# If you plan to submit a bid directly to the Department of Transportation

# PREQUALIFICATION

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

## **REQUESTS FOR AUTHORIZATION TO BID**

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

## 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.

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID? When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status" (BDE 124INT) 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 **Proposal Denial and/or Authorization Form**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Proposal Denial and/or Authorization Form** will indicate the reason for denial.

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

**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 bidder check IDOT's website <a href="http://www.dot.il.gov/desenv/delett.html">http://www.dot.il.gov/desenv/delett.html</a> before submitting final bid information.

# IDOT is not responsible for any e-mail related failures.

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

Technical Questions about downloading these files may be directed to Tim Garman (217)524-1642 or garmantr@dot.il.gov.

**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
Mailing of plans and proposals	(217)782-7806
Electronic plans and proposals	(217)524-1642

# ADDENDUMS AND REVISIONS TO THE PROPOSAL FORMS

Planholders should verify that they have received and incorporated the addendum and/or revision prior to submitting their bid. Failure by the bidder to include an addendum could result in a bid being rejected as irregular.

Proposal Submitted By

115

Name

Address

City

# Letting January 18, 2008

# 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)

# Notice To Bidders, Specifications, Proposal, Contract and Contract Bond



Springfield, Illinois 62764

Contract No. 72659 SANGAMON County Section D6 INTERSTATE RS,BR,M CAB 2008 Route FAI 55,FAI 72,FAP 666 Project ACIM-ACHSIP-000S(554) District 6 Construction Funds

PLEASE MARK THE APPROPRIATE BOX BELOW:

A Bid Bond is included.

A Cashier's Check or a Certified Check is included

Prepared by

Checked by (Printed by authority of the State of Illinois)

F

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

# 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.

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 <u>must complete and submit</u> 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 "Request for Proposal Forms and Plans" 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 **Proposal Denial and/or Authorization Form**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Proposal Denial and/or Authorization Form**, 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
Mailing of CD-ROMS	217/782-7806



# PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of \_\_\_\_\_\_

Taxpayer Identification Number (Mandatory)

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

Contract No. 72659 SANGAMON County Section D6 INTERSTATE RS,BR,M CAB 2008 Project ACIM-ACHSIP-000S(554) Route FAI 55,FAI 72,FAP 666 District 6 Construction Funds

6.46 miles of milling, HMA surface, pavement marking and other work on I-55 from Southwind Road to Clearlake Avenue, I-72 from west of Second Street to I-55 and I-55 Business Route from I-55 to south of Hazel Dell Road in Springfield.

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

BD 353A (Rev. 12/2005)

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

			Proposal				Proposal
<u> </u>	Amount o	of Bid	<u>Guaranty</u>	<u>Arr</u>	nount c	of Bid	<u>Guaranty</u>
Up to		\$5,000	\$150	\$2,000,000	to	\$3,000,000	\$100,000
\$5,000	to	\$10,000	\$300	\$3,000,000	to	\$5,000,000	\$150,000
\$10,000	to	\$50,000	\$1,000	\$5,000,000	to	\$7,500,000	\$250,000
\$50,000	to	\$100,000	\$3,000	\$7,500,000	to	\$10,000,000	\$400,000
\$100,000	to	\$150,000	\$5,000	\$10,000,000	to	\$15,000,000	\$500,000
\$150,000	to	\$250,000	\$7,500	\$15,000,000	to	\$20,000,000	\$600,000
\$250,000	to	\$500,000	\$12,500	\$20,000,000	to	\$25,000,000	\$700,000
\$500,000	to	\$1,000,000	\$25,000	\$25,000,000	to	\$30,000,000	\$800,000
\$1,000,000	to	\$1,500,000	\$50,000	\$30,000,000	to	\$35,000,000	\$900,000
\$1,500,000	to	\$2,000,000	\$75,000	over		\$35,000,000	\$1,000,000

Bank cashier's checks or properly certified checks accompanying proposals shall be made payable to the Treasurer, State of Illinois, when the state is awarding authority; the county treasurer, when a county is the awarding authority; or the city, village, or town treasurer, when a city, village, or town is the awarding authority.

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

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

#### Attach Cashier's Check or Certified Check Here

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

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

BD 354 (Rev. 11/2001)

6. 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 in the specifications.

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

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

#### **Schedule of Combination Bids**

Combination		Combination	Combination Bid				
No.	Sections Included in Combination	Dollars	Cents				

- 7. SCHEDULE OF PRICES. The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices 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.
- 8. **CERTIFICATE OF AUTHORITY.** The undersigned bidder, if a business organized under the laws of another State, assures the Department that it will furnish a copy of its certificate of authority to do business in the State of Illinois with the return of the executed contract and bond. Failure to furnish the certificate within the time provided for execution of an awarded contract may be cause for cancellation of the award and forfeiture of the proposal guaranty to the State.

C-96-503-05 State Job # -PPS NBR -6-74640-0000 SANGAMON- -County Name -Code -167 - -District -6 - -

**Project Number** ACIM-ACHSIP-000S/554/

FAI 55 FAI 72 FAP 666

Route

Section Number -D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0300780	PIEZO ELE SEN CBL CON	FOOT	596.000				
X0320157	CLEAN UNDERDR OUTLET	EACH	474.000				
X0320887	POLYMER CONCRETE	CU FT	7.500				
X0321744	SILICONE JT SEAL 2	FOOT	105.000				
X0322011	LT POLE REM/RE-ERECT	EACH	17.000				
X0322066	PROTECT SHIELD PERM	SQ YD	178.000				
X0322279	OUTLET MARKER	EACH	474.000				
X0322729	MATL TRANSFER DEVICE	TON	69,508.000				
X0323014	EC C CONOGA 30003	FOOT	1,042.000				
X0323015	PIEZO E AXL SEN CL 2	FOOT	28.000				
X0323016	ECBLC 14-7 XHHWXLP600	FOOT	44.000				
X0323077		FOOT	106.000				
X0323857	EX LT POLE FDN ADJUST	EACH	17.000				
X0324952		L SUM	1.000				
X0325231		EACH	565.000				

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 State Job # C-96-503-05

 PPS NBR 6-74640-0000

 County Name SANGAMON- 

 Code 167 - 

 District 6 - 

Project Number ACIM-ACHSIP-000S/554/

Route FAI 55 FAI 72 FAP 666

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0325589	HT CBL MEDIAN BARRIER	FOOT	22,305.000				
X0325590	HT CBL MED BAR TERM	EACH	8.000				
X0325606	HT CBL MED BAR DEMO	EACH	2.000				
X0325893	CLEAN EX END SECTION	EACH	1.000				
X0325894	PIEZO ELE SEN CBL PVT	FOOT	26.000				
X0358300	REM & RELAY END SECT	EACH	2.000				
X0976500	END SECTIONS REMOVED	EACH	5.000				
X2503000	MAINTENANCE MOWING	ACRE	184.000				
X6013820	P UNDR OUTLET EXT SPL	EACH	47.000				
X7240205	REMOV SIGN COMPLETE	EACH	63.000				
X7800620	URETH PAVT MK LINE 5	FOOT	239,497.000				
X7800630	URETH PAVT MK LINE 6	FOOT	922.000				
Z0010615	CLEAN EX INLETS	EACH	4.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0014800	CULVERT TO BE CLEANED	FOOT	446.000				

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 State Job # C-96-503-05

 PPS NBR 6-74640-0000

 County Name SANGAMON- 

 Code 167 - 

 District 6 - 

Project Number ACIM-ACHSIP-000S/554/

Route FAI 55 FAI 72 FAP 666

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
Z0016001	DECK SLAB REP (FD-T1)	SQ YD	26.000				
Z0016002	DECK SLAB REP (FD-T2)	SQ YD	13.000				
Z0016200	DECK SLAB REP (PART)	SQ YD	111.000				
Z0017100	DOWEL BARS	EACH	5,906.000				
Z0030260	IMP ATTN TEMP FRN TL3	EACH	6.000				
Z0030330	IMP ATTN REL FRD TL3	EACH	4.000				
Z0075300	TIE BARS	EACH	627.000				
20100110	TREE REMOV 6-15	UNIT	56.000				
20100210	TREE REMOV OVER 15	UNIT	24.000				
20100500	TREE REMOV ACRES	ACRE	19.500				
20200100	EARTH EXCAVATION	CU YD	175.000				
20200600	EXC & GR EX SHOULDER	UNIT	228.000				
20400800	FURNISHED EXCAV	CU YD	5,740.000				
21400100	GRADING & SHAP DITCH	FOOT	5,092.000				
25000200	SEEDING CL 2	ACRE	30.000				

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 County Name SANGAMON- 

 Code 167 - 

 District 6 - 

Project Number ACIM-ACHSIP-000S/554/

Route FAI 55 FAI 72 FAP 666

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
25000400	NITROGEN FERT NUTR	POUND	2,670.000				
25000500	PHOSPHORUS FERT NUTR	POUND	2,670.000				
25000600	POTASSIUM FERT NUTR	POUND	2,670.000				
25000700	AGR GROUND LIMESTONE	TON	59.400				
25100115	MULCH METHOD 2	ACRE	23.000				
25100630	EROSION CONTR BLANKET	SQ YD	32,606.000				
28000250	TEMP EROS CONTR SEED	POUND	5,930.000				
28000300	TEMP DITCH CHECKS	EACH	22.000				
28000500	INLET & PIPE PROTECT	EACH	30.000				
28100107	STONE RIPRAP CL A4	SQ YD	1,397.000				
28100109	STONE RIPRAP CL A5	SQ YD	33.000				
28200200	FILTER FABRIC	SQ YD	1,430.000				
35100100	AGG BASE CSE A	TON	52.000				
35501316	HMA BASE CSE 8	SQ YD	1,143.000				
35600724	HMA BC WID 12	SQ YD	3,410.000				

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 PPS NBR 6-74640-0000

 County Name SANGAMON- 

 Code 167 - 

 District 6 - 

Project Number ACIM-ACHSIP-000S/554/

Route FAI 55 FAI 72 FAP 666

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
40600200	BIT MATLS PR CT	TON	193.000				
40600300	AGG PR CT	TON	1,013.000				
40600895	CONSTRUC TEST STRIP	EACH	3.000				
40600990	TEMPORARY RAMP	SQ YD	2,054.000				
40603245	P HMA BC IL19.0 N105	TON	41,051.000				
40603305	HMA SC "C" N30	TON	19,197.000				
40603335	HMA SC "D" N50	TON	42.000				
40603575	P HMA SC "E" N105	TON	28,543.000				
44000152	HMA SURF REM 3/4	SQ YD	17,531.000				
44000155	HMA SURF REM 1 1/2	SQ YD	25,683.000				
44000157	HMA SURF REM 2	SQ YD	135,403.000				
44000159	HMA SURF REM 2 1/2	SQ YD	25,302.000				
44000162	HMA SURF REM 3 1/4	SQ YD	42,640.000				
44000164	HMA SURF REM 3 3/4	SQ YD	257,758.000				
44000169	HMA SURF REM 5	SQ YD	1,224.000				

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 PPS NBR 6-74640-0000

 County Name SANGAMON- 

 Code 167 - 

 District 6 - 

Project Number ACIM-ACHSIP-000S/554/

Route FAI 55 FAI 72 FAP 666

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
44000915	HMA SURFACE RM (DECK)	SQ YD	1,467.000				
44004250	PAVED SHLD REMOVAL	SQ YD	3,181.000				
44200156	PAVT PATCH T2 13	SQ YD	60.000				
44200162	PAVT PATCH T4 13	SQ YD	133.000				
44200565	CL A PATCH T2 11	SQ YD	24.000				
44200630	CL A PATCH T2 15	SQ YD	40.000				
44200978	CL B PATCH T1 11	SQ YD	14.000				
44200982	CL B PATCH T2 11	SQ YD	32.000				
44200988	CL B PATCH T4 11	SQ YD	89.000				
44201003	CL B PATCH T1 13	SQ YD	98.000				
44201007	CL B PATCH T2 13	SQ YD	555.000				
44201011	CL B PATCH T3 13	SQ YD	149.000				
44201013	CL B PATCH T4 13	SQ YD	137.000				
44201027	CL B PATCH T1 15	SQ YD	19.000				
44201031	CL B PATCH T2 15	SQ YD	129.000				

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 PPS NBR 6-74640-0000

 County Name SANGAMON- 

 Code 167 - 

 District 6 - 

Project Number ACIM-ACHSIP-000S/554/

Route FAI 55 FAI 72 FAP 666

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
44201035	CL B PATCH T3 15	SQ YD	23.000				
44201037	CL B PATCH T4 15	SQ YD	30.000				
44201043	CL B PATCH T2 16	SQ YD	1,124.000				
44201047	CL B PATCH T3 16	SQ YD	700.000				
44201048	CL B PATCH T4 16	SQ YD	315.000				
44201063	CL B PATCH T2 18	SQ YD	120.000				
44201067	CL B PATCH T3 18	SQ YD	48.000				
44201839	CL D PATCH T2 16	SQ YD	24.000				
44213000	PATCH REINFORCEMENT	SQ YD	64.000				
44213100	PAVEMENT FABRIC	SQ YD	1,491.000				
44213200	SAW CUTS	FOOT	16,564.000				
48101200	AGGREGATE SHLDS B	TON	5,182.000				
48203013	HMA SHOULDERS 4	SQ YD	15,197.000				
50102400	CONC REM	CU YD	81.100				
50105220	PIPE CULVERT REMOV	FOOT	144.000				

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 State Job # C-96-503-05

 PPS NBR 6-74640-0000

 County Name SANGAMON- 

 Code 167 - 

 District 6 - 

Project Number ACIM-ACHSIP-000S/554/ 72033

Route	
FAI 55	
FAI 72	
FAP 666	

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
50157300	PROTECTIVE SHIELD	SQ YD	1,066.000				
50300100	FLOOR DRAINS	EACH	6.000				
50300255	CONC SUP-STR	CU YD	98.200				
50300260	BR DECK GROOVING	SQ YD	37.000				
50300300	PROTECTIVE COAT	SQ YD	279.000				
50500505	STUD SHEAR CONNECTORS	EACH	243.000				
50800105	REINFORCEMENT BARS	POUND	410.000				
50800205	REINF BARS, EPOXY CTD	POUND	22,120.000				
50800515	BAR SPLICERS	EACH	39.000				
54003000	CONC BOX CUL	CU YD	2.400				
542D0217	P CUL CL D 1 12	FOOT	52.000				
542D0229	P CUL CL D 1 24	FOOT	65.000				
54200439	P CUL 1 RCCP 24	FOOT	116.000				
54200445	P CUL 1 RCCP 30	FOOT	72.000				
54200451	P CUL 1 RCCP 36	FOOT	8.000				

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 State Job # C-96-503-05

 PPS NBR 6-74640-0000

 County Name SANGAMON- 

 Code 167 - 

 District 6 - 

Project Number ACIM-ACHSIP-000S/554/

FAI 55 FAI 72 FAP 666

Route

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
54213675	PRC FLAR END SEC 30	EACH	5.000				
54213681	PRC FLAR END SEC 36	EACH	2.000				
54213687	PRC FLAR END SEC 42	EACH	1.000				
54214515	PRC FL END S EQ RS 30	EACH	1.000				
54214749	PRCF END S EL EQRS 54	EACH	1.000				
54244405	FL INLT BX MED 542546	EACH	1.000				
54246205	INLET BOX 542526	EACH	1.000				
54247150	GRATING-C FL END S 30	EACH	5.000				
54247170	GRATING-C FL END S 36	EACH	2.000				
54247180	GRATING-C FL END S 42	EACH	1.000				
54248190	GRT-C FL END S EQV 54	EACH	1.000				
54248510		CU YD	3.300				
55034500	SS 1 RCEP S38 R24	FOOT	1,192.000				
58100200		SQ YD	1,527.000				*
	MAN TA 4 DIA T8G	EACH	2.000			1	

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 State Job # C-96-503-05

 PPS NBR 6-74640-0000
 Project

 County Name SANGAMON- ACI

 Code 167 - Component

 District 6 - Component

Project Number ACIM-ACHSIP-000S/554/ <u>Route</u> FAI 55 FAI 72

FAP 666

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
60225100	RD MAN 4 DIA T8G	EACH	5.000				
60226290	RD MAN 9 DIA T1F CL	EACH	1.000				
60260100	INLETS ADJUST	EACH	1.000				
60300105	FR & GRATES ADJUST	EACH	2.000				
60300305	FR & LIDS ADJUST	EACH	4.000				
60406610	GRATING SP	EACH	1.000				
60500060	REMOV INLETS	EACH	1.000				
6300000	SPBGR TY A	FOOT	5,262.500				
63100045	TRAF BAR TERM T2	EACH	9.000				
63100070	TRAF BAR TERM T5	EACH	1.000				
63100085	TRAF BAR TERM T6	EACH	4.000				
63100167	TR BAR TRM T1 SPL TAN	EACH	29.000				
63200310	GUARDRAIL REMOV	FOOT	4,547.500				
63300575	R&R RAIL ELEM EX GDRL	FOOT	18,650.000				
63400105	GUARD POSTS	EACH	8.000				

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 State Job # C-96-503-05

 PPS NBR 6-74640-0000

 County Name SANGAMON- 

 Code 167 - 

 District 6 - 

Project Number ACIM-ACHSIP-000S/554/

FAI 55 FAI 72 FAP 666

Route

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
63500105	DELINEATORS	EACH	774.000				
64200105	SHOULDER RUMBLE STRIP	FOOT	143,018.000				
66400105	CH LK FENCE 4	FOOT	60,118.000				
66410300	CH LK FENCE REMOV	FOOT	25,758.000				
66502300	WOV W FENCE REMOV	FOOT	34,360.000				
67000400	ENGR FIELD OFFICE A	CAL MO	10.000				
67100100	MOBILIZATION	L SUM	1.000				
70100420	TRAF CONT-PROT 701411	EACH	32.000				
70100800	TRAF CONT-PROT 701401	L SUM	1.000				
70100815	TRAF CONT-PROT 701446	L SUM	1.000				
70101205	TC-PROT 701321 SPL	EACH	1.000				
70101605	TC-PROT 701402 SPL	EACH	2.000				
70103710	TRAF CONT FOR RAMPS	L SUM	1.000				
70103815	TR CONT SURVEILLANCE	CAL DA	15.000				
70106500	TEMP BR TRAF SIGNALS	EACH	1.000				

