

RETURN WITH BID

LETTING DATE June 11, 2010

ITEM NUMBER 6A

Proposal Submitted By

Name _____

Address _____

City/State _____

9 Digit Zip Code _____ Telephone Number _____

FEIN Number _____ FAX Number _____

E-Mail Address _____

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL
(See instructions inside front cover)

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.
(SEE INSTRUCTIONS ON THE INSIDE OF COVER)

PROPOSAL COVER SHEET



Illinois Department of Transportation
DIVISION OF AERONAUTICS

AIRPORT Chicago Executive

MUNICIPAL DESIGNATION Wheeling – Prospect Heights

COUNTY DESIGNATION Cook

ILLINOIS PROJECT NO. PWK-3991

FEDERAL PROJECT NO. 3-17-0018-B44

For engineering information, contact Marc Katz of Crawford, Murphy & Tilly, Inc. at (630) 820-1022.

FAA rules prohibit the use of escalation clauses for materials. Therefore, the Division of Aeronautics cannot offer a bituminous material cost adjustment provision for projects utilizing federal funds.

PLEASE MARK THE APPROPRIATE BOX BELOW:

A Bid Bond is included.

A Cashier's Check or a Certified Check is included.

INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals issued by IDOT are potential bidding proposals. Each proposal contains all Certifications and Affidavits, a Proposal Signature Sheet and a Proposal Bid Bond required for Prime Contractors to submit a bid after written **Authorization to Bid** has been issued by IDOT's Central Bureau of Construction. In addition, this proposal contains new statutory requirements applicable to the use of subcontractors and, in particular, includes the State Required Ethical Standards Governing Subcontractors to be signed and incorporated into all subcontracts.

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. To request authorization, a potential bidder must complete and submit Part B of the Request for Authorization to Bid/or Not For Bid Status form (BDE 124 INT) and submit an original Affidavit of Availability (BC 57).

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?: When a prospective prime bidder submits a "**Authorization to Bid or Not for Bid**" form, 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 a **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction, 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. If a contractor has requested to bid but has not received a **Authorization to Bid or Not for Bid Report**, they should contact the Central Bureau of Construction in advance of the letting date.

WHAT MUST BE INCLUDED WHEN BIDS ARE SUBMITTED?: Bidders need not return the entire proposal when bids are submitted. That portion of the proposal that must be returned includes the following:

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond
2. Other special documentation and/or information that may be required by the contract special provisions

All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed by IDOT personnel.

ABOUT SUBMITTING BIDS: It is recommended that bidders deliver bids in person to insure they arrive at the proper location prior to the time specified for the receipt of bids. Any bid received at the place of letting after the time specified will not be accepted.

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

Questions Regarding	Call
Prequalification and/or Authorization to Bid	(217)782-3413
Preparation and submittal of bids	(217)782-7806



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

for the improvement officially known as:

(a) Chicago Executive Airport

(b) The proposed improvement shown in detail on the plans issued by the Department schedule and detail sheets included herein, includes, in general, the following described work:

Base Bid: Rwy. 16/34 OFA/RSA improvements, Phase 2; Extend Txy Lima. Additive Alternate 1: Construct by-pass Taxiway L1.

2. The plans for the proposed work are those issued by the Department of Transportation to cover the work described above.

The specifications are those prepared by the Department of Transportation, Division of Aeronautics and designated as "Standard Specifications for Construction of Airports," the "Supplemental Specifications and Recurring Special Provisions," the "Interim Revisions to Supplemental Specifications and Recurring Special Provisions", latest editions located on the IDOT website at <http://www.dot.il.gov/aero/airspecs.html>, and the "Special Provisions" thereto, adopted and in effect on the date of invitation for bids.

3. **COMPLETION TIME/LIQUIDATED DAMAGES.** 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 Base Bid: 152 Additive Alternate: 24 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 below, 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. The following Schedule of Deductions supersedes the table given in Section 60-09 of the Division's Standard Specifications for Construction of Airports.

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	\$ 375	\$ 500
100,000	500,000	625	875
500,000	1,000,000	1,025	1,425
1,000,000	3,000,000	1,125	1,550
3,000,000	5,000,000	1,425	1,950
5,000,000	10,000,000	1,700	2,350
10,000,000	And over	3,325	4,650

A daily charge shall be made for every day shown on the calendar beyond the specified contract time in calendar days.

RETURN WITH BID

- 7. COMBINATION BIDS.** The undersigned 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 proposal 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 below.

A combination bid is a total bid received on 2 or more proposals. No combination bids other than those specifically set up by the Department will be considered. Separate proposal forms will be issued for each project in the combination so bids may be submitted on the combination as well as on separate units of the combination. The Department reserves the right to make awards on combination bids or separate bids to the best advantage of the Department.

If a combination bid is submitted on 2 or more proposals, separate proposals on each individual contract shall also be submitted, and unless separate proposals are so submitted, the combination bid will not be considered. If the bidder desires to submit a combination bid, the bidder shall state, in the place provided in the proposal form, the amount of the combination bid for the entire combination.

If a combination bid is submitted on any stipulated combination, and errors are found to exist in computing the gross sum bid on any one or more of the individual proposals, corrections shall be made, by the Department and the amount of the combination bid shall be corrected so that it will be in the same proportion to the sum of the corrected gross sum bid as the combination bid submitted was to the sum of the gross sum bid submitted.

The following provisions shall govern combination bidding:

- (a) A combination bid which is submitted for 2 or more proposals and awarded on that basis shall have the bid prorated against each proposal in proportion to the bid submitted for each proposal.
- (b) Separate contracts shall be executed for each individual proposal included in the combination.
- (c) The contract time for all contracts awarded on a combination bid shall be the sum of all calendar days contained within each contract included in the combination, unless otherwise provided in the contracts.
- (d) In the event the Contractor fails to complete any or all of the contracts on the combination bid within the contract time, including any authorized extension, the liquidated damages shall be determined from the schedule of deductions shown above in paragraph 3 for each day of overrun in contract time, based on the combination bid total, and shall be computed on the combination and prorated against the 2 or more individual contracts based on the dollar value of each contract.
- (e) The plans and Special Provisions for each separate contract shall be construed separately for all requirements, except as described in paragraphs (a) through (d) listed above.

RETURN WITH BID

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

8. **SCHEDULE OF PRICES.** The undersigned 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 shall 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.

9. **AUTHORITY TO DO BUSINESS IN ILLINOIS.** Section 20-43 of the Illinois Procurement 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.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT NUMBER - PA052

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STATE JOB # - - - -

COUNTY NAME	CODE	DIST	AIRPORT NAME	FED PROJECT	ILL PROJECT
COOK	031	01	CHICAGO EXECUTIVE	3-17-0018-B44	PW-K -3991

***** BASE *****

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR108084	1/C #4 XLP-USE	L.F.	4,800.000 X		=		
AR108108	1/C #8 5 KV UG CABLE	L.F.	14,840.000 X		=		
AR108758	1/C #8 GROUND	L.F.	840.000 X		=		
AR108806	6 PAIR CONTROL CABLE	L.F.	1,900.000 X		=		
AR108850	50 PAIR CONTROL CABLE	L.F.	1,450.000 X		=		
AR109361	30 KW REGULATOR, STYLE 1	EACH	1.000 X		=		
AR110202	2" PVC DUCT, DIRECT BURY	L.F.	11,840.000 X		=		
AR110204	4" PVC DUCT, DIRECT BURY	L.F.	320.000 X		=		
AR110212	2" STEEL DUCT, DIRECT BURY	L.F.	1,395.000 X		=		
AR110312	2" STEEL DUCT, JACKED	L.F.	255.000 X		=		
AR110502	2-WAY CONCRETE ENCASED DUCT	L.F.	175.000 X		=		
AR110504	4-WAY CONCRETE ENCASED DUCT	L.F.	350.000 X		=		
AR110550	SPLIT DUCT	L.F.	235.000 X		=		
AR110610	ELECTRICAL HANDHOLE	EACH	11.000 X		=		
AR110900	REMOVE DUCT	L.F.	340.000 X		=		

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CHICAGO EXECUTIVE
 COOK

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR110906	REMOVE ELECTRICAL HANDHOLE	EACH	1.000 X		=		
AR110907	REMOVE ELECTRICAL MANHOLE	EACH	2.000 X		=		
AR125415	MITL-BASE MOUNTED	EACH	54.000 X		=		
AR125442	TAXI GUIDANCE SIGN, 2 CHARACTER	EACH	6.000 X		=		
AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EACH	2.000 X		=		
AR125445	TAXI GUIDANCE SIGN, 5 CHARACTER	EACH	1.000 X		=		
AR125446	TAXI GUIDANCE SIGN, 6 CHARACTER	EACH	1.000 X		=		
AR125447	TAXI GUIDANCE SIGN, 7 CHARACTER	EACH	1.000 X		=		
AR125515	HIRL, BASE MOUNTED	EACH	1.000 X		=		
AR125525	HIRL, INPAVEMENT	EACH	1.000 X		=		
AR125565	SPLICE CAN	EACH	2.000 X		=		
AR125901	REMOVE STAKE MOUNTED LIGHT	EACH	1.000 X		=		
AR125904	REMOVE TAXI GUIDANCE SIGN	EACH	2.000 X		=		
AR125906	REMOVE SPLICE CAN	EACH	3.000 X		=		
AR125941	ADJUST STAKE MOUNTED LIGHT	EACH	1.000 X		=		

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR125942	ADJUST BASE MOUNTED LIGHT	EACH	4.000 X			=	
AR125947	ADJUST REILS	PAIR	1.000 X			=	
AR150510	ENGINEER'S FIELD OFFICE	L.S.	1.000 X			=	
AR150520	MOBILIZATION	L.S.	1.000 X			=	
AR152410	UNCLASSIFIED EXCAVATION	C.Y.	26,366.000 X			=	
AR152540	SOIL STABILIZATION FABRIC	S.Y.	11,020.000 X			=	
AR156510	SILT FENCE	L.F.	800.000 X			=	
AR156511	DITCH CHECK	EACH	2.000 X			=	
AR156520	INLET PROTECTION	EACH	14.000 X			=	
AR162506	CLASS E FENCE 6'	L.F.	300.000 X			=	
AR162720	ELECTRIC GATE-20'	EACH	1.000 X			=	
AR162900	REMOVE CLASS E FENCE	L.F.	230.000 X			=	
AR162905	REMOVE GATE	EACH	2.000 X			=	
AR162908	REMOVE ELECTRIC GATE	EACH	1.000 X			=	
AR208515	POROUS GRANULAR EMBANKMENT	C.Y.	3,336.000 X			=	

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CHICAGO EXECUTIVE
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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR209606	CRUSHED AGG. BASE COURSE - 6"	S.Y.	6,785.000 X		=		
AR209618	CRUSHED AGG. BASE COURSE-18"	S.Y.	3,051.000 X		=		
AR401610	BITUMINOUS SURFACE COURSE	TON	1,300.000 X		=		
AR401650	BITUMINOUS PAVEMENT MILLING	S.Y.	2,515.000 X		=		
AR401900	REMOVE BITUMINOUS PAVEMENT	S.Y.	9,524.000 X		=		
AR401910	REMOVE & REPLACE BIT. PAVEMENT	S.Y.	153.000 X		=		
AR403610	BITUMINOUS BASE COURSE	TON	865.000 X		=		
AR501510	10" PCC PAVEMENT	S.Y.	6,250.000 X		=		
AR501530	PCC TEST BATCH	EACH	1.000 X		=		
AR501900	REMOVE PCC PAVEMENT	S.Y.	412.000 X		=		
AR602510	BITUMINOUS PRIME COAT	GAL.	1,560.000 X		=		
AR603510	BITUMINOUS TACK COAT	GAL.	1,635.000 X		=		
AR620520	PAVEMENT MARKING-WATERBORNE	S.F.	8,643.000 X		=		
AR620525	PAVEMENT MARKING-BLACK BORDER	S.F.	7,855.000 X		=		
AR620900	PAVEMENT MARKING REMOVAL	S.F.	3,011.000 X		=		

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CHICAGO EXECUTIVE
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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR701512	12" RCP, CLASS IV	L.F.	421.000 X		=		
AR701518	18" RCP, CLASS IV	L.F.	477.000 X		=		
AR701524	24" RCP, CLASS IV	L.F.	200.000 X		=		
AR701530	30" RCP, CLASS IV	L.F.	275.000 X		=		
AR701900	REMOVE PIPE	L.F.	1,725.000 X		=		
AR705526	6" PERFORATED UNDERDRAIN W/SOCK	L.F.	2,795.000 X		=		
AR705900	REMOVE UNDERDRAIN	L.F.	465.000 X		=		
AR751540	MANHOLE 4'	EACH	1.000 X		=		
AR751550	MANHOLE 5'	EACH	2.000 X		=		
AR751560	MANHOLE 6'	EACH	1.000 X		=		
AR751900	REMOVE INLET	EACH	14.000 X		=		
AR751943	ADJUST MANHOLE	EACH	5.000 X		=		
AR751983	RECONSTRUCT MANHOLE	EACH	2.000 X		=		
AR752900	REMOVE END SECTION	EACH	2.000 X		=		
AR800026	SLOPE BOX INLET 12"	EACH	1.000 X		=		

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR800028	SLOPE BOX INLET 18"	EACH	3.000 X			=	
AR800040	BUILDING DEMOLITION	L.S.	1.000 X			=	
AR800053	SOIL GUARD	S.Y.	4,450.000 X			=	
AR800194	REMOVE ELEVATED RETROREFLECTIVE M	EACH	55.000 X			=	
AR800816	L-804 RGL ELEVATED, BASE MOUNTED	EACH	6.000 X			=	
AR901510	SEEDING	ACRE	8.000 X			=	
AR908510	MULCHING	ACRE	8.000 X			=	
				SUBTOTAL BASE		\$	

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

CHICAGO EXECUTIVE
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ILLINOIS DEPARTMENT OF TRANSPORTATION
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***** ALT 1 *****

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AS108108	1/C #8 5 KV UG CABLE	L.F.	2,805.000 X		=		
AS110202	2" PVC DUCT, DIRECT BURY	L.F.	1,950.000 X		=		
AS110212	2" STEEL DUCT, DIRECT BURY	L.F.	255.000 X		=		
AS110504	4-WAY CONCRETE ENCASED DUCT	L.F.	70.000 X		=		
AS110610	ELECTRICAL HANDHOLE	EACH	2.000 X		=		
AS125415	MITL-BASE MOUNTED	EACH	22.000 X		=		
AS125443	TAXI GUIDANCE SIGN, 3 CHARACTER	EACH	2.000 X		=		
AS125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EACH	2.000 X		=		
AS125445	TAXI GUIDANCE SIGN, 5 CHARACTER	EACH	1.000 X		=		
AS125447	TAXI GUIDANCE SIGN, 7 CHARACTER	EACH	1.000 X		=		
AS125525	HIRL, INPAVEMENT	EACH	1.000 X		=		
AS125565	SPLICE CAN	EACH	2.000 X		=		
AS125902	REMOVE BASE MOUNTED LIGHT	EACH	7.000 X		=		
AS125904	REMOVE TAXIWAY GUIDANCE SIGN	EACH	1.000 X		=		
AS125964	RELOCATE TAXI GUIDANCE SIGN	EACJ	1.000 X		=		

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AS152410	UNCLASSIFIED EXCAVATION	C.Y.	2,210.000 X		=		
AS152540	SOIL STABILIZATION FABRIC	S.Y.	2,950.000 X		=		
AS156510	SILT FENCE	L.F.	1,400.000 X		=		
AS156520	INLET PROTECTION	EACH	4.000 X		=		
AS208515	POROUS GRANULAR EMBANKMENT	C.Y.	990.000 X		=		
AS209606	CRUSHED AGG. BASE COURSE - 6"	S.Y.	1,565.000 X		=		
AS209618	CRUSHED AGG. BASE COURSE - 18"	S.Y.	1,385.000 X		=		
AS401610	BITUMINOUS SURFACE COURSE	TON	305.000 X		=		
AS401910	REMOVE & REPLACE BIT. PAVEMENT	S.Y.	30.000 X		=		
AS403610	BITUMINOUS BASE COURSE	TON	305.000 X		=		
AS501510	10" PCC PAVEMENT	S.Y.	1,465.000 X		=		
AS602510	BITUMINOUS PRIME COAT	GAL.	485.000 X		=		
AS603510	BITUMINOUS TACK COAT	GAL.	295.000 X		=		
AS620520	PAVEMENT MARKING-WATERBORNE	S.F.	3,300.000 X		=		
AS620525	PAVEMENT MARKING-BLACK BORDER	S.F.	2,760.000 X		=		

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CHICAGO EXECUTIVE
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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AS620900	PAVEMENT MARKING REMOVAL	S.F.	1,450.000 X			=	
AS701518	18" RCP, CLASS IV	L.F.	25.000 X			=	
AS701900	REMOVE PIPE	L.F.	25.000 X			=	
AS705526	6" PERFORATED UNDERDRAIN W/SOCK	L.F.	780.000 X			=	
AS705900	REMOVE UNDERDRAIN	L.F.	460.000 X			=	
AS800053	SOIL GUARD	S.Y.	1,100.000 X			=	
AS800816	L-804 RGL ELEVATED, BASE MOUNTED	EACH	2.000 X			=	
AS901510	SEEDING	ACRE	2.000 X			=	
AS908510	MULCHING	ACRE	2.000 X			=	

SUBTOTAL ALT 1 \$

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CHICAGO EXECUTIVE
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ILLINOIS DEPARTMENT OF TRANSPORTATION
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CONTRACT - PA052

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.

RETURN WITH BID

THE PRECEDING SCHEDULE OF PRICES MUST BE

COMPLETED AND RETURNED.

RETURN WITH BID

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

I. GENERAL

A. Article 50 of the Illinois Procurement Code establishes the duty of all State chief procurement officers, State purchasing officers, 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-N, 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 chief procurement officer to void the contract, or subcontract, and may result in the suspension or debarment of the bidder or subcontractor.

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

1. The Illinois Procurement Code provides in pertinent part:

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.

2. 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.

RETURN WITH BID

B. Negotiations

1. The Illinois Procurement Code provides in pertinent part:

Section 50-15. Negotiations.

(a) 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.

2. 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

1. The Illinois Procurement Code provides:

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.

2. 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

1. The Illinois Procurement Code provides:

Section 50-30. Revolving door prohibition. Chief procurement officers, State purchasing officers, 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.

2. 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

1. The Illinois Procurement Code provides:

Section 50-40. Reporting anticompetitive practices. When, for any reason, any vendor, bidder, contractor, chief procurement officer, State purchasing officer, 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 chief procurement officer.

2. 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

1. The Illinois Procurement Code provides:

Section 50-45. Confidentiality. Any chief procurement officer, State purchasing officer, 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.

2. 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.

I. Insider Information

1. The Illinois Procurement Act provides:

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.

2. 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.

RETURN WITH BID

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 Illinois Procurement 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 chief procurement officer 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

1. The Illinois Procurement Code provides:

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 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, 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 1961.

(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 Procurement 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 chief procurement officer 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.

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

B. Felons

1. The Illinois Procurement Code provides:

Section 50-10. Felons. 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.

2. Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Procurement 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 chief procurement officer may declare the related contract void if any of the certifications required by this Section are false.

C. Debt Delinquency

1. The Illinois Procurement Code provides:

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 Procurement 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 chief procurement officer 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.

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D. Prohibited Bidders, Contractors and Subcontractors

1. The Illinois Procurement Code provides:

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 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 Procurement 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 chief procurement officer 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 500/50-12 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 Procurement 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 chief procurement officer may declare the contract void if this certification is false.

F. Educational Loan

1. Section 3 of the Educational Loan Default Act provides:

§ 3. 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.

2. 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

1. Section 33E-11 of the Criminal Code of 1961 provides:

§ 33E-11. (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. The State and units of local government shall provide the appropriate forms for such certification.

(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.

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.

2. 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.

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H. International Anti-Boycott

1. Section 5 of the International Anti-Boycott Certification Act provides:

§ 5. State contracts. 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.

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

I. Drug Free Workplace

1. 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.

2. The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the contractor's workplace; specifying the actions that will be taken against employees for violations of such prohibition; and notifying the employee that, as a condition of employment on such contract, the employee shall abide by the terms of the statement, and notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

(b) Establishing a drug free awareness program to inform employees about the dangers of drug abuse in the workplace; the contractor's policy of maintaining a drug free workplace; any available drug counseling, rehabilitation, and employee assistance programs; and the penalties that may be imposed upon employees for drug violations.

(c) Providing a copy of the statement required by subparagraph (1) to each employee engaged in the performance of the contract and to post the statement in a prominent place in the workplace.

(d) Notifying the Department within ten (10) days after receiving notice from an employee or otherwise receiving actual notice of the conviction of an employee for a violation of any criminal drug statute occurring in the workplace.

(e) Imposing or requiring, within 30 days after receiving notice from an employee of a conviction or actual notice of such a conviction, an appropriate personnel action, up to and including termination, or the satisfactory participation in a drug abuse assistance or rehabilitation program approved by a federal, state or local health, law enforcement or other appropriate agency.

(f) Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation is required and indicating that a trained referral team is in place.

(g) Making a good faith effort to continue to maintain a drug free workplace through implementation of the actions and efforts stated in this certification.

J. Disclosure of Business Operations in Iran

Section 50-36 of the Illinois Procurement Code, 30ILCS 50/50-36 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 Illinois Procurement 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.**

N/A (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.

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

Sections 20-160 and 50-37 of the Illinois Procurement 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 Illinois Procurement 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. A copy of the certificate of registration shall be submitted with the bid. The bidder is cautioned that the Department will not award a contract without submission of the certificate of registration.

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 50-06 of the Illinois Procurement Code. These provisions do not apply to federal-aid contracts.

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M. Lobbyist Disclosure

Section 50-38 of the Illinois Procurement 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 chief procurement officer 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 Procurement 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: _____

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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 chief procurement officer 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 Procurement Code. Furthermore, the chief procurement officer 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 Illinois Procurement Code provides that all bids of more than \$10,000 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 Procurement 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 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.

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. Subject individuals should be covered each by one form. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies. **The forms must be included with each bid or incorporated by reference.**

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 \$106,447.20? YES _____ NO _____
3. Does anyone in your organization receive more than \$106,447.20 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 \$106,447.20? 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.

RETURN WITH BID

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.

**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 Illinois Procurement 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 \$10,000, 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.**

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 \$106,447.20 (60% of the Governor's salary as of 7/1/2007). **(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 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 \$106,447.20, (60% of the Governor's salary as of 7/1/07) 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 \$106,447.20, (60% of the Governor's salary as of 7/1/07) 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 you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 7/1/07) 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 _____

(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 Toll Highway Authority? Yes _____ No _____
- 2. Is your spouse or any minor children is/are 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 \$106,447.20, (60% of the Governor's salary as of 7/1/07) 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 \$106,447.20, (60% of the Governor's salary as of 7/1/07) 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) and 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 \$106,447.20, (60% of the Governor's salary as of 7/1/07) 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 _____

(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 _____

RETURN WITH BID

(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 is 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): _____

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 Procurement Code.

**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 Illinois Procurement Act (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 \$10,000, 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

<input type="checkbox"/>	<hr style="width: 80%; margin: 0 auto;"/> Signature of Authorized Representative	<hr style="width: 10%; margin: 0 auto;"/> Date
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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

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 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

CERTIFICATIONS REQUIRED BY STATE AND/OR FEDERAL LAW. The bidder is required by State and/or Federal law to make the below certifications and assurances as a part of the proposal and contract upon award. It is understood by the bidder that the certifications and assurances made herein are a part of the contract.

By signing the Proposal Signature Sheet, the bidder certifies that he/she has read and completed each of the following certifications and assurances, that required responses are true and correct and that the certified signature of the Proposal Signature Sheet constitutes an endorsement and execution of each certification and assurance as though each was individually signed:

- 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 answer to #1 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_____
- C. BUY AMERICAN - STEEL AND MANUFACTURED PRODUCTS FOR CONSTRUCTION CONTRACTS (JAN 1991)
- (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. The following terms apply:
1. Steel and manufactured products. As used in this clause, steel and manufactured products include (1) steel produced in the United States or (2) a manufactured product produced in the United States, if the cost of its components mined, produced or manufactured in the United States exceeds 60 percent of the cost of all its components and final assembly has taken place in the United States. Components of foreign origin of the same class or kind as the products referred to in subparagraphs (b)(1) or (2) shall be treated as domestic.
 2. Components. As used in this clause, components means those articles, materials, and supplies incorporated directly into steel and manufactured products.
 3. Cost of Components. This means the costs for production of the components, exclusive of final assembly labor costs.
- (b) The successful bidder will be required to assure that only domestic steel and manufactured products will be used by the Contractor, subcontractors, materialmen, and suppliers in the performance of this contract, except those-
- (1) that the U.S. Department of Transportation 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 of a satisfactory quality;
 - (2) that the U.S. Department of Transportation has determined, under the Aviation Safety and Capacity Expansion Act of 1990, that domestic preference would be inconsistent with the public interest; or
 - (3) that inclusion of domestic material will increase the cost of the overall project contract by more than 25 percent.

(End of Clause)

RETURN WITH BID

D. BUY AMERICAN CERTIFICATE (JAN 1991)

By submitting a bid/proposal under this solicitation, except for those items listed by the offeror below or on a separate and clearly identified attachment to this bid/proposal, the offeror certifies that steel and each manufactured product, is produced in the United States (as defined in the clause Buy American - Steel and Manufactured Products or Buy American - Steel and Manufactured Products For Construction Contracts) and that components of unknown origin are considered to have been produced or manufactured outside the United States.

Offerors may obtain from (IDOT, Division of Aeronautics) lists of articles, materials, and supplies excepted from this provision.

PRODUCT

COUNTRY OF ORIGIN

E. 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 undersigned 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).

F. NON-APPROPRIATION CLAUSE

By submitting a bid/proposal under this solicitation the offeror certifies that he/she understands that obligations of the State will cease immediately without penalty or further payment being required in any fiscal year the Illinois General Assembly fails to appropriate or otherwise make available sufficient funds for this contract.

- G. Contractor is not delinquent in the payment of any debt to the State (or if delinquent has entered into a deferred payment plan to pay the debt), and Contractor acknowledges the contracting state agency may declare the contract void if this certification is false (30 ILCS 500/50-11, effective July 1, 2002).

RETURN WITH BID

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 at the Harry R. Hanley Building, 2300 South Dirksen Parkway in Springfield, Illinois until 10:00 o'clock a.m., June 11, 2010. 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, shown in detail on the plans issued by the Department includes, in general, the following described work:

Base Bid: Rwy. 16/34 OFA/RSA improvements, Phase 2; Extend Txy Lima. Additive Alternate 1: Construct by-pass Taxiway L1.
3. **INSTRUCTIONS TO BIDDERS.**
 - (a) This Notice, the invitation for bids, proposal and award shall, together with all other documents in accordance with Article 10-15 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 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.
5. **PRE-BID CONFERENCE.** There will be a pre-bid conference held at N/A at the Chicago Executive Airport administration building. For engineering information, contact Marc Katz of Crawford, Murphy & Tilly, Inc. at (630) 820-1022.
6. **DISADVANTAGED BUSINESS POLICY.** The DBE goal for this contract is 12.0%.
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 April 16, 2010 and the Construction Plans dated April 16, 2010 as approved by the Department of Transportation, Division of Aeronautics.
8. **INSPECTION OF RECORDS.** The Contractor shall maintain an acceptable cost accounting system. The Sponsor, the FAA, and the Comptroller General of the United States shall have access to any books, documents, paper, and records of the Contractor which are directly pertinent to the specific contract for the purposes of making an audit, examination, excerpts, and transcriptions. The Contractor shall maintain all required records for three years after the Sponsor makes final payment and all other pending matters are closed.
9. **RIGHTS TO INVENTIONS.** All rights to inventions and materials generated under this contract are subject to Illinois law and to regulations issued by the FAA and the Sponsor of the Federal grant under which this contract is executed. Information regarding these rights is available from the FAA and the Sponsor.

RETURN WITH BID

10. TERMINATION OF CONTRACT.

1. The Sponsor may, by written notice, terminate this contract in whole or in part at any time, either for the 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 Sponsor.
2. If the termination is for the convenience of the 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 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 Sponsor for any additional cost occasioned to the 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 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 sponsor provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

11. 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.

12. 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 Base Bid: 152 Additive Alternate: 24 calendar days.

13. 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.

14. 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.

RETURN WITH BID

- 15. ADDENDA AND REVISIONS:** It is the contractor'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 will be placed with the contract number. 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 the bidder 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 RELATED FAILURES.

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

RETURN WITH BID

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 4 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 _____

Corporate Seal

By _____

President

(IF A CORPORATION)

Attest _____

Corporate Secretary

Business Address _____

Name of Corporate Officers:

_____ President _____ Corporate Secretary _____ Treasurer

NOTARY CERTIFICATION

STATE OF ILLINOIS,

ALL SIGNATURES MUST BE NOTARIZED

COUNTY OF _____

I, _____, a Notary Public in and for said county, do hereby certify that _____

AND

(Insert names of individual(s) signing on behalf of bidder)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of the bidder, appeared before me this day in person and acknowledged that they signed, sealed, 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 _____ (Seal)

Notary Public



Sponsor _____ Item No. _____

IL Proj. No. _____ AIP Proj. 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 Guarantee 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 _____



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 affix this form to the front of a 10" x 13" envelope and use that 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.



Illinois Department of Transportation

SUBCONTRACTOR DOCUMENTATION

P.A. 96-0795, effective July 1, 2010, enacted substantial changes to the provisions of the Illinois Procurement 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 approved in accordance with article 108.01 of the Standard Specifications for Road and Bridge Construction.

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 Chief Procurement Officer within 20 calendar days after execution of the subcontract.

The subcontract shall contain the certifications required to be made by subcontractors pursuant to Article 50 of the Illinois Procurement 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 Illinois Procurement Code establishes the duty of all State chief procurement officers, State purchasing officers, 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 chief procurement officer may terminate or void the subcontract approval if it is later determined that the bidder or subcontractor rendered a false or erroneous certification.

Section 50-2 of the Illinois Procurement 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 chief procurement officer 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

1. The Illinois Procurement Code provides:

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 1961.

(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 Procurement 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 chief procurement officer 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.

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

B. Felons

1. The Illinois Procurement Code provides:

Section 50-10. Felons. 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.

2. Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Procurement 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 chief procurement officer may declare the related contract void if any of the certifications required by this Section are false.

RETURN WITH SUBCONTRACT

C. Debt Delinquency

1. The Illinois Procurement Code provides:

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 Procurement 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 chief procurement officer 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

1. The Illinois Procurement Code provides:

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 Procurement 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 chief procurement officer 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 500/50-12 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 Procurement 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 chief procurement officer 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 style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> Name of Subcontracting Company		
<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> Authorized Officer	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> 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 chief procurement officer 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 Procurement Code. Furthermore, the chief procurement officer may void the contract or subcontract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Illinois Procurement Code provides that all subcontracts of more than \$10,000 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.

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. Subject individuals should be covered each by one form. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies. **The forms must be included with each bid or incorporated by reference.**

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 \$106,447.20?
YES _____ NO _____
3. Does anyone in your organization receive more than \$106,447.20 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 \$106,447.20? 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 Illinois Procurement 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 bids in excess of \$10,000, 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.

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 \$106,447.20 (60% of the Governor's salary as of 7/1/07). (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 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 \$106,447.20, (60% of the Governor's salary as of 7/1/07) 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 \$106,447.20, (60% of the Governor's salary as of 7/1/07) 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 you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 7/1/07) 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 _____

(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 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 \$106,447.20, (60 % of the Governor's salary as of 7/1/07) 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 \$106,447.20, (60% of the salary of the Governor as of 7/1/07) 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 \$106,447.20, (60% of the Governor's salary as of 7/1/07) 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 _____

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 SUBCONTRACTOR listed on the previous page.

_____ Date _____
Signature of Authorized Officer

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 Illinois Procurement Act (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 \$10,000, 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 a checkbox and lines for Signature of Authorized Officer and Date

(1) Airport Improvement Program projects. The work in this contract is included in the federal 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.

(2) 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.

(3) Convict Labor. No convict labor may be employed under this contract.

(4) Veterans Preference. 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) 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.

(5) Withholding: Sponsor from Contractor. Whether or not payments or advances to the Co-Sponsors are withheld or suspended by the FAA, the Co-Sponsors may withhold or cause to be withheld from the Contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics employed by the Contractor or any subcontractor on the work the full amount of wages required by this contract.

(6) Nonpayment of Wages. If the Contractor or subcontractor fails to pay any laborer or mechanic employed or working on the site of the work any of the wages required by this contract the Co-Sponsors may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment or advance of funds until the violations cease.

(7) FAA Inspection and Review. The Contractor shall allow any authorized representative of the FAA to inspect and review any work or materials used in the performance of this contract.

(8) Subcontracts. The Contractor shall insert in each of his subcontracts the provisions contained in Paragraphs (1), (3), (4), (5), (6), and (7) above and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts which they may enter into, together with a clause requiring this insertion in any further subcontracts that may in turn be made.

(9) Contract Termination. A breach of Paragraph (6), (7), and (8) above may be grounds for termination of the contract.

PROVISIONS REQUIRED BY THE REGULATIONS
OF THE SECRETARY OF LABOR
29 CFR 5.5

(a) Contract Provisions and Related Matters.

(1) Minimum Wages.

Revised 1/92

(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 which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. 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 therefor 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.

(ii)(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. (Approved by the Office of Management and Budget under OMB control number 1215-0140).

(ii)(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. (Approved by the Office of Management and Budget under OMB control number 1215-0140).

(ii)(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(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. (Approved by the Office of Management and Budget under OMB control number 1215-0140).

(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. (Approved by the Office Management and Budget under OMB control numbers 1215-0140 and 1215-0017).

(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. (Approved by the Office of Management and Budget under OMB control number 1215-0149).

(ii)(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 5.5(a)(3)(i) of Regulations, 29 CFR Part 5 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.

(ii)(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 (a)(3)(ii)(B) of this section.

(ii)(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 (a)(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 an 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 paragraph (a)(1) through (10) of this contract 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 5.5.

(7) Contract determination: debarment. A breach of these contract clauses paragraphs (a)(1) through (10) and the 2nd clause (b)(1) through (5) below may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR 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.

(b) Contract Work Hours and Safety Standards Act. The Agency Head shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), (4) and (5) of this section in full in AIP construction contracts in excess of \$2,000. These clauses shall be inserted in addition to the clauses required by paragraph 5.5(a) or paragraph 4.6 of Part 4 of this title. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements: No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen or guards (including apprentices and trainees described in paragraphs 5 and 6 above) shall require or permit any laborer, mechanic, watchman or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman or guard receives compensation at a rate not less than one and one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violations: Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the Contractor and any subcontractor responsible therefore shall be liable to any affected employee for his/her 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, watchman or guard employed in violation of the clause set forth in subparagraph (1) of this paragraph, 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 subparagraph (1) of this paragraph.

(3) Withholding for unpaid wages and liquidated damages. The (write in the name of the Federal agency or the loan or grant recipient) 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 subparagraph (2) of this paragraph.

(4) Subcontracts. The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph 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 subparagraphs (1) through (4) of this paragraph.

(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.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in paragraph 5.1, the Agency Head shall cause or require the contracting officer to insert a clause requiring that the Contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Agency Head shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the Contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the Contractor or subcontractor will permit such representatives to interview employees during working hours on the job. (Approved by the Office of Management and Budget under OMB control numbers 1215-0140 and 1215-0017).

FEDERAL REGULATIONS VOL. 40, #74,
WEDNESDAY, APRIL 16, 1975, PAGE 17124,
ADMINISTRATION OF THE CLEAR AIR ACT
& WATER POLLUTION CONTROL ACT
(with respect to Federal Grants)

In connection with the administration of the Clean Air Act and the Water Pollution Control Act with respect to Federal Grants, specific requirements have been imposed of any contract which is not exempt under the provisions of 40 CFR 15.5.

(1) Any facility listed on the EPA List of Violating Facilities pursuant to Paragraph 15.20 of 40 CFR as of the date of the contract award will not be utilized in the performance of any non-exempt contract or subcontract.

(2) The Contractor shall 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 Air Act and Water Act, respectively, and all regulations and guidelines issued thereunder after the award of the contract.

(3) Prompt notification shall be required prior to contract award to the awarding official by the Contractor who will receive the award of the receipt of any communication from the Director, Office of Federal Activities, U.S. Environmental Protection Agency, indicating that a facility to be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

(4) The Contractor shall include or cause to be included the criteria and requirements in paragraphs 1 through 4 in any non-exempt subcontract and will take such action as the Government may direct as a means of enforcing such provisions.

Attachment No. 1

During the performance of the 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 the behalf of the Contractor, state that all qualified applicants will receive consideration 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 he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or worker's 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, 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 procedures authorized in Executive Order 11246 of 24 September 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of 24 September 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 24 September 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 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 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.

ATTACHMENT NO. 2

EACH PRIME CONTRACTOR SHALL INSERT IN EACH SUBCONTRACT THE CERTIFICATION IN APPENDIX B, AND FURTHER, SHALL REQUIRE ITS INCLUSION IN ANY LOWER TIER SUBCONTRACT, PURCHASE ORDER, OR TRANSACTION THAT MAY IN TURN BE MADE.

- Appendix B of 49 CFR Part 29 -

This certification applies to subcontractors, material suppliers, vendors and other lower tier participants.

Appendix B--Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions

Instructions for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
8. 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 clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

STATE REQUIRED CONTRACT PROVISIONS
ALL FEDERAL-AID CONSTRUCTION CONTRACTS

Effective February 1, 1969
Revised January 2, 1973

The following provisions are State of Illinois requirements and are in addition to the Federal requirements.

"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.

CONSTRUCTION CONTRACT PROCUREMENT POLICIES

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SECTION 1

PROPOSAL REQUIREMENTS AND CONDITIONS

1-01 ADVERTISEMENT (Notice to Bidders). The State of Illinois shall publish the advertisement at such places and at such times as are required by local law or ordinances. The published advertisement shall state the time and place for submitting sealed proposals; a description of the proposed work; instructions to bidders as to obtaining proposal forms, plans, and specifications; proposal guaranty required; and the Owner's right to reject any and all bids.

For Federally assisted contracts the advertisement shall conform to the requirements of local laws and ordinances pertaining to letting of contracts and, in addition, shall conform to the requirements of the appropriate parts of the Federal Aviation Regulations applicable to the particular contract being advertised.

1-02 PREQUALIFICATION OF BIDDERS.

- (a) When the awarding authority is the State of Illinois, each prospective bidder, prior to being considered for issuance of any proposal forms will be required to file, on forms furnished by the Department, an experience questionnaire and a confidential financial statement in accordance with the Department's Instructions for Prequalification of Contractors. The Statement shall include a complete report of the prospective bidder's financial resources and liabilities, equipment, past record and personnel, and must be submitted at least thirty (30) days prior to the scheduled opening of bids in which the Contractor is interested.

After the Department has analyzed the submitted "Contractor's Statement of Experience and Financial Condition" and related information and has determined appropriate ratings, the Department will issue to the Contractor a "Certificate of Eligibility". The Certificate will permit the Contractor to obtain proposal forms and plans for any Department of Transportation letting on work which is within the limits of the Contractor's potential as indicated on his "Certificate of Eligibility", subject to any limitations due to present work under contract or pending award as determined from the Contractor's submitted "Affidavit of Availability". Bidders intending to consistently submit proposals shall submit a "Contractor's Statement of Experience and Financial Condition" at least once a year. However, prequalification may be changed during that period upon the submission of additional favorable reports or upon reports of unsatisfactory performance.

Before a proposal is issued, the prospective bidder will be required to furnish an "Affidavit of Availability" indicating the location and amount of all uncompleted work under contract, or pending award, either as principal or subcontractor, as well as a listing of all subcontractors and value of work sublet to others. The prospective bidder may be requested to file a statement showing the amount and condition of equipment which will be available.

Before an award is made, the bidder may be required to furnish an outline of his plans for conducting the work.

- (b) When the awarding authority for contract construction work is the County Board of a county; the Council, the City Council, or the President and Board of Trustees of a city, village or town, each prospective bidder, in evidence of his competence, shall furnish the awarding authority as a prerequisite to the release of proposal forms by the awarding authority, a certified or photostatic copy of a "Certificate of Eligibility" issued by the Department of Transportation, in accordance with Section 1-02(a).

The two low bidders must file within 24 hours after the letting a sworn affidavit, in triplicate, showing all uncompleted contracts awarded to them and all low bids pending award for Federal, State, County, Municipal and private work, using the blank form made available for this affidavit. One copy shall be filed with the awarding authority and two copies with the District Highway Office.

1-03 CONTENTS OF PROPOSAL FORMS. Upon request, the Department will furnish the prequalified bidders a proposal form. This form will state the location and description of the contemplated construction and will show the estimate of the various quantities and kinds of work to be performed or materials to be furnished, and will have a schedule of items for which unit bid prices are invited. The proposal form will state the time in which work must be completed, the amount of the proposal guaranty, labor requirements, and date, time and place of the opening of proposals. The form will also include any special provisions or requirements which vary from or are not contained in these specifications.

All papers bound with or attached to the proposal form are considered a part thereof and must not be detached or altered when the proposal is submitted. Any addenda officially issued by the Department, will be considered a part of the proposal whether attached or not.

For Federally assisted contracts, the proposal shall conform to the requirements of local laws and ordinances pertaining to letting of contracts and, in addition, shall conform to the requirements of the appropriate parts of the Federal Aviation Regulations pertaining to the particular contract being let.

1-04 ISSUANCE OF PROPOSAL FORMS. The Department shall refuse to issue a proposal form for any of the following reasons:

- (a) Lack of competency and adequate machinery, plant and other equipment, as revealed by the financial statement and experience questionnaires required under Section 1-02(a).
- (b) Uncompleted work which, in the judgment of the Department, might hinder or prevent the prompt completion of additional work if awarded.
- (c) False information provided on a bidder's "Affidavit of Availability".
- (d) Failure to pay, or satisfactorily settle, all bills due for labor and material on former contracts in force at the time of issuance of proposal forms.
- (e) Failure to comply with any prequalification regulations of the Department.
- (f) Default under previous contracts.
- (g) Unsatisfactory performance record as shown by past work for the Department, judged from the standpoint of workmanship and progress.
- (h) When the Contractor is suspended from eligibility to bid at a public letting where the contract is awarded by, or require approval of, the Department.
- (i) When any agent, servant, or employee of the prospective bidder currently serves as a member, employee, or agent of a governmental body that is financially involved in the proposed work.
- (j) When any agent, servant, or employee of the prospective bidder has participated in the preparation of plans or specifications for the proposed work.

1-05 INTERPRETATION OF QUANTITIES IN BID SCHEDULE. An estimate of quantities of work to be done and materials to be furnished under these specifications is given in the proposal. It is the result of careful calculations and is believed to be correct. It is given only as a basis for comparison of proposals and the award of the contract. The Owner does not expressly or by implication agree that the actual quantities involved will correspond exactly therewith; nor shall the bidder plead misunderstanding or deception because of such estimates of quantities, or of the character, location, or other conditions pertaining to the work. Payment to the Contractor will be made only for the actual quantities of work performed or materials furnished in accordance with the plans and specifications. It is understood that the quantities may be increased or decreased as provided in the subsection titled ALTERATION OF WORK AND QUANTITIES of Section 20 of the Illinois Standard Specifications for Construction of Airports without in any way invalidating the unit bid prices.

1-06 EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE. The bidder is expected to carefully examine the site of the proposed work, the proposal, plans, specifications, and contract forms. He shall satisfy himself as to the character, quality, and quantities of work to be performed, materials to be furnished, and as to the requirements of the proposed contract. The submission of a proposal shall be prima facie evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the proposed contract, plans, and specifications.

Boring logs, underground utilities and other records of subsurface investigations and tests are available for inspection of bidders. It is understood and agreed that such subsurface information, whether included in the plans, specifications, or otherwise made available to the bidder, was obtained and is intended for the Owner's design and estimating purposes only. Such information has been made available for the convenience of all bidders. It is further understood and agreed that each bidder is solely responsible for all assumptions, deductions, or conclusions which he may make or obtain from his examination of the boring logs and other records of subsurface investigations and tests that are furnished by the Owner.

1-07 PREPARATION OF THE PROPOSAL. The bidder shall submit his proposal on the form furnished by the Department. The proposal shall be executed properly, and bids shall be made for all items indicated in the proposal form, except that when alternate bids are asked, a bid on more than one alternate for each item is not required, unless otherwise provided. The bidder shall indicate, in figures, a unit price for each of the separate items called for in the proposal; he shall show the products of the respective quantities and unit prices in the column provided for that purpose, and the gross sum shown in the place indicated in the proposal shall be the summation of said products. All writing shall be with ink or typewriter, except the signature of the bidder which shall be written with ink.

If the proposal is made by an individual, his name and business address shall be shown. If made by a firm or partnership, the name and business address of each member of the firm or partnership shall be shown. If made by a corporation, the proposal shall show the names, titles, and business address of the president, secretary, and treasurer, and the seal of the corporation shall be affixed and attested by the secretary.

The proposal shall be issued to a prequalified bidder in the same name and style as the financial statement used for prequalification and shall be submitted in like manner.

1-08 REJECTION OF PROPOSALS. The Department reserves the right to reject proposals for any of the conditions in Article 1-04 or for any of the following reasons:

- (a) More than one proposal for the same work from an individual, firm, partnership, or corporation under the same or different names.
- (b) Evidence of collusion among bidders.
- (c) Unbalanced proposals in which the prices for some items are obviously out of proportion to the prices for other items.
- (d) If the proposal does not contain a unit price for each pay item listed except in the case of authorized alternate pay items or lump sum pay items.
- (e) If the proposal is other than that furnished by the Department; or if the form is altered or any part thereof is detached.
- (f) If there are omissions, erasures, alterations, unauthorized additions, conditional or alternate bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite, or ambiguous as to its meaning.
- (g) If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.
- (h) If the proposal is not accompanied by the proper proposal guaranty.
- (i) If the proposal is prepared with other than ink or typewriter.
- (j) If the proposal is submitted in any other name other than that to whom it was issued by the Department.

1-09 PROPOSAL GUARANTY. Each Proposal shall be accompanied by either a bid bond on the Department of Transportation, Division of Aeronautics form contained in the proposal, executed by a corporate surety company satisfactory to the Department or by a bank cashier's check or a properly certified check for not less than 5 percent of the amount bid.

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

1-10 DELIVERY OF PROPOSALS. Each proposal should be submitted in a special envelope furnished by the Department. The blank spaces on the envelope shall be filled in correctly to clearly indicate its contents. When an envelope other than the special one furnished by the Department is used, it shall be of the same general size and shape and be similarly marked to clearly indicate its contents. When sent by mail, the sealed proposal shall be addressed to the Department at the address and in care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and place specified in the Notice to Bidders. Proposals received after the time for opening of bids will be returned to the bidder unopened.

1-11 WITHDRAWAL OF PROPOSALS. Permission will be given a bidder to withdraw a proposal if he makes his request in writing or by telegram before the time for opening proposals. If a proposal is withdrawn, the bidder will not be permitted to resubmit this proposal at the same letting. With the approval of the Engineer, a bidder may withdraw a proposal and substitute a new proposal prior to the time of opening bids.

1-12 PUBLIC OPENING OF PROPOSALS. Proposals will be opened and read publicly at the time and place specified in the Notice to Bidders. Bidders, their authorized agents, and other interested parties are invited to be present.

1-13 DISQUALIFICATION OF BIDDERS. A bidder shall be considered disqualified for any of the following reasons:

- (a) Submitting more than one proposal from the same partnership, firm, or corporation under the same or different name.
- (b) Evidence of collusion among bidders. Bidders participating in such collusion shall be disqualified as bidders for any future work of the Owner.
- (c) If the bidder is considered to be in "default" for any reason specified in the Subsection 1-04 titled ISSUANCE OF PROPOSAL FORMS of this section.

1-14 WORKER'S COMPENSATION INSURANCE. Prior to the approval of his contract by the Division, the Contractor shall furnish to the Division certificates of insurance covering Worker's Compensation, or satisfactory evidence that this liability is otherwise taken care of in accordance with Section 4.(a) of the "Worker's Compensation Act of the State of Illinois" as amended.

SECTION 2

AWARD AND EXECUTION OF CONTRACT

2-01 CONSIDERATION OF PROPOSALS. After the proposals are publicly opened and read, they will be compared on the basis of the summation of the products obtained by multiplying the estimated quantities shown in the proposal by the unit bid prices. In the event of a discrepancy between unit bid prices and extensions, the unit bid price shall govern.

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

- (a) If the proposal is irregular as specified in the subsection titled REJECTION OF PROPOSALS of Section 1.
- (b) If the bidder is disqualified for any of the reasons specified in the subsection titled DISQUALIFICATION OF BIDDERS of Section 1.

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

2-02 AWARD OF CONTRACT. The award of contract will be made within 60 calendar days after the opening of proposals to the lowest responsible and qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified by letter, that his bid has been accepted, and that he has been awarded the contract.

If a contract is not awarded within 60 days after the opening of proposals, a bidder may file a written request with the Division for the withdrawal of his bid and the Division will permit such withdrawal.

For Federally assisted contracts, unless otherwise specified in this subsection, no award shall be made until the Division has concurred in the Owner's recommendation to make such award and has approved the Owner's proposal contract to the extent that such concurrence and approval are required by Federal Regulations.

2-03 CANCELLATION OF AWARD. The Division reserves the right to cancel the award without liability to the bidder at any time before a contract has been fully executed by all parties and is approved by the Owner in accordance with the subsection titled APPROVAL OF CONTRACT of this section. The Division at the time of cancellation will return the proposal guaranty.

2-04 RETURN OF PROPOSAL GUARANTY. The proposal guaranties of all except the two lowest bidders will be returned promptly after the proposals have been checked, tabulated, and the relation of the proposals established. Proposal guaranties of the two lowest bidders will be returned as soon as the Construction Contract, Performance Bonds, and Payment Bonds of the successful bidder have been properly executed and approved.

If any other form of proposal guaranty is used, other than a bid bond, a bid bond may be substituted at the Contractor's option.

2-05 REQUIREMENT OF PERFORMANCE AND PAYMENT BONDS. The successful bidder for a contract, at the time of the execution of the contract, shall deposit with the Division separate performance and payment bonds each for the full amount of the contract. The form of the bonds shall be that furnished by the Division, and the sureties shall be acceptable to the Division.

2-06 EXECUTION OF CONTRACT. The successful bidder shall sign (execute) the Contract and shall return the signed Contract to the Owner (Sponsor) for signature (execution) and subsequently return all copies to the Division. The fully executed surety bonds specified in the subsection title REQUIREMENTS OF PERFORMANCE AND PAYMENT BONDS of this section will be forwarded to the Division within 15 days of the date mailed or otherwise delivered to the successful bidder. If the Contract and Bonds are mailed, special handling is recommended.

If the bidder to whom award is to be made is a corporation organized under the laws of a State other than Illinois, the bidder shall furnish the Division a copy of the corporation's certificate of authority to do business in the State of Illinois, or provide evidence of the same, with the return of the executed contract and bond. Failure to furnish such evidence of a certificate of authority within the time required will be considered as just cause for the annulment of the award and the forfeiture of the proposal guaranty to the State, not as a penalty, but in payment of liquidated damages sustained as a result of such failure.

2-07 APPROVAL OF CONTRACT. Upon receipt of the contract and bonds that have been executed by the successful bidder, the Owner shall complete the execution of the contract in accordance with local laws or ordinances, and return the contract to the Division for approval and execution by the Division. Delivery of the fully executed contract to the Contractor shall constitute the Department's approval to be bound by the successful bidder's proposal and the terms of the contract.

2-08 FAILURE TO EXECUTE CONTRACT. If the contract is not executed by the Division within 15 days following receipt from the bidder of the properly executed contracts and bonds, the bidder shall have the right to withdraw his bid without penalty.

Failure of the successful bidder to execute the contract and file acceptable bonds within 15 days after the contract has been mailed to him shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty which shall become the property of the State, not as a penalty, but as liquidation of damages sustained.

ILLINOIS DEPARTMENT OF TRANSPORTATION

DIVISION OF AERONAUTICS

The requirements of the following provisions written for Federally-assisted construction contracts, including all goals and timetables and affirmative action steps, shall also apply to all State-funded construction contracts awarded by the Illinois Department of Transportation.

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (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

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<u>Economic Area</u>	<u>Goal (percent)</u>
081 Terre Haute, IN:	
Non-SMSA Counties -	2.5
IL - Clark, Crawford	
IN - Parke	
083 Chicago, IL:	
SMSA Counties:	19.6
1600 Chicago, IL -	
IL - Cook, DuPage, Kane, Lake, McHenry, Will	
3740 Kankakee, IL -	9.1
IL - Kankakee	
Non-SMSA Counties	18.4
IL - Bureau, DeKalb, Grundy, Iroquois, Kendall, LaSalle, Livingston, Putnam	
IN - Jasper, Laporte, Newton, Pulaski, Starke	
084 Champaign - Urbana, IL:	
SMSA Counties:	
1400 Champaign - Urbana - Rantoul, IL -	7.8
IL - Champaign	
Non-SMSA Counties -	4.8
IL - Coles, Cumberland, Douglas, Edgar, Ford, Piatt, Vermilion	
085 Springfield - Decatur, IL:	
SMSA Counties:	
2040 Decatur, IL -	7.6
IL - Macon	
7880 Springfield, IL -	4.5
IL - Mendard, Sangamon	
Non-SMSA Counties	4.0
IL - Cass, Christian, Dewitt, Logan, Morgan, Moultrie, Scott, Shelby	
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	

APPENDIX B (CONTINUED)

<u>Economic Area</u>	<u>Goal (percent)</u>
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 Illinois Division of Aeronautics 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.

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STANDARD FEDERAL EQUAL EMPLOYMENT
OPPORTUNITY CONSTRUCTION CONTRACT
SPECIFICATIONS (EXECUTIVE ORDER 11246)

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.

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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.

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- 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.

Revised 08-31-83

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).

Revised 08-31-83

ANNUAL EEO-1 REPORT TO JOINT REPORTING COMMITTEE AS REQUIRED AT

41 CFR 60-1.7(a)

Any Contractor having a Federal contract of \$50,000 or more and 50 or more employees is required to file annual compliance reports on Standard Form 100 (EEO-1) with the Joint Reporting Committee in accordance with the instructions provided with the form. The Contractor will provide a copy of such a report to the contracting agency within 30 days after the award of a contract.

The Contractor shall require its subcontractors to file an SF 100 within 30 days after award of the subcontract if (1) it is not exempt from the provisions of these regulations in accordance with 60-1.5, (2) has 50 or more employees, (3) first tier subcontractor, and (4) has a subcontract amounting to \$50,000 or more.

Subcontractors below the first tier which perform construction work at the site of construction shall be required to file such a report if (1) it is not exempt from the provisions of these regulations in accordance with 60-1.5, (2) has 50 or more employees and has a subcontract amounting to \$50,000 or more.

The SF 100 is available at the following address:

Joint Reports Committee
EEOC - Survey Division
1801 "L" Street N.W.
Washington, D.C. 20750

Phone (202) 663-4968

DISADVANTAGED BUSINESS POLICY

I. NOTICE

This proposal contains the special provision entitled "Required 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."

II. 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.

III. 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.

IV. 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).

V. 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.

(Rev. 9/21/92)

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION
Effective: September 1, 2000
Revised: January 1, 2010

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 **12.0%** 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 may 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 the good faith efforts of the bidder 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 on 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 issue of whether an adequate good faith effort was made to meet the contract goal. 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.

- (a) 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) The Contractor must notify and obtain written approval from the Department's Bureau of Small Business Enterprises prior to replacing a DBE or making any change in the participation of a DBE. Approval for replacement will be granted only if it is demonstrated that the DBE is unable or unwilling to perform. The Contractor must make every good faith effort to find another certified DBE subcontractor to substitute for the original DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the original DBE, to the extent needed to meet the contract goal.
- (c) Any deviation from the DBE condition-of-award or contract specifications must be approved, in writing, by the Department. 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.
- (d) 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) 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.
- (f) 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.
- (g) All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the Bureau of Small Business Enterprises to amend the Utilization Plan. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor shall contact the Bureau of Small Business Enterprises and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau of Small Business Enterprises will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.
- (h) 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 (j) of this part.
- (i) 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.
- (j) Notwithstanding any other provision of the contract, including but not limited to Article 109.09 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.

Certification of Nonsegregated Facilities - as Required by 41 CFR 60-1.8

(Applicable to (1) contracts, (2) subcontracts, and (3) agreements with applicants who are themselves performing federally assisted construction contracts, exceeding \$10,000.00 which are not exempt from the provisions of the Equal Opportunity clause).

By the submission of this bid, the bidder, offeror, applicant, or subcontractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments and that that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of his 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, rest rooms and wash rooms, restaurants and other eating areas, time clocks, 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 directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000.00 which are not exempt from the provisions of the Equal Opportunity clause; that he will retain such certifications in his files and that he will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

**NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR
CERTIFICATIONS OF NONSEGREGATED FACILITIES**

A certification of Nonsegregated Facilities must be submitted prior to the award of a subcontract exceeding \$10,000.00 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually or annually).

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C 1001.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS
Instructions for Certification

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction" "debarred" "suspended" "ineligible" "lower tier covered transaction" "participant" "person" "primary covered transaction" "principal" "proposal" and "voluntarily excluded" as used in this clause have the meaning set out in the Definitions and Coverage sections of the rules implementing Executive Order 12540. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The prospective primary participant agrees by submitting this proposal that should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction unless authorized by the department or agency entering into this transaction.
7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Transaction", provided by the department or agency entering into this covered transaction without modification in all lower covered transactions and in all solicitations for lower covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to check the Nonprocurement List (Tel. #).
9. 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 clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 8 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, and
Other Responsibility Matters - Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief that it and its principals:
 - a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by an Federal department or agency;
 - b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or Local) transaction or contract under a public transaction: violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction or destruction of records, making false statements, or receiving stolen property;
 - c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - d. Have not within a three-period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

CERTIFICATION REGARDING LOBBYING (Applicable to contracts in excess of \$100,000):

Certification for Contracts, Grants, Loans and Cooperative Agreements.

The undersigned bidder certifies, 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.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

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.

WORKERS' COMPENSATION INSURANCE

Prior to the execution of his construction contract by the Illinois Department of Transportation, Division of Aeronautics, hereinafter referred to as "Division", the Contractor shall furnish to the Division certificates of insurance covering Workers' Compensation, or satisfactory evidence that this liability is otherwise taken care of in accordance with Section 4.(a) of the "Workers' Compensation Act of the State of Illinois" as amended.

Such insurance, or other means of protection as herein provided, shall be kept in force until all work to be performed under the terms of the contract has been completed and accepted in accordance with the specifications, and it is hereby understood and agreed that the maintenance of such insurance or other protection, until acceptance of the work by the Division is a part of the contract. Failure to maintain such insurance, cancellation by the Industrial Commission of its approval of such other means of protection as might have been elected, or any other act which results in lack of protection under the said "Workers' Compensation Act" may be considered as a breach of the contract.

SPECIAL PROVISION FOR DOMESTIC SOURCE FOR STEEL

Control of Materials: All steel products, as defined by the Illinois Steel Products Procurement Act, incorporated into this project shall be manufactured or produced in the United States and, in addition, shall be domestically fabricated. The Contractor shall obtain from the steel producer and/or fabricator, in addition to the mill analysis, a certification that all steel products meet these domestic source requirements.

CLAUSE TO BE INCLUDED IN ALL SOLICITATIONS,
CONTRACTS, AND SUBCONTRACTS RESULTING FROM PROJECTS FUNDED UNDER THE AIP

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 sponsor, 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 sponsor 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 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.

**MINIMUM WAGES FOR FEDERAL AND FEDERALLY
ASSISTED CONSTRUCTION CONTRACTS**

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.

NOTICE

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>.

If you have any questions concerning the wage rates, please contact IDOT's Chief Contract Official at 217-782-7806.

SECTION III

Special Provisions

For

**PHASE 2 – RUNWAY 16/34 OFARSA IMPROVEMENTS INCLUDING EXTENDING TAXIWAY
L AND ADDITIVE ALTERNATE 1: CONSTRUCT BYPASS TAXIWAY L1**

**ILLINOIS PROJECT: PWK-3991
A.I.P. PROJECT: 3-17-0018-B44**

At

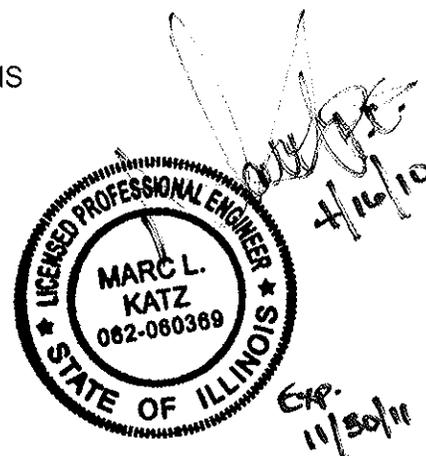
CHICAGO EXECUTIVE AIRPORT
WHEELING/PROSPECT HEIGHTS, ILLINOIS

Final Submittal

April 16, 2010

Prepared By:

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GENERAL

These Special Provisions, together with applicable Standard Specifications, 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, Division of Aeronautics for the construction of the subject project at the Chicago Executive Airport, Wheeling/Prospect Heights, Illinois.

GOVERNING SPECIFICATIONS AND RULES AND REGULATIONS

The "Standard Specifications for Construction of Airports (Consolidated Reprint)," dated November 2, 2009, State of Illinois Department of Transportation, Division of Aeronautics shall govern the project except as otherwise noted in these Special Provisions. In cases of conflict with any part or parts of said specifications, the said Special Provisions shall take precedence and shall govern. When noted within the Special Provisions, the Illinois Department of Transportation "Standard Specifications for Road and Bridge Construction", Adopted January 1, 2007, shall also apply.

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DIVISION I – GENERAL PROVISIONS

SECTION 10 – DEFINITION OF TERMS

10-23 ENGINEER

DELETE:

Paragraph (b).

SECTION 20 – SCOPE OF WORK

20-05 MAINTENANCE OF TRAFFIC

ADD:

The Contractor shall be responsible for cleaning and maintaining all haul roads and use a pick-up type sweeper on all pavements and adjacent roadways utilized in hauling operations when material is tracked onto said pavement. **The Contractor shall have a sweeper on site and maintain all pavements clear of dirt and debris at all times or as requested by the Resident Engineer.** If the Contractor fails to comply with the Standard Specifications, Contract Plans or these Special Provisions concerning traffic control, the Resident Engineer shall execute such work as may be deemed necessary to correct deficiencies and the cost thereof shall be deducted from compensation due or which may become due the Contractor under the contract. The Contractor shall be responsible for supplying, maintaining and moving all barricades required for construction. The cost thereof shall not be paid for separately, but shall be considered incidental to the contract unit prices.

The Airport Manager, following consultation with the Resident Engineer, will give proper notice to the nearest Flight Service Station and the Airways Facilities Chief of the Federal Aviation Administration prior to the beginning of construction. The Contractor shall furnish a flagger in radio control with the Air Traffic at any time the active taxiways or airfield pavement are crossed or used for a haul road. The Contractor shall supply his own radios. The cost thereof shall not be paid for separately, but shall be considered incidental to the contract unit prices.

20-09 AIRPORT OPERATIONS DURING CONSTRUCTION

ADD:

a. Construction Activity and Aircraft Movements

For construction activity to be performed in other areas than active operational areas, the storage and parking of equipment and materials, when not in use or about to be installed, shall not encroach upon active operational areas. In protecting operational areas, the minimum clearances maintained for runways shall be in conformance with Part 77 of the Federal Aviation Regulations.

All construction operations shall conform to the plans and in accordance with AC 150/5370-2 (Latest Edition) Operational Safety on Airports During Construction.

b. Limitations On Construction

- (1) Open flame welding or torch cutting operations shall be prohibited, unless adequate fire and safety precautions are provided.

- (2) Open trenches, excavations and stockpiled material near any pavements shall be prominently marked with red flags and lighted by light units during hours of restricted visibility and/or darkness.
 - (3) Stockpiled material shall be constrained in a manner to prevent movement resulting from aircraft blast or wind conditions.
 - (4) The use of explosives shall be prohibited.
 - (5) Burning shall not be allowed.
- c. Debris

Waste and loose material capable of causing damage to aircraft landing gears, propellers, or being ingested in jet engines shall not be placed on active aircraft movement areas. Material tracked on these areas shall be removed continuously during the work project. The Contractor shall provide garbage cans in employee parking areas and storage areas for debris.

SECTION 30 – CONTROL OF WORK

30-10 INSPECTION OF WORK

ADD:

The Contractor shall provide portable flood lighting for nighttime construction. Sufficient units shall be provided so that work areas are illuminated to a level of five horizontal foot candles. The lighting levels shall be calculated and measured in accordance with the current standards of the Illumination Engineering Society. Lights shall be positioned so as not to interfere with Airport operations.

30-12 LOAD RESTRICTIONS

ADD:

Contractor's use of the existing airfield and perimeter pavements by equipment and loaded trucks shall be minimized. **Any damage to existing airfield and perimeter pavements shall be repaired by the Contractor at his own expense to the satisfaction of the Owner. Contractor shall obtain written permission from the Airport Owner to use any airfield pavements.**

30-18 PLANS AND WORK DRAWINGS

DELETE:

References to "approval" in first paragraph and replace with "review".

REVISE the fourth paragraph to read:

Shop drawings submitted by the Contractor for materials and/or equipment to be provided as a part of the contract shall be reviewed by the Project Engineer for substantial conformance of said materials and/or equipment, to contract requirements. Shop drawings shall be fully descriptive, complete and of sufficient detail for ready determination of compliance.

REVISE the last paragraph to read:

The following information shall be clearly marked on each shop, working, and layout drawing, catalog cut, pamphlet specifications sheet, etc., submitted.

PROJECT LOCATION:	Chicago Executive Airport
PROJECT TITLE:	Phase 2 – Runway 16/34 OFA/RSA Improvements Including Extending Taxiway L And Additive Alternate 1: Construct Bypass Taxiway L1
PROJECT NUMBERS	IL Project: PWK-3991 AIP Project: 3-17-0018-B44
CONTRACT ITEM:	(i.e. AR 156531 Erosion Control Blanket)
SUBMITTED BY:	(Contractor/Subcontractor Name)
DATE:	(Date Submitted)

SECTION 40 – CONTROL OF MATERIALS

40-01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS

ADD: After the last paragraph

The Contractor shall certify all materials contained in the contract. Certification documentation shall be submitted to the Engineer. It shall be the sole responsibility of the Contractor to ensure the delivery of adequate and accurate documentation prior to the delivery of the materials.

If, upon delivery and incorporation of any materials, the Contractor has failed to provide the necessary submittals as required by Sections 30-18, 40-01, 40-03 and 40-11 of the Standard and Special Provisions, the pay item shall not included on the Construction Progress Payment report until such submittals have been furnished.

40-03 CERTIFICATION OF COMPLIANCE

ADD:

Additional requirements are specified in Section 40-11 Certification of Materials.

