's Field Office - per lump sum."

ITEM 150520

MOBILIZATION

This Item shall be provided in accordance with Section 150520 of the Standard Specifications.

Payment will be made under:

Item AR150520 Mobilization - per lump sum.

ITEM 150540

HAUL ROUTE

DESCRIPTION

150540-1.1 This item shall consist of furnishing and maintaining in good condition a haul route for heavy equipment at the location and in accordance with the details shown in the Plans.

This item shall also include the provision, maintenance, and removal at project end, of a suitable concrete wash-out pit to prohibit discharge of storm water off of the Project site, in accordance with the Project NPDES permit issued by the Illinois Environmental Protection Agency.

This item shall also include directional and informational signs directing the routes to be used by Contractor's, subcontractors and suppliers for this Project.

MATERIALS

150540-2.1 MATERIALS. Materials used in completing this item shall meet the individual requirements of the Standard Specifications and Special Provisions. Materials include:

- | | |
|---------------------------------------|--|
| a. Excavation and Embankment | Item 152 (as modified in these Special Provisions) |
| b. Filter Fabric | As Specified Below |
| c. Fractured Stone | As Specified Below |
| d. Construction Traffic Control Signs | IDOT Standards |

CONSTRUCTION METHODS

150540-3.1 METHODS. This item shall be completed in the following manner:

- a. Excavation. The existing grade shall be excavated to the widths and depths detailed in the Plans. This excavation shall not be measured and separate payment shall not be made.
- b. Filter Fabric. Fabric shall meet the requirements for separation fabric, described in Item 156513 of the Standard Specifications, except the material shall not be measured and separate payment shall not be made.
- c. Fractured Stone. Stone shall be of the type(s) noted on the Plans, be from an IDOT-approved aggregate source, and be acceptable to the Resident Engineer, except the material shall not be measured and separate payment shall not be made.
- d. Construction Traffic Control Signs. Signs shall be furnished and installed in accordance with the requirements of the applicable IDOT Standards for Traffic Control and Maintenance. The signs shall be visible whenever the Contractor, subcontractor or supplier is at the Project site. Legends for the signs shall be approved by the Resident Engineer prior to their use. These signs shall not be measured for payment by shall be included in the Contract unit price for the haul route.

150540-3.2 MAINTENANCE AND REMOVAL AT PROJECT END. The Contractor shall provide for the periodic inspection and maintenance of the route and concrete wash-out pit throughout the Project and at each rain event. At the discretion of the Resident Engineer, the haul route (but **not** the concrete wash-out pit) may remain at Project completion, but restored to and left in a condition satisfactory to the Resident Engineer. If directed to remove the haul route at Project completion, the Contractor shall restore the area to its original condition, including the topsoiling and seeding of disturbed areas. In all cases, the wash-out pit shall be restored to a condition acceptable to the Resident Engineer.

METHOD OF MEASUREMENT

150540-4.1 The quantity to be paid for Haul Route shall be measured as a lump sum and shall include all work specified herein and completed as detailed in the Plans and accepted as complete by the Resident Engineer. No material or work will be separately measured for payment.

BASIS OF PAYMENT

150540-5.1 Payment will be made at the Contract unit price per lump sum for Haul Route, which shall be full compensation for all labor, materials, equipment, tools and incidentals necessary to complete the item specified and accepted.

Payment will be made under:

AR150540 Haul Route - per lump sum.

ITEM 151

CLEARING AND GRUBBING

Revise Item 151 of the Standard Specifications as follows:

DESCRIPTION

151-1.1 Delete the last sentence of the second Paragraph. Add the following:

"This item shall also include the grubbing of stumps created by tree clearing at the locations shown in the Plans and as directed by the Resident Engineer."

CONSTRUCTION METHODS

151-2.1 GENERAL. Add the following:

"Clearing and grubbing may be performed at any time during the calendar year, but prior to any work under Item 152.

"Burning shall not be permitted under this Contract.

"Clearing and grubbing shall be measured for payment as "Clearing Trees" and "Stump Removal", and the definition noted in the third Paragraph of Section 151-1.1 of the Standard Specifications shall be **NOT** be used."

151-2.2 CLEARING. Delete the last sentence of the first Paragraph.

Add:

151-2.12 STUMP REMOVAL. Stumps resulting from tree clearing identified in the Plans, or as requested by the Resident Engineer, shall be grubbed in accordance with Section 151-2.3 of the Standard Specifications.

METHOD OF MEASUREMENT

151-3.1 Add the following:

"Stump Removal shall be measured as the number of stumps removed and accepted by the Resident Engineer. Payment shall be made according to the tree diameter measurement made prior to the tree's clearing."

BASIS OF PAYMENT

151-4.1 Delete this Section.

151-4.3 Delete this Section.

Add:

151-4.4 Payment shall be made at the Contract unit price per each for Stump Removal. This price shall be full compensation for removing and disposing of all materials; for excavation and backfilling; and for all labor, equipment, tools, and incidentals necessary to complete the item.

SPECIAL PROVISIONS
BOLINGBROOK'S CLOW INTERNATIONAL AIRPORT (1C5)
CONSTRUCT REPLACEMENT RUNWAY 18-36

IDA PROJECT NO. 1C5-4303
SBG PROJECT NO. 3-17-SBGP-TBD

Add the following:

Payment will be made under:

Item AR803004	Clearing Trees 0-1.5' Butt. Dia. - per each.
Item AR803005	Clearing Trees 1.5'-3.0' Butt. Dia. - per each.
Item AR803006	Stump Removal 0-1.5' Butt. Dia. - per each.
Item AR803007	Stump Removal 1.5'-3.0' Butt. Dia. - per each.

ITEM 152

EXCAVATION AND EMBANKMENT

Revise Item 152 of the Standard Specifications as follows:

152-1.1 DESCRIPTION. Add the following:

"For the purposes of Excavation and Embankment in this Project, this item is to be constructed for aircraft weighing less than 60,000 pounds (Standard Proctor).

"All earthwork shall be performed in accordance with the applicable NPDES Construction Site permit issued for this Project, and any applicable Village of Bolingbrook or will County ordinances or regulations."

152-1.2 CLASSIFICATION. Add the following to the second Paragraph:

"On-site borrow material from elsewhere on the Airport but outside the Project limits, may be used either under the "Satisfactory" area under pavements if determined to be "Satisfactory" by the Resident Engineer, or shall be used in the area designated in the Plans as "Other Acceptable Material", if not determined to be "Satisfactory" by the Resident Engineer."

Add the following to the third Paragraph:

"Offsite Borrow Excavation shall consist of excavating suitable materials obtained from offsite locations approved by the Resident Engineer and transporting the materials to various locations throughout the Contract construction limits. The offsite borrow material shall be furnished in accordance with Article 204.02 of IDOT Standard Specifications for Road and Bridge Construction, Illinois Department of Transportation, adopted January 1, 2012, as revised."

Delete the fourth Paragraph.

Add the following:

"Earthwork cut as required in the Plans may result in unsuitable/unstable material that cannot be incorporated into the work as fill material when constructing the lines and grades shown in the Plan. All such unsuitable/unstable material, that cannot be used as either "Satisfactory Fill" or "Other Acceptable Fill" shall be loaded and hauled to an off-site disposal site authorized to accept the debris. All excess but suitable material shall be used elsewhere in the Work.

"All material considered "Satisfactory " for use under pavements by the Resident Engineer may be used in the locations shown in the Plans for "Satisfactory" material. Materials that the Resident Engineer determines to not be "Satisfactory", but rather are "Other Acceptable Material", may be used in areas of the cross section other than under pavements, as shown in the Plans.

Only material identified by the Resident Engineer for haul and disposal shall be hauled from the Work and disposed of at the off-site location. Loading, haul and disposal of unsuitable/unstable material to the off-site disposal site shall **not** be paid for separately, but shall be included in the Contract unit price for "Unclassified Excavation"."

CONSTRUCTION METHODS

152-2.1 GENERAL. Add the following:

"The Contractor will proofroll the subgrade when required by the Resident Engineer, and as directed by the Resident Engineer. The cost for this proofing will not be paid for separately but shall be included in the cost for "Unclassified Excavation"."

152-2.2 EXCAVATION. Add the following to the first Paragraph:

"All material considered "Satisfactory " for use under pavements by the Resident Engineer may be used in the locations shown in the Plans for "Satisfactory" material. Materials that the Resident Engineer determines to not be "Satisfactory", but rather are "Other Acceptable Material", may be used in areas of the cross section other than under pavements, as shown in the Plans.

Add the following to the fifth Paragraph:

"Unsuitable/unstable material not considered to be "Satisfactory" or "Other Acceptable Material" not used in the final grades and shoulders of the Work, or, if topsoil, placed as topsoil under Item 905, shall be loaded, hauled, tested/documented as may be required by state law, and disposed of at an off-site disposal site authorized to accept the debris. All cut material shall be used elsewhere in the Work to the extent possible as permitted in the Contract specifications, before the material is hauled away from the Work and disposed of off-site. Only material identified by the Resident Engineer for haul and disposal shall be hauled from the Work and disposed of at the off-site location. Contractor shall provide for all materials testing and suitability documentation as required by State law for the disposal of construction debris. Loading, haul, testing and disposal of the excess material to the off-site disposal site shall **not** be paid for separately, but shall be included in the Contract unit price for "Unclassified Excavation"."

Add the following:

"Topsoil to be used elsewhere under this project shall be stockpiled within the construction limits, **but located so as not to violate any runway or any taxiway safety or object area criteria, or obstruct any FAR Part 77 imaginary surfaces**, until separately placed under Item 905. Placement and storage of the topsoil shall **not** be paid for separately, but shall be included in the Contract unit price for "Unclassified Excavation"."

Add the following:

"The Contractor will not be allowed to haul any materials across existing pavements, except for pavement areas shown for removal in the Plans or as shown in the Site Plan and prescribed in the Phasing Plan and the Construction Safety Plan, or to cross any unpaved areas that have been designated by the Airport Owner as used for agriculture, or which have already been seeded under this contract."

152-2.3 BORROW EXCAVATION. Delete the first Paragraph.

Add the following as the first sentence of the second Paragraph:

"The source of off-Airport borrow shall be from off Airport property."

Add the following:

"Offsite Borrow Excavation shall consist of excavating suitable materials obtained from offsite locations approved by the Resident Engineer and transporting the materials to various locations throughout the Contract construction limits. The offsite borrow material shall meet the physical properties in Article 204.02 of IDOT Standard Specifications for Road and Bridge Construction, Illinois Department of Transportation, adopted January 1, 2012, as revised.

"All off-Airport borrow material considered "Satisfactory " for use under pavements by the Resident Engineer may be used in the locations shown in the Plans for "Satisfactory" material. Materials that the Resident Engineer determines to not be "Satisfactory", but rather are "Other Acceptable Material", may be used in areas of the cross section other than under pavements, as shown in the Plans."

Add the following:

"Borrow excavation brought to the site but not immediately placed into the embankment shall be stockpiled within the construction limits, **but located so as not to violate any runway or any taxiway safety or object area criteria, or obstruct any FAR Part 77 imaginary surfaces**, until separately placed in the Project. Placement, storage, and re-distribution of the material shall **not** be paid for separately, but shall be included in the Contract unit price for "Offsite Borrow Excavation"."

Add the following:

"The Contractor will not be allowed to haul any materials across existing pavements, except for pavement areas shown for removal in the Plans or as shown in the Site Plan and prescribed in the Phasing Plan and the Construction Safety Plan, or to cross any unpaved areas that have been designated by the Airport Owner as used for agriculture, or which have already been seeded under this Contract."

152-2.9 TOLERANCES. Add the following:

"For purposes of verifying these tolerances, the Contractor shall furnish survey elevations for the prepared subgrade to the Project Engineer for review, as specified under Section 50-06 (Responsibility of the Contractor Paragraph G)."

Add:

152-2.15 DUST CONTROL WATERING. This Work shall consist exclusively of the control of dust from construction operations and not for use in the compaction of earth embankment.

Dust shall be controlled by the regular, uniform application of sprinkled water to earth surfaces and shall be applied as directed by the Resident Engineer, in a manner meeting his approval. Dust control watering shall not be paid for separately but shall be considered incidental to this item."

METHOD OF MEASUREMENT

152-3.3 Delete this Section.

Add:

152-3.4 Dust control watering will not be measured for payment, but shall be considered incidental to the Contract items for earthwork."

BASIS OF PAYMENT

152-4.1 Replace the second Paragraph with the following:

"Payment for "Unclassified Excavation" shall also include removal of unsuitable materials, if any, at the discretion of the Resident Engineer. The on-site cut from stockpiles, and any cut excavation at the off-site borrow excavation site shall not be separately measured and paid, but shall be measured in-place and paid as either "On-Site Borrow" or "Offsite Borrow Excavation"."

Add the following:

"Payment will be made under:

"Item AR152410 Unclassified Excavation - per cubic yard."

152-4.2 Delete this Section.

152-4.3 Add the following:

"Payment will be made under:

"Item AR152441 On-Site Borrow - per cubic yard.
Item AR152442 Offsite Borrow Excavation - per cubic yard."

152-4.4 Delete this Section.

ITEM 156000

EROSION CONTROL

Revise Item 156000 of the Standard Specifications as follows:

MATERIALS

156-2.1 SILT FENCE. Delete the first Paragraph of this Section and replace with the following:

"This fence shall be of either a pre-fabricated type or shall be constructed in the field, and regardless of the fabrication method, shall be of materials meeting the dimensions and material requirements shown in the Plans."

156-2.4 TEMPORARY MULCH. Add the following to the first sentence: "for **Heavy Duty Hydraulic Mulch**."

156-2.5 TEMPORARY SEED. Replace this Paragraph with the following:

"Temporary Seed shall be **annual ryegrass**, applied at a rate of 100 pounds per acre."

156-2.6 TEMPORARY DITCH CHECKS. Revise this Section to read as follows:

"Temporary ditch checks shall be constructed with manufactured products on IDOT's list of approved materials, or from rolled excelsior blanket to the diameter of 15-inches measured at point of overflow, or as shown on the Construction Plans. All manufactured products, including the excelsior blanket, shall be manufactured in the USA of 100% domestic materials."

156-2.7 INLET AND PIPE PROTECTION. Revise this Paragraph to read as follows:

"Erosion control protection shall be provided for at drainage inlets at the locations shown in the Plans and as detailed in the Plans. The complete inlet fabric and fabric insert assembly shall be furnished, installed and maintained as shown in the Plans, and shall be IPP Flexstorm by Inlet & Pipe Protection, or approved equivalent. The Contractor shall determine the required assembly size to be used at each location based upon manufacturer recommendations. The manufacturer shall furnish a certification with each assembly stating the number of assemblies furnished and that the material complies with the requirements of this Special Provision and all Contract requirements for materials, including the Buy American Preferences Act (49 U.S.C. § 50101). The used inlet protection assembly shall be disposed of off-site at a lawful disposal site when instructed by the Resident Engineer."

Add:

156-2.8 EROSION CONTROL BLANKET. Erosion Control Blanket shall be:

Knitted Straw Mat

Straw mat shall be made of a 100% straw-fiber matrix stitched with photodegradable thread between lightweight, photodegradable polypropylene top and bottom nets. Material shall not contain any weed seed or chemical additives. Straw mat shall be North American Green EroNet S150, or approved equal. The manufacturer shall furnish a certification with each shipment of blanket stating the number of rolls furnished and that the material complies with the requirements of this Special Provision and all Contract requirements for materials, including the Buy American Preferences Act (49 U.S.C. § 50101).

156-2.9 STAKES FOR EROSION BLANKET. The mat shall be secured with biodegradable stakes acceptable to the Engineer. Metal staples will not be allowed. Separate measurement of the stakes shall not be made, but shall be incidental to the erosion blanket.

Add:

156-2.10 TURF REINFORCING MAT. Turf Reinforcing Mat shall be a permanent turf reinforcement mat made of a high-strength three-dimensional matting structure incorporated with a straw/coconut fiber matrix. The top, center and bottom nets shall be of black UV stabilized polypropylene material surrounding the 70% straw/30% coconut matrix material. The mat shall be North American Green, VMax SC250 Permanent Turf Reinforcement Mat, or approved equivalent. The manufacturer shall furnish a certification with each roll stating the number of rolls furnished and that the material complies with the requirements of this Special Provision and all Contract requirements for materials, including the Buy American Preferences Act (49 U.S.C. § 50101).

CONSTRUCTION METHODS

156-3.2 TEMPORARY EROSION CONTROL.

Replace Paragraph C. with the following:

"C. Temporary Erosion Control Seeding. Seed bed preparation will not be required if the soil to be covered is in a loose condition. Light discing shall be furnished if the soil is hard packed or caked. Fertilizer nutrients, lime or sulfur shall not be required.

"Prior to seeding, the area to be covered shall be wetted to the satisfaction of the Resident Engineer to encourage germination of the seed. The required moisture content of the soil may be estimated and judged closely by the hand squeeze test. The soil should readily form a tight cast when squeezed in the hand. The cast should break into two pieces without crumbling and without leaving excess water on the hand after casting.

"After approval for the application is made by the Resident engineer, the annual ryegrass seed shall be hand broadcasting or by mechanical broadcaster to achieve a reasonably uniform coverage of at least 100 pounds per acre. After application, the Contractor shall furnish a watering of the seed bed to encourage germination of the seeds. **After planting, the Contractor shall be required to mow the area covered with temporary seeding before the seed heads mature (the seeds could become a strong wildlife attractant if allowed to mature).**

"Seed shall be re-applied to bare spots every seven days, regardless of weather conditions or progress of work. Re-seeding and maintenance shall not be measured for payment, but shall be incidental to the original quantity of temporary seeding measured and paid. The Resident Engineer may require that critical locations be seeded immediately and the Contractor shall seed these areas within 48 hours of such a directive."

Add:

156-3.7 EROSION CONTROL BLANKET. Within 24 hours from the time permanent seeding has been performed, the erosion mat shall be placed. Prior to placing the mat, the areas to be covered shall be relatively free of all rocks or clods over 1-½ inches in diameter, and all sticks or other foreign material that will prevent the close contact of the mat or blanket with the seed bed. If as a result of a rain, the prepared seed bed becomes crusted or eroded, or if the eroded places, ruts or depressions exist for any reason, the Contractor will be required to rework the soil until it is smooth and to reseed such areas which are reworked. After the area has been properly shaped, fertilized and seeded, the mat shall be laid out flat, evenly and smoothly, without stretching the material.

The mat shall be laid in accordance with the manufacturer's recommendations. All ends and edges shall be tightly butted together.

The mat shall be held in place by means of stakes. The stakes shall be driven at a 90-degree angle to the plane of the soil. Stakes shall be spaced not more than 3 feet apart in 3 rows for each strip, with a row along each edge and one row alternately spaced in the middle. All ends shall be fastened by stakes spaced 6 inches apart across the width.

Once turf growth has been established, all non-biodegradable components shall be removed by the Contractor. This would include any item that would interfere with the mowing of the new turf or which might damage mowing equipment. Furthermore, the Contractor shall fill with topsoil or smoothly grade any ruts or gullies that developed during the turf grow in period to the satisfaction of the Owner. This Work shall be considered incidental to this item.

Add:

156-3.8 TURF REINFORCING MAT. The Turf Reinforcing Mat shall be installed at the locations shown on the Plans. The mat shall be held in place with metal pins or staples of the length and spacing recommended by the manufacturer, but in no event using 3/16-inch diameter steel bars not less than 12-inches long, pointed at one end and fabricated with a head retaining a 1.5-inch steel washer, and spaced at 3-foot intervals.

METHOD OF MEASUREMENT

Add:

156-4.6 Erosion Control Blanket shall be the number of square yards of erosion mat installed, maintained, and removed, and accepted by the Resident Engineer.

Add:

156-4.7 The quantity of Turf Reinforcing Mat to be paid for shall be the area in square yards measured in place, installed, maintained, and accepted, as shown in the Plans, or as directed by the Resident Engineer.

BASIS OF PAYMENT

156-5.1 Add the following:

"Payment will be made at the Contract unit price per square yard for Erosion Control Blanket. This price shall be full compensation for furnishing all materials, for all preparation and installation of these materials, maintenance through the project, and the removal and disposal of all materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

"Payment will be made at the Contract unit price per square yard for Turf Reinforcing Mat. This price shall be full compensation for furnishing all materials, for all preparation and installation of these materials, maintenance through the project, and the removal and disposal of all materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

"Payment will be made under:

"Item AR156510	Silt Fence - per linear foot.
Item AR156511	Ditch Check - per each.
Item AR156520	Inlet Protection - per each.
Item AR156531	Erosion Control Blanket - per square yard.
Item AR803002	Turf Reinforcing Mat - per square yard.
Item AR803008	Temporary Seed and Mulch - per acre."

ITEM 156513

SEPARATION FABRIC

Revise Item 156513 of the Standard Specifications as follows:

BASIS OF PAYMENT

156513-5.1 Add the following:

"Payment will be made under:

"Item AR156513	Separation Fabric - per square yard.
Item AS156513	Separation Fabric - per square yard."

ITEM 156540

RIPRAP

Revise Item 156540 of the Standard Specifications as follows:

DESCRIPTION

156540-1.1 Delete this Paragraph and replace with the following:

"156540-1.1 This item shall consist of furnishing, transporting, and placing a protective course of stone (IDOT RR-5), minimum of 22 inches depth, over an aggregate bedding course (IDOT RR-1), minimum of 8 inches, laid as riprap on filter fabric, in the areas and at the locations shown on the Plans."

MATERIALS

156540-2.1 RIPRAP. Add the following:

"Stone for the bedding course shall be Gradation RR-1, and stone for the top course shall be Gradation RR-5; each in accordance with IDOT Specifications."

CONSTRUCTION METHODS

156540-3.1 Delete the first Paragraph and replace with the following:

"Prior to the placement of the riprap material, The Contractor shall undercut the designated area 30-inches below finished grade. The undercut material may be used as embankment fill material. The two (2) course riprap shall be 30-inches total depth."

BASIS OF PAYMENT

156540-5.1 Add the following:

"Payment will be made under:

"Item AR156545 Riprap-Gradation No. 5 - per square yard."

ITEM 803003

CONCRETE CABLE BOTTOM

DESCRIPTION

803003-1.1 This item shall consist of an articulating concrete block revetment system to function as a permanent erosion control measure at the locations shown and as detailed in the Plans. The system furnished shall be a complete system, and shall be furnished in accordance with the recommendations of the system manufacturer for the size and type of site conditions shown in the Plans.

MATERIALS

803003-2.1 The system of pre-cast, cellular concrete blocks, polyester cables and aluminum fittings, filter fabric, and concrete/mortar joint and edge treatment, as covering for the subgrade, shall be ArmorFlex Cellular Concrete Mat Standard Small Class 55S (Closed Cell), by Contech Engineered Solutions, LLC (Armortec), 9025 Centre Point Drive, Suite 400, West Chester, Ohio 45069, Phone: 800.338.1122, or approved equal. The mat is a flexible, interlocking matrix of machine-compressed, cellular concrete blocks of uniform size, shape, and weight. The matrix is connected by a series of cables which pass longitudinally through preformed ducts in each block, making them easy to install over filter fabric on a prepared surface. **The Contractor shall furnish and install a complete system, including the concrete block mattress, geotextile fabric (meeting that specified under Item 156513), and the poured-in-place concrete (meeting that specified under Item 610) or concrete grout joint and edge treatment.** Prior to installation, the Contractor shall furnish to the Project Engineer for approval detailed plans and specifications of the materials to be used in the Work. The manufacturer shall be required to furnish design and construction advice during the design and installation phase of the Work.

CONSTRUCTION METHODS

803003-3.1 The Contractor shall install the system on a prepared subgrade that has been approved by the Resident Engineer. Any required excavation for the cable bottom installation shall not be measured for payment. Filter fabric shall be installed as specified for Item 156513, but shall not be measured for payment. Foundation preparation, concrete mat placement, and connecting cable and fittings installation shall be performed in accordance with the manufacturer's written installation instructions and specifications. Exposed edges shall be backfilled and compacted until flush with the concrete units and the final grade. Open areas between the cells shall be backfilled with sand or other material recommended by the manufacturer. Concrete or concrete grout joint and edge treatment shall meet the requirements of Item 610, but shall not be measured for payment. Units damaged during construction shall be removed and replaced, if determined by the Resident Engineer, or repaired in accordance with manufacturer recommendations.

The site shall be cleaned of debris and restored to the satisfaction of the Resident Engineer after installation is complete.

METHOD OF MEASUREMENT

803003-4.1 The Concrete Cable Bottom mat system to be paid for shall be the square yards of revetment system installed, complete as specified, and accepted by the Resident Engineer.

BASIS OF PAYMENT

803003-5.1 Payment will be made at the Contract unit price per square yard for Concrete Cable Bottom, which price shall be full compensation for design and construction preparation, and the materials, labor, equipment, tools and incidentals necessary to complete the item as specified.

Payment will be made under:

Item AR803003 Concrete Cable Bottom - per square yard.

FLEXIBLE BASE COURSES

ITEM 209

CRUSHED AGGREGATE BASE COURSE

Revise Item 209 of the Standard Specifications as follows:

209-1.1 DESCRIPTION. Add the following:

"The Crushed Aggregate Base Course shall be placed upon a prepared subgrade in lifts of limited thickness as required in the Standard Specifications and to the total uniform compacted thicknesses shown in the Plans. **In accordance with Section 209-3.2, the material used in this item shall be pugmilled with water at a central mixing plant or traveling plant and placed at the material's optimum moisture content.**"

MATERIALS

209-2.1 GRADATION. Add the following:

"The **Gradation B column in Table 1**, Requirements for Gradation of Aggregate, shall be used."

CONSTRUCTION METHODS

209-3.4 FINISHING AND COMPACTING. Add the following after the first Paragraph:

"For the purpose of compaction control testing, this item is to be constructed for aircraft weighing less than 60,000 pounds (Standard Proctor)."

209-3.7 SURFACE GRADE ACCURACY. Add the following to this Section:

"For purposes of this grade check, the Contractor shall furnish grade elevations for the crushed aggregate base course to the Project Engineer for review, as specified under Section 50-06 (Responsibility of the Contractor Paragraph G)."

METHOD OF MEASUREMENT

209-4.1 Delete this Section. Section 209-4.2 of the Standard Specifications shall be used.

209-4.3 Delete this Section. Section 209-4.2 of the Standard Specifications shall be used.

BASIS OF PAYMENT

209-5.1 Add the following:

"Payment will be made under:

"Item AR209606	Crushed Agg. Base Course-6" - per square yard.
Item AS209606	Crushed Agg. Base Course-6" - per square yard."

ITEM 800927

GRANULAR DRAINAGE SUBBASE

GENERAL

800927-1.1 This item shall consist of furnishing, placing, shaping and compacting crushed stone for use as a granular subbase course and drainage layer. The material is to be placed to the lines and grades as shown on the Plans and as directed by the Resident Engineer.

MATERIALS

800927-2.1 COARSE AGGREGATE. The crushed coarse aggregate shall conform with the requirements of Article 1004.01 of IDOT Standard Specifications for Road and Bridge Construction, adopted January 1, 2012, and the following specific requirements:

- (a) Description. The coarse aggregate shall be crushed gravel, novaculite, crushed stone or crushed sandstone. **Pit run gravel and gravel shall not be used for the granular subbase material.**

The granular material, if approved by the Engineer, may be produced by blending aggregates from more than one source, provided the method of blending results in a uniform product. The components of a blend may not be of the same kind of material. The source of material shall not be changed during the progress of the Work without written permission of the Engineer. Where a natural aggregate is deficient in fines, the material added to make up deficiencies shall be a material approved by the Engineer.

- (b) Quality. The coarse aggregate shall be Class D Quality or better.
- (c) Gradation. The coarse aggregate base gradation shall be CA-7.

CONSTRUCTION METHODS

800927-3.1 GENERAL. All work involved in clearing and stripping of quarries and pits, including the handling of unsuitable material, shall be performed by the Contractor at his own expense. The subbase material shall be obtained from approved sources. The material shall be handled in a manner that shall secure a uniform and satisfactory product.

800927-3.2 EQUIPMENT. All equipment necessary for the proper construction of this Work shall be on the Project, in first-class working condition, and approved by the Resident Engineer before construction is permitted to start. Equipment available shall meet the requirements of IDOT Standard Specifications for Road and Bridge Construction, adopted January 1, 2012, Article 311.03, of Section 311, Granular Subbase.