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 State Job # C-96-503-05

 PPS NBR 6-74640-0000

 County Name SANGAMON- 

 Code 167 - 

 District 6 -

Project Number ACIM-ACHSIP-000S/554/

Route	
FAI 55	
FAI 72	
FAP 666	

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70106800		CAL MO	67.000				
70300100	SHORT-TERM PAVT MKING	FOOT	36,165.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	8,614.000				
70400100	TEMP CONC BARRIER	FOOT	1,392.000				
70400200	REL TEMP CONC BARRIER	FOOT	1,028.000				
72000100	SIGN PANEL T1	SQ FT	87.000				
72000200	SIGN PANEL T2	SQ FT	408.000				
72800100	TELES STL SIN SUPPORT	FOOT	1,164.000				
73700200	REM CONC FDN-GR MT	EACH	1.000				
78001120	PAINT PVT MK LINE 5	FOOT	600.000				
78004200	PREF PL PM TB INL L&S	SQ FT	291.000				
78004220	PREF PL PM TB INL L5	FOOT	24,010.000				
78004240	PREF PL PM TB INL L8	FOOT	20,154.000				
78004250	PREF PL PM TB INL L12	FOOT	575.000				
78100100	RAISED REFL PAVT MKR	EACH	3,786.000				

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 State Job # C-96-503-05

 PPS NBR 6-74640-0000

 County Name SANGAMON- 

 Code 167 - 

 District 6 - 

Project Number ACIM-ACHSIP-000S/554/

FAI 55 FAI 72 FAP 666

Route

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78200410	GUARDRAIL MKR TYPE A	EACH	376.000				
78201000	TERMINAL MARKER - DA	EACH	29.000				
78300105	PAVT MARKING REMOVAL	FOOT	7,261.000				
78300200	RAISED REF PVT MK REM	EACH	3,786.000				
81012400	CON T 1 1/4 PVC	FOOT	232.000				
81012800	CON T 3 PVC	FOOT	102.000				
81021350	CON P 3 PVC	FOOT	92.000				
81306100	JUNCTION BOX SPL	EACH	1.000				
81400200	HD HANDHOLE	EACH	4.000				
81500130	GULFBOX JUNCTION REM	EACH	3.000				
81603000	UD 2#8 #8G XLPUSE 3/4	FOOT	200.000				
81603010	UD 2#10#10GXLPUSE 3/4	FOOT	710.000				
81603020	UD 3#10#10GXLPUSE 3/4	FOOT	750.000				
81603035	UD 2#6 #6G XLPUSE 1	FOOT	350.000				
81603045	UD 3#6 #6G XLPUSE 1	FOOT	1,715.000				

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 State Job # C-96-503-05
 NUMBER 

 PPS NBR 6-74640-0000
 Project Number

 County Name SANGAMON ACIM-ACHSIP-000S/554/

 Code 167 - 

 District 6 - 

Section Number - D6 INTERSTATE RS,BR,M CAB 2008

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
81603054	UD 3#8 #8G XLPUSE 3/4	FOOT	1,500.000				
81603075	UD 3#2#2GXLPUSE 1 1/4	FOOT	950.000				
81603085	UD 3#4#4GXLPUSE 1 1/4	FOOT	2,160.000				
81900200	TR & BKFIL F ELECT WK	FOOT	8,335.000				
83800650	BKWY DEV COU SS SCRN	EACH	68.000				
86300305	CONT CAB TYPE III SPL	EACH	1.000				
87800200	CONC FDN TY D	FOOT	3.000				
87900200	DRILL EX HANDHOLE	EACH	9.000				
88600400	DET LOOP SPL	FOOT	497.000		<u> </u>		

# Route FAI 55 FAI 72 FAP 666

Page 14 12/12/2007 CONTRACT NUMBER

72659

THIS IS THE TOTAL BID \$

NOTES:

- 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.

#### 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. 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 termination of the contract and the suspension or debarment of the bidder.

#### **II. ASSURANCES**

**A.** 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. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous assurance, and the surety providing the performance bond shall be responsible for the completion of the contract.

#### 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 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. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-10.

#### C. 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 \$171,000.00. Sixty percent of the salary is \$102,600.00.

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.

#### D. 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.

#### E. 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.

#### F. Revolving Door Prohibition

1. The Illinois Procurement Code provides:

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

#### G. 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, offerors, 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.

#### H. 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.

#### **III. CERTIFICATIONS**

**A.** 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. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous certification, and the surety providing the performance bond shall be responsible for completion of the contract.

#### B. 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 shall contain a certification by the contractor that the contractor is not barred from being awarded a contract or subcontract under this Section. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

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

#### C. 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.

#### D. 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. No corporation shall be 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. 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.

#### E. 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.

#### F. 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.

#### G. Debt Delinquency

1. The Illinois Procurement Code provides:

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

The contractor or bidder certifies that it, or any affiliate, is not barred from being awarded a contract under 30 ILCS 500. Section 50-11 prohibits a person from entering into a contract with a State agency 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 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 contractor further acknowledges that the contracting State agency may declare the contract void if this certification is false or if the contractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

#### H. Sarbanes-Oxley Act of 2002

1. The Illinois Procurement Code provides:

#### Section 50-60(c).

The contractor 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 for a period of five years prior to the date of the bid or contract. The contractor acknowledges that the contracting agency shall declare the contract void if this certification is false.

#### I. Addenda

The contractor or bidder certifies that all relevant addenda have been incorporated in to this contract. Failure to do so may cause the bid to be declared unacceptable.

#### J. Section 42 of the Environmental Protection Act

The contractor certifies in accordance with 30 ILCS 500/50-12 that the bidder or contractor is not barred from being awarded a contract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency 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 contractor acknowledges that the contracting agency may declare the contract void if this certification is false.

#### 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 subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project as reported on the Construction Employee Workforce Projection (Form BC-1256) and returned with the bid is accounted for and listed.

# **NA - FEDERAL**

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

#### L. Executive Order Number 1 (2007) Regarding Lobbying on Government Procurements

The bidder hereby warrants and certifies that they have complied and will comply with the requirements set forth in this Order. The requirements of this warrant and certification are a material part of the contract, and the contractor shall require this warrant and certification provision to be included in all approved subcontracts.

Public Act 95-0616 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 Act.

Failure to make the disclosure required by the Act 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 the attached document.

# TO BE RETURNED WITH BID

#### **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 Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous disclosure, 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.

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. <u>Disclosure Forms</u>. 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: For bidders that have previously submitted the information requested in Form A

The Department has retained the Form A disclosures submitted by all bidders responding to these requirements for the April 24, 1998 or any subsequent letting conducted by the Department. The bidder has the option of submitting the information again or the bidder may check the following certification statement indicating that the information previously submitted by the bidder is, as of the date of submission, current and accurate. Before checking this certification, the bidder should carefully review its prior submissions to ensure the Certification is correct. If the Bidder checks the Certification, the Bidder should proceed to Form B instructions.

# **CERTIFICATION STATEMENT**

I have determined that the Form A disclosure information previously submitted is current and accurate, and all forms are hereby incorporated by reference in this bid. Any necessary additional forms or amendments to previously submitted forms are attached to this bid.

 (Bidding Company)	
Signature of Authorized Representative	Date

#### Form A: For bidders who have NOT previously submitted the information requested in Form A

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 <u>NOT APPLICABLE STATEMENT</u> on the second page of 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 \$102,600.00? YES <u>NO</u>
- Does anyone in your organization receive more than \$102,600.00 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 \$102,600.00? YES \_\_\_\_ NO \_\_\_

(Note: Only one set of forms needs to be completed <u>per person per bid</u> 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 <u>NOT APPLICABLE STATEMENT</u> on page 2 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

Form B: Identifying Other Contracts & Procurement Related Information Disclosure Form B must be completed for each bid submitted by the bidding entity. Note: Checking the <u>NOT APPLICABLE STATEMENT</u> on Form A <u>does not</u> 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.

#### D. Bidders Submitting More Than One Bid

Bidders submitting multiple bids may submit one set of forms consisting of all required Form A disclosures and one Form B for use with all bids. Please indicate in the space provided below the bid item that contains the original disclosure forms and the bid items which incorporate the forms by reference.

• The bid submitted for letting item \_\_\_\_\_ contains the Form A disclosures or Certification Statement and the Form B disclosures. The following letting items incorporate the said forms by reference:

# **RETURN WITH BID/OFFER**

# ILLINOIS DEPARTMENT OF TRANSPORTATION

# Form A Financial Information & Potential Conflicts of Interest Disclosure

Yes <u>No</u>

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 \$102,600.00 (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)

	(type or print information)		
NAME:			
ADDRESS			
Type of owne	rship/distributable income share	e:	
stock	sole proprietorship	Partnership	other: (explain on separate sheet):
% or \$ value of	f ownership/distributable income sl	hare:	

**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.

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 \_\_\_
- 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 \$102,600.00, (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 BID/OFFER**

- If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$102,600.00, (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 \$102,600.00, (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 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 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 \$102,600.00, (60% of the Governor's salary as of 7/1/07) provide the name of the 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 \$102,600.00, (60% of the salary of the Governor as of 7/1/07) are you entitled to receive (i) more than 71/2% 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 \$102,600.00, (60% of the Governor's salary as of 7/1/07) are you and your spouse or any minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income from 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.

(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 State of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statues 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 <u>No</u>

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government. Yes \_\_\_No \_\_\_

# **RETURN WITH BID/OFFER**

- (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 <u>No</u>

# APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page.

Completed by:

Signature of Individual or Authorized Representative

Date

## NOT APPLICABLE STATEMENT

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.

Signature of Authorized Representative

Date

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# 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)
Diadaguna of the information contained in this		

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

_		
	Signature of Authorized Representative	Date

# 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.



# Contract No. 72659 SANGAMON County Section D6 INTERSTATE RS,BR,M CAB 2008 Project ACIM-ACHSIP-000S(554) Route FAI 55,FAI 72,FAP 666 District 6 Construction Funds

## PART I. IDENTIFICATION

Dept. Human Rights # \_\_\_\_\_ Duration of Project: \_\_\_\_\_

Name of Bidder: \_\_\_

### PART II. WORKFORCE PROJECTION

A. The undersigned bidder has analyzed minority group and female populations, unemployment rates and availability of workers for the location in which this contract work is to be performed, and for the locations from which the bidder recruits employees, and hereby submits the following workforce projection including a projection for minority and female employee utilization in all job categories in the workforce to be allocated to this contract:

_					BLE A										TABLE	B			
		TOT	AL Wo	rkforce	Projec	tion for	<sup>-</sup> Contr	act						C	URRENT	ΕN	<b>IPLOYEE</b>	S	
				MINORITY EMPLOYEES						TRAINEES				TO BE ASSIGNED TO CONTRACT					
JOB CATEGORIES		TAL OYEES	BL/	ACK	HISP	ANIC		THER NOR.	APPF TIC			HE JOB			OTAL OYEES			RITY DYEES	
	М	F	М	F	М	F	М	F	Μ	F	М	F		М	F		М	F	
OFFICIALS (MANAGERS)																			
SUPERVISORS																			
FOREMEN																			
CLERICAL																			
EQUIPMENT OPERATORS																			
MECHANICS																			
TRUCK DRIVERS																			
IRONWORKERS																			
CARPENTERS																			
CEMENT MASONS																			
ELECTRICIANS																			
PIPEFITTERS, PLUMBERS																			
PAINTERS																			
LABORERS, SEMI-SKILLED																			
LABORERS, UNSKILLED																			
TOTAL																			

TABLE C											
TOTAL Training Projection for Contract											
EMPLOYEES	-	TAL					*OTHER				
IN	EMPLO	DYEES	BLA	٩CK	HISP	ANIC	MINOR.				
TRAINING	М	F	М	F	М	F	Μ	F			
APPRENTICES											
ON THE JOB TRAINEES											

\*Other minorities are defined as Asians (A) or Native Americans (N).

Please specify race of each employee shown in Other Minorities column.

Note: See instructions on the next page

FOR DEPARTMENT USE ONLY

BC 1256 - Pg 1 (Rev. 3/98) IL 494-0454 Contract No. 72659 **SANGAMON** County Section D6 INTERSTATE RS, BR, M CAB 2008 Project ACIM-ACHSIP-000S(554) Route FAI 55, FAI 72, FAP 666 **District 6 Construction Funds** 

### 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

Г		NOTICE REGARDING SIGNATURE	
	The Bidder's signature on the Proposal Signature Sheet will constitute the signing of this form. The following signature needs to be completed only if revisions are required.		
	Signature:	Title:	Date:
Instructior	ns: All tables must include subcontracto	r personnel in addition to prime contractor personnel.	
Table A -	(Table B) that will be allocated to co	ees that would be hired to perform the contract wo ontract work, and include all apprentices and on-the- ing all minorities, apprentices and on-the-job trainees	job trainees. The "Total Employees" column
Table B -	Include all employees currently emp currently employed.	loyed that will be allocated to the contract work inclu	ding any apprentices and on-the-job trainees
Table C -	Indicate the racial breakdown of the	total apprentices and on-the-job trainees shown in Ta	able A.

# **RETURN WITH BID**

# ADDITIONAL FEDERAL REQUIREMENTS

In addition to the Required Contract Provisions for Federal-Aid Construction Contracts (FHWA 1273), all bidders make the following certifications.

- A. By the execution of this proposal, the signing bidder certifies that the bidding entity has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This statement made by the undersigned bidder is true and correct under penalty of perjury under the laws of the United States.
- B. <u>CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY</u>:
  - 1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause. YES \_\_\_\_\_ NO \_\_\_\_\_
  - 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 \_\_\_\_\_

#### Contract No. 72659 SANGAMON County Section D6 INTERSTATE RS,BR,M CAB 2008 Project ACIM-ACHSIP-000S(554) Route FAI 55,FAI 72,FAP 666 District 6 Construction Funds

#### PROPOSAL SIGNATURE SHEET

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

	Firm Name	
(IF AN INDIVIDUAL)	Signature of Owner	
	Firm Name	
	Ву	
(IF A CO-PARTNERSHIP)		
		Name and Address of All Members of the Firm:
_		
	Corporate Name	
	Ву	
(IF A CORPORATION)		Signature of Authorized Representative
		Typed or printed name and title of Authorized Representative
	Attest	
(IF A JOINT VENTURE, USE THIS SECTION		Signature
FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW)	Business Address	
	Corporato Namo	
(IF A JOINT VENTURE)	Ву	Signature of Authorized Representative
		Typed or printed name and title of Authorized Representative
	Attest	Signature
	Business Address	
If more than two parties are in the joint venture,	please attach an addit	ional signature sheet.



**Division of Highways Proposal Bid Bond** (Effective November 1, 1992)

Item 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 STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in Article 102.09 of the "Standard Specifications for Road and Bridge Construction" in effect on the date of invitation for bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH, That Whereas, the PRINCIPAL has submitted a bid proposal to the STATE OF ILLINOIS, acting through the Department of Transportation, for the improvement designated by the Transportation Bulletin Item Number and Letting Date indicated above.

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

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

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

PRINCIPAL	SURETY (Company Name)		
(Company Name)			
By:	By:		
(Signature & Title)	(Signature of Attorney-in-Fact)		
N STATE OF ILLINOIS, COUNTY OF	lotary Certification for Principal and Surety		
I,	, a Notary Public in and for said County, do hereby certify that		
and			
(Insert names of indiv	viduals signing on behalf of PRINCIPAL & SURETY)		
	whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and ledged respectively, that they signed and delivered said instrument as their free and voluntary		
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 below the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.

Electronic Bid Bond ID#

Company/Bidder Name

Signature and Title

# PROPOSAL ENVELOPE



# PROPOSALS

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

Item No.	Item No.	Item No.

Submitted By:

Name:	
Address:	
Phone No.	

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

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

# NOTICE

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

# **CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS**

# NOTICE

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

Contract No. 72659 SANGAMON County Section D6 INTERSTATE RS,BR,M CAB 2008 Project ACIM-ACHSIP-000S(554) Route FAI 55,FAI 72,FAP 666 District 6 Construction Funds





# **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., January 18, 2008. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- 2. DESCRIPTION OF WORK. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

Contract No. 72659 SANGAMON County Section D6 INTERSTATE RS,BR,M CAB 2008 Project ACIM-ACHSIP-000S(554) Route FAI 55,FAI 72,FAP 666 District 6 Construction Funds

6.46 miles of milling, HMA surface, pavement marking and other work on I-55 from Southwind Road to Clearlake Avenue, I-72 from west of Second Street to I-55 and I-55 Business Route from I-55 to south of Hazel Dell Road in Springfield.

- 3. INSTRUCTIONS TO BIDDERS. (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, 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 rules, Invitation for Bids 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.