40-11 CERTIFICATION OF MATERIALS

ADD:

The Contractor shall certify all materials incorporated into the contract. Certification documentation shall be submitted to the Resident Engineer. It shall be the **sole** responsibility of the Contractor to ensure the submittal of adequate and accurate documentation in order to satisfy the contract material certification requirements **prior** to the delivery of the materials. Materials without certification or those with certification that demonstrates the materials do not meet the requirements of the plans and specifications shall be considered nonconforming and subject to the provisions of Section 30-02.

As a guide to the certification process and requirements, the Contractor shall use the Illinois Department of Transportation/Division of Aeronautics MANUAL FOR DOCUMENTATION OF AIRPORT MATERIALS dated March 15, 2008 or latest edition including any addendums. Copies of this manual are available by contacting Mr. Mike Wilhelm-Division of Aeronautics at (217) 785-4282 or from their website at "<http://www.dot.state.il.us/aero/PDF/2008%20Man%20for%20Doc%20of%20Air%20Matls.pdf>".

The cost of providing the required material documentation and certifications shall not be paid for separately, but shall be considered incidental to the associated item.

SECTION 50 – LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

50-17 CONTRACTOR'S RESPONSIBILITY FOR UTILITY SERVICE AND FACILITIES OF OTHERS

ADD:

Special care shall be taken on all operations and particularly near pavement edges to avoid damage to edge lights and all underground electrical cable on the airport. The approximate location of existing underground cable is shown on drawings. Any airfield lights or cable that are broken and require replacement because of the Contractor's operations will be replaced by the contractor at his own expense.

Any airfield cable repairs or replacement to any part of the electrical system made necessary by the Contractor's operations will be made by him in the manner specified in Sections 108 and 125 at no cost to the airport. Cost of replacement to be borne by the Contractor shall include any expense incurred in locating as well as repairing or replacing damaged parts of the system by the owning agency.

It shall be the Contractor's responsibility to locate and protect all airport-owned utilities within the construction limits. This includes all electrical cables, storm sewer, drain tile, sanitary sewer and water main.

Special attention is necessary when working near FAA power and control cables. Any FAA utility that is damaged or cut during construction shall be repaired immediately. FAA requires that any damaged cable be replaced in its entirety, no splices will be permitted. No additional compensation will be made for replacement or repair of FAA facilities or cables but, shall be incidental to the contract.

Should any utilities or cables require location, the following people shall be contacted:

CHICAGO EXECUTIVE AIRPORT

<u>Utility Service or Facility</u>	<u>Contact (Person)</u>	<u>Contact (Phone)</u>
AT&T – Telephone Cables	J.U.L.I.E. (Joint Utility Locating Information for Excavators)	1-800-892-0123
ComEd - Electric Cables	J.U.L.I.E. (Joint Utility Locating Information for Excavators)	1-800-892-0123
City Of Prospect Heights Water, Sanitary and Storm Sewer	Operations and Maintenance – City of Prospect Heights	1-847-459-0588
NICOR - Gas Lines	J.U.L.I.E. (Joint Utility Locating Information for Excavators)	1-800-892-0123
FAA Control and Communication Cables	FAA Sector Office	1-630-587-7801
Illinois-American Water Company – Water, Sanitary and Storm Sewer	Supervisor of Construction	1-630-739-8810
Village of Wheeling – Water, Sanitary and Storm Sewer	Operations and Maintenance	1-847-459-2985
Metropolitan Water Reclamation District of Greater Chicago	Field Office Personnel	1-708-588-4055
Miscellaneous Communication Cables	Signature Flight Group Al Palicki	1-847-537-1200
	Atlantic Aviation David Kaufman	1-847-808-0812

SECTION 60 – PROSECUTION AND PROGRESS

60-03 NOTICE TO PROCEED

ADD:

The Notice to Proceed will not be given until all materials are certified by the Contractor to be available and on hand.

60-05 LIMITATION OF OPERATIONS

ADD:

The Contractor shall not have access to any part of the active airfield (runways or taxiways) for any equipment or personnel without approval of the Airport Manager.

60-07 TEMPORARY SUSPENSION OF THE WORK

REVISE the second paragraph to read:

In the event that the Contractor is ordered by the Engineer to suspend work for some unforeseen cause not otherwise provided for in the contract and over which the Contractor has no control, the Contractor may be reimbursed for actual money expended on the work during the period of shutdown. No allowance will be made for anticipated profits. The period of shutdown shall be computed from the effective date of

the Engineer's order to suspend work to the effective date of the Engineer's order to resume the work. Claims for such compensation shall be filed with the Resident Engineer within the time period stated in the Engineer's order to resume work. The Contractor shall submit with his/her claim information substantiating the amount shown on the claim. The Resident Engineer will forward the Contractor's claim to the Division for the consideration in accordance with local laws or ordinances. No provision of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather, for suspension made at the request of the Engineer, or for any other delay provided for in the contract, plans, or specifications.

60-10 DEFAULT AND TERMINATION OF CONTRACT

DELETE: "and his/her surety" from the first sentence.

Replace references to "Project Engineer" with "Engineer" throughout this section.

SECTION 70 – MEASUREMENT AND PAYMENT

70-05 PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK

ADD the following to subsection B.7. Statements:

All statements of the cost of force account work shall be furnished to the Engineer not later than 60 days after completion of the force account work. If the statement is not received within the specified time frame, all demands for payment for the extra work are waived and the Division, Airport Owner and Local Sponsor are released from any and all such demands. It is the responsibility of the Contractor to ensure that all statements are received within the specified time regardless of the manner or method of delivery.

DIVISION II – PAVING CONSTRUCTION DETAILS

ITEM 150510 – ENGINEER'S FIELD OFFICE

150-2.1

REVISE:

Paragraph (G) to the following:

- (G) One (1) electric water cooler dispenser capable of dispensing cold and hot water and a supply of water bottles as needed.

Paragraph (I) to the following:

- (I) One (1) dry process copy machine (including maintenance and operating supplies) capable of both collating and reproducing prints up to a half size (11"X 17") and capable of copying field books.

ADD:

- (N) One first-aid cabinet fully equipped.
- (O) One (1) 800 Watt, 0.8 cubic foot microwave oven.
- (P) One (1) Coffee Maker
- (Q) Solid waste disposal consisting of two (2) 28-quart waste baskets and an outside trash container of sufficient size to accommodate a weekly provided pick-up service.

BASIS OF PAYMENT

150-3.1

DELETE the second sentence of the second paragraph of this section.

Payment will be made under:

ITEM AR150510 ENGINEER'S FIELD OFFICE – PER LUMP SUM.

ITEM 150520 – MOBILIZATION

BASIS OF PAYMENT

150-3.1

ADD:

Payment will be made under:

ITEM AR150520 MOBILIZATION – PER LUMP SUM.

ITEM 152000 – EXCAVATION AND EMBANKMENT

DESCRIPTION

152-1.1

ADD:

All excess excavation material shall be hauled offsite at no additional cost to the contract.

152-1.2 CLASSIFICATION

DELETE the second, third and fourth paragraphs.

CONSTRUCTION METHODS

152-2.2 EXCAVATION

REVISE: The 8th paragraph of this section to read:

In cut areas, not requiring porous granular embankment, the top 8" of subgrade shall be compacted to a density of not less than the percentage of the maximum dry density, at optimum moisture, shown in Table 1 as determined by the compaction control tests cited in Division VII for ASTM-1557 (Modified Proctor) for aircraft weights of 60,000 pounds or more. In cut areas, where abandoned utilities, including duct bank, gas pipe lines, fuel lines, water mains and sewer pipe are encountered, the utilities shall be removed. The cost of removal shall be considered incidental unless it is specifically called out for removal on the plan sheets.

In cut areas, requiring the use of porous granular embankment, the proposed subgrade shall be compacted to the satisfaction of the Engineer.

152-2.10 TOPSOIL

DELETE: The 5th paragraph of this section and REPLACE with:

Any excess excavation material shall be hauled offsite at no additional cost to the contract.

152-2.15 DUST CONTROL WATERING

ADD:

This work shall consist exclusively of the control resulting from construction operations and is not intended for use in the compaction of earth embankment.

Dust shall be controlled by the uniform application of sprinkled water 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 the contract.

METHOD OF MEASUREMENT

152-3.2

DELETE: This section.

152-3.3

DELETE: This section.

BASIS OF PAYMENT

152-4.3

DELETE: This section.

152-4.4

DELETE: This section.

ADD to **152-4.2:**

Topsoil placement, shoulder fill and embankment fill shall not be paid for separately, but shall be included in the unit bid price for "Unclassified Excavation".

Removal of existing electrical cable, electrical duct bank or conduit, sewer, water main or fuel lines when in conflict with excavation shall not be paid for separately, unless specifically called out for on the plans, but shall be considered incidental to "Unclassified Excavation".

Payment will be made under:

ITEM AR152410	UNCLASSIFIED EXCAVATION – PER CUBIC YARD.
ITEM AS152410	UNCLASSIFIED EXCAVATION – PER CUBIC YARD.

ITEM 152540 – SOIL STABILIZATION FABRIC

BASIS OF PAYMENT

152-5.1

ADD:

Payment will be made under:

ITEM AR152540	SOIL STABILIZATION FABRIC – PER SQUARE YARD.
ITEM AS152540	SOIL STABILIZATION FABRIC – PER SQUARE YARD.

ITEM 156000 – EROSION CONTROL

DESCRIPTION

156-1.1

ADD:

All entrances to the construction site shall have a stabilized entrance constructed in accordance with Standard IL-630 of the Natural Resources Conservation Service and the current Illinois Urban Manual.

CONSTRUCTION METHODS

156-3.9 INLET PROTECTION

Inlet filter sediment traps shall be placed in all proposed and existing inlets and catch basins as shown on the plans, or as directed by the Engineer.

156-3.10

In the event that temporary erosion and pollution control measures are ordered by the Engineer due to the Contractor's negligence or carelessness, the work shall be performed by the Contractor at no additional cost to the Owner.

METHOD OF MEASUREMENT

156-4.2

DELETE: This section.

156-4.3

REVISE: This section to read:

Temporary Seeding and Temporary Mulching shall not be measured for payment, but shall be considered incidental to Item 156 – Erosion Control.

156-4.4

ADD:

The number of Inlet Protection paid for shall be the number shown in the plans or ordered by the Resident Engineer used to control erosion and satisfactorily completed.

156-4.5

ADD:

The number of Ditch Check paid for shall be the number shown in the plans or ordered by the Resident Engineer used to control erosion and satisfactorily completed.

BASIS OF PAYMENT

156-5.1

REVISE: This section to read:

Payment will be made at the contract unit price per linear foot of Silt Fence, and at the contract unit price per each for Inlet Protection and per each for Ditch Check. This price shall be full compensation for furnishing all materials for all preparation and installation of these materials, including excavation, placement, tie-down stakes, staples, maintenance and removal and for all labor, equipment, tools, and incidentals necessary to complete this item.

Stabilized construction entrances, temporary seeding and temporary mulching shall not be measured for payment. It shall be considered incidental to Item 156 – Erosion Control.

Payment will be made under:

ITEM AR156510	SILT FENCE – PER LINEAR FOOT.
ITEM AS156510	SILT FENCE – PER LINEAR FOOT.
ITEM AR156511	DITCH CHECK – PER EACH.
ITEM AR156520	INLET PROTECTION – PER EACH.
ITEM AS156520	INLET PROTECTION – PER EACH.

ITEM 208515 – POROUS GRANULAR EMBANKMENT

DESCRIPTION

208-1.1

ADD:

This work shall consist of furnishing and placing porous granular embankment as the field conditions warrant at the time of construction as directed by the Engineer.

MATERIALS

208-2.1 UNCRUSHED COARSE AGGREGATE

DELETE: This Entire Section.

208-2.3 GRADATION

DELETE: This Entire Section.

ADD:

When submitting materials for consideration, the Contractor shall provide written certification that the material meets the specified requirements. A written gradation shall also be furnished.

Gradation for Porous Granular Embankment shall be as follows:

Sieve	Percent Passing
3 inch	100
2 ½ inch	90-100
2 inch	45-75
1 ½ inch	0-30
1 inch	0-6
IDOT Gradation	CA-1

CONSTRUCTION REQUIREMENTS

208-3.2 PREPARING UNDERLYING COURSE

DELETE: This Entire Section.

208-3.3 METHODS OF PRODUCTION

DELETE: This Entire Section.

208-3.4 PLACING

DELETE: This Entire Section.

ADD: paragraph (D):

The porous granular embankment shall be placed in lifts no greater than one (1) foot thick or as directed by the Engineer. Rolling the top of this replacement material with a vibratory roller meeting the requirements of Section 1101 of the IDOT *Standard Specification for Road and Bridge Construction* should be sufficient to obtain the desired keying or interlock and necessary compaction. The Engineer shall verify that adequate keying has been obtained.

208-3.5 FINISHING AND COMPACTING

DELETE: Fifth sentence, first paragraph.

ADD:

The base shall be compacted to the satisfaction of the Engineer.

Capping aggregate will not be required when embankment meeting the requirements of Section 209 of the Standard Specifications or granular subbase is placed on top of the porous granular embankment. Capping aggregate (two (2) inch depth) meeting the requirements of Section 209 of the Standard Specifications will be required when embankment meeting the requirements of Section 152 of the Standard Specifications is placed on top of the porous granular embankment.

DELETE: Second paragraph.

DELETE: Second sentence, third paragraph and REPLACE with:

When the rolling develops irregularities that exceed 3/8 inch when tested using an acceptable method, the irregular surface shall be loosened, refilled with the same kind of material as that used in constructing the course, and rolled again as required.

METHOD OF MEASUREMENT

208-4.2

DELETE: This Entire Section.

ADD:

The quantity of Porous Granular Embankment shall be the number of cubic yards as measured by the Engineer at the specified thickness of the material placed. If required, the thickness of PGE measured for payment will include the thickness of the capping stone.

The porous granular embankment shall be used as shown and as field conditions warrant at the time of construction. No adjustment in unit price will be allowed for an increase or decrease in quantities.

The Contractor shall furnish approved duplicate load tickets upon which is recorded the net weight of the aggregates in each truck. The Contractor shall submit one (1) load ticket to the Resident Engineer, or his/her duly authorized representative, at the job site when the truck load is incorporated into the base.

BASIS OF PAYMENT

208-5.1

DELETE: Entire Section.

ADD:

Payment for porous granular embankment shall be paid for at the contract unit price per cubic yard, of which price shall be full compensation for the two (2) inch capping stone (if necessary), furnishing, spreading, compacting, watering and all incidentals related to equipment, labor and tools necessary to complete this work.

Payment will be made under:

ITEM AR208515	POROUS GRANULAR EMBANKMENT – PER CUBIC YARD.
ITEM AS208515	POROUS GRANULAR EMBANKMENT – PER CUBIC YARD.

ITEM 209 – CRUSHED AGGREGATE BASE COURSE

MATERIALS

209-2.3 GRADATION

DELETE: Gradation “C” in Table 1.

CONSTRUCTION METHODS

209-3.4 FINISHING AND COMPACTING

ADD:

The base shall be compacted to not less than 100% of maximum density at optimum moisture as determined by compaction control tests specified in Division VII for aircraft with gross weights of 60,000 lbs and more (Modified Proctor ASTM D1557).

The Contractor shall submit copies of all density test results for each lift to the Resident Engineer prior to acceptance testing.

DELETE: Second sentence, third paragraph and REPLACE with:

When the rolling develops irregularities that exceed 3/8 inch when tested using an acceptable method, the irregular surface shall be loosened, refilled with the same kind of material as that used in constructing the course, and rolled again as required.

BASIS OF PAYMENT

209-5.1

ADD:

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 AR209618	CRUSHED AGG. BASE COURSE – 18” – PER SQUARE YARD.
ITEM AS209618	CRUSHED AGG. BASE COURSE – 18” – PER SQUARE YARD.

ITEM 401610 – BITUMINOUS SURFACE COURSE – METHOD I

COMPOSITION

401-3.2 JOB MIX FORMULA (JMF)

REVISE: Table 1 to read as follows:

TABLE 1 MARSHALL DESIGN CRITERIA

	<u>Over 60,000 lb.</u>
Number of Blows	75
Stability (Min.)	1800
Flow	8 – 16
Percent Air Void	1.5 – 4.0
Voids Filled With Asphalt (%)	75 – 90

CONSTRUCTION METHODS

401-4.12 JOINTS

ADD the following as the sixth paragraph of this section:

If at any time during the surface course paving operation, it becomes necessary to end a paving lane at a location other than the new finished pavement edge because of ending a day's paving, machinery breakdown, etc., the lane end will be sawed back a sufficient distance to provide a smooth, neat appearing joint from which to resume paving. The sawed face will be painted with a tack coat and this work shall be considered incidental to Item 401, Bituminous Surface Course, and no additional compensation will be allowed.

401-4.14 SHAPING EDGES

Add the following as the second paragraph for this section:

All pavement edges, including the pavement ends, must be left in proper alignment, as shown on the plans. This may be accomplished by a trimming method, or, at the Contractor's option, by sawing after the paving has been completed. No additional compensation will be made if the sawing method is used.

BASIS OF PAYMENT

401-6.1

Payment will be made under:

ITEM AR401610 BITUMINOUS SURFACE COURSE – PER TON.
ITEM AS401610 BITUMINOUS SURFACE COURSE – PER TON.

ITEM 401650 –HMA PAVEMENT MILLING

CONSTRUCTION METHODS

401-3.1

ADD:

The existing pavement areas to be milled shall be done in such a manner as to prevent damage to the adjacent structures and pavement. All edges adjacent to existing pavements shall be saw-cut full depth prior to removal as directed by the Engineer.

The Contractor shall use caution and exercise care to avoid damage to the existing subgrade by the bituminous milling operations. Excessive construction traffic on the open subgrade areas shall be avoided in the removal areas and any damage or undercutting necessary to repair failed subgrade areas shall be repaired and the cost of the repairs shall be considered incidental the Bituminous Pavement Milling item.

BASIS OF PAYMENT

401-5.1

ADD:

Payment will be made under:

ITEM AR401650 BITUMINOUS PAVEMENT MILLING – PER SQUARE YARD.

ITEM 401900 – REMOVE HMA PAVEMENT

DESCRIPTION

401-1.1

ADD: To the second sentence.

The type of material to be removed along with approximate typical pavement section is shown on the plans. Pavement structure information was taken from airport records, data supplied by airport personnel and soil borings. The Contractor shall verify the type and thickness of material to be removed. **No extra compensation will be allowed for any variations in the pavement sections actually encountered.**

CONSTRUCTION METHODS

401-2.1

ADD:

Any damage to the pavement beyond the limits as shown on the plans shall be removed and replaced by the Contractor at his expense. These areas shall be saw cut to a uniform width.

METHOD OF MEASUREMENT

401-3.1

ADD:

If pavement or subgrade material is removed due to negligence on the part of the Contractor, the additional quantity of pavement removal and replacement of subgrade material will not be measured for payment.

BASIS OF PAYMENT

401-5.1

ADD:

Any grading and recompacting of existing granular base course to proper grade shall not be paid for separately but shall be considered incidental.

Any leveling aggregate required to obtain the proper subgrade elevation in areas of bituminous pavement removal shall be considered incidental to HMA pavement removal.

Payment will be made under:

ITEM AR401900 REMOVE BITUMINOUS PAVEMENT – PER SQUARE YARD.

ITEM 401910 – REMOVE AND REPLACE HMA PAVEMENT

DESCRIPTION

401-1.1

This item shall consist of bituminous pavement removal and replacement for patches as shown on the plans or as directed by the Engineer. The pavement shall be compacted in accordance with these specifications and shall conform to the lines, grades, thicknesses and typical sections as shown on the plans or as directed by the Resident Engineer.

Each course shall be constructed to the depth, section or elevation required to match the existing pavement structure and shall be rolled, finished and approved prior to the placement of the next course.

MATERIALS

401910-2.1 BITUMINOUS SURFACE COURSE

The bituminous surface course shall conform to the specifications of Section 401.

401910-2.2 BITUMINOUS BASE COURSE

The bituminous base course shall conform to the specifications of Section 403.

401910-2.3 BITUMINOUS PRIME COAT

The bituminous prime coat shall conform to the specifications of Section 602.

401910-2.4 BITUMINOUS TACK COAT

The bituminous tack coat shall conform to the specifications of Section 603.

CONSTRUCTION METHODS

401910-3.1

The types of materials to be removed consist of bituminous pavement (4"-10" +/- thick). Pavement structure information was taken from airport records, data supplied by airport personnel and pavement cores. The Contractor shall verify the type and thickness of material to be removed. **No extra compensation will be allowed for any variations in the pavement sections actually encountered.**

401910-3.2

The proposed pavement replacement section shall be as specified herein. Prime coat shall be applied to the aggregate base. Tack coat shall be applied between each lift of asphalt and on all vertical faces of the patch area.

401910-3.3

The existing pavement areas to be removed shall be done in such a manner as to prevent damage to the adjacent pavements. All edges adjacent to existing pavements shall be saw-cut full depth prior to removal, as directed by the Resident Engineer.

401910-3.4

Pavement replacement will be as detailed on the plans and constructed in accordance to the applicable Sections 401, 403, 602 & 603. The various materials required for pavement replacement shall be in accordance with the applicable portions of the Standard Specifications, Supplemental Specifications,

Recurring Special Provisions and these Special Provisions. Any damage to pavement beyond the limits as shown on the plans **shall be removed and replaced by the Contractor at his expense. These areas shall be saw cut to a uniform width.**

401910-3.5

Pavement Removal and Replacement shall be the removal of the existing pavements as shown on the plans and the replacement pavement shall match the existing pavement thickness. The replacement pavement shall consist of bituminous base course conforming to the specifications of Section 403, matching the existing pavement bituminous base course thickness, with 2" bituminous surface course conforming to the specifications of Section 401 placed as the final lift. The maximum lift thickness shall be 3". For full-depth patching, the existing aggregate base course shall be re-graded and compacted prior to the placement of the bituminous course. Cost of regarding and compacting to the existing base shall be incidental to the pavement removal and replacement.

METHOD OF MEASUREMENT

401910-4.1

The area of pavement removal and replacement shall be measured by the number of square yards, satisfactorily removed, replaced and disposed of as shown on the plans or as directed by the Resident Engineer.

401910-4.2

If additional pavement or subgrade material is removed due to negligence on the part of the Contractor, the additional quantity of pavement removal and replacement of subgrade material will not be measured for payment.

401910-4.3

The bituminous base and surface course, bituminous prime coat and bituminous tack coat will not be measured separately for payment, but will be considered incidental to REMOVE & REPLACE BIT. PAVEMENT, per square yard.

BASIS OF PAYMENT

401910-5.1

Payment for REMOVE & REPLACE HMA PAVEMENT shall be made at the contract unit price per square yard. This price shall include full compensation for sawing, removal, disposal, replacement of asphalt materials, compaction, prime coat, tack coat, including furnishing all materials, labor, tools, equipment and incidentals necessary to complete this item of work.

Any grading and recompacting of existing granular base course to proper grade shall not be paid for separately but shall be considered incidental to Remove & Replace HMA Pavement.

Payment will be made under:

ITEM AR401910 REMOVE & REPLACE BIT. PAVEMENT- PER SQUARE YARD.
ITEM AS401910 REMOVE & REPLACE BIT. PAVEMENT - PER SQUARE YARD.

ITEM 403610 – BITUMINOUS BASE COURSE – METHOD I

MATERIALS

403-3.2 JOB MIX FORMULA (JMF)

Revise Table 1 to read as follows:

TABLE 1 MARSHALL DESIGN CRITERIA

	<u>Over 60,000 lb.</u>
Number of Blows	75
Stability (Min.)	1800
Flow	8 – 16
Percent Air Void	1.5 – 4.0
Voids Filled With Asphalt (%)	75 – 90

CONSTRUCTION METHODS

403-4.11 JOINTS

Add the following paragraph to this section:

At any time during the base course paving operation it becomes necessary to end a paving lane at a location other than the proposed finished pavement edge because of ending a day's paving, machinery breakdown, etc.; the lane end will be sawed back a sufficient distance to provide a smooth, neat appearing joint from which to resume paving. The sawed face will be painted with a tack coat and this work shall be considered incidental to Item 403 Bituminous Base Course, and no additional compensation will be allowed.

403-4.12 SHAPING EDGES

ADD:

All pavement edges, including the pavement ends, must be left in proper alignment as shown on the plans. This may be accomplished by a trimming method or at the Contractor's option by sawing after the paving has been completed. No additional compensation will be made if the sawing method is used.

BASIS OF PAYMENT

403-6.1

Payment will be made under:

ITEM AR403610 BITUMINOUS BASE COURSE – PER TON.
ITEM AS403610 BITUMINOUS BASE COURSE – PER TON.

ITEM 501 – PORTLAND CEMENT CONCRETE PAVEMENT – METHOD II

MATERIALS

501-2.4 PREMOLDED JOINT FILLER

REWRITE the first sentence to read:

Premolded joint filler for expansion joints shall be a flexible foam expansion joint composed of isomeric polymers in a very small, closed cell structure and shall meet the requirements of ASTM D-1752, Sections 5.1 through 5.4, with the compression requirement modified to 10 psi (7.03 g/mm²) minimum and 25 psi (17.58 g/mm²) maximum. Expansion joint shall be Ceramar by W.R. Meadows, or approved equivalent.

501-2.6 STEEL REINFORCEMENT

DELETE: This Section.

ADD:

Reinforcement bars required at fillets and structures shall be deformed steel bar Grade 40 or 60 conforming to ASTM A-615 or ASTM A-616. Reinforcement bars designated as ASTM A-615 can be used for construction requiring bent bars. Reinforcement bars designated as ASTM A-616 can only be used if they are straight.

Reinforcement of odd-shaped panels, if required by the Engineer in the field, shall be panels of welded wire fabric of the size and dimensions shown in the plans conforming to ASTM A-185.

501-2.7 DOWEL AND TIE BARS

ADD:

All dowel bars shall be fastened firmly in position with an approved contraction joint dowel bar assembly prior to the start of paving operations or mechanically inserted per article 420.05 of the IDOT Standard Specifications for Road and Bridge Construction. Loose dowel bars will not be accepted.

Contraction Joint Assembly. The contraction joint assembly shall be an approved welded assembly possessing the rigidity to hold the dowels during the placing and compacting of the concrete to the degree of alignment specified hereinafter. The assembly shall have 4 parallel spacer bars and 2 subgrade-bearing members. An upright support at each end of dowel shall be welded to both the outside spacer bar and the bearing member at appropriate points to hold the dowels at the design height. The two inside spacer bars shall be spaced approximately 2 inches on each side of center.

The dowels shall be spaced as shown on the plans and alternate ends shall be welded to the outside spacer bars. One weld is permitted per bar. The end of each dowel not welded to a spacer bar shall be securely held in place by means of wire loops or metal tubes welded to the other outside spacer bar. Suitable ties shall be provided to hold the assembly in normal position during shipping, handling and installation. Wire sized shall not be less than W7 for the outside spacer bars, bearing members and upright supports and W5 wire for the 2 inside spacer bars. The tie wires used for securing the spacer bars shall not be less than W3 wires.

The assembly shall be provided with 2 continuous bearing plates of not less than 2-inch width and not less than 0.0359 inches thickness sheet steel. The bearing plates shall be attached by welding to the subgrade members or by suitable clips and shall be punched to receive the protruding ends of the upright supports and stakes. The stakes shall be driven parallel to and next to the upright supports. The subgrade bearing members may be omitted if suitable subgrade plates are shop welded to the assembly and provide equivalent rigidity. Bearing plates will not be required on stabilized subbase.

The welds in the assembly shall be securely made. A broken weld will be sufficient cause for rejection of the length or section of the assembly in which it occurs.

501-2.9 COVER MATERIAL FOR CURING

DELETE: (b), (c) and (d).

REVISE: (a) as follows:

Curing materials shall be liquid membrane-forming compounds conforming to the requirements of ASTM C-309, Type 2 (White Pigmented).

CONSTRUCTION METHODS

501-3.1 EQUIPMENT

501-3.1(e) FORMS

ADD:

All radii and tapers shall be formed with flexible forms.

501-3.2 FORM SETTING

ADD:

In the event that the pavement is constructed utilizing the formed paving technique, the paving lane forms supported by the subbase shall be anchored by steel pins. No formed areas shall be poured until the Engineer has checked and accepted the formwork for both alignment and elevation.

501-3.3 CONDITIONING OF UNDERLYING COURSE, SLIP-FORM CONSTRUCTION

DELETE: The first sentence.

ADD:

The existing grade along the outer edges of the new pavement shall be improved, if necessary, to support the paver without noticeable displacement. Any grading, compacting, or furnishing and installing materials shall be considered incidental to the unit prices for paving and no separate payment will be made.

All areas shall be constructed true to grade and acceptable to the Engineer prior to paving.

During placement of the concrete pavement, the subbase shall be maintained in a moist condition without accumulation of pools of water.

In the event that the underlying course has become over-saturated or unstable, paving operations shall stop until corrected unless otherwise approved by the Engineer.

501-3.4 CONDITIONING OF UNDERLYING COURSE, SIDE-FORM CONSTRUCTION

ADD:

All areas shall be constructed true to grade and acceptable to the Engineer prior to paving.

During placement of the concrete pavement, the subbase shall be maintained in a moist condition without accumulation of pools of water.

In the event that the underlying course has become over-saturated or unstable, paving operations shall stop until corrected unless otherwise approved by the Engineer.

501-3.6(a) PROPORTIONS

DELETE: This section.

501-3.7 FIELD TEST SPECIMENS

ADD:

The Contractor shall provide a system of marking and tracking samples taken in the field. The system shall be provided at the Preconstruction conference and shall, at a minimum, provide location of sample, lot number and curing and reporting of all test specimens manufactured by the Contractor's personnel.

The Contractor shall provide the forms or molds used to make compressive test cylinders or flexural beam specimens.

501-3.12 JOINTS

ADD: To the end of the paragraph (B) Installation:

Protection of previously sawed joints from slip-form operations shall be provided in the form of rubber mats or other means acceptable to the Engineer. The Contractor shall be required to place rubber mats (or other approved material) along the pavement edge prior to drilling dowel bar holes. In addition, any damage to the pavement caused by the drilling operation shall be repaired to the satisfaction of the Engineer at no additional cost to the contract.

501-3.14 SURFACE TEXTURE

ADD:

The surface of the pavement shall be finished with a burlap drag or other approved method acceptable to the Engineer.

501-3.17 CURING

(a) **Impervious Membrane Method** shall be utilized for this project.

ADD:

For slip-form paving, the approved curing media shall be applied uniformly to all surfaces of the pavement, including exposed edges. Membrane curing compounds shall be applied on all concrete surfaces from a suitable self-propelled mechanical application device, which bridges the fresh concrete, designed to provide a uniform application. Other curing systems will not be permitted.

Care shall be taken when this method of curing is used. Should conditions prevail such that curing material is being blown toward buildings or aircraft, appropriate measures shall be taken to eliminate the problems to the satisfaction of the Engineer. Two (2) separate applications, applied at least five minutes apart, each at the rate of not less than 1 gallon per 250 square feet will be required upon surfaces and edges of the concrete. Another application shall be necessary to cover any deficient areas less than 1 gallon per 125 square feet. The curing membrane shall be sprayed as soon as possible without damage to the pavement surface. Excessive delays in application of the membrane resulting in shrinkage cracking will be cause for rejection of the affected pavement necessitating removal

501-3.24 TEST SECTION FOR SLIP-FORM PAVERS

Prior to paving using the slip-form paving method, an area of the new pavements designated by the Engineer shall be paved to develop and demonstrate satisfactory procedures and concrete mix. The test section shall be located within the new pavement limits and all costs associated with the test section shall be incidental to this item.

501-3.25 GRADE CONTROL FOR SLIP-FORM PAVERS

Grade control on all free edges of slip-form pavement shall be from string lines. The use of transverse grade control from the paver will not be permitted.

501-3.26 PROTECTION OF PAVEMENT AGAINST RAIN

In order that the concrete may be properly protected against the effects of rain before the concrete is sufficiently hardened, the Contractor will be required to have available at all times materials for the protection of the edges and surface of the unhardened concrete. Such protective materials shall consist of standard metal forms or wood plank having a nominal thickness of the pavement at its edge for the protection of the pavement edges, and covering material such as curing paper or polyethylene sheeting material for the protection of the surface of the pavement. The metal forms, wood planks and curing paper shall be kept on trucks or towable vehicles, within reasonable hauling distance, at a site shown on the plans, or as designated by the Engineer. Or, as an alternate, rolled polyethylene sheeting of sufficient length and width may be used without the temporary side forms and if properly anchored, to cover the plastic concrete slab and exposed edge. The sheeting may be mounted on either the paver or a separate moveable bridge from which it can be unrolled without dragging over the plastic concrete surface. When rain appears imminent, all paving operations shall stop and all available personnel shall begin covering the surface of the unhardened concrete with the protective covering. All pavement damaged shall be removed and replaced at no additional cost to the contract.

501-3.27 REMOVAL OF DEFECTIVE WORK

At locations determined by the Engineer, the contractor shall be required to remove any pavement or sidewalk which is classified as defective. This includes any area where non-controlled (random) cracking occurs, unacceptable surface texturing or any other defect determined unacceptable by the Engineer. The pavement shall be removed to the nearest joint and replaced at the expense of the contractor. Prior to replacement, dowels and tie bars will be provided as directed by the Engineer.

BASIS OF PAYMENT

501-5.1 GENERAL

ADD:

Payment will be made under:

ITEM AR501510	10" PCC PAVEMENT – PER SQUARE YARD.
ITEM AS501510	10" PCC PAVEMENT – PER SQUARE YARD.
ITEM AR501530	PCC TEST BATCH – PER EACH.

ITEM 501900 – REMOVE PCC PAVEMENT

MATERIALS

501-2.1

ADD:

The types of materials to be removed consist of P.C.C. pavement (± 6 " average thickness). Pavement structure information was taken from airport records, data supplied by airport personnel and soil borings. The Contractor shall verify the type and thickness of materials to be removed. **No extra compensation will be allowed for any variations in the pavement sections actually encountered.**

CONSTRUCTION METHODS

501-3.1 GENERAL

ADD:

The existing pavement areas to be removed shall be done in such a manner as to prevent damage to the adjacent structures and pavement. All pavement and base material removed shall be disposed of off the airport property. All edges adjacent to existing pavements shall be saw cut full depth prior to removal as directed by the Engineer.

METHOD OF MEASUREMENT

501-4.1

ADD:

The area of pavement removal shall be measured by the number of square yards of pavement removed, and properly disposed, as shown on the plans or as directed by the Engineer.

If additional pavement or subgrade material is removed due to negligence of the Contractor, the additional quality of pavement removal and replacement will not be measured for payment.

BASIS OF PAYMENT

501-5.1

ADD:

Payment shall constitute full compensation for pavement removal, saw cutting and disposal of the removed materials, including all labor, tools, equipment and incidentals necessary to complete this item of work. Any work grading and recompacting of existing granular base course to proper grade shall not be paid for separately but shall be considered incidental to pavement removal.

Payment will be made under:

ITEM AR501900 REMOVE PCC PAVEMENT – PER SQUARE YARD.

ITEM 602 - BITUMINOUS PRIME COAT

CONSTRUCTION METHODS

602-3.3 APPLICATION OF BITUMINOUS MATERIAL

Add the following to the second paragraph:

Areas worn from hauling operations shall be re-primed at no additional cost to the Contract.

BASIS OF PAYMENT

602-5.1

ADD:

Payment will be made under:

ITEM AR602510	BITUMINOUS PRIME COAT – PER GALLON.
ITEM AS602510	BITUMINOUS PRIME COAT – PER GALLON.

ITEM 603 – BITUMINOUS TACK COAT

CONSTRUCTION METHODS

603-3.3 APPLICATION OF BITUMINOUS MATERIAL

Add the following to the second paragraph:

Areas worn from hauling operations shall be re-tacked at no additional cost to the Contract.

BASIS OF PAYMENT

603-5.1

ADD:

Payment will be made under:

ITEM AR603510	BITUMINOUS TACK COAT – PER GALLON.
ITEM AS603510	BITUMINOUS TACK COAT – PER GALLON.

ITEM 605 – SILICONE JOINT SEALING FILLER

CONSTRUCTION METHODS

605-3.4 PLACING JOINT SEALER

ADD:

The joint sealant shall be applied in a continuous operation to properly fill and seal the joint to the dimension shown in the plans. The sealant shall be applied such that it is slightly concave approximately ¼" to ½" below the pavement surface.

The sealant shall be applied in a continuous operation, pumped directly from the original container using an approved mechanical device that will force the sealant to the top of the backer rod and completely fill the joint without spilling the material on the surface of the pavement, and shall adhere to the concrete (Portland Cement Concrete and/or Bituminous Concrete as the case may be) and shall be free of voids. The gun grade sealant shall be tooled, forcing it against the joint faces with an appropriate tool, to produce a slightly concave surface approximately ¼" below the pavement surface. Tooling shall be accomplished before a skin forms on the surface, usually within 10 minutes of application. Sealant which does not bond to the concrete (Portland Cement Concrete and/or Bituminous Concrete as the case may be) surface of the joint walls, contains voids, or fails to set to a tack-free condition will be rejected and replaced by the Contractor at no additional cost. During the course of the work any batches that do not have good consistency for application shall be replaced. Excess sealant on the pavement surface shall be immediately removed.

Traffic shall be restricted from the pavement for a minimum of three hours or as specified by the joint seal manufacturer. In the event that the preformed longitudinal joint seal is cut to allow the installation of the continuous preformed transverse joint seal, the joint intersection shall be sealed to prevent the intrusion of surface water.

METHOD OF MEASUREMENT

605-4.1

DELETE: Entire Paragraph and REPLACE with:

The joint sawing and sealing for the proposed PCC Pavement shall be incidental to Item 501. No separate measurement for payment will be made for this item.

BASIS OF PAYMENT

605-5.1

DELETE: Entire Paragraph and REPLACE with:

Payment for joint sealing in the new PCC Pavement shall be incidental to Item 501.

ITEM 620000 – PAVEMENT MARKING

MATERIALS

620-2.2 PAINT

ADD:

All paint shall be waterborne.

Red and Green Paint shall conform to Federal Specification TT-P-1952D, Type 1.

“The paint shall contain no lead, chromium, cadmium or barium.”

METHOD OF MEASUREMENT

620-4.1

ADD:

The quantity of permanent markings to be paid for shall be the number of square feet of painting with the specified material **measured only once to apply two coats** in conformance with the specifications and accepted by the Engineer. Quantities will not be distinguished between red, white, green and yellow colors of paint.

BASIS OF PAYMENT

ADD:

Payment will be made under:

ITEM AR620520	PAVEMENT MARKING – WATERBORNE – PER SQUARE FOOT.
ITEM AS620520	PAVEMENT MARKING – WATERBORNE – PER SQUARE FOOT.
ITEM AR620525	PAVEMENT MARKING – BLACK BORDER – PER SQUARE FOOT.
ITEM AS620525	PAVEMENT MARKING – BLACK BORDER – PER SQUARE FOOT.
ITEM AR620900	PAVEMENT MARKING REMOVAL – PER SQUARE FOOT.
ITEM AS620900	PAVEMENT MARKING REMOVAL – PER SQUARE FOOT.

DIVISION III – FENCING

ITEM 162 – CHAIN LINK FENCE

MATERIALS

162-2.1 FABRIC

ADD:

The chain link fence shall be zinc coated steel fabric or aluminum coated steel fabric.

162-2.2 BARBED WIRE

DELETE: Entire Section. No barbed wire is required.

162-2.3 FENCE POSTS, POST TOPS AND EXTENSIONS, RAIN, GATES, BRACES, STRETCHER BARS AND CLIPS

ADD:

Line Posts. The line posts shall be Type A, Type B or roll formed per IDOT Standard 664001-02.

Terminal Posts (End, Corner, or Pull). The terminal post shall be Type A, Type B or roll formed per IDOT Standard 664001-02.

Gate Posts. The gate posts shall be Type A or Type B. Gate posts shall have a nominal O.D. of 4" and weigh at least 7.58 pounds per foot for Type A or 5.707 pounds per foot for Type B.

Top Rail. The fence shall have a continuous top rail for its full length consisting of Type A, Type B or roll formed horizontal braces per IDOT Standard 664001-02. The top rail shall be fitted with couplings or welded for connecting the lengths into a continuous run. The couplings shall not be less than 6 inches long, and shall allow for expansion and contraction of the rail.

Post Braces. Post braces shall be provided for each gate, corner, pull and end post and shall meet the requirements for top tails.

Post Tops. Post tops shall consist of ornamental tops provided with a hole suitable for through passage of the top rail. The post tops shall fit over the outside of the posts and shall exclude moisture from inside the posts.

Sliding Vehicular Gate The 20' vehicle gate shall be Aluminum cantilever slide gate, Page-Fortress or equal. The gate frame is to be supported from the track by two self-aligning, 4-wheel sealed lubricant ball bearing truck assemblies which match the track dimensions. The bottoms of the support posts shall be equipped with two pairs of rubber-tired guide wheels. A ground roller shall be installed to support the rear of the gate in the open position.

Gate frames shall be constructed of tubular members welded at all corners. Gates shall have truss rods of at least 5/16 inch minimum nominal diameter to prevent sag or twist. Gate frames as a minimum shall be made of 1.66 inch O.D. pipe weighing at least 1.81 lbs. per foot. Gate frames shall be painted to match the fence color.

Prior to painting, prepare surface by roughening the surface with machine or hand sanders. Prime Coat to be Series 66, 2-3 dry mils and top coat to be Series 73, 2-3 dry mils. Paint to be Tnemec or equal.

Gate fabric shall be the same type as used in the fence construction. The fabric shall be attached securely to the gate frame at intervals not exceeding 15 inches.

Gate hinges shall be of adequate strength for the gate with large bearing surfaces for clamping in position. The hinges shall not twist or turn under the action of the gate. The gates shall be capable of being opened and closed easily by one person.

All sliding vehicular gates shall have fully enclosed truck assembly glides, Page-Fortress Gate or equal.

162-2.5 WIRE TIES AND TENSION WIRE

ADD:

Coiled spring tension wire of at least 7-gauge O.D. galvanized steel wire shall be stretched along the bottom of the fence and securely fastened to the fabric with hog rings at 2 foot intervals. Fabric ties shall not be less than a 9-gauge galvanized steel wire.

162-2.10 SIGNS

ADD:

Sign panels shall be placed on all new fencing. The signs shall be placed at 100 foot intervals. The sign shall be red letters on white background with a red border and shall read 'RESTRICTED/AREA/KEEP OUT (three separate lines). The letters shall be a minimum of 2 ½" in height. The sign materials shall conform to Type 1 sign panels as specified in Section 720 of the IDOT "Standard Specifications for Road and Bridge Construction".

162-2.11 ELECTRIC GATE DRIVE SYSTEM

ADD:

Each Electrical Gate Drive System shall consist of the following:

- 20' sliding gate
- One gate driver
- One time delay
- Two loops (inside & outside safety loops and inside free exit loop)
- Two vehicle detectors
- One Goose Neck Stand with digital keypad.
- One digital keypad mounted on gate operator.
- Weather proof GFCI 120V receptacle
- 240V Disconnect
- 240V-120V Internal Transformer
- Concrete foundation for gate driver
- Concrete foundation for gooseneck stand
- Vehicle Barriers
- Electric service relocation, unitstrut frame, new panelboard and cable/conduit

GATE DRIVER

The proposed gate operator shall be designed for continuous operation and shall be capable for actuating roller type gates. Primary power for the operator shall be 240VAC single-phase. Motor shall be rated 1 HP at 240V, 1-Phase. The control circuit shall be 24VDC with pre-wired terminal strip for field connection of control devices. The gate operator should be capable of operating gates up to 1700 lbs. All electrical components shall be U.L. or C.S.A. listed. The motor shall be totally enclosed and of the high-starting torque, continuous-duty capable of 25 cycles per hour, industrial type, protected against overload by either

a thermal or current sensing overload device. Motor control shall be by means of an across-the-line, mechanically interlocked reversing contractor. Unit shall also have an enclosed on/off power switch for convenience in servicing. The gate travel shall be limited by drive rail mounted switches and came which read the time position of the gate. The proposed gate drive shall provide for instant reversal of the gate travel direction without reversal of the electric motor rotation. Driver shall also be capable of driving the gate regardless of snow, ice or moisture on drive rail. Driver shall have a built in manual release which shall disengage the drive wheels to allow manual sliding of the gate in case of power or mechanical failure. The operator housing shall be constructed of high quality steel. It shall be weather resistant and durable and shall be finished with corrosion resistant primer and two enamel top coats for maximum protection. Gate driver shall have internal 240V-120V transformer for 120V feed to GFCI receptacle. Transformer shall be 500VA minimum.

The operator shall be controlled by (2) Digital Key Pads, detector loops, (10) remote openers and any other items and detailed on the plans or specified herein.

It shall be the Contractors responsibility to verify compatibility of all equipment with the gate driver.

The proposed gate driver shall be Model XGSL with a travel speed of 55 feet/minute as manufactured by Link Controls or approved equal. As power connection may not be available at the time of completion, contractor shall provide a generator and display the operating characteristics of the gate operator.

Detector Loops. Two detector loops shall be installed in the pavement as shown on the plans. One detector loop shall be installed in the pavement inside of the gate to allow for the free exit of vehicles leaving the Airport and shall be used as a safety loop. The other detector loop shall be installed in the pavement outside of the gate as a safety device that stops the gate from closing while a vehicle is still in its path.

Local Manual Disconnect. The manual disconnect shall be mounted on unistrut as shown on the plans. Disconnect shall be Model DU221RB rated 30A, 2 Pole at 240VAC. Disconnect shall be as manufactured by Square D or equal.

Convenience Receptacle. Contractor shall mount duplex, waterproof, GFCI receptacle on electric gate operator as directed by Engineer. All necessary hardware shall be incidental.

Digital Keypad The proposed digital keypads shall be a Link Controls 55-LCK1000 or approved equal. One keypad shall be installed on the gooseneck stand and the second keypad shall be mounted at or near the operator as detailed on the plans or as recommended by the manufacturer. The proposed gooseneck stand shall be manufactured by Doorking or equal.

Electrical Wiring

Electrical wiring shall consist of all wiring necessary to properly operate the motorized gate as recommended by the manufacturer or as directed by and to the satisfaction of the Engineer.

Electric Service Relocation

Contractor shall relocate existing utility service to the proposed locations as detailed on the plans. Furnish and install new NEMA 3R, 200A panelboard with main circuit breaker and required branch breakers to feed new electric gate, existing electric gate and convenience receptacle. Existing conduit for electric service and feed for Hangar 4 gate shall be intercepted and extended to the new location. Cables shall be new, no underground splices will be allowed.

162-2.12 CERTIFICATION AND SHOP DRAWINGS

ADD:

The Contractor shall provide written certification that all materials meet specification requirements prior to start of the work. Shop drawings shall be submitted to the Engineer for review prior to the construction of fence and the motorized gate. Shop drawings shall include exact layout, wiring, operation manual, etc., of the motorized gate, truck glide assembly and all appurtenant items.

Shop drawings shall be submitted to the Engineer for approval prior to the construction of the fencing.

CONSTRUCTION METHODS

162-3.11 FENCE AND GATE REMOVAL

ADD:

The Contractor shall remove, without regard to height, the existing fence, rails, posts, foundations, miscellaneous hardware and gates as shown on the plans. The removed fence materials shall be disposed of off Airport property unless the Airport wishes to retain portions of the removed fence materials in which the Contractor shall haul salvageable fence pieces to the Airport maintenance yard. The resultant void from the removal of fence foundations or posts in turf areas shall be backfilled with compacted topsoil (hand tamped) and graded to match existing/proposed grades. Any ruts resulting from these operations shall be filled and graded smooth. No additional compensation will be made for the disposal of the non-salvageable fence materials or the filling of foundation/post holes or ruts.

162-3.13 DETECTOR LOOPS

ADD:

This item shall consist of installing new detector loop cable for use with the proposed digital keypad and gate assembly. The work shall include saw cutting the pavement for the loops and sealing same and provide all hook ups and testing to make the gate, keypad and loops work in unison and as detailed on the plans and specified herein.

METHOD OF MEASUREMENT

162-4.6

ADD:

Payment will be made at the contract unit price per each for electric gate removal. This price shall be full compensation for removing the gates, posts, hardware, foundations, drivers and chains and for filling of all post and foundation voids, for all transporting and disposal costs and for all labor, equipment, tools and all incidentals necessary to complete this item.

Sign panels shall not be paid for separately but shall be incidental to the proposed fence and gate.

162-4.7

ADD:

Electric Gate 20' shall be measured in units for each gate installed and accepted. The price shall be full compensation for electric gate drive, detector loops, card readers, foundation, utility relocation, panelboard, cable/conduit for service and feed to hangar 4 gate, temporary hangar 4 gate feed and any associated required to make it a complete and operational system.

BASIS OF PAYMENT

162-5.6

ADD:

Payment will be made at the contract unit price per each Electric Gate. This price shall be full compensation for installing gate, gate operator and foundation, detector loops, sealing, conduits, digital keypad and foundation, vehicle barriers, service relocation, panelboard, unitstrut frame, coordination with utility, disconnect and wiring, splices, all other materials for all preparation and installation of these materials, including connections, testing and for all labor equipment, tools and incidentals necessary to complete this item.

Sign panels shall not be paid for separately but shall be incidental to the proposed fence.

Payment will be made under:

ITEM AR162506	CLASS E FENCE 6' – PER LINEAR FOOT.
ITEM AR162720	ELECTRIC GATE – 20' – PER EACH.
ITEM AR162900	REMOVE CLASS E FENCE – PER LINEAR FOOT.
ITEM AR162905	REMOVE GATE – PER EACH.
ITEM AR162908	REMOVE ELECTRIC GATE – PER EACH.

DIVISION IV – DRAINAGE

ITEM 701 – PIPE FOR STORM SEWERS AND CULVERTS

MATERIALS

701-2.1 GENERAL

DELETE: Entire Section.

ADD:

Pipe shall be of the type and diameter indicated and installed at the locations shown on the plans. Pipe for storm sewers shall be concrete storm sewer pipe Class III and IV reinforced concrete conforming to ASTM C-76 (with joints meeting ASTM C-361) as called out in the plans.

PVC storm sewer shall be ASTM D3034, SDR 35.

CONSTRUCTION METHODS

701-3.2 CRADLES

REPLACE all references to "Item 208-2.3" with "Item 208-2.2" in this section.

701-3.3 LAYING AND INSTALLING PIPE

ADD:

When sewer installation requires tapping into an existing manhole, the hole shall be cored to allow for appropriate pipe sizing. The word shall be considered incidental to the installation of the pipe.

701-3.10 PIPE REMOVAL

ADD:

Pipe removal under proposed pavement areas shall be backfilled per Section 701-3.5. Openings due to pipe removals at existing drainage structures to remain shall be patched with brick and mortar as directed by the Engineer.

BASIS OF PAYMENT

701-5.1

ADD:

Payment will be made under:

ITEM AR701512	12" RCP, CLASS IV – PER LINEAR FOOT.
ITEM AR701518	18" RCP, CLASS IV – PER LINEAR FOOT.
ITEM AS701518	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 AR701900	REMOVE PIPE – PER LINEAR FOOT.
ITEM AS701900	REMOVE PIPE – PER LINEAR FOOT.

ITEM 705 – PIPE UNDERDRAINS FOR AIRPORTS

MATERIALS

705-2.13 FILTER FABRIC ENVELOPES FOR PERFORATED (PE) TUBING

ADD:

Materials

- (a) An IDOT-approved filter fabric sock may be submitted for approval by the Engineer.

705-2.15 UNDERDRAIN TRENCH ENVELOPE

ADD:

Geotechnical fabric for UD trench lining shall consist of woven or nonwoven filaments of polypropylene, polyester or polyethylene. Nonwoven fabric may be needle punched, heat-bonded, resin-bonded or combinations thereof. The filaments must be dimensionally stable (i.e., filaments must maintain their relative position with respect to each other) and resistant to delamination. The filaments must be free from any chemical treatment or coating that might significantly reduce porosity and permeability.

- (a) Physical Properties. The fabric shall comply with the following physical properties:
- | | | |
|---------------------------------------|---|-----------------------------------|
| Weight oz./sq. yd (g/m ²) | 3.5 (120) min. | ASTM D 3776 |
| Grab tensile strength lbs. (N) | 100 (450 ^{1/}) min. ^{1/} | ASTM D 4632 |
| Grab elongation @ break (%) | 20 min. 1/ | ASTM D 4632 |
| Equivalent opening size (EOS NO.) | | CW-02215-77
Corps of Engineers |
| Nonwoven | 30 (600 μm) min ^{2/} | |
| Woven | 50 (300 μm) min ^{2/} | |

- 1/ For woven fabric, test results shall be referenced to orientation with warp or fill, whichever the case may be. Both woven and nonwoven fabrics shall be tested wet.
2/ Manufacturer's certification of fabric to meet requirements.

CONSTRUCTION METHODS

705-3.3 LAYING AND INSTALLING PIPE

REVISE this section to read:

Corrugated polyethylene tubing underdrain shall be constructed as follows:

Trenches shall be excavated to the dimensions and grades required by the plans or as directed by the Engineer.

Trenches shall be lined with the underdrain trench envelope prior to placing any stone or underdrain. A 2-foot minimum lap of material is required where breaks in the fabric occur. Prior to installing the pipe, a 4" layer of porous backfill meeting the requirements of Paragraph 2.5 shall be constructed in the bottom of the trench.

Perforated, corrugated polyethylene tubing with filter fabric sock shall be seated in the porous backfill and held firmly in place, while porous backfill meeting the requirements of Paragraph 2.5 is placed to a height of 5 inches \pm 1 inch above the tubing. After the first lift is compacted to the satisfaction of the Engineer, the remainder of the backfill shall be placed and compacted. The underdrain trench envelope is then folded over the backfilled trench and weighted down with 1" to 2" of porous backfill.

Perforated, corrugated polyethylene tubing shall be laid true to grade and shall not be stretched more than 5% during installation.

The Contractor shall be required to establish control grade on the underdrain pipe to ensure the pipe is installed at the proper elevation. Contract grade elevations are to be provided to the resident engineer upon request.

705-3.6 BACKFILLING

ADD:

Backfilling material for voids left by underdrain removal under proposed pavement areas shall consist of IDOT CA-6 material compacted to 95% of the maximum density in accordance with ASTM D-698 (Standard Proctor). This cost shall be considered incidental to the associated pay item.

705-3.10 UNDERDRAIN REMOVAL

ADD:

This work shall consist of removal of existing underdrain pipes of various types and sizes and existing underdrain collection structures. Trenches resulting from underdrain removal shall be backfilled and compacted in accordance with Section 701-3.5 for areas under proposed pavements. Pipe and cleanouts shall be disposed of off airport property.

705-3.11 HANDLING AND STORAGE

ADD:

The subsurface drain shall be shipped in a black protective wrapping to eliminate potential fabric deterioration due to prolonged exposure to sunlight.

METHOD OF MEASUREMENT

705-4.1

ADD as the last sentence of the first paragraph:

The footage of underdrain removal to be paid for shall be the number of linear feet of underdrain satisfactorily removed and disposed of off airport property, measured along the centerline of the pipe from removal limits.

BASIS OF PAYMENT

705-5.1

ADD as the last sentence of the first paragraph:

The underdrain trench envelope shall be considered incidental to the underdrain and shall not be measured for payment purposes.

DELETE the fourth paragraph and REPLACE with:

The contract unit price per linear foot for underdrain pipe removal shall be full payment for furnishing all materials, and for all excavation, earth backfill, select granular backfill placement, compaction, and for all labor, equipment and tools necessary to complete this item to the satisfaction of the Engineer.

Payment will be made under:

ITEM AR705526	6" PERFORATED UNDERDRAIN W/ SOCK – PER LINEAR FOOT.
ITEM AS705526	6" PERFORATED UNDERDRAIN W/ SOCK – PER LINEAR FOOT.
ITEM AR705900	REMOVE UNDERDRAIN – PER LINEAR FOOT.
ITEM AS705900	REMOVE UNDERDRAIN – PER LINEAR FOOT.

ITEM 751 – MANHOLES, CATCH BASINS, INLETS & INSPECTION HOLES

DESCRIPTION

751-1.1

ADD:

Specifically, this item consists of the construction, removal, adjustment and reconstruction of manholes as shown on the plans or as directed by the Engineer.

Manholes with 4' and 5' diameters shall conform to IDOT Standard 602401-02 as modified. Manholes with 6' diameters shall conform to IDOT Standard 602406-03 as modified. Manholes shall also conform to IDOT Standard 602601-02 and 602701-02.

Adjustment of existing manhole shall be raising or lowering of an existing manhole rim to a height of no greater than 24". Reconstruction of an existing manhole shall be the raising or lowering of a rim grade of more than 24".

CONSTRUCTION METHODS

751-3.1 UNCLASSIFIED EXCAVATION

ADD:

(f) DEWATERING – The Contractor shall, at all times, provide and maintain in operation pumping and/or well point equipment for the complete dewatering of the excavation. No structure shall be permitted to be constructed in an excavated area in which any amount of water flows or is pooled.

751-3.11 MANHOLE ADJUSTMENT AND RECONSTRUCTION

ADD:

All adjustments are to be made with precast rings and/or barrel sections. All adjusting rings must be mortared together and must be mortared to the casting, as well as to the cone section or flat top of the structure. The maximum height of adjusting rings shall be eight (8) inches including existing rings for any inlet or manhole adjustment. If adjusting rings cannot obtain proposed grade as outlined above, then existing manholes shall be adjusted/reconstructed by adding or removing barrel sections, flat tops, eccentric cone sections and adjustment rings (or a combination thereof) to the manhole to be adjusted/reconstructed. The maximum number of rings in any structure is three. This may require the Contractor to remove existing rings and replace with larger rings.

The Contractor shall be responsible for field checking existing storm sewer, sanitary sewer, and electrical manhole configurations for the necessary adjustments.

BASIS OF PAYMENT

705-5.1

DELETE: This section.

ADD:

The accepted quantities for new manholes and inlets, adjusted and reconstructed manholes and removals shall be paid for at the contract unit price per each complete and in place. This price shall be full compensation for furnishing all materials and for all preparation, excavation, removal, backfilling and placing of the materials; furnishing and installation of such specials and connections to pipes and other structures may be required to complete the item as shown on the plans.

Payment for raising or lowering structures in height of less than 2 feet shall be paid for under "ADJUST MANHOLE" and in excess of 2 feet shall be paid for under "RECONSTRUCT MANHOLE" including all adjustments and reconstructs, and all structures to be adjusted or reconstructed shall be classified as manholes.

Payment will be made under:

ITEM AR751540	MANHOLE 4' – PER EACH.
ITEM AR751550	MANHOLE 5' – PER EACH.
ITEM AR751560	MANHOLE 6' – PER EACH.
ITEM AR751900	REMOVE INLET – PER EACH.
ITEM AR751943	ADJUST MANHOLE – PER EACH.
ITEM AR751983	RECONSTRUCT MANHOLE – PER EACH.

**ITEM 752 – CONCRETE CULVERTS, HEADWALLS AND MISCELLANEOUS
DRAINAGE STRUCTURES**

DESCRIPTION

752-1.1

ADD:

This item shall also consist of the removal of existing flared end sections as shown on the plans, or as directed by the Engineer.

MATERIALS

752-2.2 SLOPE BOX INLETS

ADD:

The slope box inlets shall conform to the details and dimensions on the plans and specified herein. The materials used for the grating shall comply with the applicable provisions and recommendations of the following ANSI MBG532 and ASTM A36. The grating shall be Heavy Duty Welded Steel 30-W-4 by Ohio Gratings, Inc. or approved equal. The bearing bars are to be 3" x 3/8" rectangular bars spaced 1-7/8" center-to-center. The cross bars are to be 1" x 1/4" and spaced at 4" centers and welded at right angles to bearing bars with one fillet at each bearing bar/cross bar intersection. The surface of the grating is to be plain. The grating shall be capable of carrying a 4,825 pound concentrated loading per foot of grating width. The grating shall have a galvanized finish.

METHOD OF MEASUREMENT

752-4.2

ADD:

The number of flared end sections removed shall be counted and measured by each unit removed and disposed of off of airport property.

BASIS OF PAYMENT

752-5.1

ADD:

The number of flared end sections removed will be paid for at the contract unit price per each, removed and disposed of off of airport property. This price shall be full compensation for furnishing all materials and for all preparation, excavation, backfilling and placing of materials and for all labor, equipment, tools and incidentals necessary to complete this work.

Payment will be made under:

ITEM AR752900	REMOVE END SECTION – PER EACH.
ITEM AR800026	SLOPE BOX INLET 12" – PER EACH.
ITEM AR800028	SLOPE BOX INLET 18" – PER EACH.

DIVISION V – TURFING

ITEM 901000 – SEEDING

MATERIALS

901-2.1 SEED

DELETE: The seed mix table.

ADD:

The seed mixture shall be as follows:

SEEDING CLASS 2 – ROADSIDE MIXTURE

<u>SEEDS</u>	<u>POUNDS PER ACRE</u>
Alta Fescue	100
Perennial Ryegrass	50
Creeping Red Fescue	40
<u>Red Top</u>	<u>10</u>
TOTAL	200

Alternate seed mixtures may be submitted to the Engineer for consideration.

901-2.2 LIME

DELETE: Entire Section

901-2.3 FERTILIZER

REVISE last paragraph to read as follows:

Fertilizer shall be applied at rates that supply the following amounts of nutrients per acre to the distributed areas of seeding:

<u>NUTRIENTS</u>	<u>POUNDS PER ACRE</u>
Nitrogen	90
Phosphorus (P205)	90
Potassium (K20)	<u>90</u>
TOTAL	270

CONSTRUCTION METHODS

901-3.2 DRY APPLICATION METHOD

DELETE: Entire Section

ADD:

- (a) Description: This work shall consist of furnishing, transporting and installing all seeds, plant or other materials required for:
1. Any remedial operations in conformance with the plans as specified in these special provisions or as directed by the Engineer.
- (b) General Requirements: The site will be in the following condition:

1. The grade will be shaped to the elevation shown on the plans.
 2. The topsoil will be free of clods, stones, roots, sticks, rivulets, gullies, crusting, caking and have a soil particle size of no larger than 1".
- (c) Seeding Equipment: Seeding equipment shall meet the following requirements. Any other equipment deemed necessary shall be subject to the approval of the Engineer.
1. Disc: Any disc new for the use shall be in a good state of repair with sound, unbroken blades. The disc shall be weighted if necessary to achieve the required tillage depth.
 2. No-Till Planters and Drills: Rangeland type drills and no-till planters shall be designed specifically for the seeding of native grasses and forbs with depth control bands set at 1/4" - 1/8".
 3. Seedbed Preparation: Seedbed preparation methods shall be approved by the Engineer. Cultivation shall be accomplished at such a time that seeding may occur immediately and without delay. No seeds shall be sown until the Seedbed has been approved by the Engineer.
- (d) Seeding Methods: The Contractor shall submit for approval by the Engineer and schedule for seeding and/or planting at least two weeks prior to the scheduled commencement of work. Broadcast seeders will not be allowed. Seeder will be a drill type planter. The Engineer shall examine and then approve any equipment to be used. Prior to starting work, all seeding equipment shall be calibrated and adjusted to sow seeds at the proper seeding rate. Equipment shall be operated in a manner to insure complete coverage of the entire area to be seeded. The Engineer shall be notified forty-eight (48) hours prior to beginning the seeding operations. Any gaps between areas of growth greater than eight square feet shall be resown and/or replanted.
1. No-till or Drill Method: Rolling of the Seedbed will not be required with the use of rangeland type grass drill or no-till planters.

901-3.3 WET APPLICATION METHOD

DELETE: Entire Section.

METHOD OF MEASUREMENT

901-4.1

ADD:

Areas of seeding not showing a uniform stand of grass in density and color shall not be approved for payment. Such areas shall be reseeded to the Owner's satisfaction at the Contractor's cost.

BASIS OF PAYMENT

901-5.1

ADD:

Payment will be made under:

ITEM AR901510	SEEDING – PER ACRE.
ITEM AS901510	SEEDING – PER ACRE.

ITEM 908 – MULCHING

DESCRIPTION

908-2.1 MULCH MATERIAL

REVISE: First sentence to read:

Material used for mulching shall be (g) Manufactured Hydraulic Mulch.

BASIS OF PAYMENT

908-5.1

ADD:

Payment will be made under:

ITEM AR908510 MULCHING – PER ACRE.

ITEM AS908510 MULCHING – PER ACRE.

DIVISION VI - LIGHTING INSTALLATION

ITEM 108 - INSTALLATION OF UNDERGROUND CABLE FOR AIRPORTS

DESCRIPTION

108-1.1

DELETE: The 3rd sentence of the first paragraph.

ADD:

This item of work shall consist of the underground installation of , FAA control cables, counterpoise, 600V and 5000V cables in PVC conduit or duct bank at the locations shown on the plans and in accordance with these specifications. When crossing existing utilities or as required by the Engineer, the Contractor shall hand dig the trenches for the proposed cables.

Contractor shall color code all airfield lighting cables in ducts, manholes and handholes as directed by the Engineer. All costs of color-coding shall be considered incidental to the contract unit price for the associated item.

EQUIPMENT AND MATERIALS

108-2.2 GENERAL

ADD:

Airfield Lighting cable under this item shall be:

- L-824, 1/C #8, 5,000 V, Type C, in duct bank and conduit
- 1/C # 4 XLP-USE, 600V cable in duct bank and conduit
- 1/C # 8 GROUND, 600V cable in duct bank and conduit
- 1-6 PAIR # 19 FAA control cable with 1/0 bare copper counterpoise in duct bank and conduit
- 1-50 PAIR # 19 FAA control cable with 1/0 bare copper counterpoise in duct bank and conduit

108-2.4 CABLE CONNECTIONS

DELETE: The first and second sentence of paragraph **D. The Taped or Heat-Shrunked Splice.**

ADD:

To further reduce the possibility of water (moisture) entrance into the connector between the cable and the field attached connector, heat shrinkable tubing with interior adhesive shall be applied over all cable connections.

The heat shrinkable tubing shall cover the entire L-823 connector. All connections shall be at manholes or light bases. No direct burial splicing will be allowed.

No splices will be allowed in the new cable unless at the end of a spool of cable. Splices due to termination points shall be done in splice cans, manholes, handholes and light cans. Any repairs necessary to cable damaged during installation shall be done at the Contractor's expense and shall consist of replacing the entire length of damaged cable between pull points.

In line connections for existing cables to be spliced or those which are cut during construction shall be repaired with the cast splice kit. The Contractor shall have a minimum of five (5) splice kits on the jobsite at all times for emergency repairs. Splice markers shall be installed over each splice in cables not to be abandoned. Cast splice kits shall be as specified in paragraph (a). All field splices shall be covered with a flexible polyolefin heat-shrinkable sleeve.

108-2.7 HEAT SHRINK TUBING

ADD:

Heat shrink tubing for 600V, general power distribution cable tap splice (T-splice) shall be Raychem CRSM-CT or equal.