800927-3.3 PREPARING UNDERLYING COURSE. The underlying subgrade shall be checked and accepted by the Resident Engineer before placing and spreading operations are started. The subgrade shall be free of ruts, objects and debris, but **shall not be proof rolled unless directed by the Resident Engineer.**

The crushed aggregate is to be placed over a separation fabric as specified in Item 156513. The furnishing and placement of the fabric will be paid under Item AR156513. The aggregate will be spread over the fabric in a manner that is not injurious to the fabric. To protect the underlying course and to insure proper drainage, the spreading of the aggregate shall begin along the centerline of the area for a crowned section or on the high side of the pavement with a one-way slope.

Grade control shall be provided by the Contractor shall be provided using string lines, checkboards, forms or other suitable methods that will assure that the separation fabric beneath is not damaged.

800927-3.4 PLACING AND SPREADING. The depositing and spreading of the material shall commence where designated and shall progress without breaks. The drainage layer shall be constructed in a layer of not less than 3-inches nor more than 6-inches of compacted thickness. The material shall be deposited and spread on the underlying subgrade and separation fabric in lanes of a uniform thickness and gradation, without segregation by size or pockets of fine or coarse materials, and to such loose depth that, when compacted, the layer shall have the required thickness. The aggregate shall be spread by spreader boxes or other approved devices or methods that shall spread the aggregate in the required amount to avoid or minimize the need for re-handling the material and to prevent the rutting of the underlying subgrade. Hauling over the un-compacted material shall not be permitted.

No material shall be placed in snow or on a soft, muddy, or frozen underlying course, unless directed by the Resident Engineer.

When more than one layer is required, the construction procedure described herein shall apply similarly to each layer.

During the placing and spreading, sufficient caution shall be exercised to prevent the incorporation of subgrade or shoulder material in the base mixture.

800927-3.5 ROLLING AND COMPACTING. After spreading, the crushed aggregate shall be thoroughly compacted by rolling. The rolling shall progress gradually from the sides to the center of the lane under construction, or from one side toward previously placed material by lapping uniformly each preceding rear wheel track by one-half the width of such track. Rolling shall continue until the stone is thoroughly set, the interstices of the material reduced to a minimum, and creeping of the stone ahead of the roller is no longer visible. The base shall be compacted to the satisfaction of the Resident Engineer.

The course shall not be rolled when the underlying course is soft or yielding or when the rolling causes undulation in the subbase course.

In areas inaccessible to rollers, the crushed aggregate material shall be tamped thoroughly with mechanical tampers.

The sprinkling during rolling, if necessary, shall be in the amount and by equipment approved by the Resident Engineer.

800927-3.6 FINISHING OF SUBBASE. Prior to final shaping, the subbase shall be brought to true shape. After the subbase has been brought to its true shape and correct elevation, the surface shall be wetted and rolled as directed by the Resident Engineer with a three-wheel or tandem roller weighing of between 6 and 10 tons and weighing not less than 200 pounds/inch nor more than 325 pounds/inch of width of the roller.

After the subbase has been compacted and shaped, the surface of the subbase shall be tested for crown and elevation. The Contractor shall furnish all equipment necessary for these checks. Any portion lacking the required smoothness or failing in accuracy of grade or crown shall be scarified, reshaped, re-compacted, and otherwise manipulated as the Resident Engineer may direct until the required smoothness and accuracy are obtained. The finished surface shall not vary more than 1/2-inch from a 16-foot straightedge when applied to the surface parallel with, and at right angles to, the centerline, or shall not be more than 0.05 foot from the true grade as established by grade hubs or pins.

The Contractor shall have at all times a minimum of one (1) day's production of subbase ahead of the paving.

The subbase shall be moist at the time of placing subsequent base materials. If the subbase subsequently becomes too dry, it shall be sprinkled again, in such a manner as not to form puddles of water. The Contractor shall provide water and all equipment necessary to meet this requirement. The cost of watering shall be incidental to the Contract.

800927-3.7 TOLERANCE IN THICKNESS. The subbase shall be constructed to the thickness shown on the Plans. Thickness determinations shall be made by depth tests or cores taken at intervals in such a manner that each test shall represent no more than 400 square yards. When the base deficiency is more than ½-inch, the Contractor shall correct such areas by scarifying, adding satisfactory base mixture, rolling, sprinkling, reshaping, and finishing in accordance with these Specifications.

The Contractor shall replace, at his expense, the subbase material where borings have been taken for test purposes.

For purposes of determining suitability for placement of Item 209, the Contractor shall also furnish grade elevations for the granular drainage subbase to the Project Engineer for review, as specified under Section 50-06 (Responsibility of the Contractor Paragraph G).

800927-3.8 PROTECTION. Work on the subbase shall not be accomplished during freezing temperatures nor when the subgrade is wet. When the aggregates contain frozen materials or when the underlying course is frozen, the construction shall be stopped.

Hauling equipment may be routed over completed portions of the subbase, provided no damage results and provided that such equipment is routed over the full width of the course to avoid rutting or uneven compaction. However the Resident Engineer shall have the full and specific authority to stop all hauling over completed or partially completed subbase when, in his opinion, such hauling is causing damage. Any damage resulting from routing equipment over the course shall be repaired by the Contractor at his own expense.

800927-3.9 MAINTENANCE. Following the completion of the subbase, the Contractor shall perform all maintenance work necessary to keep the subbase in good condition. The subbase shall be properly drained at all times. If cleaning is necessary, any work or restitution necessary shall be at the expense of the Contractor.

METHOD OF MEASUREMENT

800927-4.1 The Granular Drainage Subbase to be paid for shall be the measured area in square yards for each thickness of subbase course placed, bonded and accepted by the Resident Engineer.

BASIS OF PAYMENT

800927-5.1 Payment will be made at the Contract unit price per square yard, per each thickness indicated on the Plans, for Granular Drainage Subbase. This price shall be full compensation for furnishing all materials and for the preparation, hauling, and placing of these materials, for furnishing certified scales, and for all labor, equipment, tools and incidentals necessary to complete the item to the satisfaction of the Engineer.

Payment will be made under:

Item AR800927	Granular Drainage Subbase - 6" - per square yard.
Item AS800927	Granular Drainage Subbase - 6" - per square yard.

FLEXIBLE SURFACE COURSES

ITEM 401

BITUMINOUS SURFACE COURSE - SUPERPAVE

(Central Plant Hot Mix)

Revise Item 401 (Superpave) of the Standard Specifications as follows:

401-1.1 DESCRIPTION. Add the following paragraphs:

"Item 603 Bituminous Tack Coat shall be placed between this item and the Bituminous Base Course, and between the first and any subsequent lifts for this item, if applicable, in accordance with Item 603, and as approved by the Resident Engineer.

"For purposes of materials, design and testing criteria, this item is to be constructed for **Aircraft Under 60,000 Pounds, Runway or Taxiway** and for **Method II - Over 2,500 Tons/Pay Item**.

"This item shall also include the requirements prescribed in Illinois Division of Aeronautics Policy Memorandums 87-2, Density Acceptance of Bituminous Pavements; 87-4, Determination of Bulk Specific Density of Compacted Bituminous Mixes; 96-3, Requirements for Quality Assurance on Projects with Bituminous Concrete Paving, and; 2003-1, Requirements for Laboratory, Testing, Quality Control, and Paving of Superpave Bituminous Concrete Mixes for Airports, current issues."

COMPOSITION

401-3.2 JOB MIX FORMULA. Add the following:

"This item is to be designed for **Aircraft Under 60,000 Pounds, Runway or Taxiway**.

401-3.4 TEST SECTION. Add the following:

"A test section shall be furnished as specified."

CONSTRUCTION METHODS

401-4.4 HMA PAVERS. Add the following to the end of this Section:

"Should Plan grade elevations and slopes for the Bituminous Base Course have been achieved, subject to the tolerances permitted for Item AR403614, the Contractor may use a ski-type device of not less than 30 feet in length, or as directed by the Engineer, in conjunction with the HMA paver controls. Should Plan grade elevations and/or slopes have not been achieved for the Bituminous Base Course, taut stringline (wire) shall be used for grade control."

401-4.16 SURFACE TESTS. Add the following:

"To verify conformance with Plan final grades, the Contractor shall furnish grade elevations for the final surface lift to the Project Engineer for review, as specified under Section 50-06 (Responsibility of the Contractor Paragraph G)."

401-4.17 SAMPLING PAVEMENT. Add the following to the end of this Section:

"The paving shall be furnished under Method II procedures, and coring for air voids and for thickness verification shall be performed."

BASIS OF PAYMENT

401-6.1 Add:

"Payment will be made under:

Item AR401614	Bit. Surf. Cse. - Method II, Superpave - per ton.
Item AR401630	Bituminous Surface Test Section - per each.
Item AS401614	Bit. Surf. Cse. - Method II, Superpave - per ton."

ITEM 401650

HMA PAVEMENT MILLING

Revise Item 401650 of the Standard Specifications follows:

DESCRIPTION

401-1.1 Add the following:

"The required milling depth varies and shall be sufficient to provide for the complete removal of existing HMA pavement thickness at the locations shown in the Plans, or as directed by the Resident Engineer. Boring logs of the existing pavement are shown in the Plans, but they do not represent a complete investigation of all possible pavement thickness that may be encountered while completing this item. Differing depths shall not be measured separately for payment, but shall be paid in square yards regardless of the milling depth."

"Pavement milling necessary for butting new pavement with existing pavement to remain will be measured for pavement under this item."

CONSTRUCTION METHODS

401-3.1 Add the following:

"Bituminous millings from this Work shall be incorporated into the work as embankment or backfill in the area "Other Acceptable Material", as shown in the Plans. After spreading at the locations approved by the Resident Engineer, the material shall be thoroughly compacted by rolling. The rolling shall progress gradually from the sides to the center of the lane under construction, or from one side toward previously placed material by lapping uniformly each preceding rear wheel track by one-half the width of such track. Rolling shall continue until the material is thoroughly set, the interstices of the material reduced to a minimum, and creeping of the material ahead of the roller is no longer visible. Rolling shall continue until the material has been compacted to not less than 95 percent of maximum density when tested in accordance with ASTM D-698 (Standard Proctor). Blading and rolling shall be done alternately, as required or directed, to obtain smooth, even and uniformly compacted backfill. The Contractor will provide a test report under ASTM D-698, Standard Test Methods for Laboratory Compaction Characteristics of Soil using Standard Effort (Standard Proctor), to be used for purposes of compaction control testing by the Resident Engineer. The costs of all Work associated with sampling, hauling, placing, and compacting the millings as embankment in the Project and at the locations approved by the Resident Engineer shall be included in the Contract unit price for Bituminous Pavement Milling."

METHOD OF MEASUREMENT

401-4.1 Delete the last sentence of this section and replace with the following:

"Pavement milling necessary for butting new pavement with existing pavement to remain will be measured for pavement under this item."

BASIS OF PAYMENT

401-5.1 Add the following:

"Payment will be made under:

"Item AR401650 Bituminous Pavement Milling - per square yard."

ITEM 401660

SAW AND SEAL BITUMINOUS JOINTS

DESCRIPTION

401660-1.1 This item shall consist of a resilient and adhesive joint sealing filler capable of effectively sealing joints in bituminous asphalt pavement at the locations shown in the Plans or as directed by the Resident Engineer.

MATERIALS

401660-2.1 The joint sealing materials shall conform to ASTM D6690 - Type II.

CONSTRUCTION METHODS

401660-3.1 The Contractor shall mark true lines for each joint sealant location. Each location shall then be sawed to the depth shown on the Plans and the Saw and Seal Joints detail. The costs for sawing for joint sealant placement shall be included in the Contract unit price for Item AR401660. Prior to filling, the joint shall be thoroughly cleaned of all laitance, protrusions, dirt, dust, and other objectionable material and the faces of the joints shall be dry. The filler may then be placed at the depths shown on the Plans and in accordance with manufacturer's recommendations for this type of installation. At the time of application of the sealing compound, the atmospheric and pavement temperature shall be above 50° F. The weather shall not be rainy or foggy. The temperature requirements may be waived only when so directed by the Engineer in writing. The Contractor shall not install any joint sealer material until the Resident Engineer has inspected and approved the condition of the joints immediately prior to the installation of the sealer.

Before sealing the joints, the Contractor shall be required to demonstrate that the equipment and procedures for preparing, mixing and placing the sealing compound will produce a satisfactory joint seal. During the course of the work, any batches that do not have good consistency for application shall be rejected.

METHOD OF MEASUREMENT

401660-4.1 The joint sealing filler to be paid for shall be the linear feet of filler or sealer as specified, sawed and placed, complete and accepted.

BASIS OF PAYMENT

401660-4.1 Payment will be made at the Contract unit price per linear foot for Saw and Seal Bituminous Joints, which price shall be full compensation for the materials, labor, equipment, tools and incidentals necessary to complete the item as specified and to the satisfaction of the Engineer.

Payment will be made under:

Item AR401660 Saw and Seal Bit. Joints - per linear foot.

ITEM 401665

BITUMINOUS PAVEMENT SAWING

DESCRIPTION

401665-1.1 This item shall consist of a saw cut at the extremity of bituminous pavements that are to be removed by milling or by hand, or as directed by the Resident Engineer. The depth of saw shall be partial depth for milling or full depth for hand removal, as shown in the Plans or as directed by the Resident Engineer.

CONSTRUCTION METHODS

401665-2.1 The existing pavement shall be saw cut at the locations shown in the Plans or as directed by the Resident Engineer. Saw depth shall be as shown in the Plans at milling locations, or full depth at hand removal locations. During sawing and removal, should any of the pavement to remain be damaged due to a saw cut of insufficient depth, the damaged pavement shall be replaced in a manner satisfactory to the Resident Engineer. However, this pavement replacement shall not be measured for payment.

METHOD OF MEASUREMENT

401665-3.1 This item shall be measured in linear feet marked by the Resident Engineer prior to sawing. Saw cutting outside the limits marked by the Resident Engineer will not be measured for payment.

BASIS OF PAYMENT

401665-4.1 Payment will be made at the Contract unit price per linear foot for bituminous pavement sawing, which price shall be full compensation for the labor, equipment, tools and incidentals necessary to complete the item as specified and to the satisfaction of the Engineer.

Payment will be made under:

Item AR401665 Bituminous Pavement Sawing - per linear foot.

ITEM 401910

REMOVE AND REPLACE BITUMINOUS PAVEMENT

GENERAL

401910-1.1 This item shall consist of the saw cutting and removing of a portion of existing Bituminous pavement and replacement with new Bituminous pavement at the locations shown on the Plans, and as directed by the Resident Engineer.

MATERIALS

401910-2.1 Materials used in completing this item shall meet the individual requirements of the Standard Specifications and these Special Provisions. Materials include:

- | | |
|--|---------------|
| a. Bituminous Pavement Sawing | Item 401665 |
| b. Subgrade Backfill | (As required) |
| c. Crushed Aggregate Base Course | Item 209 |
| d. Bituminous Prime Coat | Item 602 |
| e. Bituminous Tack Coat | Item 603 |
| f. Bituminous Base and Surface Courses | Items 401/403 |

CONSTRUCTION METHODS

401910-3.1 This item shall be completed in the following manner:

- a. Saw Cut. The limits of pavement to be removed and replaced will be marked by the Resident Engineer. Initial and secondary saw cuts shall be performed as shown in the Plans. It shall be the Contractor's responsibility to determine the depth of pavement prior to saw cutting to provide a full depth cut. Saw cutting will be measured separately for payment under Item 401665.
- b. Removal. The HMA surface and base material and the crushed aggregate material, to the depths shown on the Plans, shall be excavated and disposed of by the Contractor at an off-Airport location. No additional compensation will be made for hauling and disposal of the removed material. During removal, should any of the pavement to remain be damaged, the damaged pavement shall be replaced in a manner satisfactory to the Resident Engineer. However, this additional pavement replacement shall not be measured for payment.
- c. Subgrade Inspection. The subgrade will be inspected by the Engineer for its suitability. Should removal and replacement of unsuitable subgrade be required, excavation and backfill with suitable Item 152 material shall be paid under Item 152.
- d. Crushed Aggregate Base Course. Crushed Aggregate Base Course shall be constructed as specified in Item 209. Thickness shall match the existing aggregate base course thickness - minimum thickness to be furnished shall be six (6.0) inches.
- e. Bituminous Prime Coat. Bituminous prime coat shall be applied to the aggregate base as specified in Item 602.
- f. Bituminous Tack Coat. Bituminous tack coat shall be applied to each successive layer of Bituminous base course and between the Bituminous base and surface courses, as specified in Item 603.

- g. Bituminous Base and Surface Courses. Bituminous base course shall be constructed in accordance with Item 403; Bituminous surface course shall be constructed in accordance with Item 401. The thickness of Base course shall match the existing pavement, but shall not be less than two (2.0) inches. The thickness of Surface course shall match the existing pavement, but shall not be less than two (2.0) inches. The maximum thickness of any one lift shall not exceed three inches.

METHOD OF MEASUREMENT

- 401910-4.1 Removal and Replacement of Bituminous pavement to be paid shall be the area in square yards measured in place, completed and accepted. The length and width for measurement will be the outside lines as marked by the Engineer prior to removal. Replacement of areas outside the limits marked by the Engineer will be completed in accordance with this item, but shall not be measured for payment.

With the exception of initial and final saw cutting, which will be measured and paid under Item AR401665, and unsuitable subgrade removal and backfill, if required, which shall be paid under Item 152, no other material or work will be separately measured for payment.

BASIS OF PAYMENT

- 401910-5.1 Payment will be made at the Contract unit price per square yard for pavement removal and replacement, which shall be full compensation for all labor, materials, equipment, tools and incidentals necessary to complete the item specified and accepted.

Payment will be made under:

Item AR401910 Remove & Replace Bit. Pavement - per square yard.

ITEM 403

BITUMINOUS BASE COURSE - SUPERPAVE

(Central Plant Hot Mix)

Revise Item 403 (Superpave) of the Standard Specifications as follows:

403-1.1 DESCRIPTION. Add the following paragraphs:

"The Bituminous Base Course for all new pavements shall be placed upon an aggregate base prepared in accordance with Item 602 Bituminous Prime Coat.

"For Bituminous Base Course constructed in two or more lifts, the second and succeeding lifts shall be placed upon a Bituminous Tack Coat, furnished in accordance with Item 603. Each specified tack coat application **SHALL** be required, regardless of condition of the underlying pavement.

"For purposes of materials, design and testing criteria and test section, this item is to be constructed for **Aircraft Under 60,000 Pounds, Runway or Taxiway** and for **Method II - Over 2,500 Tons/pay item**.

"This item shall also include the requirements prescribed in Illinois Division of Aeronautics Policy Memorandums 87-2, Density Acceptance of Bituminous Pavements; 87-4, Determination of Bulk Specific Density of Compacted Bituminous Mixes; 96-3, Requirements for Quality Assurance on Projects with Bituminous Concrete Paving, and; 2003-1, Requirements for Laboratory, Testing, Quality Control, and Paving of Superpave Bituminous Concrete Mixes for Airports, current issues."

COMPOSITION

403-3.2 JOB MIX FORMULA. Add the following:

"This item is to be designed for **Aircraft Under 60,000 Pounds, Runway or Taxiway**.

403-3.4 TEST SECTION. Add the following:

"A test section shall be furnished as specified."

CONSTRUCTION METHODS

403-4.4 HMA PAVERS. Add the following to the end of this Section:

"For the first lift of Bituminous Base Course, taut stringline (wire) shall be used. The grade elevations for the crushed aggregate base course furnished by the Contractor under Section 50-06 (Responsibility of the Contractor Paragraph G) shall first have been reviewed by the Project Engineer. After placement of the first base course lift, the Project Engineer shall then review the grade elevations resulting from the first lift's placement, **as furnished by the Contractor under Section 50-06 (Responsibility of the Contractor Paragraph G)**. Should Plan grade elevations and slopes for the Bituminous Base Course have been achieved, subject to the tolerances permitted for Item AR403614, subsequent lifts may be constructed by the Contractor using a ski-type device of not less than 30 feet in length, or as directed by the Engineer, in conjunction with the HMA paver controls. Each paving lift shall be reviewed for conformance with Plan elevations and slopes. Should Plan grade elevations and/or slopes have not been achieved for the Bituminous Base Course, taut stringline (wire) shall be used for grade control on each subsequent lift until satisfactory grade elevations and slopes are achieved."

403-4.14 SURFACE TESTS. Add the following:

"To verify conformance with Plan Base course grades, the Contractor shall furnish grade elevations for the first and final base course lift to the Project Engineer for review, as specified under Section 50-06 (Responsibility of the Contractor Paragraph G). Should grades not be achieved on the first lift, the Contractor shall develop a plan to achieve the required grades prior to paving the next lift, and shall survey each subsequent lift in accordance with Section 50-06 (Responsibility of the Contractor Paragraph G) until the Plan grades are achieved."

403-4.15 SAMPLING PAVEMENT. Add the following to the end of this Section:

"The paving shall be furnished under Method II procedures, and coring for air voids and for thickness verification shall be performed."

BASIS OF PAYMENT

403-6.1 Add:

"Payment will be made under:

Item AR403614	Bit. Base Cse. - Method II, Superpave - per ton.
Item AR403630	Bituminous Base Test Section - per each.
Item AS403614	Bit. Base Cse. - Method II, Superpave - per ton."

RIGID PAVEMENT

ITEM 501604

PORTLAND CEMENT CONCRETE SIDEWALK

501604-1.1 This item shall consist of Portland Cement concrete sidewalk constructed on a prepared subgrade, at the locations shown in the Plans. The concrete thickness shall be four (4) inches, as shown in the Plans.

MATERIALS AND EQUIPMENT

501604-2.1 MATERIALS. Concrete materials shall meet the requirements of Item 610, Structural Portland Cement Concrete. Preformed fiber joint filler shall meet the requirements of Section 1051 of the IDOT Specifications, Standard Specifications for Road and Bridge Construction, Illinois Department of Transportation, adopted January 1, 2012, as revised. Hot-poured joint sealer shall be ASTM D 6690, Type II, Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.

501604-2.2 EQUIPMENT. Equipment shall meet the requirements of Section 424.03 of the IDOT Specifications, Standard Specifications for Road and Bridge Construction, Illinois Department of Transportation, adopted January 1, 2012, as revised.

CONSTRUCTION REQUIREMENTS

501604-3.1 CONSTRUCTION REQUIREMENTS. The construction shall be completed as shown in the details and notes shown in the Plans and in accordance with Sections 424.04 through 424.11 of the IDOT Specifications, Standard Specifications for Road and Bridge Construction, Illinois Department of Transportation, adopted January 1, 2012, as revised.

In addition, all expansion and sawed contraction joints shall be sealed with hot-poured joint sealer, meeting requirements of ASTM D 6690, Type II, Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.

METHOD OF MEASUREMENT

501604-4.1 METHOD OF MEASUREMENT. Portland Cement concrete sidewalk will be measured for payment in place, and the area computed in square feet. Joint filler and sealant shall not be measured separately for payment but shall be incidental to the Contract unit price for sidewalk.

BASIS OF PAYMENT

501604-5.1 BASIS OF PAYMENT. This work will be paid for at the Contract unit price per square foot for Portland Cement Sidewalk of the thickness specified, which price shall be full compensation for furnishing all labor, materials, tools, equipment, and incidentals, including all required expansion joints, sawed or tooled joint sealing, special texturing, and variable height edge treatment at sidewalk aprons and accessibility ramps, necessary to complete the item as specified.

Payment will be made under:

Item AR501604 4" PCC Sidewalk - per square foot.

MISCELLANEOUS

ITEM 602

BITUMINOUS PRIME COAT

Revise Item 602 of the Standard Specifications as follows:

DESCRIPTION

602-1.2 QUANTITIES OF BITUMINOUS MATERIAL. Add the following:

"The quantity of prime coat shown in the Plans is based upon the application of 0.30 gallon per square yard of area."

CONSTRUCTION METHODS

Add:

602-3.6 INDEPENDENT WEIGHT CHECKS. Although this item is documented for payment in gallons, it is based on a measurement of weight which requires any placement of this material be subject to IDOT, Division of Aeronautics, requirement for independent weight checks for asphalt tonnage items. The Contractor shall cooperate with the Resident Engineer in conducting and furnishing any and all before and after weight checks that are required under these policies. The costs for these weight checks shall not be paid for separately, but shall be included in the Contract unit price for this item.

METHOD OF MEASUREMENT

602-4.1 Add the following paragraph to this Section:

"Although this item is documented for payment in gallons, it is based on a measurement of weight which requires any placement of this material be subject to IDOT, Division of Aeronautics, requirement for independent weight checks for asphalt tonnage items. The Contractor shall cooperate with the Resident Engineer in conducting and furnishing any and all before and after weight checks that are required under these policies. The costs for these weight checks shall not be paid for separately, but shall be included in the Contract unit price for this item."

BASIS OF PAYMENT

602-5.1 Add the following:

"Payment will be made under:

"Item AR602510	Bituminous Prime Coat - per gallon.
Item AS602510	Bituminous Prime Coat - per gallon."

ITEM 603

BITUMINOUS TACK COAT

Revise Item 603 of the Standard Specifications as follows:

DESCRIPTION

603-1.2 QUANTITIES OF BITUMINOUS MATERIAL. Add the following:

"The quantity of tack coat shown in the Plans is based upon the application of 0.15 gallon per square yard of area, per lift. Each specified tack coat application **SHALL** be required, regardless of condition of the underlying pavement."

CONSTRUCTION METHODS

Add:

603-3.6 INDEPENDENT WEIGHT CHECKS. Although this item is documented for payment in gallons, it is based on a measurement of weight which requires any placement of this material be subject to IDOT, Division of Aeronautics, requirement for independent weight checks for asphalt tonnage items. The Contractor shall cooperate with the Resident Engineer in conducting and furnishing any and all before and after weight checks that are required under these policies. The costs for these weight checks shall not be paid for separately, but shall be included in the Contract unit price for this item.

METHOD OF MEASUREMENT

603-4.1 Add the following paragraph to this Section:

"Although this item is documented for payment in gallons, it is based on a measurement of weight which requires any placement of this material be subject to IDOT, Division of Aeronautics, requirement for independent weight checks for asphalt tonnage items. The Contractor shall cooperate with the Resident Engineer in conducting and furnishing any and all before and after weight checks that are required under these policies. The costs for these weight checks shall not be paid for separately, but shall be included in the Contract unit price for this item."

BASIS OF PAYMENT

603-5.1 Add the following:

"Payment will be made under:

"Item AR603510	Bituminous Tack Coat - per gallon.
Item AS603510	Bituminous Tack Coat - per gallon."

ITEM 610

STRUCTURAL PORTLAND CEMENT CONCRETE

Revise Item 610 of the Standard Specifications as follows:

DESCRIPTION

610-1.1 Add the following:

"This item shall also include the requirements prescribed in Illinois Division of Aeronautics Policy Memorandums 18-08.1, Acceptance Procedure for Finely Divided Minerals Used in Portland Cement Concrete and Other Applications; 96-1, Item 610, Structural Portland Cement Concrete: Job Mix Formula Approval and Production Testing, and; 2001-1, Requirements for Cold Weather Concreting, current issues."

CONSTRUCTION METHODS

610-3.16 CURING AND PROTECTION. Add the following:

"All Structural Portland Cement Concrete placed under Item 610 which is exposed to weather, **shall be cured and protected by the Membrane Curing Method** using an IDOT-approved curing compound, as specified herein, and whose cost shall be incidental to Item 610."

BASIS OF PAYMENT

No direct payment will be made for structural Portland cement concrete. The cost of furnishing and installing structural concrete shall be considered incidental to the Contract unit prices for the respective pay items utilizing the concrete. These prices shall be full compensation for furnishing all materials and for all preparation, delivering and installation of these materials, and for all labor, equipment, tools and incidentals necessary to complete the item.

ITEM 620

PAVEMENT MARKING

Revise Item 620 of the Standard Specifications as follows:

MATERIALS

620-2.2 PAINT. Add the following as the first Paragraph:

"Permanent white and yellow in waterborne media, and black markings in waterborne media shall be furnished. **White paint shall conform to Federal Standard No. 595, color 37925. Yellow paint shall conform to Federal Standard No. 595, color 33655. Black paint shall conform to Federal Standard No. 595, color 37038.**"

CONSTRUCTION METHODS

620-3.5 APPLICATION. Revise the first sentence in the second Paragraph of this Section to read:

"The waterborne paint shall be mixed in accordance with the manufacturer's instructions and applied to the pavement with a marking machine in two applications, each at the rate(s) shown in TABLE 1. The addition of thinner will not be permitted."

620-3-7 PAVEMENT MARKING REMOVAL. Add the following to this Section:

"Surface grinding shall **NOT** be permitted on pavements that are not to be overlain in this Project."

BASIS OF PAYMENT

620-5.1 Add the following:

"Payment will be made under:

Item AR620520	Pavement Marking - Waterborne - per square foot.
Item AR620525	Pavement Marking - Black Border - per square foot.
Item AS620520	Pavement Marking - Waterborne - per square foot.
Item AS620525	Pavement Marking - Black Border - per square foot."