By Order of the Illinois Department of Transportation

Milton R. Sees, Secretary

BD 351 (Rev. 01/2003)

#### INDEX

#### FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

#### Adopted January 1, 2008

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS and frequently used RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-07) (Revised 1-1-08)

#### SUPPLEMENTAL SPECIFICATIONS

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251	Mulch	2
253	Planting Woody Plants	3
280	Temporary Erosion Control	5
443	Reflective Crack Control Treatment	6
502	Excavation for Structures	9
503	Concrete Structures	
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#### RECURRING SPECIAL PROVISIONS

The following RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

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1	Х	Additional State Requirements For Federal-Aid Construction Contracts	
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2	Х	Subletting of Contracts (Federal-Aid Contracts) (Eff. 1-1-88) (Rev. 5-1-93)	
3	Х	EEO (Eff. 7-21-78) (Rev. 11-18-80)	34
4		Specific Equal Employment Opportunity Responsibilities	
		Non Federal-Aid Contracts (Eff. 3-20-69) (Rev. 1-1-94)	
5		Required Provisions - State Contracts (Eff. 4-1-65) (Rev. 1-1-07)	
6		Reserved	
7		Reserved	55
8		Haul Road Stream Crossings, Other Temporary Stream Crossings, and	
		In-Stream Work Pads (Eff. 1-2-92) (Rev. 1-1-98)	
9	Х	Construction Layout Stakes Except for Bridges (Eff. 1-1-99) (Rev. 1-1-07)	
10		Construction Layout Stakes (Eff. 5-1-93) (Rev. 1-1-07)	
11		Use of Geotextile Fabric for Railroad Crossing (Eff. 1-1-95) (Rev. 1-1-07)	
12		Subsealing of Concrete Pavements (Eff. 11-1-84) (Rev. 1-1-07)	
13		Hot-Mix Asphalt Surface Removal (Cold Milling) (Eff. 11-1-87) (Rev. 1-1-07)	
14	Х	Pavement and Shoulder Resurfacing (Eff. 2-1-00) (Rev. 1-1-07)	
15		PCC Partial Depth Hot-Mix Asphalt Patching (Eff. 1-1-98) (Rev. 1-1-07)	
16		Patching with Hot-Mix Asphalt Overlay Removal (Eff. 10-1-95) (Rev. 1-1-07)	74
17	Х	Polymer Concrete (Eff. 8-1-95) (Rev. 1-1-08)	
18		PVC Pipeliner (Eff. 4-1-04) (Rev. 1-1-07)	
19		Pipe Underdrains (Eff. 9-9-87) (Rev. 1-1-07)	
20	Х	Guardrail and Barrier Wall Delineation (Eff. 12-15-93) (Rev. 1-1-97)	79
21		Bicycle Racks (Eff. 4-1-94) (Rev. 1-1-07)	83
22		Temporary Modular Glare Screen System (Eff. 1-1-00) (Rev. 1-1-07)	
23		Temporary Portable Bridge Traffic Signals (Eff. 8-1-03) (Rev. 1-1-07)	
24	Х	Work Zone Public Information Signs (Eff. 9-1-02) (Rev. 1-1-07)	
25		Night Time Inspection of Roadway Lighting (Eff. 5-1-96)	
26		English Substitution of Metric Bolts (Eff. 7-1-96)	
27		English Substitution of Metric Reinforcement Bars (Eff. 4-1-96) (Rev. 1-1-03)	
28	Х	Calcium Chloride Accelerator for Portland Cement Concrete (Eff. 1-1-01)	93
29		Quality Control of Concrete Mixtures at the Plant-Single A	
		(Eff. 8-1-00) (Rev. 1-1-04)	94
30	Х	Quality Control of Concrete Mixtures at the Plant-Double A	
		(Eff. 8-1-00) (Rev. 1-1-04)	100
31		Quality Control/Quality Assurance of Concrete Mixtures	
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FAI Route 55 (I-55), FAI Route 72 (I-72) FAP Route 666 (I-55 BUS) Project ACIM-ACHSIP-000S (554) Section D6 Interstate RS, BR, MCAB 2008 Contract No. 72659 Sangamon County EQUIPMENT RENTAL RATES (BDE).....72 HIGH TENSION CABLE MEDIAN BARRIER (BDE) ......74 RECLAIMED ASPHALT PAVEMENT (RAP) (BDE) ......83 WATER BLASTER WITH VACUUM RECOVERY (BDE).....101 STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID) .....104

# STATE OF ILLINOIS

# SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2007, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of FAI Route 55 (I-55), FAI Route 72 (I-72), FAP Route 666 (I-55 BUS), Section D6 Interstate RS, BR, M CAB 2008, Sangamon County, and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

# LOCATION OF PROJECT

The work on this project is located on FAI 55 (I-55) from 0.2 miles north of Southwind Road to 0.4 miles north of Clear Lake Avenue, I-72, on I-72 from 0.4 miles west of 2<sup>nd</sup> Street to I-55, and on FAP 666 (I-55 BUS / 6<sup>th</sup> Street) from I-55 to 0.1 miles south of Hazel Dell Road.

# DESCRIPTION OF PROJECT

The work on this project consists of furnishing all labor, materials, and equipment required for patching (class A, B and pavement patching), HMA surface removal, HMA binder and surface, HMA shoulders, pavement markings, steel plate beam guardrail, high tension median cable barrier, storm sewer, and all other appurtenant and collateral work, as shown in the plans and as required by these Special Provisions.

### TRAFFIC CONTROL PLAN Effective: November 1, 1984

Traffic control shall be in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, these Special Provisions, any special details and Highway Standards contained herein and in the plans.

Special attention is called to Sections 107 and 701 through 705 of the Standard Specifications for Road and Bridge Construction, and as amended by the Supplemental Specifications, Recurring Special Provisions, the Special Provisions contained herein, and the following highway standards relating to traffic control:

701001	701006	701011	701101	701106	701301
701311	701321	701400	701401	701402	701411
701426	701446	701901			

Supplemental Specifications and Recurring Special Provisions:

- a) Work Zone Traffic Control and Protection
- b) Pavement and Shoulder Resurfacing.
- c) Work Zone Public Information Signs
- d) Calcium Chloride Accelerator for Portland Cement Concrete Patching

Special Provisions:

- a) Impact Attenuators, Temporary (BDE)
- b) Multilane Pavement Patching (BDE)
- c) Notification of Reduced Width (BDE)
- d) Reflective Sheeting on Channelizing Devices (BDE)
- e) Construction Restrictions During Public Events
- f) Detour Signing

<u>Limitations of Construction</u>: The Contractor shall coordinate the items of work in order to keep hazards and traffic inconveniences to a minimum, as specified below.

- 1. Parking of personal vehicles within the interstate right-of-way will be strictly prohibited. Parking of construction equipment within the right-of-way will be permitted only at locations approved by the Engineer.
- 2. Traffic control devices shall be new or like new equipped with new reflective sheeting at the time of use. The Engineer will be the sole judge of the condition of the devices.
- 3. In addition to the signs required by the various traffic control standards and plan details, the Contractor shall erect ROAD CONSTRUCTION AHEAD signs on all entrance ramps within the limits of the project, on each approach to I-55, I-72, BL-55, West Lake Shore Drive, East Lake Shore Drive / Stevenson Drive, South Grand Avenue / IL 29, Clear Lake Avenue / I-72, . ROAD CONSTRUCTION 1 MILE signs on mainline I-55, I-72, and BL-55, except signs required for bridge stage construction, shall be tripod mounted and located as shown on Standard 701400 and Standard 701446.
- 4. In addition to the signs required by Standard 701400 and Standard 701401, the Contractor shall erect two RIGHT/LEFT LANE CLOSED THREE MILES AHEAD signs and two RIGHT/LEFT LANE CLOSED FIVE MILES AHEAD, three miles and five miles in advance of each work zone.
- 5. The Contractor shall erect sign G20-1(O)6036 :"ROAD CONSTRUCTION NEXT X MILES" on I-55, 500 feet in advance of each end of the project.
- 6. The Contractor shall provide twelve (12) W20-7B(O) BE PREPARED TO STOP signs. The signs shall be tripod mounted at locations designated by the Engineer.
- 7. A minimum vertical clearance 16'-0" shall be maintained between I-55, I-72, BL-55 and overhead structures at all times, with the exception of SN 084-0104, SN 084-0076, SN 084-0077, SN 084-0078. The minimum vertical clearing equaling the existing vertical clearance shall be maintained at all times at SN 084-0104, SN 084-0076, SN 084-0077, and SN 084-0078.

- 8. Where construction operations result in a temporary drop-off between two traffic lanes and the road has a posted speed limit of 55 mph or greater and is open to traffic, "UNEVEN LANES (W8-1(O)48) signs shall be used. The Contractor shall place the signs at the beginning of the drop-off area, just beyond freeway interchanges or major intersections on nonfreeways, and at such other locations within the drop-off area as the Engineer may direct to ensure a nominal spacing of 3 km (2 miles). The signs shall be placed just prior to the work that will result in the drop-off and shall remain in place until the drop-off is eliminated.
- 9. "Workzone Public Information" signs will only be required on mainline Interstate 55, Interstate 72, and Business Loop 55.
- 10. Sign posts must be 100 x 100 mm (4 x 4 inches) wood posts according to Article 1007.05. The use of metal posts will not be permitted.
- 11. The Contractor shall notify the District 6 Bureau of Operations at (217) 785-5312 or (217) 524-2134 three weeks prior to implementing any traffic control.

<u>Keeping Roads Open to Traffic</u>: During the construction of this section at least one lane of I-55, I-72, and BL-55 in each direction shall remain open to traffic at all times. Two lane state highways, county highways, township roads and city streets shall remain open for one lane, two-way traffic at all times except Circle Drive which shall be closed at West Lake Drive for the rehabilitation of SN 084-0092. All interchanges within the limits of the project shall be kept fully operational during construction activities on this section except as otherwise allowed in these special provisions.

# <u>I-55, I-72, BL-55</u>

Work on I-55, I-72 and BL-55 requiring lane closures shall utilize Traffic Control and Protection Standards 701400, 701401, 701402 (Special), 701411 or 701446. In addition to the requirements of Section 701 of the Standard Specifications, the following shall apply to work on mainline I-55, I-72, BL-55 and the ramp terminals:

- 1) Lane closures on mainline I-55, I-72, BL-55, and the interchange ramps will only be allowed from 7:00 pm to 6:00 am the following day on Sunday night / Monday morning through Thursday night / Friday morning, except for the repair of mainline structures as outlined below. No mainline lane closures will be permitted from 6:00 am Friday to 7:00 pm Sunday or from 6:00 am to 7:00 pm any other days.
- 2) Hot-mix asphalt surface removal on the outside or median lane shall not be started until bituminous surface removal on the adjacent shoulder has been accomplished. Hot-mix asphalt binder course shall be placed on the entire milled area of the traffic lanes on the same day that the lane is milled.
- 3) Interchange ramps shall be closed just prior to hot-mix asphalt surface removal on the outside lane and shall be reopened following placement of the hot-mix asphalt binder course. Closing the interchange ramps shall be governed as specified elsewhere in these special provisions.

 The Contractor shall erect changeable message signs five miles in advance of all I-55, I-72 and BL-55 lane closures prior to closing the lane. One changeable message sign shall be required in advance of each individual work zone. The changeable message signs shall remain in place until all lanes are reopened to traffic. It is anticipated that changeable message signs will be required for advanced notice at the following locations: NB I-55

NB I-55 SB I-55 EB I-72 WB I-72 SB BL-55 / Sixth St EB Stevenson Dr / E Lake Dr WB Stevenson Dr E Lake Dr EB South Grand Ave / IL 29 WB South Grand Ave / IL 29 EB Clear Lake Ave

- 5) Traffic Control and Protection Standards 701411 shall be used simultaneously with Traffic Control and Protection Standards 701400, 701401, 701402 and 701446 to maintain access at entrance and exit ramps. Each ramp, regardless of the number of setups required, shall be considered as one each for payment of Traffic Control and Protection Standard 701411.
- 6) All traffic control devices shall be removed and all lanes on I-55, I-72, and BL-55 shall be opened to traffic at the end of each work period except lane closures required for stage construction of the mainline structures.
- 7) For the proposed 5" milling under structure 084-0078, the Contractor shall mill and place binder in both lanes during the same work shift.

# Interchange Ramps

Interchange ramps shall be kept open to traffic and fully operational at all times during the construction of this project except as specified below.

Traffic control and protection for work on ramps shall be as detailed on the plan sheets labeled Traffic Control & Protection for Ramps.

Pavement patches on ramps shall be stage constructed as detailed in the plans with the ramps open to traffic.

The following I-55 ramps shall be temporarily closed (short-term) for hot-mix asphalt surface removal and hot-mix asphalt resurfacing:

Sixth Street Interchange (Exit 92 I-55, Exit 97 I-72): Ramp A, B, C, D, NE Ramp, and SW Loop Ramp.

Stevenson Drive / East Lake Drive Interchange (Exit 94): Ramp A, B, C and D. South Grand Avenue / IL 29 Interchange (Exit 96): Ramp A, B, C, D, E, F, G and H. Clear Lake Avenue / I-72 Interchange (Exit 98): Ramp A, B, C, D, E, F, G and H. Only one interchange at a time shall have ramps closed.

Only one exit and one entrance ramp at one interchange shall be closed at a time. Ramp closure will only be allowed between 7:00 pm and 6:00 am the following day on Sunday night / Monday morning through Thursday night / Friday morning. No ramp closures will be permitted from 6:00 am Friday to 7:00 pm Sunday or from 6:00 am to 7:00 pm any other days. Each ramp will only be allowed to be closed on three separate work shifts.

The Contractor shall notify the Bureau of Operations for advanced notice two week prior to closing any of the ramps. The Contractor will install signing for detour routes as needed along 6<sup>th</sup> Street, Stevenson Drive, South Grand Avenue, Clear Lake Avenue, Sangamon Avenue, Dirksen Parkway and other roads as shown in the plans.

The Contractor shall provide a minimum of 48 hour notice to the Engineer for all ramp closures. The Contractor shall provide two additional changeable message signs 24 hours prior to any proposed ramp closure. The changeable message signs shall be placed at locations specified below or as designated by the Engineer. Refer to the plan sheet "Message Board Placement Sheet" for additional information.

# Short-term Closure at the Sixth Street Interchange (Exit 92 I-55, Exit 97 I-72)

<u>Ramps A and B:</u> The Contractor shall furnish a portable changeable message board (PCMS-1) and it shall be placed on eastbound I-72 in advance of the Exit 93 interchange (IL 4) to display the following:

# EXIT 97 6TH ST CLOSED

## USE EXIT 94 STEV DR

The Contractor shall furnish another portable changeable message board (PCMS-6) and it shall be placed on eastbound I-72 in advance of the Exit 97 interchange to display a similar message.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of Ramp A on I-72. If the right lane of I-72 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp C</u>: The Contractor shall furnish a portable changeable message board (PCMS-3) and it shall be placed on northbound I-55 in advance of the Exit 90 interchange to display the following:

# EXIT 92B WB I-72 CLOSED USE EXIT 94

# STEV DR

FAI Route 55 (I-55), FAI Route 72 (I-72) FAP Route 666 (I-55 BUS) Project ACIM-ACHSIP-000S (554) Section D6 Interstate RS, BR, MCAB 2008 Contract No. 72659 Sangamon County The Contractor shall furnish another portable changeable message board (PCMS-5) and it shall

be placed on northbound I-55 in advance of the Exit 92 interchange to display a similar message.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of Ramp C on BL-55. If the right lane of BL-55 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp D:</u> The Contractor shall furnish a portable changeable message board (PCMS-13) and it shall be placed on southbound Sixth Street north of Stevenson Drive to display the following:

WB I-72 RAMP CLOSED DETOUR I-55 TO TOR RD

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of Ramp D on BL-55.

<u>NE Ramp</u>: The Contractor shall furnish a portable changeable message board (PCMS-4) and it shall be placed on westbound I-72 / southbound I-55 in advance of the Exit 96 interchange to display the following:

# EXIT 92 6TH ST CLOSED

# USE EXIT 94 STEV DR

The Contractor shall furnish another portable changeable message board (PCMS-2) and it shall be placed on westbound I-72 / southbound I-55 in advance of the Exit 94 interchange to display a similar message.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of NE Ramp on I-72/I-55. If the right lane of I-72/I-55 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open.

<u>SW Loop Ramp</u>: The Contractor shall furnish a portable changeable message board (PCMS-13) and it shall be placed on southbound Sixth Street north of Stevenson Drive to display the following:

```
EB I-72
RAMP
CLOSED
```

DETOUR I-55 TO TOR RD

These signs shall be mounted on Type III barricades and placed on the shoulder. These signs shall be removed or turned from view whenever the ramps are open.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the SW Loop Ramp on BL-55.

Short-term Closure at the Stevenson Drive / East Lake Shore Drive Interchange (Exit 94) <u>Ramp A:</u> The Contractor shall furnish a portable changeable message board (PCMS-4) and it shall be placed on southbound I-55 in advance of the Exit 96 interchange to display the following:

EXIT 94 STEV DR CLOSED USE EXIT 96 S GRAND OR EXIT 92

6TH ST

The Contractor shall furnish another portable changeable message board (PCMS-2) and it shall be placed on westbound I-72 / southbound I-55 in advance of the Exit 94 interchange to display a similar message.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of Ramp A on I-55. If the right lane of I-55 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp B:</u> The Contractor shall furnish a portable changeable message board (PCMS-14) and it shall be placed on westbound East Lake Shore Drive in advance of the closed ramp to display the following:

SB I-55 RAMP CLOSED
DETOUR I-55 TO S GRAND

FAI Route 55 (I-55), FAI Route 72 (I-72) FAP Route 666 (I-55 BUS) Project ACIM-ACHSIP-000S (554) Section D6 Interstate RS, BR, MCAB 2008 Contract No. 72659 Sangamon County Additionally, the Contractor shall furnish another portable changeable message board (PCMS-15) and it shall be placed on eastbound Stevenson Drive west of Dirksen Parkway to display the

> SB I-55 RAMP CLOSED DETOUR I-55 TO S GRAND

following:

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3 (O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of Ramp B on Stevenson Drive / East Lake Shore Drive. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp C:</u> The Contractor shall furnish a portable changeable message board (PCMS-5) and it shall be placed on northbound I-55 in advance of the Exit 92 interchange to display the following:

# EXIT 94 STEV DR CLOSED

USE EXIT 96 S GRAND

Additionally, the Contractor shall furnish another portable changeable message board (PCMS-6) and it shall be placed on eastbound I-72 in advance of the Exit 97 interchange to display the following:

# EXIT 94 STEV DR CLOSED

USE EXIT 96 S GRAND

The Contractor shall furnish another portable changeable message board (PCMS-8) and it shall be placed on northbound I-55 in advance of the Exit 94 interchange to display a similar message.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of Ramp C on I-55. If the right lane of I-55 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp D:</u> The Contractor shall furnish a portable changeable message board (PCMS-14) and it shall be placed on westbound East Lake Shore Drive in advance of the closed ramp to display the following:

NB I-55 RAMP CLOSED

# USE DIRKSEN PKWY

Additionally, the Contractor shall furnish another portable changeable message board (PCMS-15) and it shall be placed on eastbound Stevenson Dr west of Dirksen Parkway to display the following:

> NB I-55 RAMP CLOSED USE DIRKSEN

> > PKWY

# These signs shall be mounted on Type III barricades and placed on the shoulder. These signs shall be removed or turned from view whenever the ramps are open.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3 (O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of Ramp D on Stevenson Drive / East Lake Drive. These signs shall be removed or turned from view whenever the ramp is open.