108-2.14 FAA CONTROL CABLE

ADD:

FAA control cable shall be 6 pair and 50 pair # 19 AWG, gel-filled with overall shielding as manufactured by Belden and as approved by FAA, in locations as indicated on the plan sheets. The cable insulation shall be PVC-polyvinyl chloride, suitable for underground installation in conduit and the insulation shall have the nominal wall thickness of 0.25 inches. The nominal conductor resistance at 20 degrees F shall not exceed 6.8 ohms per 1,000 feet. All FAA control cables shall be installed with 1/0 bare copper counterpoise conductor connected to 3/4" dia. X 10' long ground rod at every 90' (max) to be in compliance with FAA-STD-019E.

CONSTRUCTION METHODS

108-3.1 GENERAL

ADD:

Any damages to existing utilities as a result of the Contractor's operations shall be repaired immediately.

108-3.2 INSTALLATION IN CONDUIT

ADD:

The Contractor shall install 2" PVC conduit in trench between lights.

The Contractor shall coordinate the cable trenching, placement and backfilling operations so that the cable will not be damaged by (a) the use of mechanized road building equipment in the area where underground cable is or will be in existence, and (b) stone or other foreign materials falling into the trench or mixing into the trench backfill materials.

108-3.3 TRENCHING

REVISE 24" to 30" in the last sentence of the second paragraph.

ADD:

The installation of PVC conduit using the plowing in method shall not be acceptable.

108-3.5 SPLICING

DELETE: The first and second paragraph of Section **D. Taped or Heat-Shrunked Splices.**

ADD:

Contractor shall use cast splicing kits as described in Article 108-2.4 for any splices made inside the electric handholes. The cast splicing kit shall be series 82-B1 Scotch cast or 90-B1 Scotch cast as manufactured by 3M or equal. Contractor shall provide shop drawing for splicing method and cast splicing kit. Contractor shall also leave minimum 30" of slack on each side of the cable being spliced.

Splicing of FAA cables shall be tested and approved by FAA.

108-3.10 LOCATING OF EXISTING CABLES

ADD:

Contact Personnel are listed in Section 50-17 herein.

108-3.11 TERMINATIONS AND CONNECTIONS

REVISE: In paragraph 3, the number of splice kits required on site from two (2) to five (5).

ADD:

If, due to the length of spool ordered by the Contractor, it is necessary to install additional handholes, the Contractor shall supply same at no additional cost to the project. The handhole shall be the size as directed by the Engineer.

METHOD OF MEASUREMENT

108-4.1

DELETE: This Section.

108-4.2

REVISE: This Section to read as follows.

The length of 1/C #8 5KV UG cable installed in the existing duct bank /conduit or cable installed in the proposed PVC conduit to be paid for, shall be the number of lineal feet measured in place, completed and ready for operation, and accepted as satisfactory, and no extra quantity will be allotted for any vertical distances or the required cable slack, as stated under Item 108-3.3, in the Standard Specifications. There will be a separate measurement made for each cable installed in conduit.

The cost of routing the cable through duct, splicing, marking, trenching, backfilling, and all connections shall be included in the unit price bid for the cable.

The cost of removing cable as called out in the plans shall not be measured separately for payment, but shall be considered incidental to the unit bid price for the cable.

The length of FAA control cable installed in the existing or proposed conduit to be paid for, shall be the number of lineal feet measured in place, completed and ready for operation, and accepted as satisfactory, and no extra quantity will be allotted for any vertical distances or the required cable slack, as stated under Item 108-3.3, in the Standard Specifications. 1/0 bare copper counterpoise cable and ground rods will not be measured for payment but will be considered incidental to the control cable.

The length of 1/C #4 XLP USE and 1/C # 8 Ground (600V) cable installed in the existing or proposed conduit to be paid for, shall be the number of lineal feet measured in place, completed and ready for operation, and accepted as satisfactory, and no extra quantity will be allotted for any vertical distances or the required cable slack, as stated under Item 108-3.3, in the Standard Specifications.

The length of 600V cable and control cables for electric gate service relocation and new gate installation will not be measured for payment but will be considered incidental to the new electric gate pay item.

BASIS OF PAYMENT

108-5.1

REVISE: This Section to read as follows:

The cables measured under Item 108-4.2 shall be paid for under this item. These prices shall be full compensation for furnishing all materials and for all preparation and installation of these materials, trenching, backfilling and compacting trenches, all connections, line marking tape and installation, and for all labor, equipment, tools and incidentals necessary to complete these items. The line marking tape installed shall be considered incidental to the work and shall not be paid for separately.

Payment will be made under:

ITEM AR108084	1/C #4 XLP-USE – PER LINEAR FOOT.
ITEM AR108108	1/C #8 5KV UG CABLE – PER LINEAR FOOT.
ITEM AS108108	1/C #8 5KV UG CABLE – PER LINEAR FOOT.
ITEM AR108758	1/C #8 GROUND – PER LINEAR FOOT.
ITEM AR108806	6 PAIR CONTROL CABLE – PER LINEAR FOOT.
ITEM AR108850	50 PAIR CONTROL CABLE – PER LINEAR FOOT.

ITEM 109 – INSTALLATION OF AIRPORT TRANSFORMERS AND VAULT EQUIPMENT

DESCRIPTION

109-1.1

DELETE: This Section.

ADD:

The Contractor shall furnish all equipment, materials and labor necessary to furnish the proposed electrical vault equipment shown in the plans or as specified herein.

This item shall include the proposed 30 KW regulator, circuit breakers and 100A disconnect switch required to provide a complete and operational system. Any parts and labor required by the Contractor to make these changes shall be incidental to this item.

This work shall include all conduits required for cabling used in connection of new equipment at the locations and to the dimensions shown on the Plans or approved by the Engineer.

Work shall include any painting of equipment and conduit, the marking and labeling of equipment and the labeling or tagging of wires, testing of the installation, and the furnishing of all incidentals necessary to place it in operating condition as a complete unit to the satisfaction of the Engineer.

This item shall also consist of furnishing and installing vault equipment, complete and ready to operate. Included under the item INSTALLATION OF AIRPORT TRANSFORMER VAULT AND VAULT EQUIPMENT are the following major components of work:

Installation of one (1) new 30 KW, 3-step L-828 regulator.

Installation of 480V circuit breaker.

Installation of the 480V disconnect switch.

Removal and relocation of an existing regulator.

Disconnection and reconnection of control wires.

All cable/conduits shown on the plans.

Modifications of existing L-821 control panel as shown on the plans.

EQUIPMENT AND MATERIALS

109-2.18 FAA APPROVED EQUIPMENT

ADD:

The following FAA approved equipment is to be used on this project:

A) L-828, Dry Type, Constant Current Regulator, 30KW, 480V, single phase primary, 6.6 AMP maximum, 3 Step Brightness secondary.

All new regulators shall conform to the following:

Regulator output current shall be adjustable without interruption. Regulator shall be a self-contained unit of the static type with no moving parts requiring attention or service. Internal input fusing shall be provided. Positive open circuit and over current protection in the event of a fault shall be provided. Input and output lightning arresters shall be included. Power factor capacitor shall be provided and provide a power factor of 90% or better, at full load and maximum brightness. All controls, including brightness relays, shall be in the air-filled control cabinet. Local control voltage shall be internally generated and shall be 120 VAC. Regulator shall also permit remote control from an external 120 VAC source. Regulator shall be equipped with internally mounted remote control operated primary contactor with 120 VAC operating coil. Regulators shall be Ferro Resonant (FR) controlled type. Silicon Controlled Rectifier (SCR) type regulators will not be acceptable.

Regulators shall also have a built-in ammeter to display current levels at 10-30-100% brightness steps for 3 step Regulators and 2.8, 3.4, 4.1, 5.2, and 6.6Amp nominal output for 5 step Regulator.

Regulators shall be as manufactured by ADB, or equal to match the existing regulators and spare parts in stock at the Airport.

109-2.19 OTHER ELECTRICAL EQUIPMENT

ADD:

1.

109-2.20 WIRE

DELETE: paragraph (b) 2 and (b) 3.

ADD: paragraph (b) 2:

5,000 volts maximum - Wire shall be #8 AWG or larger, and conform to FAA L824 Type C specifications and ICEA S-66-524. Insulation shall be cross-linked polyethylene (XLP) with overall outer jacket of polyvinyl chloride (PVC). All cable shall utilize stranded, bare copper conductor.

109-2.22 ELECTRICAL EQUIPMENT TO BE INSTALLED INSIDE THE VAULT

ADD:

Contractor shall install all equipment necessary for a complete and operational airfield lighting vault including conduits and cabling inside the proposed vault. The equipment shall include, but not limit to the following:

(A) 480VAC Circuit Breakers

Contractor shall install one 100A, 2 pole 480VAC circuit breaker in existing High Voltage Power Distribution Panel. Breaker shall be Square D or equal.

(B) Safety Switch

Contractor shall furnish and install proposed 100A, 480V, 2 pole safety switch for the proposed 30KW regulator as indicated on the plan and specified herein. The proposed safety switch shall be of blade type and non fusible. The current carrying parts shall be plated for cool operations and corrosion resistance. The safety switch shall be of quick-make, quick-break type operation with an operating handle clearly indicating the "ON" and "OFF" positions. The enclosure shall be rated NEMA 1 with dual cover interlock to prevent accidental opening of the front cover while the handle in the "ON" position. The proposed enclosure shall have provision for pad locking. The proposed safety switch shall be U.L. listed and comply

with NEMA specification KS1 1990 for heavy duty application with 20,000 RMS symmetrical amperes available fault current rating. The proposed safety switch shall have a gray baked enamel finish, electro deposited on cleaned, phosphatized steel. The proposed safety switch shall be Class 3110, HU series as manufactured by Square D or equal.

CONSTRUCTION METHODS

109-3.10 GENERAL

ADD:

Contractor shall install the proposed 30KW regulator for the Taxiway ABEFY circuit while providing the necessary control wires.

All conduits and junction boxes shall be painted to match existing conditions. The cost of painting shall be incidental to Item AR109210.

The equipment installation and mounting shall comply with the requirement of the National Electrical Code and local code agency having jurisdiction.

109-3.15 WIRING AND CONNECTIONS

ADD:

Plastic wire duct shall be used for routing wires inside control panels. After wiring is completed, covers are to be installed on all plastic duct.

109-3.16 MARKING AND LABELING

ADD:

All new or relocated equipment, control wires, etc. installed under this contract shall be tagged, marked, or labeled as required.

109-3.18 TESTING

ADD:

All testing shall be performed in the presence of the Engineer and an Airport Representative.

109-3.19 OPERATION AND MAINTENANCE MANUALS

ADD:

The Contractor shall supply four (4) copies of Operational and Maintenance Manuals for the Constant Current Regulator.

METHOD OF MEASUREMENT

109-4.1, 4.2, 4.3

DELETE: These Sections.

109-4.4

ADD:

The quantity of materials and work to be paid for under this item shall be as follows:

- 1) The installation of the proposed 30KW regulator shall include the connection of the new regulator for the Taxiway ABIFY circuit, the installation of the proposed circuit breaker, conduits, wiring, proposed L-821 modifications, disconnect switch and removal/relocation of existing regulator for a complete installation of the system as detailed on the plans and as directed.

BASIS OF PAYMENT

108-5.1

REVISE: This Section to read as follows:

Payment will be at the contract unit price per each as described below, complete and accepted for each item. This price shall be compensation in full for all preparation, assembly, removal, materials, labor, equipment, tools and incidentals necessary to complete the item as specified herein or as directed by the Engineer.

Payment will be made under:

ITEM AR109361 30 KW REGULATOR, STYLE 1 – PER EACH.

ITEM 110 – INSTALLATION OF AIRPORT UNDERGROUND ELECTRICAL DUCT

DESCRIPTION

110-1.1

ADD:

This item shall consist of the construction of new PVC conduit direct bury, direct burial steel duct, directional bore steel duct, split duct, concrete encased duct banks including appropriate duct markers at the locations shown in the plans or as directed by the Engineer.

Contractor shall provide pull wire for each conduit and cap the unused conduits for future use.

EQUIPMENT AND MATERIALS

110-2.9 DUCT MARKER

ADD:

The Contractor shall provide duct markers for each new or existing duct being used as detailed in the plans. The cost of installation of the duct markers shall be incidental to the contract.

Brass duct markers shall only be used at bituminous pavement locations as shown on the plans. At concrete pavement locations, the Contractor shall stamp the concrete as directed by the Engineer.

Contractor shall provide duct markers for each proposed concrete encased duct or existing duct being used as detailed in the plans. Contractor shall also replace all existing duct markers within the project concrete overlay and bituminous overlay limits as detailed in the plans. The cost of replacement and installation of the duct markers shall be incidental to the contract.

110-2.10 SPLIT DUCT

ADD:

The Contractor shall install 1-4" PVC concrete encased split duct to accommodate existing airfield cables. Split duct shall be encased in a minimum of 3" of concrete surrounding the 4" PVC split duct. The cost of routing existing cables through the new split ducts and the cost of concrete encasement shall be incidental to the price of split duct.

110-2.11 ELECTRICAL HANDHOLES

ADD:

The Contractor shall install handholes at locations specified and as detailed in the plans.

110-2.12 AGGREGATE BACKFILL

ADD:

Crushed stone material conforming to the requirements of Item 208 gradation shall be used for backfill at the pavement crossings for the proposed duct installation. The granular material shall be compacted to not less than 95% of Modified Proctor laboratory density. In lieu of Aggregate, the contractor may substitute Controlled low strength material backfill for those areas requiring aggregate backfill. This substitution must be approved in writing prior to construction and must be completed at no additional cost to the contract. The CLSM material will be considered incidental to the associated duct item.

CONSTRUCTION METHODS

110-3.5 BACKFILL

ADD:

Crushed Stone conforming to the requirements of Item 208 gradation shall be used for backfill at the pavement crossings for the new duct installation. The granular material shall be compacted to not less than 95% of Modified Proctor laboratory density.

110-3.8 REMOVALS

ADD:

The existing manholes, handholes and duct called out for removal shall be completely removed and disposed of off Airport property by the contractor. Where the removals fall within limits of existing, proposed or future pavement the void shall be backfilled with granular backfill material and compacted according to Section 701-3.5. At locations outside of pavement areas the void shall be backfilled and compacted according to Section 152. Backfilling shall be incidental to the removal.

METHOD OF MEASUREMENT

110-4.1

DELETE: This Section.

ADD:

The quantity of concrete encased duct, split duct, direct buried PVC and GRS conduit, jacked GRS conduit and duct removal to be paid for shall be the number of lineal feet installed, measured in place, completed, and accepted. No separate measurement will be made for individual ducts in a multi-way duct system. The quantity shall also include trench and backfill.

The quantity for direct buried conduit associated with new electric gate, service relocation for new electric gate and power feed to existing Hangar 4 gate will not be measured for payment, it shall be considered incidental to the pay item for new electric gate.

110-4.2

DELETE: This Section.

ADD:

The quantity of electrical manholes and handholes to be paid for shall be the number of each installed in place and/or removed, completed and accepted by the Engineer.

BASIS OF PAYMENT

110-5.1

DELETE: Entire Section.

ADD:

Payment will be made at the contract unit price per lineal foot for each type and size of concrete encased duct bank, PVC, GRS conduit and split duct completed and accepted. Payment will be made at the contract unit price per lineal foot for duct removal and shall be full compensation for removal, disposal, backfill and restoration. Payment will be made at the contract unit price per each electrical manhole, electrical handhole, completed and accepted. Payment will be made at the contract unit price per each electrical manhole and handhole completely removed, and accepted. These prices shall be full compensation for furnishing all materials and for all preparation, assembly, aggregate backfill, backfill, compaction, sawcutting and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete these items.

Topsoiling and seeding of the duct and conduit trench shall not be paid for separately but shall be considered incidental to the associated duct.

Payment will be made under:

ITEM AR110202	2" PVC DUCT, DIRECT BURY – PER LINEAR FOOT.
ITEM AS110202	2" PVC DUCT, DIRECT BURY – PER LINEAR FOOT.
ITEM AR110204	4" PVC DUCT, DIRECT BURY – PER LINEAR FOOT.
ITEM AR110212	2" STEEL DUCT, DIRECT BURY – PER LINEAR FOOT.
ITEM AS110212	2" STEEL DUCT, DIRECT BURY – PER LINEAR FOOT.
ITEM AR110312	2" STEEL DUCT, JACKED – PER LINEAR FOOT.
ITEM AR110502	2-WAY CONCRETE ENCASED DUCT – PER LINEAR FOOT.
ITEM AR110504	4-WAY CONCRETE ENCASED DUCT – PER LINEAR FOOT.
ITEM AS110504	4-WAY CONCRETE ENCASED DUCT – PER LINEAR FOOT.
ITEM AR110550	SPLIT DUCT – PER LINEAR FOOT.
ITEM AR110610	ELECTRICAL HANDHOLE – PER EACH.
ITEM AS110610	ELECTRICAL HANDHOLE – PER EACH.
ITEM AR110900	REMOVE DUCT – PER LINEAR FOOT.
ITEM AR110906	REMOVE ELECTRICAL HANDHOLE – PER EACH.
ITEM AR110907	REMOVE ELECTRICAL MANHOLE – PER EACH.

ITEM 125 - INSTALLATION OF AIRPORT LIGHTING SYSTEMS

DESCRIPTION

125-1.1

ADD:

Airfield lighting improvements and modifications shall include:

- Installation of new medium intensity base mounted taxiway lights.
- Installation of a new flush mounted high intensity quartz runway edge light.
- Installation of new taxiway guidance signs.
- Installation of new splice cans.
- Relocated existing a taxi guidance sign.
- Removal of existing elevated retroreflective markers.
- Removal of existing stake mounted runway lights.
- Removal of existing medium intensity base mounted taxiway lights.
- Removal of existing taxiway guidance signs.
- Removal of existing splice cans.
- Adjusting existing base mounted/stake mounted lights.
- Adjusting existing Runway End Indicator Light (REIL).

125-1.9 INSPECTION, TEST AND WARRANTY

ADD:

VISUAL EXAMINATION

The most important of all inspection and test procedures is thorough visual inspections. Visual inspections shall be made frequently during installation, at completion of installation, and before energizing the circuits. A careful visual inspection can reveal defects that can be corrected prior to acceptance tests and energization. Serious damage may occur if defects are subjected to electrical tests or energization. Visual inspections shall include appraisal of:

- (a) Correctness of external connections.
- (b) Good work performance.
- (c) Cleanliness.
- (d) Safety hazards.
- (e) Specific requirements listed herein for individual items. While all equipment manufactured under specifications pass strict factory tests prior to shipment, it shall be inspected for shipping damage immediately upon receipt.

ELECTRICAL TESTS ON SERIES LIGHTING CIRCUITS

Before modifying any series circuit, verify the performance of the existing circuit by checking the supply voltage to the regulator and measuring the output current from the regulator on all brightness steps under existing load.

- (a) For home run segments that will not be replaced, disconnect at S-1 cutout and at first fixture and verify cable continuity.

- (b) Check cable connections and perform electrical tests on cable as specified in Section 108.

LIGHTING FIXTURES

An inspection shall be made to determine that the color, quantity, and locations of light are in accordance with the installation drawings. Each light shall be inspected to determine that it is operable, glass is not broken or cracked, correct lamps are installed, and it has been properly leveled and aimed, in accordance with technical orders and manufacturer's instructions, where applicable.

CONSTANT CURRENT REGULATORS

The supply voltage and input and output current shall be checked at the regulator to see that they operate properly and that regulators are not overloaded due to shorts to ground or excessive leakage.

- (a) Visual Examination. Each constant current regulator shall be visually examined to insure that porcelain bushings are not cracked, no shipping damage has occurred, internal and external connections are correct, switches and relays operate freely and are not tied or blocked, fuses (if required) are correct, and that the oil level of oil-filled regulators is correct. Relay panel covers only shall be removed for this examination; it is not necessary to open the main tank of oil-filled regulators. The instructions on the plates attached to the regulator shall be accomplished. After examination and tests are completed, replace all covers tightly.
- (b) Electric Tests. The supply voltage and input tap shall be checked to see that they correspond. With the load disconnected, the regulator shall be energized and the open circuit protector observed to see that it de-energizes the regulator within 2 or 3 seconds.

FINAL ACCEPTANCE TESTS

After components and circuits have been inspected, as specified in the preceding paragraphs, the entire system shall be inspected and tested as follows:

- (a) Operate each switch for the modified lighting circuits from the remote control position (ATCT) so that each switch position is reached at least twice. During this process, all lights and vault equipment shall be observed to determine that each switch properly controls the corresponding circuit.
- (b) Repeat the above test using the local control switches on the regulators.
- (c) Each lighting circuit shall be tested by operating it continuously at maximum brightness for at least 6 hours. Visual inspection shall be made at the beginning and end of this test to determine that the correct numbers of lights are operating at full brightness. Dimming of some or all of the lights in a circuit is an indication of grounded cables.
- (d) In addition to the above, all equipment shall be subjected to any and all performance tests specified in the manufacturer's instructions.
- (e) Photometric testing. The Airport may, upon completion of the lighting installation and as part of acceptance testing, perform field photometric testing of each new light fixture to assure the installed runway lights meet the photometric requirements specified by FAA. The test results will be recorded and furnished to the Contractor, with any noted deficiencies. The Contractor is responsible for correcting any deficiencies at no additional cost to the Owner. The Contractor shall furnish spares in support of this testing, to include 15% lamps and 5% lenses for the new in-pavement lights. Spares not used shall be provided to the Airport upon completion of the work

125-1.10 GUARANTEE

All equipment furnished and work performed under the Contract Documents shall be guaranteed against defects in materials or workmanship for a period of one (1) year from the date of final acceptance. This guarantee does not replace any responsibility for errors or omissions as set forth in state law. Any long-term warranties issued or offered by manufacturers for items of equipment shall be turned over to the Airport.

125-1.11

Any failure of equipment or work due to defects in materials or workmanship shall be corrected by the Contractor at no cost to the Airport.

125-1.12

The Contractor shall ascertain that all lighting system components furnished by him (including FAA approved equipment) are compatible in all respects with each other and the remainder of the new/existing system. Any incompatible components furnished by the Contractor shall be replaced by him at no additional cost to the Airport with a similar unit approved by the Project Engineer (different model or manufacturer) that is compatible with the remainder of the airport lighting system.

125-1.13

The Contractor-installed equipment (including FAA approved) shall not generate any electromagnetic interference in the existing and/or new communications, weather and air traffic control equipment. Any equipment generating such interferences shall be replaced by the Contractor at no additional cost with the equipment meeting applicable specifications and not generating any interference.

EQUIPMENT AND MATERIALS

125-2.1 GENERAL

ADD:

All new equipment shall be listed in Advisory Circular 150/5345-1(Latest Edition) - Approved Airport Lighting Equipment.

Before any electrical materials are ordered, the Contractor shall furnish the Engineer a list of the materials and equipment to be incorporated in the work. This list shall include the name of each item, the Federal Aviation Administration specification number, the manufacturer's name, the manufacturer's catalog number, and the size, type and/or rating of each item, catalog cuts, test data, fuse curves, outline drawings, nameplate drawings, wiring diagrams, and schematic diagrams.

After the list has been approved by the Engineer and prior to installation, the Contractor shall assemble the equipment and materials at a single location, on-site, and request inspection by the Engineer. None of the equipment or materials, other than duct or conduit, may be used on the job until such as inspection has been completed.

All test results from required tests shall be submitted to the Engineer for review and approval.

Airport lighting equipment and materials covered by FAA specifications shall have prior approval of the Federal Aviation Administration, Airport Service, Washington, DC 20591, and shall be listed in the current edition of FAA Advisory Circular AC 150/5345-53, Airport Lighting Equipment Certification Program. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification, when required by the Engineer.

The following documents, of the issue in effect on the date of application for qualification, are applicable to the extent specified:

<u>Item</u>	<u>Specification</u>	<u>Advisory Circular</u>
Elevated Lights	L-861, L-862	AC 150/5345-46B
Lights, Runway, In Pavement	L-850	AC 150/5345-46B
Transformers, Isolation, 60 Hz	L-830	AC 150/5345-47A
Signs	L-858	AC 150/5345-44
Light base, load bearing	L-868	AC 150/5345-42C
Light base, non-load bearing	L-867	AC 150/5345-42C
Elevated Marker	L-853	AC 150/5345-39B

All FAA Advisory Circular referenced in this specification refer to the most recent edition in circulation.

125-2.7 ISOLATION TRANSFORMERS

ADD:

New transformers for shall be L-830, 6.6A Pri./6.6A Sec. of the wattage recommended by the manufacturer. The number of transformers per light shall also be as recommended by the manufacturer.

125-2.8 LIGHT CANS

ADD:

3/4" thick blank cover plates shall be provided as required.

125-2.11 AIRFIELD SIGNS

ADD:

Taxi holding position signs and taxi guidance signs shall conform to the type, class, style, nomenclature and dimensions shown in the plans to match the existing guidance signs and as specified herein.

Airfield taxiway signs shall be LED L-858, Size 2, Style 2, Class 2 conforming to the nomenclature indicated in the Plans. For the purposes of this specification, a character shall be defined as a letter, numeral, dot, dash or arrow to be indicated on the sign nomenclature. Sign components and lengths shall be as recommended by the manufacturer.

When existing signs are proposed to be retrofitted with new sign panels, the sign panels shall conform to the applicable requirements of Advisory Circular 150/5340-18 (latest revision). The Contractor shall verify that the proposed sign panels are compatible with the existing sign assemblies.

The LED L-858 Airfield Guidance Signs shall conform to the requirements of FAA Advisory Circular 150/5345-44 (latest revision) "Specification for Runway and Taxiway Signs" and FAA LED "Engineering Brief No. 67" (current edition). The signs shall be ETL certified. The LED L-858 signs shall be as manufactured by ADB or approved equal.

125-2.14 TAXIWAY LIGHTS

ADD:

Taxiway lights shall be base or stake mounted as shown on the plans and shall meet the following FAA specifications:

L-861T Medium Intensity Taxiway Lights

125-2.15 LIGHT AND SIGN REMOVAL

ADD:

Existing light and sign bases shall be completely removed and disposed of by the Contractor off Airport property. The excavations shall be backfilled compacted per the requirements of section 208. The cable associated with light or sign removal shall be removed from the conduit/unit duct and the conduit/unit duct shall be abandoned in place.

Any salvageable materials shall be saved and remain the property of the Airport. The material shall be delivered to the Airport Maintenance Facility.

125-2.16 IN-PAVEMENT LIGHT BASE AND LIGHT INSTALLATION AND ALIGNMENT TOOL

The tolerance requirements for location, elevation and orientation of all in-pavement light fixtures is of critical importance and must be maintained. In order to do so the light bases and lights shall be installed using an installation and alignment tool. This tool shall be capable of achieving the final alignment specified and shall be of sufficient strength to support the light base during placement and compaction of concrete around the base. The Contractor shall submit to the Engineer the proposed installation and alignment tool for approval. Upon approval, the Contractor shall procure a sufficient number of these tools to use in the installation process. No light base or light shall be installed without using an approved installation and alignment tool. The Contractor shall have a manufacturer's representative familiar with the type of installation on site for the initial installation of light bases.

CONSTRUCTION METHODS

125-3.1 GENERAL

ADD:

The Contractor shall exercise caution in the installation and removal of all light units. Any units damaged by the Contractor's operations shall be repaired or replaced to the satisfaction of the Engineer at no additional cost to the contract.

125-3.4 PHASING AND INTERRUPTIONS

ADD:

All existing electrical equipment and lighting systems not included in the phase of work being performed must be kept in operation, unless prior approval of the Owner has been received and as otherwise specified below and on the Drawings. The Contractor may use salvaged materials for temporary construction where required. The permission for temporary work and using salvaged materials shall be obtained from the Owner. Lighting for active runway and taxiway surfaces shall be maintained. Work shall be coordinated with paving operations.

Refer to the special provision of the specification for notification requirements and other information regarding work interruptions due to airport operational requirements or Contractor anticipation for exceeding the limitations described in the above paragraph.

125-3.5 GUIDANCE SIGN REMOVAL

ADD:

The Contractor shall exercise care in removal of the existing airfield signs to prevent damage. The existing bases shall be completely removed and disposed of off of the Airport. Areas shall be backfilled, to existing elevations, graded, seeded and mulched.

Existing taxi guidance signs to be removed that are unlit and wooden shall be removed and shall remain property of the Airport. The signs shall be removed with the wooden posts completely removed and intact.

Signs to be removed shall remain the property of the Airport and shall be stored at the location designated by the Engineer. All units shall be cleaned prior to storage.

125-3.6 IN-PAVEMENT LIGHT INSTALLATION

Each light base shall be surveyed in place. For PCC paving areas, a "cookie cutter" or hoop shall be placed around the base in the wet concrete, and the concrete inside the hoop shall be removed and the flanges cleaned, as shown on the Drawings. A circular edge tool shall be used to finish the edge around the base. When the concrete has set and the hoop is removed, the annular space around the base shall be filled with P-606 sealant.

The light fixtures shall be installed in accordance with the procedure recommended by the manufacturer, and as specified on the Drawings and herein.

For new light bases, core or sawcut existing pavement sufficient to enable placement of new light bases including concrete encasement, as shown on Drawings. Install bases and conduit at each light base location, being careful to properly align and hold in place during concreting each light base and the conduit. Complete the installation as shown in the installation details. Weep holes shall be constructed in the bottom of the L-868 base/foundation at every light along each circuit.

Spacer rings and flange rings shall be used to achieve proper grade. Prior to mounting the light fixture on the base an L-823 connector kit shall be installed on the new primary power cable ends in the light base, and the appropriate isolation transformer shall be installed in the light base. Note carefully the cable routing in each light base. All light fixtures shall be verified as properly leveled and aligned.

125-3.7 ADJUST BASE/STAKE MOUNTED LIGHTS AND REILS

The Contractor shall exercise care in removal of the existing light fixture and REIL units to prevent damage. The existing bases shall be completely removed and adjusted the elevation as shown on the plans. After the installation of the light base, stake or REIL unit, areas shall be backfilled, to the shown elevations, graded, seeded and mulched.

The Contractor shall disconnect existing cable and re-connect existing circuit to the adjusted light fixture. Install new L-823 connectors and if there is not enough slack in the ground wire, new ground wire shall be installed from the ground rod to each base can or stakes.

METHOD OF MEASUREMENT

125-4.1

DELETE: Entire section.

ADD:

The quantities to be paid for under this item shall consist of:

- (a) The number of edge lights and signs installed in place as complete units, ready for operation and accepted by the Engineer.
- (b) The number of edge lights, splice cans, elevated retroreflective markers and signs completely removed or relocated and accepted by the Engineer.
- (c) The number of lights (stake mounted, base mounted, REIL) adjusted.

BASIS OF PAYMENT

125-5.1

ADD:

Payment will be made at the contract unit price for each complete item furnished and 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, removals, modifications, relocation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

Payment for topsoiling and seeding of the Item 125 installation areas shall not be paid for separately but shall be considered incidental to the associated item.

The removal, re-installation, connection, power and control wires between REIL units and grounding will not be measured separately, it shall be incidental to each item adjusted and shall be paid under the respective pay item.

Payment will be made under:

ITEM AR125415	MITL – BASE MOUNTED – PER EACH.
ITEM AS125415	MITL – BASE MOUNTED – PER EACH.
ITEM AR125442	TAXI GUIDANCE SIGN, 2 CHARACTER – PER EACH.
ITEM AS125443	TAXI GUIDANCE SIGN, 3 CHARACTER – PER EACH.
ITEM AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER – PER EACH.
ITEM AS125444	TAXI GUIDANCE SIGN, 4 CHARACTER – PER EACH.
ITEM AR125445	TAXI GUIDANCE SIGN, 5 CHARACTER – PER EACH.
ITEM AS125445	TAXI GUIDANCE SIGN, 5 CHARACTER – PER EACH.
ITEM AR125446	TAXI GUIDANCE SIGN, 6 CHARACTER – PER EACH.
ITEM AR125447	TAXI GUIDANCE SIGN, 7 CHARACTER – PER EACH.
ITEM AS125447	TAXI GUIDANCE SIGN, 7 CHARACTER – PER EACH.
ITEM AR125515	HIRL, BASE MOUNTED – PER EACH.
ITEM AR125525	HIRL, INPAVEMENT – PER EACH.
ITEM AS125525	HIRL, INPAVEMENT – PER EACH.
ITEM AR125565	SPLICE CAN – PER EACH.
ITEM AS125565	SPLICE CAN – PER EACH.

ITEM AR125901	REMOVE STAKE MOUNTED LIGHT – PER EACH.
ITEM AS125902	REMOVE BASE MOUNTED LIGHT – PER EACH.
ITEM AR125904	REMOVE TAXI GUIDANCE SIGN – PER EACH.
ITEM AS125904	REMOVE TAXI GUIDANCE SIGN – PER EACH.
ITEM AR125906	REMOVE SPLICE CAN – PER EACH.
ITEM AR125941	ADJUST STAKE MOUNTED LIGHT – PER EACH.
ITEM AR125942	ADJUST BASE MOUNTED LIGHT – PER EACH.
ITEM AR125947	ADJUST REILS – PER PAIR.
ITEM AS125964	RELOCATE TAXI GUIDANCE SIGN – PER EACH.
ITEM AR800194	REMOVE ELEVATED RETROREFLECTIVE MARKER – PER EACH.

DIVISION VIII - MISCELLANEOUS

ITEM 800040 – BUILDING DEMOLITION

DESCRIPTION

800040-1.1

This item shall consist of furnishing all materials, labor, equipment, tools, and incidentals necessary to completely remove the buildings/structures designated on the plans, their contents, their foundations and/or basements to the satisfaction of the Engineer, as well as abate all asbestos, lead and hazardous materials as outlined below.

The Contractor shall visit the site and acquaint himself with the demolition work required. Site visits shall be coordinated with the Airport Manager.

All concrete steps, patios, decks and sidewalks attached to the buildings/structures being demolished shall not be measured separately for payment, but shall be removed and considered incidental to the demolition. Additionally, all shrubs, bushes, concrete pads or ramps, concrete stairs, wooden fences, sidewalks and miscellaneous refuse located within the site boundaries (10' perimeter around each building) shall be removed as shown on the plans or as directed by the Engineer and shall not be measured separately for payment, but shall be considered incidental to the demolition.

If the structures to be demolished have water or sanitary service that is part of a public water or sewer system, the appurtenant service shall be disconnected or plugged as required by local agencies. Disconnecting these services shall not be measured separately for payment but shall be considered incidental to the demolition of the buildings.

Prior to undertaking the required demolition, the Contractor shall give ample notice to the owner, occupant and Engineer for the removal of any or all usable equipment presently located within the confines of the demolition, and obtain all permits necessary for the demolition and disposal of all building/structure material. After approval by the Engineer that usable equipment has been removed, any and all equipment or material left in the area shall be disposed of by the Contractor off airport property.

800040-1.2 UTILITIES

The Contractor shall be responsible for locating all utility lines within the area of the demolition. It shall be the Contractor's responsibility to protect and maintain all utilities that are to remain active throughout the extent of the contract. Existing utilities that are to be abandoned because of the demolition shall be cut, sealed and abandoned. Utility service meters, electrical enclosures, water service boxes and valves shall be removed off site. This work shall be done in cooperation with the utility companies involved and shall conform to all federal, state, and local requirements.

800040-1.3 ASBESTOS ABATEMENT

PART 1 - GENERAL

1-01) WORK INCLUDED

In accordance with the specifications contained in this section and as shown on the drawings, or as directed by the Owner's Representative, the Contractor must furnish all labor, materials, supervision, construction tools, equipment, and incidental items necessary to perform asbestos abatement including removal of friable and non-friable asbestos containing material (ACM), isolation of the work areas, protection of adjacent areas, cleanup, proper packaging and disposal of wastes, and all other steps necessary to complete the scope of work. Additionally, the Contractor must understand that the technical aspects of the asbestos abatement specifications apply to the project as a whole.

The Contractor must develop detailed work plans, containment system details, environmental monitoring plan, additional testing, worker protection, and criteria for handling regulated waste related to the abatement of asbestos according to all applicable codes, standards, and regulations. Moreover, the Contractor will be responsible for and held accountable for ensuring compliance with all asbestos abatement regulatory requirements.

The Contractor must implement and maintain programs and procedures which comply with the requirements of this specification and all applicable federal, state, and local codes, standards, and regulations, including those of OSHA and USEPA, even if not specifically referenced herein. Furthermore, the Owner may engage an independent agency to monitor Contractor compliance with all applicable regulations, specifications, and Contractor developed programs or plans. The Contractor must provide all necessary enclosures and containments to protect the surrounding area from environmental contaminants associated with the abatement of asbestos and lead-based paints and coatings. When the work includes lead, asbestos, or hazardous materials abatement activities in the same spaces, they should be performed in the sequence and combinations that produce the most efficient results and the least amount of total waste. When lead, asbestos, and hazardous materials decontamination processes are combined, the more stringent cleanup procedures will apply.

1-02) RELATED SECTION

- A. ITEM 800040 - BUILDING DEMOLITION
- B. ITEM 028300 - LEAD ABATEMENT

1-03 GENERAL REQUIREMENTS

A. Asbestos-containing materials have been identified at the four T-Hangar buildings during previous testing (See Part 1-04). A Hazardous Materials Survey Report summarizing a previous study and tests of materials in the T-Hangar buildings is available for use by the Contractor. A copy of the report is included in Appendix A and will be incorporated by reference as part of these Contract Documents. The report is listed below:

1. Hazardous Materials Survey Report, January 28, 2010 (Appendix A)

The report provided in the Appendix is provided for information only. All of the materials specified for abatement are not necessarily identified in the report. The Contractor shall confirm all quantities, locations and field conditions on site prior to submitting their bid for this project.

The Contractor is expected to review this specification and inspect the facility thoroughly prior to submitting a bid for this work. No extras associated with asbestos abatement activities shall be allowed or considered during this project. It is the Contractor's sole responsibility to be completely familiar with the project, its requirements and the overall project deliverable.

- B. An IDPH-licensed asbestos abatement Contractor is required to complete the asbestos abatement and removal. The Contractor will be responsible for and held accountable for ensuring compliance with all of the environmental regulatory requirements associated with the abatement and disposal of the asbestos-containing materials.
- C. The Chicago Executive Airport will continue to be in operation during the project work. Interruption of airport operations must be prevented.
- D. The Contractor will ensure that the products used to construct the containment systems and products used inside the containment system, including but not limited to; poly sheeting, membrane liners, glues, adhesives, solvents, paints and cleaning solutions that will not contaminate the surrounding area.

- E. The Contractor will routinely inspect the containment systems for decomposition or deterioration. The Contractor will replace/repair the containment system as needed to prevent decomposition byproducts from contaminating the surrounding area.

1-04 REFERENCES

A report summarizing a previous study and tests on the T-Hangar buildings is available for use by the Contractor. A copy of the report is included in Appendix A and is incorporated by reference as part of these Contract Documents. The report is listed below:

- Hazardous Materials Survey Report, January 28, 2010 (Appendix A)

The following laws, regulations, and standards are incorporated by reference:

- 29 CFR 1910.134 -US OSHA Respiratory Protection
- 29 CFR 1926 - US OSHA Construction Standards
- 29 CFR 1926.1101 - US OSHA Asbestos Construction Standards
- 29 CFR 1910.132 - Personal Protective Equipment
- 29 CFR 1910.20 - Access to Employee Exposure and Medical Records
- 29 CFR 1910.1200 - Hazard Communication
- 29 CFR 1910.151 - Medical and First Aid
- 40 CFR Part 61 - US EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP), 11/90 revision
- 40 CFR 763 Subpart E - US EPA Asbestos Hazard Emergency Response Act (AHERA) Rules
- 40 CFR 763 Subpart E, - US EPA Asbestos Model Accreditation Plan Appendix C(MAP): Interim Final Rule
- 49 CFR 100 185 – Transportation
- 225 ILCS 207 - Illinois Commercial & Public Building Asbestos Abatement Act
- 77 Illinois Administrative - Code Part 855, Rules and Regulations

If local requirements are more stringent than federal or state standards, the local standards are to be followed.

1-05 DEFINITIONS

In addition to the terms listed below, all definitions in the laws and regulations are incorporated by reference, whether or not restated herein.

“**Abatement**” means removal, encapsulation, enclosure and/or repair of asbestos containing materials.

“**AIHA**” means the American Industrial Hygiene Association.

“**AAR**” means Asbestos Analysis Registry.

“**Adequately Wet**” means sufficiently mix or penetrate with liquid to prevent the release of particulates.

“**Aggressive Air Sampling Methods**” means a method of sampling in which the person collecting the air sample creates activity during the sampling period to stir up settled dust during the collection of the air samples.

“**AHERA**” means the Federal Asbestos Hazard Emergency Response Act, 40CFR Part 763, Subpart E.

“**Air Sampling Professional**” means an individual that meets regulatory requirements to perform required air samples during asbestos abatement activities.

“**Airlock**” means a system for permitting entrance and exit with minimum air movement between an asbestos regulated work area where airborne asbestos fibers are expected to be encountered (the “dirty” side) and any other area (the “clean” side), consisting of two curtained doorways separated by a distance of at least three feet such that a person passes through one doorway into the airlock, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway, thereby preventing flow-through of air from the “dirty” side to the “clean” side.

“**Amended Water**” means water to which a surfactant has been added to improve water penetration.

“**ANSI**” means the American National Standards Institute.

“**Area Air Sampling**” means any form of air sampling or monitoring where the sampling device is placed at some stationary location.

“**Asbestos**” means the asbestiform varieties of serpentine (chrysotile), amosite, amphibole (crocidolite), tremolite, anthophyllite, and actinolite as identified using polarized light microscopy.

“**Asbestos Abatement Contractor**” means the entity responsible for performing the work in this section, and has the training, accreditation and license to competently perform the work. This entity will obtain and maintain licenses required for the work in this section.

“**Asbestos Containing Material or ACM**” means the U.S. Environmental Protection Agency classifies ACM as “any product containing more than one percent (1%) asbestos by weight, when analyzed by Polarized Light Microscopy (PLM)”.

“**Asbestos Containing Building Materials or ACM**” means Surfacing ACM, Thermal Systems Insulation ACM, Miscellaneous ACM, in or on the surfaces of a building.

“**Asbestos Containing Waste Material**” means any waste that contains commercial asbestos. This term also includes filters from control devices, bags or packages with commercial asbestos materials, waste from regulated asbestos work area projects, and objects contaminated with asbestos including disposable equipment, rags, and clothing.

“**Asbestos Inspector**” means an individual that holds a valid license in the State in which the work is being performed, to conduct asbestos building inspections.

“**Asbestos Abatement Supervisor**” (**AAS**) hereinafter referred to as “supervisor” means any person who supervises asbestos abatement workers. A licensed asbestos abatement supervisor holding a valid license in the State in which the work is being performed. This person must be trained, accredited, and must meet OSHA “competent person” criteria for asbestos abatement.

“**Asbestos Worker**” means an individual that holds a valid license in the State in which the work is being performed who cleans, removes, encapsulates, prepares, encloses, erects, hauls, or disposes of asbestos materials or wastes.

“**Authorized Visitor**” means the Owner or any person designated by the Owner or Owner’s Representative, and any representative of a regulatory or other agency having jurisdiction over the project.

“**Background Levels**” means the concentrations of airborne fibers as determined by phase contrast or transmission electron microscopy, in and adjacent to, the work areas, prior to the start of the work.

“**Barrier**” means any surface that isolates the regulated area and inhibits fiber migration from the regulated area.

“**Breathing Zone**” means the hemisphere forward of the shoulders with a radius of about 150 - 225 mm (6 - 9 inches) from the worker’s nose.

“**Bridging Encapsulant**” means an encapsulant that forms a layer on the surface of the ACM.

“**Building/Facility Owner**” means the legal entity, including a lessee, which exercises control over management and recordkeeping functions relating to a building and/or facility in which asbestos activities take place.

“**Category I Non-Friable Asbestos Containing Material**” means asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1 % asbestos as determined using the method specified in Appendix E, Subpart E, 40 CFR part 763, Section 1, Polarized Light Microscopy.

“**Category II Non-Friable ACM**” means any material, excluding Category I Non-Friable ACM, containing more than 1% asbestos as determined using the method specified in Appendix E, Subpart E, 40 CFR part 763, Section 1, Polarized Light Microscopy (PLM), when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

“**Class I Asbestos Work**” means activities involving the removal of Thermal Systems Insulation (TSI) and Surfacing ACM and PACM.

“**Class II Asbestos Work**” means activities involving but not limited to the removal of asbestos containing wall board, floor tiles and sheeting, roofing and side shingles, and construction mastics. Class II work does not include Class I work.

“**Class III Asbestos Work**” means repair and maintenance operations where ACM is likely to be disturbed.

“**Class IV Work**” means maintenance and custodial activities during which employees contact but do not disturb ACM or PACM and activities to clean up dust, waste, and debris from Class I, Class II, and Class III work.

“**Clean Room**” means a “clean side” area or room which is a structural part of the Worker Decontamination Enclosure System (WDES) with provisions for storage of workers’ street clothes and protective equipment.

“**Clearance Air Monitoring**” means the employment of non-aggressive sampling methods with a volume of air collected to determine the airborne concentration of fibers upon conclusion of an asbestos abatement project.

“**Commercial Asbestos**” means any material containing asbestos that is extracted from ore and either has or has had value because of its asbestos content.

“**Competent Person**” means a person who is capable of identifying existing asbestos hazards in the workplace and in selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective actions to eliminate them. It also means a person who holds a valid asbestos license as a Contractor’s supervisor in the State where the work is taking place.

“**Containment Barrier**” means an airtight barrier consisting of walls, floors, and/or ceilings of sealed plastic sheeting which surrounds and seals the outer perimeter of the regulated area.

“**Contained Area**” means an enclosed work area in a building where negative air pressure and HEPA filtration are used to contain airborne fibers during removal, enclosure, or encapsulation of ACBM during an asbestos abatement project.

“**Critical Barrier**” means one or more layers of plastic sealed over openings into a work area or any similarly placed physical barrier, sufficient to prevent airborne fibers in a work area from migrating to adjacent areas.

“**Curtained Doorway or ‘Z’-Flap**” means a device that consists of at least three overlapping sheets of plastic over an existing or temporary framed doorway. One sheet must be secured at the top and left side, the second sheet at the top and the right side, and the third sheet at the top and the left side. The sheets must have weights attached to the bottom to ensure that the sheets hang straight and maintain a seal over the doorway when not in use. Curtained doorways must be installed at each end of each airlock and each end of each room of the Decontamination Enclosure Systems.

“**Decontamination Enclosure System (DES)**” means a series of connected rooms, separated from each other by air locks, used for the decontamination and exit from the work area. A Worker’s Decontamination Enclosure System (WDES) must be constructed for use by personnel entering and exiting the work area. An Equipment Decontamination Enclosure System (EDES) must be constructed for cleaning and removing of containerized waste material from the work area. Both enclosure systems must be erected and used on this project.

“**Demolition**” means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility as described by OSHA. Demolition and renovation are not the same activities.

“**Disturbance**” means activities that disrupt the matrix of asbestos containing material and PACM.

“**Encapsulate**” means a liquid material which can be applied to ACBM and which temporarily controls the possible release of asbestos fibers from the material, either by creating a membrane over the surface (Bridging Encapsulant) or by penetrating into the material and binding its components (Penetrating Encapsulant).

“**Encapsulation**” means the treatment of ACBM with a material that surrounds or embeds asbestos fibers and asbestos fiber bundles in an adhesive matrix that prevents the release of fibers.

“**Enclosure**” means the construction of an airtight, impervious, and permanent wall and ceiling between the ACBM and the occupied space of the building.

“**Equipment Decontamination Enclosure System or EDES**” means a decontamination enclosure system designed for the controlled transfer of materials, equipment, and containerized waste into and out from the work area. The EDES must consist of the following (from “dirty” side to “clean” side):

- a. Curtained Doorway

- b. Wash Room
- c. Curtained Doorway
- d. Airlock
- e. Curtained Doorway
- f. Holding Area
- g. Curtained doorway

“Equipment Room” means a room or area on the “dirty side” which is part of the WDES with provisions for the storage or contaminated clothing and equipment that is intended for reuse. The equipment room must be separated from the work area and from additional rooms in the WDES by air locks with curtained doorways.

“Facility” means any institutional, commercial, public, industrial, or residential structure, installation, or building, any ship, and any active or inactive waste disposal site.

“Facility Component” means any part of a facility including equipment.

“Fiber Release Episode” means any uncontrolled or unintentional disturbance of ACM resulting in visible emissions.

“Fixed Object” means a unit of equipment or building system component which can not be removed from the work area.

“Friable” means a material, when dry, that may be crumbled, pulverized, or reduced to powder by hand pressure. The term friable also applies to non-friable material that will intentionally become friable as a result of sanding, drilling, chipping, striking with an object (such as a wrecking ball), or demolition.

“General Contractor” (GC) means the entity responsible for performing the complete scope of work in the Documents. The GC may elect to self-perform or subcontract out any portion of the work.

“Glove Bag” means a manufactured device consisting of a plastic bag (constructed of a minimum of 6-mil thickness transparent plastic) with two attached inward projecting long-sleeved rubber gloves, one attached inward projecting water wand sleeve, an attached internal tool pouch, and an attached labeled receptacle for asbestos waste. The glove bag is constructed and installed in such a manner that it surrounds the object or area to be decontaminated and that it contains the fibers that are released during the removal process.

“Glove Bag Technique” means a method for removing friable ACM from heating, ventilation, air conditioning (HVAC) ducts, piping runs, valves, joints, elbows, and other non-planer surfaces.

“HEPA” means High Efficiency Particulate Absolute.

“HEPA Filter” means a high efficiency particulate absolute filter capable of retaining 99.97 percent of particles (including fibers) that are greater than 0.3 micrometers in mass median aerodynamic equivalent diameter, with an efficiency designation of 100 in accordance with NIOSH 42 CFR 84, *Respiratory Protection Devices*.

“HEPA vacuum equipment” means vacuuming equipment with a high efficiency particulate absolute filter system.

“Holding Area” means a room or area on the “clean side” which is part of the EDES with provisions for the storage of containerized waste that has been decontaminated in the wash room of the EDES. The Holding Area must be separated from the work area and from additional rooms in the EDES by air locks with curtained doorways.

“IDPH” means the Illinois Department of Public Health.

“Intact” means that the ACM has not crumbled, been pulverized, or otherwise deteriorated so that the asbestos is no longer bound with its matrix.

“Leak-tight” means that solids or liquids cannot escape or spill out. Leak-tight also means dust-tight.

“Miscellaneous Material” means interior building material on structural components, structural members, or fixtures, such as floor and ceiling tiles, and does not include surfacing materials or thermal systems insulation.

“Mini-Containment Area” means a contained and regulated area in which Glovebag Techniques are being employed.

“MSDS” means Material Safety Data Sheet, required by OSHA for any substances, which are toxic, caustic, or otherwise hazardous to workers.

“Must” means the stated provision is mandatory.

“Negative Air Pressure Equipment” means a portable local exhaust system equipped with HEPA filtration. The system must be capable of maintaining a constant, low velocity airflow from asbestos abatement work areas to the outdoors, thereby creating a negative pressure differential between the work area and the remaining areas of the building.

“Negative Initial Exposure Assessment” means a demonstration by the Contractor that by using the specific work procedures employed on the project, employee exposure during the project is expected to be consistently below the PEL.

“NESHAP” means the National Emission Standards for Hazardous Air Pollutants (40 CFR 61).

“NIOSH” means National Institute for Occupational Safety and Health.

“Nonfriable Asbestos-Containing Material” means any material containing more than 1% asbestos as determined using the method specified in Appendix E, Subpart E, 40 CFR part 763, Section 1, PLM, that, when dry, may not be crumbled, pulverized, or reduced to powder by hand pressure.

“Operations and Maintenance” means a program of work practices to maintain friable and nonfriable ACBM in good condition, to provide for the clean-up of asbestos previously disturbed or damaged, and to prevent further releases by minimizing and controlling disturbances and damage to ACBM.

“Organic Vapor Cartridge” means the type of cartridge used on air purifying respirators for organic vapor exposures.

“OSHA” means the Occupational Safety and Health Administration.

“Outside Air” means air from outside of the work area.

“Owner/Operator” means any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises.

“Owner’s Representative” means the Owner and/or any representative for the Owner acting on behalf of the Owner or specifically contracted with the Owner to provide project consultation, representation or direction having jurisdiction over the project.

“PACM” means Presumed Asbestos Containing Material.

“**PAPR**” means powered air purifying respirator.

“**Penetrating Encapsulant**” means encapsulant that is absorbed into the ACM matrix without leaving a surface layer.

“**Personal Air Monitoring or Exposure Monitoring**” means a method used to determine employees’ exposure to airborne fibers through the collection of air samples from the breathing zone of an individual in the work area. Personal Air Monitoring must be conducted in accordance with 29 CFR 1910.1001 and 1926.1101.

“**Permissible Exposure Limit (PEL) for asbestos fibers, as expressed as an eight-hour Time Weighted Average (TWA)**” means the concentration at which no employee will be exposed to. The PEL is 0.1 fibers per cubic centimeter as determined by Phase Contrast Microscopy.

“**Personal Protection Equipment or PPE**” means the protective suits, head and foot covers, gloves, respirators and other items used to protect persons from asbestos or other hazards.

“**Plasticize**” means to apply plastic sheeting over surfaces or objects to protect them from contamination or water damage.

“**Polarized Light Microscopy (PLM)**” means light microscopy using dispersion staining techniques and refractive indices to identify and quantify the type(s) of asbestos present in a bulk sample.

“**Polyethylene sheeting**” means strong plastic barrier material 4 to 6 mils thick, semi-transparent, sometimes flame retardant in compliance with NFPA 241.

“**Presumed Asbestos Containing Material**” means thermal systems insulation and surfacing material found in buildings constructed no later than 1980 unless that material has been determined to NOT contain asbestos based on an adequate number of samples having been analyzed using the method specified in Appendix E, Subpart E, 40 CFR part 763, Section 1, PLM.

“**Primary Barrier**” means barriers placed over critical barriers and exposed directly to abatement work.

“**Professional IH**” means an IH who meets the definition requirements of AIHA; meets the definition requirements of OSHA as a "Competent Person" at 29 CFR 1926.1101 (b); has completed two specialized EPA approved courses on management and supervision of asbestos abatement projects; has formal training in respiratory protection and waste disposal; and has a minimum of four projects of similar complexity with this project of which at least three projects serving as the supervisory IH.

“**Project**” means removal, encapsulation, enclosure, or repair of more than three linear feet, three square feet, or one cubic foot of ACM.

“**Project Designer**” means a person who has successfully completed the training requirements for an asbestos abatement project designer as required by 40 CFR 763 Appendix C, Part I; (B)(5).

“**Protection Factor**” means a value assigned by OSHA/NIOSH to indicate the assigned protection a respirator should provide if worn properly. The number indicates the reduction of exposure level from outside to inside the respirator.

“**Qualitative Fit Test (QLFT)**” means a fit test using a challenge material that can be sensed by the wearer if leakage in the respirator occurs.

“**Quantitative Fit Test (QNFT)**” means a fit test using a challenge material which is quantified outside and inside the respirator thus allowing the determination of the actual fit factor.

“Regulated Asbestos Containing Material (RACM)” means:

- a. Friable Asbestos Containing Material; or,
- b. Category I Non-friable ACM that has become friable; or,
- c. Category I Non-friable ACM that will be subject to sanding, grinding, cutting, abrading; or,
- d. Category II Non-friable ACM that has a high probability of becoming damaged or friable in the course of renovation or demolition operations.

“Regulated Area” means an area established by the Contractor to demarcated areas where Class I, Class II, and Class III asbestos work is being conducted. It also means any areas where debris and waste from such asbestos work accumulate; and a work area within which airborne fiber concentrations either exceed or there is a reasonable possibility that they may exceed the permissible exposure limit.

“Remote Decontamination Enclosure System” means a decontamination enclosure system which is not connected to the contained work area.

“Removal” means the intentional detachment of any asbestos-containing materials from surfaces or components of a building or taking out building components.

“Repair” means rewinding or taping damaged pipe or boiler (or similar vessel) insulation and patching of surfacing material.

“Resilient Floor Covering” means asphaltic and vinyl floor tiles, sheet flooring materials, and their associated adhesive mastics.

“Response Action” means a method with procedures including removal, encapsulation, enclosure, repair, operations and maintenance, and clean-up after an accidental release, that protects human health and the environment from friable ACBM.

“SCBA” means self-contained breathing apparatus.

“Secondary Barrier” means any additional sheeting used to isolate and provide protection from debris during abatement work.

“Secure Separation Barriers” means a rigid barrier constructed of ½ inch minimum thickness plywood, gypsum board, or similar sheathing material with sufficient framing to support the barrier designed to prevent the possible access by building occupants into areas where project activities will occur. A Secured Separation Barrier **must not** be used as a containment area barrier.

“Separation Barrier” means a rigid barrier that is erected in a building space to reduce the volume of a work area, such as erecting a barrier along the perimeter of a series of rooms in order to remove materials from windows without making the entire room a work area. This type of Barrier **MUST NOT** be used to separate occupied areas of the building from the work area. This type of Separation Barrier must be of ½ inch minimum thickness plywood gypsum board or similar sheathing material with suitable framing to support the Separation Barrier. The seams and edges of the Separation Barrier must be caulked and the work area side of the Separation Barrier must be covered with two layers of six-mil plastic sheeting equivalent.

“Shower Room” means a “clean side” area or room separated from the Clean Room and from the Equipment Room by airlocks with curtained doorways, which is a structural part of the Worker Decontamination Enclosure System (WDES) with hot and cold running water controllable at the tap and arranged for complete showering during decontamination.

“**Shut Down and Lock Out Power**” means to switch off every electrical circuit breaker serving power or lighting circuits which run to, or through, the work area. Lock the electrical panel or door with separate locks.

“**Staging Area**” means a “dirty side” area separated from the Wash Room by an airlock with curtained doorways, which is adjacent to Equipment Decontamination Enclosure System (EDES) designated for the temporary storage of containerized waste prior to removal from the work area.

“**Structural Member**” means any load supporting member of a facility, such as beams and load supporting walls, or any non-load supporting member such as ceilings and non-load supporting walls.

“**Surfactant**” means a chemical wetting agent that, when added to water, will improve the penetration characteristic of the water in order to reduce fiber release.

“**Surfacing Material**” means material that is sprayed, troweled-on, or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing on structural members).

“**TCLP**” means Toxicity Characteristic Leaching Procedure.

“**Transmission Electron Microscopy (TEM)**” means a microscopy method that can identify and count asbestos fibers.

“**Thermal System Insulation (TSI)**” means insulation material applied to pipes, fittings, boilers, breechings, vessels, tanks, ducts, or other structural or mechanical components, to prevent heat gain or loss, reduce noise, control condensation, or any other purpose including decorative.

“**Visible Emissions**” mean any emissions containing particulate, airborne or as tracked dust, that are visually detectable with out the aide of instrumentation.

“**Wash Room**” means a “dirty side” area separated from the Staging area of the work area by a curtained doorway, which is a structural component of the Equipment Decontamination Enclosure System (EDES) designated for cleaning of waste containers, equipment, and any other items, except for personnel, from the work area.

“**Waste Generator**” means any owner or operator whose act or process produces asbestos-containing waste material.

“**Waste Shipment Record**” means the shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.

“**Wet Cleaning**” means the process of eliminating residual asbestos fibers from surfaces and objects by using cloths, mops, and other cleaning tools which have been dampened with water. After cleaning, the cloths, mops, and other cleaning tools must be disposed as Asbestos Containing Waste Material.

“**Work Area**” means the designated rooms, spaces, or areas where an aspect of an asbestos abatement project is being conducted.

“**Worker Decontamination Enclosure System or WDES**” means a decontamination enclosure system designed for the decontamination of personnel exiting the work area. The WDES must consist of the following (from “dirty” side to “clean” side):

- a. Curtained Doorway
- b. Equipment Room
- c. Curtained Doorway
- d. Airlock

- e. Curtained Doorway
- f. Shower Room
- g. Curtained Doorway
- h. Airlock
- i. Curtained Doorway
- j. Clean Room
- k. Curtained Doorway

1-06 SUBMITTALS

At least 45 days prior to the beginning of the work, unless otherwise specified by the Owner's Representative, the Contractor must submit to the Owner and/or authorized representative as specified by the Owner, for review and approval; detailed written programs, specifications, and plans for each of the items described below and as provided in Parts 1-08 to 1-11 as listed below. All such programs, plans, and specifications will be in accordance with all applicable rules, regulations, and statutes.

- A. The Contractor must prepare and submit an Asbestos Abatement Action Plan (Plan). No work will be allowed until the Plan has been approved. The Plan must include interior and, if required, exterior containment system specifications, drawings and narratives, sufficient in detail to demonstrate and indicate the following:
 - 1. The specific areas of work in the buildings.
 - 2. Areas of the buildings which will be occupied during the work.
 - 3. Locations of critical barriers.
 - 4. Delineation of each regulated area.
 - 5. Location of Decontamination, Enclosure, and Containment Systems.
 - 6. Location of waste accumulation.
 - 7. Route of workers from outside the building, into the work area, from decontamination to break areas and to out of doors.
 - 8. Location of waste dumpster.
 - 9. Route of containerized waste containers from the work area to out door.
 - 10. Location of mini-enclosures (if applicable).
 - 11. Location of remote decontamination enclosure system (if applicable).
 - 12. Location of negative air machine exhaust points and path of exhaust ducts.
 - 13. A narrative sequencing plan with a detailed schedule clearly indicating the various aspects of the work.
- B. The Contractor must prepare and submit environmental monitoring work plans and drawings.
- C. The Contractor must prepare and submit a worker protection program.
- D. The Contractor must prepare and submit a plan for handling, disposal, and analysis of debris and documentation that arrangements have been made for the transport and disposal of waste generated at this project and the name and location of the disposal sites.
- E. The Contractor must prepare and submit a transportation and disposal quality assurance program.
- F. The Contractor must prepare and submit a plan related to reportable releases.
- G. The Contractor must prepare and submit a NESHAP notification to the Illinois EPA and the Chicago Department of Environment.
- H. The Contractor must prepare and submit an IEPA Asbestos Notification on revised form, including inspector license number and landfill permit number.

- I. The Contractor must prepare and submit decontamination procedures and disposal plan for liquid waste generated during decontamination of structures, equipment, reusable items, and other accessories.
- J. The Contractor must prepare and submit an emergency plan to respond during extreme weather, hazardous conditions or equipment damage, to contain ACM and prevent their migration to the environment.
- K. The Contractor must prepare and submit documentation that all individuals associated with the project have appropriate training, certification and licensure in the state where the work is being performed.
- L. The Contractor must prepare and submit documentation that arrangements have been made for the transport and disposal of waste generated at this project and the name and location of the disposal sites.

The Contractor must provide the following information during the asbestos abatement activities.

- A. Results of air monitoring from the previous 24-hour period.
- B. Differential air pressure readings from each containment area, including physical manometer tapes or recordings.
- C. Job progress reports detailing the abatement/mitigation activities, including a review of progress with respect to previously established schedules, problems and actions taken, injury reports, and equipment breakdowns, if applicable.
- D. Copies of worksite entry logs showing the name, date and time for worker and visitor access to the work areas.
- E. Logs documenting filter changes on respirators, HEPA vacuums, negative pressure ventilation units, and other engineering controls.

At the completion of the project, the Contractor must submit the following:

- A. Contractor's report detailing the work that was completed and the procedures that were used.
- B. Contractor's air sampler's report summarizing the results of all exposure monitoring that occurred.
- C. A complete set of the Contractor's daily logs and waste shipment records.

1-07 QUALITY ASSURANCE

The Contractor must identify, follow, and comply with all applicable codes, standards, and regulations for abatement of asbestos-containing material.

1-08 SITE CONDITIONS

- A. The Chicago Executive Airport will continue in operation throughout the Contract work. Interference of airport operations must be prevented.

B. ACMs have been identified through testing of the following material:

Location	Material Description	Approximate Quantity	Result	Condition
South hangar, east office	Green 9"x9" floor tile	225 square feet	23.8% Chrysotile	Poor
South hangar, east office	Grey glazing interior window	120 linear feet	2.7% Chrysotile	Poor
South hangar, east office	Grey glazing interior door window	16 linear feet	4.6% Chrysotile	Poor
South hangar, east office	Tan glazing exterior window	24 linear feet	2.1% Chrysotile	Good
South hangar, east office	White fibrous pipe wrap	61 linear feet	60% Chrysotile	Poor
South hangar, east office	Black penetration sealant	1 square foot	3.1% Chrysotile	Good
North center hangar, west office	Off-white joint compound	225 square feet	1.6% Chrysotile	Poor
North center hangar, west office	Off-white glazing interior window	120 linear feet	2.3% Chrysotile	Poor
North center hangar, west office	Tan glazing interior door window	16 linear feet	3.1% Chrysotile	Poor
North center hangar, west office	12"x12" tan floor tile	225 square feet	6.5% Chrysotile	Poor

C. The Contractor shall confirm all quantities, locations and field conditions on site prior to submitting their bid for this project.

See Parts 1-03 and 1-04.

1-09 CONTAINMENT SYSTEMS

A. The Contractor must design, detail, fabricate, furnish, and install the containment system for the work areas. The Contractor will ensure that the products used to construct the containment systems and products used inside the containment system, including but not limited to; poly sheeting, membrane liners, glues, adhesives, solvents, paints and cleaning solutions that will not contaminate the surrounding area.

The Contractor will routinely inspect the containment systems for decomposition or deterioration. The Contractor will replace/repair the containment system as needed to prevent decomposition byproducts from contaminating the surrounding area.

B. The Contractor must perform the following steps, in the order that they appear, to prepare the regulated area.

1. Establish the regulated area(s) with the placement of Separation Barriers. These barriers, such as temporary walls, ceilings, and floors that are necessary for enclosing the regulated area, must be erected and inspected and approved by the Owner's Representative, and/or authorized representative as specified by the Owner, prior to performing any other work.
2. Demarcate the Regulated Area and post appropriate signs.
3. Post Caution Signs meeting the requirements of OSHA at each location and at approaches to locations where airborne fiber concentrations may exceed 0.01 f/cc or background levels, whichever is greater. Caution signs must be posted to permit a person to read the sign and then take the necessary protective measures in order to avoid personal exposure before entering a work area.
4. Label circuit breakers with the notation "DANGER, Circuit being worked on" Lock the electrical panel or door with separate locks, one for the Contractor's supervisor and one for the Owner's Representative. Shut Down and Lock Out electric power to the work areas. "Shut Down and Lock out Power" means to switch off every electrical circuit breaker serving power or lighting circuits which run to, or through, the work area.
5. Provide temporary power and lighting to the regulated area. Power to and for the work area must be brought in from outside the area through ground-fault circuit interrupters at the source.
6. Shut down and isolate heating, cooling, and ventilation air systems to prevent dispersal of dust and fibers from the regulated area into other areas of the buildings.
7. Seal off all openings to windows, corridors, doorways, skylights, ducts, grills, diffusers, return air shaft intake, and any other penetrations of the work areas, 6-mil polyethylene or equivalent sheeting sealed with tape. Also seal seams in system components that pass through the regulated areas.
8. For regulated areas where friable ACBM is present in the proposed regulated area, the following must be conducted by the Contractor:
 - a. Clean moveable objects within the proposed regulated area using HEPA filtered equipment and/or wet cleaning methods and remove the objects from the regulated areas to a temporary location.
 - b. Clean fixed objects and items which will remain in the regulated area using HEPA filtered vacuums and/or wet wiping methods. After cleaning, the Contractor must cover the objects with one layer of six mil plastic or equivalent.
9. Cover the floors and walls of the proposed regulated areas with plastic sheeting sealed with duct tape. Use a minimum of two layers of six mil plastic or equivalent on the floors (no plastic on the floors is required when the project includes removal of the flooring and or flooring adhesive mastic) and two layers of four mil plastic sheeting or equivalent on walls. Cover floors first so that plastic extends at least 12 inches up the walls, then cover walls with plastic sheeting to the floor level, thus overlapping the floor plastic by a minimum of 12 inches. Seams must be staggered.
10. Remove and clean ceiling mounted objects such as light fixtures, electrical tracks, ventilation equipment, and other items that were not previously sealed off, that interfere with the work.
11. In areas where suspended ceiling tiles are present in areas where friable asbestos is to be removed, the ceiling tiles are to remain in place until the entire regulated area has been sealed, all of the negative air filtration systems are in place, and the Decontamination Enclosure Systems have been erected and are functioning.