DIVISION IV

DRAINAGE

ITEM 701

PIPE FOR STORM SEWERS AND CULVERTS

Revise Item 701 of the Standard Specifications as follows:

DESCRIPTION

701-1.1

Add the following:

"This item shall also include the removal of existing pipe, regardless of size and type, at the locations shown in the Plans, or as directed by the Resident Engineer.

"This item shall also include the construction of a restrictor pipe at the pipe end location shown on the Plans or as directed by the Resident Engineer."

CONSTRUCTION METHODS

701-3-12

RESTRICTOR PIPE. The installation of the restrictor pipe shall be furnished as shown in the Plans. The cost for this work, including, labor, materials, tolls and incidentals necessary to complete the work to the satisfaction of the Resident Engineer shall be incidental to Item 701, and no separate measurements shall be made.

METHOD OF MEASUREMENT

701-4.2

Delete this section

701-4.3

Delete this Section.

Add:

701-4.4

The footage of pipe removed to be paid for shall be the number of linear feet of pipe, marked for removal in the Plans or by the Resident Engineer, completed and approved, to be measured along the centerline of the pipe from end of pipe or inside face of structure to the end of pipe or inside face of structure, whichever is applicable. The classes, and types and sizes of pipe removed will not be measured separately, but shall be the sum of all measured pipe lengths.

BASIS OF PAYMENT

701-5.1 Add the following:

"Payment will be made under:

Item AR701512	12" RCP, Class IV - per linear foot.
Item AR701518	18" RCP, Class IV - per linear foot.
Item AR701524	24" RCP, Class IV - per linear foot.
Item AR701530	30" RCP, Class IV - per linear foot.
Item AR701536	36" RCP, Class IV - per linear foot.
Item AR701542	42" RCP, Class IV - per linear foot.
Item AR701900	Remove Pipe - per linear foot."

ITEM 705

PIPE UNDERDRAINS FOR AIRPORTS

Revise Item 705 of the Standard Specifications as follows:

705-1.1 DESCRIPTION. Add the following:

"The underdrain pipe shall be wrapped with a filter fabric casing. A second Underdrain Trench Envelope surrounding the trench, with the underdrain pipe and the porous granular material (Porous Material No. 2), shall also be included.

"This item shall also include the installation of concrete underdrain inspection holes and cleanouts, as shown in the Plans and as specified below.

"This item shall also include the construction of an infiltration trench to include perforated, Schedule 80 PVC piping with fabric sock, coarse aggregate backfill material, and trench fabric envelope, at the locations shown in the Plans and as detailed in the Plans, and as directed by the Resident Engineer."

MATERIALS

705-2.12 CORRUGATED POLYETHYLENE (PE) TUBING AND IGS FITTINGS. Delete this Section and replace with the following:

"705-2.12 CORRUGATED POLYETHYLENE (PE) TUBING AND IGS FITTINGS. All underdrain shall be 6-inch perforated corrugated polyethylene (PE) pipe, **double wall** with a smooth inner surface, conforming to the requirements of AASHTO M 252, Type SP, Class 2. The underdrain shall be wrapped with a filter fabric casing, as noted in Section 705-2.13.

"In accordance with FAA Buy American Preferences, required under this Project, all materials used for this item shall be made in USA from raw materials manufactured in the USA. The Contractor shall furnish a certification attesting to adherence to the Buy American Preferences Act."

Add:

705-2.15 UNDERDRAIN TRENCH ENVELOPE. The trench for the underdrain pipe and porous material shall be wrapped in a nonwoven filter fabric envelope. The trench fabric shall be Mirafi 140N, by TC Mirafi, or equal, meeting the specifications for nonwoven fabric listed in Section 705-2.13. Alternate fabrics may be submitted for consideration by the Engineer. The filter fabric shall not be measured separately but shall be included in the Contract unit price for underdrain pipe.

In accordance with FAA Buy American Preferences, required under this Project, all materials used for this item shall be made in USA from raw materials manufactured in the USA. The Contractor shall furnish a certification attesting to adherence to the Buy American Preferences Act.

Add:

705-2.16 UNDERDRAIN CLEANOUT AND INSPECTION HOLE. Underdrain cleanout and inspection hole shall be as shown in the details and notes shown on the Plans. Concrete collar may be cast-in-place of concrete meeting Item 610 or pre-cast meeting IDOT Specifications for Class PC concrete. Pre-cast structures shall be from IDOT-approved sources. Frames and lids shall be **manufactured in the United States of U.S.-made steel**, and of the type and size shown in the Plans. Bolts and washers for bolted frame and lid/grate assemblies shall be **stainless steel**. The area between the pipe and the frame opening shall be grouted and sealed with a cement mortar. Separate payment for the frame and grate, cement mortar and other incidentals shall not be made but shall be included in the unit price for cleanout and inspection hole.

Add:

705-2.17 PERFORATED PVC PIPE FOR INFILTRATION TRENCH. All pipe for Infiltration Trench shall be **12-inch diameter, Schedule 80 PVC, conforming to ASTM D-1785, manufactured from a PVC compound with a cell class 12454-B as defined in ASTM D-1784, with perforations meeting AASHTO M 278, Highway Underdrain Specifications.**

In accordance with FAA Buy American Preferences, required under this Project, all materials used for this item shall be made in USA from raw materials manufactured in the USA. The Contractor shall furnish a certification attesting to adherence to the Buy American Preferences Act.

Add:

705-2.18 COARSE AGGREGATE BACKFILL FOR INFILTRATION TRENCH. Coarse aggregate backfill material shall conform to the requirements for IDOT CA-1. The aggregate backfill shall not be measured separately, but shall be included in the Contract unit price for infiltration trench.

Add:

705-2.19 FABRIC SOCK FOR INFILTRATION TRENCH PVC PIPE. The sock for the infiltration pipe shall meet the requirements in Section 705-2.13. The fabric sock shall not be measured separately, but shall be included in the Contract unit price for infiltration trench.

In accordance with FAA Buy American Preferences, required under this Project, all materials used for this item shall be made in USA from raw materials manufactured in the USA. The Contractor shall furnish a certification attesting to adherence to the Buy American Preferences Act."

Add:

705-2.20 INFILTRATION TRENCH ENVELOPE. The trench for the PVC pipe and coarse aggregate material for the Infiltration Trench shall be wrapped in a nonwoven filter fabric envelope. The trench fabric shall be Mirafi 140N, by TC Mirafi, or equal, meeting the specifications for nonwoven fabric listed in Section 705-2.13. Alternate fabrics may be submitted for consideration by the Engineer. The filter fabric envelope shall not be measured separately, but shall be included in the Contract unit price for infiltration trench.

In accordance with FAA Buy American Preferences, required under this Project, all materials used for this item shall be made in USA from raw materials manufactured in the USA. The Contractor shall furnish a certification attesting to adherence to the Buy American Preferences Act.

CONSTRUCTION METHODS

705-3.7 CONNECTIONS. Add the following:

"Underdrain pipe connections to the storm sewer system are to be made at manholes unless otherwise shown on the Plans. These connections shall be made through smooth, cored holes made at the proper invert elevation. Holes remaining from existing underdrain pipe connections removed in this work shall be patched to the satisfaction of the Resident Engineer. Concrete conforming with Item 610 shall be used. Connections to structures and patching of existing connections removed shall not be paid for separately but shall be included in the Contract price for underdrain.

METHOD OF MEASUREMENT

705-4.1 Add the following:

"The linear feet of Infiltration Trench to be paid shall be the linear feet of Infiltration Trench in place, completed, and approved, to be measured along the centerline of the pipe from end or inside face of structure to the end or inside face of structure, whichever is applicable."

BASIS OF PAYMENT

705-5.1 In the first Paragraph, add "and Infiltration Trench" after "... underdrains ...".

In the first Paragraph add "underdrain trench envelope, infiltration pipe sock, infiltration trench envelope, and coarse aggregate backfill for infiltration trench" to items not to be measured for payment purposes.

Add the following:

"Payment will be made under:

Item AR705506	6" Perforated Underdrain - per linear foot.
Item AR705630	Underdrain Inspection Hole - per each.
Item AR705640	Underdrain Cleanout - per each.
Item AR800907	Infiltration Trench - per linear foot."

ITEM 751

MANHOLES, CATCH BASINS, INLETS AND INSPECTION HOLES

Revise Item 751 of the Standard Specifications as follows:

DESCRIPTION

751-1.1 Add the following to the first paragraph:

"This item shall also meet IDOT Specifications and AASHTO M 199 (ASTM C-478) for pre-cast drainage structures."

MATERIALS

751-2.6 FRAMES, COVERS AND GRATES. Add the following:

"Bolts and washers for bolted frame and lid/grate assemblies shall be **stainless steel**.

"In accordance with FAA Buy American Preferences, required under this Project, all materials used for this item shall be made in USA from raw materials manufactured in the USA. The Contractor shall furnish a certification attesting to adherence to the Buy American Preferences Act."

751-2.7 STEPS. Add the following to this Section:

"Steps made from weather resistant copolymer polypropylene, of the size detailed in the Plans, and meeting the requirements of ASTM C-478 and AASHTO M-199, may also be used. The polypropylene shall conform to ASTM D-4101; the 1/2-inch Grade 60 deformed reinforcing bar shall meet ASTM A-615."

BASIS OF PAYMENT

751-5.1 Add the following:

"Payment will be made under:

Item AR751411	Inlet - Type A - per each.
Item AR751412	Inlet - Type B - per each.
Item AR751540	Manhole 4' - per each.
Item AR751550	Manhole 5' - per each.
Item AR751560	Manhole 6' - per each.
Item AR751567	Manhole 7' - per each.
Item AR751568	Manhole 8' - per each.
Item AR751569	Manhole 9' - per each."

ITEM 752

CONCRETE CULVERTS, HEADWALLS, AND MISCELLANEOUS DRAINAGE STRUCTURES

Revise Item 752 of the Standard Specifications as follows:

DESCRIPTION

752-1.1 Add the following:

"This item shall also consist of the grating for end sections as detailed in the Plans. **The Contractor shall coordinate the grating dimensions - including bolt hole locations - shown in the Plans with the construction of the flared end section.**

"This item shall also include the field construction of a pipe collar around an existing pipe to remain, at the locations shown on the Plans or as directed by the Resident Engineer."

MATERIALS

Add:

752-2.2 GRATING FOR FLARED END SECTION. Grating dimensions shall be as shown in the Plans. Structural steel shall conform to Section 1006.04 of the IDOT Specifications. Galvanized steel pipe shall conform to Section 1006.27 (b) of the IDOT Specifications. Nuts, bolts and washers shall be in accordance with Section 1006.27 (f) of the IDOT Specifications. All fabrication shall be completed prior to galvanizing. **The Contractor shall coordinate the grating dimensions - including bolt hole locations - shown in the Plans with the construction of the flared end section. In accordance with FAA Buy American Preferences, required under this Project, all materials used for this item shall be made in USA from raw materials manufactured in the USA. The Contractor shall furnish a certification attesting to adherence to the Buy American Preferences Act.**

752-2.3 FRAME AND GRATE FOR FIELD PIPE COLLAR. Frame and grate for the field pipe collar shall be as detailed in the Plans. **In accordance with FAA Buy American Preferences, required under this Project, all materials used for this item shall be made in USA from raw materials manufactured in the USA. The Contractor shall furnish a certification attesting to adherence to the Buy American Preferences Act.**

CONSTRUCTION METHODS

752-3.5 FIELD PIPE COLLAR. The field pipe collar shall be constructed in accordance with the Plan detail. The collar shall be constructed flush with the final grade for the swale side slope.

METHOD OF MEASUREMENT

752-4.1 Add the following:

"Gratings for FES shall be measured separately for payment by size of FES. The number of field pipe collars each to be paid shall be measured as one unit each at each location, and shall include all materials and work noted in the Plan detail."

BASIS OF PAYMENT

752-5.1 Add the following:

"Payment will be made under:

Item AR752412	Precast Reinforced Conc. FES 12" - per each.
Item AR752418	Precast Reinforced Conc. FES 18" - per each.
Item AR752430	Precast Reinforced Conc. FES 30" - per each.
Item AR752442	Precast Reinforced Conc. FES 42" - per each.
Item AR752512	Grating for Conc. FES 12" - per each.
Item AR752518	Grating for Conc. FES 18" - per each.
Item AR752530	Grating for Conc. FES 30" - per each.
Item AR752542	Grating for Conc. FES 42" - per each.
Item AR803009	Field Pipe Collar - per each."

DIVISION V

TURFING

ITEM 901

SEEDING

Revise Item 901 of the Standard Specifications as follows:

MATERIALS

901-2.1 SEED. Delete the seed mixture listed in the table and replace with the following:

"For Areas noted in the Vegetation Plan for **SEEDING**:

<u>"Minimum Amount of Common Name</u>	<u>Pure Live Seed per Acre</u>
SR5130 Chewings Fescue - <i>Festuca commutate</i>	55 Pounds
Sheep Fescue - <i>Festuca Ovina</i>	55 Pounds
Chariot Hard Fescue - <i>Festuca longifolia</i>	27.5 Pounds
Heron Hard Fescue - <i>Festuca rubra</i>	27.5 Pounds
Sea Link Creeping Red Fescue - <i>Festuca rubra</i>	27.5 Pounds
SR5250 Creeping Red Fescue - <i>Festuca rubra</i>	<u>27.5 Pounds</u>
"Total	220 Pounds per Acre

"For Areas noted in the Vegetation Plan for **CONSERVATION COVER**:

<u>"Minimum Amount of Common Name</u>	<u>Pure Live Seed per Acre</u>
Annual Ryegrass	60 Pounds *
Buffalo Grass (Cody or Bowie) [1]	60 Pounds
Inland Salt Grass - <i>Distichlis spicata</i>	<u>60 Pounds</u>
"Total	180 Pounds per Acre

"* After planting, the Contractor shall be required to mow the Conservation Cover area before the Ryegrass seed heads mature (the seeds could become a strong wildlife attractant if allowed to mature).

"[1] Pure live seed shall be used. Seed shall be primed with KNO3 (Potassium Nitrate) to break dormancy and dyed to indicate such."

Delete the third and fourth Paragraphs.

Add the following:

"Planting times shall be between August 20 and October 20. If fall planting is not possible, the mixture may be planted between March 15 and May 15. Seeding between June 1 and August 15 will not be permitted. If planted in the spring, the Contractor shall furnish additional measures beyond that otherwise required in these Special Provisions to prevent weed growth as recommended by a registered nurseryman at no additional cost to the Contract.

"A sample of selected seed species shall be made available on request to the Resident Engineer for viability testing by the tetrazolium trichloride method, not less than 21 calendar days prior to planting.

"Seed mixtures shall contain the proportion of seed of individual species indicated in the planting design. Changes in seed mixtures must be approved by the Project Engineer.

"All seeds shall be guaranteed by the Contractor to be true to name. All seeds shall have the proper pre-planting treatments, including stratification, scarification and/or inoculation to promote good germination and growth, prior to any seeding.

"All seedings shall be planted at the specified rates, utilizing the specified species unless otherwise authorized by the Project Engineer."

901-2.2 LIME. Replace this Section with the following:

"901-2.2 SOIL TESTING AND MODIFICATION. The Contractor shall perform a soil analysis of all on-site and off-site topsoil types to be used in the seedbed. The pH of the topsoil shall be between 5.5 pH and 6.5 pH. Should the pH be less than 5.5, the Contractor shall add agricultural lime of a type and source approved by IDOT, at application rates appropriate to achieve the required pH. Should the pH be greater than 6.5, the Contractor shall add potash of a type and source approved by IDOT, at rates appropriate to achieve the required pH. The Contractor shall furnish the test reports and proposed soil modifications for approval to the Engineer prior to any soil modification. All soil testing and modification shall be incidental to seeding or cover."

901-2.3 FERTILIZER. Delete this Section.

CONSTRUCTION METHODS

901-3.1 ADVANCE PREPARATION AND CLEANUP. Add the following as the first Paragraph:

"**ALL** perennial weeds and spontaneous vegetation shall be eliminated within the seedbed prior to seeding, using mowing/raking and herbicide. Herbicides used for weed removal shall be as recommended by the seed producer. Based upon actual conditions, it may be necessary for this weed removal to begin up to eight weeks before planting. When all vegetation is dead, the soil shall be tilled and otherwise prepared for planting as specified herein. Weed removal prior to acceptance of the lawn shall be incidental to the Contract."

Add the following sentence to the second Paragraph:

"Soil shall be prepared to have clods no more than 1½ inches on any side to ensure adequate seed-soil contact."

Add the following paragraphs:

"Seed shall not be placed on ground that is frozen or in any way in a condition that is detrimental to the seed.

"Areas shall be de-watered if necessary to accomplish any specified plantings. The method of de-watering shall be approved by the Resident Engineer.

"Final grading and site preparation must be inspected and approved by the Resident Engineer prior to any planting.

"Seedbed preparation shall commence as soon as practicable prior to planting. After preparation, these areas shall be protected from erosion.

"The proposed seeding method shall be stated by the Contractor. The seeding method shall result in a uniform distribution and complete coverage of the entire area to be seeded. If seed drilling is proposed, the seeder shall have an adjustable gate opening provided uniform flow and shall drop the seed directly into place on the prepared seed bed. If the broadcast method is used, within eight hours of seeding, all seeded areas should be rolled at right angles to the slope with a roller, cultipacker or hand tamped to compact the seedbed. Any areas broadcasted shall be sufficiently rolled or tamped to assist proper germination. All seeding equipment shall be calibrated to ensure the proper flow of seeds to deliver the specified quantities. The Contractor shall use only seeding equipment that is designed to plant grasses.

"All seeding shall be provided within the planting seasons stated in Section 901-2.1, unless season mixes are prior approved by the Project Engineer and conditions are acceptable for seeding as noted in Section 901-2.1.

"Measures to protect planted materials from grazing damage by wildlife shall be recommended and provided by the Contractor.

"Installation and maintenance of erosion control measures pertinent to seeding shall be the responsibility of the Contractor. Erosion control measures which may be damaged and/or removed by the Contractor during planting and related work shall be replaced by the Contractor.

"If on-site conditions change or are otherwise altered due to circumstances beyond the control of the Contractor, the Owner, and/or the Project Engineer, such that the Specifications and/or drawings are no longer valid, the Contractor shall notify the Resident Engineer so that remedial measures may be undertaken."

901-3.4 MAINTENANCE OF SEEDED AREAS. Add the following:

"After planting, the Contractor **shall be required to mow the Conservation Cover area before the Ryegrass seed heads mature** (the seeds could become a strong wildlife attractant if allowed to mature).

"**It is essential that the seeds planted herein are watered for one to two months after planting to increase germination rates and seedling survival. The Contractor shall regularly water the seedlings to promote proper germination. It is the Contractor's responsibility to regularly inspect the growth and furnish watering when required. All inspection and watering shall be incidental to seeding.**"

BASIS OF PAYMENT

901-5.1 Add the following:

"Payment will be made under:

"Item AR901510	Seeding - per acre.
Item AR803010	Conservation Cover - per acre."

ITEM 904

SODDING

Revise Item 904 of the Standard Specifications as follows:

MATERIALS

904-2.1 SOD. Add the following:

"The sod used shall be **turf-type tall fescue** which **produces rhizomes**. The sod shall be either nursery grown or field grown and be well rooted and approved by the Project Engineer prior to being cut and again before it is laid. Sod that has been grown on soil high in organic matter such as peat will not be acceptable. The consistency of adherent soil shall be such that it will not break, crumble or tear during handling and placing of the sod. The sod shall not use bluegrass as a filler or as a support plant for the sod.

"Each piece of sod shall be well covered with turf grass, shall be free from noxious weeds and other objectionable plants, and shall not contain substances injurious to growth. The grass shall be cut to a length of not less than 1-½ inches nor more than 4 inches before the sod is cut. The sod shall be cut in rectangular pieces with its shortest side not less than 12 inches. The sod shall not be cut less than ½-inch thick. This thickness measurement does not include grass. **The Contractor shall adjust the topsoil final grades for this sod thickness to meet the cross-sections shown in the Plans.**"

904-2.2 LIME. Replace this Section with the following:

"904-2.2 SOIL TESTING AND MODIFICATION. The Contractor shall perform a soil analysis of all on-site and off-site topsoil types to be used in the work. The pH of the topsoil shall be between 5.5 pH and 6.5 pH. Should the pH be less than 5.5, the Contractor shall add agricultural lime of a type and source approved by IDOT, at application rates appropriate to achieve the required pH. Should the pH be greater than 6.5, the Contractor shall add potash of a type and source approved by IDOT, at rates appropriate to achieve the required pH. The Contractor shall furnish the test reports and proposed soil modifications for approval to the Engineer prior to any soil modification. All soil testing and modification shall be incidental to seeding or cover."

904-2.3 FERTILIZER. Delete this Section.

CONSTRUCTION METHODS

904-3.3 APPLYING FERTILIZER AND GROUND LIMESTONE. Delete this Section.

BASIS OF PAYMENT

904-5.1 Add the following:

"Payment will be made under:

"Item AR904510 Sodding - per square yard."

ITEM 905

TOPSOILING

Revise Item 905 of the Standard Specifications as follows:

DESCRIPTION

905-1.1 Add the following:

"Topsoil shall be from on-site and created by stripping of topsoil from within the grading limits shown in the Plans and stockpiled at locations designated by the Contractor and approved by the Resident Engineer. Stripping of the topsoil and placing in the temporary stockpiles shall be paid under Item AR152410."

MATERIALS

905-2.1 TOPSOIL. Modify the allowed pH to read "**5.5 pH to 6.5 pH**".

Replace the last sentence of the first Paragraph with the following:

"At least 90 percent of the material shall pass the No. 10 sieve."

Add the following as the last Paragraph:

"Testing shall be performed by the Contractor for the on-site material. Soils testing and modification (with lime or sulfur to achieve pH, or blending to achieve gradation) shall be furnished in accordance with Item 901, as modified by these Special Provisions."

CONSTRUCTION REQUIREMENTS

905-3.4 PLACING TOPSOIL. Delete the first sentence of the first Paragraph and replace with the following:

"The topsoil shall be spread on the prepared areas to receive seeding or sodding. The resulting topsoil layer shall be at least four (4) inches in depth; at the outer limits the 4-inch depth can include the existing topsoil layer not disturbed by the construction."

METHOD OF MEASUREMENT

905-4.1 Revise the last sentence of this Section as follows:

"Topsoil shall be measured by volume in cubic yards computed by multiplying the square yards of area covered with on-site topsoil by a uniform 4-inch depth.

905-4.2 Delete this Section.

BASIS OF PAYMENT

905-5.1 Replace this Paragraph with the following:

"The quantity for Topsoiling, determined as provided in Section 905-4.1 above, will be paid for at the Contract unit price per cubic yard for the pay items listed below, which price and payment shall be full compensation for furnishing and placing all material and for all excavation, haul, labor, equipment, tools, and incidentals necessary to complete the work prescribed in this item, to the satisfaction of the Engineer."

Add the following:

"Payment will be made under:

"Item AR905510 Topsoiling (From On Site) - per cubic yard."

ITEM 908

MULCHING

Revise Item 908 of the Standard Specifications as follows:

DESCRIPTION

908-1.1 Add the following:

"Material used for mulching shall be **Heavy Duty** hydraulic mulch, applied and secured as otherwise provided in the Standard Specifications, regardless of the grade slopes to be mulched."

MATERIALS

908-2.1 MULCH MATERIAL. Delete the first Paragraph and replace with the following:

"Material used for mulching shall be **Heavy Duty** hydraulic mulch, as specified herein, regardless of the grade slopes to be mulched."

Delete Subparagraphs A, B and C.

Add the following to Paragraph D., Hydraulic Mulch:

"Material used for mulching shall be **Heavy Duty** hydraulic mulch, as specified herein, regardless of the grade slopes to be mulched."

CONSTRUCTION METHODS

908-3.1 MULCHING. Add the following:

"Hydraulic mulch shall be applied as specified herein for **Heavy Duty** applications."

BASIS OF PAYMENT

908-5.1 Add the following:

"Payment will be made under:

"Item AR908510 Mulching - per acre."

DIVISION VI

LIGHTING INSTALLATION

ITEM 108

INSTALLATION OF UNDERGROUND CABLE FOR AIRPORTS

Revise Item 108 of the Standard Specifications as follows:

108-1.1 DESCRIPTION. Add the following:

"This Item of work shall consist of the installation (plowing, trenching, directional-boring, or installing in ducts or raceways) of cable for airfield lighting circuits on runways, taxiways, and/or aprons, and the associated homeruns, at the locations shown on the Plans and in accordance with these Specifications. This item shall include cable in unit duct where noted on the Plans and specified herein.

"In areas where there is a congestion of buried cable or where the proposed cable crosses an existing cable, the Contractor will be required to trench the proposed cable into place. In all other areas, the Contractor has the option to either trench or plow the proposed cable in unit duct into place.

"When crossing existing circuits, the Contractor will be required to hand dig the trenches for the proposed cable."

Add:

108-1.2 REFERENCES.

- A. ASTM Specification B3 - Standard Specification for Soft or Annealed Copper Wire.
- B. ASTM Specification B8 - Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft.
- C. FAA Advisory Circular 150/5345 7E, (or latest edition) "SPECIFICATIONS FOR L 824 UNDERGROUND ELECTRICAL CABLE FOR AIRPORT LIGHTING CIRCUITS.
- D. FAA AC No. 150/5345-53D "AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM" (most current issue) and AC150/5345-53D, AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM Appendix 3 Addendum.
- E. FAA AC No. 150/5370-2F (or most current issue) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION.
- F. Federal Specification A-A-59544 Cable and Wire, Electrical (Power, Fixed Installation).
- G. NFPA 70 - National Electrical Code (most current issue in force).
- H. NFPA 70E - Standard for Electrical Safety in the Workplace.
- I. OSHA 29 CFR Part 1910 Occupational Safety and Health Standards for electrical safety and lockout/tagout procedures.

- J. UL Standard 44 - Thermoset-Insulated Wires and Cables.
- K. UL Standard 83 - Thermoplastic-Insulated Wires and Cables.
- L. UL Standard 854 - Service Entrance Cables.

Add:

108-1.3 SHOP DRAWINGS. The Contractor shall furnish shop drawings for approval before ordering equipment and/or materials. Shop drawings are required for each wire, conductor, and/or cable type to be used on the project. Shop drawings shall be clear and legible. Copies that are illegible will be rejected. Contractor shall submit sufficient copies of shop drawings to meet the needs of his personnel, sub-contractor personnel, and equipment suppliers plus four (4) copies to be retained by the Project Engineer. Shop drawings shall include the following information:

- A. **Certification of compliance with the AIP (Airport Improvement Program) Buy American Act Title 49 USC Section 50101 for all materials and equipment. Do not submit ARRA (American Recovery and Reinvestment Act) or NAFTA (North American Free Trade) certification as a substitute for certification of compliance with the AIP Buy American Preferences. Shop drawings submitted without certification of compliance with the Airport Improvement Program Buy American Preferences or without certification of manufacture in the United States of America in accordance with the AIP Buy American Requirements will be rejected. See the FAA website at: http://www.faa.gov/airports/aip/buy_american/ for more information on the Airport Improvement Program Buy American Preferences requirements.**
- B. In order to expedite the shop drawing review, inspection and/or testing of materials, the Contractor shall furnish complete statements to the Project Engineer as to the origin, composition, and manufacturer of all material to be used in the work. Such statements shall be furnished promptly after execution of the contract but, in all cases, prior to delivery of such materials.
- C. Indicate the pay item number for each respective cable and/or cable in unit duct.
- D. Shop drawings shall include wire/conductor/cable cut sheets with type, size, specifications, Intertek Testing Services (formerly ETL Testing Laboratories, Inc.) verification/listing or UL listing, manufacturer, and catalog or part number.
- E. Shop drawings for cable in unit duct items shall include cut sheets with type, size, specifications, Intertek Testing Services (formerly ETL Testing Laboratories, Inc.) verification/listing or UL listing, manufacturer, and catalog or part number for the respective unit duct.
- F. Where cable is required to have colored coded insulation, provide information on the color coding for the respective conductors.

MATERIALS

108-2.1 GENERAL. Add the following.

"All cable shall be FAA approved or UL-listed as suitable for installed application. Cable furnished on this project shall comply with the requirements of the "AIP Buy American Preferences". All conductors shall be copper."