# Short-term Closure at the South Grand Avenue / IL 29 Interchange (Exit 96)

<u>Ramp A:</u> The Contractor shall furnish a portable changeable message board (PCMS-16) and it shall be placed on westbound IL 29 in advance of the closed ramp to display the following:

SB I-55 RAMP CLOSED USE

# DIRKSEN

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3 (O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on South Grand / IL 29. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramps B and C:</u> The Contractor shall furnish a portable changeable message board (PCMS-7) and it shall be placed on southbound I-55 in advance of the Exit 98 interchange to display the following:

# EXIT 96 S GRAND CLOSED

# USE EXIT 94 STEV DR

The Contractor shall furnish another portable changeable message board (PCMS-4) and it shall be placed on southbound I-55 in advance of the Exit 96 interchange to display a similar message.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on I-55. If the right lane of I-55 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp D:</u> The Contractor shall furnish a portable changeable message board (PCMS-17) and it shall be placed on South Grand, west of Dirksen Parkway, to display the following:

# SB I-55 RAMP CLOSED

USE DIRKSEN PKWY

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3 (O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on South Grand / IL 29. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp E:</u> The Contractor shall furnish a portable changeable message board (PCMS-17) and it shall be placed on eastbound South Grand, west of Dirksen Parkway, to display the following:

# NB I-55 RAMP CLOSED

# USE DIRKSEN PKWY

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3 (O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on South Grand / IL 29. These signs shall be removed or turned from view whenever the ramp is open.

FAI Route 55 (I-55), FAI Route 72 (I-72) FAP Route 666 (I-55 BUS) Project ACIM-ACHSIP-000S (554) Section D6 Interstate RS, BR, MCAB 2008 Contract No. 72659 Sangamon County Ramps F and G: The Contractor shall furnish a portable changeable message board (PCMS-8) and it shall be placed on northbound I-55 in advance of the Exit 94 interchange to display the

# EXIT 96 S GRAND CLOSED

following:

# USE EXIT 98 CL LAKE

The Contractor shall furnish another portable changeable message board (PCMS-12) and it shall be placed on northbound I-55 in advance of the Exit 96 interchange to display a similar message.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on I-55. If the right lane of I-55 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp H:</u> The Contractor shall furnish a portable changeable message board (PCMS-16) and it shall be placed on westbound IL 29 in advance of the closed ramp to display the following:

# NB I-55 RAMP CLOSED

USE DIRKSEN PKWY

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3 (O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on South Grand / IL 29. These signs shall be removed or turned from view whenever the ramp is open.

# Short-term Closure at the Clear Lake Avenue / I-72 Interchange (Exit 98)

<u>Ramp A:</u> The Contractor shall furnish a portable changeable message board (PCMS-9) and it shall be placed on westbound I-72 in advance of the Exit 104 interchange to display the following:

EXIT 103 SB-55 CLOSED
USE DIRKSEN PKWY

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on I-55. If the right lane of I-55 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp B:</u> The Contractor shall furnish a portable changeable message board (PCMS-10) and it shall be placed on southbound I-55 in advance of the Exit 100 interchange to display the following:

# EXIT 98 CL LAKE CLOSED

# USE EXIT 96 S GRAND

The Contractor shall furnish another portable changeable message board (PCMS-7) and it shall be placed on southbound I-55 in advance of the Exit 98 interchange to display a similar message.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on I-55. If the right lane of I-55 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp C:</u> The Contractor shall furnish a portable changeable message board (PCMS-10) and it shall be placed on southbound I-55 in advance of the Exit 100 interchange to display the following:

# EXIT 98 EB I-72 CLOSED

# USE EXIT 96 S GRAND

The Contractor shall furnish another portable changeable message board (PCMS-7) and it shall be placed on southbound I-55 in advance of the Exit 98 interchange to display a similar message.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on I-55. If the right lane of I-55 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp D:</u> The Contractor shall furnish a portable changeable message board (PCMS-11) and it shall be placed on eastbound Clear Lake Avenue west of Dirksen Parkway to display the following:

## SB I-55 RAMP CLOSED

# USE EXIT 104 CAMP BUT

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on Clear Lake Avenue. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp E:</u> The Contractor shall furnish a portable changeable message board (PCMS-11) and it shall be placed on eastbound Clear Lake Avenue west of Dirksen Parkway to display the following:

# NB I-55 RAMP CLOSED

# USE EXIT 104 CAMP BUT

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on Clear Lake Avenue. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp F:</u> The Contractor shall furnish a portable changeable message board (PCMS-8) and it shall be placed on northbound I-55 in advance of the Exit 94 interchange to display the following:

### EXIT 98 EB I-72 CLOSED

# USE EXIT 100 SANG AVE

The Contractor shall furnish another portable changeable message board (PCMS-12) and it shall be placed on northbound I-55 in advance of the Exit 96 interchange to display a similar message.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on I-55. If the right lane of I-55 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open. FAI Route 55 (I-55), FAI Route 72 (I-72) FAP Route 666 (I-55 BUS) Project ACIM-ACHSIP-000S (554) Section D6 Interstate RS, BR, MCAB 2008 Contract No. 72659 Sangamon County ble changeable message board (PCMS-8) and it

<u>Ramp G:</u> The Contractor shall furnish a portable changeable message board (PCMS-8) and it shall be placed on northbound I-55 in advance of the Exit 94 interchange to display the following:

# EXIT 98 CL LAKE CLOSED

# USE EXIT 100 SANG AVE

The Contractor shall furnish another portable changeable message board (PCMS-12) and it shall be placed on northbound I-55 in advance of the Exit 96 interchange to display a similar message.

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on I-55. If the right lane of I-55 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open.

<u>Ramp H:</u> The Contractor shall furnish a portable changeable message board (PCMS-9) and it shall be placed on westbound I-72 in advance of the Exit 104 interchange to display the following:

# EXIT 103 NB I-55 CLOSED

USE DIRKSEN PKWY

Additionally, the Contractor shall furnish and erect two "RAMP CLOSED AHEAD" signs (W20-3(O)-(4848)). These signs shall be mounted on Type III barricades and placed outside of the paved shoulders, 1000 feet in advance of the closed ramp on I-55. If the right lane of I-55 is closed, the Type III barricade and sign on the right side shall be placed in the closed lane. These signs shall be removed or turned from view whenever the ramp is open.

# Guardrail Rehabilitation

Traffic control and protection for guardrail rehabilitation shall be as specified in Article 701.17(f) of the Standard Specifications.

Removal of steel plate beam guardrail and traffic barrier terminals shall be scheduled so that the length of time that guardrail installations are incomplete is kept to a minimum. In no case shall guardrail installations be left incomplete at any individual location over a weekend.

# Structure Rehabilitation

<u>SN 084-0076, SN 084-0077</u>: The Contractor shall complete all work on these structures within 60 consecutive calendar days or by July 1, 2008, whichever comes first.

The staged construction of these structures shall utilize the plan details labeled Traffic Control Plan Stage 1, Traffic Control Plan Stage 2, and Traffic Control Plan Stage Construction.

During the staged construction of SN 084-0076, Ramp C shall be closed to traffic. The traffic control required for the ramp closure shall be similar to that specified for the short-term closure of the ramp necessary for paving operations. The Contractor shall notify the Bureau of Operations two weeks prior to the closing of the ramp.

During the staged construction of SN 084-0077, the Southwest Loop Ramp shall be closed to traffic. The traffic control required for the ramp closure shall be similar to that specified for the short-term closure of the ramp necessary for paving operations. The Contractor shall notify the Bureau of Operations three weeks prior to the closing of the ramp. Exit Ramp B is to remain open to traffic, but may be closed short-term for paving operations as specified elsewhere in these special provisions.

If the Contractor fails to complete the required work by the final date or by exceeding the calendar days set forth above, he/she shall be liable to the Department for liquidated damages in accordance with Article 108.09 of the Standard Specifications. The costs used to calculate the liquidated damages will be the total contract value.

<u>SN 084-0092</u>: The Contractor shall complete all work on this structure between June 2, 2008 and June 30, 2008.

Flaggers may be required while setting up or taking down the traffic control. The flaggers will be included in the cost of Traffic Control and Protection 701321 (Special).

The staged construction of this structure shall utilize the plan details labeled Stage Construction Details, Stage 1 Traffic Control Standard 701321 (Special), Stage 2 Traffic Control Standard 701321 (Special).

If the Contractor fails to complete the required work by the final date set forth above, he/she shall be liable to the Department for liquidated damages in accordance with Article 108.09 of the Standard Specifications. The costs used to calculate the liquidated damages will be the total contract value.

<u>Measurement and Payment for Traffic Control and Protection</u>: Traffic control and protection standards 701401, 701402, 701411, and 701446 will be paid for as specified in Article 701.20 of the Standard Specifications.

Traffic control and protection for work on the interchange ramps will be paid for at the contract bid price per lump sum for TRAFFIC CONTROL FOR RAMPS.

Traffic control and protection required for staged construction of repairs of SN 084-0092 will be paid for at the contract bid price per each for TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL). Traffic control and protection for staged construction of repairs of SN 084-0076 and 084-0077 will be paid for at the contract bid price per each for TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL).

The price for these items shall be payment for all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain, relocate, and remove all traffic control devices, including signs, as shown in the plans and as mentioned in the special provisions unless otherwise specified. Any alterations or increases or decreases in work items by more than 10 percent for which these traffic control items are required will be paid for as specified in Article 701.20(a) of the Standard Specifications.

Items such as temporary concrete barrier and impact attenuators and other items with specific pay items shall be paid for separately. Items not otherwise paid for but shown or described as part of the traffic control and protection shall be included in the cost for the various traffic control and protection items.

# DETOUR SIGNING

<u>Description</u>: This work shall consist of furnishing, erecting, maintaining, covering, uncovering, and removing the detour signing as shown in the plans for the temporary closures of interchange ramps.

<u>Materials</u>: The materials used shall be in accordance with Section/Article 1090, 1091, 1092, 1006.29, and 1007.05 of the Standard Specifications.

<u>Construction Requirements:</u> The Contractor shall furnish and erect detour signs at locations indicated in the plans. The signs shall be mounted with either metal or wood posts. Where it is possible, signs may be attached to existing posts or poles. The Contractor can contact District 6 Operations at (217) 785-5312 for assistance in detour signing locations.

The signs are to be in place and uncovered prior to any ramp closure. When a detour is not in use, the detour signing shall be completely covered.

The signs and posts shall be removed when detours are no longer required. The Contractor shall return the area around the signs to its previous condition, at the Contractor's expense. This may include seeding.

Basis of Payment: This work will be paid for at the contract unit price per lump sum for DETOUR SIGNING.

# DATE OF COMPLETION

The Contractor shall schedule his operations so as to complete all work and permanently open all lanes to traffic on or before September 19, 2008. The Contractor shall have an additional 15 working days to finish other work off the pavement without lane closures.

If the Contractor fails to complete the required work by the final date, he/she shall be liable to the Department for liquidated damages in accordance with Article 108.09 of the Standard Specifications and any other additional special provision which may be attached herein which supplements Article 108.09.

# ADJACENT PROJECTS

The Contractor is notified of the fact that other contracts in the same location or adjacent to this project will likely be in progress for the duration of this contract. One contract is the grading and structure work for the Macarthur Boulevard extension and interchange at I-72, which is scheduled to be under construction prior to this contract. A second contract is the paving for the Macarthur Boulevard extension and interchange at I-72), which is tentatively scheduled to be under construction after this contract work has begun. A third contract is for the road work and site development of Wal-Mart at BL-55 and Hazel Dell Road, which is scheduled to be under construction prior to this contract. There may also be other adjacent or nearby contracts not specified above.

The Contractor of this contract shall cooperate and coordinate all construction activities with the other Contractors in order to avoid delays and to provide the least inconvenience to the motoring public in accordance with Article 105.08 of the Standard Specifications.

# STATUS OF UTILITIES TO BE ADJUSTED

The following utilities are involved in this project. The utility companies have provided the estimated dates.

Name & Address of Utility	Type	Location	Estimated Date of Relocation Completed
Ms. Sherrie Gary Central Illinois Light Co. 825 N MacArthur Springfield, IL 62701 Phone: 753-5182	Electric	Throughout Project	None Anticipated
Mr. George Sommer Ameren Central Illinois Light Co. 825 N MacArthur Springfield, IL 62702 Phone: 753-6458 Cell: 1-217-622-9976	Gas/Electric	Throughout Project	None Anticipated
Mr. Bob Miles McLeod USA 102 East Schafter Forsyth, IL. 62535 Phone: 876-7194 Ext. 222 or 223	Communication Facilities	Throughout Project	None Anticipated
Mr. Rob Cunningham City, Water, Light & Power- Electric Div. 1008 E. Miller St. Springfield, IL 62702 Phone: 757-8520 Ext. 2152 Cell: 217-652-1813	Electric	Throughout Project	None Anticipated

Mr. Steve Stewart City, Water, Light & Power-Water Div. 401 N. 11 <sup>th</sup> St. Springfield, IL 62702 Phone: 789-2022	Water	Throughout Project	None Anticipated
Mr. Chris Therrian 360 Networks 2715 Slough Road Mississauga, ON Canada L4T- 1G2 Phone: 1-416-848-2011	Fiber Optic	Throughout Project	None Anticipated
Ms. Marsha Kidd WilTel Communications Relocations, Network Operations 100 South Cincinnati Ave. Tulsa, OK 74103 Phone: 1-918-547-0029	Communication Facilities	Throughout Project	None Anticipated

The above represents the best information of the Department and is only included for the convenience of the bidder. The applicable provisions of Articles 105.07, 107.20, 107.31, and 108.02 of the Standard Specifications for Road and Bridge Construction shall apply.

The estimated utility relocation dates should be part of the progress schedule submitted by the Contractor. If any utility adjustments or relocations have not been completed by the above dates specified and when required by the Contractor's operations after these dates, the Contractor should notify the Engineer in writing. A request for an extension of time will be considered to the extent the Contractor's critical path schedule is affected.

# CONSTRUCTION PROCEDURE FOR PUBLIC EVENTS *Effective: October 1, 1990*

There shall be no construction activity that requires lane closures within the limits of this section during the public events listed below:

Illinois State Fair August 8, 2008 – August 17, 2008

There shall be no construction activity that requires ramp closures within the limits of this section during the public events listed below:

LPGA State Farm Classic July 13, 2008 – July 20, 2008

Barricades, cones, drums, or other warning devices shall be removed from the traveled way during these periods. No broken pavement, open holes, or trenches shall remain on or adjacent to, the traveled way during these events. The Contractor's equipment shall not encroach the

traveled way nor shall any construction or delivery vehicles impede normal traffic flow during these periods. On multi-lane, divided highways, these same restrictions shall also apply to the shoulders.

These periods shall begin at 6:00 am of the day preceding the beginning day of the event and end at 7:00 pm on the final day of the event.

Any inconveniences caused the Contractor in complying with this Special Provision shall be considered incidental to the contract and no additional compensation will be allowed.

# UNDERGROUND FACILITIES *Revised: February 1, 1996*

The Contractor's attention is directed to the presence of state-owned underground electric cable (highway lighting, ITS fiber) within the limits of the proposed improvement. The Contractor shall request the Illinois Department of Transportation in Springfield, Bureau of Traffic (217-782-7743), to locate the underground facilities, providing a minimum of 72 hours notice. The Illinois Department of Transportation IS NOT a member of the Joint Utility Locating Information for Excavators (JULIE) System.

Any damage to the underground facilities, caused by the Contractor resulting from his failure to contact the Illinois Department of Transportation as specified above or from negligent operation, shall be repaired to the satisfaction of the Department at the Contractor's expense, including temporary repairs which may be required to keep the facility operational while material is being obtained to make permanent repairs. Splicing of electric cable will not be allowed. Electric cable shall be replaced from pole to pole or controller.

# PAVEMENT STATIONING NUMBERS AND PLACEMENT

The Contractor shall provide labor and materials required to imprint pavement station numbers in the finished surface of the pavement and /or overlay. The numbers shall be approximately 20 mm (3/4 inch) wide, 125 mm (5 inches) high and 15 mm (5/8 inch) deep.

The pavement station numbers shall be installed as specified herein:

Interval – 100 meters (metric stationing) or 250 feet (English stationing)

Bottom of Numbers -- 150 mm (6 inches) from the inside edge of the pavement marking and/or resurfacing joint.

Location:

- 2-Lane Pavements At center line in direction of increasing stations.
- 3 and 5-Lane Pavements Left edge of center lane in direction of increasing stations.
- Multi-Lane Divided Roadways Outside edge of pavement in both directions.
- Ramps Along baseline edge of pavement.

Format – Metric [English] pavement stations shall use this format (XX+XOO [XO"]) where X represents the pavement station.

This work will not be paid for separately, but will be considered included in the cost of the associated pavement and/or overlay pay items.

# ENGINEER'S FIELD OFFICE, TYPE A

The following shall be revised or added to Article 670 of the Standard Specifications:

- (g) The refrigerator shall have a minimum size of 16 cu ft with a freezer unit.
- (j) The copier shall additionally be able to reproduce up to 11x17 inch sizes with an automatic feed system.
- (k) The fax machine shall use 8  $\frac{1}{2}$  x 11 inch copy paper.
- (n) A microwave oven.
- (p) A small fire-proof safe to store the back-up CDs in the equipment cabinet.

# HOT-MIX ASPHALT BASE COURSE, 8"

All of the base course 8" placed will be measured and paid for as HOT-MIX ASPHALT BASE COURSE, 8" regardless of the width placed.

# HOT-MIX ASPHALT BASE COURSE WIDENING, 12"

All of the hot-mix asphalt base course 12" placed will be measured and paid for as HOT-MIX ASPHALT BASE COURSE WIDENING, 12" regardless of the width placed.