12. In areas where no friable asbestos is present in the regulated area, suspended ceiling tile systems may remain in place in the regulated area if they are separated from the proposed regulated by a barrier consisting of a minimum of one layer of six mil poly or equivalent. This application is allowable in regulated areas where resilient flooring materials are being removed.
 13. In areas where no friable asbestos is present in the regulated, suspended ceiling tiles and/or light fixtures may be removed from the proposed regulated area and temporarily stored and then re-installed after final air clearance criteria has been satisfied.
 14. Maintain emergency and fire exits from the regulated area. Spray paint the wall plastic with red paint using arrows to indicate the direction to the exits from the regulated area each wall of the regulated area must have a directional arrow painted on it. After the wall plastic is removed, paper signs with red arrows must be affixed to each interior wall showing the direction to the regulated area exits.
 15. Dispose of debris and materials inside the regulated area, such as spray cans, tape rolls, rags and towels, and plastic, as asbestos containing waste. Wet wipe reusable items such as tool and equipment, and seal them in six mil plastic prior to removing the items from the regulated area.
- C. If at any time water, visible emissions or breaches in the regulated area detected, the work inside of the regulated area must cease until the source of the emissions or the breeches are repaired.
- D. Contractor must erect and maintain at least one WDES for each regulated area that does not utilize a Remote Decontamination Enclosure System. A WDES is required for the removal of interior ACM. A WDES is not required for non-friable roof components as long as the Contractor removal methods do not pulverize the ACM making it friable. The WDES must be in accordance with the following:
1. Each WDES must be provided at all locations where workers will enter and exit the regulated area. The WDES must be constructed out of metal, wood, or plastic supports as appropriate or a portable packaged unit may be used.
 2. WDES constructed at the work site consisting of plastic sheeting installed over a framework must utilize six mil opaque polyethylene or equivalent strength sheeting.
 3. The WDES must consist of the following (from "dirty" side to "clean" side):
 - a. Curtained Doorway
 - b. Equipment Room
 - c. Curtained Doorway
 - d. Airlock
 - e. Curtained Doorway
 - f. Shower Room
 - g. Curtained doorway
 - h. Airlock
 - i. Curtained Doorway
 - j. Clean Room
 - k. Curtained Doorway
 4. The length of each air lock in the WDES must be a minimum of three feet.
 5. The Clean Room must be sized to accommodate the clothes and equipment of the work crew. Benches must be provided, as well as hooks for hanging up street clothes. Clean disposable clothing, fresh new respirator filters, a supply of towels and other necessary items must be provided in this area by the Contractor. A lockable door must be used to permit access into

the Clean Room from outside of the regulated area. The Clean Room must not be used for storage of tools, equipment, building materials or as office space.

6. The Shower Room must contain one or more showers to accommodate the workers. Each shower head must be supplied with hot and cold water adjustable at the tap. The shower enclosure(s) must be constructed to ensure against leakage of any kind. Soap, shampoo, and clean towels must be supplied by the Contractor and must be available at all times. Shower water must be drained, collected, and filtered through a system with at least 5.0 micron particle size collection capability. Filtered waste water must be discharged to a sanitary sewer.
 7. The Equipment Room must be used for the storage of equipment and tools at the end of each work shift following removal of gross debris.
- E. The Contractor must maintain the WDES in a well lit, clean, and hygienically acceptable state at all times.
- F. The use of a Remote Decontamination Enclosure System (RDES) may be used ONLY when the proposed asbestos abatement work does not include the removal of asbestos containing sprayed on fire proofing. A Remote Decontamination Enclosure may also be used during glove bag removal provided that the glove bag work is contained in a mini enclosure. A RDES may ONLY be used if the occupied portion of the building is separated from the regulated areas and from the remote Decontamination Enclosure System by "Separation Barriers".
1. Worker access to the regulated area must be through an air lock with a curtained doorway at each end.
 2. The construction of the Remote Decontamination Enclosure System must be identical to the Worker's Decontamination Enclosure System.
 3. The following procedures must be used with a Remote Decontamination Enclosure System:
 - a. Workers and authorized visitors must don respiratory protection and two pairs of protective disposable coveralls (double-suiting) prior to entering the regulated area.
 - b. After completing work or upon leaving the regulated area, the worker must remove gross debris by vacuuming with a HEPA filtered vacuum or wet methods, enter the air lock, remove the outer suit and place it in a labeled waste container in the air lock.
 - c. Still wearing the "inner" suit and respiratory protection, the worker must either proceed to another regulated area and don a second suit and enter the regulated or; proceed to the Remote Decontamination Enclosure System.
 - d. A HEPA filtered negative air machine must be placed inside of or attached with a hard surface duct to, the Equipment Room of the Remote Decontamination Enclosure System. The exhaust of this machine must be to outside of the building using a hard surface duct.
 - e. The Remote Decontamination Enclosure System must be an area that is subject to final clearance air sampling "Clearance". Following the work, the Remote Decontamination Enclosure System must be cleaned in a manner identical to and consistent with the cleaning and settling periods that must be utilized in all other regulated areas. During final air clearance sampling, a minimum of one clearance air sample must be collected from the Equipment Room of each Remote Decontamination Enclosure System.
- G. The Contractor must maintain the Remote Decontamination Enclosure System in a well lit, clean, and hygienically acceptable state at all times.
- H. An Equipment Decontamination Enclosure System (EDES) must be erected at each project in which an attached Worker's Decontamination Enclosure System is erected, for each regulated area.

Construction of the Equipment Decontamination Enclosure System must be identical to the Worker's Decontamination Enclosure System.

1. The EDES must consist of the following (from "dirty" side to "clean" side):

- a. Curtained Doorway
- b. Wash Room
- c. Curtained Doorway
- d. Airlock
- e. Curtained Doorway
 - f. Holding Area
 - g. Curtained Doorway

I. The curtained doorway on the airlock at the Holding Area must include a rigid (7/16" plywood, minimal) lockable door.

J. The Separation Barrier is intended to prevent the possible access by building occupants into areas where project activities will occur. A Separation Barrier **must not** be used as a containment area barrier. The Separation Barriers must be constructed of ½-inch minimum thickness plywood, gypsum board, or similar sheathing material with sufficient framing to support the barrier.

1. The Separation Barrier must extend from the floor to within six inches of the ceiling.
2. Access through the Separation Barrier must be through a lockable door installed in the barrier.

K. Emergency egress from the work area must be maintained at all times and the exits from the work area must be marked.

L. Enclosure systems and barriers must be inspected by the Contractor's Competent Person at least four times per work shift and the inspection must be entered into the Contractors' daily log.

M. Following the completion of the construction of Separation Barriers, Decontamination Enclosure Systems, after regulated area plastic has been installed, and after negative air pressure systems have been operating, the Contractor must allow a minimum of four hours settling time to ensure that the barriers and the plastic sheeting will remain intact and secured before beginning the disturbance of ACBM. The negative air pressure equipment must be in operation during this settling time.

N. All polyethylene barriers inside of the regulated area, in the Decontamination Enclosure Systems, and the Separation Barriers, must be inspected by the Contractor and the Owner's Representative, and/or authorized representative as specified by the Owner, at least twice during each work shift. The barriers separating the regulated area from other areas of the building must be visually inspected prior to commencing work each day. Inspections and observations must be documented in the Contractor's log book.

O. Damage and defects in the enclosure system must be repaired upon discovery.

P. Smoke tubes must be used by the Contractor to test the effectiveness of the regulated area barriers before abatement work begins and at least once a day thereafter until the work is completed. The Owner or the Owner's Representative will observe the smoke tube test. Result of the smoke tube test must be documented in the Contractor's log book.

Q. At any time during the abatement activities after barriers have been erected, if visible emissions are observed outside of the regulated area or if damage to the barriers is observed, work must stop and the Contractor must perform repairs to the barrier. Following repair, the Contractor must clean up residual debris using HEPA vacuuming and wet wiping procedures prior to resuming abatement activities.

R. The Contractor must HEPA vacuum or wet clean the Equipment and the Worker's Decontamination Enclosure System at the end of each shift of abatement activities.

S. If air samples collected outside of the regulated area during abatement activities indicate airborne fiber concentrations greater than 0.01 f/cc or background concentrations, which ever is greater, as determined using phase contrast microscopy, work inside the regulated area must cease for investigations and repair. The Contractor must clean up areas where the outside concentrations were a concern using HEPA vacuum or wet methods. Abatement activities may not resume in the regulated area until the outside area concentrations return to below 0.01 f/cc or background concentrations.

T. Negative pressure ventilation equipment must be installed and operated to provide a minimum of four air changes in the regulated area every hour. Openings made in the enclosure system/barriers to accommodate these units must be made air tight with tape and or/caulking. Negative pressure ventilation units must be exhausted to the outside of the building away from occupied area. Exhaust ducts that are in the building but not in occupied areas of the building (on the working side of a Separation Barrier) must be rigid and sealed with a minimum of six mil plastic sheeting or equivalent. Exhaust duct in occupied areas must also be rigid and sealed with a minimum of six mil plastic sheeting or equivalent and separated from the occupied area by a Secure Separation Barrier. This Secure Separation Barrier must allow for visual inspection and repair of the duct as necessary.

U. Contractor must maintain emergency exits from the regulated area.

V. Contractor must maintain adequate fire fighting equipment in the regulated areas. The locations of fire fighting apparatus in the work area must be clearly indicated by red spray paint on the plastic wall sheeting or with appropriate signage.

W. The Contractor must repair breeches in the Separation Barriers as soon as they are discovered.

X. The Contractor must design, detail, fabricate, furnish, and install an exterior containment system, if required, to control airborne particulates according to all applicable codes, standards, and regulations. The Contractor must thoroughly examine the structure of the existing buildings to verify their ability to support such a containment system.

1-10 ENVIRONMENTAL MONITORING PROGRAM

The Contractor must have a program designed by an IDPH-licensed and certified asbestos air sampling professional, to establish the air monitoring procedure and other environmental monitoring requirements, in accordance with all applicable rules and regulations. The design of such a program, including the establishment of appropriate baseline criteria; the number, location, and type of monitoring stations; and the actual performance of such monitoring and testing must be the sole responsibility of the Contractor.

Credentials required for testing and analyses of asbestos are:

- A. Accreditation by AIHA or AAR;
- B. Participation in the Proficiency Analytical Testing (PAT) program; and
- C. Certification to read samples on site when site analysis is conducted.

1-11 WORKER PROTECTION PROGRAM

Worker protection in accordance with the requirements of OSHA and other agencies must be the responsibility of the Contractor. The Contractor must have a written program prepared by a properly licensed and certified asbestos project designer, to establish the worker protection procedures and other requirements, in accordance with all applicable rules and regulations. The design of such a program,

including the establishment of appropriate baseline criteria, the type of monitoring and testing, and the actual performance of such monitoring and testing must be the sole responsibility of the Contractor.

The Contractor must develop and implement a Respiratory Protection Program (RPP) which is in compliance with the August 24, 2006, (as amended) OSHA requirements found at 29 CFR 1926.1101 and 29 CFR 1910.132;134. ANSI Standard Z88.2-1992 provides excellent guidance for developing a respiratory protection program. All respirators used must be NIOSH approved for asbestos abatement activities. The written respiratory protection must, at a minimum, contain the basic requirements found at 29 CFR 1910.134 (c) - Respiratory Protection Program.

Minimum respiratory protection must be a half face air purifying. A higher level of respiratory protection must be provided by the Contractor if area and personal monitoring results indicate elevated fiber levels. Respirator selection must meet the requirements of OSHA, except as indicated in this paragraph. All Abatement personnel must have a respirator for their exclusive use.

No employee will be allowed to wear a respirator unless a physician has determined they are capable of doing so and has issued a current written opinion for that person.

All personnel wearing respirators must have a current qualitative/quantitative fit test which was conducted in accordance with 29 CFR 1910.134 (f).

The positive/negative fit check must be done each time the respirator is donned by an employee. Head coverings must cover respirator head straps. Any situation that prevents an effective face piece to face seal as evidenced by failure of a fit check must preclude that person from wearing a respirator until resolution of the problem.

If a supplied air system is used, the system must meet all requirements of 29 CFR 1910.134 and the ANSI/Compressed Gas Association (CGA) Commodity Specification for Air current requirements for Type 1 - Grade D breathing air. Low pressure systems are not allowed to be used on asbestos abatement projects. Supplied Air respirator use must be in accordance with EPA/NIOSH publication EPA-560-OPTS-86-001 "A Guide to Respiratory Protection for the Asbestos Abatement Industry".

Prior to beginning any abatement activity, all personnel must be trained in accordance with OSHA 29 CFR 1926.1101 (k)(9) and any additional State/Local requirements. Training must include, at a minimum, the elements listed at 29 CFR 1926.1101 (k)(9)(viii). Training must have been conducted by a third party, EPA/State approved trainer meeting the requirements of EPA 40 CFR 763 Appendix C (AHERA MAP). Initial training certificates and current refresher and accreditation proof must be submitted for each person working at the site.

Medical examinations meeting the requirements of 29 CFR 1926.1101 (m) must be provided for all personnel working in the regulated area, regardless of exposure levels. A current physician's written opinion as required by 29 CFR 1926.1101 (m)(4) must be provided for each person and must include in the opinion the person has been evaluated for working in a heat stress environment while wearing personal protective equipment and is able to perform the work.

Provide whole body clothing, head coverings, gloves and foot coverings and any other personal protective equipment as determined by conducting the hazard assessment required by OSHA at 29 CFR 1910.132 (d). The Competent Person must ensure the integrity of personal protective equipment worn for the duration of the project. Duct tape must be used to secure all suit sleeves to wrists and to secure foot coverings at the ankle.

1-12 HANDLING OF WASTE AND REPORTING RELEASES

The Contractor must be responsible for the handling and disposal of all waste generated as a result of the work. The testing, handling, transportation, and disposal of such wastes must be in accordance with all applicable rules and regulations.

Asbestos waste must be packaged and moved through the W/EDF into a covered transport container in accordance with procedures in this specification. Waste must be double-bagged prior to disposal. Wetted waste can be very heavy. Bags must not be overfilled. Bags must securely seal to prevent accidental opening and/or leakage. The top must be tightly twisted and goose necked prior to tightly sealing with at least three wraps of duct tape. Ensure that unauthorized persons do not have access to the waste material once it is outside the regulated area. All transport containers must be covered at all times when not in use. NESHAP's signs must be on containers during loading and unloading. Material must not be transported in open vehicles. If drums are used for packaging, the drums must be labeled properly and must not be re-used.

Waste Load Out: Waste load out must be done in accordance with the procedures in W/EDF Decontamination Procedures. Bags must be decontaminated on exterior surfaces by wet cleaning and/or HEPA vacuuming before being placed in the second bag.

Asbestos waste with sharp edged components, i.e., nails, screws, lath, strapping, tin sheeting, jacketing, metal mesh, etc., which might tear poly bags must be wrapped securely in burlap before packaging and, if needed, use a poly lined fiber drum as the second container, prior to disposal.

The following must be developed by the Contractor:

- Program for sampling and testing of the debris to be able to accurately categorize the materials and the resulting handling and disposal requirements.
- Plan addressing the handling, transportation, and disposal of the different types of waste materials.
- Plan related to reportable releases into the atmosphere or discharges into waterways in accordance with applicable rules and regulations. Included in this plan must be the requirement of immediate notifications of any such releases.
- Plan regarding procedures and methods to vacuum, wash, or otherwise decontaminate containments, structures, equipment, and reusable items throughout the period of construction.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

3-01 GENERAL

Power tools such as, but not limited to saws, pneumatic chisels, brushes, sanders and needle guns must be equipped with shrouds and HEPA-filtered local exhaust systems to capture released particles.

3-02 GENERAL ACM REMOVAL AND HANDLING GUIDELINES

- A. General The following guidelines are intended to give the Contractor basic information regarding the removal and handling of ACM. This information is not intended to be all encompassing and in no way relieves the Contractor or the Contractor's Subcontractors of their responsibility in complying with all local, state and federal regulations regarding the removal and disposal of ACM.
- B. General Procedures The Contractor must provide documentation that their employees have had training in the precautions necessary when working with ACM, as required by Part 1-05. The Contractor must assure that all workers utilize appropriate PPE in accordance with OSHA regulations and the Worker Protection Program required in Part 1-11.
- C. Air Monitoring

1. The Contractor must perform personal air monitoring and area air monitoring testing in accordance with accepted OSHA and EPA guidelines to determine the work shift or 8-hour Time Weighted Average (TWA) fiber count levels. Air monitoring must be performed from the beginning of abatement activities through the completion of the abatement activities.
2. The Contractor must maintain an average airborne count in the work area of less than 0.1 fibers per cubic centimeter. If the fiber counts rise above this figure for any sample taken, revise work procedures to lower fiber counts. If the TWA fiber count for any work shift or 8 hour period exceeds 0.1 fibers per cubic centimeter, stop all work. Do not recommence work until authorized in writing by the Owner or the Owner's Representative.
3. A minimum of five copies of all reports of testing must be submitted to the Owner, and one copy to the Consultant.

D. ACM Removal

1. ACM removal will be performed with employees wearing appropriate PPE as required by OSHA and as outlined in the Contractor's Worker Protection Program, required in Part 1-10. All Abatement personnel must have a respirator for their exclusive use. No employee will be allowed to wear a respirator unless a physician has determined they are capable of doing so and has issued a current written opinion for that person. All personnel wearing respirators must have a current qualitative/quantitative fit test which was conducted in accordance with OSHA regulations. The Competent Person must assure that the positive/negative fit check is done each time the respirator is donned by an employee. Head coverings must cover respirator head straps. Any situation that prevents an effective face piece to face seal as evidenced by failure of a fit check will preclude that person from wearing a respirator until resolution of the problem. The Respiratory Protection Program Coordinator must submit evidence and documentation showing compliance with OSHA for the maintenance and care of respirators. Personal and area monitoring will be conducted to determine the amounts of asbestos fibers being released into the air. Personal and area air monitoring must continue throughout the course of the removal of ACM.
2. ACM removal should be performed such that there are no visible emissions. ACM should be adequately wetted to reduce fiber release during removal and must be sufficiently wetted so that it is saturated until it is transported to the landfill for disposal. The Contractor must take all necessary precautions to prevent water from entering the building space below.
3. All water used for dust control, decontamination of equipment and all wash-water generated must be collected, properly contained, and disposed of at a permitted facility or discharged into the public sewerage system in accordance with all applicable local, state, and federal ordinances and regulations. The permitted facility will be approved by the Owner. Appropriate sampling and analysis required by the disposal facility must be performed by the Contractor prior to wash water disposal. Copies of the analysis will be submitted to the Owner.

E. ACM Disposal

1. All ACM will be disposed of in an EPA approved landfill.
2. The Contractor must contact the Illinois EPA for the location of the nearest acceptable landfill and will obtain information regarding the disposal requirements of the landfill and the Illinois EPA for ACM.
3. ACM and associated contaminated waste must be containerized in the regulated area, as required. The Contractor must decontaminate the exterior surfaces of the containerized waste and placed in the holding area of the Equipment Decontamination Enclosure System. Containerized waste must be washed in the Equipment Decontamination Enclosure System.

If the Decontamination Enclosure System exits to outside the building, the containerized waste must be placed in a lockable dumpster. If the Decontamination Enclosure System DOES NOT exit to outside the building, the containerized waste must be placed in a rubber hand cart with a cover that totally covers the containerized waste. The cart must not be opened until a worker has moved the cart into a designated waste storage area or until a worker pushes the cart out of the building.

4. All ACM associated with roofing will be lowered by crane or other similar means, to reduce potential for fiber release and dropping of waste.
5. The ACM dumpster must be lined with a minimum of two layers of six mil polyethylene.
6. Dumpsters for storage and transportation of asbestos containing waste must be constructed of metal and have metal doors and metal tops that can be locked to prevent vandalism, wind dispersion, or other disturbances to the containerized waste. The dumpsters must be locked when Contractor is not on site and when not in active use.
7. The Contractor must supply dump receipts, Waste Transfer Forms, trip tickets, and/or other transportation documentation, including the required waste manifests from the IEPA-approved landfill, to the Owner through the Consultant, as required, prior to approval of final payment.
8. Disposal of contaminated water from the work area:
 - a. Only facilities approved and permitted by the IEPA for accepting contaminated liquid wastes may be used for disposal.
 - b. Liquid waste must be appropriately sampled and analyzed as required by the disposal facility.
 - c. If the water quality permits its discharge to the existing public sewer system, the collected water can be discharged into the storm sewer system with the prior public facility and Owner approval. A permit from the public sewer system may be required and must be provided by the Contractor before discharging such waste.

F. Signs and Labels:

1. Warning signs that demarcate the regulated area must be provided and displayed at each location where a regulated area is required in accordance with OSHA regulations. Warning signs must be posted at all entrances to the work areas and at each location, and at approaches to locations where airborne fiber concentrations may exceed 0.01 f/cc or background levels, whichever is greater. Warning signs must be posted to permit a person to read the sign and then take the necessary protective measures in order to avoid personal exposure before entering a work area. Signs must comply with the requirements of OSHA regulations, must be in vertical format of 20" x 14", and display the following information:

Danger

Asbestos

Cancer and Lung Disease Hazard

Authorized Personnel Only

Respirators and Protective Clothing are Required in this Area

2. Labels must be affixed to all asbestos-containing waste and waste contaminated with asbestos. Labels must comply with the requirements of the OSHA regulations, and must be of a sufficient size and contrast to be readily visible and legible. The label must state:

Danger

Contains Asbestos Fibers

Avoid Creating Dust

Cancer and Lung Disease Hazard

In addition, when using bags for asbestos-containing waste, a separate sheet of paper must be placed between the inner and outer bag. The sheet of paper must state:

Owner

Chicago Executive Airport

800040-1.4 LEAD ABATEMENT

PART 1 - GENERAL

1-01 WORK INCLUDED

In accordance with the specifications contained in this section and as shown on the drawings, or as directed, the Contractor must furnish all labor, materials, supervision, construction tools, equipment, and incidental items necessary to perform lead abatement. Additionally, the Contractor must understand that the technical aspects of the lead abatement specifications apply to the project as a whole. This section covers the requirements for worker protection, environmental protection, waste handling and disposal, and containment system performance requirements for the removal of surface coatings which contain lead and other hazardous materials.

Lead-based paint has been identified through testing in the following material:

Location	Material Description	Quantity	Result	Condition
Interior	Yellow paint	Approx. 20 linear/feet	Positive	Poor
Interior	Brown paint	Approx. 20,000 linear/feet	Positive	Poor
Interior	Grey paint	Approx. 40 linear/feet	Positive	Poor
Interior	White paint	Approx. 32 square/feet	Positive	Poor
Interior	White paint	Approx. 30 linear/feet	Positive	Poor
Interior	Orange paint	Approx. 250 square/feet	Positive	Poor
Exterior	Beige paint	Approx. 18,000 square/feet	Positive	Poor
Exterior	Red paint	Approx. 18,000 square/feet	Positive	Poor

When the work includes lead, asbestos, and hazardous materials abatement items in the same spaces, they should be performed in the sequence and combinations that produce the most efficient results and the least amount of total waste. When lead, asbestos, and hazardous waste decontamination processes are combined, the more stringent cleanup procedures will apply.

The Contractor shall confirm all quantities, locations and field conditions on site prior to submitting their bid for this project.

A. The Contractor must develop detailed work plans for the containment system, environmental monitoring plan, testing, worker protection and criteria for handling regulated waste associated with the abatement of lead paint according to all applicable codes and regulations. The Contractor must implement and maintain programs and procedures that comply with the requirements of this specification and all applicable federal, state and local standards and regulations, pertaining to the scope of work, including but not limited to removing, handling, storing, transporting, and disposing of lead-containing waste materials, even if not specifically referenced herein. Moreover, the Contractor will be responsible for and held accountable for ensuring compliance with all lead abatement regulatory requirements. The Contractor must provide all necessary enclosure and containments to protect the surrounding area from environmental contaminants associated with the abatement of asbestos, lead-based paints and coatings, and hazardous materials. Where specification requirements and the referenced documents vary, the most stringent requirements will apply. Furthermore the Owner may engage an independent agency to monitor Contractor compliance with all applicable regulations, specifications, and Contractor developed programs or plans.

B. The Contractor must implement and maintain programs and procedures which comply with the requirements of this specification and all applicable federal, state, and local codes, standards, and regulations, including those of OSHA and USEPA, even if not specifically referenced herein. Furthermore, the Owner may engage an independent agency to monitor Contractor compliance with all applicable regulations, specifications, and Contractor developed programs or plans. The Contractor must provide all necessary enclosures and containments to protect the surrounding area from environmental contaminants associated with the abatement of asbestos and lead-based paints and coatings. When the work includes lead, asbestos, or hazardous materials abatement activities in the same spaces, they should be performed in the sequence and combinations that produce the most efficient results and the least amount of total waste. When lead, asbestos, and hazardous materials decontamination processes are combined, the more stringent cleanup procedures will apply.

1-02 RELATED SECTIONS

A. ITEM 800040 - BUILDING DEMOLITION

B. ITEM 028200 - ASBESTOS ABATEMENT

1-03 GENERAL REQUIREMENTS

A. Lead-containing coatings have been identified at the facility during previous testing (See Part 1-05) on the structural steel of the T-Hangar buildings as summarized in the Hazardous Materials Survey Report. A copy of the report is included as Appendix A and will be incorporated by reference as part of these Contract Documents. The report is listed below:

1. Hazardous Materials Survey Report, January 28, 2010 (Appendix A)

The report provided in Appendix A is provided for information only. All of the materials specified for abatement are not necessarily identified in the report.

The Contractor is expected to review this specification and inspect the facility thoroughly prior to submitting a bid for this work. No extras associated with lead abatement activities shall be allowed or considered during this project. It is the Contractor's sole responsibility to be completely familiar with the project, its requirements and the overall project deliverable.

B. An IDPH-licensed lead abatement Contractor is required to complete the lead-based paint removal. The Contractor will be responsible for and held accountable for ensuring compliance with all of the

environmental regulatory requirements associated with the abatement and disposal of lead-based paint materials.

- C. The Chicago Executive Airport will continue to be in operation during the project work and contact of lead-containing materials or lead-contaminated equipment with the surrounding area must be prevented.
- D. Protection of the surrounding area from contact with contaminants is of paramount importance throughout the period of construction.

The containment system and method of paint removal must be designed and detailed by the Contractor.

The Contractor will ensure that the products used to construct the containment systems and products used inside the containment system, including but not limited to; poly sheeting, membrane liners, glues, adhesives, solvents, paints and cleaning solutions will not contaminate the surrounding area.

The Contractor will routinely inspect the containment systems for decomposition or deterioration. The Contractor will replace/repair the containment system as needed to prevent decomposition byproducts from contaminating the surrounding area.

E. Structural demolition of the T-Hangar buildings does not require the removal of lead-bearing substances or lead-licensed contractors or workers unless the demolition of lead-bearing substances will create fumes (as in torch cutting) or visible emissions (as in physical cutting). Any disturbance to these components must be a coordinated abatement of only areas that must be disturbed during demolition activities. The areas of abatement must be identified by the Contractor and the Contractor must abate/remove no less than one foot of LBP in all directions from the area of LBP to be disturbed during the Work. Requirements for protection of the surrounding area, worker protection, containment of lead-bearing debris, environmental protection and waste handling and disposal must apply to the removal of lead-bearing substances.

1-04 REFERENCES

- A. General

The documents listed below relate specifically to lead paint removal and are listed for the Contractor's convenience.

- B. Report

A previously prepared report summarizing a study and tests is available for information and use by the Contractor. The report listed below is included in Appendix A, and will be incorporated by reference as part of these Contract Documents.

- Hazardous Materials Survey Report, January 28, 2010 (Appendix A)

- C. Code of Federal Regulations

29 CFR 1910.1200 Hazard Communication

29 CFR 1910.151 Medical and First Aid

29 CFR 1910.20 Access to Employee Exposure and Medical Records

29 CFR 1910.132 Personal Protective Equipment

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- 29 CFR 1910.134 OSHA, Respiratory Protection
 - 29 CFR 1910.141 OSHA, Sanitation
 - 29 CFR 1926 OSHA, Occupational Safety and Health Regulations for Construction
 - 29 CFR 1926.59 OSHA, Hazard Communication
 - 29 CFR 1926.62 OSHA, Lead
 - 40 CFR 50 EPA, National Primary and Secondary Ambient Air Quality Standards
 - 40 CFR 50, Appendix B EPA, Reference Method for the Determination of Lead in Suspended Particulate Matter in the Atmosphere (High Volume Method)
 - 40 CFR 50, Appendix G EPA, Reference Method for the Determination of Lead in Suspended Particulate Matter Collected from Ambient Air
 - 40 CFR 58 EPA, Ambient Air Quality Surveillance
 - 40 CFR 60, App. A., EPA, Visual Determination of the Opacity of Method 9 Emissions from Stationary Sources
 - 40 CFR 60, App. A EPA, Visual Determination of Fugitive Method 22 Emissions from Material Sources and Smoke Emissions from Fires
 - 40 CFR 117EPA, Determination of Reportable Quantities for Hazardous Substances
 - 40 CFR Part 148 Hazardous Waste Injection Restrictions
 - 40 CFR Part 260 Hazardous Waste Management System: General
 - 40 CFR 261EPA, Identification and Listing of Hazardous Waste
 - 40 CFR 261, Appendix II EPA, Method 1311 Toxicity Characteristic Leaching Procedure (TCLP)
 - 40 CFR 262EPA, Standards Applicable to Generators of Hazardous Waste
 - 40 CFR 263EPA, Standards Applicable to Transporters of Hazardous Waste
 - 40 CFR 264EPA, Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities
 - 40 CFR 265EPA, Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
 - 40 CFR 265, Subpart C EPA, Preparedness and Prevention
 - 40 CFR 265, Subpart D EPA, Contingency Plan and Emergency Procedures
 - 40 CFR 265.16 EPA, Personnel Training
 - 40 CFR 268EPA, Land Disposal Restrictions
 - 40 CFR 302EPA, Designation, Reportable Quantities and Notification
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40 CFR 355EPA, Emergency Planning and Notification

40 CFR 745Lead-Based Paint Poisoning Prevention in Certain Residential Structures

49 CFR Part 172 Hazardous Material Table, Special Provisions, Hazardous Material Communications, Emergency Response Information, and Training Requirements

49 CFR Part 178 Specifications for Packaging

49 CFR 100 – 185 Transportation

D. EPA Methods

3050 Acid Digestion of Sediment, Sludge, and Soils

SW-846 Test Methods for Evaluating Solid Waste - Physical/Chemical Methods

E. NIOSH Methods

7082 Lead

NIOSH OSHA Lead in Construction
Booklet 3142

F. SSPC

SSPC 93-02 Industrial Lead Paint Removal Handbook, 2nd Edition

SSPC-Guide 6 Guide for Containing Surface Preparation Debris Generated During Paint Removal Operations

SSPC-Guide 7 Guide to the Disposal of Lead-Contaminated Surface Preparation Debris

G. State and Local Regulations

Illinois Environmental Protection Act Section 9(a)

35 Illinois Administrative Code (IAC) 212.302 Fugitive Particulate Matter

35 IAC Identification and Listing of Hazardous Waste Part 721

Section 808, 809, and 810 (Special Waste)
Subtitle C General Use Water Quality Standards

35 IAC Tiered Approach to Corrective Action (TACO) Part 742

410 ILCS 45 Illinois Lead Poisoning Prevention Act

415 ILCS Environmental Protection Act

77.I.p.845 Illinois Lead Poisoning Prevention Code

H. Local Requirements

If local requirements are more stringent than federal or state standards, the local standards are to be followed.

I. Standards

1. Standards which govern lead abatement activities include, but are not limited to, the following:
 - a. American National Standards Institute (ANSI) Z9.2-79 - Fundamentals Governing the Design and Operation of Local Exhaust Systems Z88.2 - Practices for Respiratory Protection.
 - b. Underwriters Laboratories (UL) 586-90 - UL Standard for Safety of HEPA Filter Units, 7th Edition.
2. Standards which govern encapsulation work include, but are not limited to the following:
 - a. American Society for Testing and Materials (ASTM)
3. Standards which govern the fire and safety concerns in abatement work include, but are not limited to, the following:
 - a. National Fire Protection Association (NFPA) 241 - Standard for Safeguarding Construction, Alteration, and Demolition Operations.
 - b. NFPA 701 - Standard Methods for Fire Tests for Flame Resistant Textiles and Film.
 - c. NFPA 101 - Life Safety Code

1-05 DEFINITIONS

In addition to the terms listed below, all definitions in the laws and regulations listed in Part 1-04 are incorporated by reference, whether or not restated herein.

“Abatement” means the work area preparation, complete removal of lead-bearing substances, and cleanup of surrounding work area to prescribed levels of decontamination.

“Abatement Contractor (AC)” means the entity responsible for performing the work in this section, with the training and accreditation to competently perform the work. This entity will obtain and maintain any licenses required for the work in this section.

“Action Level” means employee exposure, without regard to use of respirations, to an airborne lead concentration of 30 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) of air averaged over 8-hours.

“Area Monitoring” means sampling of lead concentrations within the lead control area and inside the physical boundaries which is representative of the airborne lead concentrations which may reach the breathing zone of personnel potentially exposed to lead.

“Physical Boundary” means an area physically roped or partitioned off around an enclosed lead control area to limit unauthorized entry of personnel. As used in this section, "inside boundary" will mean the same as "outside lead control area."

“Certified Industrial Hygienist (CIH)” as used in this section, refers to an Industrial Hygienist employed by the Contractor and is certified by the American Board of Industrial Hygiene in comprehensive practice.

“**Change Rooms and Shower Facilities**” means rooms within the designated physical boundary around the lead control area equipped with separate storage facilities for clean protective work clothing and equipment and for street clothes which prevent cross-contamination.

“**Competent Person**” means a person capable of identifying lead hazards in the work area and is authorized by the Contractor to take corrective action.

“**Decontamination Room**” means a room for removal of contaminated personal protective equipment (PPE).

“**Eight-Hour Time Weighted Average (TWA)**” means an airborne concentration of lead averaged over an 8-hour workday to which an employee is exposed.

“**EPA**” means Environmental Protection Agency

“**General Contractor (GC)**” means the entity responsible for performing the complete scope of work in the Documents. The GC may elect to self-perform or subcontract out any portion of the work. If the GC acts as the AC, it must have the same credentials, training, accreditations and licenses required by the AC.

“**High Efficiency Particulate Air (HEPA) Filter Equipment**” means a HEPA filter capable of trapping 99.97% percent of particles greater than 0.3 micrometers in mass median aerodynamic equivalent diameter.

“**IDPH**” means the Illinois Department of Public Health.

“**Lead**” means metallic lead, inorganic lead compounds, and organic lead soaps. Excluded from this definition are other organic lead compounds.

“**Lead Abatement Contractor/Supervisor**” Hereinafter referred to as “supervisor” means any person who supervises lead abatement workers. This person must be trained, accredited, and licensed as required, and must also meet OSHA “competent person” criteria for lead abatement.

“**Lead-Based Paint**” means paints or coatings that are lead-bearing substances.

“**Lead-Bearing Soil**” means soil containing more than 400 milligrams of lead per gram of soil.

“**Lead-Bearing Substance**” means any dust on surfaces or furniture or other non-permanent items and any paint or other surface coating material containing more than five-tenths of one percent (0.5%) lead by weight (calculated as lead metal) in the total non-volatile content of liquid paint, or lead bearing substances containing greater than 1 milligram per square centimeter (mg/cm^2) or any lower standard for lead content in residential paint as may be established by federal law or regulation; or more than 1 milligram per square centimeter mg/cm^2 in the dried film of paint or previously applied substance.

“**Lead Control Area**” means an enclosed area or structure with full containment to prevent the spread of lead dust, paint chips, or debris of lead-containing paint removal operations. The lead control area is isolated by physical boundaries to prevent unauthorized entry of personnel.

“**Lead Permissible Exposure Limit (PEL)**” means fifty $\mu\text{g}/\text{m}^3$ of air as an 8-hour time weighted average as determined by 29 CFR 1910.1025. If an employee is exposed for more than 8 hours in a work day, the PEL must be determined by the following formula. $\text{PEL} (\text{mg}/\text{m}^3 \text{ of air}) = 400/\text{No. of hrs worked per day}$.

“**Mitigation**” means use of operations and maintenance (O&M) procedures to repair lead-bearing substances to an intact state.

“**MSDS**” means Material Safety Data Sheet, required by OSHA for any substances which are toxic, caustic, or otherwise hazardous to workers.

“**OSHA**” means Occupational Safety and Health Administration

“**Owner/Operator**” means any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises.

“**Owner’s Representative**” means the Owner and/or any representative for the Owner acting on behalf of the Owner or specifically contracted with the Owner to provide project consultation, representation or direction having jurisdiction over the project.

“**PCCP**” means Painting Contractor Certification Program

“**Personnel Monitoring**” means sampling of lead concentrations within the breathing zone of an employee to determine the 8-hour time weighted average concentration in accordance with 29 CFR 1910.1025. Samples must be representative of the employee's work tasks. Breathing zone must be considered an area within a hemisphere, forward of the shoulders, with a radius of 150 mm to 225 mm (6 to 9 inches) and the center at the nose or mouth of an employee.

“**Plasticize**” means the application of plastic sheeting over surfaces or objects to protect them from contamination or water damage.

“**QP1**” means SSPC Contractor Certification program evaluates Contractors who perform surface preparation and industrial coating application on steel structures in the field.

“**QP2**” means SSPC Contractor Certification program evaluates the Contractor's ability to perform industrial hazardous paint removal in a field operation. Two QP 2 categories are available based on the type of equipment and containment

Category A - Negative Air Containment

Category B - No Negative Air Containment

“**SSPC**” means the Society of Protective Coatings (formerly, Steel Structures Painting Council).

“**Wet Cleaning**” means cleaning all surfaces with a solution containing tri-sodium phosphate mixed according to the manufacturer’s directions, or a phosphate-free lead dissolving detergent.

“**Work Area**” means exterior areas where lead abatement activities are conducted.

“**Work Site**” means the T-Hangar buildings undergoing lead abatement activities.

1-06 WORKER PROTECTION PROGRAM

A. Programs

Submit compliance and respiratory protection programs in accordance with Part 3-01 to assure that workers are not exposed to lead at concentrations greater than the OSHA PEL, including evidence of training and experience for key personnel in areas of OSHA standards.

B. Acceptance Criteria

1. The program must specifically address, as a minimum, all of the elements outlined in Part 3-01.
2. The program must delegate specific responsibility to the Contractor's management for implementation and enforcement.

3. The program must be written and implemented by the Contractor and reviewed by the Owner, and/or the Owner's Representative.

1-07 ENVIRONMENTAL PROTECTION PROGRAMS

A. Programs

Submit programs in accordance with Parts 3-02 through 3-05.

B. Acceptance Criteria

1. The Environmental Protection Programs must address, as a minimum, all of the elements outlined in Parts 3-02 through 3-05 and that are specific to this project.
2. The programs must be written, formally approved, and implemented by the Contractor for this project.
3. The programs must delegate specific responsibility to the Contractor's management for implementation and enforcement.

1-08 WASTE CLASSIFICATION, HANDLING, AND DISPOSAL PROGRAM

A. Program

Submit program in accordance with Part 3-06.

B. Acceptance Criteria

1. The program must address, as a minimum, all of the elements outlined in Part 3-06 and must be specific to this project.
2. The program must be written, formally approved, and implemented by the Contractor for this project.
3. The program must delegate specific responsibility to the Contractor's management for implementation and enforcement.

1-09 CONTAINMENT SYSTEM

1 Acceptance Criteria

2 The containment system must be used and maintained throughout the project as designed to ensure worker protection and environmental protection as specified in this section.

3 The Contractor must design a containment system for the work area that must preclude release of LBP or contaminated dust and debris outside of the contained work area.

4 The containment must have air impenetrable walls, ceiling, and floors, as applicable, with rigid or flexible framing, fully sealed joints, airlock or re-sealable entryways, negative air pressure, and exhaust air filtration.

5 For wet methods of preparation, the containment must have water impermeable walls, ceiling, and floors as applicable, with rigid or flexible framing, fully sealed joints, re-sealable entryways, negative air pressure, and exhaust air filtration.

6 For chemical stripping, the containment must have chemical resistant walls, ceiling, and floors, as applicable, with rigid or flexible framing, fully sealed joints and overlapping entryways, forced air flow, and exhaust air filtration.

7 The containment must control environmental emissions and must maintain the site that is free of fugitive dust (i.e., dust that becomes airborne or visual).

8 The containment must provide protection to the facility structures from contamination during the LBP removal.

9 The containment systems must be constructed to allow paint removal work without damage or contamination of adjacent areas. Where existing work is damaged or contaminated, the Contractor must be responsible to restore such to its original condition.

10 Criteria for worker protection must be in accordance with the provisions of this Specification. Mechanical ventilation for the containment enclosure must be employed as required to achieve a safe working environment in accordance with OSHA regulations.

10. All drawings, data, calculations, and assumptions used for the design of the containment must be provided to the Owner's Representative for review prior to beginning work.

1-10 SUBMITTALS

A. The Contractor must provide detailed written programs, specifications and plans for each of the items described in Parts 1-06 through 1-09, and also as listed below, a minimum of 45 days prior to the beginning of the work or some other mutually acceptable time frame. All such programs, plans and specifications must be in accordance with all applicable rules, regulations and statutes.

B. Submit to the Owner for review the following:

1. Worker protection compliance program
2. Worker respiratory protection program
3. Programs for the protection of the ambient air, soil, and water
4. Waste classification, handling, disposal, and analysis of debris
5. Transportation and disposal quality assurance program
6. Containment system, staging and scaffolding design, provisions for temporary lighting and heating, specifications, and drawings

PART 2 - PRODUCTS

2-01 TOOLS AND EQUIPMENT

All equipment must at least conform to minimum industry standards:

A. Equipment

1. Negative air machines must provide HEPA filtration and conform to ANSI Z9.2 fabrication criteria.

2. Respirators and associated air purifying cartridges must be NIOSH or MSHA approved for use with lead, asbestos, or other contaminants anticipated in the work.
3. Safety equipment, such as hard hats, eye protection, gloves, and footwear must comply with their respective ANSI standards.

B. Tools

1. Shovels and scoops must be suitable for use in a plasticized containment. Plastic or rubber models are preferred, but metal shovels are acceptable when used with care to prevent damage to poly sheeting and permanent surfaces. Duct tape may be applied to the leading edges to aid in poly damage prevention.
2. Scrapers, wire and bristle brushes, utility knives and other hand tools must be of good quality and suitable for the intended uses. The Contractor must keep an ample supply on hand for the completion of the work.
3. Power tools such as, but not limited to saws, pneumatic chisels, brushes, sanders, and needle guns must be equipped with shrouds and HEPA-filtered local exhaust systems to capture released particles.

2-02 MATERIALS

A. Abatement materials

1. The Contractor will ensure that the products used to construct the containment systems and products used inside the containment system, including but not limited to; poly sheeting, membrane liners, glues, adhesives, solvents, paints and cleaning solutions will not contaminate the surrounding area.

The Contractor will routinely inspect the containment systems for decomposition or deterioration. The Contractor will replace/repair the containment system as needed to prevent decomposition byproducts from contaminating the surrounding area.

2. Tape must be 2" or 3" duct tape or other waterproof tape suitable for joining poly seams and attaching poly sheeting to surfaces.
3. Spray adhesives must be non-flammable and free of methylene chloride solvents.
4. Disposal bags must be minimum six mil where used for single-bagging, and minimum four mil where used for double-bagging.
5. Disposable suits, hoods, and foot coverings must be TYVEK or similar.
6. Solvents must be compatible with any primers, paints, coatings, or other surfacing materials to be installed following their use.
7. Cleaning solutions must cause lead to chelate, precipitate, or otherwise release effectively release from surfaces.

PART 3 - EXECUTION

3-01 WORKER PROTECTION COMPLIANCE PROGRAM

A. General

1. The Contractor must develop a written Compliance Program to establish and implement practices and procedures for assuring that no employee is exposed to lead at concentrations greater than $50 \mu\text{g}/\text{m}^3$, the OSHA permissible exposure limit (PEL). This program is in addition to other OSHA hazard communication and safety and health requirements of the project, and must be revised and updated at least every six months.
 2. The program must establish methods for complying with this specification and the OSHA Construction Industry Lead Standard, 29 CFR 1926.62, which must be thoroughly reviewed. The Federal regulation is referred to as the "lead standard" for the purpose of this section.
 3. The program must apply to all Contractor employees associated with lead on the project, and to Subcontractors working under the direct control of the Contractor who are associated with lead on the project.
 4. The program must assign the specific responsibility for implementation and enforcement of the program to the Contractor.
 5. The program must contain a description of each activity in which lead is emitted (e.g., equipment used, material involved, controls in place, crew size, employee job responsibilities, operating procedures and maintenance practices). All elements of the lead standard as listed in Part 3-01, B must be addressed.
 6. The program must contain a report of the technology considered in meeting the PEL and air monitoring data which documents the source of lead emissions.
 7. The program must contain a work practice program which includes items required in the lead standard such as protective clothing and equipment, housekeeping, and hygiene facilities and practices. The program must include provisions for blood lead and zinc protoporphyrin (ZPP) testing of all Contractor personnel prior to assignment to a lead project with follow-up testing at the frequencies established in the lead standard.
- B. Elements of Lead Standard to Be Addressed
1. Exposure monitoring, including proper protection during initial monitoring.
 2. Action Level.
 3. Permissible Exposure Limit.
 4. Respiratory Protection.
 5. Protective Clothing and Equipment.
 6. Housekeeping.
 7. Personal Hygiene Facilities and Practices.
 8. Medical Surveillance and Medical Removal Protection.
 9. Employee Information and Training.
 10. Signs and Regulated Areas.
 11. Recordkeeping.

C. An emergency action plan must be provided in the event that an incident occurs that may require the modification of the Contractor's standard operating procedures during abatement. The Contractor must detail procedures to be followed in the event of an incident assuring that lead abatement work is stopped until the problem is corrected.

The Contractor must control emissions from the project site to comply with the Illinois Environmental Protection Act and 35 Illinois Administrative Code 312.302. The Contractor must report any release of lead-containing debris into waterways, in reportable quantities of hazardous substances, pursuant to Section 311 of the Clean Water Act, to the EPA 40 CFR 117 and 40 CFR 355, and to the Illinois Bureau of Water, Division of Water Pollution Control Planning Section. The Contractor must control any release of lead-containing debris into soils pursuant to the Illinois EPA Tiered Approach to Corrective Action (TACO) regulations, 35 IAC Code Part 742.

The Contractor must comply with the referenced quality standards and regulations if lead surfaces are disturbed and/or removed during the demolition of the T-Hangar buildings as outlined in the Contractor's written work plan.

D. Prior to beginning any abatement activity, all Contractor personnel must be trained in accordance with OSHA 29 CFR 1926.62 and any additional State/Local requirements. Training must have been conducted by a third party, EPA/State approved trainer meeting the requirements of EPA 40 CFR 745. Initial training certificates, current refresher training certificates and any applicable state and local licensing must be submitted for each person working at the site.

3-02 WASTE CLASSIFICATION, HANDLING, AND DISPOSAL

A. General

1. The Chicago Executive Airport is the generator of lead-contaminated debris for permitting purposes.
2. If an Illinois waste generator and US EPA waste generator numbers do not exist for the facility, the Contractor must apply for Illinois EPA waste generator and US EPA waste generator numbers on behalf of the Chicago Executive Airport. These numbers must be used on all manifests that accompany the waste from the facility of generation to the treatment/disposal facility.
3. If generator numbers already exist for the facility, the Contractor must file a letter with the Illinois EPA, Division of Land Pollution Control Permits Section, to add lead to the list of generated wastes and to upgrade the facility to a "Large Quantity Generator," if generating more than 1,000 kg in a month. Copies of all correspondence to the IEPA must be copied to the Owner.
4. The Contractor is responsible for assuring that all testing, handling, storage, transportation, manifesting, and disposal requirements are properly implemented, including satisfactory training of job site personnel and the cleaning of all reusable items and equipment prior to removal from the site.
5. The Contractor must develop a written program to establish and implement practices and procedures for the proper testing, handling, and disposal of waste generated on the project. The name, address, and qualifications of the testing laboratory, transporter, and disposal facility must be provided. Only IEPA licensed waste haulers and IEPA-approved disposal facilities must be used. The program must include procedures that will be followed to assure that all reusable items such as equipment, containment materials, and scaffolding are cleaned free of lead prior to removal from the site.
6. The program must effectively and clearly communicate the means for complying with the requirements of this section, Federal EPA and 35 Illinois Administrative Code for solid and hazardous waste. Generic statements must not be used. Specific methods, procedures, and details are required.

B. Waste Handling and Storage

1. Hazardous Waste

- a. The Contractor must comply with EPA 40 CFR 262 and Illinois regulations for the on-site handling and storage of all hazardous waste generated by the project.
- b. Analysis of the waste and debris must be completed immediately upon filling waste containers in accordance with applicable regulations and this Section. Until the TCLP test results are received, the containers must be labeled as "lead-containing debris". Hazardous waste labels must be applied after the test results are received, if the debris tests hazardous.
- c. Hazardous waste must not be stored at the project site for more than 90 days for a large quantity generator or 180 days for a small quantity generator.
- d. Special attention must be given to the time of storage, storage conditions, amount of material stored at any one time, use of proper containers, and personnel training.
- e. Different types of hazardous waste must not be co-mixed (e.g., do not mix clothing with paint debris).
- f. Hazardous waste must not be placed on the unprotected ground, must be located in a secure area enclosed by a fence with signs around the perimeter, and must be shielded adequately to prevent dispersion of the waste by wind or water. Under no circumstances may the waste be stored within a flood plain area. Any evidence of improper storage must be cause for immediate shutdown of the project until corrective action is taken.

2. Non-Hazardous Special Waste and Non-Hazardous Waste

- g. Non-hazardous special waste and non-hazardous waste must be stored in closed containers separate from hazardous waste.
- h. Non-hazardous special waste and non-hazardous waste may not be stored at the project site for more than 90 days.
- i. Only Department of Transportation (DOT)-approved containers must be used for the storage of non-hazardous special waste and non-hazardous waste, the containers must be property labeled, and compatible with the waste stream stored.

C. Waste Classification

1. Testing

- j. All solid waste generated by the abatement activities must be tested in accordance with 35 Illinois Administrative Code Part 721 and 40 CFR 261, Appendix II, Method 1311 TCLP, to determine if it is considered to be a hazardous waste as defined by the US EPA.
- k. In the case of wet methods of preparation, the use of chemical strippers, or containerized hygiene water, all liquids and sludge must also be tested. When chemical strippers are used, the testing must include pH to determine corrosivity.
- l. Representative samples of the each waste stream must be collected. A minimum of four samples representative of each waste stream must be analyzed. Note that more than four initial samples of each waste stream must be collected in order to obtain the four representative samples for analysis.
- m. The collection of the initial representative samples of each waste stream and selection of the minimum of four for testing must be accomplished using a random sampling technique and must comply with the following: a minimum of one representative sample for each 55 gallons of waste, or a minimum of four representative samples for each gondola or roll-off box of waste. Samples must be collected in accordance with SW-846, "Test Methods for Evaluating Solid Waste - Physical/Chemical Methods."
- n. Sampling and testing must be performed by a qualified laboratory acceptable to the Owner. The name, address, and qualifications of the laboratory must be provided for approval. The Owner must be provided with copies of the test results as soon as they are received by the Contractor.

2. Classification

- a. Lead containing paint debris is classified as hazardous waste if, after testing by TCLP, the leachate contains any of the eight metals or other hazardous substances in concentrations at or above limits established in 40 CFR 261, The levels provided below include only those elements typically associated with paints. Other substances may be present which may cause debris to be classified as hazardous waste as defined in 40 CFR 261 (such as pH less than 2.0 or greater than 12.5, resulting in corrosivity), and must be taken into account.

Arsenic	-	5.0 mg/L
Barium	-	100.0 mg/L
Cadmium	-	1.0 mg/L
Chromium	-	5.0 mg/L
Lead	-	5.0 mg/L
Mercury	-	0.2 mg/L
Selenium	-	1.0 mg/L
Silver	-	5.0 mg/L

D. Waste Transportation

1. Hazardous Waste

All hazardous waste must be transported by an IEPA-licensed transporter in accordance with EPA 40 CFR 263 and Illinois regulations. The name, address, and qualifications of the licensed waste transporter must be provided to the Owner for acceptance prior to shipment.

2. Non-Hazardous Special Waste and Non-Hazardous Waste

All non-hazardous special waste and non-hazardous waste must be transported in accordance with Illinois regulations regarding waste transportation.

E. Waste Disposal

1. Hazardous Waste

- o. The Contractor is responsible for assuring the proper disposal of all hazardous waste generated during the project.
- p. All hazardous waste must be disposed of in accordance with 40 CFR 264, 40 CFR 268, and Illinois regulations. Only currently licensed TSD facilities must be used. The name, address, and qualifications of the TSD facility must be provided to the Owner for acceptance prior to disposal.

2. Non-Hazardous Special Waste and Non-Hazardous Waste

- q. The Contractor is responsible for the proper disposal of all non-hazardous special waste and non-hazardous waste generated during the project.
- r. Non-hazardous waste must be disposed of in accordance with Illinois regulations and at approved landfills. A state identification number must be obtained for non-hazardous special waste.

F. Contingency Plan and Training

The Contractor must comply with EPA 40 CFR 265, Subpart C in the event of a spill or a release of waste, EPA 40 CFR 265 Subpart D, and Illinois regulations. All personnel associated with the handling of hazardous waste must complete a formal training program in accordance with 40 CFR 265.16 and Illinois regulations. Training records of all employees must be maintained and kept on file.

G. Manifest and Reporting

The Illinois EPA waste generator and US EPA waste generator numbers must be used on all manifests that accompany the waste from the location of generation to the treatment/disposal facility. Illinois regulations and the certification, and reporting requirements of EPA 40 CFR 262, 40 CFR 268, must be followed, including certificates of final disposal for each shipment. Copies of all records and reports, test sample chain of custody forms, and TCLP test results must be provided to the Owner within 30 days of generation.

H. Hazardous Waste Management

The Hazardous Waste Management plan must comply with applicable requirements of federal, state, and local hazardous waste regulations and address:

1. Identification of hazardous wastes associated with the work.
2. Estimated quantities of wastes to be generated and disposed of.
3. Names and qualifications of each Contractor that will be transporting, storing, treating, and disposing of the wastes. Include the facility location and a 24-hour point of contact.
4. Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes.
5. List of waste handling equipment to be used in performing the work, to include cleaning, volume reduction, and transport equipment.
6. Spill prevention, containment, and cleanup contingency measures to be implemented.
7. Work plan and schedule for waste containment, removal and disposal. Wastes must be cleaned up and containerized daily.
8. Cost for hazardous waste disposal according to this plan.

I. Decontamination

The Contractor must thoroughly vacuum, wash, or otherwise decontaminate reusable items prior to removal from the project site. Items include but are not limited to equipment, containment materials, ground covers, scaffolding, and change and shower facilities. If adequate cleaning is not possible, the materials must be treated as waste and tested and disposed of in accordance with the requirements of this section.

800040-1.5 HAZARDOUS MATERIALS ABATEMENT

PART 1 - GENERAL

1-03) WORK INCLUDED

In accordance with the specifications contained in this section and as shown on the drawings, or as directed by the Owner's Representative, the Contractor must furnish all labor, materials, supervision, construction tools, equipment, and incidental items necessary to identify, characterize, test, quantify,

segregate, package, remove, transport, and dispose of all suspect polychlorinated biphenyls (PCBs) mercury-containing equipment, and other hazardous materials including but not limited to electrical equipment, lighting ballasts, light bulbs, and stored chemicals. The Contractor must assume that all electrical equipment, lighting ballasts, and light bulbs are PCBs and/or mercury containing unless proven otherwise and must be removed and disposed in accordance with all applicable and appropriate regulations.

Suspect hazardous materials identified through visual inspection include, but are not limited to, the following materials:

- Fluorescent lighting in Unit #35 and Unit #21
- One 55-gallon drum of unknown contents in Unit #29
- One 30-gallon drum of cooling water treatment liquid (corrosive) in Unit #29
- One 55-gallon drum of unknown contents in the east office of Hangar 2.
- Several tenant-owned stored chemicals in small quantities in numerous hangar units (refer to Appendix A)

The Contractor is responsible for protection of adjacent areas, cleanup, proper packaging, and disposal of wastes, and all other steps necessary to complete the scope of work. Additionally, the Contractor must understand that the technical aspects of the hazardous materials abatement specifications apply to the project as a whole.

The Contractor must develop detailed specifications, environmental monitoring plan, testing, worker protection, and criteria for handling regulated waste related to the abatement of hazardous materials according to all applicable codes, standards, and regulations. Moreover, the Contractor will be responsible for and held accountable for ensuring compliance with all regulatory requirements.

The Contractor must implement and maintain programs and procedures which comply with the requirements of this specification and all applicable Federal, State, and local codes, standards, and regulations, including those of OSHA, USEPA, and TSCA even if not specifically referenced herein. Furthermore the Owner may engage an independent agency to monitor Contractor compliance with all applicable regulations, specifications, and Contractor developed programs or plans. When the work includes asbestos, lead, and hazardous materials abatement activities in the same spaces, they should be performed in the sequence and combinations that produce the most efficient results and the least amount of total waste. When lead, asbestos, and hazardous materials decontamination processes are combined, the more stringent cleanup procedures will apply.

The Contractor is responsible for the disposal and management of all hazardous materials at the T-Hangar buildings.

1-04) RELATED SECTION

- C. ITEM 800040 - BUILDING DEMOLITION
- D. ITEM 028300 – LEAD ABATEMENT
- C. ITEM 028200 – ASBESTOS ABATEMENT

1-03 GENERAL REQUIREMENTS

- E. PCB-containing electric equipment, PCB-containing light ballasts, mercury containing light bulbs, and stored chemicals are suspected in the T-Hangar buildings. A Hazardous Materials Survey Report summarizing a previous study in the T-Hangar buildings is available for use by the Contractor. A copy of the report is included in Appendix A and will be incorporated by reference as part of these Contract Documents. The report is listed below:

1. Hazardous Materials Survey Report, January 28, 2010 (Appendix A)

The report provided in the Appendix is provided for information only. All of the materials specified for abatement may not necessarily be identified in the report. The Contractor shall confirm all quantities, locations, and field conditions on site prior to submitting their bid for this project.

The Contractor is expected to review this specification and inspect the facility thoroughly prior to submitting a bid for this work. No extras associated with hazardous materials abatement activities shall be allowed or considered during this project. It is the Contractor's sole responsibility to be completely familiar with the project, its requirements and the overall project deliverable.

B. An experienced and trained Contractor is required to perform the hazardous materials abatement and disposal. The Contractor will be responsible for and held accountable for ensuring compliance with all of the environmental regulatory requirements associated with the abatement and disposal of the hazardous materials identified. The Contractor must assume that all electrical equipment, lighting ballasts, and light bulbs are PCBs and/or mercury containing unless proven otherwise and must be removed and disposed in accordance with all applicable and appropriate regulations. The Contractor must assume that all stored chemicals are hazardous unless proven otherwise and must be removed and disposed in accordance with all applicable and appropriate regulations.

C. The Chicago Executive Airport will continue to be in operation during the project work. Interruption of airport operations must be prevented. The means and methods for the hazardous materials abatement work must consider the facility operational requirements so as not to impair the operation and maintenance of the facility.

D. The Contractor will ensure that protection of the surrounding area from contact with contaminants is of paramount importance throughout the demolition work.

E. The Contractor must implement and maintain programs and procedures which comply with the requirements of this specification and all applicable federal, state, and local codes, standards, and regulations, including those of OSHA and USEPA, even if not specifically referenced herein. Furthermore, the Owner may engage an independent agency to monitor Contractor compliance with all applicable regulations, specifications, and Contractor developed programs or plans. The Contractor must provide all necessary enclosures and containments to protect the surrounding area from environmental contaminants associated with the abatement of asbestos and lead-based paints and coatings. When the work includes lead, asbestos, or hazardous materials abatement activities in the same spaces, they should be performed in the sequence and combinations that produce the most efficient results and the least amount of total waste. When lead, asbestos, and hazardous materials decontamination processes are combined, the more stringent cleanup procedures will apply.

1-04 REFERENCES

A report summarizing a previous study and tests on the T-Hangar buildings is available for use by the Contractor. A Copy of the report is included in Appendix A and is incorporated by reference as part of these Contract Documents. The report is listed below:

- Hazardous Materials Survey Report, January 28, 2010 (Appendix A)

The following laws, regulations, and standards are incorporated by reference:

- IEPA IAC Title 35 Part 721.103 - Definition of Hazardous Waste
- IEPA IAC Title 35 Part 808 – Special Waste Classification

- IEPA IAC Title 35 Part 809 - Nonhazardous Special Waste Hauling and the Uniform Program
- 77 IAC Part 855 - Rules and Regulations
- 29 CFR 1910.120 - Hazardous Waste Operations and Emergency Response

- 29 CFR 1926 - US OSHA Construction Standards
- 29 CFR 1910.132 - Personal Protective Equipment
- 29 CFR 1910.20 - Access to Employee Exposure and Medical Records
- 29 CFR 1910.1200 - Hazard Communication
- 29 CFR 1910.151 - Medical and First Aid
- 49 CFR Parts 171-177 - US Department of Transportation Hazardous Materials Regulations
- 49 CFR 100 185 – Transportation
- 40 CFR 261 - Identification and Listing of Hazardous Waste
- 40 CFR 268 - Land Disposal Restrictions
- 40 CFR 761 - PCBs Manufacturing, Processing, Distribution in Commerce, and Use Prohibition

If local requirements are more stringent than federal or state standards, the local standards are to be followed.

1-05 DEFINITIONS

In addition to the terms listed below, all definitions in the laws and regulations are incorporated by reference, whether or not restated herein.

“**Abatement**” means removal, encapsulation, enclosure and/or repair of hazardous containing materials.

“**ANSI**” means the American National Standards Institute.

“**Hazardous Materials Abatement Contractor**” means the entity responsible for performing the work in this section, and has the training, accreditation and license to competently perform the work. This entity will obtain and maintain licenses required for the outdoor work in this section.

“**Authorized Visitor**” means the Owner or any person designated by the Owner or Owner’s Representative, and any representative of a regulatory or other agency having jurisdiction over the project.

“**Building/Facility Owner**” means the legal entity, including a lessee, which exercises control over management and recordkeeping functions relating to a building and/or facility in which the work activities take place.

“**Competent Person**” means a person who is capable of identifying existing hazards in the workplace and in selecting the appropriate control strategy for hazardous material exposure, who has the authority to take prompt corrective actions to eliminate them.

“**Demolition**” means the wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning of any facility as described by OSHA. Demolition and renovation are not the same activities.

“**Disturbance**” means activities that disrupt the matrix of hazardous containing materials.

“**Facility**” means any institutional, commercial, public, industrial, or residential structure, installation, or building, any ship, and any active or inactive waste disposal site.

“**Facility Component**” means any part of a facility including equipment.

“**Hazardous Material Release Episode**” means any uncontrolled or unintentional disturbance of hazardous materials resulting in emissions.

“**Fixed Object**” means a unit of equipment or building system component which can not be removed from the work area.

“**General Contractor (GC)**” means the entity responsible for performing the complete scope of work in the Documents. The GC may elect to self-perform or subcontract out any portion of the work.

“**Leak-Tight**” means that solids or liquids cannot escape or spill out. Leak-tight also means dust-tight.

“**MSDS**” means Material Safety Data Sheet, required by OSHA for any substances, which are toxic, caustic, or otherwise hazardous to workers.

“**Must**” means the stated provision is mandatory.

“**Negative Initial Exposure Assessment**” means a demonstration by the Contractor that by using the specific work procedures employed on the project, employee exposure during the project is expected to be consistently below the PEL.

“**NIOSH**” means National Institute for Occupational Safety and Health.

“**Operations and Maintenance**” means a program of work practices to maintain items containing hazardous materials in good condition, to provide for the clean-up of hazardous materials previously disturbed or damaged, and to prevent further releases by minimizing and controlling disturbances and damage to hazardous materials.

“**Organic Vapor Cartridge**” means the type of cartridge used on air purifying respirators for organic vapor exposures.

“**OSHA**” means the Occupational Safety and Health Administration.

“**Outside Air**” means air from outside of the work area.

“**Owner/Operator**” means any person who owns, leases, operates, controls, or supervises the facility being demolished or renovated or any person who owns, leases, operates, controls, or supervises.

“**Owner’s Representative**” means the Owner and/or any representative for the Owner acting on behalf of the Owner or specifically contracted with the Owner to provide project consultation, representation or direction having jurisdiction over the project.

“**Personal Protection Equipment (PPE)**” means the protective suits, head and foot covers, gloves, respirators and other items used to protect persons from hazards.

“**Plasticize**” means to apply plastic sheeting over surfaces or objects to protect them from contamination or water damage.

“**Polyethylene Sheeting**” means strong plastic barrier material 4 to 6 mils thick, semi-transparent, sometimes flame retardant in compliance with NFPA 241.

“**Regulated Area**” means an area established by the Contractor to demarcated areas where hazardous material abatement work is being conducted. It also means any areas where debris and waste from such work accumulate; and a work area within which airborne contaminant concentrations either exceed or there is a reasonable possibility that they may exceed the permissible exposure limit.

“**Removal**” means the intentional detachment of any hazardous materials from surfaces or components of a building or taking out building components.

“**Response Action**” means a method with procedures including removal, encapsulation, enclosure, repair, operations and maintenance, and clean-up after an accidental release, that protects human health and the environment from hazardous materials.

“**Shut Down and Lock Out Power**” means to switch off every electrical circuit breaker serving power or lighting circuits which run to, or through, the work area. Lock the electrical panel or door with separate locks.

“**Structural Member**” means any load supporting member of a facility, such as beams and load supporting walls, or any non-load supporting member such as ceilings and non-load supporting walls.

“**TCLP**” means Toxicity Characteristic Leaching Procedure.