108-2.2 CABLE. Revise this Section to read as follows:

"L-824 Cable – L-824 cable shall be FAA L-824, Type C and shall conform to the requirements of FAA Advisory Circular 150/5345-7E, (or latest edition) "SPECIFICATIONS FOR L-824 UNDERGROUND ELECTRICAL CABLE FOR AIRPORT LIGHTING CIRCUITS". L-824 cable shall be FAA approved and listed in the current AC150/5345-53C, AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM Appendix 3 Addendum. Circuits for use with constant current regulator outputs (runway or taxiway lighting circuits) shall use 5,000-Volt rated cable. Cable shall be manufactured in the United States of America to comply with the AIP Buy American Preferences requirement or be on the FAA list of Nationwide Buy American Waivers Issued by the FAA.

"Cable for use with airfield lighting series circuits (including runway lighting, taxiway lighting and taxi guidance signs) shall be one conductor No. 8, 5,000-Volt, FAA L-824, Type C, stranded.

"Item AR108108, 1/C #8 5KV UG Cable, shall be one conductor No. 8, 5,000-Volt, FAA L-824, Type C cable, stranded, installed in conduit, duct, manholes, handholes and/or splice cans.

"Item AR108158, 1/C #8 5KV UG Cable in UD, shall be one conductor No. 8, 5,000-Volt, FAA L-824, Type C cable, stranded, in unit duct (3/4-inch)."

"XLP-USE Wire. Cable shall comply with UL Standard 44, UL Standard 854, and Federal Specification A-A-59544. Conductor shall be concentric-strand, soft Copper, conforming to ASTM B8 and Underwriters' Laboratories Standard UL44 for Rubber Insulated Wires. Insulation shall be rated for 600-Volt. Insulation shall be cross-linked polyethylene conforming to Underwriters Laboratories Requirements for Type USE-2 insulation. Cable shall be UL-listed and marked USE-2. Cable shall be manufactured in the United States of America to comply with the Airport Improvement Program Buy American Requirement.

"Color-coding. Color-code phase and neutral conductor insulation for No. 6 AWG or smaller. Provide colored marking tape or colored insulation for phase and neutral conductors for No. 4 AWG and larger. **Insulated ground conductors shall have green colored insulation for all conductor sizes (AWG and/or KCMIL) to comply with NEC 250.119. Neutral conductors shall have white colored insulation for No. 6 AWG and smaller to meet the requirements of NEC 200.6.** Standard colors for power wiring and branch circuits for 240/120 VAC, 3-Phase, 4-Wire system shall be Phase A - Black, Phase B (High Leg) - Orange, Phase C - Blue, Neutral - White, and Ground - Green. Standard colors for power wiring and branch circuits for 208/120 VAC, 3-Phase, 4-Wire system shall be Phase A - Black, Phase B - Red, Phase C - Blue, Neutral - White, and Ground - Green. Standard colors for power wiring and branch circuits for 120/240 VAC, 1-Phase, 3-Wire system shall be Phase A - Black, Phase B - Red, Neutral - White, and Ground - Green."

108-2.4 CABLE CONNECTIONS. Add the following to this Section:

"The Contractor shall use a cable stripper/penciller whenever cable connections are made.

"All breaks in the unit duct shall be sealed by shrink kits.

"All below grade splices shall be installed in handholes, manholes, or splice cans. Splice cans shall be L-867, Class I, Size B (12 inch diameter), 24 inch deep with ½ inch thick steel cover. Larger size splice cans shall be provided, as applicable, for specific equipment applications or manufacturer's recommendations, and/or where detailed on the Plans. Splice cans located in areas subject to heavy aircraft or vehicle loading shall be L-868 type. The Engineer shall approve all splice locations before work commences. The furnishing and installing of splice cans for new homerun cables shall be incidental to the respective cable pay item, and no additional compensation will be allowed."

108-2.5 RESERVED. Revise this Section to read:

"108-2.5 SPLICER QUALIFICATIONS. Every worker to perform cable splices for this project shall be qualified in making cable splices and terminations on cables rated at and/or above 5,000 Volts AC. The Contractor shall submit to the Project Engineer proof of the qualifications of each person in performing splices for the cable type and voltage rating to be worked on. Cable splicing/terminating personnel shall have a minimum of three (3) years experience in terminating/splicing medium voltage cable."

108-2.12 LINE MARKING TAPE. Add the following:

"Tape for cable shall be "**Red**"."

108-2.13 UNIT DUCT. Add the following:

"Standard sizes of smooth wall polyethylene duct shall conform to the dimensional requirements specified below:

Nominal Duct Size	Nominal Inside Diameter	Nominal Standard Wall	Nominal Outside Diameter *
¾"	0.910"	0.070"	1.050"
1"	1.145"	0.085"	1.315"
1-¼"	1.440"	0.110"	1.660"
1-½"	1.650"	0.125"	1.900"
2"	2.065"	0.155"	2.375"
2-½"	2.449"	0.213"	2.875"
3"	3.048"	0.226"	3.500"
4"	4.000"	0.250"	4.500"

* Dimensions include allowance for duct eccentricity."

CONSTRUCTION REQUIREMENTS

108-3.1 GENERAL. Add the following to this Section:

"The cable quantities as shown on the Construction plans are based on straight-line measurement. All other required cable lengths, such as slack or waste, will not be measured for payment.

"If the Contractor wishes to lay cable on a line other than that shown on the Plans, he shall obtain approval of the Resident Engineer before doing so. Any additional cable needed because of such change will be at the Contractor's expense.

"Only cable in unit duct may be plowed or directional-bored.

"The Contractor shall identify all existing underground utilities located within the area where the proposed cables are being installed, and will take all precautions to protect these utilities from damage. Care shall be taken so as not to damage any existing circuits. Any existing circuits damaged shall be immediately repaired to the satisfaction of the Engineer and/or the respective utility or owner where applicable. Any underground utility damaged will be repaired or replaced at the Contractor's own expense. Any repairs of existing cables will be considered incidental to the contract, and no additional compensation will be allowed.

"Contractor shall coordinate work and any power outages with the Airport Owner or respective Airport personnel. Any shutdown of existing systems shall be scheduled with and approved by the Airport Owner prior to shutdown. Once shut down, the circuits shall be labeled as such to prevent accidental energizing of the respective circuits. All personnel shall follow U.S. Department of Labor Occupational Safety & Health Administration (OSHA) 29 CFR Part 1910 Occupational Safety and Health Standards for electrical safety and lockout/tagout procedures, including, but not limited to, 29 CFR Section 1910.147 The Control of Hazardous Energy (lockout/tagout).

"Contractor shall comply with the requirements of FAA AC No. 150/5370-2F (or most current issue) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".

"Contractor shall comply with the applicable requirements of NFPA 70E - Standard for Electrical Safety in the Workplace.

"All temporary installations shall comply with National Electrical Code Article 590 - "Temporary Installations". The contractor shall secure, identify, and place temporary exposed wiring in conduit, duct, or unit duct to prevent electrocution and fire ignition sources in conformance with the requirements of FAA AC 150/5370-2F, Part 218, Paragraph c.

"All cables installed by the Contractor shall be properly labeled and tagged at all points of access (handholes, manholes, terminal panels, control panels, and the respective wireway in the vault).

"All changes to the airfield lighting system shall be documented by the Contractor and provided to the Resident Engineer."

108-3.2 INSTALLATION IN DUCT OR CONDUIT. Add the following to this Section:

"The unit duct will be run continuous through all ducts and conduits unless, noted otherwise on the Plans for a specific application.

"Where cable in unit duct enters a handhole or manhole with a continuous duct bank system to the termination point (such as from a handhole to the vault or between handholes and/or manholes) the unit duct will not be required for the respective cable.

"Homerun cables for a respective circuit that are installed in conduit or duct shall be run together in the same raceway or duct."

108-3.3 TRENCHING. Add the following to this Section:

"F. Cable installed in cultivated fields shall be installed a minimum of 42 inches below grade.

"G. Any and all trenches and disturbed areas will be backfilled to a smooth grade to the satisfaction of the Resident Engineer. All trench settlement shall be corrected for a period of one year. Restoration, grading, and seeding of areas disturbed during the installation of the proposed cable will be incidental to the respective 108 Pay Item."

108-3.4 CABLE MARKERS. Add the following as the first sentence:

"Cable, cable in duct, and cable in unit duct installed under this item shall be marked with concrete cable markers as specified in these Specifications."

108-3.5 SPLICING. Add the following:

"In-line connections for existing cables cut during construction shall be repaired with the cast splice kit. The Contractor shall have a minimum of two splice kits on the job site at all times for emergency repairs. Cast splice kits shall be specified in paragraph (a) of Item 108-2.4. **Splice cans shall be provided for existing cables cut and repaired for each splice in cables not to be abandoned. Where a splice can is not readily available at the time of the cable damage, splice markers shall be temporarily installed over each splice in cables not to be abandoned, then these splices shall later be replaced with new splices in an L-867 splice can.**

"There shall be no splices between runway and taxiway series lighting circuit isolation transformers. In the event that a series lighting circuit cable is cut between isolation transformers, the entire length of cable between these isolation transformers shall be replaced. Splices for homerun cables shall only be permitted at handholes, or manholes.

"The Contractor shall use a cable stripper/penciller whenever cable connections are made.

"All splices and connections shall be considered incidental to the respective cable."

108-3.8 TESTING. Add the following.

"K. After airfield lighting modifications, additions, and/or upgrades have been completed, series circuit cables shall be Megger tested and recorded at the vault. All series circuit cable loops shall have the resistance tested and recorded for each circuit at the vault. (See Item 109 - Each constant current regulator shall be tested with results recorded. Copies of test results shall be provided to the Resident Engineer/Resident Project Representative and the respective Project Engineer.)"

Add:

108-3.12 LOCATING OF EXISTING UNDERGROUND UTILITIES AND CABLES. The location, size, and type of material of existing underground and/or aboveground utilities indicated on the Plans are not represented as being accurate, sufficient, or complete. Neither the Owner nor the Engineer assumes any responsibility whatever in respect to the accuracy, completeness, or sufficiency of the information. There is no guarantee, either expressed or implied, that the locations, size, and type of material of existing underground utilities indicated are representative of those to be encountered in the construction. It shall be the Contractor's responsibility to determine the actual location of all such facilities, including service connections to underground utilities. Prior to construction, the Contractor shall notify the utility companies of his operational plans, and shall obtain, from the respective utility companies, detailed information and assistance relative to the location of their facilities and the working schedule of the companies for removal or adjustment, where required. In the event an unexpected utility interference is encountered during construction, the Contractor shall immediately notify the utility company of jurisdiction. The Owner's Representative and/or the Resident Engineer shall also be immediately notified. Any damage to such mains and services shall be restored to service at once and paid for by the Contractor at no additional cost to the Contract.

All utility cables and lines shall be located by the respective utility. **Contact JULIE (Joint Utility Location Information for Excavators) for utility information, phone: 1-800-892-0123.** Contact the FAA (Federal Aviation Administration) for assistance in locating FAA cables and utilities. Location of FAA power, control, and communication cables shall be coordinated with and/or located by the FAA. Also contact Airport Owner/Manager and Airport Personnel for assistance in locating underground Airport cables and/or utilities. Also coordinate work with all aboveground utilities.

Payment for locating and marking underground utilities and cables will not be paid for separately, but shall be considered incidental to the plowing/trenching/boring of cable and cable in unit duct.

Add:

108-3.13 SEPARATION OF HIGH-VOLTAGE AND LOW-VOLTAGE WIRING. Low-voltage wiring shall maintain separation from high-voltage wiring. Low-voltage wiring and high-voltage wiring shall not be installed in the same raceway, duct, handhole, manhole, or junction box. Where necessary, provide split flexible duct around low voltage cables located in a handhole with high voltage cables, to isolate the cables from possible contact with each other.

Add:

108-3.14 IDENTIFICATION OF CABLES. At electrical handholes and manholes furnished OR used in completing this project, the Contractor shall identify and label each cable entering the enclosure. The Contractor shall provide identification tags on each cable/cable end with permanent markings suitable to fully identify the respective cables.

METHOD OF MEASUREMENT

108-4.1 Add the following:

"The footage of cable or cable in unit duct, installed in trench, duct or conduit, to be paid for shall be the number of linear feet of cable installed in trench, duct, conduit, or raceway measured in place by direct measurement, completed, ready for operation and accepted as satisfactory with no allowance being made for overrun due to slack, turns, splices, waste, etc. Slack cable required to perform cable splices outside of the respective splice cans, handholes, or manholes, shall be incidental to the respective cable pay item and no additional measurement for payment will be made. The cable quantities as shown on the Construction Plans are based on straight-line measurement and do not consider any vertical distances. Cable will be measured for payment from the respective termination or splice point in the field up to the vault or respective termination point. Cable or cable in unit duct installed inside or below the vault shall be incidental to Item AR109200 and no additional measurement for payment will be made."

108-4.2 Delete this Section.

Add:

108-4.3 Cable markers shall not be measured separately for payment but shall be incidental to the Contract unit price for cable or cable in unit duct. The footage of line marking tape installed shall be considered incidental to the work and shall not be measured separately.

BASIS OF PAYMENT

108-5.1 Add the following:

"This price shall be full compensation for furnishing all materials, and for all preparation, assembly, and installation of these materials; for all plowing, trenching, directional-boring, coring of manholes or handholes, installation in ducts, raceways, conduits, splice cans, handholes, or manholes, and for all excavation and backfilling; for all site restoration (topsoiling, grading, seeding, mulching, sodding) and pavement restoration; and for all labor, testing, equipment, tools, and incidentals necessary to complete this Item.

"Payment will be made under:

"Item AR108108	1/C #8 5KV UG Cable - per linear foot.
Item AR108158	1/C #8 5KV UG Cable in UD - per linear foot.
Item AS108158	1/C #8 5KV UG Cable in UD - per linear foot."

ITEM 109

INSTALLATION OF AIRPORT TRANSFORMER VAULT AND VAULT EQUIPMENT

DESCRIPTION

109-1.1 Revise this Section to read as follows:

"Item AR109110, "Erect Prefabricated Vault" shall consist of furnishing and installing a pre-fabricated equipment shelter, its concrete piers or concrete slab, and concrete step/pad/sidewalk at entry, as applicable in accordance with this Specification at the location, design, and dimensions shown on the Construction Plans. This item shall include all labor, equipment, materials, coordination, installation, testing, and the furnishing and installation of all incidentals necessary to produce a completed vault building and place it in operating condition."

Add:

109-1.2 "Item AR109200, "Install Electrical Equipment" shall consist of furnishing and installing electrical equipment inside the new vault as detailed on the Plans and specified herein. This item shall also include furnishing and installing electric unit heaters, exhaust/ventilation fans, louvers, dampers, and associated controls for the mechanical system. This item shall include all labor, materials, transportation, equipment, wiring, raceways, grounding, warranties, tools, utility coordination, relocations, operational instructions, labeling, testing, and all incidentals required to place the vault and associated equipment into proper working order as a completed unit to the satisfaction of the Owner and Engineer.

Included under this item shall be the following:

- A. Field verification of existing site conditions to determine complexity of the proposed work.
- B. Coordinating all work with the Airport Owner, the designated Airport Maintenance Staff, and the Resident Engineer.
- C. Furnishing and installing all associated electrical equipment, support hardware, raceways, conduits, cable, wiring, grounding, and accessories as detailed on the Plans and specified herein.
- D. Furnishing and installing the heating and ventilation system and associated controls in the new vault.
- E. Furnishing and installing all pull boxes, junction boxes, wireways, raceways, conduits, conduit fittings, and ducts in, beneath, and adjacent to the vault.
- F. Furnishing and installing all necessary cable and wiring within or at the vault, as detailed on the Plans and specified herein.
- G. Furnishing and installing a remote located antenna for the L-854 radio receiver along with the associated cabling, conduit, support hardware, and lightning protection on the respective adjacent Hangar Building.
- H. Furnishing and installing all grounding and surge protection, as detailed on the Plans and specified herein.

- I. Locating, identifying, relocating, and/or replacing all existing airfield lighting cables and existing airfield equipment cables, as necessary to disconnect these respective cables from the existing vault and reconnect, replace and/or interface these respective cables to the new vault as applicable. This shall include all splices, cable, interfacing work to handholes (including rerouting cables, duct entrances, sleeves, patching, etc.), splice cans, identification, and labeling cables at each respective handhole and at the respective vault, maintaining separation of low-voltage cables from high-voltage cables, any temporary connections to maintain operation of the respective airfield systems, and any other work required to restore proper operation of the existing airfield systems when reconnected to the new vault. All work shall be coordinated with the Airport Manager and shall be coordinated to minimize down time to the respective airfield systems.
- J. Furnishing shop drawings for new equipment.
- K. Identifying and labeling all control wiring associated with the control circuit upgrades.
- L. Testing, adjusting, and retesting (where applicable) all new equipment and modifications to existing systems for proper operation.
- M. Labeling all mechanical and electrical equipment and incidentals necessary to place all of the equipment in operation as a complete unit acceptable to the Owner and Engineer.
- N. Furnishing operation, maintenance, and installation manuals for all new equipment.

Add:

109-1.3

"Item AR109535, "Electric Service Entrance" shall consist of furnishing and installing new electric service from the respective utility transformer secondary connection point to the respective electric utility meter base and service disconnect as detailed on the Plans and specified herein. This item shall include all labor, field verification of existing conditions, transportation, equipment, materials, conductors, connectors, conduits, tools, coordination, labeling, testing, restoration, and all incidentals required to place the electric service into proper working order as a completed unit to the satisfaction of the Owner and Engineer, including:

- A. Field verification of existing site conditions to determine complexity of the proposed work.
- B. Coordinating all work with the Airport Owner, the designated Village of Bolingbrook Electrical Department Staff, and the Resident Engineer.
- C. Coordinating all service entrance work with the serving electric utility company and the Airport Owner. Service entrance work shall be as detailed on the Plans, per the serving electric utility requirements, and as specified herein.
- D. Furnishing shop drawings for equipment and materials.
- E. Furnishing and installing service entrance equipment, meter base, and support hardware as detailed on the Plans and in accordance with the serving electric utility company requirements.
- F. Furnishing and installing service entrance cables/wiring, conduit, ducts, and/or raceways from the electric utility transformer to the service disconnect, as detailed on the Plans and specified herein.
- G. Furnishing and installing ground conductors, ground rods, and grounding electrode conductor conduit as detailed on the Plans, in accordance with the service electric utility company requirements, and as specified herein.

- H. Testing the new electric service system for the Airport Electrical Vault. Measure and record voltage at service panel.

Add:

109-1.4 REFERENCES.

- A. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.
- B. ANSI C80.4 - Fittings Rigid Metal Conduit and EMT.
- C. ANSI Z535.4-2002 - American National Standard for Product Safety Signs and Labels.
- D. ASTM Specification B3 - Standard Specification for Soft or Annealed Copper Wire.
- E. ASTM Specification B8 - Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft.
- F. Federal Specification A-A-59544 Cable and Wire, Electrical (Power, Fixed Installation).
- G. FAA AC No. 150/5340-26B "MAINTENANCE OF AIRPORT VISUAL AID FACILITIES".
- H. FAA AC No. 150/5340-30G "DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS".
- I. FAA AC No. 150/5345 7E, (or latest edition) "SPECIFICATIONS FOR L 824 UNDERGROUND ELECTRICAL CABLE FOR AIRPORT LIGHTING CIRCUITS.
- J. FAA AC No. 150/5345-10G (or most current issue in effect) "SPECIFICATION FOR CONSTANT CURRENT REGULATORS AND REGULATOR MONITORS".
- K. FAA AC No. 150/5345-49C "SPECIFICATION L-854 RADIO CONTROL EQUIPMENT".
- L. FAA AC No. 150/5345-53 "AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM" (most current issue) and AC150/5345-53D, AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM Appendix 3 Addendum.
- M. FAA AC No. 150/5370-2F (or most current issue) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION.
- N. FAA-STD-019d dated August 9, 2002, Department of Transportation, Federal Aviation Administration Standard, LIGHTNING AND SURGE PROTECTION, GROUNDING, BONDING, AND SHIELDING REQUIREMENTS FOR FACILITIES AND ELECTRONIC EQUIPMENT.
- O. FAA-STD-019e, December 22, 2005, Department of Transportation, Federal Aviation Administration Standard, LIGHTNING AND SURGE PROTECTION, GROUNDING, BONDING AND SHIELDING REQUIREMENTS FOR FACILITIES AND ELECTRONIC EQUIPMENT.
- P. NFPA 70 - National Electrical Code (most current issue in force).
- Q. NFPA 70E - Standard for Electrical Safety in the Workplace.
- R. NFPA 72 National Fire Alarm Code.

- S. OSHA 29 CFR Part 1910 Occupational Safety and Health Standards for electrical safety and lockout/tagout procedures.
- T. UL Standard 6 - Rigid Metal Conduit.
- U. UL Standard 44 - Thermoset-Insulated Wires and Cables.
- V. UL Standard 83 - Thermoplastic-Insulated Wires and Cables.
- W. UL Standard 467 - Grounding and Bonding Equipment.
- X. UL Standard 486A-486B Wire Connectors.
- Y. UL Standard 514B - Conduit, Tubing and Cable Fittings.

Add:

109-1.5 SHOP DRAWINGS. The Contractor shall furnish shop drawings for approval before ordering all vault, equipment, and/or materials. Contractor's responsibility to furnish all items required for the work is not relieved by an Engineer's review of a submittal. Shop drawings shall be clear and legible, and the pay item for each item shall be noted for each material submitted. Copies that are illegible will be rejected. Contractor shall submit sufficient copies of shop drawings to meet the needs of his personnel, sub-contractor personnel, and equipment suppliers plus four (4) copies to be retained by the Project Engineer. Shop drawings shall include the following information:

- A. **Certification of compliance with the AIP (Airport Improvement Program) Buy American Act Title 49 USC Section 50101 for all materials and equipment. Do not submit ARRA (American Recovery and Reinvestment Act) or NAFTA (North American Free Trade) certification as a substitute for certification of compliance with the AIP Buy American Preferences. Shop drawings submitted without certification of compliance with the Airport Improvement Program Buy American Preferences or without certification of manufacture in the United States of America in accordance with the AIP Buy American Requirements will be rejected. See the FAA website at: http://www.faa.gov/airports/aip/buy_american/ for more information on the Airport Improvement Program Buy American Preferences requirements.**
- B. In order to expedite the shop drawing review, inspection and/or testing of materials and equipment, the Contractor shall furnish complete statements to the Project Engineer as to the origin and manufacturer of all materials and equipment to be used in the work. Such statements shall be furnished promptly after execution of the contract but, in all cases, prior to delivery of such materials and equipment.
- C. Provide shop drawings for the pre-fabricated vault.
- D. Concrete mix design.
- E. Provide shop drawings for the exhaust fan, intake louver, unit heaters, and light fixtures.
- F. Submittals for panelboards shall include manufacturer, catalog numbers, panel schedule, voltage and amperage ratings, bus material, integrated short circuit ampere rating, circuit breaker arrangement and sizes and respective enclosure.
- G. Cut sheets with part number and specifications for the transient voltage surge suppressor.

- H. Cut sheets with part number and specifications for the constant current regulator. Include list of spare parts.
- I. Cut sheets with part number and specifications for the S-1 cutouts and enclosure.
- J. Furnish shop drawings for the L-854 radio receiver.
- K. Furnish shop drawings for the radio control interface/relay control interface panel at the Vault. Shop drawings shall include panel layout, terminal block arrangement, and wiring diagram for the panel.
- L. Furnish shop drawings for the lighting contactor control panel for the Airport Nav aids and Vault Exhaust Fan. Shop drawings shall include panel layout, terminal block arrangement, and wiring diagram for the panel.
- M. Provide cut sheets for all types of conduit used in the vault (for example galvanized rigid steel conduit and UL listed liquid tight flexible metal conduit). Include certification that steel conduits are made with 100 percent domestic steel.
- N. Provide cut sheets for 6-inch by 6-inch wireway to be used in the vault. Include certification of manufacture in the United States of America from Domestic Steel.
- O. Provide cut sheets for the power and control circuit conductors.
- P. Provide cut sheets with manufacturer's name, catalog number, dimensions, material and UL listing for each type and size ground rod. Include certification of 100% domestic steel for ground rods. Include cut sheets for exothermic weld connections, ground lugs, and ground wire.
- Q. Provide shop drawings for the ground bus bars. Include manufacturer, dimensions, part numbers, and information on standoffs, insulators, splices, bonding jumpers, and mounting hardware.
- R. Cut sheets with part number and specifications for each fire extinguisher.

EQUIPMENT AND MATERIALS

109-2.1 GENERAL. Add the following to this Section:

- "C. FAA approval of airport lighting equipment and subsequent inclusion in Advisory Circular 150/5345-1 "Approved Airport Equipment", and/or Advisory Circular 150/5345-53 "Airport Lighting Equipment Certification Program" only means that the test data satisfied the applicable Specification requirements. This does not insure that the approved equipment will satisfactorily operate when connected power-wise and/or control-wise to other approved airport lighting equipment or "off the shelf" equipment not requiring FAA approval.
- "D. The Contractor shall ascertain that all lighting system components furnished by him (including FAA-approved equipment) are compatible in all respects with each other and the remainder of the new system. Any non compatible components furnished by the Contractor shall be replaced by him, at no additional cost to the Airport Sponsor, with a similar unit approved by the Engineer (different model or different manufacturer) that is compatible with the remainder of the airport lighting system.
- "E. Except as specified otherwise, all new equipment shall be provided by the Contractor and shall be tested for Specification conformance as part of the Aviation Lighting Equipment Certification Program. Certification of conformance, as tested by the respective testing laboratory, shall be provided by the manufacturer for all items submitted for approval."

109-2.4 BRICK. Delete this Section.

109-2.5 RIGID STEEL CONDUIT. Add the following:

"GRSC shall be heavy wall, hot-dipped, galvanized steel pipe bearing the UL label and conforming to UL-6 and ANSI Specification C80.1. Couplings, connectors, and fittings for rigid steel conduit shall be threaded, galvanized steel, or galvanized malleable iron specifically designed and manufactured for the purpose. Fittings shall conform to ANSI C80.4 and UL-514B. Set screw type fittings are not acceptable. Steel used to manufacture conduits shall be 100 percent domestic steel. Contractor shall provide certification that the respective steel conduits used on this project are manufactured from 100 percent domestic steel.

"Where noted on the Plans Polyvinylchloride (PVC) coated, galvanized rigid steel conduit shall be furnished and installed for additional corrosion protection. PVC coated, galvanized rigid steel conduit and fittings shall be as manufactured by Robroy Industries, Inc., Conduit Division, 1100 US Highway 271 South, Gilmer, Texas 75644, Phone 903-843-5591, Sales Department Fax: 903-843-2516, or approved equivalent. The conduit and fittings, prior to coating, shall be new, unused material, and shall conform to UL 6, Standard for Safety for Rigid Metal Conduit and UL 514B Standard for Safety, Fittings for Conduit and Outlet Boxes. An exterior PVC coating of a nominal 40 mils (.040 in.) shall be applied to the conduit and conduit couplings. The PVC coating shall conform to all applicable requirements of NEMA RN-1, Standard for PVC Coated Conduit. A red urethane coating of 2 mils (.002 in.) shall be uniformly and consistently applied to the interior of conduit and conduit couplings. Conduit or fittings having areas of thin or no interior coating shall be unacceptable. The PVC exterior and urethane interior coatings applied to conduit shall have sufficient flexibility to permit field bending without cracking or flaking at temperatures above 30°F, (-1°C). All male threads on conduit, elbows, and nipples, and all female threads on conduit couplings and fitting shall be protected by application of urethane coating."

109 2.6 LIGHTING. Add the following:

"Lighting Fixtures and lamps shall be as designated in "Lighting Fixture Schedule" on the Plans. Provide fixtures complete with all required accessories. Provide conduit and wiring as detailed on the Plans. Fixture wiring shall comply with fixture manufacturer's recommendations and the NEC requirements. Mounting Hardware: Provide mounting hardware to supplement building structure for support of fixtures. Supports shall be capable of supporting 300 percent fixture and lamp weight.

"Emergency lighting system consists of selected fixtures as indicated on Plans. Emergency lighting fluorescent fixtures shall be self-contained, modular, battery-inverter unit factory-mounted within fixture body. Comply with UL 924, and include the following features:

"A. Test Switch and Light-Emitting Diode Indicator Light: Visible and accessible without opening fixture or entering ceiling space.

"B. Battery: Sealed, maintenance-free, nickel-cadmium type with minimum 10-year nominal life.

"C. Charger: Fully automatic, solid-state, constant-current type.

"D. Operation: Relay automatically energizes lamp from unit when normal supply circuit voltage drops to 80 percent of nominal voltage or below. When normal voltage is restored, relay disconnects lamp, and battery is automatically recharged and floated on charger."