# HOT-MIX ASPHALT SURFACE REMOVAL

In addition to the requirements of Section 440 of the Standard Specifications, this work shall include construction of butt joints in the existing hot-mix asphalt. Butt joints shall be constructed as specified in Article 406.18 of the Standard Specifications and as detailed in the plans.

# PERMANENT PROTECTIVE SHIELD SYSTEM Effective: October 3, 1996

<u>Description:</u> This work shall consist of furnishing all labor, equipment and materials for the installation of a permanent protective shield system as required to protect pedestrian, vehicular and/or railroad traffic from falling material form portions of the existing structure.

<u>General:</u> The permanent protective shield system shall protect the area shown on the plans and/or as directed by the Engineer. The system shall be fixed. The existing vertical clearances above roadways and/or railroad tracks shall be maintained. The Contractor shall coordinate the installation with municipalities and/or utilities to insure protection of their facilities. Lane closures and other traffic control required during installation shall be according to the contract traffic control plan.

<u>Material:</u> The plywood shall be CDX grade with exterior grade glue and shall be of the thickness as shown on the plans. The plywood shall be nailed with at least two 6d common galvanized nails per timber. The timber shall be rough sawn Southern Pine or Douglas Fir and shall be of the dimensions as shown on the plans.

<u>Method of Measurement:</u> Permanent Protective Shield System will be measured for payment and the area computed in square meters (square yards). The length will be measured along the centerline of the structure. The width shall be as shown on the plans.

<u>Basis of Payment:</u> The Permanent Protective Shield System will be paid for at the contract unit price per square meter (square yard) for PROTECTIVE SHIELD (PERMANENT).

# END SECTIONS TO BE REMOVED

<u>Description</u>: This work shall consist of the satisfactory removal and disposal of reinforced concrete end sections as the locations designated on the plans.

This work shall be done as specified in Section 501 of the Standard Specifications. Care shall be taken not to damage existing pipes to remain in place. Any of the material which has been damaged by the Contractor shall be replaced by the Contractor at his/her own expense, with new material of the same kind and size.

Basis of Payment: Removing end sections will be paid for at the contract unit price each for END SECTIONS TO BE REMOVED.

# REMOVE AND RELAY END SECTIONS

<u>Description</u>: This work shall consist of the satisfactory removal of existing reinforced concrete flared end sections and relaying the reinforced concrete flared end sections on a prepared foundation.

<u>Materials</u>: Materials shall meet the requirements of the following Articles of Section 1000 of the Standard Specifications:

(a) Mastic Joint Sealer for Pipe ......1055

<u>Removal:</u> Existing reinforced concrete flared end sections shall be removed so that all end sections considered suitable for future use by the Engineer shall be salvaged. Any of the material having salvage value which has been damaged by the Contractor shall be replaced by

the Contractor at his/her own expense, with new end sections of the same kind and size. Material not suitable for salvage shall be disposed of by the Contractor as specified in Article 202.03 of the Standard Specifications.

<u>Installation:</u> Salvaged reinforced concrete flared end sections shall be reinstalled as specified in Section 542 of the Standard Specifications.

<u>Basis of Payment:</u> Removing and relaying precast reinforced concrete end sections will be paid for at the contract unit price each for REMOVING AND RELAYING PRECAST FLARED END SECTIONS, which price shall include excavation, preparing the foundation, connecting to the pipe and backfill.

# CULVERT TO BE CLEANED

<u>Description</u>: This work shall consist of the removal and disposal of materials from the flowline of existing box or pipe culverts.

<u>General</u>: Existing box or pipe culverts designated on the plans shall be cleaned of any accumulation of silt, debris, or foreign material of any kind and shall be free from such accumulations at the time of final inspection.

Materials removed shall be disposed of as specified in Article 202.03 of the Standard Specifications.

<u>Method of Measurement</u>: Culvert to be cleaned will be measured for payment in feet along the centerline of the box or pipe culvert.

Basis of Payment: This work will be paid for at the contract unit price per foot for CULVERT TO BE CLEANED.

# CLEANING EXISTING END SECTIONS AND INLETS

<u>Description</u>: This work shall consist of the removal and disposal of materials from the flowlines of existing end sections and inlets.

<u>Construction Requirements</u>: Existing end sections and inlets designated on the plans shall be cleaned of any accumulation of silt, debris, or foreign material of any kind and shall be free from such accumulation at the time of final inspection.

Materials removed shall be disposed of as specified in Article 202.03 of the Standard Specifications.

<u>Basis of Payment</u>: Cleaning existing end sections will be paid for at the contract unit price each for CLEAN EXISTING END SECTION. Cleaning existing inlets will be paid for at the contract unit price each for CLEANING EXISTING INLETS.

# PIPE UNDERDRAIN OUTLET EXTENSION SPECIAL

<u>Description:</u> This work shall consist of extending existing pipe underdrain outlets with additional pipe underdrain material, and relocating the headwall as necessary.

<u>Materials:</u> The materials used shall be in accordance with Article 601.02 of the Standard Specifications.

<u>Construction Requirements:</u> The existing concrete headwalls are to be removed, and reinstalled after the pipe underdrain outlet is extended. Care shall be taken not to damage the headwall or the pipe underdrain to remain in place. Any damage to the pipe underdrain or concrete headwalls caused by the Contractor's operations will need to be replaced with similar material at the Contractor's expense.

The existing pipe underdrain outlets shall be extended with pipe underdrain material of the same diameter, either 4" or 6". The additional pipe shall be installed in accordance with the applicable portions of Section 601 of the Standard Specifications. The average anticipated length of pipe required for each location is 6 feet. Connections to the existing pipe underdrain outlet shall be as specified by the Engineer. The existing concrete headwall will be relocated as necessary, and reattached in accordance with the applicable portions of Section 601 of the Standard Specifications.

Some under drain outlets will need to be connected to the proposed storm sewer on Ramp B at South Grand. The connection to the storm sewer will be made to the satisfaction of the Engineer.

Basis of Payment: This work will be paid for at the contract unit price per each for PIPE UNDERDRAIN OUTLET EXTENSION SPECIAL.

# CLEANING UNDERDRAIN OUTLETS

<u>Description:</u> This work shall consist of cleaning existing underdrain outlets and replacing missing rodent shields.

<u>General:</u> All existing underdrain outlets shall be cleaned unless otherwise directed by the Engineer. This cleaning shall include removing vegetation, sediment, or other debris from the existing headwall and outlet pipe. The cleaning shall also include reestablishing positive drainage from the outlet to the ditch where needed. The outlet pipe shall be flushed with water using a hose or other suitable equipment. The pipe shall be flushed a minimum distance of 10 feet beyond the pipe opening. The pressure of water introduced into the pipe shall not exceed 50 psi. All equipment used is subject to the approval of the Engineer. Headwalls and pipes damaged during cleaning shall be replaced as directed by the Engineer.

Existing outlets with an invert elevation below the existing ditch elevation do not require cleaning unless directed by the Engineer. If the contract includes separate work for ditch cleaning or regrading at the location of the outlet, the outlet should be cleaned after ditch work is complete.

Where rodent shields are not functioning or absent, they should be replaced according to Article 601.05 of the Standard Specifications. The Contractor shall submit a rodent shield design for approval of the Engineer prior to use.

<u>Basis of Payment:</u> This work shall be paid for at the contract unit price each for CLEANING UNDERDRAIN OUTLETS.

# **RESTRICTED DEPTH MANHOLES**

<u>Description</u>: This work shall consist of furnishing all labor, equipment and materials required to construct restricted depth manholes at locations designated in the plans and as directed by the Engineer.

<u>General:</u> This work shall be done as specified in Section 602 of the Standard Specifications, except manholes shall be constructed with a precast reinforced concrete lid as detailed on Standard 602601.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per each for RESTRICTED DEPTH MANHOLES, of the type and diameter specified and with the type of frame and grate or frame and lid specified, which price shall include all frames, grates, lids, concrete, sand cushion, steps, flat slab tops, and all excavation and backfilling, except in rock.

# MAINTENANCE MOWING

This work shall consist of mowing all areas of existing turf within 20' of the outside shoulder point and 15' of the median shoulder point along all pavement to a height of not more than 3". The equipment used shall be capable of completely severing all growth at the cutting height and distributing it evenly over the mowed area. The cut material shall not be windrowed or left in a lumpy or bunched condition. Subsequently, mowing may be required, as directed by the Engineer, on certain areas in order to disperse the mowed material. The Contractor will not be required to mow continuously wet ditches and drainage ways, slopes 1:3 (V:H) and greater, or areas which may be designated as not mowable by the Engineer. More than one cycle of mowing may be required during the duration of this contract.

Debris encountered during the mowing operation which hamper the operation or are visible from the roadway shall be removed and disposed of according to Article 250.05. Damage to the right-of-way and turf, such as ruts or wheel tracks more than 2" in depth, shall be repaired to the satisfaction of the Engineer prior to final inspection.

Each mowing cycle will be paid for at the contract unit price per acre for MAINTENANCE MOWING. Any subsequent mowing required to obtain a height of not more than 3" or to disperse mowed material will be considered as included in the cost of the initial mowing. Removal and disposal of debris and any repairs due to damage of the right-of-way or turf will not be paid for separately but will be considered as included in the cost of the mowing.

# WOVEN WIRE FENCE REMOVAL

<u>Description of Work</u>: This work shall consist of the complete removal and satisfactory disposal of existing fencing and gates.

<u>General</u>: Existing woven wire fence, including wire, posts, braces, gates, concrete, and hardware, shall be completely removed at the locations designated on the plans or as directed by the Engineer. Posts shall be pulled or cut off 12 inches below the ground surface. All holes shall be filled and tamped.

All materials resulting from fence removal shall become the property of the Contractor and shall be disposed off the project site.

Removal of existing fencing shall be coordinated with construction of proposed chain link fence so that there will be no more than five calendar days between the time the existing fence is removed and the proposed fence is installed. Where construction operations require that fence be removed more than five days in advance of constructing permanent fence, the Contractor shall erect temporary fencing as directed by the Engineer to reestablish the access control lines. The temporary fence shall be similar to plastic or wood lath snow fence, and shall be a minimum of 3 foot high with stakes placed a maximum of 15 feet apart.

It shall be the Contractor's responsibility to cross tie the existing fence so that the proposed chain link fence is installed in the proper location.

<u>Method of Measurement</u>: Fence removal will be measured for payment in feet along the top of the fence from center to center of the end post.

<u>Basis of Payment</u>: This work will be paid for at the contract unit price per foot for WOVEN WIRE FENCE REMOVAL. This price shall include removal and satisfactory disposal of all removed items. Temporary fence will not be measured for payment but shall be included in the cost for woven wire fence removal.

# CHAIN LINK FENCE REMOVAL

<u>Description of Work</u>: This work shall consist of the complete removal and satisfactory disposal of existing fencing and gates.

<u>General</u>: Existing chain link fence, including wire, posts, braces, gates, concrete, and hardware, shall be completely removed at the locations designated on the plans or as directed by the Engineer. Posts shall be pulled or cut off 12 inches below the ground surface. All holes shall be filled and tamped.

All materials resulting from fence removal shall become the property of the Contractor and shall be disposed off the project site.

Removal of existing fencing shall be coordinated with construction of proposed chain link fence so that there will be no more than five calendar days between the time the existing fence is removed and the proposed fence is installed. Where construction operations require that fence

be removed more than five days in advance of constructing permanent fence, the Contractor shall erect temporary fencing as directed by the Engineer to reestablish the access control lines. The temporary fence shall be similar to plastic or wood lath snow fence, and shall be a minimum of 3 foot high with stakes placed a maximum of 15 feet apart.

It shall be the Contractor's responsibility to cross tie the existing fence so that the proposed chain link fence is installed in the proper location.

<u>Method of Measurement</u>: Chain link fence removal will be measured for payment in feet along the top of the fence from center to center of the end post.

<u>Basis of Payment</u>: This work will be paid for at the contract unit price per foot for CHAIN LINK FENCE REMOVAL. This price shall include removal and satisfactory disposal of all removed items. Temporary fence will not be measured for payment but shall be included in the cost for chain link fence removal.

#### URETHANE PAVEMENT MARKING *Effective: March 25, 2005*

<u>Description</u>: This work shall consist of furnishing and applying a reflectorized modified urethane, plural component, durable liquid pavement marking lines, sizes and colors as shown on the plans.

Materials: All materials shall meet the following specifications:

- (a) Modified Urethane Marking: The modified urethane pavement marking material shall consist of a homogeneous blend of modified urethane resins and pigments designed to provide a simple volumetric mixing ratio of two components (must be two volumes of Part A to one volume of Part B). No volatile solvent or fillers will be allowed.
- (b) Pigmentation: The pigment content by weight of Component A shall be determined by low temperature ashing according to ASTM D 3723. The pigment content shall not vary more than + two percent from the pigment content of the original qualified paint.

White Pigment shall be Titanium Dioxide meeting ASTM D 476 Type II, Rutile.

Yellow Pigment shall be Organic Yellow and contain no heavy metals.

- (c) Environmental: Upon heating to application temperature, the material shall not exude fumes, which are toxic or injurious to persons or property when handled according to manufacturer specifications. The modified urethane pavement marking material compositions shall not contain free isocyanate functionality.
- (d) Daylight Reflectance: The daylight directional reflectance of the cured modified urethane material (without reflective media) shall be a minimum of 80 percent (white) and 50 percent (yellow) relative to magnesium oxide when tested using a color spectrophotometer with a 45 degree circumferential / zero degrees geometry, illuminant C, and two degrees observer

angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm. In addition, the color of the yellow modified urethane shall visually match Color Number 33538 of Federal Standard 595a with chromaticity limits as follows:

Х	0.490	0.475	0.485	0.539
У	0.470	0.438	0.425	0.456

(e) Weathering Resistance: The modified urethane, when mixed in the proper ratio and applied at 0.35 to 0.41 mm (14 to 16 mils) wet film thickness to an aluminum alloy panel (Federal Test Std. No. 141, Method 2013) and allowed to cure for 72 hours at room temperature, shall be subjected to accelerated weathering for 75 hours. The accelerated weathering shall be completed by using the light and water exposure apparatus (fluorescent UV – condensation type) and tested according to ASTM G 53.

The cycle shall consist of four hours UV exposure at 50  $^{\circ}$ C (122  $^{\circ}$ F) and four hours of condensation at 40  $^{\circ}$ C (104  $^{\circ}$ F). UVB 313 bulbs shall be used. At the end of the exposure period, the material shall show no substantial change in color or gloss.

- (f) Drying Time: The modified urethane material, when mixed in the proper ratio and applied at 0.35 to 0.41 mm (14 to 16 mils) wet film thickness and with the proper saturation of glass spheres, shall exhibit a no-tracking time of three minutes or less when tested according to ASTM D 711.
- (g) Adhesion: The catalyzed modified urethane pavement marking materials when applied to a 100 x 100 x 50 mm (4 x 4 x2 in) concrete block shall have a degree of adhesion which results in a 100 percent concrete failure in the performance of this test.

The concrete block shall be brushed on one side and have a minimum strength of 24,100 kPa (3,500 psi). A 50 mm (2 in) square film of the mixed modified urethane shall be applied to the brushed surface and allowed to cure for 72 hours at room temperature. A 50 mm (2 in) square cube shall be affixed to the surface of the modified urethane by means of epoxy glue. After the glue has cured for 24 hours, the modified urethane specimen shall be placed on a dynamic testing machine in such a fashion so that the specimen block is in a fixed position and the 50 mm (2 in) cube (glued to the modified urethane surface) is attached to the dynamometer head. Direct upward pressure shall be slowly applied until the modified urethane system fails. The location of the break and the amount of concrete failure shall be recorded.

- (h) Hardness: The modified urethane marking materials, when tested according to ASTM D-2240, shall have a Shore D Hardness greater than 75. Films shall be cast on a rigid substrate at 0.35 to 0.41 mm (14 to 16 mils) in thickness and allowed to cure at room temperature for 72 hours before testing.
- (i) Abrasion: The abrasion resistance shall be evaluated on a Taber Abrader with a 1,000 gram load and CS-17 wheels. The duration of test shall be 1,000 cycles. The wear index shall be calculated based on ASTM test method D-4060 and the wear index for the catalyzed material shall not be more than 80. The tests shall be run on cured samples of modified

urethane material which have been applied at a film thickness of 0.35 to 0.41 (14 to 16 mils) to code S-16 stainless steel plates. The films shall be allowed to cure at room temperature for at least 72 hours and not more than 96 hours before testing.

- (j) Tensile: When tested according to ASTM D-638, the modified urethane pavement marking materials shall have an average tensile strength of not less than 6,000 pounds per square inch. The Type IV Specimens shall be pulled at a rate of ¼" per minute by a suitable dynamic testing machine. The samples shall be allowed to cure at 75 °F± 2°F for a minimum of 24 hours and a maximum of 72 hours prior to performing the indicated tests.
- (k) Compressive Strength: When tested according to ASTM D-695, the catalyzed modified urethane pavement marking materials shall have a compressive strength of not less than 12,000 pounds per square inch. The cast sample shall be conditioned at 75°F± 2°F for a minimum of 72 hours before performing the indicated tests. The rate of compression of these samples shall be no more than ¼"per minute.
- (I) Glass Spheres: The glass spheres shall meet the requirements of Article 1095.04(m) and Article 1095.07 of the Standard Specifications for first drop and second drop glass beads.
- (m) The material shall be shipped to the job site in substantial containers and shall be plainly marked with the manufacturer's name and address, the name and color of the material, date of manufacture and batch number.
- (n) Prior to approval and use of the modified urethane pavement marking materials, the manufacturer shall submit a notarized certification of an independent laboratory, together with the results of all tests, stating these materials meet the requirements as set forth herein. The certification test report shall state the lot tested, manufacturer's name, brand name of modified urethane and date of manufacture. The certification shall be accompanied by one half-liter (one-pint) samples each of Part A and Part B. Samples shall be sent in the appropriate volumes for complete mixing of Part A and Part B.

After approval by the Department, certification by the modified urethane manufacturer shall be submitted for each batch used. New independent laboratory certified test results and samples for testing by the Department shall be submitted any time the manufacturing process or paint formulation is changed. All costs of testing (other than tests conducted by the Department) shall be borne by the manufacturer.