“**Waste Generator**” means any owner or operator whose act or process produces hazardous waste material.

“**Waste Shipment Record**” means the shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of hazardous waste material.

“**Work Area**” means the designated rooms, spaces, or areas where an aspect of a hazardous materials abatement project is being conducted.

1-06 SUBMITTALS

At least 45 days prior to the beginning of the work, unless otherwise specified by the Owner, the Contractor must submit to the Owner and/or Owner’s Representative as specified by the Owner, for review and approval; detailed written programs, specifications, and plans for each of the items described below and as provided in Parts 1-09 to 1-12 as listed below. All such programs, plans, and specifications must be in accordance with all applicable rules, regulations, and statutes.

A. The Contractor must prepare and submit a Hazardous Materials Abatement Action Plan (Plan). No work will be allowed until the Plan has been approved. The Plan must include interior and, if required, exterior containment system specifications, drawings and narratives, sufficient in detail to demonstrate and indicate the following:

1. The specific areas of work in the T-Hanger buildings.
2. Areas of the T-Hanger buildings which will be occupied during the work.
3. Delineation of each area containing hazardous materials.
4. Location of waste accumulation.
5. Route of workers from outside the building, into the work area, from decontamination to break areas and to out of doors.

6. Location of waste dumpster.
 7. Route of containerized waste containers from the work area to out door.
 8. Location of mini-enclosures (if applicable).
 9. Location of remote decontamination enclosure system (if applicable).
10. A narrative sequencing plan with a detailed schedule clearly indicating the various aspects of the work.
- B. The Contractor must prepare and submit environmental monitoring specifications and drawings.
 - C. The Contractor must prepare and submit a worker protection program.
 - D. The Contractor must prepare and submit a plan for handling, disposal, and analysis of debris and documentation that arrangements have been made for the transport and disposal of waste generated at this project and the name and location of the disposal sites.
 - E. The Contractor must prepare and submit a transportation and disposal quality assurance program.
 - F. The Contractor must prepare and submit a plan related to reportable releases.
 - G. The Contractor must prepare and submit decontamination procedures and disposal plan for waste generated during decontamination of structures, equipment, reusable items, and other accessories.
 - H. The Contractor must prepare and submit an emergency plan to respond during extreme weather, hazardous conditions or equipment damage, to contain hazardous materials and prevent their migration to the environment.
 - I. The Contractor must prepare and submit documentation that all individuals associated with the project have appropriate training, certification and licensure in the state where the work is being performed.
 - J. The Contractor must prepare and submit documentation that arrangements have been made for the transport and disposal of waste generated at this project and the name and location of the disposal sites.

The Contractor must provide the following information during the hazardous materials abatement activities.

- F. Job progress reports detailing the removal/mitigation activities, including a review of progress with respect to previously established schedules, problems and actions taken, injury reports, and equipment breakdowns, if applicable.
- G. Copies of worksite entry logs showing the name, date and time for worker and visitor access to the work areas.
- C. Copies of hazardous waste disposal manifests for materials removed from the T-Hangar buildings.

At the completion of the project, the Contractor must submit the following:

- D. Contractor's report detailing the work that was completed and the procedures that were used.
- E. A complete set of the Contractor's daily logs and waste shipment records.

1-07 QUALITY ASSURANCE

The Contractor must identify, follow, and comply with all applicable codes, standards, and regulations for abatement of hazardous material.

1-08 SITE CONDITIONS

A. The facility will continue in operation throughout the Contract work. Contact between the surrounding area and hazardous materials, construction materials, equipment or contaminated equipment must be prevented. Protection of the surrounding area from contaminants is of paramount importance throughout the period of demolition.

B. The Contractor must assume that all electrical equipment, lighting ballasts, and light bulbs are PCBs and/or mercury containing unless proven otherwise and must be removed and disposed in accordance with all applicable and appropriate regulations. The Contractor must assume that all stored chemicals are hazardous unless proven otherwise and must be removed and disposed in accordance with all applicable and appropriate regulations.

1-09 CONTAINMENT SYSTEMS

A. The Contractor must design, detail, fabricate, furnish, and install a containment system sufficient to protect workers and facility staff outside the work area from hazardous materials exposure. Access to the T-Hangar buildings for maintenance by facility workers must be maintained throughout the project.

B. The Contractor must perform the following steps, in the order that they appear, to prepare the regulated area.

4. Establish the regulated area(s) with the placement of Separation Barriers. If airborne exposure limits for the hazardous waste is such that a separation barrier is not necessary then a separation barrier is not necessary. At the least, the Contractor should establish a perimeter around the regulated area with yellow caution tape or approved equal.
5. Demarcate the regulated area and post appropriate signs.
6. Post Caution Signs meeting the requirements of OSHA at each location and at approaches to locations where hazardous material concentrations may exceed regulated levels. Caution signs must be posted to permit a person to read the sign and then take the necessary protective measures in order to avoid personal exposure before entering a work area.
7. Label circuit breakers with the notation "DANGER, Circuit being worked on" Lock the electrical panel or door with separate locks, one for the Contractor's supervisor and one for the Owner/Owner's representative. Shut Down and Lock Out electric power to the work areas. "Shut Down and Lock out Power" means to switch off every electrical circuit breaker serving power or lighting circuits which run to, or through, the work area.
8. Provide temporary power and lighting to the regulated area. Power to and for the work area must be brought in from outside the area through ground-fault circuit interrupters at the source.
9. Prevent dispersal of hazardous materials from the regulated area into other areas of the T-Hangar buildings.
10. Maintain emergency and fire exits from the regulated area. Use arrows on paper signs to indicate the direction to the exits from the regulated area showing the direction to the regulated area exits.

11. Dispose of debris and spent materials inside the regulated area. Clean reusable items such as tools and equipment, prior to removing the items from the regulated area.

C. The Contractor must place all hazardous materials in secondary containment sufficient for transportation and disposal as required by EPA and DOT regulations.

D. The Contractor must treat disposable PPE worn during the removal activities as hazardous and be disposed as hazardous material.

E. The Contractor must decontaminate non-disposable equipment planned for reuse by erecting an Equipment Decontamination Enclosure System (EDES) at each regulated area. Decontamination wash water and disposables generated during the decontamination process must be considered hazardous and be disposed as hazardous material.

F. Emergency egress from the work area must be maintained at all times and the exits from the work area must be marked.

G. An EDES is necessary for non-disposable tools and equipment that are exposed to hazardous materials. The EDES must be inspected by the Contractor and the Owner's Representative at least twice during each work shift. The barriers separating the regulated area from other areas of the building must be visually inspected prior to commencing work each day. Inspections and observations must be documented in the Contractor's log book.

H. Contractor must maintain adequate fire fighting equipment in the regulated areas. The locations of fire fighting apparatus in the work area must be clearly indicated by red spray paint with appropriate signage.

1-10 ENVIRONMENTAL MONITORING PROGRAM

The Contractor must have a program designed by a competent person to establish other environmental monitoring requirements, in accordance with all applicable rules and regulations. The design of such a program, including the establishment of appropriate baseline criteria; the number, location, and type of monitoring stations; and the actual performance of such monitoring and testing must be the sole responsibility of the Contractor.

1-11 WORKER PROTECTION PROGRAM

Worker protection in accordance with the requirements of OSHA and other agencies must be the responsibility of the Contractor. The Contractor must have a written program prepared to establish the worker protection procedures and other requirements, in accordance with all applicable rules and regulations. The design of such a program, including the establishment of appropriate baseline criteria, the type of monitoring and testing, and the actual performance of such monitoring and testing must be the sole responsibility of the Contractor.

Medical examinations meeting the requirements of 29 CFR 1910.120 (f) must be provided for all personnel working in the regulated area, regardless of exposure levels. A current physician's written opinion as required by 29 CFR 1910.120 (f)(7)(i) must be provided for each person and must include in the opinion the person has been evaluated for working in a heat stress environment while wearing personal protective equipment and is able to perform the work.

Provide whole body clothing, head coverings, gloves and foot coverings and any other personal protective equipment as determined by conducting the hazard assessment required by OSHA at 29 CFR 1910.132 (d). The Competent Person must ensure the integrity of personal protective equipment worn for the duration of the project.

1-12 HANDLING OF WASTE AND REPORTING RELEASES

The Contractor must be responsible for the handling and disposal of all waste generated as a result of the work. The testing, handling, transportation, and disposal of such wastes must be in accordance with all applicable rules and regulations.

Assumed mercury, PCBs, and other hazardous waste must be packaged separately in secondary containment and moved into a covered transport container in accordance with procedures in this specification. Waste must be at a minimum double-bagged and placed in drums prior to disposal. Bags must not be overfilled. Bags and/or containers must be securely sealed to prevent accidental opening and/or leakage. Ensure that unauthorized persons do not have access to the waste material once it is outside the regulated area. All transport containers must be covered at all times when not in use. Material must not be transported in open vehicles. The drums must be labeled properly and must not be re-used.

Waste Load Out: Waste load out must be done in accordance with the decontamination procedures. Bags must be decontaminated on exterior surfaces before being placed in the second bag and drum.

Hazardous waste with sharp edged components, i.e., nails, screws, lath, strapping, tin sheeting, jacketing, metal mesh, etc., which might tear poly bags must be wrapped securely in burlap before packaging prior to disposal.

The following must be developed by the Contractor:

- Program for sampling and testing of the debris to be able to accurately categorize the materials and the resulting handling and disposal requirements.
- Plan addressing the handling, transportation, and disposal of the different types of waste materials.
- Plan related to reportable releases into the atmosphere or discharges into waterways in accordance with applicable rules and regulations. Included in this plan must be the requirement of immediate notification of the local regulator agency of any such releases.
- Plan regarding procedures and methods to wash or otherwise decontaminate containments, structures, equipment, and reusable items throughout the period of construction.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

3-01 GENERAL

Power tools such as, but not limited to saws, pneumatic chisels, brushes, sanders and needle guns must be equipped with shrouds and HEPA-filtered local exhaust systems to capture released particles.

3-02 GENERAL HAZARDOUS MATERIAL REMOVAL AND HANDLING GUIDELINES

G. General

The following guidelines are intended to give the Contractor basic information regarding the removal and handling of hazardous materials. This information is not intended to be all encompassing and in no way relieves the Contractor or the Contractor's Subcontractors of their responsibility in complying with all local, state and federal regulations regarding the removal and disposal of hazardous materials.

H. General Procedures

The Contractor must provide documentation that their employees have had training in the precautions necessary when working with hazardous materials, as required by Part 1-05. The Contractor must assure that all workers utilize appropriate PPE in accordance with OSHA regulations and the Worker Protection Program required in Part 1-11.

I. Hazardous Materials Removal

1. Hazardous materials removal will be performed with employees wearing appropriate PPE as required by OSHA and as outlined in the Contractor's Worker Protection Program required in Part 1-11.
2. Hazardous material removal should be performed such that there are no visible leaks or releases from equipment containing hazardous materials.
3. All water used for decontamination of equipment and all wash-water generated must be collected, properly contained and disposed of at a permitted facility in accordance with applicable ordinances and regulations. The permitted facility must be approved by the Owner. Appropriate sampling and analysis required by the disposal facility must be performed by the Contractor prior to wash water disposal. Copies of the analysis will be submitted to the Owner.

J. Hazardous Materials Disposal

1. All hazardous materials will be disposed of at an EPA approved facility.
2. The Contractor will contact the EPA for the location of the nearest acceptable facility and will obtain information regarding the disposal requirements of the facility and the EPA for the hazardous materials.
3. Hazardous materials and associated contaminated waste must be containerized in the regulated area, as required. The Contractor must decontaminate the exterior surfaces of the containerized waste and place in the holding area of the Equipment Decontamination Enclosure System. Containerized waste must be washed in the Equipment Decontamination Enclosure System. If the Decontamination Enclosure System exits to outside the T-Hangar buildings, the containerized waste must be placed in a lockable enclosure. If the Decontamination Enclosure System DOES NOT exit to outside the T-Hangar buildings, the containerized waste must be placed in drums with secured covers. The drums must not be opened until a worker has moved the drums into a designated waste storage area.
4. The drums for hazardous materials must be lined with a minimum of two (2) layers of six mil polyethylene.
5. Dumpsters for storage and transportation of hazardous material must be constructed of metal and have metal doors and metal tops that can be locked to prevent vandalism, wind dispersion, or other disturbances to the containerized waste. The dumpsters must be locked when Contractor is not on site and when not in active use.
6. The Contractor must supply receipts, Waste Transfer Forms, trip tickets, and/or other transportation documentation, including the required waste manifests from the EPA-approved facility, to the Owner through the Owner's Representative, as required, prior to approval of final payment.
7. Disposal of contaminated water from the work area:

- d. Only facilities approved and permitted by the EPA for accepting contaminated liquid wastes may be used for disposal.
- e. Liquid waste must be appropriately sampled and analyzed as required by the disposal facility.

K. Signs and Labels

2. Warning signs that demarcate the regulated area must be provided and displayed at each location where a regulated area is required in accordance with OSHA regulations. Warning signs must be posted at all entrances to the work areas and at each location, and at approaches to locations where airborne contaminant concentrations may exceed action levels. Warning signs must be posted to permit a person to read the sign and then take the necessary protective measures in order to avoid personal exposure before entering a work area. Signs must comply with the requirements of OSHA regulations, must be in vertical format of 20" x 14", and display the following information:

Danger

Hazardous Materials

Authorized Personnel Only

**Protective Clothing
Required in this Area**

2. Labels must be affixed to all hazardous material and contaminated articles. Labels must comply with the requirements of the OSHA regulations, and must be of a sufficient size and contrast to be readily visible and legible. The label must state:

Danger

Contains Hazardous Materials

CONSTRUCTION METHODS

800040-2.1

At the locations shown on the plans, the Contractor shall completely demolish and remove the existing buildings/structures from the project site. The foundation walls and concrete floors shall also be completely removed. The remaining hole or void which exists following the structure foundation or basement removal shall be filled to within 4" of existing adjacent ground level (outside of proposed pavement limits) and to subgrade elevations (within proposed pavement limits) with sand or clay material in conformance with Section 152 of the specifications. Topsoil material shall be placed in the top 4" of the fill in areas outside of proposed pavements. The site shall be graded as designated on the plans.

Any unfilled basement, hole, void, or any other hazard left unattended during periods of inactivity shall be properly fenced or protected by the Contractor. Care shall be taken to prevent the spread of dust and flying particles. After the demolition has begun, the work shall be carried on promptly and expeditiously until finished.

The Contractor shall break all concrete floors, pads, ramps and foundation walls into pieces not exceeding two feet (2') square. All floor drains, sanitary sewers or incoming waterlines shall be abandoned to the satisfaction of the Engineer. The Contractor shall remove all contents and miscellaneous materials from within the structure and dispose of said materials at an approved/licensed landfill or dumping area.

Burning of any structure or removal material will not be allowed in the performance of this work. The use of explosives will not be permitted in the performance of this work

The Contractor shall leave the site free of rubble and debris and in a condition satisfactory to the Engineer. All rubble and debris shall be disposed of by the Contractor off the airport property at a landfill or approved dumping area. The Contractor shall provide the Engineer with a ticket or receipt from the landfill or dumping area for each load of material hauled from the project site.

BASIS OF PAYMENT

800040-3.1

This work will be paid for at the contract lump sum price, which shall be compensation in full for the complete removal and disposal of the existing structure, foundation, gravel driveways, concrete walkways, shrubs, bushes, wooden fences, miscellaneous refuse and all debris within a 10' perimeter around each building, and for all asbestos, lead and hazardous materials abatement, as well as any necessary incidentals.

Payment for backfilling the resultant void with unclassified excavation material will not be paid for separately.

Payment will be made under:

ITEM AR800040 BUILDING DEMOLITION – PER LUMP SUM.

ITEM 800053 – SOIL GUARD

DESCRIPTION

800053-1.1

This item consists of the application of a bonded fiber matrix to provide erosion control as shown on the plans or as directed by the Engineer.

MATERIALS

800053-2.1

The erosion materials used shall be Weyerhaeuser SOIL GUARD, or approved equal. When considering equals, it shall be the IDA Materials Engineer's sole authority to determine equals. Substitute non-conforming materials with credit will not be considered.

CONSTRUCTION METHODS

800053-3.1

All erosion control materials shall be placed in accordance with the manufacturer's recommendations. Applicators shall be certified by the manufacturer. Proof of written certification shall be provided to the Engineer prior to installation.

METHOD OF MEASUREMENT

800053-4.1

Soil Guard application shall be measured in square yards on the basis of the actual surface area acceptably mulched.

BASIS OF PAYMENT

800053-5.1

Payment will be made at the contract unit price per square yard for soil guard mulching. This price shall be full compensation for furnishing all materials and for placing the materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

Payment will be made under:

ITEM AR800053	SOIL GUARD – PER SQUARE YARD.
ITEM AS800053	SOIL GUARD – PER SQUARE YARD.

ITEM 800816 - RGL SYSTEM

DESCRIPTION

800816-1.1

This item shall include the furnishing and installation of RGL system in accordance with this specification, the referenced specifications, the applicable Federal Aviation Administration (FAA) Advisory Circular and the details shown on the Drawings. This item shall include the installation of elevated runway guard lights (RGL) at the locations shown on the Drawings. Included shall be the installation of new RGL and isolation transformers, associated control devices, and all incidentals necessary to provide a complete installation to an operating condition, including testing, to the satisfaction of the Resident Engineer.

SUBMITTALS

800816-2.1 GENERAL.

Before any electrical materials are ordered, the Contractor shall furnish the Resident Engineer a list of the materials and equipment to be incorporated in the work. This list shall include the name of each item, the Federal Aviation Administration specification number, the manufacturer's name, the manufacturer's catalog number, and the size, type and/or rating of each item, catalog cuts, test data, fuse curves, outline drawings, nameplate drawings, wiring diagrams, and schematic diagrams.

After the list has been approved by the Resident Engineer and prior to installation, the Contractor shall assemble the equipment and materials at a single location, on-site, and request inspection by the Resident Engineer. None of the equipment or materials, other than duct or conduit, may be used on the job until such an inspection has been completed.

In the case that more than one manufacturer is proposed for a single item, the Resident Engineer will select the specific item he feels best fulfills the requirements of the specification, and it shall be the responsibility of the Contractor to furnish that item and none other.

All test results shall be submitted to the Resident Engineer for review and approval.

800816-2.2 APPROVAL.

Airport lighting equipment and materials covered by FAA specifications shall have prior approval of the Federal Aviation Administration, Airport Service, Washington, DC 20591, and shall be listed in the current edition of FAA Advisory Circular 150/5345-53, Airport Lighting Equipment Certification Program. Alternatively, items shall be certified by ETL as conforming to applicable FAA specifications, as approved by the Resident Engineer. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification, when required by the Resident Engineer.

The following documents, of the issue in effect on the date of application for qualification, are applicable to the extent specified:

<u>Item</u>	<u>Specification</u>	<u>Advisory Circular</u>
Runway Guard Light, Elevated	L-804	AC 150/5345-46
Transformer, Isolation	L-830	AC 150/5345-47
Light base, load bearing	L-868	AC 150/5345-42
Light base, non-load bearing	L-867	AC 150/5345-42

All FAA Advisory Circular referenced in this specification refer to the most recent edition in circulation.

800816-2.3 LIGHT BASE AND LIGHT INSTALLATION AND ALIGNMENT TOOL

The tolerance requirements for location, elevation and orientation of all light fixtures is of critical importance and must be maintained. In order to do so the light base and lights shall be installed using an installation and alignment tool. This tool shall be capable of achieving the final alignment specified and shall be of sufficient strength to support the light base during placement and compaction of concreted around the base. The Contractor shall submit to the Resident Engineer the proposed installation and alignment tool for approval. Upon approval, the Contractor shall procure a sufficient number of these tools to use in the installation process. No light base or light fixture shall be installed without using an approved installation and alignment tool.

MATERIALS

800816-3.1 ELEVATED RUNWAY GUARD LIGHTS (RGL).

The RGL shall be Type L-804, yellow, class 2, 6.6 amperes constant current fixture, with lamp by-pass and L-823 type connectors, and shall be provided with instruction manual. These lights shall be provided complete with compatible type transformers meeting the requirements of AC 150/5345-47 Type L-830 with the appropriate wattage consistent with the type of lamps provided. Each fixture shall be numbered with weatherproof plastic-type labels in accordance with the numbering shown on the drawings or approved by the Resident Engineer. The lamp(s) shall be as required by the manufacturer to meet the new standards for RGL. The new elevated RGL light fixtures, isolation transformers and controllers shall be compatible with the existing Runway 16/34 RGL system.

800816-3.2 TRANSFORMERS.

Transformers for RGL shall meet the requirements of AC 150/5345-47 Specification for Isolation Transformers for Airport Lighting Systems, Type L-830 (60 Hz). Primary and secondary amperes for RGL shall be 6.6/6.6 amperes. The wattage of the transformer for the RGL shall be as recommended by the manufacturer. Each transformer shall be clearly marked indicating its wattage so as to not be confused during installation. Transformers shall have L-823 type connectors.

800816-3.3 LIGHT BASE TRANSFORMER HOUSING AND JUNCTION BOX.

Light Base Transformer Housings and Junction Boxes shall meet the requirements of AC 150/5345-42, Specification for Airport Light Base and Transformer Housings, Junction Boxes, and Accessories. Type L-867, Class I, Size B, shall be used for elevated RGL located in areas not subject to aircraft loading (shoulder pavements or non-paved areas). Type L-867 bases, Class I, Size D shall be used for junction

boxes in areas not subject to aircraft loading, as shown on the Drawings. Each base shall be supplied with conduit hubs.

800816-3.4 BLANK COVER PLATES.

Blank base cover plates for light bases/transformer housings shall be A-36 galvanized steel checker-plate ½-inch thick in areas not subject to aircraft loading, and 3/4-inch thick in areas subject to aircraft loads. Diameter and bolt pattern shall be compatible with the light base/transformer housing to be covered.

CONSTRUCTION METHODS

800816-4.1 PHASING AND INTERRUPTIONS.

All existing electrical equipment and lighting systems not included in the phase of work being performed must be kept in operation, unless prior approval of the Resident Engineer has been received and as otherwise specified below and on the Drawings.

The Contractor may use salvaged materials for temporary construction where required. The permission for temporary work and using salvaged materials shall be obtained from the Resident Engineer.

Refer to the special provisions of the specifications for notification requirements and other information regarding work interruptions due to airport operational requirements or Contractor anticipation for exceeding the limitations described in the above paragraph.

800816-4.2 RGL LIGHT BASE AND TRANSFORMER HOUSING INSTALLATION.

All light bases shall be installed using an approved installation and alignment tool. Light bases shall be properly oriented and leveled at the proper elevation and shall be held securely in place so that during the placement of concrete the base does not become misaligned. See Section 125-4.2.2 and the Drawings for tolerance information. All concrete shall be thoroughly consolidated around the base using mechanical vibrating equipment.

800816-4.3 RGL LIGHT FIXTURE INSTALLATION.

The light fixtures shall be installed in accordance with the requirements and tolerances specified in AC 150/5345-46, as recommended by the manufacturer, and as specified on the Drawings and herein. See Drawings for installation tolerances.

800816-4.4 RGL CABLE AND CONDUIT INSTALLATION.

Where home run cable for dedicated RGL circuit(s) are collocated with other airfield lighting circuits in duct bank, it is preferable that a spare duct be used. Any place where new RGL cable must share a duct with other lighting circuit cables, new cable for the existing circuits shall be pulled together with the new RGL cable for those particular duct segments. Any outage of existing lighting circuits shall be carefully coordinated with the Resident Engineer.

The Contractor shall connect the proposed RGL circuit inside the high voltage manhole. The Contractor shall supply RGL control equipment that is compatible with the existing vault facilities.

800816-4.5 REMOVALS.

Electrical removals shall be done as approved by the Resident Engineer. Objects, surfaces and items including underground utilities designated to remain shall be carefully avoided and left undisturbed. Any damage to these items shall be immediately corrected by the Contractor to the satisfaction of the Resident Engineer.

All existing cables and conduit to be removed become the property of the Contractor to be promptly removed from the airport property. Temporary storage of these items on airport property shall be subject to the approval of the Resident Engineer. Any items to be salvaged shall be carefully removed and delivered to the Airport's maintenance yard and stockpiled in a neat orderly fashion, as directed by the Resident Engineer.

INSPECTION, TEST, AND WARRANTY

800816-5.1 VISUAL EXAMINATION.

The most important of all inspection and test procedures is thorough visual inspections. Visual inspections shall be made frequently during installation, at completion of installation, and before energizing the circuits. A careful visual inspection can reveal defects that can be corrected prior to acceptance tests and energization. Serious damage may occur if defects are subjected to electrical tests or energization. Visual inspections shall include:

- a. Verify proper location, marking and height of fixtures, and that installation is in accordance with manufacturer's instructions and contract design documents.
- b. Check for proper anchorage, physical damage, dirt and debris both interior and exterior to the RGL. Verify that nuts, bolts, washers, gaskets, etc., have been installed and tightened in accordance with the manufacturer's instructions.
- c. Verify correct wattage of isolation transformer and lamps. Tighten all electrical connections. Check for proper size and installation of L-823 connectors, and for grounding wires and connections.
- d. Verify by operational test that RGL aiming is acceptable for anticipated taxi operations.
- e. Check for any safety hazards.
- f. Verify specific requirements listed herein for individual items. While all equipment manufactured under specifications pass strict factory tests prior to shipment, it shall be inspected for shipping damage immediately upon receipt.

800816-5.2 CABLE CONNECTOR AND ISOLATING TRANSFORMER INSPECTION.

Transformers shall be supplied with factory installed molded connectors for the primary and secondary cable leads. During installation, these items shall be inspected to determine the following:

- a. The mating surfaces of molded connectors should be clean and dry. Factory installed caps shall remain in place until connectors are to be plugged together. Contractor shall tape the connectors to hold them in place and moisture/debris from entering the splice.
- b. The connectors are completely plugged together. After initial plugging, trapped air pressure may partially disengage the plug and receptacle. If this happens, wait a few seconds and push them together again. Apply two or three turns of tape to hold them in place.
- c. The cables must not be cut by shovels, kinked, crushed by vehicle wheels, bruised by rocks, or damaged in any way during handling and installation.
- d. The cables and conduit must be buried to the specified depth below finished grade and all other detailed requirements of the installation specification must be accomplished.
- e. All cables shall be placed in conduit and must be separated by the specified distance.

- f. For temporary direct buried cables, screened material must be placed under and over the cables, and rocks or pebbles must not contact the cables.
- g. The cables must not be bent sharply where they enter (or leave) a conduit, and must be supported properly by tamped ground so future settling cannot cause sharp bends.

800816-5.3 ELECTRICAL TESTS ON CABLE.

Cables installed in duct shall be tested before and after installation in duct. Each underground circuit shall be subjected to the following tests. See L-108 for specific electrical tests on cable.

800816-5.4 ELECTRICAL TESTS OF REGULATORS.

The supply voltage and input and output current shall be checked at the regulator to see that they operate properly and that regulators are not overloaded due to shorts to ground or excessive leakage.

- a. With load disconnected, energize the regulator once, and watch the open-circuit protector to see that it de-energizes the regulator within 2 or 3 seconds.

800816-5.5 LIGHTING FIXTURES.

An inspection shall be made to determine that the color, quantity, and locations of light are in accordance with the installation drawings. Each light shall be inspected to determine that it is operable, glass is not broken or cracked, correct lamps are installed, and it has been properly leveled and aimed, in accordance with technical orders and manufacturers instructions, where applicable.

800816-5.6 RGL OPERATIONAL TEST.

Perform operational tests on the RGL, by operating lights on each brightness step for not less than one minute, to verify proper pulsing and pulse duration, intensity control, vertical adjustment, remote control, and any other required operational feature. If monitoring is provided, verify that proper status/alarm indications are obtained in the control tower. All RGL fixtures, regulators and control equipment shall be compatible.

800816-5.7 MISCELLANEOUS COMPONENTS.

Other components not listed above but relating to the system shall be checked for compliance with the installation drawings.

800816-5.8 FINAL ACCEPTANCE TESTS.

After components and circuits have been inspected, as specified in the preceding paragraphs, the entire system shall be inspected as follows:

- a. Operate each switch for the new and modified lighting circuits from the remote control position (ATCT) so that each switch position is reached at least twice. During this process, all lights and vault equipment shall be observed to determine that each switch properly controls the corresponding circuit.
- b. Repeat the above test using the local control switches on the regulators.
- c. Each lighting circuit shall be tested by operating it continuously at maximum brightness for at least 6 hours. Visual inspection shall be made at the beginning and end of this test to determine that the correct number of lights are operating at full brightness. Dimming of some or all of the lights in a circuit is an indication of grounded cables.

- d. In addition to the above, all equipment shall be subjected to any and all performance tests specified in the manufacturer's instructions.

800816-5.9 GUARANTEE.

All equipment furnished and work performed under the Contract Documents shall be guaranteed against defects in materials or workmanship for a period of one (1) year from the date of final acceptance. This guarantee does not replace any responsibility for errors or omissions as set forth in state law. Any long-term warranties issued or offered by manufacturers for items of equipment shall be turned over to the Airports Authorities.

800816-5.10

Any failure of equipment or work due to defects in materials or workmanship shall be corrected by the Contractor at no cost to the owner.

800816-5.11

The Contractor shall ascertain that all lighting system components furnished by him (including FAA approved equipment) are compatible in all respects with each other and the remainder of the new/existing system. Any incompatible components furnished by this Contractor shall be replaced by him at no additional cost to the Airport with a similar unit approved by the Resident Engineer (different model or manufacturer) that is compatible with the remainder of the airport lighting system.

800816-5.12

In case the Contractor selects to furnish airport lighting equipment requiring additional wiring, transformers, adapter mountings, etc. to those shown on the drawings and/or listed in the specifications, any cost for those items shall be incidental to the equipment cost. All substitutions shall be approved by the Resident Engineer.

800816-5.13

The Contractor installed equipment (including FAA approved) shall not generate any electromagnetic interference in the existing and/or new communications, weather and air traffic control equipment. Any equipment generating such interference shall be replaced by the Contractor at no additional cost with equipment meeting applicable specifications and not generating any interference.

METHOD OF MEASUREMENT

800816-6.1

The quantity to be paid for under this item shall be the materials installed separately or in combination as specified, and shall be measured per each completed unit in place, tested and accepted by the Resident Engineer, and ready for operation.

The quantity for 1/C # 8, 5KV cable and GRS conduit shall be measured separately and shall be paid under items 108 and 110.

BASIS OF PAYMENT

800816-7.1 GENERAL

Payment will be made at the contract unit price for each completed and accepted installation. This price shall be full compensation for furnishing all materials including elevated RGL light fixture, transformer, light base, concrete, epoxy encasement, testing and other materials as specified below and as required by the Drawings and these specifications, for all preparation, assembly, and installation of these materials, for all removals associated with the installation, and for all labor, equipment, tools and incidentals necessary to complete each installation specified below.

Payment will be made under:

ITEM AR800816	L-804 RGL ELEVATED, BASE MOUNTED – PER EACH.
ITEM AS800816	L-804 RGL ELEVATED, BASE MOUNTED – PER EACH.

HAZARDOUS MATERIALS SURVEY REPORT, JANUARY 28, 2010

**Hazardous Materials Survey Report
Chicago Executive Airport
1020 South Plant Road
Wheeling, Illinois 60090**

Prepared for:

**Crawford Murphy & Tilly, Inc.
550 North Commons Drive
Suite 116
Aurora, Illinois 60504**

Prepared by:



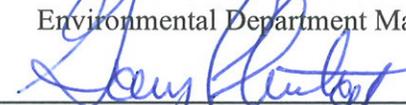
**Environmental Design International, inc.
33 West Monroe Street
Suite 1825
Chicago, Illinois 60603**

EDI Project No. 1535.002.02

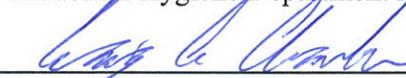
Approved for Release By



Scott Dileto, CHMM
Environmental Department Manager



Gary P. Flentge, MPH, LEHP, REA
Industrial Hygiene Department Manager



Craig A. Chambers, PE
Illinois Project Designer #100-18299



**Environmental Design
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Engineers · Scientists · Surveyors

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January 28, 2010

Mr. Marc Katz, P.E.
Crawford Murphy & Tilly, Inc.
550 North Commons Drive
Suite 116
Aurora, Illinois 60504

Subject: Hazardous Materials Survey Report
Taxiway L Phase 2 Project
Demolition of Four T-Hangar Buildings
Chicago Executive Airport (formerly Palwaukee)
1020 South Plant Road
Wheeling, Illinois 60090

Dear Mr. Katz:

Enclosed please find two copies of the Hazardous Materials Survey Report for the subject property. Please feel free to call me at (312) 345-1400 extension 131 for any assistance.

We appreciated the opportunity to work with you on this project.

Respectfully,

Environmental Design International, inc.

Scott Dileto, CHMM
Environmental Department Manager

Gary P. Flentge, MPH, LEHP, REA
Industrial Hygiene Department Manager

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Appendices

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Figure 1:	Asbestos Containing Material Sample Location Map
Figure 2:	Lead-Based Paint Sample Location Map
Figure 3:	Suspect Hazardous Material Location Map

Executive Summary

Environmental Design International, inc. (EDI) was retained by Crawford Murphy & Tilly, Inc. (CMT), to perform a hazardous materials survey of the four T-Hangar buildings located at the Chicago Executive Airport in Wheeling, Illinois.

The hazardous materials survey consisted of an inspection of interior and exterior areas of the T-Hangar buildings for suspect asbestos-containing material (ACM), lead-based paint (LBP), and other suspect hazardous materials. Every attempt was made to thoroughly evaluate and assess the presence and condition of suspect ACM, LBP, and other hazardous materials. Any suspect ACM, LBP, or other environmental hazards identified during demolition that are not specifically listed in this report should be thoroughly evaluated, assessed, sampled, and analyzed prior to disturbance, in accordance with applicable regulatory standards.

EDI performed a visual inspection of building materials and collected representative samples of homogeneous suspect ACM. The samples were submitted to a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory for bulk analysis. Based on the visual inspection and bulk sample analysis results, ten suspect building materials were reported to contain asbestos with asbestos content greater than one percent. According to the Asbestos Hazard Emergency Response Act (AHERA) Model Accreditation Plan, non-suspect material such as fiberglass, foam rubber, and plastics do not warrant sampling.

Additionally, EDI performed LBP testing utilizing an x-ray fluorescence (XRF) analyzer in areas that will be impacted by demolition activities in the T-Hangar buildings. A total of 50 XRF readings were recorded throughout the project area. The different areas where readings were taken were grouped into representative sampling areas (RSAs). Eight of the identified RSAs tested positive for LBP. Painted surfaces that exhibit a XRF lead concentration of equal to or greater than 1.0 milligrams per square centimeter (mg/cm^2) of surface area are considered to be LBP as defined by the Environmental Protection Agency (EPA), Housing and Urban Development (HUD), and the Illinois Department of Public Health (IDPH).

EDI performed a visual survey of the T-Hangar buildings for other suspect hazardous materials. Specific areas of concern include polychlorinated biphenols (PCBs) in fluorescent light ballasts, suspect mercury-containing devices, and stockpiled hazardous chemicals. EDI visually identified suspect PCBs and mercury containing fluorescent light ballasts and bulbs, two 55-gallon drums of unknown contents, and a 30-gallon drum of cooling water treatment liquid (corrosive). Suspect materials were not sampled but should be presumed to be hazardous until sampling confirms otherwise. Refer to Appendix C for a photographic log containing the fluorescent lights, the 55-gallon drums, and the 30-gallon drum.

Prior to any demolition of the T-Hangar buildings, ACM that will be disturbed must be abated by an IDPH-licensed contractor using IDPH-licensed supervisors and workers.

Contractors working on components with paint that contain lead should comply with applicable OSHA standards, and other appropriate federal, state, and local regulations, if their activities will

disturb paint that may cause a release of lead from the painted component. All LBP that will be disturbed should be removed and disposed of in accordance with applicable federal, state, and local regulations prior to demolition of the T-Hangar buildings that may disturb the LBP.

Suspect PCBs and mercury containing materials and other hazardous materials should be removed, handled, and disposed of in accordance with applicable federal, state, and local regulations. EDI assumes that tenant-stored materials requiring special handling and disposal will be removed prior to demolition activities.

1.0 Introduction

EDI was retained by CMT to perform a hazardous materials survey of the T-Hangar buildings located at the Chicago Executive Airport in Wheeling, Illinois. The field inspection was performed by Mr. Jose Aguilera, Industrial Hygienist (IDPH #100-10088), and Mr. Scott Dileto, Environmental Department Manager, on January 13, 14, and 15, 2010. Licenses and certifications for Mr. Aguilera are provided in Appendix E.

1.1 Project Purpose and Background

CMT requested that EDI perform the hazardous materials survey in preparation for the demolition of the T-Hangar buildings as part of the Taxiway L Phase 2 Project.

1.2 Scope of Work

The hazardous materials survey consisted of the inspection of interior and exterior areas of T-Hangar buildings for suspect ACM, LBP, and other hazardous materials. EDI performed the hazardous materials survey on January 13, 14, and 15, 2010.

2.0 Asbestos Survey

2.1 Asbestos Survey Methodology

EDI representatives performed a visual inspection to identify suspect ACM in accessible areas of the T-Hangar buildings. The ACM survey was performed in accordance with the United States Environmental Protection Agency (USEPA) *Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials* (USEPA 560/5085-030a, October 1985). The ACM survey included the following activities:

- Visual inspection of accessible areas of each building;
- Collection of bulk samples of identified suspect ACM per homogeneous material in accessible areas of each building;
- AIHA and NVLAP accredited laboratory analysis of suspect ACM bulk samples by polarized light microscopy (PLM) to first positive result per homogeneous material; and
- Preparation of a final report that includes sample locations of representative ACM and the laboratory's analytical report.

A total of 42 bulk samples of suspect asbestos-containing building materials (ACBM) were collected representing 14 homogeneous sampling areas (HSAs). HSAs are areas containing materials that are similar in color, texture, and general appearance, and which appear to have been uniformly installed during the same time period. Specific sample descriptions are summarized in Appendix A. According to the AHERA Model Accreditation Plan, non-suspect material such as fiberglass, foam rubber, and plastics do not warrant sampling. Refer to Figure 1 for asbestos sample numbers and approximate sampling locations.

Bulk samples of suspect ACM were collected using wet sampling methods with a coring device or a sample cutter, as appropriate, to collect a cross-section of the suspect ACM. Sample collection tools were decontaminated after each sample to avoid cross contamination. Bulk ACM samples were placed into clean unused sample containers marked with a unique sample identification number. For each sample, the identification number, brief material description, location, condition, and estimated quantity of suspect ACM were recorded on a bulk sample log sheet. Chain-of-Custody (COC) procedures were followed for the ACM inspection. These procedures provide a written tracking mechanism that lists the person responsible for the sample from collection to delivery to the laboratory. Sample identification numbers, sample locations, and material descriptions were recorded on the COC forms. Refer to Appendix D for asbestos laboratory results, COC forms, and laboratory certifications.

All bulk samples were analyzed by International Asbestos Testing Laboratories Inc, (IATL) in Mt. Laurel, New Jersey, a NVLAP accredited asbestos laboratory. Samples were analyzed by polarized light microscopy (PLM) supplemented with dispersion staining. PLM is an USEPA-approved method that utilizes a light microscope equipped with polarized filters (USEPA Method 600/R-93/116).

Some materials may not be accurately identified and/or quantified by PLM. As an example, the original fabrication of vinyl floor tile routinely involved milling of asbestos fibers to extremely small sizes. As a result, these fibers may go undetected under the standard PLM method. Transmission Electron Microscopy (TEM) is required for a more definitive analysis of these materials. These types of flooring materials that are reported by laboratory analysis to be non-asbestos by PLM analysis are routinely submitted to an accredited laboratory for analysis under TEM for verification of asbestos content. Two floor tiles were analyzed by TEM during this hazardous materials survey.

2.2 Results

Based on the visual inspection, and bulk sample analysis, ten building materials were reported to contain asbestos with asbestos content greater than one percent.

Location	Material Description	Approximate Quantity	Result	Condition
South hangar, east office	Green 9"x9" floor tile	225 square feet	23.8% Chrysotile	Poor
South hangar, east office	Grey glazing interior window	120 linear feet	2.7% Chrysotile	Poor
South hangar, east office	Grey glazing interior door window	16 linear feet	4.6% Chrysotile	Poor
South hangar, east office	Tan glazing exterior window	24 linear feet	2.1% Chrysotile	Good
South hangar, east office	White fibrous pipe wrap	61 linear feet	60% Chrysotile	Poor
South hangar, east office	Black penetration sealant	1 square foot	3.1% Chrysotile	Good
North center hangar, west office	Off-white joint compound	225 square feet	1.6% Chrysotile	Poor
North center hangar, west office	Off-white glazing interior window	120 linear feet	2.3% Chrysotile	Poor
North center hangar, west office	Tan glazing interior door window	16 linear feet	3.1% Chrysotile	Poor
North center hangar, west office	12"x12" tan floor tile	225 square feet	6.5% Chrysotile	Poor

Refer to Appendix A for the Asbestos Sample Logs. Refer to Appendix C for a photographic log of the sample locations. Refer to Appendix D for asbestos laboratory results and laboratory certifications.

3.0 Lead-Based Paint Survey

3.1 Lead-Based Paint Survey Methodology

EDI performed LBP testing utilizing an XRF analyzer in the T-Hangar buildings planned for demolition. A total of 50 XRF readings were recorded throughout the project area. The different areas where readings were taken were grouped into representative sampling areas (RSAs). Eight of the identified RSAs tested positive for LBP. Painted surfaces that exhibit an XRF lead concentration of equal to or greater than 1.0 mg/cm² of surface area are considered to be LBP as defined by EPA, HUD and IDPH. The XRF testing was conducted with a MAP 4 Lead Paint Analyzer (LPA) using a Cobalt-57 (Co-57) isotope with a 20 milli-curie source. The XRF analyzer was used on interior and exterior painted surfaces that were determined to be RSAs. Calibration checks of the XRF analyzer were performed prior to and at the conclusion of the testing. The XRF analyzer provides immediate positive or negative result readings of the painted surface, which are then recorded on to a data log sheet. No destructive sampling was performed on any surfaces during the LBP survey. The lead sample logs provide descriptions of the paint and sample locations.

3.2 Results

LBP was detected in the following RSAs:

Location	Material Description	Quantity	Result	Condition
Interior	Yellow paint	Approx. 20 linear/feet	Positive	Poor
Interior	Brown paint	Approx. 20,000 linear/feet	Positive	Poor
Interior	Grey paint	Approx. 40 linear/feet	Positive	Poor
Interior	White paint	Approx. 32 square/feet	Positive	Poor
Interior	White paint	Approx. 30 linear/feet	Positive	Poor
Interior	Orange paint	Approx. 250 square/feet	Positive	Poor
Exterior	Beige paint	Approx. 18,000 square/feet	Positive	Poor
Exterior	Red paint	Approx. 18,000 square/feet	Positive	Poor

Refer to Appendix B for the lead sample logs. Refer to Figure 2 for the LBP sample location map. Refer to Appendix C for a photographic log of the sampling activities.

4.0 Hazardous Materials Survey

4.1 Hazardous Materials Survey Methodology

EDI performed a visual survey for suspect hazardous materials in the four T-Hangar buildings planned for demolition. Specific areas of concern include polychlorinated byphenols (PCBs), fluorescent light ballasts, and suspect mercury-containing devices.

Fluorescent lighting was observed in hangar 4 Unit #35 and hangar 3 Unit #21. A 55-gallon drum of unknown contents and a 30-gallon drum of cooling water treatment liquid (corrosive) were observed in hangar 3 Unit #29. A 55-gallon drum of unknown contents was observed through the partially blocked door of the east office in hangar 2. Refer to Appendix C for a photographic log containing the fluorescent lights, the 55-gallon drum, and the 30-gallon drum. Refer to Figure 3 the suspect hazardous materials locations. Refer to Appendix C for photographs of the suspect hazardous materials.

In addition, several tenant-owned materials were observed in numerous hangar units that may require special handling and disposal. EDI assumes these materials will be removed prior to demolition activities. The following tenant-owned materials were identified in the accessible portions of the T-Hangar buildings:

South Hangar building

- 1-gallon weed killer
- One propane cylinder for heating unit
- One 1-gallon gas can
- Three kerosene heaters
- Four lawn mowers
- One quart motor oil
- One gas powered plane tow
- One air compressor
- Several containers of household cleaning supplies

Units #4, #7, and #8 were not accessible at the time of the inspection. The west office door was welded shut.

South Central Hangar

- One 2.5-gallon gas can
- One snow blower
- One riding mower
- Four boxes of motor oil
- One gas powered plane tow
- One air compressor

- Several container of household cleaning supplies

Units #19, #20 were not accessible at the time of the inspection. The east office door could only be partially opened, and the west office door was welded shut.

North Central Hangar

- Six 5-gallon gas cans
- Several batteries
- Several quarts of motor oil
- Several spray paint cans
- One kerosene heater
- One 5-gallon container of used oil
- One propane tank
- Two boxes of aviation motor oil
- One riding mower
- Four boxes of motor oil
- One gas powered plane tow
- One air compressor
- Several household cleaning supplies

Units #28 and #30 were not accessible at the time of the inspection.

North Hangar

- Six 5-gallon gas cans
- Several batteries
- Several quarts of motor oil
- Several spray paint cans
- One wall heater
- Several household cleaning supplies

Units #37 and #39 were not accessible at the time of the inspection.

5.0 Findings and Recommendations

5.1 Asbestos Survey

Based on the visual inspection and bulk sample analysis results, ten suspect building materials were reported to contain asbestos with asbestos content greater than one percent. According to the AHERA Model Accreditation Plan, non-suspect material such as fiberglass, foam rubber, and plastics do not warrant sampling.

The following materials were determined to be ACM:

Location	Material Description	Approximate Quantity	Result
South hangar, east office	Green 9"x9" floor tile	225 square feet	23.8% Chrysotile
South hangar, east office	Grey glazing interior window	120 linear feet	2.7% Chrysotile
South hangar, east office	Grey glazing interior door window	16 linear feet	4.6% Chrysotile
South hangar, east office	Tan glazing exterior window	24 linear feet	2.1% Chrysotile
South hangar, east office	White fibrous pipe wrap	61 linear feet	60% Chrysotile
South hangar, east office	Black penetration sealant	1 square foot	3.1% Chrysotile
North center hangar, west office	Off-white joint compound	225 square feet	1.6% Chrysotile
North center hangar, west office	Off-white glazing, interior window	120 linear feet	2.3% Chrysotile
North center hangar, west office	Tan glazing interior door window	16 linear feet	3.1% Chrysotile
North center hangar, west office	12"x12" tan floor tile	225 square feet	6.5% Chrysotile

Prior to demolition of the T-Hangar buildings, ACM that will be disturbed, must be abated by an IDPH-licensed contractor using IDPH-licensed supervisors and workers.

5.2 Lead Survey

Based on the survey and findings, LBP is present in eight of the identified RSA materials that may be impacted by the demolition of the T-Hangar buildings. The following tables provide a list of the LBP components:

Location	Material Description	Quantity	Result
Interior	Yellow paint	Approx. 20 linear/feet	Positive
Interior	Brown paint	Approx. 20,000 linear/feet	Positive
Interior	Grey paint	Approx. 40 linear/feet	Positive
Interior	White paint	Approx. 32 square/feet	Positive
Interior	White paint	Approx. 30 linear/feet	Positive
Interior	Orange paint	Approx. 250 square/feet	Positive
Exterior	Beige paint	Approx. 18,000 square/feet	Positive
Exterior	Red paint	Approx. 18,000 square/feet	Positive

Contractors working on components with paint that contain lead should comply with applicable OSHA standards, and other appropriate federal, state, and local regulations, if their activities will disturb paint that may cause a release of lead from the painted component. All LBP should be removed and disposed of in accordance with applicable federal, state, and local regulations prior to demolition of the T-Hangar buildings that may disturb the LBP.

5.3 Hazardous Materials Survey

Fluorescent lighting was observed in hangar 4 Unit #35 and hangar 3 Unit #21. A 55-gallon drum of unknown contents and a 30-gallon drum of cooling water treatment liquid (corrosive) were observed in hangar 3 Unit #29. A 55-gallon drum of unknown contents was observed through the partially blocked door of east office in hangar 2.

The fluorescent light ballasts may contain PCBs and the fluorescent light may contain mercury. No sampling of suspect PCBs or mercury containing equipment was conducted. Suspect PCBs and mercury containing materials and other hazardous materials should be removed, handled, and disposed of in accordance with applicable federal, state, and local regulations. EDI assumes that tenant-stored materials requiring special handling and disposal will be removed prior to demolition activities.

6.0 Limitations

6.1 Limitations

This report is based solely on the scope of work provided and the assumptions identified in this survey. Any new information that becomes available concerning the subject site should be provided to EDI so that our evaluations, conclusions, and recommendations may be revised and modified accordingly. All materials tested are assumed homogeneous throughout the proposed renovation areas. EDI staff walked the site area to identify accessible areas to be included in the survey. Every attempt was made to thoroughly evaluate and assess the presence and condition of suspect asbestos and lead containing materials. EDI did not perform destructive sampling practices and suspect materials may exist within inaccessible areas. Any suspect material identified during demolition that is not specifically listed herein should be thoroughly assessed, sampled, and analyzed prior to disturbance, in accordance with applicable regulatory standards.

At the time of the hazardous materials inspection several T-Hangar building units and offices were not accessed due to locked doors. The units and offices not inspected are listed below:

- Unit #4
- Unit #7
- Unit #8
- Unit #19
- Unit #20
- Unit #28
- Unit #30
- Unit # 37
- Unit #39
- South Hangar – west office
- South Central Hangar - West office and east office door could be partially opened

The findings and conclusions in this report are not specific certainties; rather they are probabilities based on professional judgment concerning the significance of the data collected. EDI claims to represent only the specific findings documented herein and does not claim knowledge of conditions beyond the scope of the survey.

The hazardous materials survey was conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the environmental profession under similar conditions. No other warranty or guarantee, express or implied, is included or intended in this report or otherwise.

This report is intended for the use of the client, subject to the terms and conditions of EDI's Scope of Services and Fees for Professional Services Agreement.

7.0 Definitions

The following definitions are intended to provide the reader with a better understanding of the terminology used in this report.

Asbestos

The general name given to a number of naturally occurring hydrated mineral silicates that possess a unique crystalline structure, are incombustible in air, and are separable into fibers. Asbestos includes the asbestiform varieties of chrysotile; crocidolite; amosite; anthophyllite; and actinolite.

Asbestos-Containing Material

Asbestos containing materials (ACM) are materials that are found to contain greater than one percent by weight asbestos content as determined by polarized light microscopy (PLM) analysis.

Accessible Areas

An accessible area of the building is any area that the survey team is permitted to inspect and that can be inspected without the disassembly of complicated mechanical or rigid structural components of the building. Examples of accessible areas of the building are interior floors, walls, ceilings, areas above suspended ceilings, return air shafts (normally), mechanical piping exteriors, and equipment exteriors, etc.

Damaged material

A “damaged” material contains a few water stains or less than one-tenth of insulation with missing jackets and/or crushed insulation or water stains, gouges, punctures, or mars on surface up to one-tenth of the insulation if the damage is evenly distributed or up to one-quarter if the damage is localized.

Friable Material

A material, that when dry, may be crumbled, pulverized or reduced to powder by hand pressure is a friable material. Examples of friable materials include: pipe insulation, boiler or tank insulation, or sprayed-on fireproofing.

Homogeneous Area

A homogeneous area is defined as a group of materials that is uniform in texture and appearance, was installed at one time, and is likely to consist of more than one type or formation of material.

Inaccessible Areas

An inaccessible area is any area where inspection access is not permitted or requires a considerable amount of mechanical or structural disassembly to inspect. Inaccessible areas normally only investigated prior to renovation or demolition activities. Examples of inaccessible areas are pipe chases behind solid walls, mechanically encased insulation, crawlspaces or unsafe areas.

Lead-Based Paint

Is Paint or surface coatings, which contain lead levels greater than or equal to 1.0 milligrams per square centimeter or more than 0.5% lead by weight.

Non-friable Material

A material, that when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure. Non-friable materials may become friable through damage or deterioration. Examples of non-friable materials include: intact floor tile, transite building panels, or well maintained roofing materials.

Significantly Damaged Material

A “significantly damaged” material contains missing jackets on at least one-tenth of the piping or equipment and/or is crushed, heavily gouged, or punctured insulation on at least one-tenth of pipe runs/rises, boilers, tanks, ducts, etc., if the damage is evenly distributed or one-quarter of the damage is localized.

Appendices

Appendix A: Asbestos Sample Log

Asbestos Sample Log

Chicago Executive Airport T-Hangar Buildings

January 28, 2010

Sample Number	Material Description	Location	Result
HA1-01	Green floor tile, 9"x9"	South hangar, east office	0.50%
HA1-02	Green floor tile, 9"x9"	South hangar, east office	0.25%
HA1-03	Green floor tile, 9"x9"	South hangar, east office	0.25%
	Confirmed by TEM		23.80% Chrysotile
HA2-04	Tan mastic	South hangar, east office	ND
HA2-05	Tan mastic	South hangar, east office	ND
HA2-06	Tan mastic	South hangar, east office	ND
HA3-07	Brown ceiling tile	South hangar, east office	ND
HA3-08	Brown ceiling tile	South hangar, east office	ND
HA3-09	Brown ceiling tile	South hangar, east office	ND
HA4-10	White glazing, interior window	South hangar, east office	ND
HA4-11	Grey glazing, interior window	South hangar, east office	2.70% Chrysotile
HA4-12	Grey glazing, interior window	South hangar, east office	NA
HA5-13	Grey glazing; interior door window	South hangar, east office	4.60% Chrysotile
HA5-14	Grey glazing; interior door window	South hangar, east office	NA
HA5-15	Grey glazing; interior door window	South hangar, east office	NA
HA6-16	Tan glazing, exterior window	South hangar, east office	2.10% Chrysotile
HA6-17	Tan glazing, exterior window	South hangar, east office	NA
HA6-18	Tan glazing, exterior window	South hangar, east office	NA
HA7-19	White fibrous, pipe wrap	South hangar, east office	60.00% Chrysotile
HA7-20	White fibrous, pipe wrap	South hangar, east office	NA
HA7-21	White fibrous, pipe wrap	South hangar, east office	NA
HA8-22	Black penetration sealant	South hangar, east office	3.10% Chrysotile
HA8-23	Black penetration sealant	South hangar, east office	NA
HA8-24	Black penetration sealant	South hangar, east office	NA
HA9-25	Off-white floor tile, 12"x12"	North center hangar, west office	Trace
HA9-26	Off-white floor tile, 12"x12"	North center hangar, west office	0.25%

Sample Number	Material Description	Location	Result
HA9-27	Off-white floor tile, 12"x12"	North center hangar, west office	Trace
	Confirmed by TEM		6.50% Chrysotile
HA10-28	Tan mastic, A/W 12"x12" floor tile	North center hangar, west office	ND
HA10-29	Tan mastic, A/W 12"x12" floor tile	North center hangar, west office	ND
HA10-30	Tan mastic, A/W 12"x12" floor tile	North center hangar, west office	ND
HA11-31	Brown/white sheetrock	North center hangar, west office, ceiling	ND
HA11-32	Brown/white sheetrock	North center hangar, west office, ceiling	ND
HA11-33	Brown/white sheetrock	North center hangar, west office, ceiling	ND
HA11-33	Off-white joint compound (second layer)	North center hangar, west office, ceiling	1.60% Chrysotile
HA12-34	Off-white glazing, interior window	North center hangar, west office	2.30% Chrysotile
HA12-35	Off-white glazing, interior window	North center hangar, west office	NA
HA12-36	Off-white glazing, interior window	North center hangar, west office	NA
HA13-37	Tan glazing, interior door window	North center hangar, west office	3.10% Chrysotile
HA13-38	Tan glazing, interior door window	North center hangar, west office	NA
HA13-39	Tan glazing, interior door window	North center hangar, west office	NA
HA14-40	Silver sealant, vent out sealant ext.	Wall between south hangar door and unit 20	ND
HA14-41	Silver sealant, vent out sealant ext.	Wall between south hangar door and unit 20	ND
HA14-42	Silver sealant, vent out sealant ext.	Wall between south hangar door and unit 20	ND

Notes:

All results greater than 1% are considered asbestos containing.

ND = Non-detect

NA = Not analyzed (due to previous positive sample)

Samples less than 1% asbestos content were point counted.

Inspectors Name <i>Jose Aguilera</i>	Sample Collection Date <i>01/14-15/2010</i>
Inspector's Signature <i>Jose Aguilera</i>	Lab Results Received Date <i>01/18/2010</i>

Appendix B: Lead Sample Log

Lead Sample Log

Chicago Executive Airport T-Hangar Buildings

January 28, 2010

Sample Number	Material Description	Location	Result
L01	Yellow paint	Cross bar hangar door Unit# 34	Positive
L02	Brown paint	Metal frame support cross beam Unit# 33	Positive
L03	White paint	Metal frame support cross beam Unit# 33	Positive
L04	White paint	East wall Unit# 39	Negative
L05	Brown paint	Metal frame support beam Unit# 32	Positive
L06	Orange paint	Concrete floor stripe	Negative
L07	White paint	Hangar door Unit# 27	Negative
L08	White paint	West wall Unit# 27	Negative
L09	White paint	East wall Unit#27	Negative
L10	White paint	West wall Unit# 24	Negative
L11	White paint	North wall Unit# 24	Negative
L12	White paint	North door Unit# 24	Negative
L13	White paint	East wall Unit# 24	Negative
L14	Brown paint	Metal cross bar Unit# 24	Positive
L15	Red paint	I-beams Unit# 23	Negative
L16	Off-white paint	East wall Unit# 23	Negative
L17	Brown paint	I-beam Unit# 22	Positive
L18	White paint	North wall Unit# 16	Negative
L19	Blue paint	North wall Unit# 16	Negative
L20	White paint (possible brown layer under white)	Metal cross bar hangar door north Unit# 16	Positive
L21	White paint	North hangar door Unit# 16	Negative
L22	White Paint (possible brown layer under white)	Entrance door Unit# 16	Positive
L23	White paint (possible brown layer under white)	Metal frame horizontal beam ceiling Unit#1	Positive
L24	Green paint	Tire track Unit#1	Negative
L25	Grey paint	Tire track Unit# 1	Negative
L26	Yellow paint	Tire track Unit# 2	Positive
L27	Orange paint	I-beam Unit# 5	Positive
L28	Orange paint	Door hinge Unit# 5	Positive
L29	Orange paint	North door casing Unit# 5	Positive
L30	Grey paint	Hangar door Unit# 9	Negative
L31	Grey paint (possible brown layer under white)	Hangar door cross bar Unit# 9	Positive
L32	Grey paint	I-beam Unit# 9	Negative
L33	Grey paint	South wall Unit# 9	Negative
L34	Grey paint (possible brown layer under white)	South door cross bar Unit# 9	Positive

L35	Brown paint	I-beam Unit# 9	Positive
L36	Beige paint	Exterior hangar door Unit# 1	Negative
L37	Beige paint	Exterior hangar door Unit# 6	Negative
L38	Beige paint	Exterior door casing Unit# 6	Negative
L39	Beige paint (orange layer under beige)	Exterior wall between Unit # 7 and #8	Positive
L40	Orange paint	Exterior east office door hangar 2	Positive
L41	White paint	Exterior east office door jamb hangar 2	Negative
L42	Brown paint	Exterior east office door casing hangar 2	Positive
L43	Red paint	Exterior hangar door casing Unit# 16	Positive
L44	Red paint	Exterior hangar door Unit# 16	Positive
L45	Red paint	Exterior east office door hangar 3	Positive
L46	Red paint	Exterior east office door jamb hangar 3	Positive
L47	Beige paint	Exterior lower wall Unit# 31 hangar 4	Negative
L48	Beige paint	Exterior lower wall Unit# 33 hangar 4	Negative
L49	Brown paint	Metal frame horizontal beam	Positive
L50	Brown paint	I-beam Unit# 34	Positive

Notes:

All results greater than 1.0 milligrams/cm² are considered lead-containing

Inspectors Name <i>José Aguilera</i>	Sample Collection Date <i>1/14/10</i>
Inspector's Signature <i>José Aguilera</i>	Lab Results Received Date <i>1/14/10</i>

Appendix C: Photographic Log

Photographic Log

Project Name	CMT - Chicago Executive Airport - Hazardous Materials Survey
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<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	 <p>01/14/2010</p>
<p>Description: View of 9"x9" green floor tile (HA1-01).</p> <p>Photo #1</p>	

<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	 <p>01/15/2010</p>
<p>Description: View of 12"x12" tan floor tile (HA9-25).</p> <p>Photo #2</p>	

Photographic Log

Project Name	CMT - Chicago Executive Airport - Hazardous Materials Survey
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<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	
<p>Description: View of grey glazing on an interior window (HA4-11).</p> <p>Photo #3</p>	

<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	
<p>Description: View of grey glazing on an interior door (HA5-13) and tan glazing interior door (HA13-37).</p> <p>Photo #4</p>	

Photographic Log

Project Name	CMT - Chicago Executive Airport - Hazardous Materials Survey
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<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	 <p>01/14/2010</p>
<p>Description: View of glazing exterior window (HA6-16).</p> <p>Photo #5</p>	

<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	 <p>01/14/2010</p>
<p>Description: View of ACM white fibrous pie wrap (HA7-19) and black penetration sealant (HA8-22).</p> <p>Photo #6</p>	

Photographic Log

Project Name	CMT - Chicago Executive Airport - Hazardous Materials Survey
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Project: 1535.002.02
Date: 1/13/10 - 1/15/10
Photographed By:
Jose Aguilera

Description:
View of off-white joint compound (HA11-33).

Photo #7



Project: 1535.002.02
Date: 1/13/10 - 1/15/10
Photographed By:
Jose Aguilera

Description:
View of off-white glazing, interior window (HA12-34).

Photo #8



Photographic Log

Project Name	CMT - Chicago Executive Airport - Hazardous Materials Survey
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Project: 1261.012.110
Date: 12/15/09 - 12/21/09
Photographed By:
John Wellman

Description:
View of white LBP on an
entrance door.



Photo #9

Project: 1535.002.02
Date: 1/13/10 - 1/15/10
Photographed By:
Jose Aguilera

Description:
View of white LBP on
metal frame.



Photo #10

Photographic Log

Project Name	CMT - Chicago Executive Airport - Hazardous Materials Survey
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<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	
<p>Description: View of yellow LBP on tire track in unit #2.</p> <p>Photo #11</p>	

<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	
<p>Description: View of orange LBP on door.</p> <p>Photo #12</p>	

Photographic Log

Project Name	CMT - Chicago Executive Airport - Hazardous Materials Survey
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<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	
<p>Description: View of grey LBP on a crossbar.</p> <p>Photo #13</p>	

<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	
<p>Description: View of brown LBP on an I-beam.</p> <p>Photo #14</p>	

Photographic Log

Project Name	CMT - Chicago Executive Airport - Hazardous Materials Survey
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<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	
<p>Description: View of brown LBP on a metal cross beam.</p> <p>Photo #15</p>	

<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	
<p>Description: View of brown LBP on door casing.</p> <p>Photo #16</p>	

Photographic Log

Project Name	CMT - Chicago Executive Airport - Hazardous Materials Survey
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<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	 <p>01/14/2010</p>
<p>Description: View of red LBP on exterior office door.</p> <p>Photo #17</p>	

<p>Project: 1535.002.02 Date: 1/13/10 - 1/15/10 Photographed By: Jose Aguilera</p>	 <p>01/14/2010</p>
<p>Description: View of red LBP on exterior hangar door casing.</p> <p>Photo #18</p>	

Photographic Log

Project Name	CMT - Chicago Executive Airport - Hazardous Materials Survey
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Project: 1535.002.02
Date: 1/13/10 - 1/15/10
Photographed By:
Scott Dileto

Description:
View of electrical breaker
box in unit 5.

Photo #19



Project: 1535.002.02
Date: 1/13/10 - 1/15/10
Photographed By:
Scott Dileto

Description:
View of fluorescent
lighting in Unit #21.

Photo #20



Photographic Log

Project Name	CMT - Chicago Executive Airport - Hazardous Materials Survey
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Project: 1535.002.02
Date: 1/13/10 - 1/15/10
Photographed By:
Scott Dileto

Description:
View of fluorescent lighting in Unit #35.

Photo #21



Project: 1535.002.02
Date: 1/13/10 - 1/15/10
Photographed By:
Scott Dileto

Description:
View of the 55-gallon drum unknown contents and the 30-gallon drum of cooling water treatment (corrosive) in unit #29.