109 2.7 OUTLETS. Add the following:

- "A. General Purpose Receptacles. General purpose receptacles for all wall-type convenience outlets in non-hazardous areas shall be of the 20-Amp, 125-volt, 3-wire grounding type, NEMA 5-20R, heavy-duty specification-grade ivory in color, Arrow Hart Part Number 5362, Bryant Part Number 5362, Hubbell Part Number 5362, Pass & Seymour Part Number 5362, or approved equal.
- "B. Device Boxes. Device boxes for flush-mounted, non-hazardous receptacles and switches shall be sheet steel construction. Cover plates shall be stainless steel, as manufactured by Arrow Hart, Bryant, Hubbell, Pass & Seymour, or approved equal. Surface-mount device boxes shall be cast aluminum or malleable iron FS design or die cast construction weather proof outlet boxes as manufactured by Appleton, Crouse Hinds, Hubbell/RACO/Bell, or approved equal, with compatible stainless steel cover plates."

109-2.8 SWITCHES. Revise to read as follows:

- "A. Toggle Switches. Single-pole toggle switches shall be 20-Amp, 120/277-volt, specification-grade, as manufactured by Arrow Hart, Bryant, Hubbell, Pass & Seymour, or approved equal. Single-pole, 20-Amp, 120/277-Volt toggle switches shall be Arrow Hart Part Number 1991, Bryant Part Number 4901, Hubbell Part Number 1220, Pass & Seymour Part Number 20AC1, or approved equal.
- "B. Device Boxes. Device boxes for flush-mounted, non-hazardous receptacles and switches shall be sheet steel construction. Surface mount device boxes for receptacles and toggle switches shall be die cast construction weatherproof boxes as manufactured by Appleton, Crouse Hinds, Hubbell/RACO/Bell or approved equal. Cover plates shall be stainless steel as manufactured by Arrow Hart, Bryant, Hubbell, Pass & Seymour, or approved equal."

109 2.13 GROUND BUS. Revise to read as follows:

"Ground bus for the vault interior shall be 1/4 in. thick by 2 in. wide Copper bus bar, as manufactured by Harger Lightning Protection Inc., Gus Berthold Electric Company, or approved equivalent. Length shall be as detailed on the Plans. Ground bus shall include standoffs, insulators, splices, bonding jumpers, mounting hardware, etc., as required for the respective application. Splices for 1/4 in. thick by 2 in. wide bus bar shall be with manufacturers splice plates and stainless steel nuts, bolts, and washers. Exothermic weld connections are also acceptable splices for the ground bus. Splice plates shall be bolt through type Copper with minimum dimensions 1/4 in. thick by 2 in. wide by 6 in. length with 4 bolts. Include an engraved phenolic or plastic legend plate 1/2-in. high white letters on a green background labeled "VAULT GROUND BUS". All cable connections to the ground bus shall be with two-hole tongue, long barrel compression lugs bolted to the bus bar, as detailed on the Plans."

109 2.14 SQUARE DUCT. Revise the last sentence to read:

"Square duct shall be sized, as detailed on the Plans."

Add the following:

"Wireway shall be installed, as indicated on the Plans, including, but not limited to, straight lengths, elbows, tees, offsets, panel adaptors, closing plates, wire retainers, and supports, as required for a complete installation. Wireways shall be constructed of 16-gauge steel before finishes are applied. All straight lengths of wireway shall have hinged or bolt-on covers. Lengths shall be provided with cover latches, a minimum of every 3 ft, which shall hold the cover securely in-place when closed. Sealing ears shall be provided on both the wireway lengths and connector covers so that the entire run can be sealed.

"Wireways shall be 6 inch by 6 inch, as detailed on the Plans. Wireways shall be furnished without knockouts. Connectors shall be slip-in type with self-retained mounting screws. They shall also have the feature to allow "lay-in" of all conductors. Wireways shall be provided with a gray epoxy-painted finish applied over a corrosion-resistant phosphate primer. All wireway lengths and accessories shall be Underwriter's Laboratories listed and labeled in conformance with UL 870 Standards for Wireways, Auxiliary Gutters, and Associated Fittings and conform to NEMA 1 enclosure rating.

"Wireways shall be constructed of Domestic steel. Contractor shall provide certification that the respective wireways used on this project are manufactured from 100 percent domestic steel."

109 2.15 GROUND RODS. Revise to read as follows:

"Ground rods for the vault ground ring shall be 3/4-inch diameter, **10 feet long**, UL-listed, Copper-clad. Ground rods shall have 10 mils minimum Copper coating. Ground rods shall be manufactured in the United States of America. Steel used to manufacture ground rods shall be 100 percent domestic steel."

109-2.16 POTHEADS. Delete this Section.

109-2.17 PRE-FABRICATED METAL HOUSING. Delete this Section. Replace with the following:

"109-2.17 PRE-FABRICATED EQUIPMENT SHELTER. This item shall consist of a pre-fabricated, pre-engineered equipment enclosure building with concrete floor, steel skid structure, and foundation piers. This item shall include all labor, equipment, materials, coordination, installation, testing, and the furnishing and installation of all incidentals necessary to accomplish the Scope of Work stated herein and required to produce a completed building and place it in operating condition. Pre-fabricated equipment shelter shall be as described below or an approved equal. The pre-engineered equipment enclosure shall be a light-weight metal or fiberglass building with concrete floor and steel skid structure, nominal 12 feet wide exterior (Note: interior width shall not be less than 11 feet, adjust exterior width, as applicable) by nominal 28 feet long exterior (Note: interior length shall not be less than 27 ft., adjust exterior length, as applicable) by nominal 9 feet high interior (floor to ceiling), as manufactured by VFP, Inc, 176 East Park Drive, Roanoke, Virginia 24019, Phone 1-540-977-0500, Fax: 540-977-5555, or approved equal, with the following features:

"A. Two door assemblies; one 36 inch wide x 84 inch high access door and one 48 inch wide x 84 inch high maintenance access door. Doors with frame shall be UL rated 1.5 hour fire rated. Doors shall be furnished with:

- (2) Stainless steel door strap hinges (per door).
- Stainless steel classroom-style, key-locked, lever handle.
- Deadbolt lockset (both doors shall be keyed the same and shall be compatible with the Airport's keying system).
- Stainless steel door stop chain and hardware (per door).
- Door sweep with heavy-duty vinyl threshold (per door).

"B. Structural loads as follows:

- 200 lbs. per sq. ft distributed floor loading.
- 90 lbs. per sq. ft distributed roof load.
- 120 mph wind load.
- Seismic zone 4.

- "C. Interior walls and ceiling shall be sheathed with 1/2-inch thick minimum white nupoly board with blocking/studs provided in the walls behind the paneling for secure mounting of equipment, suitable for mounting the respective electrical and mechanical equipment, as specified herein and as detailed on the Plans. Insulation value for the walls shall not be less than R-11. Insulation value for the roof shall not be less than R-11. Where applicable for support of panelboards, control panels, mechanical equipment, etc. provide additional 4 feet by 8 feet, 3/4-inch thick equipment-mounting boards.
- "D. Exterior support hardware for exterior-mounted electrical and/or mechanical equipment, as specified herein and detailed on the Plans.
- "E. Floor shall be constructed of 3 inch of concrete, reinforced by the steel foundation skid. The floor shall be finished with 1/8-inch thick, 12 inch by 12 inch, light colored, industrial-grade vinyl tile floor covering. Floor shall include a waterproof seal. The floor structure shall be capable of supporting uniform loads of 200 pounds per square foot. Coordinate conduit entrances through the floor and wall or core drill to accommodate conduit entries and exits.
- "F. For a lightweight metal building, the exterior walls of the shelter shall be constructed of painted galvaneal steel panels with an additional metal lap seam siding. The exterior roof of the shelter shall be constructed of sealed galvaneal steel panels with an additional on-site installed pitched lap seam metal roof assembly.
- "G. The shelter shall include a pitched roof assembly with trim. The roof pitch shall be 3:12. The roof assembly and trim shall be installed on the shelter at the respective job site. Installation of the roof assembly shall be by the respective equipment shelter manufacturer's representative or a qualified contractor meeting the requirements designated by the respective equipment shelter manufacturer. Include the respective equipment shelter manufacturer's services for the shelter and roof assembly. Contractor shall coordinate shelter installation with the respective equipment shelter manufacturer.
- "H. Building shall rest on an integral steel skid structure designed to support the building during transportation, lifting, and final placement on site. The skid shall incorporate integral lifting points to allow the building to be placed by a crane or other suitable means.
- "I. The pre-engineered equipment enclosure shall be delivered to the site and installed onto cast-in-place concrete piers sized and constructed per the respective building manufacturer's recommendations and not less than 48 inches deep by 30 inches diameter. Concrete shall conform to Item 610 Structural Portland Cement Concrete of the Standard Specifications for Construction of Airports. Piers shall extend a minimum of 2 inches above finished grade. Adjust pier elevations as necessary to provide level mounting of the vault building. Provide a minimum of 4 inch of aggregate bedding at the base of each foundation pier. Concrete piers shall include four #5 vertical rebar with #3 lateral ties at 12 inch on center maximum spacing, or as designed by the respective shelter manufacturer. The building shall be anchored to the piers, in accordance with the building manufacturer's instructions, using anchor bolts sized per the respective building manufacturer's recommendations and/or requirements. Following initial installation, the building shall be adjusted, as required, and cleaned in accordance with the manufacturer's instructions.
- "J. The pre-engineered equipment enclosure shall be manufactured and installed to accommodate mechanical and electrical systems, equipment, and fixtures specified in other Specification sections.

- "K. The exterior shelter wall color shall be Ash Grey or Slate Grey to match the existing Hangars at Bolingbrook's Clow International Airport. The exterior shelter roof color shall be Hawaiian Blue match the existing Hangars at Bolingbrook's Clow International Airport. The Airport Manager has noted colors for the existing hangars are Hawaiian Blue for the roof and Ash Grey for the siding. Siding and roof for the existing Hangars were made by Metal Sales, Supplied by ABC Supply. Building color(s) and metal style shall be confirmed with the Project Engineer.
- "L. Required submittals shall include: Product data; Shop Drawings showing dimensions, building layout, building construction, connections, materials, structural components, etc.; structural design calculations sealed by a Licensed Structural Engineer registered in the State of Illinois or Licensed Registered Architect registered in the State of Illinois (as applicable); details on the doors, louvers, fan and any other equipment furnished with the building, floor loading, roof loading, wind loads, and seismic information, and manufacturer's installation instructions.
- "M. The pre-engineered equipment enclosure shall be warranted by the manufacturer to be free of defects in workmanship and materials for a period of **five years** from shipment.
- "N. The pre-engineered equipment enclosure shall comply with all applicable codes, ordinances, and other legal requirements of all federal, state and municipal agencies, and authorities having jurisdiction over this project."

109-2.18 FAA-APPROVED EQUIPMENT. Add the following:

"FAA approved equipment shall also comply with the Airport Improvement Program Buy American requirements. FAA approved equipment shall include the following:

"A. **Constant Current Regulator for Runway 18-36.** Constant Current Regulator (CCR) for Runway 18-36 shall be a Type L-828 constant current regulator, Class 1 - 6.6 Amps output current, Style 1 - three brightness steps (4.8, 5.5, and 6.6-Amps), 10 KW (minimum), 240 VAC, single-phase, 60 Hertz input. Constant current regulator shall comply with FAA AC 150/5345-10G for Type L-828 regulator and shall be FAA Approved. Constant current regulator shall properly operate the respective airfield lighting system it is powering. Constant current regulator shall be capable of properly operating two sets (two pairs) of Type L-849I(L) Type REILS with the runway lighting system or one set of L-849I REILS with the runway lighting system. **The steady burning light load for the runway lighting system has been calculated to be approximately 6500 to 7000 Watts where incandescent/quartz type Airfield lighting and taxiway guidance signs are installed.** Constant current regulator must cause the minimum possible radiated or conducted electromagnetic interference (EMI) to airport and FAA Equipment (example; computers, radars, instrument landing systems, radio receivers, VHF Omni-directional Range, etc.) that may be located on or near an airport. Constant current regulator shall include open circuit protection, over current protection, output current ammeter, output voltmeter, and arresters of the proper rating to protect the CCR from lightning induced voltage and current surges installed at both the input and output terminals of the CCR. Constant current regulators shall also include a remote/local control feature with selections for "Remote, Off, 10% Brightness, 30% Brightness, and 100% Brightness". Control voltage shall be 120 VAC (internal/external). Constant current regulators shall be ADB Airfield Solution dry-type ferro-resonant regulator, Manairco, Inc. dry-type ferromagnetic reactor regulator, or approved equal. Include the following spare components:

1. One spare control circuit board for each type in the constant current regulator.
2. Primary switch contactor.
3. Lightning arresters (input and two output).
4. Control circuit fuses or breaker.

Note: The requirement for the constant current regulator to be capable of properly operating two sets (two pairs) of Type L-849I(L) REILS with the runway lighting system, is based on a future application per the Airport Layout Plan. FAA AC 150/5340-30G, Chapter 7 ECONOMY APPROACH AIDS, Part 7.5 DESIGN, b. REIL, Paragraph (1)(b) notes "If using a CCR (constant current regulator) for REIL primary power, ensure that the regulator will accommodate a pulsing load that may have reactive components. Consult the manufacturers of both the CCR and REIL before making a final decision.

- "B. **L-854 Radio Controller.** L-854 radio controller shall be FAA-approved and comply with FAA AC 150/5345-49 (latest issue), and FCC Rules and Regulations: Part 15. The radio controller shall be a Type I classification (air-to-ground) unit consisting of an AM receiver and Type A decoder mounted in a metal weatherproof enclosure, painted international orange per FAA Standard 595A. Input voltage shall be 120 VAC, 60 Hz. Frequency range shall be 118 to 136 MHZ. Unit shall have solid-state circuitry other than the relays. Include a remote antenna with sufficient length of coaxial cable to mount above the vault building roof for proper operation. Frequency shall be 122.9 MHZ. **Confirm frequency with the Airport Owner, prior to ordering.**"

109 2.19 OTHER ELECTRICAL EQUIPMENT. Add the following:

"Switches, cutouts, relays, lighting contactors, terminal blocks, circuit breakers, and all other regularly used commercial items of electrical equipment not covered by FAA equipment specifications shall conform to the applicable rulings and standards of the Institute of Electrical and Electronic Engineers or the National Electrical Manufacturer's Association. When specified, test reports from a testing laboratory indicating that the equipment meets the specifications shall be supplied. In all cases, equipment shall be new and a first-grade product. This equipment shall be supplied in the quantities required for the specific project and shall incorporate the electrical and mechanical characteristics specified in the Plans or in the proposal. Contractor shall confirm quantity for all electrical equipment with the Plans. Equipment and Materials shall be manufactured in the United States to comply with the Airport Improvement Program Buy American requirements. Proposed electrical equipment for the vault shall be as follows:

- "A. **Radio Control Relay Interface Panel.** Relay interface panels shall be provided for the constant current regulators to interface the L-854 radio controller to each respective constant current regulator and each respective navaid lighting contactor. Relay interface panels shall be as detailed on the Plans. Relay interface panels shall be manufactured by an FAA approved L-821 control panel manufacturer or a UL 508 industrial control panel builder and shall be manufactured in the United States to comply with the Airport Improvement Program Buy American requirements.
- "B. **Lighting Contactor Panel for Airport NAVAIDS.** The lighting contactor panel for use with the airfield Navaids (including the Airport Rotating Beacon, VADI units, and REIL units) and shall be as detailed on the Plans. The lighting contactor panel shall be manufactured by an FAA approved L-821 control panel manufacturer or a UL 508 industrial control panel builder and shall be manufactured in the United States to comply with the Airport Improvement Program Buy American requirements.
- "C. **Type S-1 Series Plug Cutouts.** Provide series plug cutouts for each constant current regulator as detailed on the Plans. Series plug cutouts shall be Type S-1, rated 5KV, 20-Amp, and shall comply with FAA AC 150/5340-4C. Cutouts shall be certified in writing by the manufacturer as suitable for the respective application. Cutouts shall disconnect the input from the output, short the input terminals, and short the output terminals when the handle/plug is removed. Series plug cutouts shall be Crouse-Hinds, Type S-1, Model 2, Catalog Number 30775, or an approved equal. Series cutouts where the manufacturer has noted their cutouts are not recommended to operate with the handle pulled/removed are not acceptable. Other cutouts, that do not function as detailed on the Plans or that are not suitable for the respective application, are not acceptable.

Install the series plug cutouts in a NEMA 1 or NEMA 12 painted steel enclosure adequately sized to house the cutout(s), with a hinged cover and back panel to mount the cutouts. All enclosures shall be pad lockable.

- "D. **Vault Main Service and Distribution Panelboard.** Circuit breaker panelboard shall be rated 120/240 VAC, 1 phase, 3-wire and shall have Copper bus structure braced for 22,000 RMS Amperes fault current minimum at 120/240 VAC. All Copper parts shall be plated to prevent corrosion. Panelboards shall bear the UL label. Panelboards for service entrance applications shall be UL-listed suitable for service entrance. All panelboards shall be dead-front safety-type, equipped with thermal magnetic-molded case breakers and solid neutral bus. Bus bar connections to the branch circuit breakers shall be the "Distributed Phase" or "Phase Sequence" type. Bussing shall be such that adjacent single-pole breakers will be on different phases or polarities, and that two pole breakers can be installed at any location. Panelboard numbering shall be such that starting at the top, odd numbers shall be used in sequence down the left hand side, and even numbers shall be used in sequence down the right hand side. Cabinets shall be fabricated of code-gauge, galvanized steel with gutters per the NEC. Fronts shall have doors with matching one-piece trim, be code-gauge, and be finished with rust-inhibiting primer and baked enamel. Fronts shall have adjustable indicating trim clamps completely concealed when door is closed. Provide a circuit directory frame and card with a clear plastic covering on the inside of the doors. Fronts shall have flush locks, and be furnished with two keys per lock. Provide circuit breakers, quick-make, quick-break, thermal-magnetic, trip indicating, and common trip on all multi-pole breakers. Handles shall have "ON", "OFF" and "TRIPPED" positions. Circuit breakers shall be UL-listed in accordance with UL Standard 489. Breakers shall have bolt-on connections to the bus. Amperage trip ratings, voltage ratings, interrupting current ratings, and number of poles shall be as shown on the panelboard schedules. Contractor shall confirm and adjust circuit breaker sizes, as required for the respective equipment or device being fed, in accordance with the respective equipment manufacturer's recommendation and the NEC. Panelboards shall be furnished with Copper-ground bus and separate insulated neutral bus.
- "E. **Surge Protective Device for Vault Panelboard.** AC power surge protective device shall be UL-listed per UL 1449, Third Edition, and shall conform to the applicable requirements of FAA-STD-019d dated August 9, 2002, "LIGHTNING AND SURGE PROTECTION, GROUNDING, BONDING, AND SHIELDING REQUIREMENTS FOR FACILITIES AND ELECTRONIC EQUIPMENT". AC power surge protective device for the main distribution panel shall be suitable for a 120/240 VAC, 1-phase, 3-wire, plus ground system with a surge current rating of 240,000-Amps, 8 x 20 microsecond wave per mode (L-L, L-N, L-G, N-G), and status indication lights in a NEMA 12-rated enclosure, Lightning Protection Corporation Model LPC 2020-8U-G, or approved equal. Include six spare indicator lamps with each AC power surge protective device.
- "F. **Fractional Horsepower Manual Motor Starters.** Fractional horsepower manual motor starters shall be toggle-operated type with thermal overload protection in each phase conductor sized for the respective motor. Fractional horsepower manual motor starters shall be installed in NEMA 1 surface enclosures where located indoors in a dry, non-corrosive, non-hazardous location. Fractional horsepower manual motor starters shall be installed in NEMA 4/4X enclosures where located outdoors or in wet locations. Starters shall include handle guard/lock off feature to permit pad locking the device in the off position. Acceptable Fractional horsepower manual motor starter products are General Electric - CR101, Square D - Class 2510, Cutler-Hammer - MS, or approved equal.
- "G. **Photocells.** Photocells for use with the airfield lighting controls shall be rated 2000-Watts at 120 VAC, with off delay, -40 C to 60 C operating temperature range, Tork Model No. 2101, or approved equal. Contractor shall confirm the selected photocell is suitable for the respective application.

- "H. **Junction and Pull Boxes.** Junction and pull boxes shall be sized, as required for conductors and splices and per 2014 NEC Article 314. Boxes shall be UL-listed. Special boxes made to suit conditions shall be used to accommodate the respective application, or where required by the NEC, even though they might not be indicated on the Drawings. Surface-mounted exterior junction and pull boxes located in non-hazardous, non-classified areas shall be NEMA 4X stainless steel or aluminum, Crouse-Hinds, Killark, Hoffman, Hennessy, or equal. All junction and pull boxes installed in classified hazardous areas (Class 1, Division 1 or 2, Group D) shall be NEMA 7 and NEMA 4 and shall comply with applicable provisions of the NEC, including, but not limited to, Articles 500 and 501.
- "I. **Schedule 40 PVC and Schedule 80 PVC Conduit.** Schedule 40 PVC and Schedule 80 PVC conduit shall comply with Item 110 and the following: Conduit shall be Schedule 40 PVC, UL-listed, rated for 90°C cable-conforming to NEMA Standard TC-2 and UL 651. Fittings shall conform to NEMA Standard TC-3 and UL 514B. Conduits shall be suitable for underground applications encased in concrete or direct burial, and suitable for exposed applications aboveground.
- "J. **Liquid-Tight Flexible Metal Conduit.** Liquid-tight, flexible metal conduit shall consist of polyvinyl jacket over flexible hot dip galvanized steel tubing. The flexible conduit shall be completely sealed from liquids, dust, dirt, and fumes and be resistant to oil, gasoline, grease, and abrasion. Jacket shall also be sunlight-resistant. Liquid-tight flexible metal conduit shall be UL-listed, suitable for use as a grounding conductor, and comply with Article 350 of the NEC. **Liquid-tight flexible metal conduit and associated fittings shall be UL-listed to meet the requirements of NEC 350.6.** Liquid-tight flexible metal conduit shall be Anaconda Sealtite Type UA as manufactured by Anamet Electrical Inc., 1000 Broadway Avenue East, Mattoon, Illinois 61938-0039, (Phone: 217-234-8844), Liqueflex Type LA as manufactured by Electri-Flex Company, 222 W. Central Ave., Roselle, Illinois 60172, (Phone: 630-529-2920 or 1-800-323-6174), or approved equal. Do not install liquid-tight, flexible metal conduit that is not UL listed. Confirm liquid-tight, flexible metal conduit bears the UL label prior to installation."

109 2.20 WIRE. Add the following to Section A. Control Circuits:

"**THWN Wire.** Cable shall comply with Underwriters' Laboratories Standard UL-83 and Federal Specification A-A-59544. Conductor shall be soft-annealed, uncoated Copper and shall comply with ASTM B3 and B8. Insulation shall be rated for 600-Volt. Insulation shall be polyvinyl-chloride conforming to Underwriters' Laboratories requirements for Type THW. The outer covering shall be nylon-conforming to Underwriters' Laboratories for type THHN or THWN. Cable shall be UL-listed and marked THWN."

Delete paragraphs 1, 2, and 3 under Section B. Power Circuits.

Add the following:

"**Power Cable (600-Volt and Below).** All power wiring, 600-Volt and below, shall be the type, size, and number of conductors as noted on the Plans. Cable shall be manufactured in the United States of America to comply with the Airport Improvement Program Buy American requirements.

"**THWN Wire.** Cable shall comply with Underwriters' Laboratories Standard UL-83 and Federal Specification A-A-59544. Conductor shall be soft-annealed, uncoated Copper and shall comply with ASTM B3 and B8. Insulation shall be rated for 600-Volt. Insulation shall be polyvinyl-chloride conforming to Underwriters' Laboratories requirements for Type THW. The outer covering shall be nylon-conforming to Underwriters' Laboratories for type THHN or THWN. Cable shall be UL-listed and marked THWN-2. Power and control wiring shall be Type THWN-2, or approved equal. **Note: where THWN wiring is referenced on the Plans, it shall be THWN-2.**

"**XHHW Wire.** Cable shall be UL-listed as Type XHHW-2 per UL Standard 44. Cable shall also conform to ICEA S-95-658/NEMA WC70 and Federal Specification A-A-59544. Conductors shall be Class B stranded, annealed, uncoated Copper per UL Standard 44. Insulation shall be rated for 600-Volt. Insulation shall be cross-linked polyethylene complying with the physical and electrical requirements of UL Standard 44 for Type XHHW-2. XHHW wire may be used in place of THWN wire for all applications.

"**XLP-USE Wire.** Cable shall comply with UL Standard 44, UL Standard 854, and Federal Specification A-A-59544. Conductor shall be concentric-strand, soft Copper, conforming to ASTM B8 and Underwriters' Laboratories Standard UL44 for Rubber-Insulated Wires. Insulation shall be rated for 600-Volts. Insulation shall be cross-linked polyethylene conforming to Underwriter's Laboratories Requirements for Type USE-2 insulation. Cable shall be UL-listed and marked USE-2.

"**Series Circuit 5000-Volt Cable.** Cable for use with series circuit airfield lighting shall be FAA-L-824, Type C cable complying with Item 108. L-824 cable shall be FAA approved and listed in the current AC150/5345-53D, AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM Appendix 3 Addendum. Cable furnished on this project shall comply with the requirements of the Airport Improvement Program Buy American requirements. Circuits for use with constant current regulator outputs (runway or taxiway lighting circuits) shall use 5000-Volt rated cable.

"**Grounding electrode conductors and/or bonding jumpers** shall be the size and type, as detailed on the Plans. Ground wire for bonding constant current regulator housings, cutout enclosures, and other vault equipment frames to the vault ground bus shall be #6 AWG stranded Copper."

109-2.21 FLOOR DRAINS. Delete this Section.

Add:

109-2.22 FIRE EXTINGUISHERS. Furnish and install a UL rated, 10 pound Carbon Dioxide fire extinguisher suitable for use on Class C Fires and a 10 pound Class 4A:80B:C dry chemical ABC fire extinguisher suitable for use on Class A, B, C Fires, in the vault. Per NFPA 10, "Portable Fire Extinguishers" Class C are for fires that involve energized electrical equipment. Fire extinguishers shall be made in the United States of America to comply with the Airport Improvement Program Buy American requirements. Fire extinguisher type CO2 shall be Amerex Model 330, Kidde Model PRO10CDM or approved equal. Fire extinguisher dry chemical type ABC shall be Amerex Model B456, or approved equal. Provide wall mounting bracket for each fire extinguisher. Confirm model numbers with the respective fire extinguisher manufacturer.

Add:

109 2.23 MECHANICAL EQUIPMENT.

- A. **Ventilation System.** Ventilation system shall be as detailed on the Plans. Input power for fan and damper motors shall be 120 VAC.
- B. **Electric Wall Heaters.** Provide fan forced electric wall heaters in the capacity required for maintaining space temperature at 72°F in the winter. Each wall heater shall include the following features: Heating element shall be of the non-glowing design consisting of a special resistance wire enclosed in a steel sheath to which plate fins are Copper brazed. Heater shall include a 5-year warranty. Heating capacity shall be as shown on the Plans. The fan shall be 5-bladed aluminum. The fan motor shall be totally enclosed. Fan delay switch shall be bi-metallic, snap action-type. Fan shall be activated after heating element reaches operating temperature. Integral thermostat shall be bi-metallic, snap action-type with enclosed contacts. Thermal cutout shall be built in the system to automatically shut off the heat in the event of overheating and reactivate the heater when temperature returns to normal.

Provide louvered steel front cover, color to match exterior siding and interior vault walls. Provide surface-mounting box for surface installation, painted to match front cover. All sheet metal parts shall be phosphatized, and final finished in baked enamel paint. Input voltage shall be 240 VAC, 1 phase, 60 Hz. Heaters shall be manufactured in the United States of America to comply with the Airport Improvement Program Buy American requirements.

Add:

109-2.24 **FIRE DETECTION SYSTEM.** Contractor shall furnish and install a complete, electrically supervised, closed circuit fire alarm system as detailed on the Plans and specified herein. Components of the system shall be listed, labeled, or approved for its application as fire alarm equipment by Underwriters Laboratories Inc. The work described in this specification consists of all labor, materials, equipment and services necessary and required to complete and test the automatic fire detection and alarm system. Any material not specifically mentioned in this specification or not shown on Plans but required for proper performance and operation shall be furnished and installed.

A. **Quality Assurance.** The system, including all components, shall be listed by Underwriters Laboratories Inc. for use as a fire protective signaling system. This installation shall be made in accordance with the drawings, specification and the following:

1. National Electrical Code, Article 760, NFPA 70, (most current issue in force).
2. NFPA 72 National Fire Alarm Code.
3. NFPA 90A Standard for the Installation of Air Conditioning and Ventilating Systems.
4. NFPA 101 Life Safety Code.
5. BOCA - National Fire Prevention Code.