- (o) Acceptance samples shall consist of one half-liter (one-pint) samples of Part A and Part B, of each lot of paint. Samples shall be sent in the appropriate volumes for complete mixing of Part A and Part B. The samples shall be submitted to the Department for testing, together with a manufacturer's certification. The certification shall state the formulation for the lot represented is essentially identical to that used for qualification testing. All acceptance samples shall be taken by a representative of the Illinois Department of Transportation. The modified urethane pavement marking materials shall not be used until tests are completed and they have met the requirements as set forth herein.
- (p) The manufacturer shall retain the test sample for a minimum of 18 months.

# APPLICATION EQUIPMENT

The modified urethane pavement marking compounds shall be applied through equipment specifically designed to precisely meter the two components in the ratio of 2:1 and approved by the manufacturer of the material. This equipment shall produce the required amount of heat at the mixing head and gun tip and maintain those temperatures within the tolerances specified. This equipment shall also have as an integral part of the gun carriage, a high pressure air spray capable of cleaning the pavement immediately prior to the marking application. The equipment shall be capable of spraying both yellow and white urethane, according to the manufacturer's recommended proportions and be mounted on a truck of sufficient size and stability with an adequate power source to produce lines of uniform dimensions and prevent application failure. The truck shall have at least two urethane tanks each of 415 L (110 gal) minimum capacity and shall be equipped with hydraulic systems. It shall be capable of placing stripes on the left and right sides and placing two lines on a three-line system simultaneously with either line in a solid or intermittent pattern, in yellow or white, and applying glass beads by the double drop pressurized bead system. The system shall apply both the first drop glass beads and the second drop glass beads at a rate of 1.2 kg per L (10 lb/gal). The equipment shall be equipped with pressure gauges for each proportioning pump. All guns shall be in full view of operators at all times. The equipment shall have a metering device to register the accumulated installed quantities for each gun, each day. Each vehicle shall include at least one operator who shall be a technical expert in equipment operations and urethane application techniques. Certification of equipment shall be provided at the preconstruction conference.

# APPLICATION

The pavement shall be cleaned by a method approved by the Engineer to remove all dirt, grease, glaze or any other material that would reduce the adhesion of the markings with minimum or no damage to the pavement. New PCC pavements shall be blast-cleaned to remove all curing compounds.

Markings shall be applied to the cleaned surfaces on the same calendar day. If this cannot be accomplished, the surface shall be re-cleaned prior to applying the markings. Existing pavement markings shall be at least 90 percent removed. No markings shall be applied until the Engineer approves the cleaning.

Widths, lengths and shapes of the cleaned surface shall be prepared wider then the modified urethane pavement marking material to be applied, such that a prepared area is on all sides of the urethane pavement marking material after application.

New asphalt concrete and seal coated surfaces shall be in place a minimum of two weeks prior to marking applications.

The cleaning operation shall be a continuous moving operation process with minimum interruption to traffic.

The pavement markings shall be applied to the cleaned road surface, during conditions of dry weather and subsequently dry pavement surfaces at a minimum uniform wet thickness of 20 mils in accordance with the manufacturer's installation instructions and at the widths and patterns shown on the contract plans. The application and combination of reflective media

(glass beads and/or reflective elements) shall be applied at a rate specified by the manufacturer. At the time of installation the pavement surface temperature shall be 40 ° F and rising and the ambient temperature shall be 35° F and rising. The pavement surface temperature and the ambient temperatures shall be determined and documented before the start of each of marking operation. The pavement markings shall not be applied if the pavement shows any visible signs of moisture or it is anticipated that damage causing moisture, such as rain showers, may occur during the installation and curing periods. The Engineer shall determine the atmospheric conditions and pavement surface conditions that produce satisfactory results.

Unless directed by the Engineer, lines shall not be laid directly over a longitudinal crack or joint. The edge of the center line or lane line shall be offset a minimum distance of 50 mm (2 inches) from a longitudinal crack or joint. Edge lines shall be approximately 50 mm (2 inches) from the edge of pavement. The finished center and lane lines shall be straight, with the lateral deviation of any 3 meter (10-foot) line not to exceed 25 mm (1 inch).

<u>Notification:</u> The Contractor shall notify the Engineer 72 hours prior to the placement of the markings in order that an inspector can be present during the operation. At the time of this notification, the Contractor shall indicate the manufacturer and lot numbers of urethane and reflective media that he intends to use. The Engineer will ensure that the approved lot numbers appear on the material package. Failure to comply with this provision may be cause for rejection.

The Contractor shall provide an accurate temperature-measuring device(s) that shall be capable of measuring the pavement temperature prior to application of the material, the material temperature at the gun tip and the material temperature prior to mixing.

<u>Inspection:</u> The urethane pavement markings will be inspected following installation, but no later than December 15, and inspected following a winter performance period that extends 180 days from December 15 in accordance with the provisions of Article 780.10 of the Standard Specification for Road and Bridge Construction.

<u>Method of Measurement:</u> The lines will be measured for payment in feet of urethane pavement marking lines applied and accepted, measured in place. Double yellow lines will be measured as two separate lines. Words and symbols shall conform to the size and dimensions specified in the Manual on Uniform Traffic Control Devices and Standard 780001 and will be measured based on total areas indicated in table 1 or as specified in the plans.

<u>Basis of Payment:</u> This work will be paid for at the contract unit prices per foot of applied line for URETHANE PAVEMENT MARKING - LINE 4, 5, 6, 8, 12, 24 inches or per square foot URETHANE PAVEMENT MARKING – LETTERS AND SYMBOLS measured as specified herein.

#### OUTLET MARKER

<u>Description</u>: This work shall consist of marking the location of all existing and proposed pipe underdrain outlets within the limits of the project.

<u>Construction Requirements</u>: Outlet markers, as detailed in the plans, shall be installed on the completed bituminous with painted pavement markings. Outlet markers shall be placed directly over all existing and proposed pipe underdrain outlet pipes. Outlet marker color shall be white. Installation shall be according to Article 780.06.

Basis of Payment: This work will be paid for at the contract unit price each for OUTLET MARKER

# PAVEMENT MARKING REMOVAL

This work shall consist of removing existing pavement markings in accordance with Section 783 of the Standard Specifications and specified herein.

<u>Method of Measurement:</u> Existing pavement markings to be removed less than 12 inches in width shall be measured in linear feet.

Pavement markings to be removed equal to or greater than 12 inches in width and letters and symbols shall be measured in accordance with Article 783.05 of the Standard Specifications.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per linear foot for PAVEMENT MARKING REMOVAL. No additional compensation will be given for variations in width or the pavement markings.

#### **REMOVE SIGN COMPLETE**

<u>Description:</u> This work shall consist of the complete removal of the signs, supports, and foundations at locations indicated in the plans.

Basis of Payment: This work will be paid for at the unit price each for REMOVE SIGN COMPLETE.

# JUNCTION BOX (SPECIAL) Effective: September 14, 1990

Revised: April 30, 2004

This work shall consist of furnishing and installing a composite concrete junction box at a location(s) shown on the plan in accordance with Sections 813 and 1088.05 of the Standard Specifications for Road and Bridge Construction and the following additions or exceptions.

The box shall be made of polymer concrete and fiber reinforced polyester. The nominal dimensions shall be 13" x 24" x 18" D. The box and cover shall have a design load of 15,000-lbs. minimum with a test load of 22,500-lbs. minimum. The lid logo shall be "TRAFFIC" and

shall be held down by two stainless steel hex head bolts and have a skid resistant surface. The walls shall be straight. The box shall be set on 12 inches of compacted CA 6 for drainage. When the box is placed in a driveway or sidewalk, expansion material shall be placed around the box.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price each for JUNCTION BOX (SPECIAL), which price shall be payment in full for furnishing and installing the junction box complete in place.

# LIGHT POLE REMOVE AND RE-ERECT Effective: April 1, 2006

This work shall consist of removing and re-erecting existing light poles at the locations shown on the plans in accordance with Sections 830.03 and 842 of the Standard Specifications for Road and Bridge Construction and the following additions or exceptions.

The Engineer shall make the final determination as to which light poles shall be removed and re-erected.

Existing breakaway couplings shall be disposed of by the Contractor. Any damage resulting from the removal and reinstallation of the light pole and associated hardware shall be repaired or replaced in kind, at the Contractor's expense, to the satisfaction of the Engineer. After removal, the light pole and associated hardware shall be temporarily stored at a location determined by the Engineer.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price each for LIGHT POLE REMOVE AND RE-ERECT, which price shall be payment in full for removing, temporarily storing, and re-erecting an existing light pole and all associated hardware, wiring and appurtenances to the satisfaction of the Engineer. Breakaway devices will be paid for separately.

#### EXISTING LIGHT POLE FOUNDATION ADJUSTMENT Effective: April 1, 2006

This work shall consist of adjusting an existing light pole foundation at the locations shown on the plans in accordance with Sections 836.03 of the Standard Specifications for Road and Bridge Construction and the following additions or exceptions.

The Engineer shall make the final determination as to which foundations shall be adjusted.

After ditch grading is complete, the Contractor shall adjust the existing metal screw-in foundations so that the foundation does not protrude more than 4 in. above the finished grade. At the Engineer's option, the existing foundation may be removed and reinstalled to facilitate ditch grading.

If existing foundations are removed, the void shall be backfilled according to Section 815 and the foundations shall be removed according to Section 842.05. The foundations shall then be reinstalled in accordance with Section 836.03.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price each for EXISTING LIGHT POLE FOUNDATION ADJUSTMENT, which price shall be payment in full for adjusting or removing and reinstalling the existing foundation to the satisfaction of the Engineer.

# DESCRIPTION TRAFFIC COUNT DETECTOR LOOP, TYPE I

#### DESCRIPTION

This item shall consist of furnishing, installing and testing 6 ft. X 8 ft. rectangular detector loops at traffic classification ATR sites, and 6 ft. x 6 ft. square detector loops at traffic volume count ATR sites. The detector loops shall be installed in accordance with all details shown on the plans and applicable portions of Section 885 of the Standard Specifications. All saw cutting, detector loop installation, joint sealing, lead-ins, and testing necessary to complete the installation shall conform to the following requirements:

# MATERIALS

The cable used for detector loop shall be #14-7 strand XHHW XLP-600V, encased in orange Detecta-duct tubing as manufactured by Kris-Tech Wire Company, Inc or equivalent. All loop wire shall be UL listed. Lead-ins shall be Conoga-30003 cable or equivalent from the handhole to the cabinet. The jacket shall be made of high-density polyethylene.

At ambient air temperatures above 10 degrees C (50 degrees F), joint sealer having a minimum tensile strength of 100 P.I.E. when tested by ASTM Method D638-58T shall be used. The sealer shall have sufficient strength and resiliency to withstand stresses caused by vibrations, and pavement expansion and contraction due to temperature changes. Adhesion of the sealer to Portland Cement concrete shall be at least equal to the tensile strength of the concrete. The joint sealer shall have a maximum cure time of 30 minutes. Curing shall be defined as the capability of withstanding normal traffic loads without degradation. The sealer for Traffic Count Detector Loop Special shall meet or exceed the specifications of OZ GEDNEY DOZSeal 230 filling compound.

If the ambient air temperature is below 10 degrees C (50 degrees F), a hard asphalt-base filling and insulating compound having a high softening point and a high pouring temperature shall be used. The filling compound shall have a softening point of not less than 110 degrees C (235 degrees F), a summer pouring temperature of 190 degrees C (375 degrees F), and a winter pouring temperature of 220 degrees C (425 degrees F).

#### INSTALLATION DETAILS

The Engineer shall be contacted regarding proposed changes in loop locations necessitated by badly deteriorated pavement. The Engineer may relocate such loops. Detector loops may not be installed before permanent striping is completed on a newly resurfaced section of road. There is no minimum cure time required for new asphalt pavement when installing traffic count detector loops.

Slots in the pavement shall be cut with a concrete sawing machine in accordance with the applicable portions of Section 420.10 of the Standard Specifications. The slot must be clean, dry, and oil-free. Wire shall be inserted in the pavement slot with a blunt tool which will not damage the insulation. Loops shall not be dry cut. Loops should not be installed at an outside temperature below 10 degrees C (50° F) unless directed by Engineer.

All excess joint sealer shall be removed so that the level of the sealer in the saw cut is at the same level as the adjoining pavement.

Plastic sleeving shall be used to insulate the wire where loop wire crosses cracks and joints in the pavement. The sleeving shall be properly sealed with electrical tape to prevent joint sealer from entering sleeves. Sleeving shall extend a minimum of 8" each side of joint. Detector loops at traffic classification ATRs shall be 6' x 8' with edges perpendicular or parallel to traffic flow. All volume-only traffic count ATRs shall have 6' x 6' square loops. Detector loops shall be centered in all traffic lanes unless designated otherwise on the plans or by the Engineer. Traffic lanes shall be referred to by number, and loop wire shall be color-coded and labeled accordingly. Lane #1 shall be the southbound (western most) or westbound (northern most) outside lane. Subsequent lanes are to be coded sequentially towards the opposite outside shoulder. A chart which shows the coding for each installation shall be included in each cabinet. Core holes shall not be allowed at corners of loops. Saw cuts for all detector loops and lead ins shall not be greater than 2  $\frac{3}{4}$ " in depth.

All detector loops shall contain four (4) turns of #14 wire. Detector loops shall not be connected in series with other loops. Each detector loop shall have its own lead-in cable to the cabinet when said detector loop is over 150 ft. from the cabinet. The loop lead-in shall be a Canoga 30003 cable or equivalent. Loop and lead-in wires shall be free from kinks or any insulation abrasions. Lead-ins shall be twisted in such a manner so as to prevent mechanical movement between the individual cables. Lead-in cable shall be brought into a cabinet or handhole at the time the detector loop is placed in the pavement.

Where lead-in runs are less than 150 ft., the loop wire shall be utilized as lead-in to the point of termination without splices, being twisted 5 turns per foot. The loop wire will be paid for as lead-in from the handhole to the point of termination in the cabinet.

Loop lead-ins placed in handholes shall be coiled, taped and secured to the upper portion of the handhole to protect against water damage. The excess coiled wire should not exceed 6 ft. in length). Any other method of installation will require prior written approval of the Engineer. Each loop lead-in shall be color coded and tagged in each handhole through which it passes. The loop lead-in shall be color coded and tagged at the angled drilled hole, in each junction box it passes through, and at the termination point in the cabinet.

Saw cuts for loop lead-ins shall not be allowed in shoulders, or through the edge of pavement. Loop lead-ins shall not be installed in the curb and gutter section. An angled drilled hole shall be drilled at least 12 in. in from the edge of pavement through which the 12 in. PVC conduit containing the loop lead-in cable shall be installed (see plan detail). Saw cuts through shoulders shall not be allowed.

The loop shall be spliced to the lead-in wire with a barrel sleeve, crimped and soldered. Adhesive- lined heat shrink tubing shall be used to provide waterproof protection for the splice. The soldered connection shall be made with a soldering iron or soldering gun. No other method will be acceptable, i.e. the use of a torch to solder will not be acceptable. The heat shrink tubing FAI Route 55 (I-55), FAI Route 72 (I-72) FAP Route 666 (I-55 BUS) Project ACIM-ACHSIP-000S (554) Section D6 Interstate RS, BR, MCAB 2008 Contract No. 72659 Sangamon County shall be shrunk with a heat gun. Any other method will not be acceptable, i.e. the use of a torch will not be acceptable. No burrs shall be left on the wire when soldering is finished. Cold solder joints will not be acceptable.

The Traffic Count Detector Loop color code shall be as follows:

LOOP #1	RED
LOOP #2	WHITE
LOOP #3	GREEN
LOOP #4	BLUE

At locations where there are more than four loops , loops number five through number eight shall repeat the same color code, but all loops shall additionally be marked to identify the lane. In addition to color codes each loop shall be identified with a written label attached to the loop wire, or lead-in wire. The tags shall be Panduit #MP250W175-C or equivalent. All wires and cables shall be identified in each handhole or cabinet the cable passes through, or terminates in. The labels shall be attached to the cable by use of two cable ties.

#### PROTECTION OF WORK

Electrical work, equipment and appurtenances shall be protected from damage during construction until final acceptance. Electrical duct openings shall be capped or sealed from the entrance of water and dirt. Wiring shall be protected from mechanical injury.

#### STANDARDS OF INSTALLATION

Electrical work shall be completed in a neat and workmanlike manner in accordance with the best practices of the trade. Unless otherwise indicated, materials and equipment shall be new and installed in accordance with the manufacturer's recommendations.

Except as specified elsewhere herein, materials and equipment shall be in conformance with the requirements of Section 106 of the Standard Specifications.

#### <u>TESTING</u>

Detector loops shall be tested immediately upon installation at each ATR, and again at the time of Final Acceptance Inspection in the presence of the Engineer. Items which fail to test satisfactorily shall be repaired or replaced before final acceptance.

An electronic test instrument capable of measuring large values of electrical resistance, such as a megger, shall be used to measure the resistance of the detector loop and its lead-in. The resistance of the loop and its lead-in shall be a minimum of 100 megohms above ground under any conditions of weather or moisture. The resistance tests and all electronic tests shall be performed in the presence of the Engineer any number of times as specified by the Engineer. The loop and loop lead-in shall have an inductance between 100 microhenries and 350 microhenries. The continuity test of the loop and loop lead-in shall not indicate a resistance greater than two (2) ohms. The Contractor shall conduct all testing in the presence of the Engineer and all readings will be recorded by the Engineer. Testing shall be done with an approved loop tester.

# METHOD OF MEASUREMENT

This work shall consist of furnishing and installing loop detector lead-in cables or interconnect cables of the number of pairs specified in the conduit in accordance with the requirements of the Standard Specifications, Section 824 and the following exceptions or additions:

# **MATERIALS**

The Traffic Count Detector Loop Lead-in Cable shall be Canoga 30003 or equivalent.

#### **INSTALLATION**

Each end of the cable shall be identified with wire markers as directed by the Engineer.

The drain wire of each pair shall be grounded to chassis ground in the cabinet only for interference suppression.

The electrical values of the cable shall be metered by the Contractor, in the presence of the Engineer, after they are spliced to the detector loop. Acceptance of the cable as metered shall be determined by the Engineer.