Photo #22



Appendix D: Asbestos Laboratory Results and Laboratory Certifications

CERTIFICATE OF ANALYSIS

Client: Environ. Design International 33 W Monroe, Suite 1825 Chicago IL 60603	Report Date: 1/18/2010 Project: ChicagoExec.Airpt.(Pwk) Project No.: 1535.002.01
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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 3839539	Description / Location: Green Floor Tile; 9x9		
Client No.: HA1-01	South Hangar East Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
PC 0.5	Chrysotile	None Detected	None Detected
			<u>% Non-Fibrous Material</u> PC 99.5

Lab No.: 3839540	Description / Location: Green Floor Tile; 9x9		
Client No.: HA1-02	South Hangar East Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
PC 0.25	Chrysotile	None Detected	None Detected
			<u>% Non-Fibrous Material</u> PC 99.75

Lab No.: 3839541	Description / Location: Green Floor Tile; 9x9		
Client No.: HA1-03	South Hangar East Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
PC 0.25	Chrysotile	None Detected	None Detected
			<u>% Non-Fibrous Material</u> PC 99.75

Lab No.: 3839542	Description / Location: Tan Mastic		
Client No.: HA2-04	South Hangar East Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			<u>% Non-Fibrous Material</u> 100

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

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Analysis Performed By: V. Smith

Approved By: _____

Date: 1/18/2010

Frank E. Ehrenfeld, III
 Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Environ. Design International 33 W Monroe, Suite 1825 Chicago IL 60603	Report Date: 1/18/2010 Project: ChicagoExec.Airpt.(Pwk) Project No.: 1535.002.01
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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 3839543	Description / Location: Tan Mastic		
Client No.: HA2-05	South Hangar East Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			<u>% Non-Fibrous Material</u>
			100

Lab No.: 3839544	Description / Location: Tan Mastic		
Client No.: HA2-06	South Hangar East Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			<u>% Non-Fibrous Material</u>
			100

Lab No.: 3839545	Description / Location: Brown Ceiling Tile		
Client No.: HA3-07	South Hangar East Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	98	Cellulose
			<u>% Non-Fibrous Material</u>
			2

Lab No.: 3839546	Description / Location: Brown Ceiling Tile		
Client No.: HA3-08	South Hangar East Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	98	Cellulose
			<u>% Non-Fibrous Material</u>
			2

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Method: EPA 600/R-93/116

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Analysis Performed By: V. Smith

Date: 1/18/2010

CERTIFICATE OF ANALYSIS

Client: Environ. Design International 33 W Monroc, Suite 1825 Chicago IL 60603	Report Date: 1/18/2010 Project: ChicagoExec.Airpt.(Pwk) Project No.: 1535.002.01
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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 3839547	Description / Location: Brown Ceiling Tile		
Client No.: HA3-09	South Hangar East Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	98	Cellulose
			<u>% Non-Fibrous Material</u>
			2

Lab No.: 3839548	Description / Location: White Glazing; Interior Window		
Client No.: HA4-10	South Hangar East Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			<u>% Non-Fibrous Material</u>
			100

Lab No.: 3839549	Description / Location: Grey Glazing; Interior Window		
Client No.: HA4-11	South Hangar East Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
PC 2.7	Chrysotile	None Detected	None Detected
			<u>% Non-Fibrous Material</u>
			PC 97.3

Lab No.: 3839550	Description / Location: Sample Not Analyzed		
Client No.: HA4-12			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
Sample Not Analyzed		Sample Not Analyzed	
			<u>% Non-Fibrous Material</u>

NIST-NVLAP No. 101165-0

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Analysis Performed By: V. Smith

Date: 1/18/2010

CERTIFICATE OF ANALYSIS

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 3839551	Description / Location: Grey Insulation; Interior Door Window	
Client No.: HA5-13	South Hangar East Office	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
PC 4.6	Chrysotile	None Detected
		<u>Type</u>
		None Detected
		<u>% Non-Fibrous Material</u>
		PC 95.4

Lab No.: 3839552	Description / Location: Sample Not Analyzed	
Client No.: HA5-14		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
Sample Not Analyzed		Sample Not Analyzed
		<u>Type</u>
		<u>% Non-Fibrous Material</u>

Lab No.: 3839553	Description / Location: Sample Not Analyzed	
Client No.: HA5-15		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
Sample Not Analyzed		Sample Not Analyzed
		<u>Type</u>
		<u>% Non-Fibrous Material</u>

Lab No.: 3839554	Description / Location: Tan Glazing; Exterior Window	
Client No.: HA6-16	South Hangar East Office	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
PC 2.1	Chrysotile	None Detected
		<u>Type</u>
		None Detected
		<u>% Non-Fibrous Material</u>
		PC 97.9

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

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Analysis Performed By: V. Smith

Date: 1/18/2010

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 3839555	Description / Location: Sample Not Analyzed	
Client No.: HA6-17		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
Sample Not Analyzed		Sample Not Analyzed
		<u>% Non-Fibrous Material</u>

Lab No.: 3839556	Description / Location: Sample Not Analyzed	
Client No.: HA6-18		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
Sample Not Analyzed		Sample Not Analyzed
		<u>% Non-Fibrous Material</u>

Lab No.: 3839557	Description / Location: White Fibrous; Pipe Wrap	
Client No.: HA7-19	South Hangar East Office	
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
60	Chrysotile	40
		Cellulose
		<u>% Non-Fibrous Material</u>
		None Detected

Lab No.: 3839558	Description / Location: Sample Not Analyzed	
Client No.: HA7-20		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>
Sample Not Analyzed		Sample Not Analyzed
		<u>% Non-Fibrous Material</u>

NIST-NVLAP No. 101165-0

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Analysis Method: EPA 600/R-93/116

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Analysis Performed By: V. Smith

Date: 1/18/2010

CERTIFICATE OF ANALYSIS

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 3839559	Description / Location: Sample Not Analyzed	
Client No.: HA7-21		
<u>% Asbestos</u> <u>Type</u>	<u>% Non-Asbestos Fibrous Material</u> <u>Type</u>	<u>% Non-Fibrous Material</u>
Sample Not Analyzed	Sample Not Analyzed	

Lab No.: 3839560	Description / Location: Black Penetration Sealant South Hangar East Office	
Client No.: HA8-22		
<u>% Asbestos</u> <u>Type</u>	<u>% Non-Asbestos Fibrous Material</u> <u>Type</u>	<u>% Non-Fibrous Material</u>
PC 3.1 Chrysotile	None Detected None Detected	PC 96.9

Lab No.: 3839561	Description / Location: Sample Not Analyzed	
Client No.: HA8-23		
<u>% Asbestos</u> <u>Type</u>	<u>% Non-Asbestos Fibrous Material</u> <u>Type</u>	<u>% Non-Fibrous Material</u>
Sample Not Analyzed	Sample Not Analyzed	

Lab No.: 3839562	Description / Location: Sample Not Analyzed	
Client No.: HA8-24		
<u>% Asbestos</u> <u>Type</u>	<u>% Non-Asbestos Fibrous Material</u> <u>Type</u>	<u>% Non-Fibrous Material</u>
Sample Not Analyzed	Sample Not Analyzed	

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Performed By: V. Smith

Date: 1/18/2010

CERTIFICATE OF ANALYSIS

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		Project:	ChicagoExec.Airpt.(Pwk)
		Project No.:	1535.002.01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	3839563	Description / Location:	Off-White Floor Tile; 12x12 North Center Hangar West Office
Client No.:	HA9-25		
% Asbestos	Type	% Non-Asbestos Fibrous Material	Type
PC Trace	Chrysotile	None Detected	None Detected
			% Non-Fibrous Material 100

Lab No.:	3839564	Description / Location:	Off-White Floor Tile; 12x12 North Center Hangar West Office
Client No.:	HA9-26		
% Asbestos	Type	% Non-Asbestos Fibrous Material	Type
PC 0.25	Chrysotile	None Detected	None Detected
			% Non-Fibrous Material PC 99.75

Lab No.:	3839565	Description / Location:	Off-White Floor Tile; 12x12 North Center Hangar West Office
Client No.:	HA9-27		
% Asbestos	Type	% Non-Asbestos Fibrous Material	Type
PC Trace	Chrysotile	None Detected	None Detected
			% Non-Fibrous Material 100

Lab No.:	3839566	Description / Location:	Tan Mastic; A/W 12x12 Floor Tile North Center Hangar West Office
Client No.:	HA10-28		
% Asbestos	Type	% Non-Asbestos Fibrous Material	Type
None Detected	None Detected	None Detected	None Detected
			% Non-Fibrous Material 100

NIST-NVLAP No. 101165-0

NY-DOH No. 11021

AIHA Lab No. 100188

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Analysis Performed By: V. Smith

Date: 1/18/2010

CERTIFICATE OF ANALYSIS

Client: Environ. Design International
 33 W Monroe, Suite 1825
 Chicago IL 60603

Report Date: 1/18/2010
Project: ChicagoExec.Airpt.(Pwk)
Project No.: 1535.002.01

BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 3839567	Description / Location: Tan Mastic; A/W 12x12 Floor Tile		
Client No.: HA10-29	North Center Hangar West Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			<u>% Non-Fibrous Material</u>
			100

Lab No.: 3839568	Description / Location: Tan Mastic; A/W 12x12 Floor Tile		
Client No.: HA10-30	North Center Hangar West Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	None Detected	None Detected
			<u>% Non-Fibrous Material</u>
			100

Lab No.: 3839569	Description / Location: Brown/White Sheetrock		
Client No.: HA11-31	North Center Hangar West Office; Ceiling		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	10	Cellulose
			<u>% Non-Fibrous Material</u>
			90

Lab No.: 3839570	Description / Location: Brown/White Sheetrock		
Client No.: HA11-32	North Center Hangar West Office; Ceiling		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	15	Cellulose
			<u>% Non-Fibrous Material</u>
			85

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Analysis Performed By: V. Smith

Date: 1/18/2010

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 3839571	Description / Location: Brown/Off-White Sheetrock		
Client No.: HA11-33	North Center Hangar West Office; Ceiling		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
None Detected	None Detected	10	Cellulose
			<u>% Non-Fibrous Material</u>
			90

Lab No.: 3839571	Description / Location: Off-White Joint Compound		Layer No.: 2
Client No.: HA11-33	North Center Hangar West Office; Ceiling		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
PC 1.6	Chrysotile	None Detected	None Detected
		0	<u>% Non-Fibrous Material</u>
			PC 98.4

Lab No.: 3839572	Description / Location: Off-White Glazing; Interior Window		
Client No.: HA12-34	North Center Hangar West Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
PC 2.3	Chrysotile	None Detected	None Detected
			<u>% Non-Fibrous Material</u>
			PC 97.7

Lab No.: 3839573	Description / Location: Sample Not Analyzed		
Client No.: HA12-35			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
Sample Not Analyzed		Sample Not Analyzed	
			<u>% Non-Fibrous Material</u>

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Analysis Performed By: V. Smith

Date: 1/18/2010

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 3839574	Description / Location: Sample Not Analyzed		
Client No.: HA12-36			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
Sample Not Analyzed		Sample Not Analyzed	<u>% Non-Fibrous Material</u>

Lab No.: 3839575	Description / Location: Tan Glazing, Interior Door Window		
Client No.: HA13-37	North Center Hangar West Office		
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
PC 3.1	Chrysotile	None Detected	None Detected
			<u>% Non-Fibrous Material</u>
			PC 96.9

Lab No.: 3839576	Description / Location: Sample Not Analyzed		
Client No.: HA13-38			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
Sample Not Analyzed		Sample Not Analyzed	<u>% Non-Fibrous Material</u>

Lab No.: 3839577	Description / Location: Sample Not Analyzed		
Client No.: HA13-39			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>
Sample Not Analyzed		Sample Not Analyzed	<u>% Non-Fibrous Material</u>

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BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 3839578	Description / Location: Silver Sealant; Vent Out Sealant Ext.			
Client No.: HA14-40	Wall BetweenSouthHangerDoorUnit20			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 3839579	Description / Location: Silver Sealant; Vent Out Sealant Ext.			
Client No.: HA14-41	Wall BetweenSouthHangerDoorUnit20			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

Lab No.: 3839580	Description / Location: Silver Sealant; Vent Out Sealant Ext.			
Client No.: HA14-42	Wall BetweenSouthHangerDoorUnit20			
<u>% Asbestos</u>	<u>Type</u>	<u>% Non-Asbestos Fibrous Material</u>	<u>Type</u>	<u>% Non-Fibrous Material</u>
None Detected	None Detected	None Detected	None Detected	100

NIST-NVLAP No. 101165-0

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Analysis Performed By: V. Smith

Date: 1/18/2010



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

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phone: 312.355.5100 345-1400
fax: 312.355.5999 345-0524

Offices also in:
Columbus, Ohio
Gary, Indiana
Milwaukee, Wisconsin

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

1. Sender's Name/Project No. 1535.002.01

2. Sampling Site Address/Contact Telephone No. Chicago Exec. Apts. (Park) 1020 S. Park Rd.

3. Sampled by (Signature) Dox Aguilera 4. # of Samples in Shipment 42 5. Date of Sample Shipment 1/15/10 6. Date Results Needed FM COIATE

Item No.	Sample Number	Sample Location/Description	Matrix										Methid Preserved	OTHER	Date	Time	VOLUME (L)	TIME (Minutes)	# of Containers	Indicate Analysis Requested	Laboratory Number
			COMP	GRAB	WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO3	H2SO4									
1	HAI-01	SOUTH HALLWAY / 9" X 9" FLOOR TILE	✓													1/15/10	14:00	3839539	1	✓	
2	HAI-02	}	✓															3839540	1	✓	
3	HAI-03			✓															3839541	1	✓
4	HAI-04	/ HALL-ADHESIVE	✓															3839542	1	✓	
5	HAI-05	}	✓															3839543	1	✓	
6	HAI-06			✓															3839544	1	✓
7	HAI-07	/ CEILING TILE	✓															3839545	1	✓	
8	HAI-08	}	✓															3839546	1	✓	
9	HAI-09			✓															3839547	1	✓
10	HAI-10	/ WINDOW GLAZING	✓															3839548	1	✓	

Time In: _____ Time Out: _____ Total Hours: _____

Released by (Signature) Dox Aguilera Date/Time Released 1/15/10 16:00

Signature: _____ Date/Time Released _____

Print Name: WGS 1/18/10

Company/Agency Affiliation WGS Conditioning Noted _____

To Archive/Disposal _____

Comments: STOP @ 1st Positive
FAX RESULTS (312) 345-0524

Report Number: IATL-1015 Page 1 of 5

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

33 W. MONROE ST. #1825
CHICAGO, ILLINOIS 60604

Offices also in:
Columbus, Ohio
Gary, Indiana
Milwaukee, Wisconsin

phone: 312.356.5400 345-1400
fax: 312.356.5409 345-0529

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

1. Sender's Name/Project No.		2. Sampling Site Address/Contact Telephone No.		3. Sampled by (Signature)		4. # of Samples in Shipment		5. Date of Sample Shipment		6. Date Results Needed		Indicate Analysis Requested								
1535-002-01		Chicago Excl. Area. (Pub) 1020 S. Plant Rd		Doxe Aguilera		4/2		1/15/10		IMMEDIATE		P L M								
Item No	Sample Number	Sample Location/Description	COMP	GRAB	WATER	SOIL	AIR	MATRIX	Method Preserved	OTHER	HNO3	H2SO4	ICE	NONE	Date	Time	VOLUME (L)	TIME (Minutes)	# of Containers	Laboratory Number
1	HAY-11	SOUTH HALLWAY / INTERIOR EAST OFFICE WINDOW GLAZING	✓	✓											1/15/10	14:00	3839549	1	✓	
2	HAY-12	INTERIOR DOOR WINDOW GLAZING	✓	✓													3839550	1	✓	
3	HAS-13			✓	✓													3839551	1	✓
4	HAS-14	INTERIOR DOOR WINDOW GLAZING	✓	✓													3839552	1	✓	
5	HAS-15			✓	✓													3839553	1	✓
6	HAG-16	EXTENSION WINDOW GLAZING	✓	✓													3839554	1	✓	
7	HAG-17	EXTENSION WINDOW GLAZING	✓	✓													3839555	1	✓	
8	HAG-18			✓	✓													3839556	1	✓
9	HAT-19	PAPE WORK CLOTH	✓	✓													3839557	1	✓	
10	HAT-20		✓	✓													3839558	1	✓	

Signature: _____
 Released by (Signature): _____
 Date/Time Released: _____
 Company/Agency Affiliation: _____
 Condition Noted: _____
 To Archive/Disposal: _____

Comments: STOP @ 1st POSITIVE
 FOR RESULTS (318) 345-0529

White - Client/Customer Copy
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 Pink - In-House File Copy



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

33 W. Monroe St. Ste. 1825
Chicago, Illinois 60604

Offices also in:
Columbus, Ohio
Gary, Indiana
Milwaukee, Wisconsin
phone: 312.355.5499 345-1400
fax: 312.355.5499 345-0529

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

1. Sender's Name/Project No.		2. Sampling Site Address/Contact Telephone No.		3. Sampled by (Signature)		4. # of Samples in Shipment		5. Date of Sample Shipment		6. Date Results Needed		Indicate Analysis Requested									
1535-002-01		Chicago Exec. Airt. (Pvt) 1020 S. Plain Rd.		Dox Aguilera		42		1/15/10		RM LABORATORY											
Item No.	Sample Number	Sample Location/Description	COMP	GRAB	WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO3	H2SO4	ICE	NONE	OTHER	Date	Time	VOLUME (L)	TIME (Minutes)	# of Containers	Laboratory Number
1	HA7-21	SOUTH HALLWAY / PAPER WRAP EAST OFFICE / CLOTH	✓	✓												1/15/10	1400	3839559	1	✓	
2	HA8-22	PENETRATION SEARCHES BLACK	✓	✓														3839560	1	✓	
3	HA8-23		✓	✓															3839561	1	✓
4	HA8-24	NORTH CENTRAL HALLWAY WEST OFFICE / 12"X12" FLOOR TILE	✓	✓														3839562	1	✓	
5	HA9-25		✓	✓															3839563	1	✓
6	HA9-26	/ HA9-NON RESISTIVE	✓	✓														3839564	1	✓	
7	HA9-27		✓	✓															3839565	1	✓
8	HA10-28		✓	✓														3839566	1	✓	
9	HA10-29		✓	✓															3839567	1	✓
10	HA10-30		✓	✓														3839568	1	✓	

Signature: _____

Released by (Signature): _____

Date/Time Released: 1/15/10 1600

Delivery Method: Mercury Mesite.

To Archive/Disposal: _____

Company/Agency Affiliation: _____

Condition Noted: _____

Print Name: _____

Time In: _____

Time Out: _____

Total Hours: _____

Comments: STOP @ 1st POSITIVE
FAX RESULTS (312) 345-0529

White—Client/Customer Copy
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Pink—in-house Fee Copy



CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

33 W. Monroe St. #1825
Chicago, Illinois 60604
phone: 312.366.5400 345-1480
fax: 312.366.5499 345-0529

Offices also in:
Columbus, Ohio
Gary, Indiana
Milwaukee, Wisconsin

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

1. Sender's Name/Project No.		2. Sampling Site Address/Contact Telephone No.										Indicate Analysis Requested							
1535.002.01		Chicago Excess Airtel (P/N) 1020 S. Plain Rd																	
3. Sampled by (Signature)		4. # of Samples in Shipment		5. Date of Sample Shipment		6. Date Results Needed						TIME (Minutes)	# of Containers	Laboratory Number					
Doc Aguilera		42		1/15/10		IMMEDIATE													
Item No	Sample Number	Sample Location/Description	COMP	GRAB	WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO3	H2SO4	ICE	NONE	OTHER	Date	Sampling Time	VOLUME	
1	HA11-31	Moans Center Hanging Westrope/Ceiling	✓													1/14/10	1400	3839569	L ✓
2	HA11-32	}	✓															3839570	L ✓
3	HA11-33			✓															3839571
4	HA12-34	}	✓															3839572	L ✓
5	HA12-35			✓															3839573
6	HA12-36	}	✓															3839574	L ✓
7	HA13-37			✓															3839575
8	HA13-38	}	✓															3839576	L ✓
9	HA13-39			✓															3839577
10	HA14-40	WALL BETWEEN VENT OUT South Hanger door UNITS 3000W / SCANT EXT.														1/15/10	10:10	3839578	L ✓
Time In:		Total Hours:		Signature:		Released by (Signature)		Date/Time Released		Company/Agency Affiliation		Condition Noted							
Doc Aguilera		11:15:00		Mealey Messg.		To Archive/Disposal													

Comments: STOP @ 1st POSITIVE
FAX RESULTS (312) 345-0529

While - Client/Customer Copy
Yellow - Billing Copy
Pink - In-House File Copy



Environmental Design International Inc.

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

33 W. MONROE ST. 1825
200 S. Michigan Ave. Suite 200

Chicago, Illinois 60604

phone: 312.566.5400 345-1440

fax: 312.566.5499 345-0509

Offices also in:
Columbus, Ohio
Gary, Indiana
Milwaukee, Wisconsin

Custody and Sample Information - Complete ALL information. Put N/A in blanks not applicable. Press firmly.

1. Sender's Name/Project No. 1535-002.01		2. Sampling Site Address/Contact Telephone No. Chicago Exec. Apts. (PwK) 1070 S. Plac. Rd.		Indicate Analysis Requested		Laboratory Number			
3. Sampled by (Signature) <i>[Signature]</i>		5. Date of Sample Shipment 1/15/10		6. Date Results Needed 2/1/10					
4. # of Samples in Shipment 42	Sample Location/Description SOUTH HANNAH DOOR / VENT DUCT UNIT #20	Matrix	Method Preserved	Date	Sampling Time	VOLUME	TIME (Minutes)	# of Containers	
Item No.	Sample Number	WATER	GRAB	✓	✓				3839579
1	HA14-41	SOIL	GRAB	✓	✓	3839580	1	✓	
2	HA14-42	AIR	GRAB	✓	✓				
3		SLUDGE	GRAB						
4		OTHER	GRAB						
5		HCl	GRAB						
6		HNO ₃	GRAB						
7		H ₂ SO ₄	GRAB						
8		ICE	GRAB						
9		NONE	GRAB						
10		OTHER	GRAB						
Time In:		Time Out:		Total Hours:		Signature:			
Released by (Signature) <i>[Signature]</i>		Date/Time Released 1/15/10 1600		Delivery Method Messery Mess.		Date/Time Released		Company/Agency Affiliation	
To Archive/Disposal		To Archive/Disposal		To Archive/Disposal		To Archive/Disposal		To Archive/Disposal	

Comments: **STOP @ 1st POSITIVE**
DAX RESULTS (12) 345-0509

White--Client/Customer Copy
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Pink--In-House File Copy

Report Number:

Page

5 of 4

CERTIFICATE OF ANALYSIS

Client: Environ. Design International
33 W Monroe, Suite 1825
Chicago IL 60603

Report Date: 1/21/2010
Project: Chicago Executive Airport
Project No.: 1535.002.01

TEM BULK SAMPLE ANALYSIS SUMMARY

IATL No.: 103839539A **Description / Location:** Green Floor Tile; 12x12 S. Hangar
Client No.: HA1-01 East Office

Organic Fraction:	70.3 %	
Gravimetrically Reduced Subsample:	29.7 %	
Percent Asbestos Detected:	23.8 %	Chrysotile
Percent Non-Asbestos Fibrous Material:	3.00 %	SiMg, Talc
Percent Non-Fibrous Material:	3.00 %	Ti, Titanium Oxide Ca, Calcium Matrix

Comments:

NIST-NVLAP No. 101165-0

AIHA Lab No. 100188

NYS-DOH No. 11021

Methodology: Transmission Electron Microscopy (TEM) in Accordance With :
ELAP 198.4 "Method For Identifying And Quantitating Asbestos In Non-Friable Organically Bound Bulk Samples", Revised 1/11/2005.
EPA-600/R-93/116 Section 2.5 "Asbestos In Bulk Building Materials By TEM Gravimetry."

*IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client.
The "Gravimetrically Reduced Subsample" is the portion of the submitted sample remaining following the ashing and acid treatment processes. TEM analysis occurs on this portion of the sample. Final results are calculated to represent the sample as submitted.
This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government.
Results are verifiable for only those operations and analyses performed in the laboratory.*

Analysis Performed By: J. Silcox

Approved By:

Date: 1/21/2010

Frank E. Ehrenfeld, III
Laboratory Director

CERTIFICATE OF ANALYSIS

Client: Environ. Design International
33 W Monroe, Suite 1825
Chicago IL 60603

Report Date: 1/21/2010
Project: Chicago Executive Airport
Project No.: 1535.002.01

TEM BULK SAMPLE ANALYSIS SUMMARY

IATL No.: 103839563A **Description / Location:** Off-White Floor Tile;12x12 N. Center Hangar
Client No.: HA9-25 West Office

Organic Fraction:	67.6 %	
Gravimetrically Reduced Subsample:	32.4 %	
Percent Asbestos Detected:	6.50 %	Chrysotile
Percent Non-Asbestos Fibrous Material:	22.7 %	SiMg, Talc
Percent Non-Fibrous Material:	3.20 %	Ti, Titanium Oxide

Comments:

NIST-NVLAP No. 101165-0

AIHA Lab No. 100188

NYS-DOH No. 11021

Methodology: Transmission Electron Microscopy (TEM) In Accordance With :
ELAP 198.4 "Method For Identifying And Quantitating Asbestos In Non-Friable Organically Bound Bulk Samples", Revised 1/11/2005.
EPA-600/R-93/116 Section 2.5 "Asbestos In Bulk Building Materials By TEM Gravimetry."

*IATL assumes that all sampling methods and data upon which these results are based have been accurately supplied by the client.
The "Gravimetrically Reduced Subsample" is the portion of the submitted sample remaining following the ashing and acid treatment processes. TEM analysis occurs on this portion of the sample. Final results are calculated to represent the sample as submitted.
This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government.
Results are verifiable for only those operations and analyses performed in the laboratory.*

Analysis Performed By: J. Silcox

Date: 1/21/2010

Att: R. Sunkay

CERTIFICATE OF ANALYSIS

Client: Environ. Design International
 33 W Monroe, Suite 1825
 Chicago IL 60603

Report Date: 1/18/2010
Project: ChicagoExec.Airpt.(Pwk)
Project No.: 1535.002.01

Please Analyze T.E.M.

BULK SAMPLE ANALYSIS SUMMARY

Lab No.:	Description / Location:	% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
3839539 Client No.: HA1-01	Green Floor Tile; 9x9 South Hangar East Office	PC 0.5	Chrysotile	None Detected	None Detected	PC 99.5
3839540 Client No.: HA1-02	Green Floor Tile; 9x9 South Hangar East Office	PC 0.25	Chrysotile	None Detected	None Detected	PC 99.75
3839541 Client No.: HA1-03	Green Floor Tile; 9x9 South Hangar East Office	PC 0.25	Chrysotile	None Detected	None Detected	PC 99.75
3839542 Client No.: HA2-04	Tan Mastic South Hangar East Office	None Detected	None Detected	None Detected	None Detected	100

Rush Turnaround time

NIST-NVLAP No. 101165-0 NY-DOH No. 11021 AIHA Lab No. 100188

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. This report shall not be reproduced except in full, without written approval of the laboratory.

Analysis Method: EPA 600/R-93/116

Comments: (PC) Indicates Scintillation Counter Method performed. Method not performed unless noted. Quantification at $\leq 0.25\%$ by volume is possible with this method. (PC-Trace) represents the limit of quantitation. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix.

Analysis Performed By: V. Smith

Approved By: _____

Date: 1/18/2010

Frank E. Ehrenfeld, III
 Laboratory Director

JAN. 18. 2010 4:13PM IATL
IATL International Asbestos
Testing Laboratories

NO. 6650 P. 8/17

9000 Commerce Parkway Suite B Mt. Laurel, NJ 08054
Telephone: 856-231-9449 Fax: 856-231-9818

CERTIFICATE OF ANALYSIS

Client: Environ. Design International
33 W Monroe, Suite 1825
Chicago IL 60603

Report Date: 1/18/2010
Project: Chicago Exec. Atrpt. (PwK)
Project No.: 1535.002.01

BULK SAMPLE ANALYSIS SUMMARY

Please Analyze T.E.M.

Lab No.: 3839563
Client No.: HA9-25
% Asbestos Type
PC Trace Chrysotile

Description / Location: Off-White Floor Tile; 12x12
North Center Hangar West Office

% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	100

Rush Turnaround time

Lab No.: 3839564
Client No.: HA9-26
% Asbestos Type
PC 0.25 Chrysotile

Description / Location: Off-White Floor Tile; 12x12
North Center Hangar West Office

% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	PC 99.75

Lab No.: 3839565
Client No.: HA9-27
% Asbestos Type
PC Trace Chrysotile

Description / Location: Off-White Floor Tile; 12x12
North Center Hangar West Office

% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	100

Lab No.: 3839566
Client No.: HA10-28
% Asbestos Type
None Detected None Detected

Description / Location: Tan Marble; A/W 12x12 Floor Tile
North Center Hangar West Office

% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	100

NIST-NVLAP No. 101165-0 **NY-DOH No. 11021** **AIHA Lab No. 100188**

This confidential report relates only to those item(s) listed and does not represent an endorsement by NIST-NVLAP, AIHA or any agency of the U.S. government. This report shall not be reproduced except in full, without written approval of the laboratory.

Analysis Method: EPA 600/R-93/116

Comments: (PC) indicates Simplified Point Count Method performed. Method not performed unless stated. Quantification at <0.25% by volume is possible with this method. (PC-Trace) represents the limit of quantitation. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting procedure. Analysis includes all distinct separable layers in accordance with EPA 600/4-90-010. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed. Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, negative PLM results cannot be guaranteed. Electron Microscopy can be used as a confirming technique. Regulatory Limit is based upon the sample matrix.

Analysis Performed By: V. Smith

Date: 1/18/2010



UNITED STATES DEPARTMENT OF COMMERCE
National Institute of Standards and Technology
Gaithersburg, Maryland 20899

June 5, 2009

Mr. Frank E. Ehrenfeld, III
International Asbestos Testing Labs
9000 Commerce Parkway
Suite B
Mt. Laurel, NJ 08054

NVLAP Lab Code: 101165-0

Dear Mr. Ehrenfeld:

I am pleased to inform you that continuing accreditation for specific test methods in Bulk Asbestos Fiber Analysis (PLM) is granted to your organization under the National Voluntary Laboratory Accreditation Program (NVLAP). This accreditation is effective until June 30, 2010, provided that your organization continues to comply with accreditation requirements contained in the NVLAP Procedures.

Your Certificate of Accreditation is enclosed along with a statement of your Scope of Accreditation. You may reproduce these documents in their entirety and announce your organization's accreditation status using the NVLAP symbol and/or term in business publications, the trade press, and other business-oriented literature. Accreditation does not relieve your organization from observing and complying with any applicable existing laws and/or regulations.

We are pleased to have you participate in NVLAP and look forward to your continued association with this program. If you have any questions concerning your NVLAP accreditation, please direct them to Hazel M. Richmond, Program Manager, Laboratory Accreditation Program, National Institute of Standards and Technology, 100 Bureau Dr. Stop 2140, Gaithersburg, MD 20899-2140; (301) 975-4016.

Sincerely,

Sally S. Bruce, Chief
Laboratory Accreditation Program

Enclosure(s)





**National Voluntary
Laboratory Accreditation Program**



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

International Asbestos Testing Laboratories

9000 Commerce Parkway

Suite B

Mt. Laurel, NJ 08054

Mr. Frank E. Ehrenfeld, III

Phone: 856-231-9449 Fax: 856-231-9818

E-Mail: frankehrenfeld@iatl.com

URL: <http://www.iatl.com>

BULK ASBESTOS FIBER ANALYSIS (PLM)

NVLAP LAB CODE 101165-0

NVLAP Code Designation / Description

18/A01

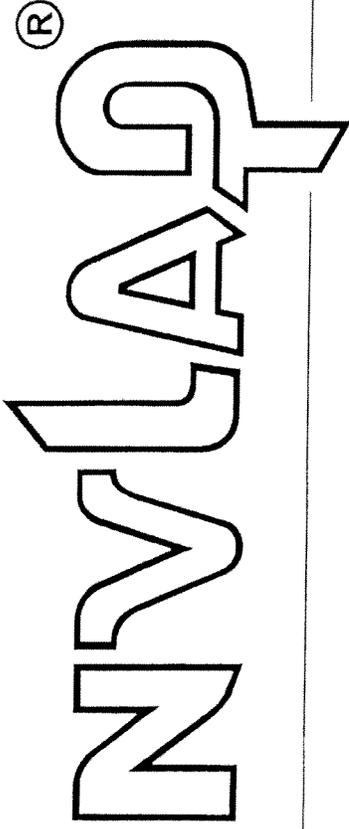
EPA-600/M4-82-020: Interim Method for the Determination of Asbestos in Bulk Insulation Samples

2009-07-01 through 2010-06-30

Effective dates

For the National Institute of Standards and Technology

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101165-0

International Asbestos Testing Laboratories
Mt. Laurel, NJ

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2009-07-01 through 2010-06-30

Effective dates



Dolly S. Buce
For the National Institute of Standards and Technology

Appendix E: EDI Employee Certifications



Occupational Training & Supply, Inc.

7233 Adams Street ♦ Willowbrook, IL 60527 ♦ (630) 655-3900

Jose G. Aguilera

has successfully completed the 16 hour Lead Risk Assessor course and has passed the competency exam with a minimum score of 70%. This course is accredited by the Illinois Department of Public Health in accordance with the Illinois Lead Poisoning Prevention Code.

Lead Risk Assessor

Course Date: 4/2-3/2009

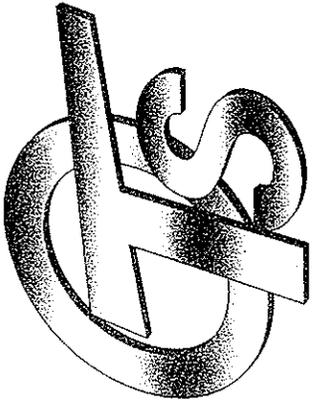
Expiration Date: 4/3/2012

Exam Date: 4/3/2009

Certificate: LRA0904021069

Kathy DeSalvo Director

2009



Occupational Training & Supply, Inc.

7233 Adams Street ♦ Willowbrook, IL 60527 ♦ (630) 655-3900

Jose G. Aguilera

has successfully completed the 8 hour Lead Inspector Refresher course and has passed the competency exam with a minimum score of 70%. This course is accredited by the Illinois Department of Public Health in accordance with the Illinois Lead Poisoning Prevention Code.

Lead Inspector Refresher

Course Date: August 15, 2007

Expiration Date: August 15, 2010

Kathy Nicholson, Director

Exam Date: August 15, 2007

Certificate: LIR0708152082

2007



Occupational Training & Supply, Inc.

7233 Adams Street ♦ Willowbrook, IL 60527 ♦ (630) 655-3900

Jose Aguilera

has successfully completed the 4 hour Asbestos Building Inspector Refresher course and has passed the competency exam with a minimum score of 70%. This course is accredited by the Illinois Department of Public Health and the Indiana Department of Environmental Management for purposes of accreditation in accordance with EPA 40 CFR 763, Asbestos Hazard Emergency Response Act (AHERA) and TSCA Title II.

Asbestos Building Inspector Refresher

Course Date: 2/6/2009

Expiration Date: 2/6/2010

Exam Date: 2/6/2009

Certificate: BIR0902060360

Kathy DeSalvo, Director

2009

Illinois Department of

**PUBLIC
HEALTH**

**ASBESTOS
PROFESSIONAL
LICENSE**

ID NUMBER **100 - 10088** ISSUED **4/9/2009** EXPIRES **05/15/2010**

JOSE G AGUILERA
2620 S. CENTRAL PARK AVEN
CHICAGO, IL 60623



Environmental Health

ENDORSEMENTS TC EXPIRES

INSPECTOR 2/6/2010

PROJECT MANAGER 8/9/2009

AIR SAMPLING PROFESSIONAL

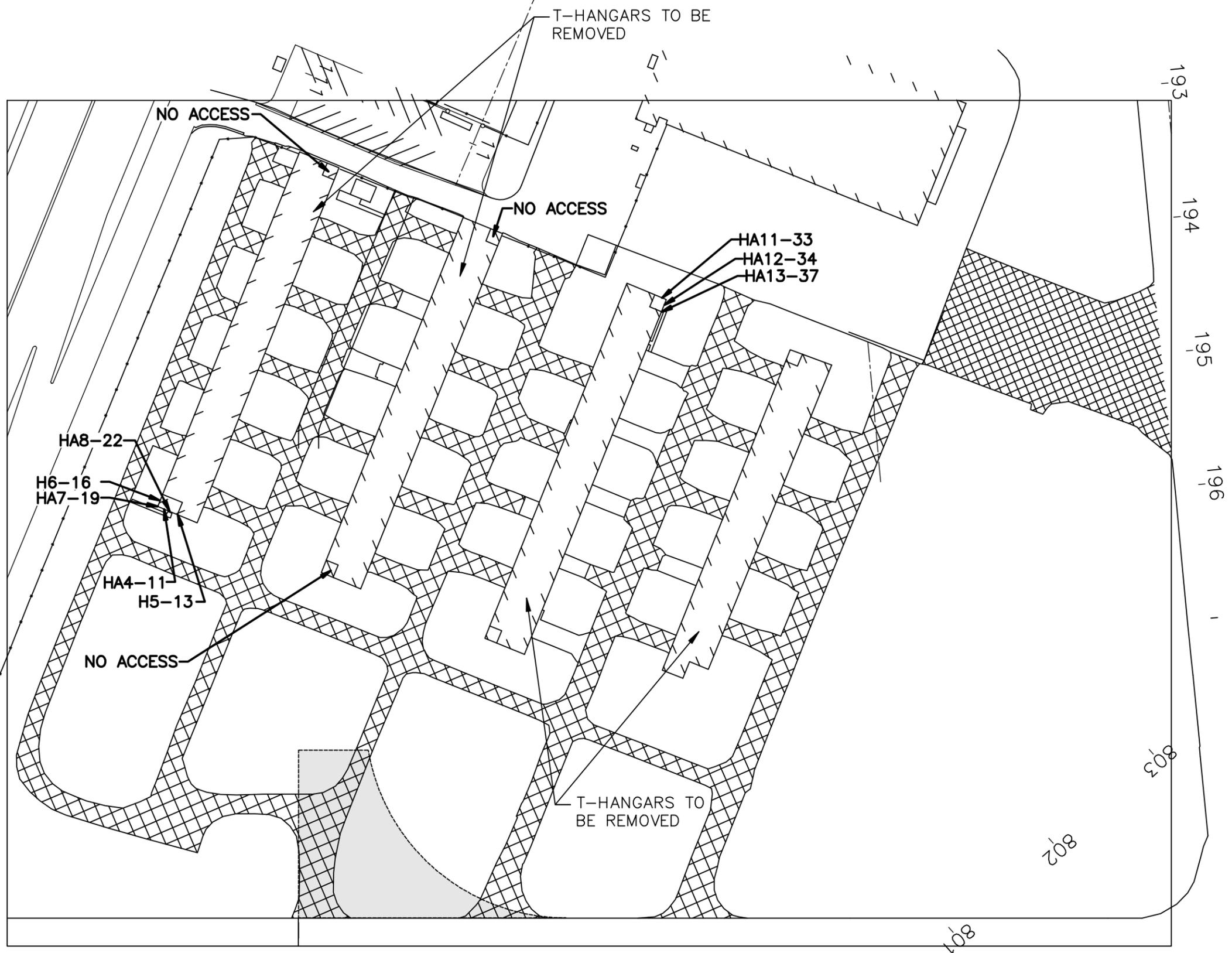
Alteration of this license shall result in legal action

This license issued under authority of the State of Illinois
Department of Public Health

This license is valid only when accompanied by a valid
training course certificate.

Figures

Figure 1: Asbestos Containing Material Sample Location Map



SCALE: 1" = 80'

LEGEND	
	PROPOSED P.C.C. PAVEMENT
	PROPOSED BITUMINOUS PAVEMENT
	PAVEMENT TO BE REMOVED
	ACM SAMPLE LOCATION HA4-11

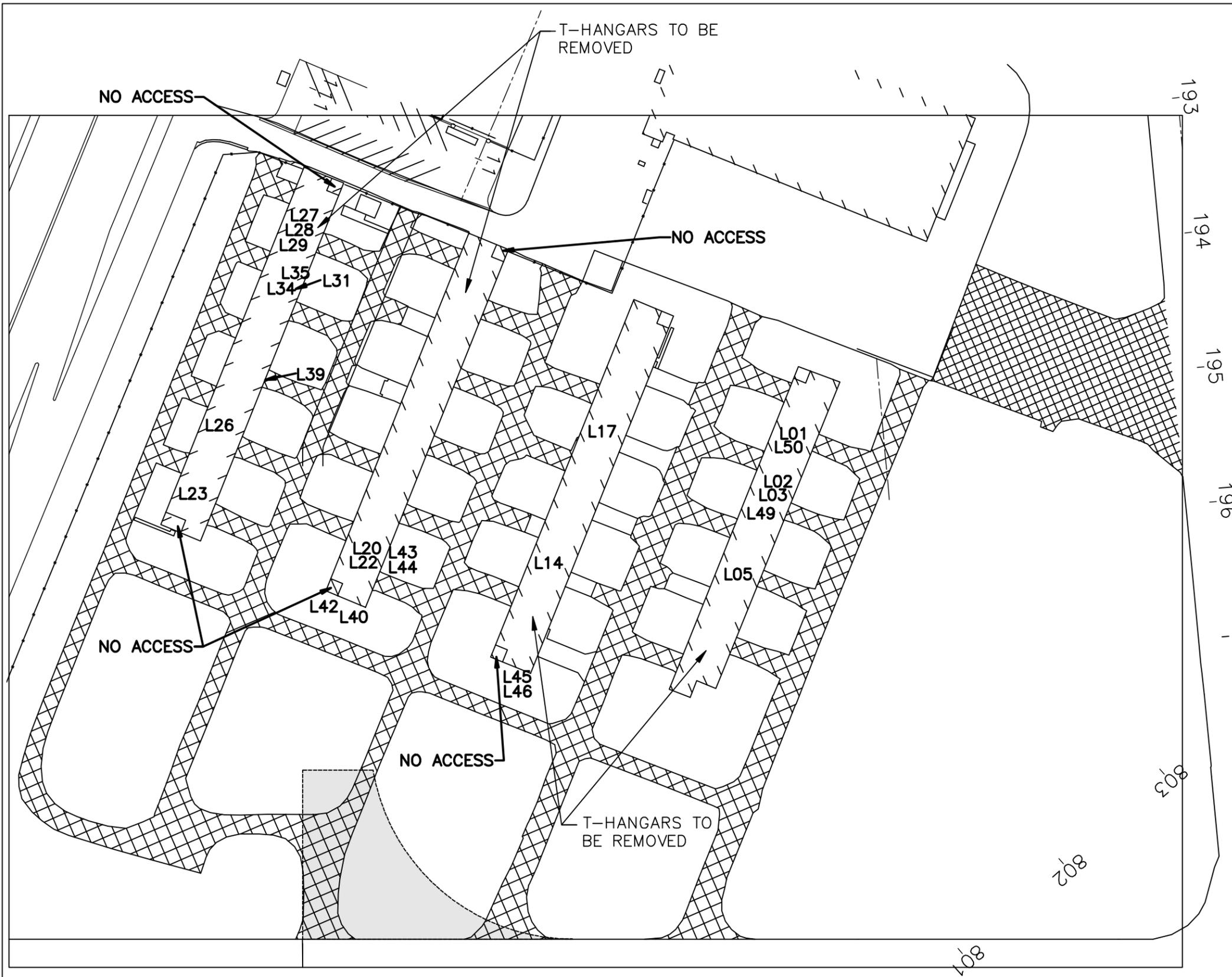


Environmental Design International inc.
 Civil, Survey, Environmental and Construction Inspection Services
 33 W. MONROE STREET, SUITE 1825, CHICAGO, IL 60603
 Ph. (312) 345-1400 Fax (312)345-0529
 www.envdesigni.com
 Excellence, Dedication, Innovation

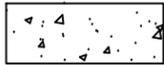
CLIENT: CRAWFORD MURPHY & TILLY INC.
 CHICAGO EXECUTIVE AIRPORT WHEELING, IL.
 PROJECT: FIGURE 1 - ASBESTOS CONTAINING MATERIAL SAMPLE LOCATION MAP
 ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-001224

PROJ. No: 1535.002.02
 DATE: 1/22/10
 DRAWN BY: SPB
 APPROVED BY: SD

Figure 2: Lead-Based Paint Sample Location Map



SCALE: 1" = 80'

LEGEND	
	PROPOSED P.C.C. PAVEMENT
	PROPOSED BITUMINOUS PAVEMENT
	PAVEMENT TO BE REMOVED
L01	LEAD BASED PAINT SAMPLE LOCATIONS



Environmental Design International inc.
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 33 W. MONROE STREET, SUITE 1825, CHICAGO, IL 60603
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 www.envdesigni.com
 Excellence, Dedication, Innovation

CLIENT: CRAWFORD MURPHY & TILLY INC.
 CHICAGO EXECUTIVE AIRPORT WHEELING, IL.

PROJECT: FIGURE 2 - LEAD BASED PAINT SAMPLE LOCATION MAP

ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-001224

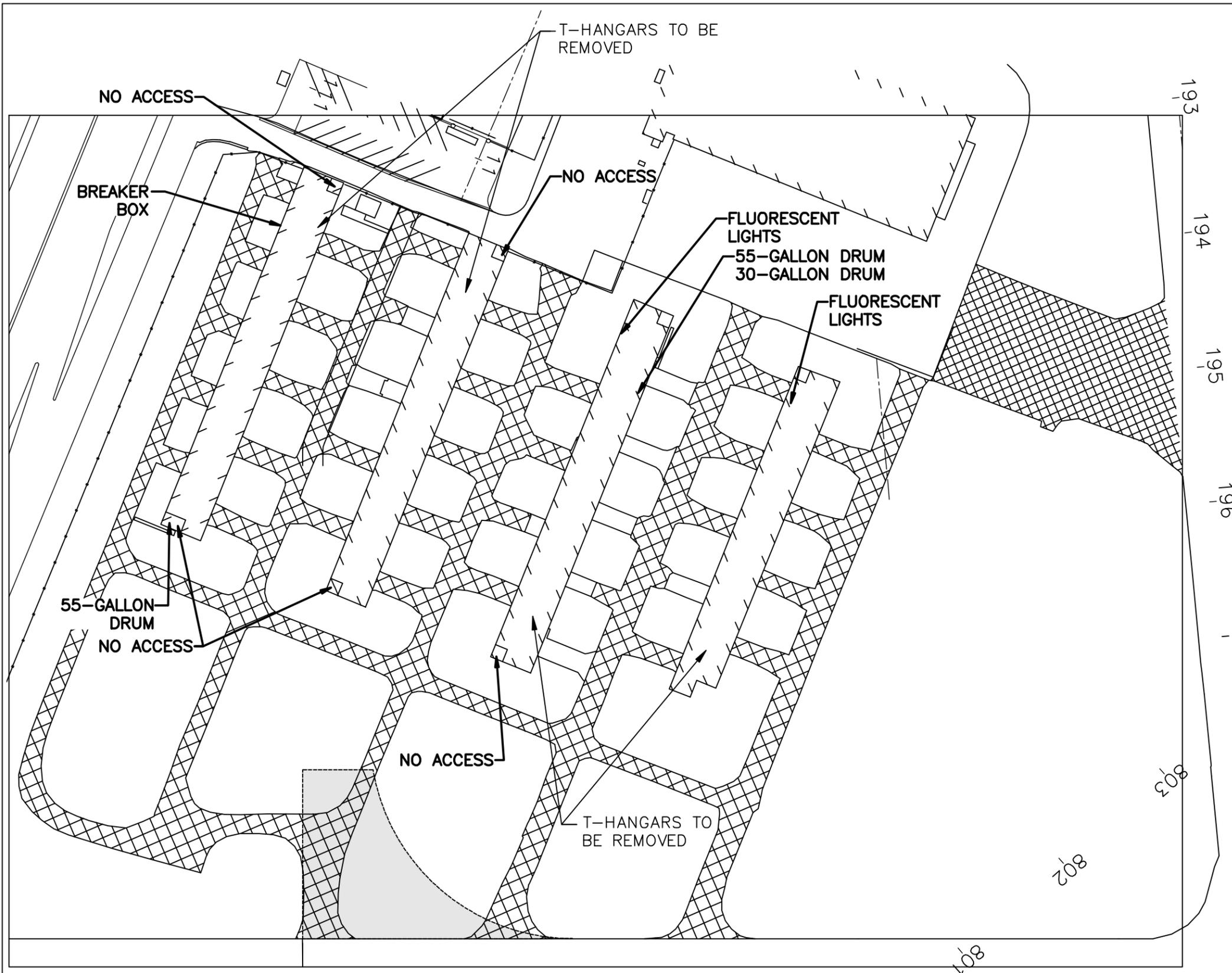
PROJ. No: 1535.002.02

DATE: 1/22/10

DRAWN BY: SPB

APPROVED BY: SD

Figure 3: Suspect Hazardous Material Location Map



SCALE: 1" = 80'

LEGEND	
	PROPOSED P.C.C. PAVEMENT
	PROPOSED BITUMINOUS PAVEMENT
	PAVEMENT TO BE REMOVED



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PROJECT: FIGURE 3 – POTENTIALLY HAZARDOUS MATERIAL SAMPLE LOCATION MAP

ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-001224

PROJ. No: 1535.002.02

DATE: 1/22/10

DRAWN BY: SPB

APPROVED BY: SD

IDOT DIVISION OF AERONAUTICS POLICY MEMORANDA

State of Illinois
Department of Transportation
Division of Aeronautics

POLICY MEMORANDUM

January 1, 2004

Springfield

Number: 87-2

TO: CONSULTING ENGINEERS

SUBJECT: DENSITY ACCEPTANCE OF BITUMINOUS PAVEMENTS

1. Introduction

This Policy Memorandum deals with the implementation of the Bituminous Density Quality Assurance specifications as a revision to the Standard Specification for Construction of Airports, January 1985. These revisions are to Item 201 Bituminous Base Course, and Item 401 Bituminous Surface Course.

II. Sampling

After completion of compaction and the pavement has reached ambient temperature, the paved area shall be divided into Sublots of 500 tons per type of mix. One core sample (2 cores per sample) shall be taken from each Sublot. The longitudinal and transverse location for each sample shall be determined by use of a random number "Deck" provided by the Division. No core shall be taken closer than two (2) feet from the edge of the mat. A core extraction device as illustrated by the attachment is recommended. All cores are to be taken by the contractor under the supervision and remain in the possession of the engineer. It is imperative that the Engineer and the contractor realize that the cores are "Money" and that improper coring, extraction, shipping and/or testing can be costly.

One mix sample per 1000 tons of mix laid shall be taken for Extraction, Maximum Specific Gravity (G_{mm}) and Air Void tests. The mix samples shall be sampled by the contractor and split in half.

The Resident Engineer shall randomly designate and send the split samples to an independent laboratory for testing. The laboratory will be designated by the Division of Aeronautics. The frequency of testing split samples shall be 1 per 5000 tons. Higher frequencies may be necessary if the contractor's tests, and/or mix quality control are inconsistent.

III. Testing

All cores shall be tested for Bulk Specific Gravity (G_{sb}) in accordance with ASTM D2726 using Procedure 9.1, "For Specimens That Contain Moisture". The Theoretical Maximum Gravity (G_{mm}) shall be determined according to ASTM D2041, Procedure 7. From these tests the in-place air voids of the compacted pavement are calculated according to ASTM D3203 for "dense bituminous paving mixtures". Selection of the proper G_{mm} shall be based on a running average of four (4) tests per Lot.

- Eg. Lot 1 - Use the average of the two (2) tests for Lot 1.
Lot 2 - Use the average of the four (4) tests from Lots 1 and 2.
Lot 3 - Use the average of the four (4) tests from Lots 2 and 3.

NOTE: When more than four (4) Sublots are used, still use a running average of four (4) tests per Lot.

IV. Acceptance Calculations

The first step in calculating the quantities for pay is to calculate the Mean (\bar{x}) and the Standard Deviation (S) of the Sublot tests. From this data the Lot samples should first be tested for outliers. After consideration for outliers, the Percent Within Tolerance (PWT) and the Percent Within Limits (PWL) are calculated to determine the final pay quantities for the Lot.

EXAMPLE

1. Test Data

Lot Quantity = 2000 tons
Sublot Test 1 = 4.35 % Air
Sublot Test 2 = 3.96 % Air
Sublot Test 3 = 6.75 % Air
Sublot Test 4 = 6.25 % Air

2. Calculating the Mean and Standard Deviation

Sublot	\underline{x}	$(\underline{x} - \bar{x})$	$(\underline{x} - \bar{x})^2$
1	4.35	- 0.978	0.956
2	3.96	- 1.368	1.871
3	6.75	1.422	2.022
4	<u>6.25</u>	0.922	<u>0.850</u>
Sum =	21.31		5.699

$$N = 4$$

$$\text{Mean}(\bar{x}) = 5.328$$

$$\text{Variance } (S)^2 = \frac{\text{Sum}(\bar{x} - \bar{x})^2}{3} = \frac{5.699}{3} = 1.900$$

$$\text{Standard Deviation } S = \sqrt{1.900} = 1.378$$

3. Test For Outliers

Check for Critical "T" Values

$$T = \frac{|(x_1 - \bar{x})|}{S} = \frac{|3.96 - 5.328|}{1.378} = 0.99$$

* Difference between the suspect test value (x_1) and the Mean (\bar{x}).

If the T value exceeds the critical "T" Value in the table below and no assignable cause can be determined for the outlier, discard the suspected test measurement and obtain another random sample from the Lot in question. If the new test exceeds the Mean (\bar{x}) in the same direction from the Mean as the suspected test, recalculate the T value including all tests (original test, suspected test, and new test) for an outlier and for computing final payment.

TABLE OF CRITICAL "T" VALUES

Number of observations (N)	Critical "T" Value <u>5% Significance Level</u>
3	1.15
4	1.46
5	1.67
6	1.82
7	1.94
8	2.03
9	2.11
10	2.18
11	2.23
12	2.29

Based on the above table, the "T" value of 0.99 does not exceed the Critical "T" Value of 1.46 for N = 4. Therefore, the value (3.96) is not an outlier and shall be used in calculating the Lot payment.

4. Calculation of Lot Payment

To calculate the Lot Payment use the Acceptance Criteria as outlined under Item 201-4.13(c) or Item 401-4.13(c).

$$Q_L = \frac{(\bar{x} - 1)}{S} = \frac{5.328 - 1}{1.378} = 3.141$$

$$Q_u = \frac{(7 - \bar{X})}{S} = \frac{7-5.328}{1.378} = 1.213$$

From this data the Percentage Within Tolerance (PWT) for both the lower and upper tolerance limits is determined by Table 8 of the specifications for the number (N) of samples tested.

$$\begin{aligned} \text{Eq. PWT (lower)} &= 99.0\% \\ \text{PWT (upper)} &= 90.4\% \end{aligned}$$

We now calculate the Percent Within Limits (PWL) for the Lot.

$$\begin{aligned} \text{PWL} &= [\text{PWT (lower)}] + [\text{PWT (upper)}] - 100 \\ \text{PWL} &= (99.0 + 90.4) - 100 = 89.4\% \end{aligned}$$

Using Table 7, the % Adjustment in Lot Quantity is:

$$\begin{aligned} \% \text{ Adjustment} &= 0.5 \text{ PWL} + 55.0 \\ \% \text{ Adjustment} &= 0.5 (89.4) + 55.0 \\ \% \text{ Adjustment} &= 99.7 \end{aligned}$$

$$\begin{aligned} \text{Adjusted Quantities} &= \% \text{ Adjustment} \times \text{Lot Quantities} \\ \text{Adjusted Quantities} &= .997 \times 2000 \text{ tons} \\ \text{Adjusted Quantities} &= 1994 \text{ tons} \end{aligned}$$

5. Resampling and Retesting

Under the specifications the contractor has the right to request the resampling and retesting of a complete Lot. This privilege is only allowed once for each Lot and must be requested in writing by the contractor within 48 hours of receiving the official report from the Engineer.

6. Reporting

After completion of the tests for each Lot, the Engineer shall complete the necessary calculations for final adjustment in quantities on the Form AER M-1 and have both the Engineer and the Contractor sign the report for copying to both the FAA and IDOA.

Steven J. Long, P.E.
Acting Chief Engineer

Supersedes Policy Memorandum 87-2, dated January 1, 1999.

State of Illinois
Department of Transportation
Division of Aeronautics

POLICY MEMORANDUM

July 31, 2004

Springfield

Number: **87-3**

TO: CONSULTING ENGINEERS

SUBJECT: MIX DESIGN, TEST BATCH, QUALITY CONTROL, AND ACCEPTANCE
TESTING OF PCC PAVEMENT MIXTURE

I. SCOPE

This Policy Memorandum addresses the Mix Design, Test Batch, Quality Control and Acceptance Testing of PCC pavement mixtures specified by Item 501, Portland Cement Concrete Pavement, in accordance with the Standard Specifications for Construction of Airports, effective January 1985, Special Provisions, and policies of the Division of Aeronautics.

II. MIX DESIGN

Prior to the start of paving operations and after approval by the Division of Aeronautics (IDOA) of all materials to be used in the manufacture of the concrete, the contractor shall provide a preliminary mix design(s) for evaluation at the Test Batch. The mix design shall indicate saturated surface dry batch weights per cubic yard for each material component. In addition, each material component, including chemical admixtures, shall be identified by the IDOT material code number, the IDOT producer code number, and the producer name and location. Saturated surface dry and oven dry specific gravities, as well as absorption values, for each proposed aggregate to be used in the mix shall be indicated on the mix design. When requested in writing by the contractor, the Engineer will recommend a preliminary mix design for evaluation at the Test Batch.

The Mix Design and the contractor's approved Job Mix Formula (JMF) will be issued by our office subject to verification of the mix by strength tests obtained from mix prepared from a Test Batch(es) according to the approved JMF. The water-cementitious ratio established from the approved test batch is the maximum water-cementitious ratio allowed during production paving. Whether the contractor selects his own mix design or chooses to use the mix design recommended by the Division, the contractor is responsible for the mix design, as well as the manufacture and placement of the mix.

III. TEST BATCH

At least 28 days prior to the start of production, the contractor and/or producer shall prepare a Test Batch under the direction of the Engineer. The Test Batch shall be prepared at the concrete plant proposed for use in the production of the concrete mix for the project and shall be in accordance with the approved Job Mix Formula (JMF). When approved by the Engineer, the Test Batch may be prepared at a different plant provided that the same materials specified in the JMF are used. The plant shall have been

surveyed and approved by the Engineer prior to preparation of the Test Batch. As required by these Special Provisions, the contractor shall provide Quality Control for production of the concrete. The contractor shall have his Quality Control Manager and a representative of the contractor familiar with the paving operation, present at the Test Batch preparation. The Test Batch shall be prepared as follows:

A. Proportioning

Prior to preparation of the mix, the Proportioning Technician shall perform a minimum of two (2) gradation analysis and two (2) moisture tests on each aggregate used. The gradation analysis shall be reported on form AER M-12, Side 1. From this data, the JMF shall be adjusted for moisture, in accordance with form AER M-12, Side 2. A microwave type moisture probe (or equal) may be allowed to adjust proportions for sand moisture when approved by the Engineer.

B. Preparation of the Mix:

- 1.) Prepare a Test Batch that is at least one-half (1/2) the manufacturer's rated capacity of the mixing drum (in cubic yards). The Test Batch shall be prepared with the approved JMF, adjusted for moisture.
- 2.) Mixing requirements shall be:
 - a.) Central Mix Plant: Mixing time shall be a minimum of 90 seconds. If transit mixer trucks are used to transport the mix, the mix shall be agitated, after mixing, at 2-5 RPM for the approximate time anticipated between batching at the plant and deposit of the concrete in the forms. If non-mixing trucks are used to transport the mix, the mix shall remain in the central mixer with no mixing or agitation for the approximate time anticipated from when the water contacts the cement and deposit of the concrete in the forms.
 - b.) Transit Mix Plant: Mixing shall consist of 70-100 Revolutions @ 5-16 RPM. After initial mixing, agitate mix at 2-5 RPM for the approximate time anticipated between batching at the plant and deposit of the concrete in the forms.
- 3.) Slump and Air: If the air content after aging is $6.0\% \pm 1.5\%$ and provides the required workability for paving, the contractor will make cylinders for testing at 3, 7, 14 and 28 days. If the slump is below that required for placement, the contractor may add additional water to increase the slump as necessary up to the maximum water/cement ratio (or water/cementitious material) ratio listed herein. Additional mixing of at least 40 Revolutions will be required with each addition of water. Cylinders and/or beams will be made for testing at 3, 7, 14 and 28 days when the slump is obtained, at $6.0\% \pm 1.5\%$ air content. The water/cement ratio (or water/cementitious material) ratio cannot exceed 0.44 based on actual batch weights when 501-3.6(A) proportions is specified, and 0.42 when 501-3.6(B) proportions is specified.
- 4.) The Proportioning Technician shall complete Form AER M-7, Plastic Concrete Air, Slump and Quantity and Form AER M-6, Concrete Moisture Determination

(Adjusted Oven Dry Method), to be given to the Resident Engineer after completion of the Test Batch. The Flask Method, Dunagan Method, and Pycnometer Jar Method are also acceptable test methods for the determination of aggregate moisture.

- 5.) The Resident Engineer and contractor shall complete Form AER M-4, Concrete Plant Production, Mix Verification.
- 6.) The concrete test cylinders and/or beams shall be tested at 3, 7, 14 and 28 days to establish a growth curve of concrete strength vs. age. The compressive strength shall be at least 800 psi, over the specified strength, at 28 days. Flexural strength concrete shall have at least 100 psi over the specified strength at 28 days.

IV. QUALITY CONTROL

Quality control testing is the responsibility of the contractor and must be performed by qualified testing personnel approved by the Engineer. The proportioning technician shall be PCC Level II certified by the testing firm must perform his or her duties on a full time basis whenever concrete is produced for an IDOA project.

The proportioning technician shall perform the duties as outlined in the Division of Highways latest Manual of Instructions for Concrete Proportioning and Testing and as outlined as follows. These duties as outlined are not necessarily all inclusive and may include other duties as required by the specifications, special provisions, etc.

If a QC or QA test for slump, air content, or mix temperature fails to meet the requirements of the specifications the contractor shall reject the batch. In the case of a failing test of the air content, the contractor may make adjustments to the concrete to bring the air content into compliance with the specification. Adjustments are subject to the time limitations of 1 hour from time of batching when the concrete is transported in mixer trucks. Time limitations shall be increased by 30 minutes when the concrete mixture contains a retarding admixture. When concrete has been rejected due to failing test results, the contractor shall continue to run tests for the failed test parameter until at least 3 consecutive passing tests are achieved. This testing is in addition to the normal QC and QA testing.

A. Duties of the Proportioning Technician:

- 1.) Check and maintain shipment tickets of each material used in the manufacture of the concrete. These tickets are to be given to the Resident Engineer for each day's production of concrete. The aggregates shall indicate the quality on the ticket and a statement that the coarse aggregate is a non "D" cracking (freeze-thaw rated by IDOT) aggregate. In lieu of having these statements on each ticket, the contractor may use the Division's Aggregate Certification of Compliance form, or supply the Resident Engineer with a certification letter indicating the stone quality and statement of non "D" cracking compliance.
- 2.) Inspect and maintain proper storage of all aggregates and materials daily.
- 3.) Perform at least one (1) sieve analysis for each aggregate daily.
- 4.) Inspect all weighing or measuring devices daily.

- 5.) Twice daily check the actual weighing or measuring of aggregates, cement, water, and admixtures for conformance to adjusted batch proportions. Record data on Form AER M-4, Concrete Plant Production, Mix Verification, and calculate the water/cement (or water/cementitious material) ratio.
- 6.) See that the volume of the batch does not exceed the allowable capacity of the mixer and that the proper mixing time is used.
- 7.) Make at least two (2) moisture tests of each aggregate daily and correct batch weights as required.
- 8.) Adjust the dosage rates of the admixtures as required to meet concrete temperature changes and paving conditions.
- 9.) Complete AER M-7, Concrete Air, Slump and Quantity, and Form AER M-4, Concrete Plant Production, Mix Verification for each day's production and deliver same to the Resident Engineer at the end of the day for which the data pertains. Provide to the Resident Engineer load tickets for all aggregates, cement, and admixtures used in the mix.

The Resident Engineer will also be required to visit the plant twice daily on a random basis to record actual batch weights and complete Form AER M-4, Concrete Plant Production, Mix Verification. Forms AER M-4, M-7, and M-12 shall be submitted to the R.E. on a daily basis and then faxed by the R.E. to the Division of Aeronautics daily. (FAX is (217) 785-4533.)

V. ACCEPTANCE TESTING

As required by Item 501-5.3 of the Standard Specifications, acceptance and payment of the final pavement is based on the strength of either cylinders or beams taken at random during the time of construction. The pavement shall be divided into Lots of 1200 cubic yards with sublots of 300 cubic yards each. One random sample (two cylinders or one beam) shall be obtained from each subplot for testing at 28 days to calculate final payment. At the time a subplot sample is taken, one (1) slump and one (1) air test shall be taken.

In addition to the above described sample frequency, three (3), seven (7) and fourteen (14) day tests shall be taken. The Engineer may require additional tests to maintain Quality Control.

Steven J. Long, P.E.
Acting Chief Engineer

Supersedes Policy Memorandum 87-3, dated January 1, 2004.

State of Illinois
Department of Transportation
Division of Aeronautics

POLICY MEMORANDUM

January 1, 2004

Springfield

Number: **87-4**

TO: CONSULTING ENGINEERS

SUBJECT: DETERMINATION OF BULK SPECIFIC GRAVITY (d)
OF COMPACTED BITUMINOUS MIXES

- A. SCOPE. This method of test covers the determination of the bulk specific gravity and the percent air, of core samples from compacted bituminous mixtures using a saturated surface-dry procedure.
- B. DEFINITIONS.
1. Bulk Specific Gravity (G_{sb}) or density is the weight per unit volume (gms/cc) of a mixture in its existing state of consolidation. The volume measurement for this specific gravity will include the volume of all the aggregate, asphalt, and air spaces (voids) in the aggregate particles and between the aggregate particles.
 2. Theoretical Maximum Specific Gravity (G_{mm}) ASTM 2041 is the weight per unit volume (grams/cc) of a mixture assuming complete consolidation; i.e., all the air spaces (voids) between the aggregate particles are eliminated.
 3. Percent Density is a measure of the degree of compaction in relation to the Theoretical Maximum Specific Gravity.
 4. Percent Air is a measure of the air voids in the compacted pavement.
- C. APPARATUS.
1. Balance - The balance shall be accurate to 0.1 gm throughout the operating range. It may be mechanical or electrical and shall be equipped with a suitable suspension apparatus and holder to permit weighing of the core in water while suspended from the balance. If the balance is a beam type, it shall be set up so that the core is placed in the basket that is suspended from the zero (0) end of the balance arm.
 2. Water bath - The container for immersing the core in water while suspended from the balance shall be equipped with an overflow outlet for maintaining a constant water level. This water bath should be large enough to handle full-depth cores. When testing several cores at the same time, a dish-pan, sink or suitable container may be used for soaking.

D. PROCEDURE.

1. Prior to testing, cores shall be sorted on a flat surface in a cool place. The sample(s) shall be brushed with a wire brush and/or other suitable means, to remove all loose and/or foreign materials, such as seal coat, tack coat, foundation material, soil, paper, and foil, prior to testing.
2. If a core contains binder and surface or multiple lifts, the lifts shall be separated. This may be done in the following manner:
 - a. Mark the separation line between the two lifts.
 - b. Place the core in a freezer for 20-25 minutes.
 - c. Place a 2 or 3-inch wide chisel on the separation line and tap with a hammer. Rotate the core and continue this process until the core separates. Brush loose pieces with a wire brush if needed.
 - d. Allow 2-3 hours for the core to return to ambient temperature before proceeding.
3. Prepare the water baths for soaking and weighing with water at 77° F. Water baths should be maintained at this temperature throughout testing. Saturate the cores by submerging in the water for a minimum of 20 minutes.
4. With the balance and water bath properly assembled and zeroed, suspend the sample from the balance and submerge it in the water bath. The core must be placed with the original top and bottom in a vertical position. If necessary, add sufficient water to bring the water level up to the overflow outlet. Permit any excess to overflow. Read and record the Saturated Submerged Weight. Designate this weight as (C).
5. Remove the core from the water bath and blot the excess water from the surface of the core with an absorbent cloth or other suitable material. This must be done quickly to prevent the internal water from escaping.
6. Place the core on the balance and read and record the Saturated Surface-dry Weight in air. Designate this weight as (B).
7. Place the core in a tared pan and dry in an oven. When the core is dry, (less than 0.5 gm loss in one hour) record the weight and subtract the pan weight. Designate this weight as (A).

8. The following calculation is used to determine the Bulk Specific Gravity of the core.

$$G_{sb} = \frac{A}{B-C}$$

G_{sb} = Bulk Specific Gravity
A = Oven dry weight
B = Saturated surface-dry weight
C = Saturated submerged weight

- E. PERCENT DENSITY. The following calculation is used to determine the percent density of the core:

$$\% \text{ Density} = 100 \times \frac{G_{sb}}{G_{mm}}$$

G_{sb} = Bulk Specific Gravity
 G_{mm} = Theoretical Maximum Gravity*

Note: The Theoretical Maximum Gravity (G_{mm}) is determined from the mix design until current Vacuum Pycnometer test are available.