B. **Special Conditions.** The manufacturer or his authorized distributor shall confirm that within reasonable distance of the job site, within 3 hours of travel time, there is an established agency which stocks a full complement of parts and offers service during normal working hours on all equipment to be furnished, and that the agency will supply parts without delay. All material and equipment shall be new and unused. All hardware and software furnished shall be the manufacturer's latest revision or product version, at the time of final acceptance. All individual components and composite systems shall be designed for continuous operation without undue heating or change in rated values, and shall be properly fused or protected.

C. **Definitions.**

1. Alarm-Initiating Device: A manual station or a heat detector.
2. Alarm Signal: Signifies a state of emergency requiring immediate action. Pertains to signals such as the operation of a manual station.
3. Class B Wiring: Circuits electrically supervised such that a single break or a single ground fault condition will be indicated by a trouble signal at the FACP no matter where the break or ground fault condition occurs.
4. Hard-Wired System: Alarm, supervisory, and initiating devices directly connected, through individual dedicated conductors, to a central control panel.
5. Supervisory Signal: Indicates abnormal status or need for action regarding fire suppression or other protective system.
6. Trouble signal: Indicates that a fault, such as an open circuit or ground, has occurred in the system.
7. Zone: Initiating device or combination of devices connected to a single alarm-initiating device circuit.

D. **System Description.**

1. General: Complete, zoned, non-coded, microprocessor-based fire-detection and alarm system with manual and automatic alarm initiation.

2. Signal Transmission: Hard wired, using separate individual circuits for each zone of alarm initiation and alarm device operation.
 3. Audible Alarm Indication: By sounding of horns.
 4. System connections for alarm-initiating and alarm-indicating circuits. Class B wiring.
 5. Functional Description: The following are required system functions and operating features:
 - a. Signal Initiation: The manual or automatic operation of an alarm-initiating or supervisory-operating device causes the FACP to transmit an appropriate signal including:
 - (1) General alarm.
 - (2) Smoke detector alarm.
 - (3) Heat detector alarm.
 - (4) System trouble.
 - b. Transmission to Remote Central Station: Automatically route alarm, supervisory, and trouble signals to a remote central station panel using listed and approved equipment.
 - c. Silencing at FACP: Switches provide capability for acknowledgment of alarm; supervisory, trouble, and other specified signals at the FACP; and capability to silence the local audible signal and light a light-emitting diode (LED). Subsequent zone alarms cause the audible signal to sound again until silenced in turn by switch operation. Restoration to normal of alarm, supervisory, and trouble conditions extinguish the associated LED and cause the audible signal to sound again until the restoration is acknowledged by switch operation.
 - d. Loss of primary power at the FACP sounds trouble signal at the FACP and indicates at the FACP when the system is operating on an alternate power supply.
 - e. Annunciation: Manual and automatic operation of alarm and supervisory initiating devices is annunciated on the FACP indicating the location and type device.
 - f. General Alarm: A system general alarm includes:
 - (1) Indicating the general alarm condition at the FACP.
 - (2) Identifying the device that is the sound of the alarm (or its zone) at the FACP.
 - (3) Initiating audible and visible alarm signals throughout the building.
 - (4) Initiating transmission of alarm signal to remote central station.
 - g. Manual station alarm operation initiates a general alarm.
 - h. Smoke and/or Heat detection initiates a general alarm.
- E. **Submittals.** Submit the following:
1. Product Data for system components. Include dimensions showing minimum clearances and installed features for devices. Include list of materials for control panel, detectors, pull stations and signals including (NRTL)-listing data.
 2. Wiring diagrams from manufacturer differentiating between factory and field installed wiring. Include diagrams for equipment and for the system with all terminals and interconnections identified. Indicate components for both field and factory wiring.
 3. System operation description covering this specific Project, including method of operation and supervision of each type of circuit and sequence of operations for all manually and automatically initiated system inputs and outputs. Manufacturer's standard descriptions for generic systems are unacceptable.

4. Operating instructions for mounting at the FACP.
 5. Operation and maintenance data for inclusion in Operating and Maintenance Manual. Include data for each type product, including all features and operating sequences, both automatic and manual. Include recommendations for spare parts to be stocked at the site. Provide the names, addresses, and telephone numbers of service organizations that carry stock of repair parts for the system to be furnished.
 6. Product certification signed by manufacturers of fire alarm system components certifying that their products comply with indicated requirements.
 7. Record of field tests of system.
- F. **Manufacturers.** Subject to compliance with requirements, provide products by:
1. Simplex Time Recorder Company.
 2. Edwards System Technology.
 3. Or approved equal.
- G. **Manual Pull Stations.** Manual pull stations shall be double-action-type, non-coded fabricated of metal or plastic, and finished in red with molded, raised-letter operating instructions of contrasting color. Stations requiring the breaking of a glass panel are unacceptable. Stations requiring the breaking of a concealed glass rod may be provided. Station reset shall be key or wrench operated, double pole, double throw, switch rated for the voltage and current at which it operates. Stations shall have screw terminals for connections.
- H. **Smoke Detectors.** Smoke detectors shall comply with UL 268 "Smoke Detectors for Fire Protective Signaling Systems." Include the following features:
1. Factory Nameplate: Serial number and type identification.
 2. Operating Voltage: 24-V dc, nominal.
 3. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.
 4. Plug-in Arrangement: Detector and associated encapsulated electronic components are mounted in a module that connects to a fixed base with a twist-locking plug connection. The plug connection requires no springs for secure mounting and contact maintenance. Terminals in the fixed base accept building wiring.
 5. Visual Indicator: Connected to indicate detector has operated.
 6. Photoelectric Smoke Detectors shall have detector sensitivity between 2.5- and 3.5-percent-per-foot (0.008- and 0.011-percent-per-mm) smoke obstruction when tested according to UL 268. The sensor shall be an infrared detector light source with matching silicon-cell receiver.
- I. **Heat Detectors.** Thermal detector shall be combination fixed-temperature and rate-of-rise unit with mounting plate arranged for outlet box mounting; 135 deg F fixed-temperature setting, except as indicated. Rate of rise shall be approximately 15 degrees F per minute. Provide 200 degree F units in high temperature spaces. Provide low profile white type units.
- J. **Alarm-Indicating Devices.**
1. General: Equip alarm-indicating devices for mounting as indicated. Provide terminal blocks for system connections.
 2. Fire Alarm Horns: Electric-vibrating-polarized type, operating on 24-V dc, with provision for housing the operating mechanism behind a grille flush in wall mounting. Horns produce a sound-pressure level of 90 dB, measured 10 feet from the source. Provide weatherproof housing for exterior horns.

3. Visual Alarm Devices: Polarized 24 VDC strobe lights with clear polycarbonate lens and xenon flash tube. Mount lenses on an aluminum faceplate. The word "FIRE" shall be engraved in minimum 1-inch high letters on the lens. Lamps shall have a minimum peak intensity of 8,000 candlepower. Strobe leads are factory-connected to screw terminals. Combination devices shall consist of factory-combined, audible and visual alarm units in a single mounting assembly. Visual alarms shall comply with ADA requirements. Provide weatherproof housing for exterior strobe lights.

K. Fire Alarm Control Panel (FACP).

1. General: Comply with UL 864, "Control Units for Fire-Protective Signaling Systems."
2. Cabinet: Lockable steel surface mount type enclosure with red finish. Arrange panel so all operations required for testing or for normal care and maintenance of the system are performed from the front of the enclosure. If more than a single unit is required to form a complete control panel, provide exactly matching modular unit enclosures. Accommodate all components and allow ample gutter space for interconnection of panels and field wiring. Identify each enclosure by an engraved, red, laminated, phenolic-resin nameplate. Lettering on the enclosure's nameplate shall not be less than 1 inch high. Identify individual components and modules within the cabinets with permanent labels.
3. Systems: Alarm and supervisory systems shall be separate and independent in the FACP. The alarm-initiating zone boards in the FACP consist of plug-in cards. Construction requiring removal of field wiring for module replacement is unacceptable.
4. Control Modules: Types and capacities required to perform all functions of the fire alarm systems. Local, visible, and audible signals announce alarm, supervisory, and trouble conditions. Each type of audible alarm has a different sound.
5. Zones: Provide for all alarm and supervisory zones indicated.
6. Indicating Lights: Provide individual LED devices for each zone. An LED test switch for each FACP section illuminates all LED devices on that section of the control panel. Manual toggle test switches or push test-buttons do not require a key to operate. Alarm and supervisory signals light a red LED of the associated zone. Trouble signals light an amber LED for the associated zone.
7. Resetting: Provide the necessary controls to prevent the resetting of any alarm, supervisory, or trouble signal while the alarm or trouble condition still exists.
8. Instructions: Printed or typewritten instruction card mounted behind a lexan plastic or glass cover in a stainless-steel or aluminum frame. Install the frame in a location observable from the FACP. Include interpretation and appropriate response for displays and signals, and briefly describe the functional operation of the system under normal, alarm, and trouble conditions.

L. Emergency Power Supply.

1. General: Components shall include lead acid battery, charger, and an automatic transfer switch. Battery nominal life expectancy shall be 10 years, minimum.
2. Battery capacity shall be adequate to operate the complete alarm system in normal or supervisory (non-alarm) mode for a period of 24 hours. At the end of this period, the battery shall be sufficient capacity to operate the system, including alarm-indicating devices in either alarm or supervisory mode, for a period of 15 minutes.
3. Battery Charger: Solid-state, fully automatic, variable-charging-rate type. Provide capacity for 150 percent of the connected system load while maintaining the batteries at full charge. In the event batteries are fully discharged, the charger shall recharge them completely within 4 hours. Charger output shall be supervised as part of system power supply supervision.
4. Automatic transfer switch transfers the load to the battery without loss of signals or status indications when normal power fails.

- M. **Radio Alarm Transmitter.** Provide a radio alarm transmitter that is compatible with the Village of Bolingbrook Fire Department Alarm Monitoring Equipment in accordance with the Village of Bolingbrook Fire Department requirements. Transmitter shall be factory assembled and tested complete with cabinet, rechargeable battery set, charger, interface panel, omni-directional antenna with mounting system, surge suppression and coaxial cable. Communicator shall be dual digital type unit with low battery sensing, alarm reporting, test channel, line seizure, lightning protection and kiss-off signal transmission. Transmitter shall permit transmission of manually and automatically initiated alarm and trouble signals.

CONSTRUCTION METHODS

CONSTRUCTION OF VAULT AND PREFABRICATED METAL HOUSING

GENERAL

109-3.1 Add the following:

"The Contractor shall coordinate the installation of mechanical and electrical equipment with the building manufacturer and the foundation and floor. Contractor shall comply with the requirements of FAA AC No. 150/5370-2F (or most current issue) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION"."

109 3.2 FOUNDATION AND WALLS. Revise this Section as follows:

"Foundations shall be constructed as specified in Section 109-2.17, Pre-fabricated Equipment Shelter."

109 3.3 ROOF. Delete this Section.

109 3.4 FLOOR. Revise this section as follows:

"The building floor shall be constructed as specified in Section 109-2.17, Pre-fabricated Equipment Shelter."

109 3.5 FLOOR DRAIN. Delete this Section.

109 3.7 DOORS. Add the following:

"Doors with frame shall be UL rated 1.5 hour fire rated. Doors shall be as specified in Section 109-2.17, Pre-fabricated Equipment Shelter."

109 3.8 PAINTING. Delete this section.

109-3.9 LIGHTS AND SWITCHES. Add the following:

"Furnish and install receptacles, toggle switches, and control stations, as detailed on the Plans. Receptacles, toggle switches, and control stations shall be located at 4 ft-0 in. above finished floor elevation or finished grade at all structures. Adjust locations and/or mounting heights, where necessary, to avoid interferences. All receptacles shall be grounded with an equipment ground wire connected to the grounding terminal or screw on the receptacle. All toggle switches shall be grounded with an equipment ground wire connected to the grounding terminal or screw on the switch. Test all GFCI receptacles and receptacles protected by GFCI's for proper operation. Verify all receptacles and switches are wired for the correct voltage."

INSTALLATION OF EQUIPMENT IN VAULT OR PREFABRICATED METAL HOUSING

GENERAL

109 3.10 Add the following:

"The Contractor shall furnish and install all materials necessary for complete and operational installation of the vault equipment, as specified herein and as shown on the Plans. The complete installation and wiring shall be done in a neat, workmanlike manner. All electrical work shall comply with the requirements of the NFPA 70 - National Electrical Code (NEC) most current issue in force, and all other applicable local codes, laws, ordinances, and requirements in force. Electrical equipment shall be installed in conformance with the respective manufacturer's directions and recommendations for the respective application. Any installations which void the UL listing, Intertek Testing Services verification/listing (or other third party listing), and/or the manufacturer's warranty of a device will not be permitted.

"A. Contractor shall keep a copy of the latest NEC in force on site at all times during construction for use as a reference.

"B. Contractor shall keep a copy of the Plans, Special Provision Specifications including any addenda, and copies of any change orders on site at all times during construction.

"C. Contractor shall coordinate work and any power outages with the Airport Manager and the Resident Engineer/Resident Project Representative. Any shutdown of existing systems shall be scheduled with and approved by the Airport Manager prior to shutdown. Once shut down, the circuits shall be labeled as such to prevent accidental energizing of the respective circuits. All personnel shall follow U.S. Department of Labor Occupational Safety & Health Administration (OSHA) 29 CFR Part 1910 Occupational Safety and Health Standards for electrical safety and lockout/tagout procedures including, but not limited to, 29 CFR section 1910.147 The Control of Hazardous Energy (lockout/tagout).

"D. Contractor shall comply with the applicable requirements of NFPA 70E - Standard for Electrical Safety in the Workplace.

"E. All electrical equipment installed by the Contractor shall be properly labeled, and all cables must be tagged.

"F. All power and control cables shall be installed in conduit, wireways, pull boxes, junction boxes, or raceways. No exposed power or control wiring will be permitted.

"G. All changes to the airfield lighting system control wiring will be documented by the Contractor and provided to the Resident Engineer/Resident Project Representative.

"H. Locate Existing Underground Utilities and Cables. The location, size, and type of material of existing underground and/or aboveground utilities indicated on the Plans are not represented as being accurate, sufficient, or complete. Neither the Owner nor the Engineer assumes any responsibility whatever in respect to the accuracy, completeness, or sufficiency of the information. There is no guarantee, either expressed or implied, that the locations, size, and type of material of existing underground utilities indicated are representative of those to be encountered in the construction. It shall be the Contractor's responsibility to determine the actual location of all such facilities, including service connections to underground utilities. Prior to construction, the Contractor shall notify the utility companies of his operational plans, and shall obtain, from the respective utility companies, detailed information and assistance relative to the location of their facilities and the working schedule of the companies for removal or adjustment, where required.

In the event an unexpected utility interference is encountered during construction, the Contractor shall immediately notify the utility company of jurisdiction. The Owner's Representative and/or the Resident Engineer shall also be immediately notified. Any damage to such mains and services shall be restored to service at once and paid for by the Contractor at no additional cost to the Contract. All utility cables and lines shall be located by the respective utility. Contact JULIE (Joint Utility Location Information for Excavators) for utility information, phone: 1-800-892-0123. Contact the FAA (Federal Aviation Administration) for assistance in locating FAA cables and utilities. Location of FAA power, control, and communication cables shall be coordinated with and/or located by the FAA. Also contact Airport Owner and Airport Personnel for assistance in locating underground Airport cables and/or utilities. Also coordinate work with all aboveground utilities.

- "I. Contractor shall comply with the requirements of FAA AC No. 150/5370-2F (or most current issue) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".
- "J. Secure, identify, and place any temporary exposed wiring in conduit to prevent electrocution and fire ignition sources."

109.3.11 POWER SUPPLY EQUIPMENT. Add the following:

"Electric Service Entrance for Vault. Contractor shall furnish and install electric service entrance for the Airport Electrical Vault, as detailed on the Plans and specified herein. As part of the service entrance work, the Contractor shall coordinate with the serving utility (Commonwealth Edison Company New Business Department Phone: 866-639-3532 and the respective Com Ed Service Representative; Mr. Darryl Bell, Phone: 630-985-0410), the installation of a 120/240 VAC, 1-phase, 3-wire service sufficient to handle a 200-Amp service for the new Airport Electrical Vault and associated equipment. The respective Airport Owner shall pay for all associated electric utility company charges required to provide electric service to the new airport vault. The Contractor is not responsible for electric utility company charges associated with the proposed electric service to the new vault. The Contractor shall coordinate the new electric service with the serving electric utility company and the Airport Manager. The service entrance shall include, but not be limited to, all service entrance equipment, labor, and materials, as detailed on the Plans and specified herein, in order to provide a complete and operational electrical system.

- "A. Electric Utility Company: Major work items to be performed by the serving electric utility company will be as follows:
 - 1. The furnishing and installing of primary electrical equipment.
 - 2. The furnishing of power for a 120/240 VAC, 1-phase, 3-wire secondary service sufficient to handle the loads for a 200-Amp service.
 - 3. Furnishing and installing the meter.
 - 4. Making final connections to the utility transformer.
 - 5. The serving electric utility company will retain the right to review and approve Drawings prior to installation.
- "B. Contractor: Major work items to be performed by the Contractor shall be as follows: all work, labor, equipment, and materials shall be as detailed on the Plans specified herein and per the serving electric utility's requirements, where applicable.
 - 1. Furnishing and installing service entrance equipment, meter base, and support hardware as detailed on the Plans.
 - 2. Furnishing and installing service entrance cables and conduit from the electric utility transformer, or designated connection point, to the service disconnect.
 - 3. Furnishing and installing ground conductors, ground rods, and grounding electrode conductor conduit.
 - 4. Coordinating work with the Airport Owner.

5. Coordinating work and verifying all requirements with serving electric utility.
6. Additional work as required by the serving electric utility and as required to provide a complete and operational electric service entrance system.

Add the following:

"Constant Current Regulators. Install constant current regulators in conformance with the manufacturer's recommendations, as detailed on the Plans and as specified herein. Maintain working clearances in front of constant current regulators per the requirements of NEC 110.26 and 110.34. Maintain clearance around constant current regulators for air flow and cooling per the respective manufacturer's recommendations. Confirm circuit breaker sizes for constant current regulators are sized in conformance with the respective manufacturer's recommendations and/or requirements and NEC. Where necessary to accommodate the respective constant current regulator input amperage requirements, circuit breakers, conductors, and conduits shall be adjusted (increased in size) to meet the manufacturer's recommendations and/or requirements and the NEC. Conduit connections to constant current regulators shall be with UL-listed, liquid-tight, flexible metal conduit. Include an external bonding jumper or internal equipment ground wire with each piece of liquid-tight, flexible metal conduit that is connected to a constant current regulator to comply with NEC 350.60. High-voltage wiring shall enter each respective regulator at the high-voltage/series circuit output section of the regulator. 240 VAC input power wiring shall enter each respective regulator at the low-voltage/input power section of the regulator. Furnish and install control wiring, as detailed on the Plans. Control wiring shall enter each respective regulator at the control section of the regulator. Bond each constant current regulator enclosure frame, to the vault ground bus with a #6 AWG (minimum), bare-stranded, Copper-bonding jumper."

109 3.12 SWITCHGEAR AND PANELS. Add the following:

- "A. Installation of Control Panels. Install control panels, as detailed on the Plans and in conformance with the respective panel manufacturer's requirements and/or recommendations.
- "B. Installation of S-1-Type Cutouts. Install plug cutouts in conformance with the manufacturer's recommendations, as detailed on the Plans and as specified herein. Provide NEMA 1 or NEMA 12 painted steel enclosures adequately sized for the cutouts and cables with hinged cover and back panel to mount the plug cutouts. Cutout enclosures shall be grounded. Cutouts must be rated suitable for use in the respective application.
- "C. Installation of Panelboards. Panelboards shall be thoroughly inspected for physical damage, proper alignment, anchorage, and grounding. The exterior finish shall be inspected for blemishes, nicks, and bare spots and touched up, as required, using matching touch-up paint. Inspections shall be made for proper installation and tightness of connections for circuit breakers. Install panelboards, as shown on the Plans and in accordance with NEMA PB1.1. Maximum distance from floor to highest breaker shall not exceed 6 feet-6 inches. Install panelboards plumb. Install circuit breakers in panelboards in conformance with the respective manufacturer's directions. Connect only one wire/cable to each breaker terminal. Provide filler plates for unused spaces in panelboards. Provide typed circuit directory for each branch circuit panelboard to identify the respective device fed by each circuit breaker. Revise directory to reflect circuiting changes, as required. Provide legend plates for all panelboards to identify the panelboard designation, the power source, and the voltage system. Legend plates shall be weatherproof and abrasion-resistant, phenolic material. Lettering shall be black on white background. Panelboards shall be thoroughly tested after installation and connection to respective loads.

"D. Surge Arrester Installation. Install Surge Protector Devices (SPD)/TVSS devices in conformance with of FAA-STD-019d, dated August 9, 2002, "LIGHTNING AND SURGE PROTECTION, GROUNDING, BONDING AND SHIELDING REQUIREMENTS FOR FACILITIES AND ELECTRONIC EQUIPMENT" and the respective manufacturer's directions and recommendations. Contractor shall confirm all connections to the surge arrester (phases, neutral, and ground) are completed and secure. Connection leads to the surge arrester shall be sized per the respective manufacturer's recommendation and as detailed herein, and shall be maintained as short as possible, maximum 2 ft in length, and laced together for mutual coupling. The conduit or conduit nipple connecting the SPD/TVSS device enclosure to the panel enclosure shall be sealed with duct seal or other nonflammable medium to prevent soot from entering the enclosure in the event of a SPD/TVSS device failure."

109-3.13 DUCT AND CONDUIT. Add the following:

"A. Conduit shall be installed in accordance with the following:

1. All service, feeder, branch circuit, and control circuit conduits associated with the vault shall be galvanized rigid steel conduit as detailed on the Plans.
2. Schedule 40 PVC conduits shall be used for individual grounding electrode conductors and/or bonding jumpers.
3. Liquid-tight, flexible metal conduit shall be used as specified herein.

"B. Conduit Runs:

1. All conduits shall be sized, as indicated on the Drawings, or if conduit sizes not shown shall be in accordance with the NEC. All conduit systems shall be mechanically and electrically continuous from source of current to all outlets and grounded in accordance with the NEC.
2. Run all exposed conduit parallel to building walls using right angle bends. Exposed diagonal runs of conduit will not be permitted. Do not install conduit on roof surfaces unless specifically indicated on the Drawings.
3. Ream conduit after threads are cut. Cut ends square and butt solidly into couplings.
4. Prevent the accumulation of water, foreign matter, or concrete in the conduits during the execution of the work. Temporarily plug conduit, blowout, and swab before wires are pulled.
5. Fasten conduits to all sheet metal boxes and cabinets with two locknuts in accord with the NEC where insulated bushings are used and where bushings cannot be brought into firm contact with the metal enclosures; otherwise, use at least a single locknut and bushing.
6. Seal each underground joint and make water-tight.
7. Where building construction or other conditions make it impossible to use standard threaded couplings, install water-tight, threaded unions.
8. Make changes in direction of runs with symmetrical bends or cast-metal fittings. Make field-made bends and offsets with conduit bending machine to avoid changing the internal diameter of the conduit and not damage its protective coating either inside or outside. Individual bends shall not exceed 90 degrees, and not more than 270 degrees total bends will be allowed in any one conduit run. Where more bends are necessary, and conduit runs exceed 150 lineal feet, install a suitable pull box or junction box.

9. Provide empty conduits installed with a pull wire. Pull wire shall be No. 14 AWG, zinc-coated steel or of plastic having not less than 200 pound tensile strength. Leave not less than 12 inch of slack at each end of the pull wire.
 10. Use liquid-tight, flexible metal conduit for final connection to motors, constant current regulators, transformers, portable equipment, and for equipment subject to vibration and noise transmission. For each conduit size up to 1-inch trade size, flexible conduit shall be minimum length of 12 inch and a maximum length of 36 inch and for conduit sizes above 1-inch trade size, flexible conduit shall be minimum length of 20 inch and maximum length of 48 inch. Liquid-tight flexible metal conduit and associated fitting shall be UL listed to meet the requirements of NEC 350.6. Liquid-tight flexible metal conduit that is used for flexibility (including connections to motors, constant current regulators, and transformers) shall require an external bonding jumper or internal equipment grounding conductor per NEC 350.60. Do not install liquid-tight flexible metal conduit that is not UL listed.
 11. Provide duct seal at conduit terminations inside enclosures where the respective conduit is from below grade.
 12. All enclosures rated NEMA 4, 4X shall have watertight hubs at conduit entrances UL listed NEMA 4, 4X for the respective enclosure to maintain the NEMA 4, 4X rating. Provide NEMA 4 hubs at conduit entrances for equipment rated NEMA 3R to maintain a watertight seal.
- "C. Raceway Support and Hangers:
1. Securely fasten raceways in-place and support from ceiling or walls at spacing not exceeding:

<u>Material</u>	<u>Maximum Spacing of Supports</u>
a. ½-inch through 1-inch trade size conduit	6 feet
b. 1¼-inch through 1½-inch trade size conduit	8 feet
c. 2-inch to 4-inch trade size conduit	10 feet
d. Liquid-tight, flexible metal conduit	4½ feet
e. Metal wireway	10 feet

2. Support rigid conduits within 3 feet of every outlet box, junction box, pull box, cabinet, or termination. Support flexible conduit within 12 inches on each side of every outlet box or fitting.
3. Support conduits by pipe straps, wall brackets, hangers, or ceiling trapeze. The use of perforated iron or wire for supporting conduits is prohibited. Fasten with wood screws or screw nails to wood; by toggle bolts on hollow masonry units, by concrete inserts, or expansion bolts on concrete or spring-tension or threaded C-clamps for rigid steel conduits on steel. Do not weld conduits or pipe straps to steel structures unless specifically indicated.
4. The load applied to fasteners shall not exceed one-third the proof test load of the fasteners.
5. Fasteners attached to concrete shall be vibration and shock-resistant.
6. All screws, bolts, washers, and miscellaneous hardware used for conduit supports shall be fabricated from rust-resisting metal. Trapeze hangers shall have hanger assemblies protected with galvanized finish.

"D. Hazardous Locations:

1. Per NEC 513, aircraft hangars are classified as a Class I, Division 2, Group D hazardous location for a level of 18 in. above the floor for the entire area of the hangar. Per NEC 513.3(C) "Vicinity of Aircraft" the area within 5 ft horizontally from aircraft power plants or aircraft fuel tanks shall be classified as a Class I, Division 2 location that shall extend upward from the floor to a level 5 ft above the upper surface of wings and of engine enclosures. All electrical installations in the hangar shall conform to the applicable sections of NEC 500, 501, and 513 in addition to the other applicable sections of NEC. Where electrical equipment is installed in a classified hazardous location it shall be suitable for use in the respective classified hazardous location. Where possible, avoid installation of electrical equipment, raceways, and wiring in the classified hazardous areas of this facility.
2. Perform all work in classified hazardous locations as defined by the NEC in strict accordance with the NEC for the particular "Class", "Division", and "Group" of hazardous locations involved or indicated on the Drawings. Provide conduit and cable seals in accordance with the NEC.
3. All conduits installed in classified hazardous locations (including Class I, Division 1 or 2, Group D) shall be suitable for the respective location. All boxes and fittings installed in Class I, Division 1 locations shall be approved (FM Approved or UL-listed) suitable for Class I, Division 1 locations. All boxes and fittings installed in Class I, Division 2 locations shall conform to the requirements of NEC 501.10 (B)(4).
4. Per Article 501.15 (C) (6) of the 2014 NEC and UL Standard 886, the cross sectional area for conductors installed in a conduit seal off fitting shall not exceed 25 percent, unless the conduit seal off fitting has been specifically approved for a higher percentage of fill.
5. Install explosion-proof conduit sealing fittings in conformance with the respective manufacturer's instructions. Contact the respective seal off manufacturer if assistance is required for direction of installing packing fiber to form a dam and pouring the sealing compound.
6. Explosion-proof flexible conduit shall be provided as a connection between each motor junction box (or any other piece of equipment subject to movement or vibration) and the rigid conduit system where installed in a classified hazardous location. For Class I, Division 2 hazardous locations, liquid-tight, flexible metal conduit may be used where it is listed as approved for use in a Class I, Division 2 hazardous location.
7. EMT is not suitable for use in classified hazardous locations and, therefore, shall not be installed in classified hazardous locations."