#### BASIS FOR PAYMENT

This work shall be paid for at the contract unit price per lineal foot for ELECTRIC CABLE IN CONDUIT, CONOGA-30003 or equivalent, which price shall be payment in full for furnishing the material and making all electrical connections and installing the cable complete, measured as specified.

# PIEZO ELECTRIC AXLE SENSORS, CLASS-II

#### DESCRIPTION

At the classification site installation of Piezo Electric Axle Sensors is required. This item shall consist of installing one Class II Piezo Electric Axle Sensor (AMP Model No. 0-1004673-0 BLC Sensor Class II or equivalent), in each lane indicated on the enclosed plans.

The use of Global Resin Epoxy or equivalent is necessary for proper bonding. A minimum of thirty (30) days cure time for new asphalt before the epoxy is used for bonding. To accelerate cure time of the epoxy at temperatures below 10 degrees C (50° F) an epoxy heater will be furnished by IDOT. The Contractor shall provide a 240V generator capable of providing at least 3,600 watts of power.

Piezo axle sensors may not be installed before permanent striping is completed on a newly resurfaced section of road. Installation of an ATR must be completed no later than sixty (60) days after installation is begun.

# MATERIAL

The four (4) Class II axle sensors, necessary RG58C/U transmission cable and Global Epoxy or equivalent for encapsulating sensors shall be furnished by the Contractor. ROADTRAX BLC Traffic Sensors manufactured by AMP Incorporated or equivalent shall be installed at this location. The axle sensor shall be flexible along its longitudinal axis to allow the sensor to easily conform to the profile of the lane in which it is being installed. Class II axle sensors shall be manufactured with suitable lengths of RG58C/U transmission cable for continuous run from axle sensor through the handhole to the cabinet. Splicing of transmission cable to axle sensor shall not be permitted unless approved in advance and supervised by Mr. Ramon Taylor of the Illinois Department of Transportation.

# INSTALLATION

Installation shall be in accordance with the attached instructions. The Engineer should be advised at least three days prior to installation. Mr. Ramon Taylor of the Illinois Department of Transportation, telephone (217) 782-2065, <u>must be present</u> to supervise installation of the axle sensors.

Heated loop sealers shall not be used to seal the RG58C/U transmission cable in the pavement saw cut. Sealex or equivalent loop sealant shall be used.

# <u>TESTING</u>

Piezo electric axle sensors shall be tested immediately upon installation and again at the time of Final Acceptance Inspection in the presence of the Engineer. The tests shall be performed utilizing an oscilloscope to ensure acceptable, clean signals of proper amplitude and polarity. Sensors that fail to test satisfactorily shall be repaired or replaced before final acceptance.

# IDOT Installation Instructions for the Roadtrax BL Traffic Sensors (or approved Equivalent)

# **Equipment Required**

The sensors should be supplied with sufficient lengths of lead-in cable to avoid splicing. The lead-in cable length should not exceed 300 feet without consulting the manufacturer. Installation brackets are included when the sensors are shipped from the manufacturer. If splicing is required, only similar grades of RG-58 cable should be used. Splices must be soldered and an approved splice kit used to waterproof the splice.

# The following tools and accessories are required for sensor installation:

- 1.00 A heavy duty (at least 35 horsepower) self-propelled concrete cutting saw equipped with a 3/4" diamond blade. If a blade of this width is not available, multiple blades can be used to form a dado.
- 1.01 A water supply for blade cooling and slot washing.
- 1.02 A 1/2 inch electric or air hammer drill, 1/2 inch masonry bit, hand sledge hammer and one inch chisel.
- 1.03 Air compressor with hose and nozzle for cleaning and drying the slot and to power any air tools used.
- 1.04 Straight edge, chalk line, minimum 1/8" diameter cord or rope for laying out the lines, upside-down pavement fluorescent spray paint, wax crayon, measuring tape to mark locations of saw cuts to be made for sensor(s) and lead-in wire.
- 1.05 One half inch variable speed drill, industrial grade mixing paddles (one for mixing sensor grout & hardener and one for mixing loop sealant & hardener. Do not cross contaminate sensor grout and loop sealant by using the same mixing paddles.
- 1.06 Wire Strippers. Knife type blade strippers, pliers and diagonal cutters.
- 1.07 Disk grinder or heavy duty sander to remove high spots of epoxy after installation and curing.
- 1.08 Wire brush to remove any remaining debris from the sawed slot and to rough up the sides of the slot after the saw cuts are completed.
  - 1.09 Broom to keep work area clear of debris.
- 1.10 Clean rags and Isopropyl Alcohol to clean and prime concrete surface of the sawed slots.
- 1.11 Plumbers putty or duct seal to form dams at the end of the sensor slot to contain the resin (grout).

- 1.12 PG5 Resin (or approved equal) for encapsulating the sensors
- 1.13 Two part cold mix loop sealant for encapsulating the loop and lead wire(s). Hot tar is not acceptable.
- 1.14 Duct tape (2" minimum width) to protect the pavement edge from excess resin end loop sealant along edges of sawed slots during installation of sensors and lead wire.
- 1.15 Putty Knives (3" to 4") to remove excess epoxy\_or work epoxy around sensor and Small point trowel for putting resin (grout) into the slot if necessary.
- 1.16 Sensor epoxy curing system (provided by the Illinois Department of Transportation hereafter known as IDOT) to allow sensor installation at temperatures lower than those normally recommended by the resin manufacturer. The maximum temperature allowed by IDOT for on the MSI-BL sensor is 120° F.
- 1.17 One 4,000 watt, 240 volt generator (provided by the Contractor) to provide a power source for the sensor curing system. Please contact Ramon Taylor at (217) 782-2065 to determine if the Sensor Heater will be used. If the use of a heater is not anticipated by Mr. Taylor, it will not be necessary for the Contractor to provide one.
- 1.18 The Contractor must provide\_a generator suitable for any power tools since AC power is not available at most traffic count stations.
- 1.19 One hundred foot fish tape.
- 1.20 Heavy duty extension cord.
- 1.21 Chemical proof rubber work gloves, heavy duty work gloves, dust filter mask and Goggles & safety glasses for eye protection.
- 1.22 Oscilloscope such as the Fluke Scopemeter.
- 1.23 Trenching equipment, as required to bury conduit.
- 1.24 Cleaning Materials for hands and equipment.
- 1.25 All necessary instructions.
- 1.26 All necessary safety data (MSDS, etc)

# Method of Installation

2.00 Mark the position of the sensor slots to be cut, perpendicular to the traffic flow. Cable runs on the pavement should also be clearly marked using wax crayons or line and fluorescent pavement paint.

- 2.01 Cut a slot 3/4" wide ( $\pm 1/16$  ") and 7/8" deep (+- 1/8"). The slot should be 6" longer than the sensor. The lead out should be centered on the slot.
- 2.02 The slot must be cut in one pass using one (1) 3/4" wide diamond blade or two (2) 3/8" blades may be ganged together. The slot should be wet cut to minimize damage to the roadway surface.
- 2.03 Cut the cable slots to the edge of the roadway.
- 2.04 Drill a ½" diameter hole at a 45° angle into the bottom edge every 12" along the length of the slot, alternating between the two sides of the slot. These holes should be approximately ½" deep.
- 2.05 Clear away debris and wash the slots thoroughly. Use air supply to dry. The slots and surrounding surface must be completely clean and dry before any adhesive is poured.
- 2.06 Apply two layers of 2" duct tape on the pavement along the perimeter of the slot.
- 2.07 Position the sensor on the duct tape next to the slot. Ensure that the sensor is straight and flat. Place the clips on the sensor, about every 8". Do not place the sensor in the slot at this point, since the clips are one way and it will-be difficult to remove the sensor prior to putting in the Global Resin PU-200 (or approved equal) into the sensor slot.
- 2.08 Block the ends of the slot using plumbers putty or duct seal. Ensure that there are adequate 'dams' at both ends so that the encapsulation material (P5G Resin or approved equal) does not flow out. On the passive cable end, dam should be about 3 ½" past the end of the lead attachment area.
- 2.09 Ensure that you are wearing rubber gloves suitable for this type of application. The sealant should not come in contact with the skin.
- 2.10 Mix the grout according to the manufactures instructions. Be sure to pre-mix the resin before combining the two parts since the filled materials have a tendency to settle. Fill the slot full of the encapsulation material. Using a trowel, distribute the encapsulation material along the sensor, and smooth it out. Approved Installation Epoxies are-ECM P5G and Global Resin PU 200.
- 2.11 Place the sensor in the slot, with the brass element about ¼" below the road surface, and the top of the brackets about 1/8" below the road surface. Ensure the ends of the sensors are pushed down sufficiently. Smooth out the grout on top of the sensor ensuring there is not a trough on top.
- 2.12 Remove the tape on the sides of the slot as soon as the adhesive starts to cure.
- 2.13 Carefully remove the plumbers putty or duct seal used to form the dams at both ends of the sensor

2.14 Route the lead in cable through the slot cut for it, and cover with loop sealant Hot Tar must not be used since the temperature is difficult to control and it can burn the cable. Scatter clean dry sand to prevent sticking.

Note: The lead-in cable slot shall run to the edge of pavement.

- 2.15 When the encapsulation material is fully cured (see manufacturers recommended cure time), grind the top of the encapsulation material flush with the road using an angle grinder. The profile should be flat or with a slight 'mound', provided that there is no concave portion to the curve.
- 2.16 Remove all work related debris from the site. When the encapsulation material is fully cured, lanes may be opened to traffic. Follow the manufacturers recommended cure time.

# AXLE SENSOR TRANSMISSION CABLE IN CONDUIT

# DESCRIPTION

This work shall consist of installing RG58C/U transmission cable in 12 in. PVC conduit from the edge of pavement to the handhole, and RG58C/U transmission cable in 3 in. galvanized steel conduit from the handhole to the cabinet.

# MATERIALS

The RG58C/U transmission cable is integral to the Piezo Electric Axle Sensor as previously described. The 1.5 in. conduit through which the cable is installed, and all fittings and accessories shall be manufactured from polyvinyl chloride complying with applicable requirements of N.E.C. Article 347, NEMA Publication No. TC2, UL 651 for EPC-40-PVC, and ASTM D1784. The solvent cement used to join the conduit and fittings shall meet requirements of ASTM D2564.

#### BASIS FOR PAYMENT

This work shall be paid for at the contract unit price per lineal foot for PIEZO ELECTRIC AXLE SENSOR CABLE IN CONDUIT, which shall be payment in full for furnishing the Transmission Cable which will run from the edge of pavement to the handhole, and from the handhole to the cabinet with necessary connections in the cabinet.

# HEAVY-DUTY HANDHOLE

#### DESCRIPTION

This item shall consist of constructing a heavy-duty handhole cast in place, complete with frame and cover and in accordance with the following requirements and conforming in all respects to the lines, grades, and dimensions shown on the plans or as directed by the Engineer. All handholes shall be installed in accordance with Section 814 of the Standard Specifications.

# <u>MATERIALS</u>

All materials shall conform to Article 1085.59, and all handholes shall be constructed of Class SI concrete conforming to Article 1020 of the Standard Specifications.

# CONSTRUCTION DETAILS

Heavy-duty handholes shall be constructed in accordance with the details shown on the plans and conform to the following requirements:

<u>Concrete</u>: Concrete construction shall be done in accordance with the provisions of Concrete for Structures and Incidental Construction contained in Section. 503 of the Standard Specifications.

<u>Placing Castings</u>: Castings shall be set accurately to the finished elevation so that no subsequent adjustment will be necessary. Castings shall be set flush with a sidewalk or pavement surface. When installed in an earth shoulder away from the pavement edge, the top surface of the casting shall be 1 inch above the finished surface of the ground.

<u>Backfilling</u>: Any backfilling necessary under a pavement, shoulder, sidewalk or within 2 feet of the pavement edge shall be made with sand or stone screenings.

<u>Forming</u>: Forms will be required for the inside face of the handhole wall, and across all trenches leading into the handhole excavation. The ends of conduits leading into the handhole shall fit into a conduit bell which shall fit tightly against the inside form and the concrete shall be carefully placed around it so as to prevent leakage.

<u>French Drain</u>: A French drain conforming to the dimensions shown on the plans shall be constructed in the bottom of the handhole excavation.

<u>Steel Hooks</u>: Each handhole shall be provided with four galvanized steel hooks of appropriate size, one on each wall of the handhole.

<u>Frame and Cover</u>: The outside of the cover shall contain a recessed ring (Type-G) for lifting and a legend "IDOT OPP" cast-in.

<u>Cleaning</u>: The handhole shall be thoroughly cleaned of any accumulation of silt, debris, or foreign matter of any kind, and shall be free from such accumulations at the time of final inspection.

#### BASIS FOR PAYMENT

This work will be paid for at the contract unit price each for HEAVY DUTY HANDHOLE which price shall be payment in full for all necessary excavating, backfilling, disposal of surplus material and form work, frame and cover, and furnishing all materials.

## **CONCRETE FOUNDATION, TYPE-D**

#### **DESCRIPTION**

This item shall consists of constructing a Type-D foundation for the installation of a Type-III ground cabinet housing continuous traffic count equipment, anchor bolts and ground rod in

FAI Route 55 (I-55), FAI Route 72 (I-72) FAP Route 666 (I-55 BUS) Project ACIM-ACHSIP-000S (554) Section D6 Interstate RS, BR, MCAB 2008 Contract No. 72659 Sangamon County ming in all respects to the lines, grades

accordance with the following requirements and conforming in all respects to the lines, grades and dimensions shown on the plans or as directed by the Engineer and in applicable portions of Section 868 of the Standard Specifications and the diagram for Standard 838001 of the Highway Standards.

## MATERIALS

The materials shall conform to the specifications for Class SI concrete Reinforcement Bars in the Standard Specifications. The conduit and fittings within the limits of the foundation shall conform to the same requirements as specified for the conduit outside these limits. Anchor bolts shall meet the requirements of Section 505 and Article 1006.09 of the Standard Specifications.

A ground rod shall be installed in each foundation and shall conform to Article 1085.04. Unless otherwise indicated, ground rods shall be one piece copper-clad steel rods  $\frac{3}{4}$ " x 10 feet. After installation, and before acceptance of the ATR, the earth ground shall be tested in the presence of the Engineer utilizing an appropriate earth-ground test set.

#### CONSTRUCTION

The Class SI Type-D foundations shall be at the locations specified in the plans. The top of the foundations shall be finished level. Shimming will not be permitted. All edges along the top of the foundation shall have a 1 inch bevel. A form extending a minimum of 9 inches below the top surface of the foundation is required. The form shall be set level and means shall be provided for holding same rigidly in place while the concrete is being deposited. If the excavation is irregular, a form shall be used to provide the proper dimensions of the entire foundation below the grade surface. Where a concrete foundation is contiguous to a sidewalk, preformed joint filler of 1 inch thickness shall be placed between the foundation and the sidewalk.

All conduit in the foundation shall be installed rigidly in place before concrete is deposited in the form. Insulated bushings shall be provided at the ends of conduit.

Anchor bolts shall be set in place before the concrete is deposited by means of a template constructed to place the anchor bolts in accordance with the pattern of the bolt holes in the base. After installation of cables, all conduit openings in the foundations shall be sealed with approved mastic. The required number and size of galvanized steel conduit shall be installed in every concrete foundation as shown in the plans An excess of galvanized steel conduit shall be installed in installed in every concrete foundation. These excess stubs shall be 2 inches in length. Placement and Quantity shall be determined by the Engineer and the ends of the stubs shall be capped.

Incidental to the cost of each Type-D foundation, the Contractor shall construct a 5 inch PCC sidewalk of rectangular area 3 foot x 4 foot immediately adjacent to the cabinet door, with the 4 foot dimension of the rectangle parallel to the cabinet door when closed. The only situation where this is not applicable is when the foundation is immediately adjacent to or within a paved sidewalk or shoulder area where no further surfacing area is required. The Engineer shall be the sole judge of proper action if this situation should arise.

#### BASIS FOR PAYMENT

This work shall be paid for at the contract unit price per foot of depth of CONCRETE FOUNDATION, TYPE D, which price shall be payment in full for all necessary excavating, backfilling, disposal of surplus material, form work, and furnishing all materials, anchor bolts, stubs, and ground rods within the limits of the foundation.

# CABINET HOUSING EQUIPMENT

#### DESCRIPTION

This item shall consist of furnishing and installing Type-3 ground-mounted cabinets of the size specified in place including anchor bolts, bases, cable harnesses, ground rods, terminal boards, shelves, mounting hardware, and all miscellaneous items at locations as directed by the Engineer.

#### MATERIALS

Cabinets shall be of fabricated aluminum supplied in the sizes with minimum inside dimensions as listed below.

Туре	Height	Width	Depth	Thickness	Opening
E.S.P. 3	49.5 in.	30 in.	17 in.	.185 in.	38 in. x 27.5 in.

A heavy-duty gasket shall be installed around the cabinet door opening to provide a weathertight seal for the protection of the enclosed equipment.

The Type-3 ground mounted cabinet shall be caulked along the entire perimeter of the base with a waterproof, non hardening compound prior to setting the cabinet on the foundation to ensure a water, dust and insect-proof seal.

The cabinet shall be provided with a screened vent under the roof overhang, but a thermostatically controlled fan is not required. No louvers or filtered air intake in the door shall be required.

The cabinet exterior surface shall be smooth, free of marks and scratches and provide an unpainted brushed aluminum finish.

The cabinet door shall be capable of being opened to various angles by a stop and catch mechanism.

The cabinet door shall be equipped with Type-2 Corbin brass locks.

The cabinet shall not be equipped with a police door.

The cabinet shall have two (2) shelves for setting counter/classifiers and other equipment. The shelves' vertical position shall be adjustable.

# INSTALLATION DETAILS

Installation shall conform to applicable portions of Section 863 of the Standard Specifications.