- F. PERCENT AIR. To calculate the percent air, use the following formula:

$$\% \text{ Air} = 100 - \% \text{ Density}$$

- G. WEIGHT PER SQUARE YARD OF COMPACTED MIXTURE. The actual weight per square yard of a compacted mixture can be calculated by using the Bulk Specific Gravity (G_{sb}). The volume of a square yard of pavement one (1) inch thick is 0.75 cubic foot. Taking the weight of a cubic foot of water as 62.37 pounds, one square yard of compacted material, one (1) inch thick weighs:

$$\text{Pounds Per Sq. Yd. (1" thick)} = 0.75 \times 62.37 \times G_{sb}$$

Steven J. Long, P.E.
Acting Chief Engineer

Supersedes Policy Memorandum 87-4 effective January 1, 1994.

State of Illinois
Department of Transportation
Division of Aeronautics

POLICY MEMORANDUM

January 1, 2004

Springfield

Number: **90-1**

TO: CONSULTING ENGINEERS

SUBJECT: Resampling and Retesting of PCC Pavement

I. PURPOSE

1. This Policy Memorandum outlines the procedure for resampling and retesting of individual Lots of PCC Pavement for the determination of final Price Adjustment as permitted by the Special Provisions for Item 501 Portland Cement Concrete Pavement (Plain and Reinforced).

II. RESAMPLING AND RETESTING.

1. If the contractor should request the resampling and retesting of a LOT, he must notify the Engineer in writing within 24 hours of receiving the written test results and payment results for the LOT in question. The entire LOT must be resampled (no selective resampling of individual sublots will be allowed) and the contractor is not allowed to take additional cores. Once approval to resample has been granted, the Engineer will select random locations from each SUBLLOT of the LOT in question and direct the contractor to drill two (2) 4 inch or 6 inch diameter cores from each location. The cores shall be obtained, cured and tested in accordance with ASTM C 42, Obtaining and Testing Drilled Cores and Sawed Beams of Concrete. The Engineer will take possession of the cores once they have been cut by the contractor.

III. CALCULATION FOR PRICE ADJUSTMENT

1. When Compressive Test Specification (501-3.6(A) Proportions) is specified. The two (2) specimens from each SUBLLOT shall be averaged to constitute one SUBLLOT sample. The Percent Within Limits (PWL) for the LOT shall then be calculated in accordance with Item 501-5.3, Price Adjustment, of the Special Provisions using the sampled core compressive strengths and the Compressive Test formula. The final Price Adjustment shall be based on the PWL calculated using the sampled core compressive strengths. The test results of the resampled pavement are final. All costs associated with resampling, including, but not limited to testing, curing, and coring the concrete samples shall be borne by the contractor, regardless as to whether the test results increase or decrease calculated payment quantity of concrete pavement.
2. When Flexural Test Specification (501-3.6(B) Proportions) is specified. The two (2) specimens from each SUBLLOT shall be averaged to constitute one SUBLLOT sample. The SUBLLOT samples shall then be averaged to obtain a LOT average. In order for the contractor to increase concrete payment quantity back to 100%, the LOT average shall

be at least 6500 psi, and no individual SUBLOT sample shall be less than 6000 psi. Both the LOT average and SUBLOT sample strength requirements must be met in order for the concrete payment quantity to change back to 100%. If both requirements are not met, then the original concrete payment quantity calculated based on the Percent Within Limits (PWL) as outlined in 501-5.3, Price Adjustment, of the Special Provisions shall still apply. The test results of the resampled pavement are final. All costs associated with resampling, including, but not limited to testing, curing, and coring the concrete samples shall be borne by the contractor, regardless as to whether the test results increase or decrease calculated payment quantity of concrete pavement.

Steven J. Long, P.E.
Acting Chief Engineer

Supersedes Policy Memorandum 90-1, dated January 1, 2001

**Illinois Department of Transportation
Division of Aeronautics
Materials Section**

POLICY MEMORANDUM

January 1, 2004

Springfield

Number 95-1

TO: CONSULTING ENGINEERS

SUBJECT: FIELD TEST PROCEDURES FOR MIXER PERFORMANCE AND CONCRETE UNIFORMITY TESTS

I. SCOPE

These methods describe the procedures for obtaining and testing representative samples of fresh concrete in the field to determine the consistency and mixer efficiency of stationary mixers at different mixing time periods.

The concrete produced during the mixing time investigation and not used in the test program may be incorporated in the project provided it conforms to the Standard Specifications for Construction of Airports.

A maximum of two mixing times shall be considered by the Department.

The contractor shall provide all of the necessary equipment and personnel to perform the tests and the Department will observe the testing.

II. APPARATUS REQUIRED

- a. Three (3) air meters conforming to the requirements of ASTM C231 or ASTM C173.
- b. Three (3) slump cone kits conforming to ASTM C143.
- c. One (1) No. 4 sieve having a minimum screen area of 2 sq. ft. The sieve shall conform to the requirements of AASHTO M92.
- d. One (1) platform scale graduated in tenths of a pound having a capacity sufficient to perform tests herein after specified.
- e. One (1) hydraulic or mechanical testing machine conforming to the requirements of the specified testing method for the project (ASTM C39 or ASTM C78).

- f. Flexural strength specimen forms as required. The forms shall be nominally 6x6x30 inch. Means shall be provided for securing the base plate firmly to the mold. The inside surfaces of the mold shall be smooth and free from holes, indentations, or ridges. The sides, bottom, and ends shall be at right angles and shall be straight and true so that the specimens will not be warped. Maximum variation from the nominal cross-section shall not exceed 1/8 inch. The assembled mold and base plate shall be lightly coated with mineral oil or other approved form release oil before use. Compressive strength specimens shall be 6x12 inch and prepared in accordance with ASTM C31.
- g. Sufficient water tanks for curing specimens as required by ASTM C31.
- h. Small tools such as shovels, scoops, buckets, etc., and water shall be furnished, as required.

III. MIXER

The mixer for which the mixing time is to be evaluated shall conform to the applicable sections of the Standard Specifications for Construction of Airports.

IV. MIXING TIME REQUIREMENTS

The minimum mixing time to be evaluated shall be specified in the Standard Specifications for Construction of Airports.

V. PROCEDURE

A minimum of ten (10) batches per drum shall be tested and evaluated for each original reduced mixing time request. Check tests shall consist of three (3) batches.

If the request is for a new, twin drum mixer, ten (10) batches shall be tested for the first drum and three (3) for the second drum.

Check tests are required if the mixer is moved, major maintenance performed, or if the source or type of aggregate has changed. A minimum frequency of check tests shall be one (1) per year.

a. Mixing Time

The mixing time and batch size to be evaluated shall be proposed by the contractor. The mixing time shall begin when all solid materials are in the mixing drum. The mixer timer shall register or indicate accurately the mixing time and a tolerance of two (2) seconds will be permitted.

If approved by the Engineer, minor adjustments in admixture dosage and water content will be allowed to account for weather conditions, provided that the maximum w/c ratio is not exceeded.

b. Sampling

At the conclusion of the mixing cycle, the mixer shall be discharged and appropriate samples obtained from the first, middle, and last third portions of the batch. Any appropriate method may be used, provided the samples are representative of the respective portions and not the very ends of the batch.

As an alternative, the mixer may be stopped, and the samples removed by any suitable means at equally spaced points from the front to the back of the drum.

c. Testing.

1. Each third portion of the batch shall be tested simultaneously. The Contractor shall provide sufficient personnel to meet this requirement. The Contractor personnel performing the testing shall be Level I PCC Technicians or Concrete Testers. However, a Level I PCC Technician shall be provided to supervise the Concrete Tester.
2. From each third portion of the batch the mass (weight) of the concrete in one air meter measuring bowl shall be determined.
3. The air content of each third portion of the batch shall be determined according to ASTM C231 or ASTM C173. The air content shall be the arithmetic average of two (2) tests from each third portion of the batch.
4. The slump of each third portion of the batch shall be determined according to ASTM C143. The slump shall be the arithmetic average of two (2) tests from each third portion of the batch.
5. Flexural strength specimen(s) (two (2) breaks required) or two (2) compressive strength specimens shall be prepared from each third portion of the batch according to ASTM C31. Flexural strength specimen(s) (two (2) breaks required) shall be tested according to ASTM C78 at seven (7) days of age. Compressive strength specimens shall be tested according to ASTM C39 at seven (7) days of age.
6. The contents from the weighed air meter measuring bowl shall be washed over a No. 4 sieve. Shake as much water as possible from the material retained on the sieve and then weigh the material. The coarse aggregate content (portion of mass (weight) of sample retained on a No. 4 sieve), expressed as a percent, shall be calculated.

VI. CONCRETE UNIFORMITY REQUIREMENTS

- a. Test results from each third portion of the batch shall be compared to one another according to Table 1. Each batch shall be evaluated individually.
- b. Mixer performance tests consisting of ten (10) batches: If more than seven (7) tests out of the total or more than three (3) in any one criteria are not in compliance with the uniformity requirements (air content, slump, coarse aggregate content, and strength), a reduced mixing time will not be granted.
- c. Mixer performance tests consisting of three (3) batches: If more than three (3) tests out of the total are not in compliance with the uniformity requirements, a full ten (10) batch investigation shall be required.

Table 1. Requirements for Uniformity of Concrete

Test	Requirement (Note 1)
Air Content, percent by volume of concrete	1.0 (Note 2)
Slump, inch	1.0 (Note 3)
Coarse aggregate content, portion by weight of each sample retained on the No. 4 sieve, percent	6.0
Average flexural or compressive strength at 7 days for each sample based on average strength of all comparative test specimens, percent	7.5 (Note 4)

Note 1. Expressed as maximum permissible difference in results of tests of samples taken from three locations in the concrete batch.

Note 2. The average air content sample shall be the arithmetic average of two (2) tests.

Note 3. The average slump sample shall be the arithmetic average of two (2) tests.

Note 4. The average flexural strength of each sample shall be the arithmetic average of two (2) beam breaks. The average compressive strength of each sample shall be the arithmetic average of two (2) cylinder breaks.

Steven J. Long, P.E.
Acting Chief Engineer

Supersedes Policy Memorandum 95-1 dated January 1, 1995

State of Illinois
Department of Transportation
Division of Aeronautics

POLICY MEMORANDUM

January 1, 2004

Springfield

Number 96-1

TO: CONSULTING ENGINEERS

SUBJECT: ITEM 610, STRUCTURAL PORTLAND CEMENT CONCRETE:
JOB MIX FORMULA APPROVAL & PRODUCTION TESTING.

- I. This policy memorandum addresses the Job Mix Formula (JMF) approval process and production testing requirements when Item 610 is specified for an airport construction contract.
- II. PROCESS
 - a. The contractor may submit a mix design with recent substantiating test data or he may submit a mix design generated by the Illinois Division of Highways with recent substantiating test data for approval consideration. The mix design should be submitted to the Resident Engineer.
 - b. The Resident Engineer should verify that each component of the proposed mix meets the requirements set forth under Item 610 of the *Standard Specifications for Construction of Airports* and/or the contract special provisions.
 - c. The mix design should also indicate the following information:
 1. The name, address, and producer/supplier number for the concrete.
 2. The source, producer/supplier number, gradation, quality, and SSD weight for the proposed coarse and fine aggregates.
 3. The source, producer/supplier number, type, and weight of the proposed flyash and/or cement.
 4. The source, producer/supplier number, dosage rate or dosage of all admixtures.
 - d. After completion of Items b and c above, the mix with substantiating test data shall be forwarded to the Division of Aeronautics for approval. Once the mix has been approved the production testing shall be at the rate in Section III as specified herein.

III. PRODUCTION TESTING

- a. One set of cylinders or beams, depending on the strength specified, shall be cast for acceptance testing for each day the mix is used. In addition, at least one slump and one air test shall be conducted for each day the mix is used. If more than 100 c.y. of the mix is placed in a given day, additional tests at a frequency of 1 per 100 c.y. shall be taken for strength, slump, and air. In **no** case will concrete with a slump greater than 4 inches be allowed for use on the project.
- b. If the total proposed amount of Item 610 Structural Portland Cement Concrete as calculated by the Resident Engineer is less than 50 c.y. for the entire project, the following shall apply:
 - The Resident Engineer shall provide a copy of the calculations of the quantity of Item 610 to the Division of Aeronautics.
 - One set of cylinders or beams, depending the strength specified, shall be cast for acceptance testing.
 - One air content and one slump test shall be taken for acceptance testing.
 - In no case will concrete with a slump greater than 4 inches be allowed for use on the project.
- c. The Resident Engineer shall collect actual batch weight tickets for every batch of Item 610 concrete used for the project. The actual batch weight tickets shall be kept with the project records and shall be available upon request of the Department of Transportation.

Steven J. Long, P.E.
Acting Chief Engineer

Supersedes Policy Memorandum 96-1 dated January 1, 2003

State of Illinois
Department of Transportation
Division of Aeronautics

POLICY MEMORANDUM

January 15, 2007

Springfield, Illinois

Number 96-2

TO: CONTRACTORS

SUBJECT: REQUIREMENTS FOR LABORATORY, TESTING, QUALITY CONTROL, AND PAVING OF BITUMINOUS CONCRETE MIXTURES

I. SCOPE

The purpose of this policy memorandum is to define to the Contractor the requirements concerning the laboratory, testing, Quality Control, and paving of bituminous concrete mixtures. References are made to the most recent issue of the Standard Specifications for Construction of Airports and to American Society for Testing and Materials (ASTM) testing methods. The Quality Assurance and acceptance responsibilities of the Engineer are described in Policy Memorandum 96-3.

II. LABORATORY

The Contractor shall provide a laboratory located at the plant and approved by the Illinois Division of Aeronautics (IDA). The laboratory shall be of sufficient size and be furnished with the necessary equipment and supplies for adequately and safely performing the Contractor's Quality Control testing as well as the Engineer's acceptance testing as described in Policy Memorandum 96-3.

The effective working area of the laboratory shall be a minimum of 600 square feet with a ceiling height of not less than 7.5 feet. Lighting shall be adequate to illuminate all working areas. It shall be equipped with heating and air conditioning units to maintain a temperature of 70° F ± 5° F.

The laboratory shall have equipment that is in good working order and that meets the requirements set forth in the following ASTM test standards:

ASTM C 117	Test Method for Materials Finer than 75 µm (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C 136	Sieve or Screen Analysis of Fine and Coarse Aggregate
ASTM C 566	Total Moisture Content of Aggregate by Drying
ASTM D 75	Sampling Aggregates
ASTM D 1559	Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus
ASTM D 2041	Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
ASTM D 2172	Quantitative Extraction of Bitumen from Bituminous Paving Mixtures
IDOT	Ignition Method for Determining Asphalt Content

ASTM D 2726	Bulk Specific Gravity of Compacted Bituminous Mixtures using Saturated Surface Dry Specimens
ASTM D 3203	Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures
ASTM D 2950	Density of Bituminous Concrete in Place by Nuclear Method
ASTM D 4125	Asphalt Content of Bituminous Mixtures by Nuclear Method
ASTM C 127	Standard Test Method for Specific Gravity and Absorption of Coarse Aggregate
ASTM C 128	Standard Test Method for Specific Gravity and Absorption of Fine Aggregate

The Asphalt Institute's *Mix Design Methods for Asphalt Concrete Manual No. 2 (MS-2)*

The laboratory and equipment furnished by the Contractor shall be properly calibrated and maintained. The Contractor shall maintain a record of calibration results at the laboratory. The Engineer may inspect measuring and testing devices at any time to confirm both calibration and condition. If the Resident Engineer determines that the equipment is not within the limits of dimensions or calibration described in the appropriate test method, the Engineer may stop production until corrective action is taken. If laboratory equipment becomes inoperable or insufficient to keep up with mix production testing, the Contractor shall cease mix production until adequate and/or sufficient equipment is provided.

III. MIX DESIGN SUBMITTAL

Based upon data and test results submitted by the Contractor, the Illinois Division of Aeronautics Engineer of Construction & Materials shall issue the final Job Mix Formula approval letter that concurs or rejects the Contractor's proposed JMF. The Contractor will be required to perform the sampling and laboratory testing and develop a complete mix design, according to the following guidelines:
[Note: A testing summary chart can be found in Appendix B.]

- A. Material sources meeting the requirements of the contract shall be submitted in writing at or before the preconstruction conference (see BITUMINOUS WORKSHEET in Appendix A) in the following format:
1. To: Steve Long, Acting Chief Engineer
Attn: Mike Wilhelm, Engineer of Construction & Materials
Division of Aeronautics
One Langhorne Bond Drive
Springfield, Illinois 62707
 2. Producer name and location of each aggregate
 3. Producer # for each aggregate (producers are assigned this number by IDOT Central Bureau of Materials)
 4. Material code for each aggregate
 5. Gradation and Quality designation for each aggregate (i.e. CA-11, etc.)
 6. Producer, producer #, and specific gravities of asphalt cement

7. Performance Graded Binder 64-22 shall be used unless otherwise approved by the IDA Engineer of Materials.
- B. The Contractor shall obtain representative samples of each aggregate. The individual obtaining samples shall have successfully completed the IDOT Aggregate Technician Course under the IDOT Division of Highways, QC/QA program. The sample size shall be approximately 280 lb. for each coarse aggregate, 150 lb. for each fine aggregate, 15 lb. for the mineral filler or collected dust, and 1 gallon of asphalt cement.
- C. The Contractor shall split the aggregate samples down and run gradation tests according to the testing methods referenced in Appendix B of this memorandum. The remaining aggregates shall be set aside for further Mix Design testing. The results of the gradation tests, along with the most recent stockpile gradations, shall be reported by fax to the IDA Engineer of Materials for engineering evaluation. If the gradation results are deemed non-representative or in any way unacceptable, new representative samples may be required at the direction of the IDA Engineer of Materials. Only composite gradations are required under this procedure.
- D. Based on the accepted gradation results, the Contractor will determine blend percentages in accordance with the contract specifications (see Section 201/401 – 3.2 JOB MIX FORMULA under Table 4) for each aggregate to be used in determining the Job Mix Formula, as well as mix temperature and asphalt content(s), and number of Marshall Blows for preparation of the Marshall Mix Design, or number of gyrations for Superpave Mix Design, depending on which design method is specified in the contract. The Contractor will verify the aggregate percentages, mix temperatures, asphalt content(s), and number of Marshall blows (or gyrations) with the IDA Engineer of Construction & Materials before beginning any testing.
- E. After verification of the information from step D., the Contractor shall make specimens and perform the following tests at various asphalt contents in order to obtain the optimum mix design. [Note: Actual test designation is referenced in Appendix B of this memorandum.]

Marshall Tests

Maximum Specific Gravity -- " G_{mm} "

Bulk Specific Gravity -- " G_{sb} "

Marshall Stability

Marshall Flow

% air voids

The JMF will be designed in accordance with Table 4 as modified in the Recurring Special Provisions for the type of mix being produced. Appendix C contains a copy of the Table 4 targets and ranges for the JMF.

- F. All technicians who will be performing mix design testing and plant sampling/testing shall have successfully completed the IDOT Division of Highways Bituminous Concrete Level 1 Technician Course "Bituminous Concrete Testing". The Contractor may also provide a Gradation Technician who has successfully completed the Department's "Gradation Technician Course" to run gradation tests only under the supervision of a Bituminous Concrete Level 2 Technician.
- G. The mix design testing results and resulting optimal JMF shall be reported to the IDA Engineer of Construction & Materials with the following data included:
- Aggregate & liquid asphalt material codes
 - Aggregate & liquid asphalt producer numbers, names, and locations
 - Aggregate Blend of each aggregate
 - Optimum Blend % for each sieve
 - AC Specific Gravity
 - Bulk Specific Gravity and Absorption for each aggregate
 - Summary of Marshall Design Data: AC % Mix, Stability, Flow, G_{mb} , G_{mm} , VMA, Voids (Total Mix), Voids Filled

- h) Optimum design data listing AC % Mix, Stability, Flow, G_{mb} , G_{mm} , VMA, Voids (Total Mix), Voids Filled
- i) Percent of asphalt that any RAP will add to the mix
- j) Graphs for the following: gradation on 0.45 Power Curve, AC vs. Voids (Total Mix), AC vs. Specific Gravities, AC vs. Voids Filled, AC vs. Stability, AC vs. Flow and VMA

- H. The IDA Engineer of Construction & Materials shall generate and issue a concurrence or rejection of the Contractor's proposed Mix Design with the JMF for the manufacture of bituminous mixtures based upon the Contractor's submitted testing and complete mix design results. The Contractor shall not be permitted to use the proposed HMA mix in production for the project until this concurrence letter is issued to the Contractor by the IDA Engineer of Construction & Materials, and the mix passes all test section requirements, when a test section is specified.
- I. The above procedure, III. MIX DESIGN SUBMITTAL shall be repeated for each change in source or gradation of materials.

IV. MIX PRODUCTION TESTING

The Quality Control of the manufacture and placement of bituminous mixtures is the responsibility of the Contractor. The Contractor shall perform or have performed the inspection and tests required to assure conformance to contract requirements. Quality Control includes the recognition of defects and their immediate correction. This may require increased testing, communication of test results to the plant or the job site, modification of operations, suspension of bituminous mix production, rejection of material, or other actions as appropriate. The Resident Engineer shall be immediately notified of any failing tests and subsequent remedial action. Form AER M-14 shall be reported to the Engineer and Resident Engineer no later than the start of the next work day. In addition, AER M-9 and M-11 shall be given to the Resident Engineer daily (Appendix A). The Contractor shall provide a Quality Control (QC) Manager who will have overall responsibility and authority for Quality Control. This individual shall have successfully completed the IDOT Division of Highways Bituminous Concrete Level II Technician Course "Bituminous Concrete Proportioning and Mixture Evaluation." In addition to the QC Manager, the Contractor shall provide sufficient and qualified personnel to perform the required visual inspections, sampling, testing, and documentation in a timely manner. The following plant tests and documentation shall be required: [Note: A summary chart of testing can be found in Appendix B.]

- A. Minimum of one (1) complete hot bin or combined belt analysis per day of production or every 1,000 tons, whichever is more frequent.
- B. Minimum one (1) stockpile gradation for each aggregate and/or mineral filler per week when a batch plant is utilized. Minimum of one (1) gradation for each aggregate per day of production or every 1,000 tons when a drum plant is used, and one (1) gradation per week for mineral filler when a drum plant is used.
- C. A certification from the quarry for the total quantity of aggregate listing the source, gradation type, and quality designation of aggregate shipped.
- D. Original asphalt shipping tickets listing the source and type of asphalt shipped.
- E. One mix sample per 1,000 tons of mix. The sample shall be split in half. One half shall be reserved for testing by the Engineer. The other half shall be split and tested by the Contractor for Marshall, Extraction, Gradation, Maximum Specific Gravity, and Air Void tests in accordance with the appropriate ASTM standard referenced herein. [See Appendix B.]
 - 1. In place of the extraction test, the Contractor may provide the asphalt content by a calibrated ignition oven test using the IDOT Division of Highways' latest procedure. The correction (calibration) factor for aggregate type shall be clearly indicated in the reported test results.

From these tests, the Contractor shall interpret the test data and make necessary adjustments to the production process in order to comply with the approved JMF.

V. QUALITY CONTROL

A. Control Limits

Target values shall be determined from the approved JMF. The target values shall be plotted on the control charts within the following control limits:

<u>Parameter</u>	<u>Control Limits</u>	
	<u>Individual Test</u>	<u>Moving Avg. of 4</u>
% Passing		
1/2 in.	± 7 %	± 4 %
No. 4	± 7 %	± 4 %
No. 8	± 5 %	± 3 %
No. 30	± 4 %	± 2.5 %
No. 200 *	± 2.0 % *	± 1.0 % *
Asphalt Content	± 0.45 %	± 0.2 %

* No. 200 material percents shall be based on washed samples. Dry sieve gradations (-200) shall be adjusted based on anticipated degradation in the mixing process.

B. Control Charts

Standardized control charts shall be maintained by the Contractor at the field laboratory. The control charts shall be displayed and be accessible at the field laboratory at all times for review by the Engineer. The individual required test results obtained by the Contractor shall be recorded on the control chart immediately upon completion of a test, but no later than 24 hours after sampling. Only the required plant tests and resamples shall be recorded on the control chart. Any additional testing of check samples may be used for controlling the Contractor's processes, but shall be documented in the plant diary.

The results of assurance tests performed by the Engineer will be posted as soon as available.

The following parameters shall be recorded on control charts:

1. Combined Gradation of Hot-Bin or Combined Belt Aggregate Samples (Drier Drum). (% Passing 1/2 in., No. 4., No. 8, No. 30, and No. 200 Sieves)
2. Asphalt Content
3. Bulk Specific Gravity of Marshall Sample
4. Maximum Specific Gravity of Mixture

C. Corrective Action for Required Plant Tests

Control Limits for each required parameter, both individual tests and the average of four tests, shall be exhibited on control charts. Test results shall be posted within the time limits previously outlined.

1. Individual Test Result. When an individual test result exceeds its control limit, the Contractor shall immediately resample and retest. If at the end of the day no material remains from which to resample, the first sample taken the following day shall serve as the resample as well as the first sample of the day. This result shall be recorded as a retest. If the retest passes, the Contractor may continue the required plant test frequency. Additional check samples should be taken to verify mix compliance.
2. Asphalt Content. If the retest for asphalt content exceeds control limits, mix production shall cease and immediate corrective action shall be instituted by the Contractor. After corrective action, mix production shall be restarted, the mix production shall be stabilized, and the Contractor shall immediately resample and retest. Mix production may continue when approved by the Engineer. The corrective action shall be documented.

Inability to control mix production is cause for the Engineer to stop the operation until the Contractor completes the investigation identifying the problems causing failing test results.

3. Combined Aggregate/Hot-Bin. For combined aggregate/hot-bin retest failures, immediate corrective action shall be instituted by the Contractor. After corrective action, the Contractor shall immediately resample and retest. The corrective action shall be documented.
 - a. Moving Average. When the moving average values trend toward the moving average control limits, the Contractor shall take corrective action and increase the sampling and testing frequency. The corrective action shall be documented.

The Contractor shall notify the Engineer whenever the moving average values exceed the moving average control limits. If two consecutive moving average values fall outside the moving average control limits, the Contractor shall cease operations. Corrective action shall be immediately instituted by the Contractor. Operations shall not be reinstated without the approval of the Engineer. Failure to cease operations shall subject all subsequently produced material to be considered unacceptable.
 - b. Mix Production Control. If the Contractor is not controlling the production process and is making no effort to take corrective action, the operation shall stop.

VI. TEST SECTION AND DENSITY ACCEPTANCE (**Note: Applies only when specified.**)

- A. The purpose of the test section is to determine if the mix is acceptable and can be compacted to a consistent passing density.

A quick way to determine the compactibility of the mix is by the use of a nuclear density gauge in the construction of a growth curve. An easy way to construct a growth curve is to use a good vibratory roller. To construct the curve, an area the width of the roller in the middle of the mat is chosen and the roller is allowed to make one compactive pass. With the roller stopped some 30 feet away, a nuclear reading is taken and the outline of the gauge is marked on the pavement. The roller then makes a compaction pass in the opposite direction and another reading is taken. This scenario is continued until at least two (2) passes are made past the maximum density obtained.

The maximum laboratory density potential of a given mix is a direct function of the mix design air voids. Whereas, the actual maximum field density is a function of the type of coarse aggregates, natural or manufactured sands, lift thickness, roller type (static or vibratory), roller and paver speed, base condition, mix variation, etc. All of these items are taken into consideration with the growth curve.

1. High Density in the Growth Curve. If the growth curve indicates a maximum achievable field density of between 95 to 98 percent of the Theoretical Maximum Density (D), you can proceed with the Rolling Pattern. On the other hand, if the maximum achievable density is greater than 98 percent, a quick evaluation (by use of an extractor, hot bin gradations, nuclear asphalt determinator, etc.) must be made of the mix. When adjustments are made in the mix, a new growth curve shall be constructed.
2. Low Density in the Growth Curve. If the growth curve indicates the maximum achievable density is below 94 percent, a thorough evaluation of the mix, rollers, and laydown operations should be made. After a thorough evaluation of all factors (mix, rollers, etc.), asphalt or gradation changes may be in order as directed by the Engineer. Again, any changes in the mix will require a new growth curve. Note that the nuclear density test is a quality control tool and not an acceptance test. All acceptance testing is to be conducted by the use of cores, unless otherwise specified.
3. Acceptance of Test Section. The Contractor may proceed with paving the day after the test section provided the following criteria have been met:
 - a. Four random locations (2 cores per location cut longitudinally and cored by the Contractor) will be selected by the Engineer within the test strip. No individual core can be below a minimum of 94% density.
 - b. All Marshall and extraction test results from mix produced for the test section must be within the tolerances required by specification.
 - c. The Contractor shall correlate his nuclear gauge to the cores taken in the test section. Additional cores may be taken at the Contractor's expense for this purpose within the test section area, when approved by the Engineer.
4. Density Acceptance under Production Paving. The responsibility for obtaining the specified density lies with the Contractor. Therefore, it is important that the nuclear density gauge operator communicate with the roller operators to maintain the specified density requirements. The Contractor shall provide a Bituminous Concrete Density Tester who has successfully completed the Department's "Bituminous Concrete Nuclear Density Testing Course" to run all required density tests on the job site. Density acceptance testing, unless otherwise specified, is described as follows:
 - a. The Contractor shall cut cores at random locations within 500 ton sublots as directed by the Resident Engineer.
 - b. The cores should be extracted so as not to damage them, since they are used to calculate the Contractor's pay.
 - c. The Engineer will run preliminary G_{mb} tests on the cores to give the Contractor an indication of how compaction is running for the next day's paving.

- d. A running average of four (4) Maximum Theoretical Gravities (G_{mm}) will be used for calculating percent compaction.
- e. Final core density tests and pay calculations will be performed by the Resident Engineer and delivered to the Contractor.

Steven J. Long, P.E.
Acting Chief Engineer

Supersedes Policy Memorandum 96-2 dated April 1, 2004

APPENDIX A

BITUMINOUS WORKSHEET

Airport: _____ Project No.: _____ AIP No.: _____

Mix Design #: _____ Material Code: _____ Producer: _____

Prod. #: _____

AGGREGATE

Mat'l. Code: _____

Producer #: _____

Prod. Name _____

Location: _____

Percent Passing

Sieve Size

1 inch	_____	_____	_____	_____	_____
3/4 inch	_____	_____	_____	_____	_____
1/2 inch	_____	_____	_____	_____	_____
3/8 inch	_____	_____	_____	_____	_____
No. 4	_____	_____	_____	_____	_____
No. 8	_____	_____	_____	_____	_____
No. 16	_____	_____	_____	_____	_____
No. 30	_____	_____	_____	_____	_____
No. 50	_____	_____	_____	_____	_____
No. 100	_____	_____	_____	_____	_____
No. 200	_____	_____	_____	_____	_____
Washed (y/n)	_____	_____	_____	_____	_____
O.D. Gravity	_____	_____	_____	_____	_____
App. Gravity	_____	_____	_____	_____	_____
Absorption	_____	_____	_____	_____	_____
Asphalt Gravity	_____	Asphalt Source	_____	Asphalt Producer No.	_____

MARSHALL DATA

% Asphalt _____

M. Stability _____

Flow _____

D _____

0 _____

% Air Voids _____

Q.C. Manager Name: _____ Phone number: _____

Laboratory Location: _____ Fax Number: _____

Remarks: _____

Bituminous Mixtures Extraction

Date: _____

Airport: _____ Consultant: _____

Illinois Project: _____ Contractor: _____

AIP Project No.: _____ Producer: _____

Mix #: _____ Dry Time: _____ Lot: _____ Sublot: _____

Type: _____ Washed: _____

Sieve	Wt.	Accum. Wt.	% Passing	Mix Formula	Tolerance	Spec Range
1.5						
1						
3/4						
1/2						
3/8						
4						
8						
16						
30						
50						
100						
200						
Tot Agg						
Bit						

Extraction Data	
Pan, New Filter & Sample	g
Pan & New Filter	g
Sample	g
Pan, Used Filter, Aggregate	g
Pan & New Filter	g
Aggregate	g
Pan & Used Filter	g
Pan & New Filter	g
Dust in Filter	g
Sample	g
Aggregate	g
Bitumen	g

New Bit:	Marshall Stab:	Blows:	Gyro:	Flow:	TSR:
Bulk SPGR:	Max SPGR:	% Voids:	DEN (PCF):		

Remarks: _____

CC: _____ Tested by: _____

APPENDIX B

QUALITY CONTROL TESTING (PLANT)

PARAMETER	FREQUENCY	SAMPLE SIZE	TEST METHOD	REPORT FORM
Aggregate Gradations: Hot bins for batch and continuous plants--- Individual cold-feeds or combined belt-feeds for drier drum plants.	Minimum 1 per day of production and at least 1 per 1000 tons.	CA07/11: 5000 gm CA13: 2000 gm CA16: 1500 gm Fine agg: 500 gm 1 gallon asphalt cement	ASTM C 136	AER M-9
Aggregate gradations: Stockpiles	Minimum 1 per aggregate per week per stockpile.	CA07/11: 5000 gm CA13: 2000 gm CA16: 1500 gm Fine agg: 500 gm *Note: The above test sample sizes are to be obtained from splitting down a larger sample from the stockpiles.	ASTM C 136	AER M-9
Maximum Specific Gravity	Minimum 1 per 1000 tons	1200 gm per test	ASTM D 2041	AER M-11 and AERM-14
Bulk Specific Gravity	Minimum 1 per 1000 tons	1250 gm per briquette	ASTM D 2726	AER M-11 and AERM-14
Marshall Stability and Flow	Minimum 1 per 1000 tons	1250 gm per briquette	ASTM D 1559	AER M-11 and AERM-14
% Air Voids	Minimum 1 per 1000 tons		ASTM D 3203	AER M-11 and AERM-14
Extraction	Minimum 1 per 1000 tons	1000 gm (surface) 1500 gm (base)	ASTM D 2172	AER M-11 and AERM-14
Ignition Oven Test	Minimum 1 per 1000 tons	1500 gm		AER M-14
Nuclear Asphalt Gauge	Minimum 1 per 1000 tons	1000-1100 gm	ASTM D 2145	AER M-14

MIX DESIGN TESTING

PARAMETER	FREQUENCY	SAMPLE SIZE	TEST METHOD	REPORT FORM
Representative samples of each aggregate and asphalt cement.	1 per aggregate and 1 asphalt cement.	280 lb. (coarse) 150 lb. (fine) 15 lb. (min. filler) 1 gallon asphalt cement	ASTM D 75	N/A
Aggregate Gradation	1 per aggregate	CA07/11: 5000 gm CA13: 2000 gm CA16: 1500 gm Fine agg: 500 gm	ASTM C 136	Bituminous Worksheet (Appendix A)
Maximum Specific Gravity	2 per specified asphalt content	1200 gm per test	ASTM D 2041	Bituminous Worksheet (Appendix A)
Bulk Specific Gravity	3 briquettes per specified asphalt content	1250 gm per briquette	ASTM D 2726	Bituminous Worksheet (Appendix A)
Marshall Stability and Flow	3 briquettes	1250 gm per briquette	ASTM D 1559	Bituminous Worksheet (Appendix A)
% Air Voids	1 per specified asphalt content (Avg. of G_{sb}/G_{mm})		ASTM D 3203	Bituminous Worksheet (Appendix A)

QUALITY CONTROL TESTING (PAVER)

PARAMETER	FREQUENCY	SAMPLE SIZE	TEST METHOD	REPORT FORM
Nuclear Density Test	As required by the Contractor to maintain consistent passing density	Various locations	ASTM D 2950	

APPENDIX C

AGGREGATE BITUMINOUS BASE COURSE

Percentage by Weight Passing Sieves Job Mix Formula (JMF)		
Sieve Size	Gradation B Range 1" Maximum	Ideal Target
1-1/4 in.	---	---
1 in.	100	100
3/4 in.	93 – 97	95
1/2 in.	75 – 79	77
3/8 in.	64 – 68	66
No. 4	45 – 51	48
No. 8	34 – 40	37
No. 16	27 – 33	30
No. 30	19 – 23	21
No. 100	6 – 10	8
No. 200	4 – 6	5
Bitumen %:		
Stone	4.5 – 7.0	5.5

AGGREGATE BITUMINOUS SURFACE COURSE

Percentage by Weight Passing Sieves Job Mix Formula (JMF)		
Sieve Size	Gradation B Range ¾" Maximum	Ideal Target
1 in.	100	---
¾ in.	100	100
½ in.	99 - 100	100
¾ in.	91 - 97	94
No. 4	56 – 62	59
No. 8	36 - 42	39
No. 16	27 - 32	30
No. 30	19 - 25	22
No. 100	7 – 9	8
No. 200	5 – 7	6
Bitumen %:		
Stone	5.0 – 7.0	6.0

State of Illinois
Department of Transportation
Division of Aeronautics

POLICY MEMORANDUM

January 1, 2004

Springfield, Illinois

Number 96-3

TO: CONSULTING ENGINEERS

SUBJECT: REQUIREMENTS FOR QUALITY ASSURANCE ON PROJECTS
WITH BITUMINOUS CONCRETE PAVING

I. SCOPE

The purpose of this policy memorandum is to define to the Consulting Engineer the requirements concerning Quality Assurance on bituminous concrete paving projects. Specifically, this memo applies whenever the Contractor is required to comply with the requirements set forth in Policy Memorandum 96-2, *"Requirements for Laboratory, Testing, Quality Control, and Paving of Bituminous Concrete Mixtures"*.

II. LABORATORY APPROVAL

The Resident Engineer shall review and approve the Contractor's plant laboratory to assure that it meets the requirements set forth in the contract specifications and Policy Memorandum 96-2. This review and approval shall be completed prior to utilization of the plant for the production of any mix.

III. QUALITY ASSURANCE DURING PRODUCTION PAVING

A. At the option of the Engineer, independent assurance tests may be performed on split samples taken by the Contractor for Quality Control testing. In addition, the Resident Engineer shall witness the sampling and splitting of these samples at the start of production and as needed throughout mix production. The Engineer may select any or all split samples for assurance testing. These tests may be performed at any time after sampling. The test results will be made available to the Contractor as soon as they become available.

B. The Resident Engineer may witness the sampling and testing being performed by the Contractor. If the Resident Engineer determines that the sampling and Quality Control tests are not being performed according to the applicable test procedures, the Engineer may stop production until corrective action is taken. The Resident Engineer will promptly notify the Contractor, both verbally and in writing, of observed deficiencies. The Resident Engineer will document all witnessed samples and tests. The Resident Engineer may elect to obtain samples for testing, separate from the Contractor's Quality Control process, to verify specification compliance.

1. Differences between the Contractor's and the Engineer's split sample test results will be considered acceptable if within the following limits:

<u>Test Parameter</u>	<u>Acceptable Limits of Precision</u>
% Passing	
1/2 in.	5.0 %
No. 4	5.0 %
No. 8	3.0 %
No. 30	2.0 %
No. 200	2.2 %
Asphalt Content	0.3 %
Maximum Specific Gravity of Mixture	0.026
Bulk Specific Gravity of Marshall Sample	0.045

2. In the event a comparison of the required plant test results is outside the above acceptable limits of precision, split or independent samples fail the control limits, an extraction indicates non-specification mix, or a continual trend of difference between Contractor and Engineer test results is identified, the Engineer will immediately investigate. The Engineer may suspend production while the investigation is in progress. The investigation may include testing by the Engineer of any remaining split samples or a comparison of split sample test results on the mix currently being produced. The investigation may also include review and observation of the Contractor's technician performance, testing procedure, and equipment. If a problem is identified with the mix, the Contractor shall take immediate corrective action. After corrective action, both the Contractor and the Engineer shall immediately resample and retest.

- C. The Contractor shall be responsible for documenting all observations, records of inspection, adjustments to the mixture, test results, retest results, and corrective actions in a bound hardback field book or bound diary which will become the property of IDA upon completion and acceptance of the project. The Contractor shall be responsible for the maintenance of all permanent records whether obtained by the Contractor, the Contractor's Consultants, or the producer of bituminous mix material. The Contractor shall provide the Engineer full access to all documentation throughout the progress of the work.

Results of adjustments to mixture production and tests shall be recorded in duplicate and sent to the Engineer.

IV. ACCEPTANCE BY ENGINEER

Density acceptance shall be performed according to Policy Memorandum 87-2, or according to the acceptance procedure outlined in the Special Provisions.

Steven J. Long, P.E.
Acting Chief Engineer

Supersedes Policy Memorandum 96-3 dated January 1, 1997

State of Illinois
Department of Transportation
Division of Aeronautics

POLICY MEMORANDUM

January 1, 2004

Springfield, Illinois

Number 97-2

TO: CONSULTING ENGINEERS

SUBJECT: PAVEMENT MARKING PAINT ACCEPTANCE

I. SCOPE

The purpose of this policy memorandum is to define the procedure for acceptance of pavement marking paint.

II. RESIDENT ENGINEER'S DUTIES

The Resident Engineer shall follow the acceptance procedure outlined as follows:

- A. Require the painting contractor to furnish the name of the paint manufacturer and the batch number proposed for use prior to beginning work. Notify the I.D.A. Materials Certification Engineer when this information is available.
- B. Require the manufacturer's certification before painting begins. Check the certification for compliance to the contract specifications.
 1. The certification shall be issued from the manufacturer and shall include the specification and the batch number.
 2. The paint containers shall have the manufacturer's name, the specification and the batch number matching the certification.
- C. If no batch number is indicated on the certification or containers, sample the paint according to the procedure for the corresponding paint type.
- D. If the I.D.A. Engineer of Materials indicates that batch number has not been previously sampled and tested, sample the paint according to the procedure for the corresponding paint type. The Division of Aeronautics will provide paint cans upon request by the Resident Engineer. Samples will only be taken in new epoxy lined cans so that the paint will not be contaminated. It is important to seal the sample container immediately with a tight cover to prevent the loss of volatile solvents.

Mark the sample cans with the paint color, manufacturer's name, and batch number. The paint samples and manufacturer's certification shall be placed in the mail within 24 hours after sampling. Address the samples to the Materials Certification Engineer at:

Illinois Department of Transportation
Division of Aeronautics
One Langhorne Bond Drive
Springfield, Illinois 62707

Sampling Procedures for Each Paint Type:

1. Waterborne or Solvent Base Paints
 - a. Take the paint sample from the spray nozzle when the contractor begins marking. A sample consists of two one-pint cans taken per batch number.
 - b. Be sure to indicate to the contractor that acceptance of material is based upon a passing test of the paint material.

2. Epoxy Paint
 - a. Take separate one-pint samples of each paint component prior to marking. Before drawing samples, the contents of each component's container must be thoroughly mixed to make certain that any settled portion is fully dispersed. **Do not combine the two components or sample from the spray nozzle.**
 - b. Be sure to indicate to the contractor that acceptance of material is based upon a passing test of the paint material.

III. TESTING

The paint will be tested for acceptance by the IDOT Bureau of Materials and Physical Research for conformance to the contract specifications.

Steven J. Long, P.E.
Acting Chief Engineer

Supersedes policy memorandum 97-2 dated February 27, 2002

State of Illinois
Department of Transportation
Division of Aeronautics

POLICY MEMORANDUM

January 1, 2004

Springfield, Illinois

Number: 2001-1

TO: CONTRACTORS

SUBJECT: REQUIREMENTS FOR COLD WEATHER CONCRETING

I. PURPOSE

- A. This policy memorandum outlines the minimum requirements for cold weather concreting. Cold weather is defined as whenever the average ambient air temperature during day or night drops below 40°F.

II. COLD WEATHER CONCRETING PLAN

- A. The contractor shall submit a cold weather concreting plan to the Engineer for approval. Cold weather concreting operations are not allowed to proceed until the contractor's cold weather concreting plan has been approved by the Engineer.
- B. The contractor's plan shall be in compliance with this memorandum and shall address, as a minimum, the following:
1. Concrete Mix Manufacturing
 2. Concrete Mix Temperature Monitoring
 3. Base Preparation
 4. Concrete Curing and Protection
 5. In Place Concrete Temperature Monitoring
 6. Strength Test Specimens

III. MINIMUM REQUIREMENTS

A. Concrete Mix Manufacturing

1. The contractor must make the necessary adjustments so that the concrete temperature is maintained from 50°F to 90°F for placement. Acceptable methods include:
 - a) Heating the mixing water Note: If the mixing water is to be heated to a temperature above 100°F, the contractor must include a mixing sequence plan to indicate the order that each component of the mix is to be charged into the mixer.

- b) Heating the aggregates Note: The exact method of heating the aggregates shall be included as part of the cold weather concreting plan. Aggregates must be free of ice and frozen lumps. To avoid the possibility of a quick or flash set of the concrete, when either the water or aggregates are heated to above 100°F, they should be combined in the mixer first before the cement is added.

B. Concrete Mix Temperature

1. The contractor shall monitor the mix temperature at the plant and prior to placement in the forms. Mix that does not meet the temperature requirement of 50°F to 90°F shall be rejected for use on the project.

C. Base Preparation

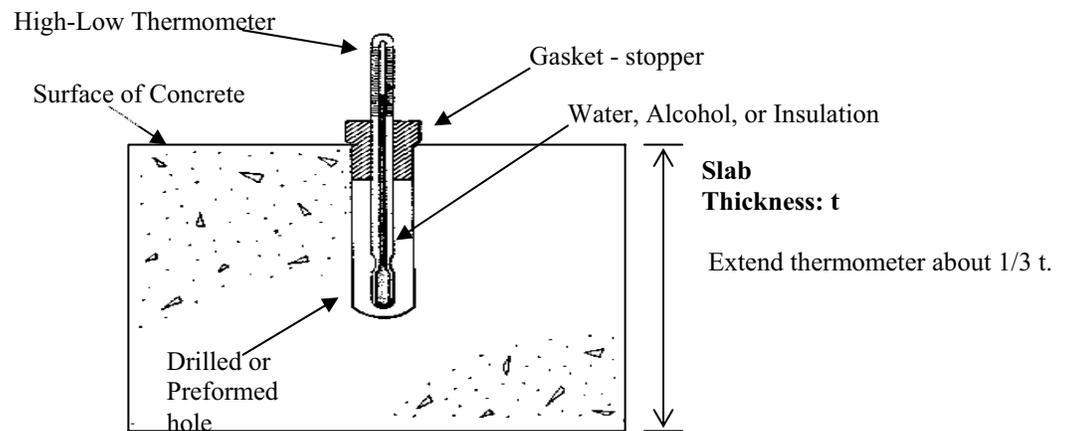
1. Paving or placing concrete on a frozen base, subbase, or subgrade is prohibited.
2. The base, subbase, or subgrade on which the concrete is to be placed shall be thawed and heated to at least 40°F. The method by which the base subbase or subgrade is to be heated shall be indicated in the contractor's cold weather concreting plan. Insulating blankets or heated enclosures may be required.

D. Concrete Protection and Curing

1. In addition to the curing options available in article 501-3.17 (a) (b), (c), and (d) of the Standard Specifications for Construction of Airports, the contractor shall protect the concrete in such a manner as to maintain a concrete temperature of at least 50°F for 10 days.
2. The method of concrete protection shall be by use of insulating layer or heated enclosure around the concrete. The method of protection shall be indicated in the contractor's cold weather concreting plan. When insulating layers are to be used, the thermal resistance to heat transfer (R Value in °F*hr*ft²/BTU) of the insulation material selected, shall be appropriate for the slab thickness being constructed and shall be indicated in the cold weather concreting plan.
3. Appendix A shows a chart and table taken from the American Concrete Institute specification, ACI 306 R Cold Weather Concreting, which may be used by the contractor in selecting the proper insulation (R Value) and insulating material which may be used.

E. In-Place Concrete Temperature Monitoring

1. Once the concrete is in place, the protection method used, must ensure that the concrete temperature does not fall below 50°F for the time period specified in Section (D. 1.) of this Policy Memorandum (10 days).
2. The concrete temperature on the surface and below the surface must be monitored and recorded by the contractor for the duration of the protection period in Section (D. 1.).
3. After the concrete has hardened, surface temperature can be checked with special surface thermometers or with an ordinary thermometer that is kept covered with insulating blankets. The high and low values for each 24-hour period of protection must be measured and recorded.
4. One acceptable method of checking temperature below the concrete surface is given in the Portland Cement Association (PCA) book entitled "Design and Control of Concrete Mixtures" latest edition. The method is indicated below and it should be noted that the thermometer should be capable of recording high and low values for a given 24-hour period.



Scheme for measuring concrete temperature below the surface.

5. The exact method for surface and sub-surface concrete temperature monitoring shall be indicated in the contractor's cold weather concreting plan. The maximum permissible difference between the interior and surface temperature is 35 °F. Adjustments in protection method shall be implemented if the maximum permissible difference is exceeded.

F. Strength specimen handling

1. The Contractor is responsible for making, transporting, and curing all samples (beams or cylinders)
2. The Contractor is required to load the testing machine and dispose of the broken pieces.
3. Onsite, indoor curing facilities, meeting the requirements of ASTM C-31, shall be required for cold weather concreting operations.

4. Sampling for strength specimens shall be according to the Contract Special Provisions. Sampled concrete shall be transported to the indoor curing facilities for the casting of strength specimens.
5. The exact location and description of the curing facilities shall be indicated in the contractor's cold weather concreting plan.
6. The method of transporting concrete sampled from the grade to the curing facilities for casting shall be indicated in the contractor's cold weather concreting plan.

Steven J. Long, P.E.
Acting Chief Engineer

Supersedes Policy Memorandum 2001-1 dated January 1, 2001

**State of Illinois
Department of Transportation
Bureau of Materials and Physical Research**

POLICY MEMORANDUM

January 1, 2007

Springfield

07-21

TO: REGIONAL ENGINEERS, HIGHWAY BUREAU CHIEFS, AND
MANUFACTURERS AND SUPPLIERS OF FINELY DIVIDED MINERALS

SUBJECT: ACCEPTANCE PROCEDURE FOR FINELY DIVIDED MINERALS USED
IN PORTLAND CEMENT CONCRETE AND OTHER APPLICATIONS

DEFINITIONS

Department - Illinois Department of Transportation.

Bureau - Bureau of Materials and Physical Research, at 126 East Ash Street, Springfield, Illinois 62704-4766.

Finely Divided Mineral - A finely divided material which has cementitious or pozzolanic properties. Examples are fly ash, microsilica (silica fume), ground granulated blast-furnace (GGBF) slag, and high-reactivity metakaolin (HRM).

Manufacturer - A company that manufactures a finely divided mineral. The term Producer is also used.

Supplier - A company that supplies a finely divided mineral which it does not manufacture.

Source - The name and location of the manufacturing process from which the finely divided mineral is obtained.

Approved Source - A source that is approved by the Bureau to ship a finely divided mineral for immediate use on Department projects.

Unapproved Source - A source that ships a finely divided mineral which must be sampled, tested, and approved by the Bureau before it is used on Department projects.

Cement - Portland cement.

Fly Ash - A finely divided residue that results from the combustion of ground or powdered coal, transported from the combustion chamber by exhaust gas, collected by mechanical or electrical means, and stored in stockpiles or bins.

Microsilica - An amorphous silica of high silica content and purity possessing high pozzolanic activity.

Ground Granulated Blast-Furnace (GGBF) Slag - A glassy granular material, formed when molten blast-furnace slag is rapidly chilled, and then finely ground.

High-Reactivity Metakaolin (HRM) - A reactive aluminosilicate pozzolan formed by calcining purified kaolinite at a specific temperature range.

Reference Material - A portland cement used for the control mortar and corresponding test mortars, of a finely divided mineral, to determine its strength activity index.

Preliminary (PRE) Sample - A sample used to determine, in advance, if the finely divided mineral will comply with Department specifications.

Process Control (PRO) Sample - A sample used for the purpose of controlling production of finely divided minerals proposed for incorporation into Department projects.

Acceptance (ACC) Sample - A sample used for accepting/rejecting finely divided minerals prior to its use on Department projects and/or unassigned stock for future use on projects. The quantity represented by acceptance samples must be given.

Independent Assurance (IND) Sample - A sample used to provide an independent check on the reliability of the manufacturer's quality control program.

Investigation (INV) Sample - A destination sample used to verify the acceptability of a finely divided mineral from a source.

Grab Sample - A sample secured from a conveyor, from bulk storage, or from a bulk shipment in one operation.

Composite Sample - Combined grab samples taken at prescribed intervals over a period of time.

NIST - National Institute of Standards and Technology.

CCRL - Cement and Concrete Reference Laboratory.

ISO 9000 Series - A program of international quality management system standards developed by the International Organization for Standardization (ISO).

1.0 PURPOSE

To establish procedures whereby materials of mineral origin, furnished by a **Manufacturer** or **Supplier**, will be accepted for use on **Department** projects.

2.0 SCOPE

This procedure is available to all **Manufacturers** or **Suppliers** of domestic and foreign **Finely Divided Minerals**. **Sources** in North America may be **Approved** or **Unapproved**. **Sources** located outside of North American will not be given **Approved Source** status, and the procedures in Sections 5.1 and 5.3 shall apply.

3.0 SPECIFICATION REQUIREMENTS, SAMPLING, AND TEST PROCEDURES

- 3.1 **Finely Divided Minerals** used on **Department** projects shall meet the material requirements of the **Department's** "Standard Specifications for Road and Bridge Construction (January 1, 2007)" and current special provisions.

4.0 APPROVED SOURCE PROCEDURE

- 4.1 A **Manufacturer** or **Supplier** requesting **Source** approval of a **Finely Divided Mineral** shall provide the following to the **Bureau**:

- (1) The **Manufacturer's** or **Supplier's** name and location.
- (2) The **Source** name, location (station), and number of generating units.
- (3) The name of the **Finely Divided Mineral** and its class or grade.
- (4) A certification that the **Finely Divided Mineral** meets the applicable requirements of Section 3.0.
- (5) A 6-month testing history.
- (6) A copy of the **Manufacturer's** or **Supplier's** quality control program.
- (7) A copy of the last **CCRL** inspection report of the testing laboratory used by the **Manufacturer** or **Supplier** of the **Finely Divided Mineral**, with documentation of resolution of any discrepancies noted therein. The **Manufacturer** or **Supplier** of **HRM** or **Microsilica** shall provide a copy of the testing laboratory's **CCRL** inspection report and/or an **ISO 9000 Series** certificate.
- (8) A copy of the Material Safety Data Sheet (MSDS) for the **Finely Divided Mineral**.

At the time of application, the **Manufacturer** or **Supplier** shall obtain a **Preliminary (PRE) Grab Sample** of the **Finely Divided Mineral** from current production. The **Manufacturer** or **Supplier** shall split the **PRE Sample** and place one portion in an airtight container and deliver it to the **Bureau**. A sample of the **Reference Material** used by the **Manufacturer** or **Supplier** for testing shall be included. The **Manufacturer** or **Supplier** shall assume the cost to deliver the samples to the **Bureau**. The size of the **Bureau's** portion of the **PRE Sample**, and the **Reference Material**, shall not be less than 3 kg (6 lb.) each and the samples shall be properly identified as required in Attachment 1. The **Manufacturer** or **Supplier** shall test the retained portion of the **PRE Sample** for the standard physical and chemical properties listed in the applicable specification in Section 3.0 and deliver a copy of the test results to the **Bureau** for comparison.

The **Bureau** will test its portion of the **PRE Grab Sample** for conformance to Section 3.0. The **Bureau** will compare the results obtained by both laboratories to determine compliance with the allowable difference between two laboratories set forth in the precision statement of each test method. Additional split sample testing will be required if the test results obtained on the **PRE Grab Sample** do not comply with the specification requirements of this policy memorandum.

An inspector from the **Bureau** may conduct a scheduled visit to inspect the laboratory facilities designated by the **Manufacturer** or **Supplier** to test the **Finely Divided Mineral**; the **Source** manufacturing process, the **Source** storage facilities; and the quality control policies, procedures, and practices used by the **Manufacturer** or **Supplier**. The **Manufacturer** or **Supplier** shall be responsible for payment of transportation, per diem (meals), lodging, and incidental travel costs incurred by the **Department**.

The **Bureau** will notify the **Manufacturer** or **Supplier**, in writing, if the request for **Approved Source** status is granted or denied. A request may be denied if the **Manufacturer** or **Supplier** fails to meet the requirements of this policy memorandum, or for other reasons determined by the **Department**.

4.2 Quality Control Requirements for **Approved Sources**:

The **Manufacturer** or **Supplier** shall establish and maintain quality control policies and procedures for sampling and testing that are approved by the **Bureau**. The **Bureau** shall be notified of any changes in the **Manufacturer's** or **Supplier's** quality control program.

Testing laboratories used by the **Manufacturers** or **Suppliers** of **Fly Ash** or **GGBF Slag** shall participate in the **CCRL** pozzolan program of the **NIST**, which includes inspection of facilities and testing of comparative samples. As an alternative to the **CCRL** pozzolan program of the **NIST**, **Manufacturers** or **Suppliers** of **GGBF Slag** may participate in the **CCRL** cement program. Testing laboratories used by the **Manufacturers** or **Suppliers** of **Microsilica** or **HRM** shall participate in the **CCRL** pozzolan program of the **NIST** and/or shall have implemented a quality management system based on the **ISO 9000 Series** standards.

4.3 Reporting Requirements for **Approved Sources**:

The **Manufacturer** or **Supplier** shall deliver a test report to the **Bureau** which lists the results of all **Grab** and/or **Composite Samples** taken and tested for the specified reporting period.

For **Fly Ash**, the report shall be monthly, and shall be delivered no later than forty calendar days after the end of the month. If the **Fly Ash Source** is sampling more frequently than once per month according to ASTM C 311, then the report shall be delivered no later than forty calendar days after the end of the composite date. If the deadline falls on a Saturday, Sunday, or State Holiday, the deadline shall be the next work day.

For **GGBF Slag**, **HRM**, and **Microsilica**, the report shall be quarterly and shall be delivered no later than forty calendar days after the end of each quarter. For the purpose of the reports, the quarters shall end March 30, June 30, September 30, and December 31. If the deadline falls on a Saturday, Sunday, or State Holiday, the deadline shall be the next work day.

Sampling, testing, and reporting shall be done according to the applicable specification in Section 3.0.

4.4 Record Requirements for **Approved Sources**:

Records of production control tests shall be maintained by the **Manufacturer** or **Supplier** for a minimum period of 5 years, and shall be made available to the **Bureau** upon request.

Copies of bills of lading of quantities of **Finely Divided Minerals** shipped shall be maintained by the **Manufacturer** or **Supplier** for a minimum period of 3 years, and shall be made available to the **Bureau** upon request.

4.5 Sampling and Test Requirements for **Approved Sources**:

For **Fly Ash**, each February, May, August, and November, the **Supplier** shall obtain a **Process Control (PRO) Grab Sample**.

For **GGBF Slag, HRM, and Microsilica**, each January, April, July, and October, the **Manufacturer** or **Supplier** shall obtain a **PRO Grab Sample**.

The **PRO Grab Sample** shall be split for testing by the **Manufacturer** or **Supplier** and the **Bureau**. At this time, a sample of the current **Reference Material** used by the **Manufacturer** or **Supplier** for testing shall also be split.

The **Bureau** may require that more frequent **PRO Grab Samples** be obtained and tested. Increasing the sampling frequency may be required due to significant changes in the material or process, variations in test results between the **Bureau** and **Manufacturer** or **Supplier**, field test results, or other reasons as determined by the **Bureau**. The **Bureau** samples shall be placed in airtight containers, properly identified on form BMPR CM01 (www.dot.il.gov/materials/materialforms.html), and delivered to the **Bureau** no later than the last work day of the month. Each **Finely Divided Mineral** sample and **Reference Material** sample shall not be less than 3 kg (6 lb).

The **Manufacturer** or **Supplier** shall test the retained portion of each **PRO Sample**, using the retained portion of the **Reference Material**, for the standard physical and chemical properties listed in the applicable specification in Section 3.0. When all tests are completed, the **Manufacturer** or **Supplier** shall record the test results on a report form that identifies the sample as a **PRO Sample**, and deliver the report to the **Bureau** no later than the last work day of the following month from the date of sample.

The test results obtained by the **Manufacturer** or **Supplier** and the **Bureau** on all split samples will be compared for compliance with the allowable differences for two laboratories set forth in the precision statement of each test method and for compliance with Section 3.0. If significant differences exist in the split sample test results, the **Department** will investigate sampling and test procedures, or require additional comparative sampling to determine the cause of the variation.

4.6 **Department** Inspections of **Approved Sources**:

An inspector from the **Bureau** may conduct unscheduled visits, at **Department** expense, to each **Approved Source** or one of its terminals. During this visit, the inspector will either take or witness the taking of a random **Independent Assurance (IND) Grab Sample**. The inspector will split the sample and deliver an equal portion to the **Manufacturer** or **Supplier**. The **Manufacturer** or **Supplier** shall test the retained portion of the split sample for the standard physical and chemical properties

listed in the applicable specification and deliver the test results to the **Bureau**, as specified in Section 4.5, for comparison and compliance with Section 3.0.

Random **Investigation (INV) Samples** of the **Finely Divided Minerals** and the project **Cement** will be obtained at final destination by a representative of the **Department**. The representative will either take or witness the taking of the **INV**

Samples. **INV Samples** will be **Grab Samples** and shall not be less than 3 kg (6 lb). (Note: **Cement** samples will be taken according to ASTM C 183). The

sampling location and frequency for obtaining **INV Samples** will be determined by the **Bureau** in consultation with the district offices.

The **Bureau** will test **INV Samples** to ascertain the results of **Finely Divided Mineral-project Cement** combinations. To verify that **Finely Divided Minerals** shipped from **Approved Sources** meet the requirements of Section 3.0, the **Bureau** will test **INV Samples** with the appropriate **Reference Material**.

4.7 Revocation of **Approved Source** Status:

Failure of a **Manufacturer** or **Supplier** to meet the requirements of Sections 3.0 and 4.0 of this policy memorandum will be sufficient cause to revoke **Approved Source** status. However, a total of three late submittals in a twelve month period for any of the following: test report (**Grab** or **Composite Samples**), **PRO Sample**, or **PRO** test results will be permitted. Revocation will occur if a fourth late submittal occurs in a twelve month period. The **Manufacturer** will be notified in writing when the third late submittal in a twelve month period occurs.

Failure to resolve significant differences in testing, as indicated by the test results obtained on **PRO** or **IND Samples** split with the **Manufacturer** or **Supplier** will be sufficient cause to revoke **Approved Source** status.

Failure of the testing laboratory, used by the **Manufacturer** or **Supplier** of a **Finely Divided Mineral**, to satisfactorily resolve the discrepancies noted in the **CCRL** inspection report and/or to maintain a quality management system based on the **ISO 9000 Series** will be sufficient cause to revoke **Approved Source** status.

Revocation of **Approved Source** status will be reported to the **Manufacturer** or **Supplier** in writing. The **Manufacturer** or **Supplier** may not re-apply for **Approved Source** status until 30 days have elapsed from the date of the written notice of revocation.

5.0 UNAPPROVED SOURCE PROCEDURE

5.1 A **Manufacturer** or **Supplier** requesting approval of a **Finely Divided Mineral** from an **Unapproved Source** shall provide the following to the **Bureau**:

- (1) The **Manufacturer's** or **Supplier's** name and location.
- (2) The **Source** name, location (station), and number of generating units.
- (3) The name of the **Finely Divided Mineral** and its class or grade.

- (4) A current test report, in English, which indicates the standard physical and chemical composition of the **Finely Divided Mineral** as per Section 3.0.
- (5) The transportation method and location at which an inspector from the **Bureau** will be able to obtain **Acceptance (ACC) Samples**.
- (6) If requested by the **Bureau**, the **Manufacturer** or **Supplier** shall deliver to the **Bureau** a 24-hr **Composite Preliminary (PRE) Sample** of the **Finely Divided Mineral** from current shipments. The **Manufacturer** or **Supplier** shall assume the cost to deliver it to the **Bureau**. The size of the **PRE Sample** shall not be less than 3 kg (6 lb) and the sample shall be properly identified as required in Attachment 1.

5.2 Sampling and Test Requirements for **Unapproved Sources** in North America:

- (1) **Finely Divided Minerals** from an **Unapproved Source** will be sampled, tested, and approved by the **Bureau** before use on **Department** projects. The **Bureau** has the option to affix a seal to secure **Finely Divided Minerals** in storage (e.g. silo, truck, railroad car, or barge) until the **Bureau's** testing is completed.
- (2) Upon arrival of the **Finely Divided Mineral** to Illinois, an inspector from the **Bureau** will obtain **Acceptance (ACC) Grab Samples** according to the applicable specifications. The **Bureau** will determine the number of representative samples required.
- (3) The **Manufacturer** or **Supplier** may request the **Bureau** to sample the **Finely Divided Mineral** prior to arrival in Illinois. In the event the request is approved, the **Manufacturer** or **Supplier** shall be responsible for payment of transportation, per diem (meals), lodging, and incidental travel costs incurred by the **Department** inspector. If the **Department** determines that it lacks the resources to accomplish out-of-state inspection, the **Finely Divided Mineral** may be sampled and tested according to the procedures in Section 5.3.
- (4) **Acceptance (ACC) Samples** will be tested by the **Bureau** for conformance to Section 3.0, and to approve the **Finely Divided Mineral** for use on **Department** projects.
- (5) **Random Investigation (INV) Samples** of **Finely Divided Minerals** may be obtained at final destination by a representative of the **Department**. The representative will either take or witness the taking of the **INV Samples**. **INV Samples** will be **Grab Samples** and will be taken according to the applicable specification. The sampling location and frequency for obtaining **INV Samples** will be determined by the **Bureau** in consultation with the district offices. The **Bureau** will use **INV Samples** to verify that the **Finely Divided Mineral** shipped meets the requirements of Section 3.0.

5.3 Sampling and Test Requirements for **Unapproved Sources** Located Outside North America:

An agent of the importer shall obtain an **Independent Assurance (IND) Grab Sample** from each barge of foreign **Finely Divided Mineral** loaded at the port of entry and destined for Illinois.

The agent shall split each barge **Grab Sample** and mail one portion to the **Bureau**. The other portion shall be mailed to the importer's testing laboratory that is approved by the **Department**. The importer of the **Finely Divided Mineral** shall be responsible for all sampling and mailing costs.

The importer's laboratory shall test its portion of each barge **Grab Sample** for the standard physical requirements of the applicable specifications. One random barge **Grab Sample**, representing the **Finely Divided Mineral** in each hold of the vessel shall be tested for chemical composition.

Upon completion of the tests, the importer shall deliver to the **Bureau** a certification that states the **Finely Divided Mineral** in the vessel unloaded at the port of entry has been tested by the importer, and complies with the applicable specifications. Attached to the certification shall be a test report of all barge samples. The report shall include the name of the vessel, the source of the **Finely Divided Mineral**, the barge number, the hold number, the date the sample was taken, the quantity of **Finely Divided Mineral** in the barge, and the physical and chemical test results obtained on the samples.

The importer shall immediately notify the **Bureau** if a barge sample fails to meet the applicable specification requirements.

The **Bureau** will review the certification and compare the importer's test data to the test data obtained by the **Bureau** on its portion of each split sample.

When the certification and the accompanying test report are examined and determined to be correct, the **Bureau** will notify the importer and the district offices that the **Finely Divided Mineral** is approved for state projects.