109-3.15 WIRING AND CONNECTIONS. Add the following:

"Low-voltage wiring shall maintain separation from high-voltage wiring. Low-voltage and high-voltage wiring shall not be installed in the same raceway. Low-voltage and high-voltage wiring shall not be installed in the same handhole or junction box."

109-3.16 MARKING AND LABELING. Add the following:

"C. Legend plates shall be provided for all equipment. Legend plates shall be provided to identify the equipment controlled, the power source, and the function of each device. Legend plates shall be weatherproof and abrasion-resistant phenolic/plastic engraved material and fastened with contact type permanent adhesive, screws, or rivets. Installation shall not break, crack, or deform the legend plate. Lettering shall be ¼ inch high, black on a white background, unless noted otherwise.

- "D. Identify control wiring at each termination point and in junction/terminal boxes with wire number corresponding to the respective control wiring diagram or respective terminal numbering arrangement. Each individual control wire shall have unique identification and shall maintain that same identification from its point of origin to its final termination point. Wire markers shall be permanent pressure sensitive label with suitable numbers or letters for easy recognition. Where new control wiring is interfaced to existing control wiring it shall also match the color coding of the existing control wiring.
- "E. Each constant current regulator shall be furnished with a phenolic-engraved legend plate that identifies the regulator number designation, the runway or taxiway served, and the power source and circuit number.
- "F. Each plug cutout cabinet shall be furnished with a phenolic-engraved legend plate that identifies the respective circuit or regulator and the voltage system (5000-Volts).
- "G. Each individual circuit breaker, control panel, terminal panel, safety switch, panelboard, etc. shall be furnished with a phenolic-engraved legend plate that identifies the respective device, the power source, and the respective voltage, phase, and wire. Furnish additional phenolic-engraved legend plates as detailed on the Plans and/or where required by code.
- "H. At electrical handholes and manholes, identify each cable originating in the vault with respect to the system or device served.
- "I. Color-code phase and neutral conductor insulation for No. 6 AWG or smaller. Provide colored marking tape for phase and neutral conductors for No. 4 AWG and larger. Insulated ground conductors shall have green colored insulation for all conductor sizes (AWG and/or KCMIL) to comply with NEC 250.119. Neutral conductors shall have white colored insulation for No. 6 AWG and smaller to meet the requirements of NEC 200.6. Standard colors for power wiring and branch circuits shall be as follows:

□ 120/240 VAC, 1-Phase, 3-Wire System

Phase A	Black
Phase B	Red
Neutral	White
Ground	Green

- "J. Provide legend plates to identify the vault ground bus in each room of the vault. Lettering shall be ½ in. high, white on a green background. Legend plate shall be labeled "VAULT GROUND BUS".
- "K. Furnish and install weatherproof warning label for each meter socket, enclosed circuit breaker, disconnect switch, switchboard, cutout, panelboard, load center, motor control center, and control panel to warn persons of potential electric arc flash hazards, per the requirements of NEC 110.16 "Flash Protection". Labels shall also conform to ANSI Z535.4-2002 "American National Standard for Product Safety Signs and Labels". NEC 110.16 requires that switchboards, panelboards, industrial control panels, meter socket enclosures, and motor control centers that are likely to require examination, adjustment, servicing, or maintenance while energized shall be field marked to warn qualified persons of potential arc flash hazards. The markings shall be located so as to be clearly visible to qualified persons before examination, adjustment, servicing, or maintenance of the equipment. This new requirement is intended to help reduce the occurrence of serious injury or death due to arcing faults to those working on or near energized electrical equipment. The warning labels are to indicate to a qualified worker who intends to open the equipment for analysis of work that a serious hazard exists and that the worker should follow appropriate work practices and wear appropriate personal protective equipment (PPE) for the specific hazard. Labels shall be as detailed on the Plans or shall include at least the following information: "Warning - Potential Arc-Flash Hazards exist while working on this energized equipment. Appropriate PPE Required.

"K. Furnish and install "DANGER - HIGH VOLTAGE" signs or labels on all fixed electrical equipment where potentials of 500 Volts or more terminal-to-ground are exposed (including, but not limited to, constant current regulators, series circuit cutout enclosures, high voltage junction boxes, and high voltage wireways) in accordance with FAA AC No. 150/5340-26B, "MAINTENANCE OF AIRPORT VISUAL AID FACILITIES". Place signs in a conspicuous location, usually on the outside of equipment."

109-3.18 ELECTRICAL TESTING. Add the following:

"The installation shall be tested in operation and as a completed unit prior to acceptance. Contractor shall furnish all equipment, meters, instruments, cable connections, tools, manpower, and labor to perform the respective tests. Test all new equipment and all existing equipment where modifications take place and confirm proper operation. Coordinate tests with the respective airport personnel and the Resident Engineer. Tests shall include resistance, voltage, and current reading, as applicable for the respective equipment. When tests disclose any unsatisfactory workmanship, or unsatisfactory equipment, furnished under this Contract, correct the defects and retest. Repeat tests until satisfactory results are obtained. When any wiring or equipment is damaged by tests, the wiring or equipment shall be repaired or replaced at no additional cost to the contract. Test repaired or replaced items to ensure satisfactory operation. Submit three copies of all test reports to the Engineer. All test reports shall be assembled and bound in a folder or binder. Each test report shall include the following information:

- Project number,
- Project title and location,
- Device or system tested,
- Test performed,
- Date performed,
- Test equipment used,
- Respective Contractor's name, address, and telephone number,
- Testing firm's name, address, and telephone number if other than the Contractor,
- Names of individuals performing tests,
- Names of individuals observing tests,
- Statement verifying each test,
- Nameplate data from respective equipment tested,
- Test results, and
- Retest results after correction of defective components or systems (where applicable).

"The Contractor shall also test the airfield lighting controls to their confirm proper operation.

"After the installation has been fully installed, tested and is ready for final acceptance, the Contractor shall Megger test each airfield lighting circuit. All series circuit cable loops shall have the resistance tested and recorded for each circuit at the vault. Each constant current regulator shall be tested with results recorded.

"The following circuits shall be tested:

- Megger test and record Runway 18-36 series circuit cable loop at the vault.**

"The following test report shall be completed by the Contractor, and a printed laminated copy will be posted in the Electrical Vault:

MEGGAR TEST RESULTS

Bolingbrook's Clow International Airport

Runway 18-36 Series Circuit No. 01

Test Date: *(Date of Test)*

Recorded By: *(Name of Tester and Name and Contact Information for Company)*

Note: Output voltage measurements are not required for constant current regulators that are not equipped with output voltage meters.

1. Test Runway 18-36 CCR by Manual Control and record input current, output current, and output voltage at each step.

STEP	INPUT CURRENT	OUTPUT CURRENT	OUTPUT VOLTS
B10			
B30			
B100			

2. Test Runway 18-36 CCR by L-854 Radio Control and record input current, output current, and output voltage at each step.

STEP	INPUT CURRENT	OUTPUT CURRENT	OUTPUT VOLTS
B10			
B30			
B100			

3. Test Runway 18-36 CCR by photocell or photocell bypass switch and record input current, output current, and output voltage at respective pre-set step.

STEP	INPUT CURRENT	OUTPUT CURRENT	OUTPUT VOLTS
B _____			

Add:

- 109-3.19 GROUNDING REQUIREMENTS. Grounding shall conform to the following as applicable: The Contractor shall furnish and install all grounding shown on the Plans and/or as may be necessary or required to make a complete grounding system, as required by the latest NEC (NFPA 70) in force. The reliability of the grounding system is dependent on careful, proper installation, and choice of materials. Improper preparation of surfaces to be joined to make an electrical path, loose joints, or corrosion can introduce impedance that will seriously impair the ability of the ground path to protect personnel and equipment and to absorb transients that can cause noise in communications circuits. The following functions are particularly important to ensure a reliable ground system:
- A. All products associated with the grounding system shall be UL-listed and labeled.
 - B. All bolted or mechanical connections shall be coated with a corrosion preventative/conductive grease and lubricant suitable for electrical connections and grounding connections, before joining, Sanchem Inc. "NO-OX-ID "A-Special" compound, Burndy Penetrox E, or approved equal.
 - C. Metallic surfaces to be joined shall be prepared by the removal of all non-conductive material, per 2014 NEC Article 250.12. All Copper bus bars must be cleaned prior to making connections to remove surface oxidation.
 - D. Metallic raceway fittings shall be made up tight to provide a permanent low impedance path for all circuits. Metal conduit terminations in enclosures shall be bonded to the enclosure with UL-listed fittings suitable for grounding. Provide grounding bushings with bonding jumpers for all metal conduits entering service equipment (meter base, CT cabinet, main service breaker enclosure, etc.), generator breaker enclosures, and automatic transfer switch enclosures. Provide grounding bushings with bonding jumpers for all metal conduits entering an enclosure through concentric or eccentric knockouts that are punched or otherwise formed so as to impair the electrical connection to ground. Standard locknuts or bushings shall not be the sole means for bonding where a conduit enters an enclosure through a concentric or eccentric knockout.
 - E. Furnish and install ground rods at all locations where shown on the Plans or specified herein. Ground rods shall be 3/4-inch diameter, 10 foot long, UL-listed, Copper-clad. Longer ground rods shall be provided where detailed on the Plans. Ground rods shall have 10 mils minimum Copper coating. Top of ground rods shall be a minimum of 30 in. below finish grade unless otherwise noted on the Plans. Ground rods shall be spaced, as detailed on the Plans, and in no case spaced less than one-rod length apart. All connections to ground rods and/or ground rings shall be made with exothermic weld type connectors, Cadweld by Erico Products, Inc., Solon, Ohio, (Phone 1-800-248-9353), Thermoweld by Continental Industries, Inc., Tulsa, Oklahoma (Phone 918-663-1440) or Ultraweld by Harger, Grayslake, Illinois (Phone 1-800-842-7437), or approved equal. Exothermic weld connections shall be installed in conformance with the respective manufacturer's directions using molds as required for each respective application. Bolted connections will not be permitted at ground rods or at buried grounding electrode conductors. Grounding electrode conductors shall be bare Copper (stranded or solid) sized, as detailed on the Plans. In addition to the grounding work described herein and shown on the Plans, the Contractor shall test the made electrode ground system with an instrument specifically designed for testing ground systems. If ground resistance exceeds **25 Ohms**, contact the Project Engineer for further direction. Copies of ground system test results shall be furnished to the Resident.
 - F. All connections, located above grade, between the different types of grounding conductors shall be made using UL-listed, double-compression, crimp-type connectors or UL-listed, bolted ground connectors. For ground connections to enclosures, cases, and frames of electrical equipment not supplied with ground lugs, the Contractor shall drill required holes for mounting a bolted, ground connector. All bolted, ground connectors shall be Burndy, Thomas and Betts, or equal. Tighten connections to comply with tightening torques in UL Standard 486A to assure permanent and effective grounding.

- G. All metal equipment enclosures, conduits, cabinets, boxes, receptacles, etc. shall be bonded to the respective grounding system. Provide grounding bushings at all conduits entering service entrance equipment (meter bases, service disconnects, service panelboards, etc.) and distribution panels or load centers and ground wire from bushing to ground bus in the respective service entrance equipment or distribution panel.
- H. Each feeder circuit and/or branch circuit shall include an equipment ground wire. Metal raceway or conduit shall not meet this requirement. The equipment ground wire from equipment shall not be smaller than allowed by 2014 NEC Table 250.122 "Minimum Size Conductors or Grounding Raceway and Equipment." When conductors are adjusted in size to compensate for voltage drop, equipment-grounding conductors shall be adjusted proportionately according to circular mil area. All equipment ground wires shall be Copper, either bare or insulated green in color. Where the equipment grounding conductors are insulated, they shall be identified by the color green, and shall be the same insulation type as the phase conductors.
- I. Bond the main electrical service neutral to ground at the main service disconnect. Bond the service neutral to ground at one location only per the NEC. A grounding connection shall not be made to any neutral circuit conductor on the load side of the service disconnecting means, except as permitted by 2014 NEC 250.24.
- J. The secondary neutral of all transformers (separately derived system transformers) shall be grounded in accordance with the NEC. The respective grounding electrode conductor shall be connected to the neutral point of the transformer between the transformer and the output disconnecting means. Size of the grounding electrode conductor shall be in accordance with 2014 NEC Article 250.66 and Table 250.66 unless shown larger on the Drawings. A bond shall be provided between the neutral and transformer case, or other metal that is part of the AC equipment grounding system, so as to complete a circuit for fault current to the transformer winding from the AC equipment grounding system. Size of the neutral bonding conductor shall be in accordance with 2014 NEC Article 250.102.
- K. All exterior metal conduits, where not electrically continuous because of manholes, handholes, non-metallic junction boxes, etc., shall be bonded to all other metal conduit in the respective duct run, and at each end, with a Copper-bonding jumper sized in conformance with 2014 NEC 250.102. Where metal conduits terminate in an enclosure (such as a motor control center, switchboard, etc.) where there is not electrical continuity with the conduit and the respective enclosure, provide a bonding jumper from the respective enclosure ground bus to the conduit sized per 2014 NEC 250.102.
- L. Install grounding electrode conductors and/or individual ground conductors in Schedule 40 or Schedule 80 PVC conduit. Where grounding electrode conductors or individual ground conductors are run in PVC conduit, do not completely encircle conduit with ferrous and/or magnetic materials. Use non-metallic, reinforced fiberglass strut support. Where metal conduit clamps are installed, use nylon bolts, nuts, washers, and spacers to interrupt a complete metallic path from encircling the conduit.
- M. Individual ground conductors and/or grounding electrode conductors shall not be run in metallic conduit and shall not be encircled by metallic clamps. If local codes dictate that grounding conductors must be run in metal conduit or raceway, then the conduit or raceway must be bonded to the grounding conductor at both ends with a bonding jumper sized in accordance with the NEC 250.64(E). All such installations requiring individual grounding conduits to be run in metal conduit or raceway shall be verified and reviewed with the Resident Engineer. This does not apply to AC equipment ground wires run with AC circuits.
- N. Furnish and install #2 AWG bonding jumpers between the respective building steel skids and the vault ground ring for pre-engineered equipment enclosure building with concrete floor and steel skid structure. Connections to the ground ring and to the steel skids shall be exothermic weld-type connections. Provide one connection to each skid member associated with the respective building.

Add:

109-3.20 FIRE ALARM AND DETECTION SYSTEM.

A. INSTALLATION, GENERAL.

1. Install system according to NFPA standards.
2. Conform to the applicable local codes of the Village of Bolingbrook including, but not limited to, Bolingbrook Municipal code, Chapter 26 Fire Regulations.
3. Fire Alarm Power Supply Circuit Breaker: Paint red and label "FIRE ALARM." Provide with lockable handle.
4. All penetration of floor slabs and fire walls shall be fire stopped in accordance with all local fire codes.
5. End of line resistors shall be furnished as required for mounting, as directed by the manufacturer.

B. EQUIPMENT INSTALLATION.

1. Manual Pull Stations: Mount semi flush in recessed back boxes with operating handles 48 in. above the finished floor or lower as indicated.
2. Smoke Detectors: Install ceiling-mounted detectors not less than 4 inches from a side wall to the near edge. Install detectors located on the wall at least 4 inches, but not more than 12 inches, below the ceiling. For exposed solid-joint construction, mount detectors on the bottom of the joists. On smooth ceilings, install detectors not over 30 feet apart in any direction. Install detectors no closer than 5 feet from air registers.
3. Audible Alarm-Indicating Devices: Install not less than 80 in. above the finished floor nor less than 6 inches below the ceiling. Install bells and horns on flush-mounted back boxes with the device-operating mechanism concealed behind a grille or as indicated. Combine audible and visual alarms at the same location into a single unit.
4. Visual Alarm-Indicating Devices: Install adjacent to each alarm bell or alarm horn and not more than 80 inches above the finished floor and at least 6 inches below the ceiling.
5. Fire Alarm Control Panel (FACP): Surface mount with tops of cabinets not more than 6 feet above the finished floor.

C. WIRING INSTALLATION.

1. Wiring Method: Install wiring in metal raceway according to Section 16110 "Raceways". Conceal raceways except in unfinished spaces and as indicated.
2. Wiring within Enclosures: Install conductors parallel with or at right angles to the sides and back of the enclosure. Bundle, lace, and train the conductors to terminal points with no excess. Connect conductors that are terminated, spliced, or interrupted in any enclosure associated with the fire alarm system to terminal blocks. Mark each terminal according to the system's wiring diagrams. Make all connections with approved crimp-on terminal spade lugs, pressure-type terminal blocks, or plug connectors.
3. Cable Taps: Use numbered terminal strips in junction, pull or outlet boxes, cabinets, or equipment enclosures where circuit connections are made.
4. System Wiring: For the low-voltage portion of the fire alarm system, install No. 16 AWG conductors and 75 degrees C insulation in wet, damp, or dry locations. For line voltage wiring, install No. 12 AWG size with insulation rated 75 degrees C minimum.
5. Color Coding: Color-code fire alarm conductors differently from the normal building power wiring. Use one color code for alarm circuit wiring and a different color code for supervisory circuits. Color-code audible alarm-indicating circuits differently from alarm-initiating circuits. Use different colors for visual alarm-indicating devices. Paint fire alarm system junction boxes and covers red.

- D. **GROUNDING.** Grounding shall conform to the details and requirements noted on the Plans, specified herein, and in accordance with the respective equipment manufacturer's recommendations and/or requirements.
- E. **FIELD QUALITY CONTROL.** Manufacturer's Field Service: Provide services of a factory-authorized service representative to supervise the field assembly and connection of components and the pre-testing, testing, and adjustment of the system.

109-3.21 **RESTORATION.** Any and all trenches and disturbed areas will be backfilled and restored to a smooth grade and seeded to the satisfaction of the Engineer. All trench settlement or disturbed areas shall be corrected for a period of one year. Restoration, grading, and seeding of areas disturbed during the installation of the proposed vault work will be incidental to the respective 109 Pay Item.

METHOD OF MEASUREMENT

109 4.1 Delete this Section.

109-4.2 Revise this Section to read as follows:

"The quantity of prefabricated equipment shelters to be paid for under **Item AR109110, "Erect Prefabricated Vault"** shall consist of the number of shelters constructed in place and accepted as a complete unit."

109 4.3 Add the following:

"The quantity of vault equipment to be paid for under **Item AR109200, "Install Electrical Equipment"** shall consist of furnishing and installing all mechanical, fire detection and alarm, and electrical equipment at the vault, as detailed on the Plans and specified herein. This item shall include all labor, equipment, surge protection, grounding, materials, tools, operational instructions, coordination, and testing required to place the vault and associated electrical equipment into proper working order. Cables, conduits, equipment, support hardware, and grounding associated with the new electric feeder to the vault shall be considered incidental to this item, and no additional compensation will be allowed. Cables inside or at the Airport Electrical Vault Building shall be considered incidental to this item, and no additional compensation will be allowed. Conduit entries, elbows, and fittings located at, adjacent to, or beneath the vault shall be considered incidental to this item, and no additional compensation will be allowed.

"A. Furnishing and installing the radio receiver antenna, lightning protection system, and antenna cable and conduit from the vault to the antenna to be located on the adjacent Hangar roof will be considered incidental to this item, and no additional compensation will be allowed.

"B. Electrical Handholes will be paid for separately under item AR110610 Electrical Handhole - per each."

Add:

109 4.4 The quantity of equipment and materials to be paid for under **Item AR109535, "Electric Service Entrance"** shall consist of furnishing and installing new electric service from the respective utility transformer secondary connection point to the respective electric utility meter base and service disconnect as detailed on the Plans and specified herein. This item shall include all labor, field verification of existing conditions, transportation, equipment, materials, conductors, connectors, conduits, warning tape above the service cables and conduit, tools, coordination, labeling, testing, restoration and all incidentals required to place the electric service into proper working order as a completed unit to the satisfaction of the Owner and Engineer.

BASIS OF PAYMENT

109-5.1 Add the following:

"Payment will be made under:

"Item AR109110	Erect Prefabricated Vault - per lump sum.
Item AR109200	Install Electrical Equipment - per lump sum.
Item AR109535	Electric Service Entrance - per lump sum."

ITEM 110

INSTALLATION OF AIRPORT UNDERGROUND ELECTRICAL DUCT

Revise Item 110 of the Standard Specifications as follows:

DESCRIPTION

110-1.1

Add the following:

"This item of work shall consist of the installation of all proposed conduits and ducts as shown on the Construction Plans.

"This item of work shall also consist of the construction of electrical handholes with lids complete, in accordance with this Special Provision, and as detailed on the Construction Plans."

Add:

110-1.2

REFERENCES

- A. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.
- B. ANSI C80.4 - Fittings Rigid Metal Conduit and EMT.
- C. ASTM D3350 - Specification of Polyethylene Plastics Pipe and Fittings Materials.
- D. ASTM F2160 - Standard Specification for Solid Wall, High-Density Polyethylene Conduit Based on Controlled Outside Diameter.
- E. NEMA TC-2 - Electrical Plastic Tubing and Conduit.
- F. NEMA TC-3 - Fittings Rigid PVC Conduit and Tubing.
- G. NEMA Specification TC-7 - Smooth-Wall Coilable Polyethylene Electrical Plastic Conduit.
- H. NFPA 70 - National Electrical Code (NEC), most current issue in force.
- I. UL Standard 6 - Rigid Metal Conduit.
- J. UL Standard 514B - Conduit, Tubing and Cable Fittings.
- K. UL Standard 651 - Schedule 40 and 80 Rigid PVC Conduit.
- L. UL Standard 651B - Standard for Continuous Length High-Density Polyethylene (HDPE) Conduit.

Add:

110-1.3

SHOP DRAWINGS. The Contractor shall furnish shop drawings for approval before ordering equipment and/or materials. Shop drawings are required for each type of conduit or duct to be used on the project. **Note: Shop drawings that are submitted that do not include all of the following listed requirements will be rejected and will require resubmittal.** Contractor shall use the following as a check list and shall verify all information noted below is included with the respective gate shop drawing prior to submitting the shop drawing for review. Shop drawings shall be clear and legible. Copies that are illegible will be rejected. Contractor shall submit sufficient copies of shop drawings to meet the needs of his personnel, sub-contractor personnel, and equipment suppliers plus four (4) copies to be retained by the Project Engineer. Shop drawings shall include the following information:

- A. Certification of compliance with the AIP (Airport Improvement Program) Buy American Act Title 49 USC Section 50101 for all materials and equipment. Do not submit ARRA (American Recovery and Reinvestment Act) or NAFTA (North American Free Trade) certification as a substitute for certification of compliance with the AIP Buy American Preferences. Shop drawings submitted without certification of compliance with the Airport Improvement Program Buy American Preferences or without certification of manufacture in the United States of America in accordance with the AIP Buy American Requirements will be rejected. See the FAA website at: http://www.faa.gov/airports/aip/buy_american/ for more information on the Airport Improvement Program Buy American Preferences requirements.
- B. In order to expedite the shop drawing review, inspection and/or testing of materials and equipment, the Contractor shall furnish complete statements to the Project Engineer as to the origin and manufacturer of all materials and equipment to be used in the work. Such statements shall be furnished promptly after execution of the Contract but, in all cases, prior to delivery of such materials and equipment.
- C. Indicate the pay item number for each respective conduit or duct.
- D. Shop drawings shall include conduit and/or duct cut sheets with type, size, specifications, UL listing, manufacturer, and catalog or part number.
- E. Provide certification that the respective steel conduits used on this project are manufactured from 100 percent domestic steel.
- F. Provide certification that the respective plastic conduits used on this project are manufactured from domestic materials.
- G. Provide IDOT producer information and drawings for precast handholes, with Buy American Preferences certification for frame and lid.

EQUIPMENT AND MATERIALS

110-2.1

GENERAL. Add the following:

"All materials for these items shall be in accordance with the FAA Standard Specification 110 Equipment and Materials, as detailed on the Plans, and as specified herein.

- "A. Conduit for concrete encased duct shall be 4" Schedule 40 (minimum) Polyvinyl Chloride (PVC) or 4" Schedule 40 (minimum) High-Density Polyethylene (HDPE).

- "B. Conduit for Electric Utility Service shall be Schedule 80 (minimum) Polyvinyl Chloride (PVC) or Schedule 80 (minimum) High-Density Polyethylene (HDPE), sized as detailed on the Plans, and will be paid for under Item AR109535, "Electric Service Entrance", per Lump Sum.
- "C. Conduit for direct burial in earth (for applications other than electric utility service) shall be Schedule 40 (minimum) Polyvinyl Chloride (PVC) or Schedule 40 (minimum) High-Density Polyethylene (HDPE), sized as detailed on the Plans.
- "D. Item AR110202, "2" PVC Duct, Direct Bury", shall be 2-in. Schedule 40 (minimum) High-Density Polyethylene (HDPE) duct or 2-in. Schedule 40 (minimum) PVC duct."

110-2.2 STEEL CONDUIT. Replace this Section with the following:

"Rigid Steel Conduit and fittings shall be hot-dipped, galvanized, UL-listed, and produced in accordance with UL Standard 6 - Rigid Metal Conduit and ANSI C80.1 - Rigid Steel Conduit, Zinc Coated. Couplings, connectors, and fittings for rigid steel conduit shall be threaded, galvanized steel or galvanized, malleable iron, specifically designed and manufactured for the purpose. Fittings shall conform to ANSI C80.4 - Fittings Rigid Metal Conduit and EMT and UL 514B - Conduit, Tubing, and Cable Fittings. Set screw type fittings are not acceptable. Steel used to manufacture conduits shall be 100 percent domestic steel. Contractor shall provide certification that the respective steel conduits used on this project are manufactured from 100 percent domestic steel.

"**Miscellaneous Fittings.** Fittings shall be suitable for use with conduits and ducts supplied. All fittings for use with rigid metal conduit shall be threaded. Set screw-type fittings are not acceptable. All conduit bodies, fittings, and boxes installed in classified hazardous locations (Class I, Division 1 or 2, Group D) shall be suitable for use in Class I, Division 1, and Group D locations. Fittings shall be as manufactured by Appleton, Crouse-Hinds, Hubbell-Killark, O-Z/Gedney, or approved equal."

110-2.3 PLASTIC CONDUIT. Add the following to this Section:

"Conduits shall be suitable for underground applications encased in concrete or direct burial, and suitable for exposed applications aboveground.

- "A. Conduits for concrete encasement shall be Schedule 40 PVC, UL-listed, rated for 90°C cable, conforming to NEMA Standard TC-2 and UL 651, listed suitable for concrete encasement or Schedule 40 (minimum) HDPE conduit, UL-listed, conforming to NEMA Standard TC-7 and UL 651B and listed suitable for concrete encasement.
- "B. Conduits for directional boring shall be Schedule 40 PVC or Schedule 80 PVC conduit, UL-listed, rated for 90°C cable, conforming to NEMA Standard TC-2 and UL 651 and suitable for directional boring installation, Schedule 40 HDPE or Schedule 80 HDPE conduit, UL-listed, conforming to NEMA Standard TC-7 and UL 651B and suitable for directional boring installation, or Wall Type SDR 9, SDR 11, or SDR 13.5 HDPE conduit manufactured in accordance with ASTM D-3350 (Specification of Polyethylene Plastics Pipe and Fittings Materials) and ASTM F2160 (Standard Specification for Solid Wall, High-Density Polyethylene Conduit Based on Controlled Outside Diameter), and suitable for directional boring installation. **Per NEC 300.5 (K), raceways installed using directional boring equipment shall be approved for the purpose. Provide manufacturer's literature confirming the respective duct is suitable for directional boring with the respective Shop Drawing submittal.**

"C. Conduits for direct burial in earth shall be PVC Schedule 40 (minimum wall thickness), UL-listed, rated for 90°C cable, conforming to NEMA Standard TC-2 and UL 651, listed suitable for direct burial in earth, or HDPE Schedule 40 (minimum wall thickness), conforming to NEMA Standard TC-7 and UL 651B, or HDPE SDR 13.5 (minimum wall thickness) manufactured in accordance with ASTM D-3350 (Specification of Polyethylene Plastics Pipe and Fittings Materials) and ASTM F2160 (Standard Specification for Solid Wall, High-Density Polyethylene Conduit Based on Controlled Outside Diameter). Conduits shall be suitable for direct burial in earth and/or concrete encasement."

Add:

110-2.9 NON-METALLIC SPLIT DUCT. Non-metallic split duct shall be used to extend existing duct that contains cables and/or for protection of existing cables as detailed on the Plans. Non-metallic split duct shall be Schedule 40 PVC designed for use with power and control cable applications. Non-metallic split shall be suitable for direct burial in earth and concrete encasement and exhibit superior impact strength. Joints shall be sealed with corrosion-resistant tape and heavy-duty plastic straps as recommended by the split duct manufacturer for the application. Split duct sleeve couplings, duct sweeps, fittings, and accessories shall be by the same manufacturer to assure system integrity. Non-metallic split duct shall be manufactured by Carlon Electrical Products, or approved equal. 4-inch Schedule 40 split ducts shall be Carlon Part Number 49015SD or approved equal. Install split duct as detailed on the Plans and in conformance with manufacturer's recommendations for the respective application. Where split duct is to be concrete-encased, confirm it is suitable for the respective application with the manufacturer.