Random Investigation (INV) Samples, from one or more barges, may be taken by a **Department** inspector when the barges arrive at the Illinois terminal(s).

The **Department** will reject any foreign **Finely Divided Mineral** tested by the **Bureau**, or the importer, that does not meet the specification requirements. The **Department** may reject any barge of **Finely Divided Mineral** wherein the differences in test values, obtained by the **Department** and the importer on the split sample, exceeds the multilaboratory precision of the test method, but the **Finely Divided Mineral** is within specifications.

Alternative proposals to the sampling and test requirements stated in this section will be considered for **Finely Divided Minerals** which have an acceptable quality history, and which have previously been approved by the **Department**. Requests shall be directed to the **Bureau of Materials and Physical Research** for approval.

6.0 ACCEPTANCE OF FINELY DIVIDED MINERALS

- 6.1 **Finely Divided Minerals** will be accepted according to the **Department's** current "Standard Specifications for Road and Bridge Construction," current special provisions, and this policy memorandum.
- 6.2 The **Bureau** will maintain and circulate a current list of **Approved Sources** of **Finely Divided Minerals** which meet the requirements of this policy memorandum. This list will include the name, location, and Producer/Supplier Number of each approved **Manufacturer** or **Supplier** of **Finely Divided Minerals**. These **Manufacturers** or **Suppliers** may ship **Finely Divided Minerals** for immediate use on **Department** projects.
- 6.3 **Finely Divided Minerals** from **Unapproved Sources** will be approved by the **Bureau** before use on **Department** projects.

7.0 REJECTION OF FINELY DIVIDED MINERALS

- 7.1 A **Finely Divided Mineral** that fails to conform to the requirements of Section 3.0 of this policy memorandum shall be rejected for use on **Department** projects.
- 7.2 The **Bureau** will notify the **Manufacturer** or **Supplier** when a **Finely Divided Mineral** is rejected for use on **Department** projects.

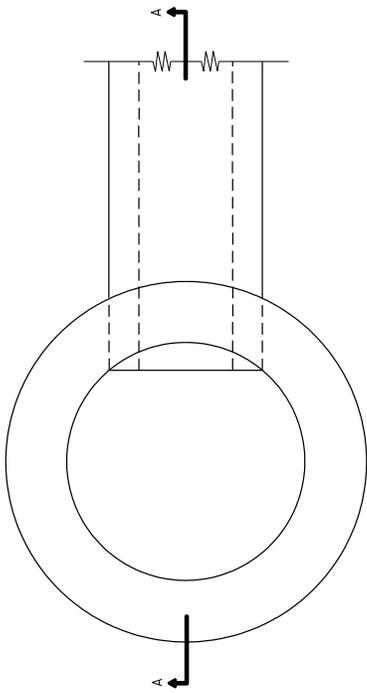


David L. Lippert, P.E.
Acting Engineer of Materials
and Physical Research

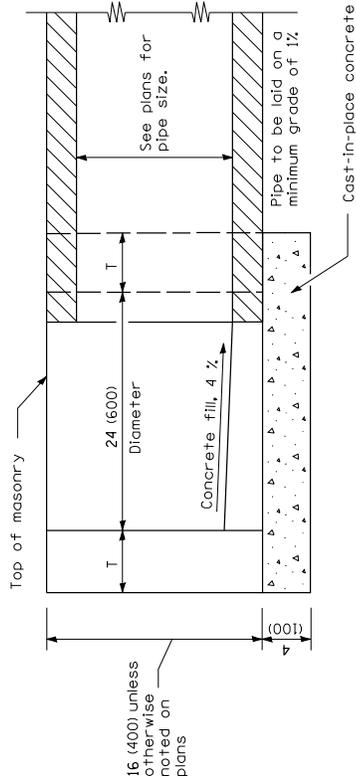
Attachment

This policy memorandum supersedes Policy Memorandum 06-03 dated January 1, 2006.
--

DAD/dt

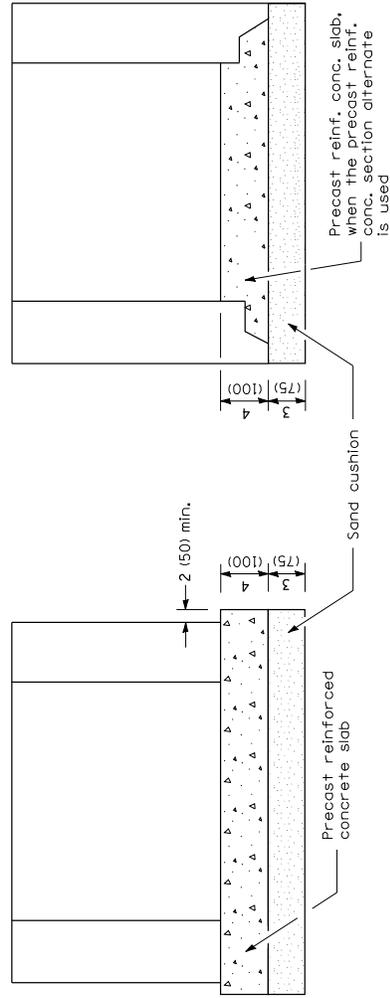


PLAN



SECTION A-A

ALTERNATE MATERIALS FOR WALLS	T
BRICK MASONRY	8 (200)
CAST-IN-PLACE CONCRETE	6 (150)
CONCRETE MASONRY UNIT	5 (125)
PRECAST REINFORCED CONCRETE SECTION	3 (75)



ALTERNATE METHODS

All dimensions are in inches (millimeters) unless otherwise shown.

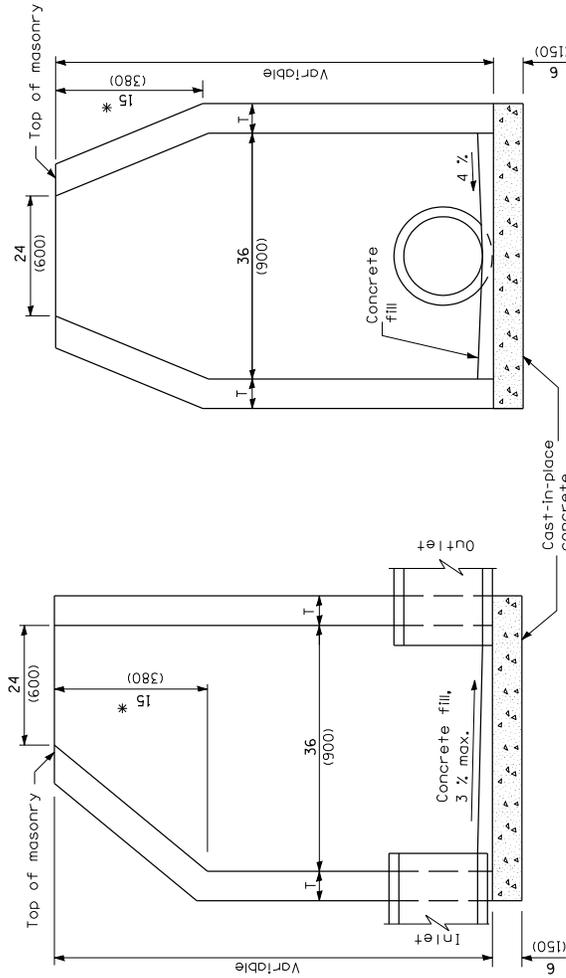
Illinois Department of Transportation	ISSUED 1-1-97
PASSED January 1, 2009	
ENGINEER OF POLICIES AND PROCEDURES	
APPROVED [Signature]	
January 1, 2009	
ENGINEER OF DESIGN AND ENVIRONMENT	

DATE	REVISIONS
1-1-09	Switched units to English (metric).
4-1-06	Added concrete fill in bottom of inlet.

INLET - TYPE A

STANDARD 602301-02

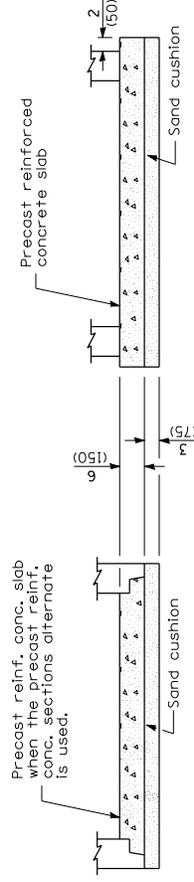
* For precast reinforced concrete sections, this dimension may vary from the dimension given to plus 6 (150).



ELEVATION - CONCENTRIC

ELEVATION - ECCENTRIC

ALTERNATE MATERIALS FOR WALLS	T (min.)
Concrete Masonry Unit	5 (125)
Brick Masonry	8 (200)
Precast Reinforced Concrete Section	3 (75)
Cast-in-Place Concrete	6 (150)



ALTERNATE BOTTOM SLAB

GENERAL NOTES

See Standard 602601 for optional Precast Reinforced Concrete Flat Slab Top.

All dimensions are in inches (millimeters) unless otherwise shown.

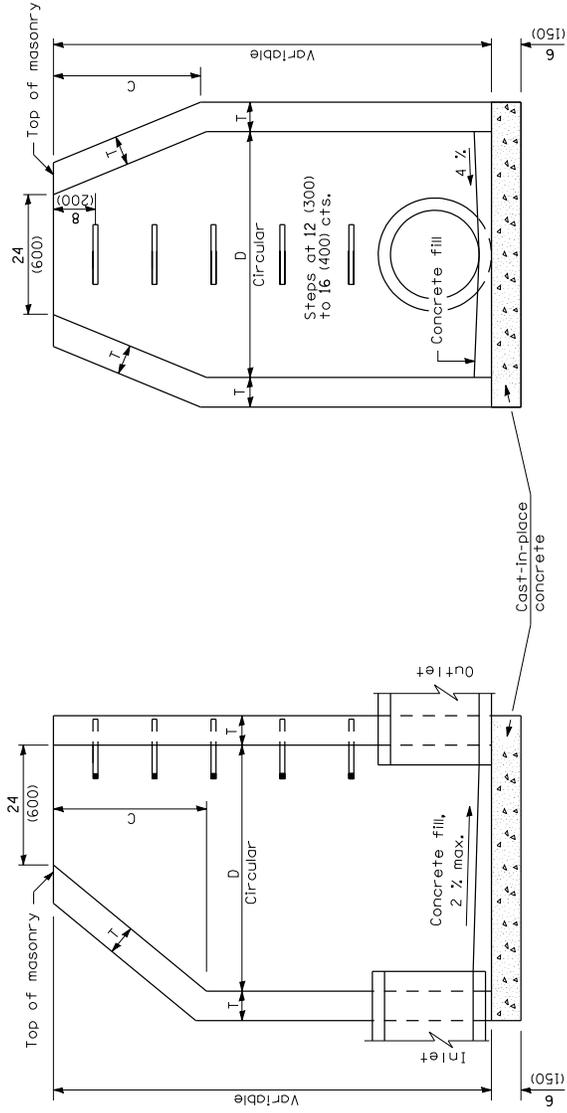
DATE	REVISIONS
1-1-09	Switched units to English (metric).
4-1-06	Revised detail for concrete fill in elevation views.

INLET - TYPE B

STANDARD 602306-02

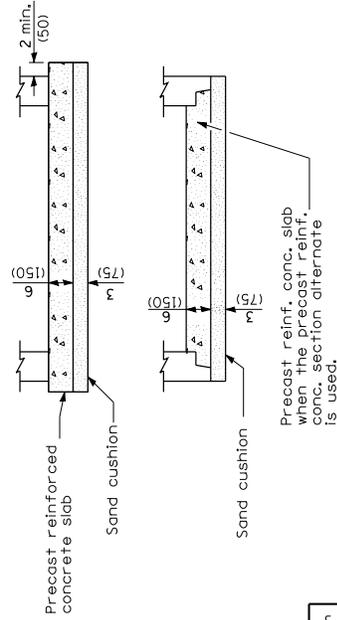
Illinois Department of Transportation
 PASSED January 1, 2009
 ENGINEER OF POLICE AND PROCEDURES
 APPROVED [Signature] February 1, 2009
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97



ELEVATION - CONCENTRIC

ELEVATION - ECCENTRIC



ALTERNATE BOTTOM SLAB

ALTERNATE MATERIALS FOR WALLS	D	C*	T (min.)
Concrete Masonry Unit	4'-0" (1.2 m)	30 (750)	5 (125)
	5'-0" (1.5 m)	3'-9" (1.15 m)	5 (125)
Brick Masonry	4'-0" (1.2 m)	30 (750)	8 (200)
	5'-0" (1.5 m)	3'-9" (1.15 m)	8 (200)
Precast Reinforced Concrete Section	4'-0" (1.2 m)	30 (750)	4 (100)
	5'-0" (1.5 m)	3'-9" (1.15 m)	5 (125)
Cast-in-place Concrete	4'-0" (1.2 m)	30 (750)	6 (150)
	5'-0" (1.5 m)	3'-9" (1.15 m)	6 (150)

* For precast reinforced concrete sections, dimension "C" may vary from the dimension given to plus 6 (150).

GENERAL NOTES

See Standard 602701 for details of steps.
See Standard 602601 for optional Precast Reinforced Concrete Flat Slab Top.

All dimensions are in inches (millimeters) unless otherwise shown.

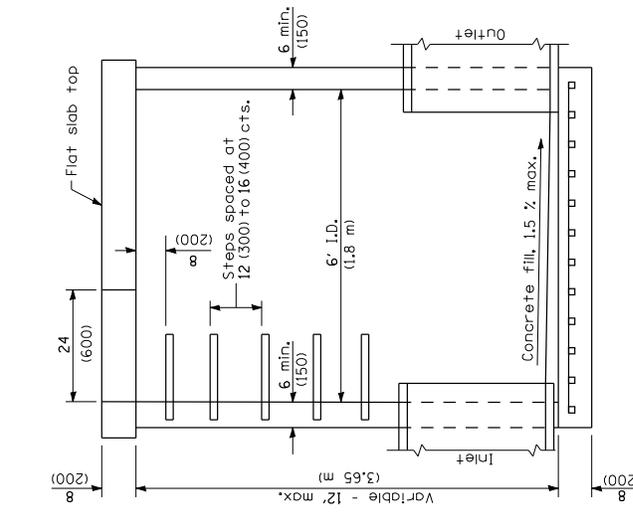
DATE	REVISIONS
1-1-09	Switched units to English (metric).
4-1-06	Revised detail for concrete fill in elevation views.

MANHOLE TYPE A

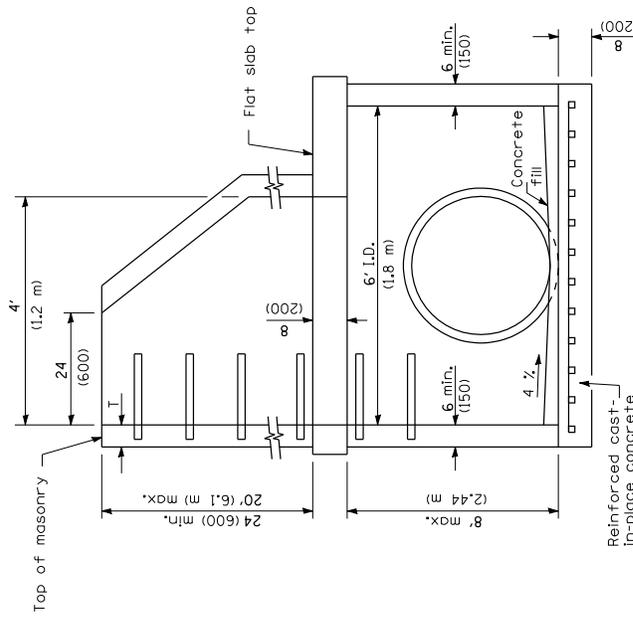
STANDARD 602401-02

Illinois Department of Transportation
 PASSED January 1, 2009
 ENGINEER OF PUBLIC WORKS PROCEDURES
 APPROVED [Signature] July 1, 2009
 ENGINEER OF DESIGN AND ENVIRONMENT

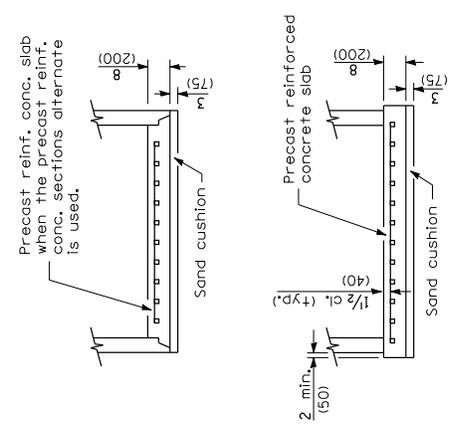
ISSUED 1-1-97



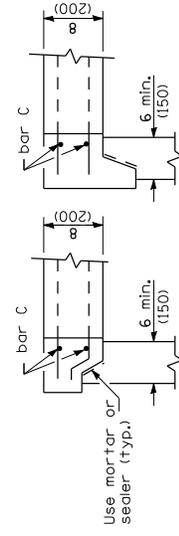
ELEVATION



ELEVATION



ALTERNATE BOTTOM SLABS



ALTERNATE JOINT CONFIGURATIONS

ALTERNATE MATERIALS FOR WALLS	T (min)
Concrete Masonry Units	5 (125)
Precast Reinforced Concrete Sections	4 (100)
Cast-in-Place Concrete	6 (150)

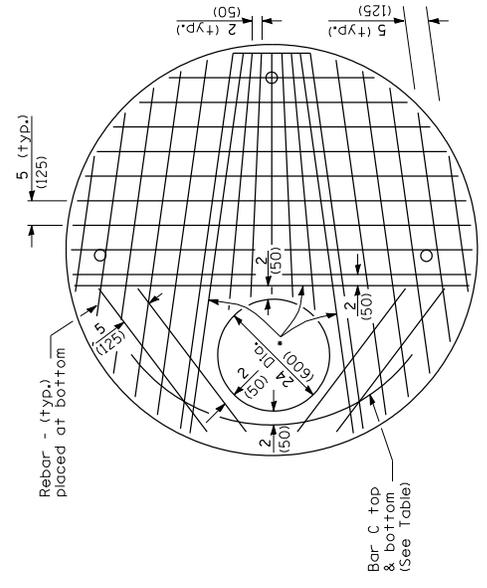
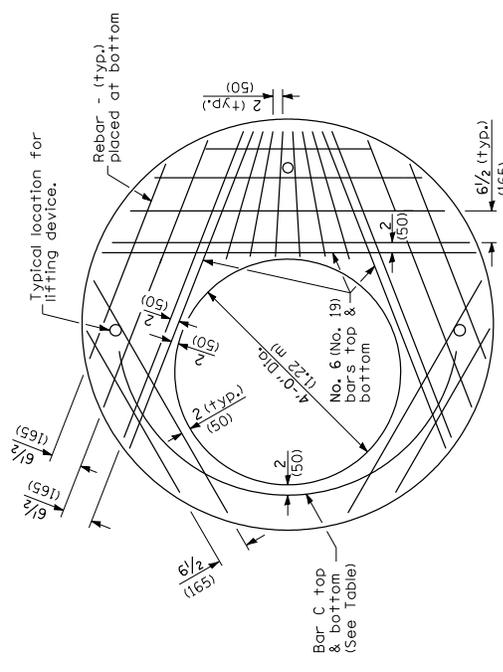
GENERAL NOTES

Joint configuration and dimensions of flat slab top shall match and fit the riser joint detail.
 Lifting devices shall be approved by the Engineer.
 Bottom slabs shall be reinforced with a minimum of 0.46 sq. in./ft. (975 mm²/m) in both directions.
 See Standard 602701 for details of manhole steps.
 All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation
 PASSED January 1, 2009
 ENGINEER OF PUBLIC WORKS PROCEDURES
 APPROVED [Signature] 1/27/09
 ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-09	Switched units to English (metric).
4-1-06	Revised detail for concrete fill in elevation views.

MANHOLE TYPE A
6' (1.8 m) DIAMETER
 (Sheet 1 of 2)
STANDARD 602406-03

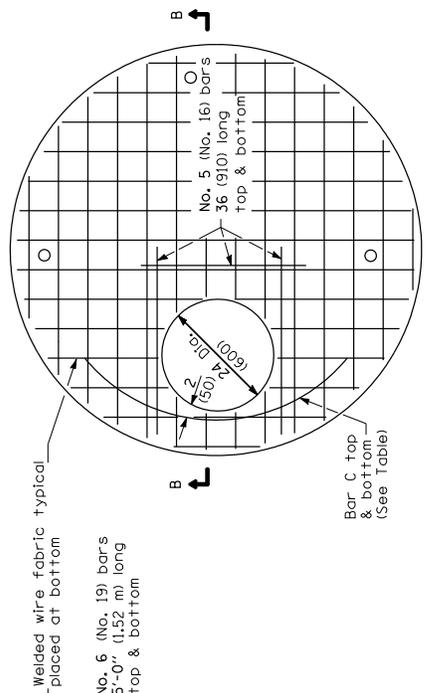
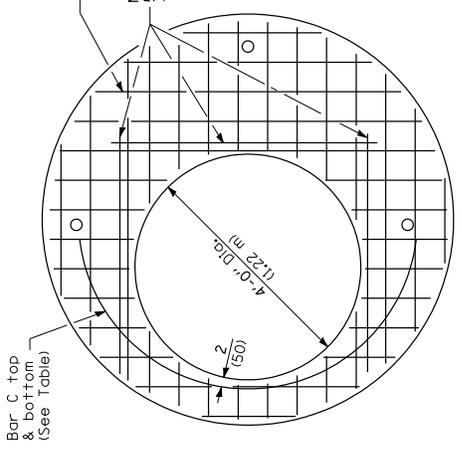


PLAN

Showing Rebar Reinforcement

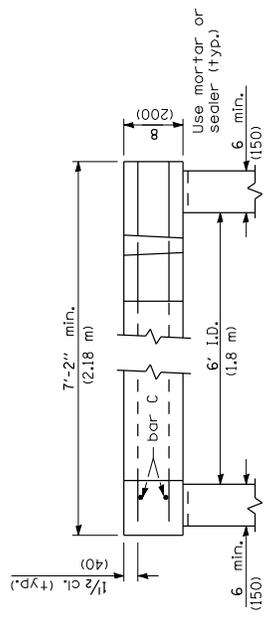
* No. 6 (No. 19) bars top & bottom

Diameter of opening	Thickness	Reinforcement "As" WWF Each direction	Bar Size	No. 4 (No. 13) Bar C	
				Length	Radius
24 (600)	8 (200)	1.06 sq. in./ft. (2244 sq. mm/m)	No. 6 (No. 19)	6'-0" (1.83 m)	38 (965)
4'-0" (1.2 m)	8 (200)	0.82 sq. in./ft. (1736 sq. mm/m)	No. 6 (No. 19)	9'-0" (2.74 m)	38 (965)



PLAN

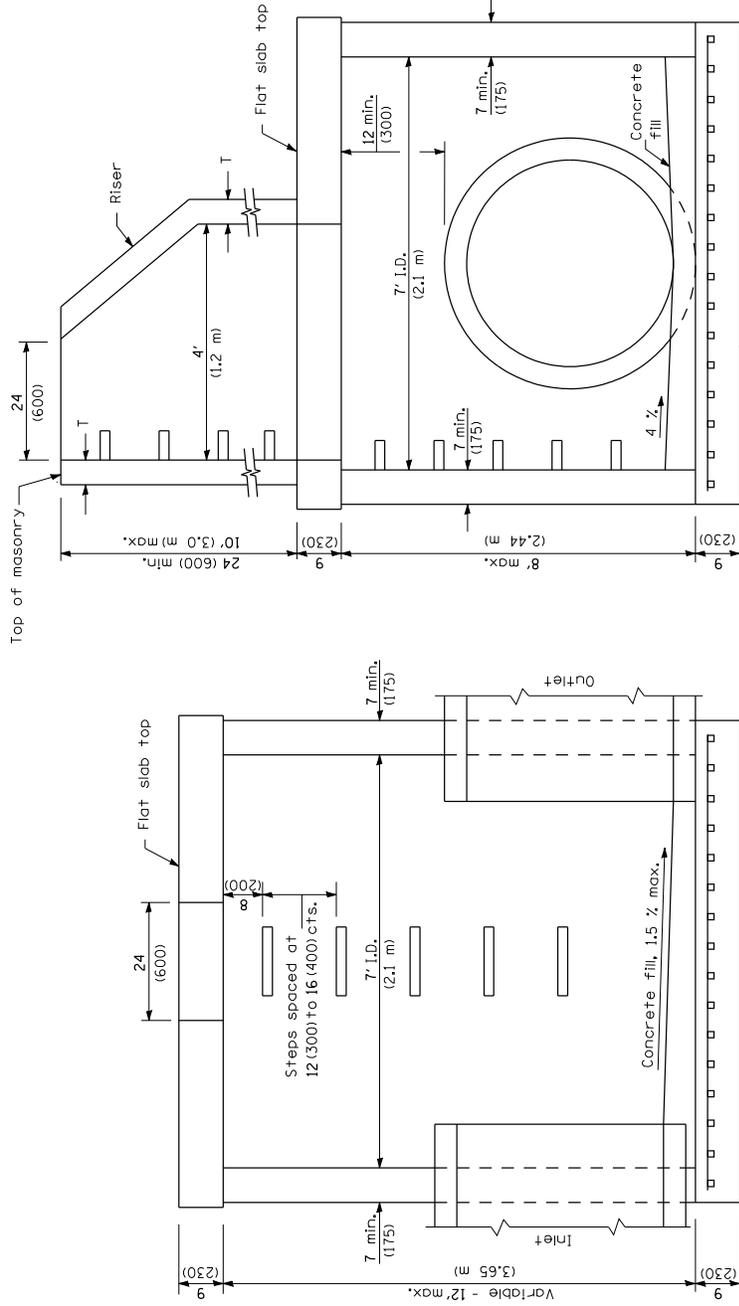
Showing Welded Wire Fabric Reinforcement



SECTION B-B

Illinois Department of Transportation
 PASSED _____ ISSUED 1-1-97
 ENGINEER OF PUBLIC WORKS PROCEDURES
 APPROVED _____ 2009
 ENGINEER OF DESIGN AND ENVIRONMENT

MANHOLE TYPE A
6' (1.8 m) DIAMETER
 (Sheet 2 of 2)
STANDARD 602406-03

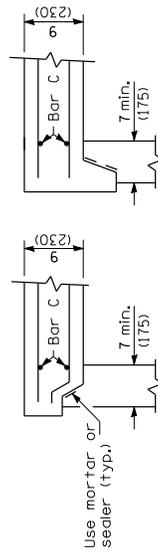


ELEVATION

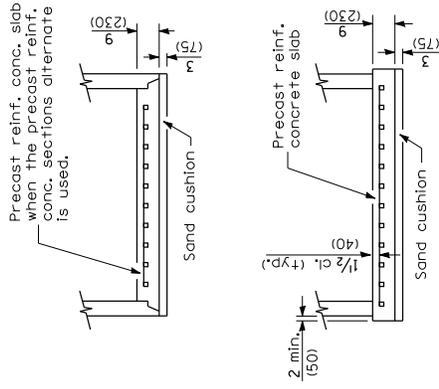
(With Flat Slab Top Only)

ELEVATION

(With Flat Slab Top and Riser)



ALTERNATE MATERIALS FOR RISER WALLS	T (min)
Concrete Masonry Units	5 (125)
Precast Reinforced Concrete Sections	4 (100)
Cast-in-Place Concrete	6 (150)



ALTERNATE BOTTOM SLABS

GENERAL NOTES

Joint configuration and dimensions of flat slab top shall match and fit the riser joint detail.

Lifting devices shall be approved by the Engineer.

Bottom slabs shall be reinforced with a minimum of 0.60 sq. in./ft. (1270 sq. mm/m) in both directions.

See Standard 602701 for details of manhole steps.

All dimensions are in inches (millimeters) unless otherwise shown.

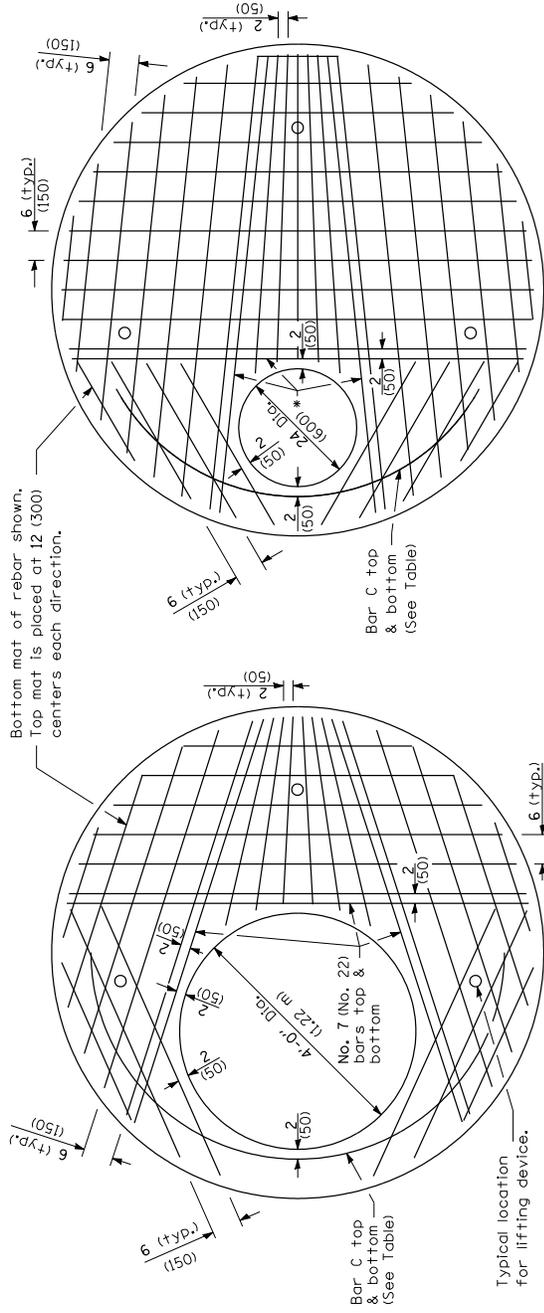
ALTERNATE JOINT CONFIGURATIONS

DATE	REVISIONS
1-1-09	Switched units to English (metric).
4-1-06	New standard.

MANHOLE TYPE A	
7' (2.1 m) DIAMETER	
(Sheet 1 of 2)	
STANDARD 602411-01	

Illinois Department of Transportation
 PASSED January 1, 2009
 ENGINEER OF PUBLIC WORKS PROCEDURES
 APPROVED [Signature] January 1, 2009
 ENGINEER OF DESIGN AND ENVIRONMENT

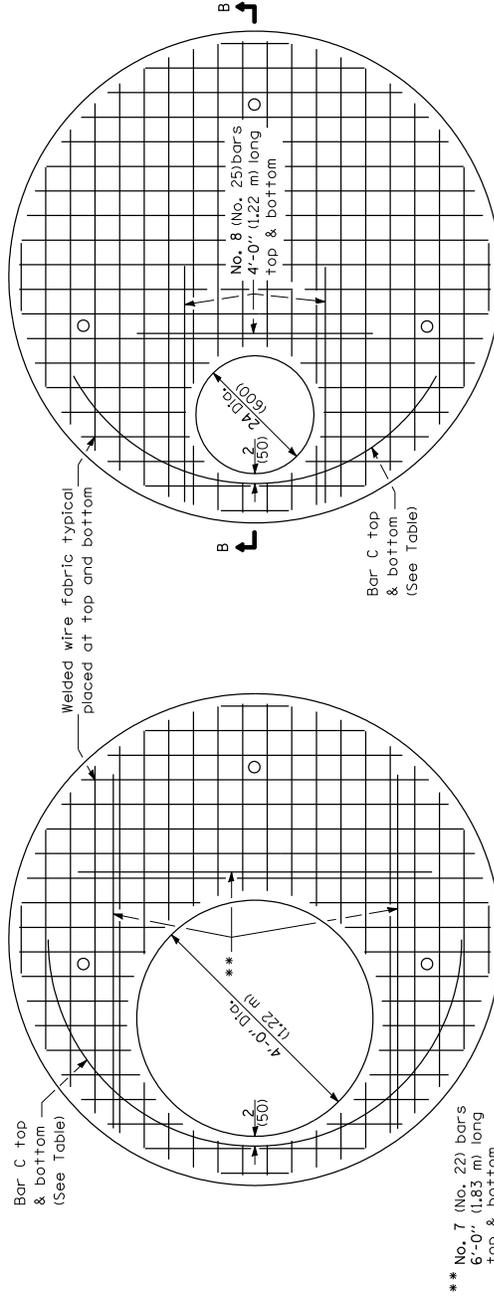
ISSUED 4-1-06



PLAN

Showing Rebar Reinforcement

* No. 8 (No. 25) bars top & bottom



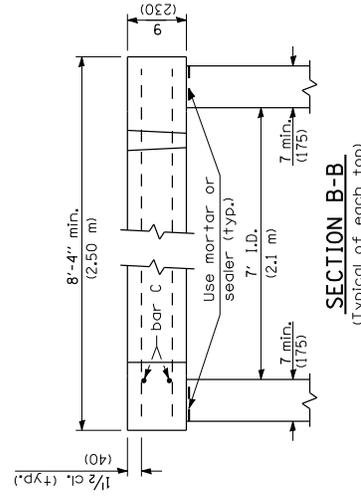
PLAN

Showing Welded Wire Fabric Reinforcement

** No. 7 (No. 22) bars 6'-0" (1.83 m) long top & bottom

Diameter of opening	Reinforcement Bar Size	Reinforcement "As" WWF each direction	No. 4 (No. 13) Bar C	
			Length	Radius
24 (600)	Bottom mat No. 8 (No. 25)	Bottom mat *** 1.57 sq. in./ft. (3325 sq. mm/m)	7'-6" (2.30 m)	3'-6" (1.067 m)
	Top mat No. 4 (No. 13)	Top mat *** 0.20 sq. in./ft. (425 sq. mm/m)		
4'-0" (1.2 m)	Bottom mat No. 7 (No. 22)	Bottom mat *** 1.20 sq. in./ft. (2540 sq. mm/m)	11'-0" (3.35 m)	3'-6" (1.067 m)
	Top mat No. 4 (No. 13)	Top mat *** 0.20 sq. in./ft. (425 sq. mm/m)		

*** A maximum of two layers of welded wire fabric may be used to satisfy the required "As" for each mat.



SECTION B-B

(Typical of each top)

Illinois Department of Transportation
 PASSED January 1, 2009
 ENGINEER OF PUBLIC WORKS PROCEDURES
 APPROVED [Signature] January 1, 2009
 ENGINEER OF DESIGN AND ENVIRONMENT

Showing Welded Wire Fabric Reinforcement

PLAN

* No. 8 (No. 25) bars top & bottom

Showing Rebar Reinforcement

** No. 7 (No. 22) bars 6'-0" (1.83 m) long top & bottom

SECTION B-B

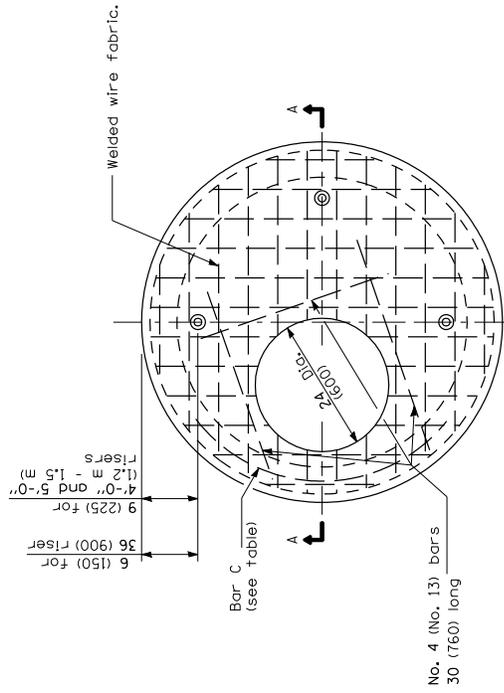
(Typical of each top)

Illinois Department of Transportation

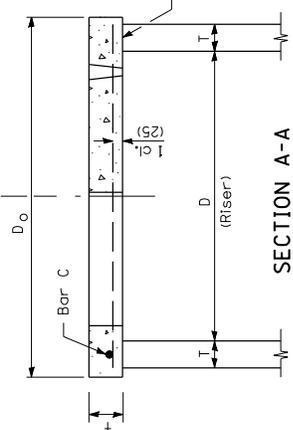
ISSUED 4-1-06

MANHOLE TYPE A
 7' (2.1 m) DIAMETER
 (Sheet 2 of 2)

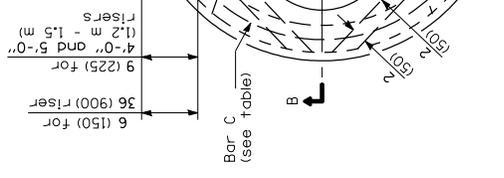
STANDARD 602411-01



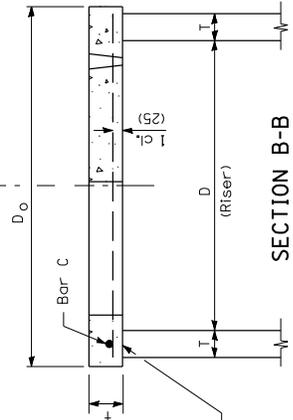
PLAN
(WELDED WIRE FABRIC)



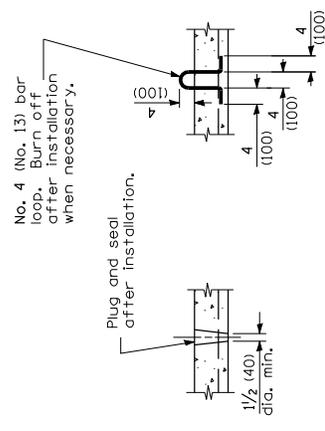
SECTION A-A



PLAN
(REINFORCEMENT BARS)

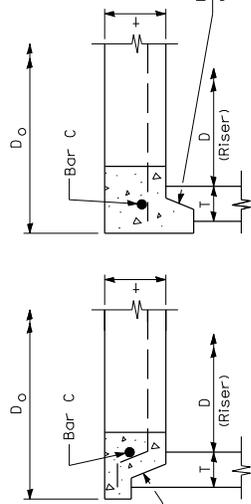


SECTION B-B



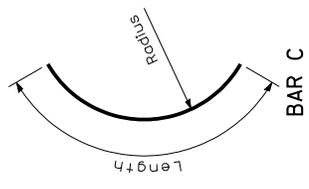
LIFTING HOLE OR LIFTING LOOP
TYPICAL
(3 required per slab)

ALTERNATE JOINT CONFIGURATIONS



TABLE

D	T	D _o (min.)	Reinforcement "A _s " w.w.f. each direction	QR Bar size	No. 4 (No. 13) Bar C Length	Radius
36 (900)	6 (150)	D + 2T	0.20 sq. in./ft. (425 sq. mm/m)	No. 4 (No. 13)	4'-0" (1.2 m)	19 (480)
4'-0" (1.2 m)	6 (150)	D + 2T	0.35 sq. in./ft. (740 sq. mm/m)	No. 5 (No. 16)	4'-6" (1.35 m)	26 (660)
5'-0" (1.5 m)	8 (200)	D + 2T	0.35 sq. in./ft. (740 sq. mm/m)	No. 5 (No. 16)	5'-0" (1.5 m)	32 (810)



BAR C

GENERAL NOTES

The flat slab top may be used in lieu of the tapered tops shown on Standards 602001, 602011, 602016, 602306, 602401, or 602501 at the option of the Contractor or when field conditions prohibit the use of tapered tops.

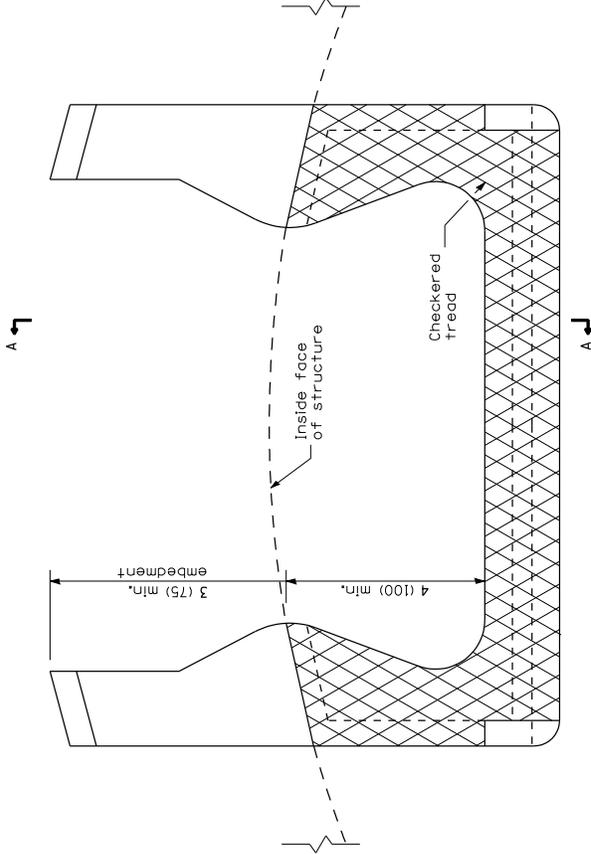
All dimensions are in millimeters (inches) unless otherwise shown.

Illinois Department of Transportation
 PASSED January 1, 2009
 ENGINEER OF PUBLIC WORKS PROCEDURES
 APPROVED [Signature] February 1, 2009
 ENGINEER OF DESIGN AND ENVIRONMENT

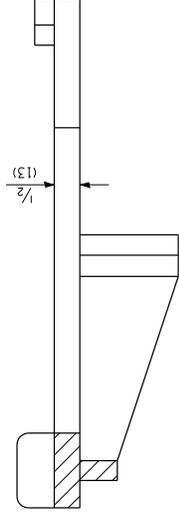
DATE	REVISIONS
1-1-09	Switched units to English (metric).
1-1-07	Soft converted metric reinforcement bars.

PRECAST REINFORCED CONCRETE FLAT SLAB TOP
STANDARD 602601-02

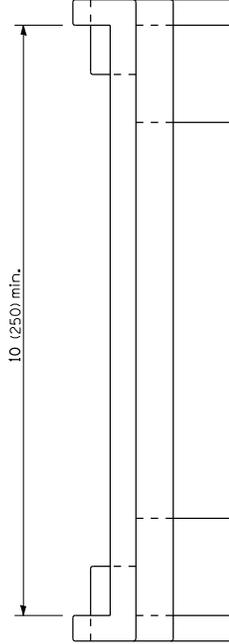
CAST IRON STEPS



PLAN VIEW



SECTION A-A



ELEVATION VIEW

All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-09	Switched units to English (metric).
4-1-06	Revised title, drawings, and added plastic steps on sheet 2.

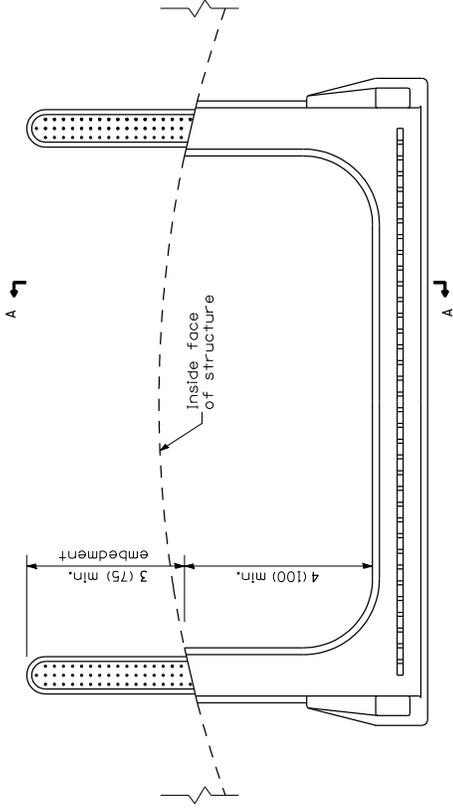
Illinois Department of Transportation PASSED _____ January 1, 2009 ENGINEER OF PUBLIC WORKS PROCEDURES APPROVED _____ January 1, 2009 ENGINEER OF DESIGN AND ENVIRONMENT	ISSUED 1-1-97
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MANHOLE STEPS

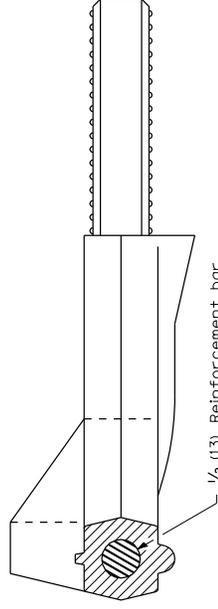
(Sheet 1 of 2)

STANDARD 602701-02

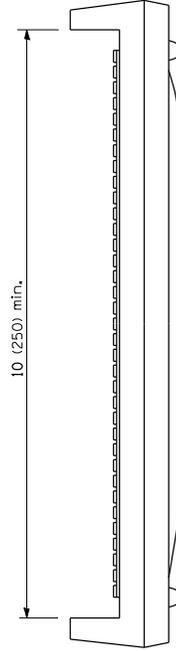
PLASTIC STEPS



PLAN VIEW



SECTION A-A



ELEVATION VIEW

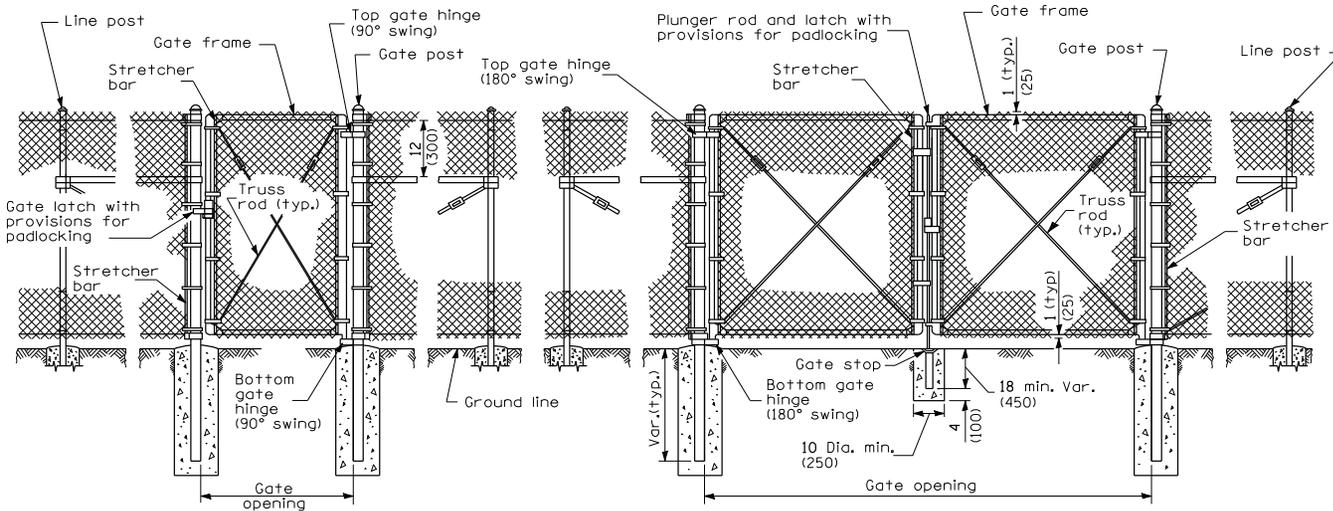
Illinois Department of Transportation
PASSED _____ January 1, 2009
ENGINEER OF PUBLIC WORKS PROCEDURES
APPROVED _____ January 1, 2009
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

MANHOLE STEPS

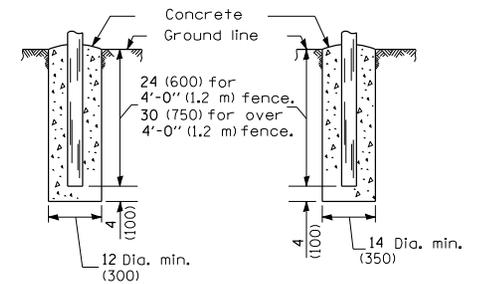
(Sheet 2 of 2)

STANDARD 602701-02



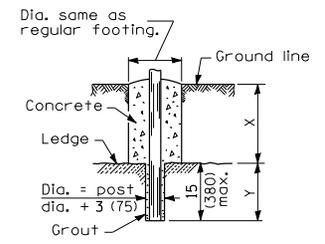
PEDESTRIAN GATE ARRANGEMENT

VEHICLE GATE ARRANGEMENT

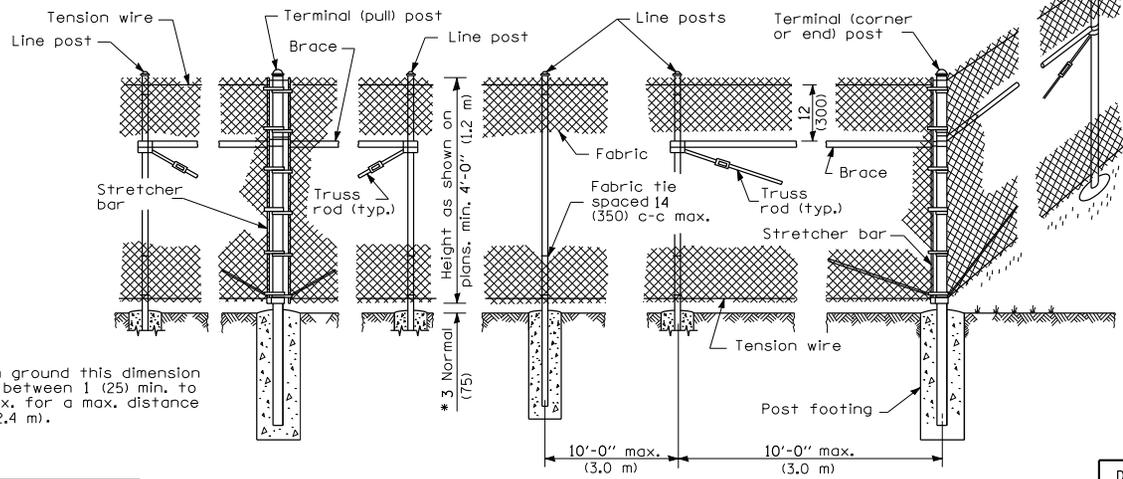


FOOTING FOR LINE POST

FOOTING FOR GATE & TERMINAL POST



FOOTING FOR POST IN ROCK LEDGE



PULL POST ARRANGEMENT

LINE POST ARRANGEMENT

CORNER OR END POST ARRANGEMENT

* On uneven ground this dimension may vary between 1 (25) min. to 5 (125) max. for a max. distance of 8'-0" (2.4 m).

GENERAL NOTES

Pull posts shall be placed at locations determined by the Engineer. They shall be placed at 660' (200 m) intervals between posts to which the ends of the fabric are clamped or midway between such posts when the distance is less than 1320' (400 m) and greater than 660' (200 m).

X + Y shall not exceed 24, 30, or 36 (600, 750, or 900), as applicable. When X is 0 - 9 (0 - 225), 15 (380), or 21 (525), then Y = 15 (375) and the post shall be shortened as required. When X exceeds 9 (225), 15 (380), or 21 (525), then Y shall be decreased correspondingly.

All dimensions are in inches (millimeters) unless otherwise shown.

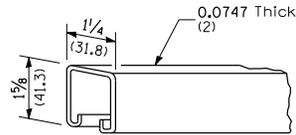
Illinois Department of Transportation
 PASSED January 1, 2009
 ENGINEER OF POLICY AND PROCEDURES
 APPROVED January 1, 2009
 ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-09	Switched units to English (metric).
1-1-99	Rev. "pans" to "plans" in LINE POST ARRANGEMENT.

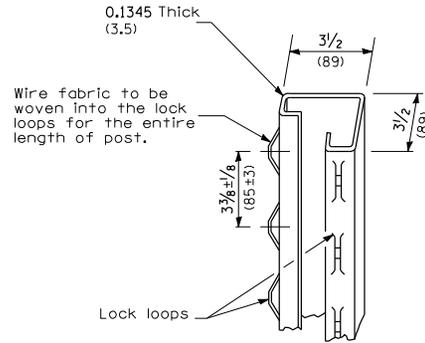
CHAIN LINK FENCE

(Sheet 1 of 3)

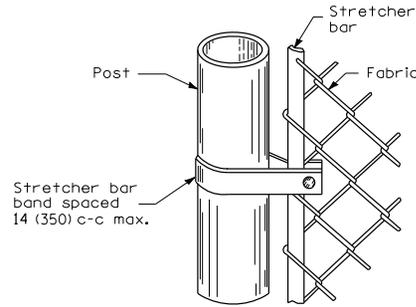
STANDARD 664001-02



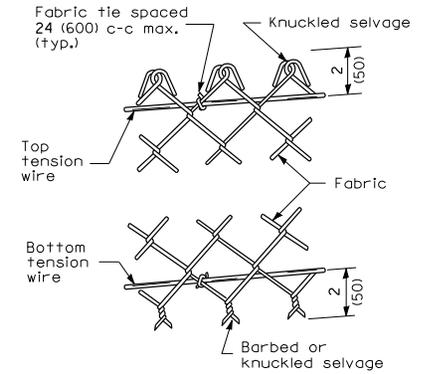
ROLL FORMED SECTION OF BRACE



ROLL FORMED SECTION OF TERMINAL & GATE POST



METHOD OF FASTENING STRETCHER BAR TO POST



METHOD OF TYING FABRIC TO TENSION WIRES

LINE POST	
Section	lbs./ft. (kg/m)
Pipe Type A 1.90 O.D. (48,3)	2.72 (4,05)
Pipe Type B 1.90 O.D. (48,3)	2,28 (3,39)
Pipe Type C 1.90 O.D. (48,3)	2,26 (3,36)
H 1.875x1.625 (47,6x41,3)	2,72 (4,05)
C	1,60 (2,38)
I	2,30 (3,42)

TERMINAL POST	
Section	lbs./ft. (kg/m)
Pipe Type A 2.375 O.D. (60,3)	3,65 (5,43)
Pipe Type B 2.375 O.D. (60,3)	3,11 (4,63)
Pipe Type C 2.375 O.D. (60,3)	3,09 (4,60)
Roll Formed 3 1/2 x 3 1/2 (89,0 x 89,0)	See detail
Sq. Tubing 2 1/2 x 2 1/2 (63,5 x 63,5)	4,32 (6,43)

HORIZONTAL BRACES	
Section	lbs./ft. (kg/m)
Pipe Type A 1.66 O.D. (42,2)	2,27 (3,38)
Pipe Type B 1.66 O.D. (42,2)	1,83 (2,72)
Pipe Type C 1.66 O.D. (42,2)	1,82 (2,71)
H 1.31x1.5 (33,3x38,1)	2,25 (3,35)
Roll Formed 1 5/8 x 1 1/4 (41,3 x 31,8)	See detail

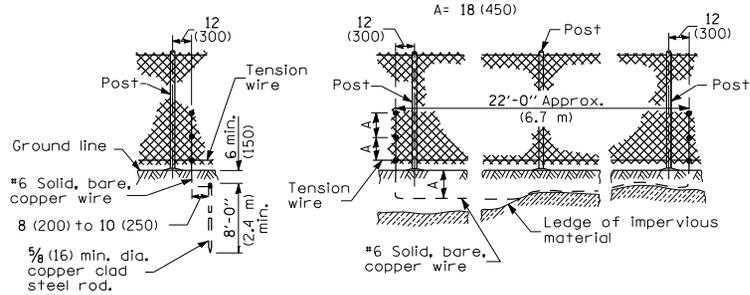
GATE FRAMES	
Section	lbs./ft. (kg/m)
Pipe Type A 1.66 O.D. (42,2)	2,27 (3,38)
Pipe Type B 1.66 O.D. (42,2)	1,83 (2,72)
Pipe Type C 1.66 O.D. (42,2)	1,82 (2,71)

GATE POSTS *							
Gate Opening	ft. (m)	Pipe Type A		Sq. Tubing		Pipe Type B	
		Size (O.D.)	lbs./ft. (kg/m)	Size	lbs./ft. (kg/m)	Size (O.D.)	kg/m (lbs./ft.)
Up to 4 (1,2)	Up to 8 (2,5)	2,375 (60,3)	3,65 (5,43)	2 1/2 (63,5)	4,32 (6,43)	2,375 (60,3)	3,11 (4,63)
Over 4 to 8 (1,2) (2,5)	Over 8 to 16 (2,5) (5,0)	2,875 (73,0)	5,79 (8,62)	3 (76,2)	5,78 (8,60)	2,875 (73,0)	4,64 (6,91)
Over 8 to 12 (2,5) (3,6)	Over 16 to 24 (5,0) (7,4)	3,5 (89,0)	7,58 (11,28)	3 (76,2)	8,80 (13,10)	3,5 (89)	5,707 (8,49)

* The 3 1/2 x 3 1/2 (89,0 x 89,0) roll formed section as detailed may be used as gate posts for single gate up to 6' (1,8 m) and double gate up to 12' (3,6 m).

Illinois Department of Transportation
 PASSED January 1, 2009
 ENGINEER OF POLICY AND PROCEDURES
 APPROVED January 1, 2009
 ENGINEER OF DESIGN AND ENVIRONMENT

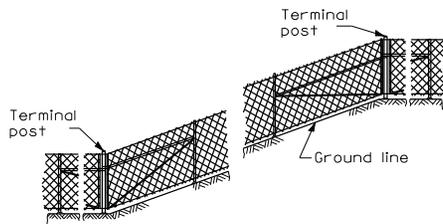
CHAIN LINK FENCE
 (Sheet 2 of 3)
STANDARD 664001-02



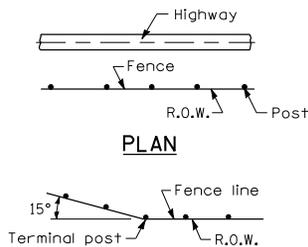
STANDARD GROUND

COUNTERPOISE GROUND (ALTERNATE)

PROTECTIVE ELECTRICAL GROUNDS



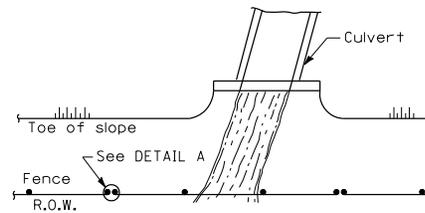
INSTALLATION ON SLOPES



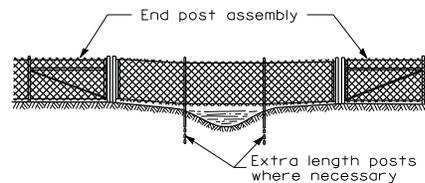
When fence line has a change in direction of 15° or more, a terminal post shall be placed as shown above.

Where angle is less than 15° and existing conditions require a terminal post, they shall be placed as directed by the Engineer.

INSTALLATION AT CORNERS

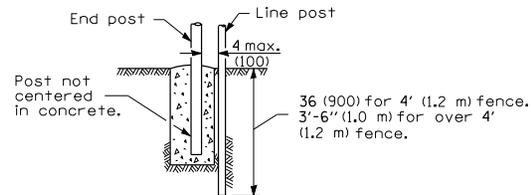


PLAN AT STREAM CROSSING

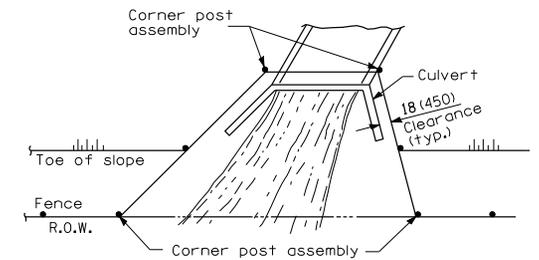


ELEVATION INSTALLATION OVER STREAM

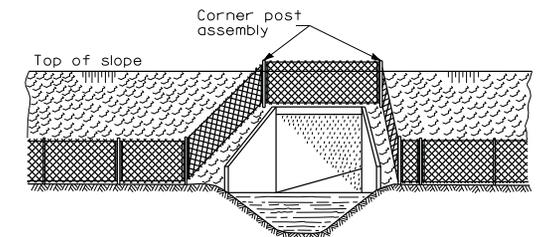
The chain link fabric shall be replaced by barbed wire strands at 12 (300) maximum centers between the double posts shown on DETAIL A when shown on the plans.



DETAIL A



PLAN AT HEADWALL



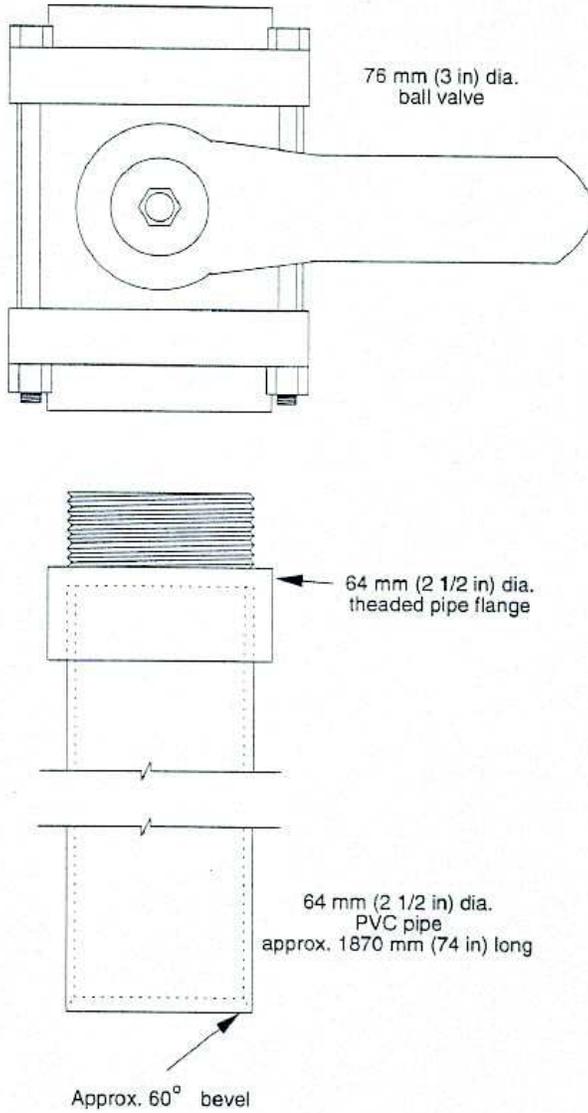
ELEVATION INSTALLATION AROUND HEADWALL

When the width of the culvert makes it necessary to anchor a post to the top of the culvert, a cast iron shoe or other device approved by the Engineer shall be used.

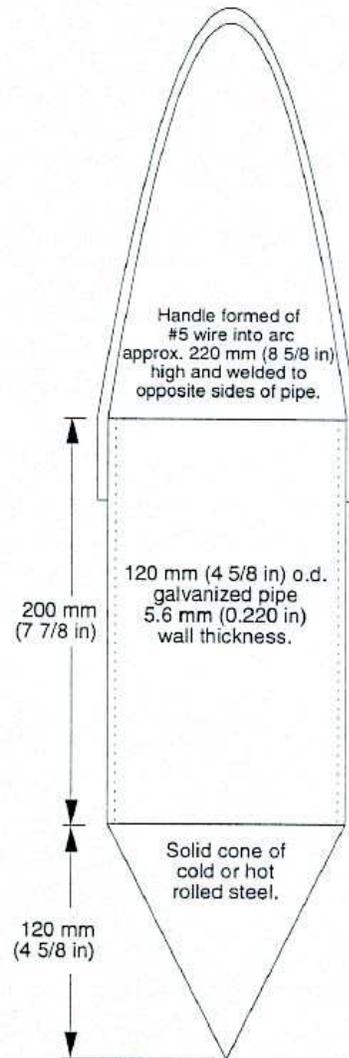
Illinois Department of Transportation	
PASSED January 1, 2009 ENGINEER OF POLICY AND PROCEDURES	16-1-1 (02/05)
APPROVED January 1, 2009 ENGINEER OF DESIGN AND ENVIRONMENT	

CHAIN LINK FENCE
(Sheet 3 of 3)
STANDARD 664001-02

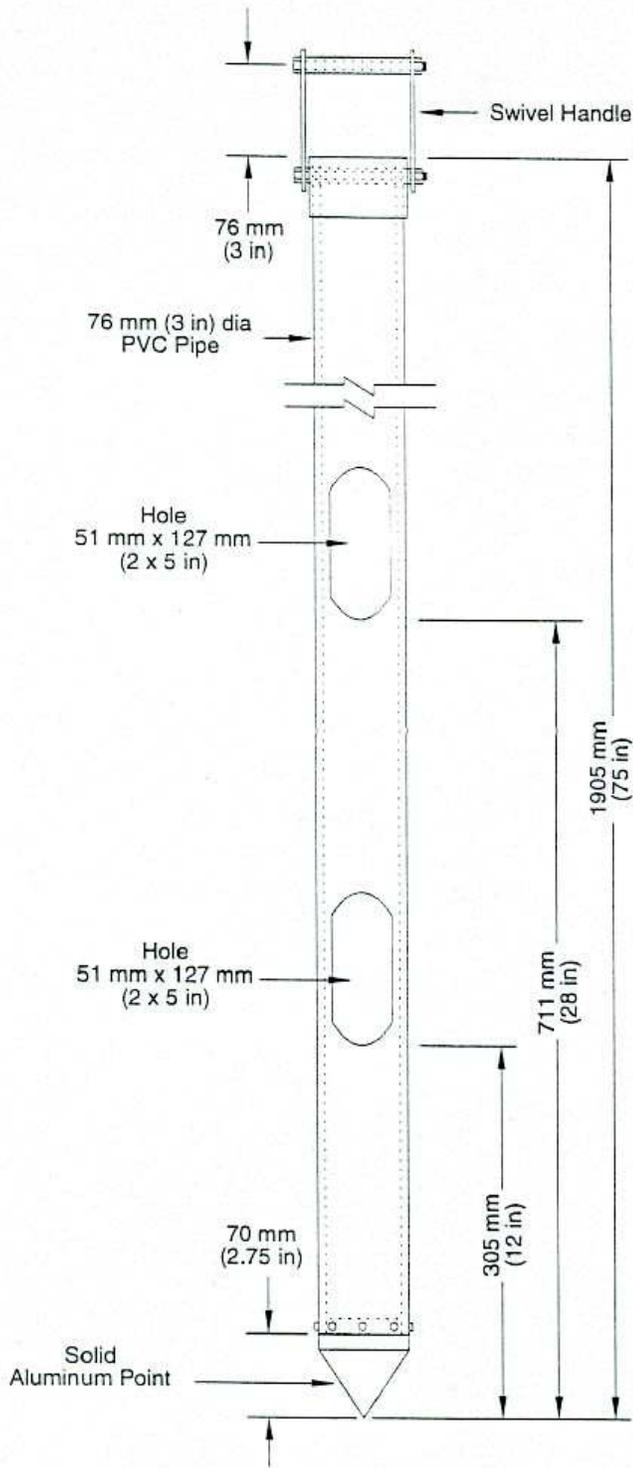
Vacuum Type Bulk Cement Sampler



Drop Type Bulk Cement Sampler



Note:
Total mass weight of sampler not less than 6 kg (13 lb)



Tube Type Bulk Cement Sampler