Add:

110-2.10 DUCT SPACERS. Provide duct spacers to provide proper separation of conduits installed in concrete encased duct. Duct spacers shall be designed to provide 3-inch separation of conduits. Duct spacers shall be Underground Devices Incorporated Wunpeece Series suitable for the respective size and quantity of ducts, approved equal. Contact information for Underground Devices Incorporated is address: 3304 Commercial Avenue, Northbrook, Illinois 60062, Phone: (847) 205-9000, Fax: (847) 205-9004. Confirm catalog numbers with the manufacturer for the respective application.

Add:

110-2.11 ELECTRICAL HANDHOLE. The electrical handhole shall be pre-cast in accordance with the Plan and details. Materials shall be detailed in the Plan, shall meet IDOT Specifications, and shall be manufactured by IDOT-approved sources. The frame and solid cover shall be of the heavy-duty, square slab type with concealed hinge, East Jordan Iron Works 8213, or Neenah Foundry Company R-6662-PH, or approved equal, with lettering of "**HIGH VOLTAGE-AIRFIELD**". The gravel cushion shall meet IDOT Specifications for coarse aggregate Gradation CA-7. The gravel cushion and all other incidentals used in furnishing a complete handhole shall be incidental to the handhole, and as detailed and specified in the Plans and Contract documents. Information on a pre-cast structure (30" x 30" Precast Concrete Junction Box) is available from Utility Concrete Products, LLC, 2495 West Bungalow Road, Morris, Illinois 60450, Telephone: 815.416.1000, Facsimile: 815.416.1100.

CONSTRUCTION METHODS

110-3.1 GENERAL. Add to this Section:

"The proposed conduits and ducts shall be constructed at the locations and in accordance with the details shown on the Construction Plans. Ducts shall be installed 18 inch minimum below grade. Ducts located in area subject to farming shall be 42 inch minimum below grade. Where detailed on the Plans or where required to avoid obstructions, ducts shall be buried deeper. Where concrete-encased duct interfaces to directional-bored duct at a pavement crossing, the concrete encasement shall be installed up to the respective pavement edge. Where concrete-encased duct interfaces to an electrical handhole or manhole, the concrete encasement shall be installed up to the respective handhole or manhole. Provide bushings or bells at conduit terminations in electrical handholes or manholes.

"Underground ducts installed by directional-boring method shall be installed in a manner that will not damage any existing underground utilities, and shall not disturb or damage the respective pavement or roadway surface. Ducts shall be directional-bored at the locations shown on the Construction Plans. The ducts will be bored at a minimum depth of 24 inch below the bottom of the pavement it is being bored under. Ducts installed under paved areas and roadways shall extend a minimum of **3 feet** beyond the respective pavement or roadway surface unless detailed otherwise on the Plans. A pull wire will be left in the conduit if it is to be left vacant. The ends of the conduit will be sealed with approved plugs.

"Ducts indicated to be installed by direct burial method may be installed by plowing or directional boring where the respective duct is rated suitable for the respective installation method.

"Proposed concrete-encased duct shall be constructed at the locations and in accordance with the details shown on the Construction Plans. **The duct terminations shall include bell ends or couplings to accommodate interface to future duct bank extensions.**

"The Contractor will determine if there is a conflict between the installation of the proposed electrical ducts and any existing utilities. He will make all necessary adjustments in depth of installation to avoid any and all proposed underground improvements."

110-3.7 RESTORATION. Add the following to this Section:

"Any and all trenches and disturbed areas will be backfilled and restored to a smooth grade and seeded to the satisfaction of the Engineer. All trench settlement shall be corrected for a period of one year. Restoration, grading, and seeding of areas disturbed during the installation of the proposed ducts will be incidental to the respective pay item for which the duct is installed. The seeding will be completed in accordance with Items 901 and 908, but will be incidental to the respective pay item for which the duct is installed."

Add:

110-3.8 ELECTRICAL HANDHOLES. The electrical handholes shall be constructed in accordance with the details as shown on the Construction Plans. Coordinate conduit and duct interface with the handhole installation. Field cut openings for conduits and ducts shall be furnished according to the respective handhole manufacturer's recommendations. Core drill and/or cut wall of handhole with a tool designed for the material to be cut and suitable for the respective application. Size holes for termination fittings to be used and seal around penetrations after fittings are installed.

CA-7 cushion shall be furnished to the thickness shown on the Plans, and compacted to the satisfaction of the Resident Engineer.

Add:

110-3.9 LOCATING EXISTING UNDERGROUND UTILITIES AND CABLES. The location, size, and type of material of existing underground and/or aboveground utilities indicated on the Plans are not represented as being accurate, sufficient, or complete. Neither the Owner nor the Engineer assumes any responsibility whatever in respect to the accuracy, completeness, or sufficiency of the information. There is no guarantee, either expressed or implied, that the locations, size, and type of material of existing underground utilities indicated are representative of those to be encountered in the construction. It shall be the Contractor's responsibility to determine the actual location of all such facilities, including service connections to underground utilities. Prior to construction, the Contractor shall notify the utility companies of his operational plans, and shall obtain from the respective utility companies detailed information and assistance relative to the location of their facilities and the working schedule of the companies for removal or adjustment, where required. In the event an unexpected utility interference is encountered during construction, the Contractor shall immediately notify the utility company of jurisdiction. The Owner's Representative and/or the Resident Engineer shall also be immediately notified. Any damage to such mains and services shall be restored to service at once and paid for by the Contractor at no additional cost to the Contract.

All utility cables and lines shall be located by the respective utility. **Contact JULIE (Joint Utility Location Information for Excavators) for utility information, phone: 1-800-892-0123.** Contact the FAA (Federal Aviation Administration) for assistance in locating FAA cables and utilities. Location of FAA power, control, and communication cables shall be coordinated with and/or located by the FAA. Also contact Airport Director/Manager and Airport Personnel for assistance in locating underground Airport cables and/or utilities. Also coordinate work with all aboveground utilities.

Contractor shall locate and mark all existing cables within ten (10) feet of proposed excavating/trenching area. Any cables found interfering with proposed excavation or cable/trenching shall be hand dug and exposed. Any damaged cables shall be immediately repaired to the satisfaction of the Resident Engineer at the Contractor's expense. The Resident Engineer and Owner shall be notified immediately if any cables are damaged.

Payment for locating and marking underground utilities and cables will not be paid for separately, but shall be considered incidental to the respective duct installation.

METHOD OF MEASUREMENT

110-4.1 Add the following:

"The quantity of conduit to be paid for shall be the number of linear feet of ducts of the particular type installed and measured in-place, complete, and accepted by the Resident Engineer."

110-4.2 Delete this Section.

Add:

110-4.3 The quantity of duct to be paid for shall be the number of linear feet of duct of the particular type installed and measured in-place, complete, and accepted by the Resident Engineer.

Add:

110-4.4 The number of electrical handholes to be paid for shall be the number of structures constructed in place and accepted by the Engineer.

BASIS OF PAYMENT

110-5.1 Revise this Section to read as follows:

"Payment will be made at the Contract unit price per each type and size of conduit and/or duct, completed and accepted, and at the Contract unit price for electrical handhole, completed and accepted. These prices shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials; for all sawing and pavement removal; for all duct interface work to handholes/manholes including coring of handholes/manholes; for all excavation and backfilling with aggregate backfill, earth backfill, and concrete; and for all labor, coordination, equipment, tools, and incidentals necessary to complete this Item.

"Payment will be made under:

"Item AR110202	2" PVC Duct, Direct Bury - per linear foot.
Item AR110502	2-Way Concrete Encased Duct - per linear foot.
Item AR110504	4-Way Concrete Encased Duct - per linear foot.
Item AR110610	Electrical Handhole - per each.
Item AS110504	4-Way Concrete Encased Duct - per linear foot."

ITEM 125

INSTALLATION OF AIRPORT LIGHTING SYSTEMS

Revise Item 125 of the Standard Specifications as follows:

125-1.1 DESCRIPTION. Revise this Paragraph to read as follows:

"This Item of work shall consist of furnishing and installing base-and stake-mounted runway lights, threshold lights, taxiway lights, taxi guidance signs, and splice cans at the locations shown on the Construction Plans and in accordance with the details shown on the Plans. This Item of work shall also include the removal of base-and stake-mounted runway lights, taxiway lights and/or taxi guidance signs. Also included in this Item will be the testing of the installation and all incidentals necessary to place the lighting systems into operation, completed, and to the satisfaction of the Engineer."

Add:

125-1.6 REFERENCES.

- A. ANSI C80.1 - Rigid Steel Conduit, Zinc Coated.
- B. ANSI C80.4 - Fittings Rigid Metal Conduit and EMT.
- C. FAA AC No. 150/5340-30G "DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS".
- D. FAA AC No. 150/5345-39D "SPECIFICATION FOR L-853, RUNWAY AND TAXIWAY RETROREFLECTIVE MARKERS"(or most current issue in effect).
- E. FAA AC No. 150/5345-42F "SPECIFICATION FOR AIRPORT LIGHT BASES, TRANSFORMER HOUSINGS, JUNCTION BOXES, AND ACCESSORIES" (or most current issue in effect).
- F. FAA AC No. 150/5345-44J "SPECIFICATION FOR RUNWAY AND TAXIWAY SIGNS" (or most current issue in effect).
- G. FAA AC No. 150/5345-46D "SPECIFICATION FOR RUNWAY AND TAXIWAY LIGHT FIXTURES" (or most current issue in effect).
- H. FAA AC No. 150/5345-47C "SPECIFICATION FOR SERIES TO SERIES ISOLATION TRANSFORMERS FOR AIRPORT LIGHTING SYSTEMS" (or most current issue in effect).
- I. FAA AC No. 150/5345-53 "AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM" (most current issue) and AC150/5345-53D, AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM Appendix 3 Addendum.
- J. FAA AC No. 150/5370-2F (or most current issue) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION.
- K. FAA Engineering Brief No. 67D Light Sources Other Than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures.
- L. NFPA 70 - National Electrical Code (most current issue in force).

- M. NFPA 70E - Standard for Electrical Safety in the Workplace.
- N. OSHA 29 CFR Part 1910 Occupational Safety and Health Standards for electrical safety and lockout/tagout procedures
- O. UL Standard 6 - Rigid Metal Conduit.
- P. UL Standard 514B - Conduit, Tubing and Cable Fittings.

Add:

125-1.7

SHOP DRAWINGS. The Contractor shall furnish shop drawings for approval before ordering equipment and/or materials. Shop drawings are required for airfield lighting equipment and materials to be used on the project. **Note: Shop drawings that are submitted that do not include all of the following listed requirements will be rejected and will require resubmittal.** Contractor shall use the following as a check list and shall verify all information noted below is included with the respective gate shop drawing prior to submitting the shop drawing for review. Shop drawings shall be clear and legible. Copies that are illegible will be rejected. Contractor shall submit sufficient copies of shop drawings to meet the needs of his personnel, sub-contractor personnel, and equipment suppliers plus four (4) copies to be retained by the Project Engineer. Shop drawings shall include the following information:

- A. **Certification of compliance with the AIP (Airport Improvement Program) Buy American Act Title 49 USC Section 50101 for all materials and equipment. Do not submit ARRA (American Recovery and Reinvestment Act) or NAFTA (North American Free Trade) certification as a substitute for certification of compliance with the AIP Buy American Preferences. Shop drawings submitted without certification of compliance with the Airport Improvement Program Buy American Preferences or without certification of manufacture in the United States of America in accordance with the AIP Buy American Requirements will be rejected. See the FAA website at: http://www.faa.gov/airports/aip/buy_american/ for more information on the Airport Improvement Program Buy American Preferences requirements.**
- B. In order to expedite the shop drawing review, inspection and/or testing of materials and equipment, the Contractor shall furnish complete statements to the Project Engineer as to the origin and manufacturer of all materials and equipment to be used in the work. Such statements shall be furnished promptly after execution of the Contract but, in all cases, prior to delivery of such materials and equipment.
- C. Cut sheets with part number and specifications for each airfield light fixture. Include cut sheets with part numbers and dimensions for mounting stakes, base cans, cover plates, transformers, and associated components for each light airfield fixture.
- D. Cut sheets with part number and specifications each taxi guidance sign.
- E. Cut sheets with part number and specifications for the retroreflective marker. Include cut sheets with part numbers and dimensions for all components of the marker. Include certification that marker is in conformance with the Airport Improvement Program Buy American Preferences requirements.
- F. Concrete mix design.
- G. Provide cut sheets with manufacturer's name, catalog number, dimensions, material and UL listing for each type and size ground rod. Include certification of 100% domestic steel for ground rods. Include cut sheets for exothermic weld connections, ground lugs, and ground wire.

- H. Provide cut sheets for all types of conduit used with the airfield light fixtures (for example galvanized rigid steel conduit). Include certification that steel conduits are made with 100 percent domestic steel.

EQUIPMENT AND MATERIALS

125 2.1 GENERAL. Add the following to this Section:

"D. The proposed runway edge lights shall be Type L 861, with 30-Watt or 45 Watt quartz lamps. Lens colors for runway lights shall be as detailed on the Plans. The proposed threshold lights shall be Type L-861SE, with 115 Watt or 120 Watt quartz lamps. Lens colors for threshold lights shall be bi-color Red/Green. The proposed taxiway lights shall be Type L 861T, with 30-Watt quartz lamps and blue lenses. All lights shall have an overall height of 30 inches. All of the above lights shall be manufactured in accordance to FAA Specification AC No. 150/5345-46D, or latest edition in force and shall be FAA approved and in compliance with the Airport Improvement Program Buy American Preference Requirements.

"E. Where non metallic light fixtures or plastic couplings are proposed, the Contractor will be responsible to furnish all grounding connectors, bonding jumpers, pipe grounding clamps, and accessories to maintain continuity of the ground path for the required light base ground in accordance with FAA AC 150/5340-30F DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS, Chapter 12, Parts 12.6 and 12.7."

125-2.4 CONDUIT. Add the following:

"Rigid Steel Conduit and fittings shall be hot-dipped, galvanized, UL-listed, produced in accordance with UL Standard 6 - Rigid Metal Conduit and ANSI C80.1 - Rigid Steel Conduit, Zinc Coated. Couplings, connectors, and fittings for rigid steel conduit shall be threaded galvanized steel or galvanized malleable iron specifically designed and manufactured for the purpose. Fittings shall conform to ANSI C80.4 - Fittings Rigid Metal Conduit and EMT. Set screw type fittings are not acceptable. Galvanized rigid steel conduit shall be manufactured in the United States of America produced from 100 percent domestic steel."

125 2.7 ISOLATION TRANSFORMERS. Add the following:

"Series circuit isolation transformers for the runway or taxiway edge lights and taxi guidance signs shall be manufactured to FAA Specification AC 150/5345-47C (or current edition in effect), and shall be FAA approved and/or listed in the current AC150/5345-53D, AIRPORT LIGHTING EQUIPMENT CERTIFICATION PROGRAM Appendix 3 Addendum. Series circuit transformer shall be properly sized for the respective runway or taxiway edge lights or taxi guidance signs and shall be as recommended by the respective runway or taxiway edge lights manufacturer or respective taxi guidance sign manufacturer. Confirm proper transformer selection and sizing with the respective runway or taxiway edge lights manufacturer, and the respective taxi guidance sign manufacturer."

125 2.8 LIGHT CANS. Add the following:

"Each light base can and/or splice can shall include internal and external ground lugs. Cans shall be the size and depth as detailed on the Plans. L-867 splice cans shall have galvanized steel covers, 3/8 inch thick, with stainless steel bolts."

125.2.11 AIRFIELD SIGNS. Add the following:

"The proposed taxi guidance signs shall conform to Advisory Circular 150/5345 44J (or latest issue in force) and be FAA-approved for Type L-858 or Type L-858(L) Taxiway and Runway Signs. The signs shall be Size 1, 18-in. sign face with a 12-in. legend; Style 2, powered from a 4.8 to 6.6 amp series lighting circuit; Class 2, for operation from -40°F to 131°F; Mode 2, to withstand wind loads of 200 M.P.H., base-mounted, double-sided, as specified on the Plans. Taxi Guidance Signs with LED (Light Emitting Diode) illumination shall conform to the applicable requirements of FAA Engineering Brief No. 67D Light Sources Other Than Incandescent and Xenon for Airport and Obstruction Lighting Fixtures.

"The signs shall read as described on the Construction Plans. The proposed taxi guidance signs shall be Type L 858 Y direction, destination, and boundary signs (black legend on yellow background); Type L 858 R mandatory instruction sign (black outline on outside edge of white legend on red background); and Type L 858 L location sign (yellow legend and border on black background)."

Add:

125-2.14 RETROREFLECTIVE MARKERS. Markers shall be for use on active taxiways, meeting the requirements of FAA Advisory Circular 150/5345-39D, (or current issue in effect), for L-853, Type II, Elevated Marker for Edge Marking. Taxiway edge markers shall be Type II sheet retro-reflectors and shall be solid blue in color. Markers shall be 30 inches in height. The marker shall be designed to be either flexible or mounted with a frangible fitting with a breaking point no more than 3-inches above grade. The marker and mounting system must withstand a wind speed of 100 mph. For markers designed to break instead of bend, a tether anchor hard point is required.

Add:

125.2.15 IDENTIFICATION TAGS. Identification tags shall be attached to each new fixture and sign. Where shown on the Plans, provide new identification tags for existing fixtures. The tag shall be of the type and with the lettering shown on the Plans. The cost of furnishing and installing these tags shall be included in the unit price for the fixtures or signs and no additional compensation will be allowed.

Add:

125-2.16 ANTI SEIZE COMPOUND. Prior to re-installing the adjusted stake mounted fixtures, the Contractor will apply an oxide-inhibiting, anti-seizing compound to all screws, nuts, breakable coupling, and all places where metal comes into contact with metal. The anti-seize compound will be as manufactured by I.T.T. brand name "Contax", or approved equal.

Add:

125-2.17 STAINLESS STEEL BOLTS. All base plate-mounted bolts and all stake-mounting bolts shall be stainless steel.

Add:

125.2.18 GROUND RODS. **Ground rods shall be 3/4-inch diameter by 10-foot long UL listed Copper clad with 10 mil. (minimum) Copper coating.** Ground rods shall be manufactured in the United States of America. Steel used to manufacture ground rods shall be 100 percent domestic steel.

CONSTRUCTION METHODS

125-3.1 GENERAL. Add the following to this Section:

"The proposed Runway/Taxiway lights, taxi guidance signs, and other airfield lighting devices shall be installed in accordance with the details shown on the Construction Plans.

"The existing airfield lights and/or taxi guidance signs designated for removal shall be removed in their entirety, regardless of the type, size, style, class, or composition of the fixture/sign. The Contractor shall remove the existing lights and/or signs including mounting stakes, bases, foundations, and transformers. The electrical wire will be disconnected from each light and placed underground at a minimum depth of 18-inches. If the Contractor elects to salvage the cable within the circuit of the lights to be removed, shown in the Construction Plans as cable to be abandoned, any cost associated with removal of the cable shall be considered incidental to the Contract and no additional compensation will be allowed. The existing lights, signs, transformers, and mounting stakes shall be turned over to the Airport Manager. Any materials not salvaged by the Airport, shall be disposed of off the airport site, in a legal manner, at the Contractor's own expense. The concrete base mounted lights and/or sign foundations shall be removed and earth material will be placed in the hole made from the base and/or foundation removal. The disturbed area shall be seeded and mulched in accordance with Item 901 and 908. The seeding and mulching will be considered as an incidental item to the sign removal and/or light removal and no additional compensation will be allowed.

"Obtaining the required borrow material from an offsite borrow, placing the borrow material, grading, seeding, and mulching the disturbed areas will be considered as an Incidental Item to the proposed taxi guidance signs and lights, and/or removal work and no additional compensation will be allowed.

"The proposed splice cans shall be constructed at the locations shown on the Construction Plans and in accordance with the details shown on the Construction Plans. Provide sufficient slack cable at each splice can to perform cable splices outside of the can.

"Contractor shall coordinate work and any power outages with the Airport Owner and the Resident Engineer. Any shutdown of existing systems shall be scheduled with and approved by the Airport Manager prior to shutdown. Once shut down, the circuits shall be labeled as such to prevent accidental energizing of the respective circuits. All personnel shall follow U.S. Department of Labor Occupational Safety & Health Administration (OSHA) 29 CFR Part 1910 Occupational Safety and Health Standards for electrical safety and lockout/tagout procedures including, but not limited to, 29 CFR section 1910.147 The Control of Hazardous Energy (lockout/tagout).

"Contractor shall examine the site to determine existing site conditions. Contractor shall field verify respective circuits and power sources prior to removing the respective airfield lighting, taxi sign, Navaid, or other device.

"The Contractor shall furnish and install all electrical materials necessary for complete and operational installation of the airfield lighting systems as shown on the Plans and detailed herein. The complete installation and wiring shall be done in a neat, workmanlike manner. All electrical work shall comply with the requirements of the NFPA 70 - National Electrical Code (NEC) most current issue in force and the applicable Federal Aviation Administration standards, orders, and advisory circulars. Equipment shall be installed in conformance with the respective manufacturer's directions and recommendations for the respective application. Any installations which void the UL listing, Intertek Testing Services verification/listing, (or other third party listing), and/or the manufacturer's warranty of a device will not be permitted.

"Contractor shall comply with the requirements of FAA AC No. 150/5370-2F (or most current issue) "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".

"Contractor shall comply with the applicable requirements of NFPA 70E - Standard for Electrical Safety in the Workplace.

"All temporary installations shall comply with National Electrical Code Article 590 - "Temporary Installations." The Contractor shall secure, identify, and place temporary exposed wiring in conduit, duct, or unit duct to prevent electrocution and fire ignition sources in conformance with the requirements of FAA AC 150/5370-2F, Part 218, paragraph c.

"Existing airfield lighting cables associated with airfield lighting to be removed shall be abandoned in place unless it conflicts with new work and then it shall be removed at no additional cost to the Contact. If the Contractor elects to salvage the cable within the circuit to be removed, shown in the Construction Plans as cable to be abandoned, any cost associated with removal of the cable shall be considered incidental to the Contract and no additional compensation will be allowed."

Add:

125.3.4 IDENTIFICATION NUMBERS. The Contractor will place light identification number tags on **ALL** of the proposed airfield lights and taxi guidance signs as detailed on the Plans. The correct light identification numbers are shown on the Construction Plans.

Add:

125-3.5 GROUNDING FOR AIRFIELD LIGHTS AND TAXI GUIDANCE SIGNS. Furnish and install a ground rod at each L-867 transformer base/light can and at each stake-mounted light fixture. Grounding for Runway Lights, Taxiway Lights, and Lighted Taxi Guidance Signs shall be as detailed on the Plans and as specified herein. Per FAA AC 150/5340-30G DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS, Chapter 12, Part 12.6; a ground must be installed at each light fixture. The purpose of the light base ground is to provide a degree of protection for maintenance personnel from possible contact with an energized light base or mounting stake that may result from a shorted power cable or isolation transformer. A light base ground shall be installed at each transformer base/light can associated with runway lights, taxiway lights, and lighted taxi guidance signs. A light base ground shall also be installed at each stake-mounted light fixture. A light base ground shall be installed and connected to the metal frame of each taxi guidance sign as detailed on the Plans and in accordance with the respective taxi guidance sign manufacturer recommendations. The light base ground shall be a #6 AWG bare Copper conductor bonded to the ground lug on the respective L-867 transformer base/light can or mounting stake and a **3/4-inch diameter by 10-feet long (minimum)**, UL-listed, Copper-clad ground rod. Connections to ground lugs on the L-867 transformer base/light can or mounting stake shall be with a UL-listed grounding connector. Connections to ground rods shall be made with exothermic-weld type connectors, Cadweld by Erico Products, Inc., Solon, Ohio (Phone: 800-248-9353), Thermoweld by Continental Industries, Inc., Tulsa, Oklahoma (Phone: 918-663-1440), or Ultraweld by Harger, Grayslake, Illinois (Phone: 800-842-7437), or approved equal. Exothermic-weld connections shall be installed in conformance with the respective manufacturer's directions using molds, as required for each respective application. Bolted connections will not be permitted at ground rods. Top of ground rods shall be buried 12 inches minimum below grade, unless noted deeper on the Plans. **For each airfield light fixture and taxi guidance sign the Contractor shall test the made electrode ground system with an instrument specifically designed for testing ground systems. Test results shall be recorded for each airfield light fixture and each taxi guidance sign installation. If ground resistance exceeds 25 Ohms, contact the Project Engineer for further direction. Copies of ground system test results shall be furnished to the Resident Engineer.**

For base mounted light fixtures the light fixtures must be bonded to the light base internal ground lug via a #6 AWG stranded Copper wire rated for 600 Volts with Green XHHW insulation or a braided ground strap of equivalent current rating. The ground wire length must be sufficient to allow the removal of the light fixture from the light base for routine maintenance. See the light fixture manufacturer's instructions for proper methods of attaching a bonding wire.

Add:

125-3.6 TESTING AIRFIELD LIGHTING SYSTEMS. After airfield lighting modifications, additions, and/or upgrades have been completed, series circuit cables shall be tested in accordance with Section 109-3.18, Electrical Testing. Copies of test results shall be provided to the Resident Engineer.

METHOD OF MEASUREMENT

125-4.1 Add the following:

"Ground resistance tests for the made electrode ground system at each airfield light fixture will be considered incidental to the respective airfield light fixture and no additional compensation will be allowed.

"The quantity of taxi guidance signs to be paid for under this item shall be the number of each type installed as completed units in place, ready for operation, and accepted by the Engineer. The transformer can associated with the taxi guidance sign and slack cable to perform cable connections outside of the transformer can, will be considered incidental to the respective taxi guidance sign and no additional compensation will be allowed. Ground resistance tests for the made electrode ground system at each taxi guidance sign will be considered incidental to the respective taxi guidance sign and no additional compensation will be allowed.

"The quantity of airfield light fixtures and/or signs to be removed will be paid for at the contract unit price per each for removal of the respective airfield light or sign, regardless of the type, size, style, class, or composition of the fixture/sign. This price and payment shall constitute full compensation for field verification of existing site conditions and power sources, disconnecting the respective power sources, removing the respective airfield light or sign, with associated mounting stakes, bases, foundations, handholes, splice cans, and transformers; for all excavating and backfilling; for furnishing all earth material; and for furnishing all coordination, labor, tools, equipment, and incidentals necessary to complete this item of work. Salvageable materials shall be turned over to the Airport. Any materials not salvaged by the Airport shall be legally disposed of off the Airport site by the Contractor at no additional cost to the Contract."

BASIS OF PAYMENT

125-5.1 BASIS OF PAYMENT. Add the following:

"Payment will be made at the contract price for each complete airfield light fixture and/or taxi guidance sign installed in place by the Contractor and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials; and for all excavation, backfilling, and restoration; and for all labor, testing, equipment, tools, and incidentals necessary to complete this item.

"Removal work will be paid for at the contract unit bid price per each for the respective airfield light fixture removal and/or respective taxi sign removal, regardless of the type, size, style, class, or composition of the fixture/sign. Said price and payment shall constitute full compensation for field verification of existing site conditions and power sources, disconnecting the respective power sources, removing the respective airfield light or sign, with associated mounting stakes, bases, foundations, handholes, splice cans, and transformers; for all excavating, backfilling, and restoration; for furnishing all earth material; and for furnishing all coordination, labor, tools, equipment, and incidentals necessary to complete this item of work.

"Payment will be made under:

"Item AR125100	Elevated Retroreflective Marker - per each.
Item AR125410	MITL - Stake Mounted - per each.
Item AR125442	Taxi Guidance Sign, 2 Character - per each.
Item AR125445	Taxi Guidance Sign, 5 Character - per each.
Item AR125505	MIRL, Stake Mounted - per each.
Item AR125510	MIRL, Base Mounted - per each.
Item AR125545	MI Threshold Light Base Mtd - per each.
Item AR803001	Remove Airfield Light - per each.
Item AS125100	Elevated Retroreflective Marker - per each.
Item AS125410	MITL - Stake Mounted - per each.
Item AS125445	Taxi Guidance Sign, 5 Character - per each."

DIVISION VII

TESTING

ITEM 611

COMPACTION CONTROL TESTS

The Work shall be provided in accordance with Item 611 of the Standard Specifications.

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(END OF SPECIAL PROVISIONS)



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