The detector loop leads and telephone line shall be equipped with lightning protection. Any lightning protection for the axle sensors shall be as recommended by the manufacturer. Lightning arrestors for the detector loop leads shall be Surrestor SRA-16, manufactured by EDCO Inc. of Belleview, FL. or equivalent. The type of high quality lightning arrestors for the axle sensor lead-in and telephone line shall be as recommended by the equipment manufacturers. The terminal board wiring and all other wiring and connections shall be as indicated in the wiring diagram. Open-end spade connectors shall be used and shall be of sufficient length to allow moving the controller I counter/classifier at least 15 inches outside the cabinet door opening without disconnecting any cables.

No holes shall be drilled through the cabinet exterior for internal equipment mounting.

Each wire entering a cabinet shall be trained in a workmanlike manner and lugged at each terminal strip. If more than one wire has a common terminal on a terminal strip, the adjacent strip shall be used and an appropriate jumped connection shall be made.

All cables and wiring entering a cabinet shall be dressed, harnessed, tied, laced, and clamped to produce a workmanlike wiring installation.

All cables, loop wires, power, phone shall be labeled with a panduit type cable tag. The tag will identify the type of cable and the cable destination.

The Piezo Electric Axle Sensor Transmission Cable shall be terminated in the cabinet with a male BNC connector of a commercial grade or better and a colored strain-relief sleeve. Assembly shall be performed using proper methods and tooling. Twist-on connectors shall not be used.

The Piezo Electric Axle Sensor Transmission Cable color code shall be as follows:

LANE #1	RED
LANE #2	WHITE
LANE #3	GREEN
LANE #4	BLUE

A copper grounding bus shall be mounted on the rear wall of the cabinets connecting all components to earth ground. Each cabinet shall contain a wiring diagram of the installation in addition to the diagrams which are to be submitted to the Engineer.

The cabinet shall be wired in accordance with the plans provided. Any deviation from the plans shall be submitted and approved in advance.

The Contractor shall furnish three (3) diagrams of the internal and external connections of the equipment in each cabinet. He shall also furnish the operating and maintenance instructions for all equipment supplied. One copy of the wiring diagrams for each cabinet shall be retained in

each field cabinet. Wiring diagram shall be contained in a plastic pouch that shall be permanently mounted to the door of each cabinet. Contractor shall permanently mark the cabinet for each terminal connection as to function and destination.

Incidental to the cost of each cabinet, the Contractor shall construct a 5 inch PCC sidewalk of a rectangular area 3 foot by 4 foot immediately adjacent to the cabinet foundation on the same side of the foundation as the cabinet door, with the 4 foot dimension of the rectangle parallel to the cabinet door when closed. If the width of the required cabinet foundation is greater than the 3 foot width of the standard Type D concrete foundation, the 4 foot dimension of the sidewalk area shall be increased to equal the width of the foundation plus 1 foot, the area to extend 6 inches beyond each side of the foundation. This paragraph shall be applicable at all cabinet locations included in this Section. The only situations where this paragraph shall not apply are as follows: When the foundation is immediately adjacent to or within a paved sidewalk or shoulder area and no further surfacing is required. The Engineer shall be the sole judge as to the applicability of this paragraph in all questions arising therefrom.

No conduit shall be allowed to enter cabinet through the sides, top or back walls.

Terminal blocks provided in field cabinets shall be the heavy duty barrier type. The terminal block shall be a minimum of 2 inches wide and 1.2 inches deep. Center to center of the terminal screws or studs shall be a minimum of 5/8 inch with barriers in-between. Terminal blocks shall be rated at 45 amps 600 volts breakdown RMS line to line 11,000 V. and breakdown RMS line to ground 13,800 V. A marking strip shall be provided with each terminal block.

#### METHOD OF MEASUREMENT

Each cabinet installed complete and in place on a Type D concrete foundation will be counted as a single unit.

#### BASIS FOR PAYMENT

This work will be paid for at the contract unit price each for CONTROLLER CABINET, TYPE-III SPECIAL which price shall be paid in full for furnishing, wiring and installing the new cabinet, anchor bolts and terminal facilities complete.

#### MATERIAL TRANSFER DEVICE (BDE)

Effective Date: June 15, 1999

<u>Description</u>. This work shall consist of placing <u>all polymerized hot-mix asphalt surface course</u>, <u>mix "E", N105; and all polymerized hot-mix asphalt binder course</u>, <u>IL -19.0 N105</u> except that these materials shall be placed using a material transfer device.

<u>Materials and Equipment</u>. The material transfer device shall have a minimum surge capacity of 13.5 metric tons (15 tons), shall be self-propelled and capable of moving independent of the paver, and shall be equipped with the following:

(a) Front-Dump Hopper and Conveyor. The conveyor shall provide a positive restraint along the sides of the conveyor to prevent material spillage.

- (b) Paver Hopper Insert. The paver hopper insert shall have a minimum capacity of 12.7 metric tons (14 tons).
- (c) Mixer/Agitator Mechanism. This re-mixing mechanism shall consist of a segmented, anti-segregation, re-mixing auger or two full-length longitudinal paddle mixers designed for the purpose of re-mixing the bituminous material. The longitudinal paddle mixers shall be located in the paver hopper insert.

# CONSTRUCTION REQUIREMENTS

<u>General</u>. The material transfer device shall be used for the placement of <u>all polymerized hot-mix asphalt surface course</u>, mix "E", N105; and all polymerized hot-mix asphalt binder course, IL -<u>19.0 N105</u>. The material transfer device speed shall be adjusted to the speed of the paver to maintain a continuous, non-stop paving operation.

The material transfer device will be permitted on partially completed segments of full-depth bituminous concrete pavement if the thickness of binder in place is 250 mm (10 in.) or greater.

<u>Structures</u>. The material transfer device may be allowed to travel over structures under the following conditions:

- (a) Approval will be given by the Engineer.
- (b) The vehicle shall be emptied of bituminous material prior to crossing the structure and shall travel at crawl speed across the structure.
- (c) The tires of the vehicle shall travel on or in close proximity and parallel to the beam and/or girder lines of the structure.

<u>Method of Measurement</u>. This work will be measured for payment in metric tons (tons) for <u>all</u> polymerized hot-mix asphalt surface course, mix "E", N105; and all polymerized hot-mix asphalt <u>binder course</u>, IL -19.0 N105 materials placed with a material transfer device.

Basis of Payment. This work will be paid for at the contract unit price per metric ton (ton) for MATERIAL TRANSFER DEVICE.

The various bituminous mixtures placed with the material transfer device will be paid for as specified in their respective specifications. The Contractor may choose to use the material transfer device for other applications on this project; however, no additional compensation will be allowed.

# RIGID 1 1/4" PVC CONDUIT

#### **DESCRIPTION**

This item shall consist of furnishing and installing rigid 1 <sup>1</sup>/<sub>4</sub>" PVC conduit, fittings and accessories as specified herein in accordance with applicable portions of Article 810, 812 and 1085.15 of the Standard Specifications. This conduit will carry the detector loop and axle sensor lead-in cables from the edge of pavement to the handhole.

# MATERIALS

PVC conduit, fittings and accessories shall be manufactured from polyvinylchloride complying with applicable requirements of N.E.C. Article 347, NEMA publication No. TC2, UL 651 for EPC-40-PVC, and ASTM D1784. Solvent cement used to join the conduit and fittings shall meet requirements of ASTM D2564.

#### METHOD OF MEASUREMENT

Conduit shall be measured for payment in lineal meters in place. Measurements shall be made in a straight line along the centerline of the conduit.

# BASIS FOR PAYMENT

This item shall be paid for at the contract unit price per lineal foot for PVC CONDUIT IN TRENCH-1 1/4 inch which shall be payment in full for the work as described herein.

# FINAL INSPECTION

When the work is complete, tested and fully operational, the Contractor shall schedule a Final Inspection with the Engineer. Final inspection shall be made as a total system, not as parts. The Contractor shall furnish the necessary manpower and equipment required for the Final Inspection. The Engineer will designate the type of equipment required for the inspection tests.

#### FINAL ACCEPTANCE

After the successful final inspection of the total system, the system shall enter a thirty (30) calendar day monitoring phase during which time IDOT will continuously monitor the operation of all newly installed traffic count ATRs utilizing the system's software capabilities. All components including, but not limited to, the controller cabinets with peripheral equipment, modems, induction loops and piezo electric axle sensors must function properly. Failure of any component essential to the successful operation of the system during the monitoring phase shall be recorded by IDOT. Corrective measures must be taken by the Contractor to the satisfaction of the Engineer. A failed item shall necessitate restarting the 30 day monitoring period for that item, beginning at the time the failed item is corrected by the Contractor to the satisfaction of the Engineer.

At the end of the 30-day period the Contractor shall provide the Engineer with a performance log for all items covering the 30-day period. Upon review of the log and successful completion of equipment performance testing to the satisfaction of the Engineer, he/she will issue an acceptance notice or notify the Contractor in writing.

# **POSSIBLE SOURCES for SPECIFIED ITEMS**

Material	Possible Source	Contact Person	Telephone Number	Location
Loop Detector Wire encased in Orange Detecta-Duct Tubing	Kris-Tech Wire Company (manufacturer)	Sales Person	(315) 339-5288	Rome, N.Y.
Conoga 2-pair shielded wire suitable for direct burial	3M Traffic Products Division (manufacturer)	Sales Person	(612) 733-1110	Minneapolis, MI
Global PU260 Resin	PAT of America (distributor)	Scott Sherwood Mark Fada	(815) 675-1430	Spring Grove, IL
ECM P5G Resin	Electronic Control Measurements, Inc (ECM) (manufacturer)	Ronald White	(512) 272-4346	Manor, TX
Class-II Bare Linguine(BL) Sensors	Measurement Specialties, Inc (mfg.)	Don Halverson	(610 650-1580	Valley Forge, PA
	IRD / ITC (distributor) Trigg Ind. (distributor)	Scott S./ Mark F Harry Trigg Jr.	(815) 675-1430 (323) 845-9390	Spring Grove, IL Los Angles, CA

<u>Note</u>: If manufacturers are listed rather than distributors, it may be necessary to contact the manufacturer for the nearest distributor or vendor.

## LIGHTING FOR NIGHTTIME HIGHWAY CONSTRUCTION

**Description:** This work shall consist of furnishing, installing, operating, maintaining, moving and removing all necessary lighting equipment and materials for the duration of nighttime operations on the contract. Night time operations consist of work specifically scheduled during the hours of darkness. All work shall be done according to the "Standard Specifications for Road and Bridge Construction" and as further defined herein.

<u>Materials</u>: Furnished lighting equipment may include fixed and/or mobile lighting systems. Fixed lighting systems utilize portable lighting supports and luminaries and may take the form of roadway luminaries on temporary poles. Mobile lighting systems use luminaries attached to mobile construction equipment. Other lighting systems, such as balloon lighting, may be adapted to both fixed and mobile lighting. All lighting equipment shall be in good operating condition and in compliance with applicable safety and design codes to the satisfaction of the Engineer and shall meet the glare requirements.

<u>General Requirements:</u> Whenever the Contractor's operations are being conducted at night, the Contractor shall provide such artificial lighting as determined by the Engineer to ensure safety on and around the worksite, quality of construction, and adequate conditions for inspection of the work by the Engineer. If multiple operations are underway simultaneously at various locations throughout the jobsite, lighting meeting the specifications herein shall be provided at each separate operation site.

Lighting requirements in this specification are not intended to be a substitute for other required safety measures, including: reflective clothing, traffic control devices, warning lights, barricades, cones, and signs. All vehicles in the work zone shall have properly functioning vehicle headlights and all contractors vehicles and construction equipment shall have amber flashing or strobe lights. Lighting shall also be provided for flagger stations according to the requirements set forth in the Standard Specifications.

Extreme care shall be taken to avoid contact with any overhead wires or facilities crossing the roadway. If such contact occurs, the Contractor shall be solely responsible for any resulting damage or expenses.

**Lighting Levels:** Unless specified otherwise within this specification, the contractor shall provide minimum lighting levels of 54 lux (5fc) through out the work area. The work area for mobile operations shall be defined as an area 9 m (30ft) in front of and behind moving equipment and 9m (30ft) in front of and behind any workers performing construction operations. For stationary operations the work area shall consist of the entire area where work operations are being performed. Lighting levels will be measured in a horizontal plane 3 ft. above the pavement.

<u>Glare Control:</u> All provided lighting shall be designed and operated so as to avoid glare that interferes with traffic on the roadway. The use of any light fixture that is capable of being rotated on its support such that a direct light could be aimed that would produce unacceptable levels of glare for motorist from any direction or for the workers shall not be used. Large point source lighting with diffuse optics, such as balloon lighting and other similar types of lighting devices meets the glare requirements.

Light Trespass: Lighting shall be provided and maintained so as not to cause annoyance for residences adjoining the worksite. If any complaints are received by the Engineer and/or the Contractor from residences adjoining the worksite, the Contractor shall respond immediately and modify lighting arrangement or add any necessary hardware to shield light trespass to adjoining properties. These modifications should not affect the Contractor's compliance with other requirements in this specification.

**Lighting Equipment:** All lighting equipment shall be furnished as required and retained by the Contractor after the work is completed. Material and/or equipment shall be in good operating condition. Before nighttime operations may begin all required lighting equipment and/or materials must be ready for operation to the satisfaction of the Engineer. Lighting shall be provided and maintained in conformity with the requirements of both the National Electrical Code (NEC) and the National Electrical Safety Code (NESC), and any applicable safety and design codes.

The Contractor shall provide sufficient fuel, spare lamps, generators, and personnel qualified to operate the lights to assure that they will be maintained in operation during night work. The Contractor shall provide backup lighting to replace failed lights and equipment during night work. The backup equipment shall be on the project and available for use at all times during night work.

# **Requirements for Mobile Operations:**

In a mobile lighting system, the additional light fixtures shall be mounted on construction equipment in a way that does not obstruct the sight of the equipment operator. The contractor shall not operate the standard headlights on the construction equipment when in the work zone. When the construction equipment is outside the work zone, the Contractor shall not operate the additional mobile lights and will only utilize standard headlights.

#### Milling and Paving.

To provide the required lighting levels, the contractor shall mount a minimum of one luminarie on each piece of mobile construction equipment used in the construction zone. This would include the material transfer device, bituminous paving machine, bituminous rollers, milling machine, and any broom used in the milling process. Light trucks and semi-trucks used in the milling and paving process, shall be excluded from the lighting requirement.

A portable lighting device meeting the requirements of this specification shall also be provided for the person performing the straightedge test. The lighting levels shall be 54 lux (5fc) for a distance of 15 ft. in front and back of this individual.

#### Patching Operations

The contractor shall be required to provide lighting at each patching location where active work is being performed.

# Striping, Raised Pavement Marker Removal/Installation and other Pavement Marking Operations

Pavement striping operations using a paint striping truck will require additional lighting illuminating the back of the truck to provide the required lighting levels at the rear of the

truck only. The paint striping truck shall use its normal headlights during the paint operations. Truck mounted attenuators with arrow boards used in this operation will not be required to have additional lighting. This work would not require workers to be outside any vehicles.

For raised pavement marker removal and installation and other pavement marking operations, any motor driven vehicle used in the process shall be equipped with additional lighting to provide the required lighting levels. At any location where workers are outside the vehicle the required lighting levels will be provided.

#### Installation and Removal of Work Zone Traffic Control Signs and Devices

Any truck used during the installation and removal of work zone traffic control devices shall have additional lighting to provide the required lighting levels. This requirement applies to any vehicle used in the maintenance of the traffic control devices.

#### Materials Testing and Construction Inspection

The contractor shall provide one additional light and power source to be used by material testing crews. This light shall be capable of being mounted and transported in the back of a pickup truck.

#### Other Mobile Operations

For other mobile operations, a general guide shall be to provide the required lighting levels for any vehicle used in the operation and at any location where workers are outside the vehicle working on the pavement.

#### **Requirements for Stationary Operations**

For stationary operations the contractor can use lighting sources which meet the required specifications for (1) General Requirements; (2) Lighting Levels; (3) Glare Control; (4) Light Trespass; and (5) Lighting Equipment.

**Inspection:** The Engineer and the Contractor shall have an on-site, after dark, meeting to inspect the conformity of provided lighting conditions on site to this specification. No work shall be permitted until all requirements are met. At any time during the course of nighttime work, should the lighting be deemed inadequate by the Engineer, the work shall be halted until adequate lighting is provided. This suspension of work shall be at no additional cost to the Department and the Contractor shall receive no time extension to complete the work.

**<u>Basis Of Payment:</u>** This work will not be paid for separately, but shall be included in the cost of the traffic control pay items.

#### DECK SLAB REPAIR

Effective: May 15, 1995

Revised: February 2, 2007

This work shall consist of hot-mix asphalt surface removal, when required, the removal and disposal of all loose and deteriorated concrete from bridge deck and the replacement with new concrete to the original top of deck. The work shall be done according to the applicable requirements of Sections 501, 503 and 1020 of the Standard Specifications and this Special Provision.

Deck slab repairs will be classified as follows:

- (a) Partial-Depth. Partial-depth repairs shall consist of removing the loose and unsound deck concrete, disposing of the concrete removed and replacing with new concrete. The removal may be performed by chipping with power driven hand tools or by hydroscarification equipment. The depth shall be measured from the top of the concrete deck surface, at least 3/4 in. (20 mm) but not more than 1/2 the concrete deck thickness.
- (b) Full-Depth. Full-depth repairs shall consist of removing concrete full-depth of the deck, disposing of the concrete removed, and replacing with new concrete to the original concrete deck surface. The removal may be performed with power driven hand tools or by hydro-scarification equipment. Full-depth repairs shall be classified for payment as Full-Depth, Type I and Full-Depth, Type II according to the following:
  - Type I Full-depth patches less than or equal to 5 sq. ft. (0.5 sq m) in area. The minimum dimensions for a patch shall be 1 ft. x 1 ft. (300 mm x 300 mm).
  - Type II Full-depth patches greater than 5 sq. ft. (0.5 sq. m) in area.

#### Materials

Materials shall be according to Article 1020.02.

Portland cement concrete for partial and full-depth repairs shall be according to Section 1020. Class PP-1, PP-2, PP-3, PP-4, or BS concrete shall be used at the Contractor's option. For Class BS concrete, a CA 13, 14, or 16 shall be used. If the Class PP or BS concrete mixture is used only for full depth repairs, A CA-11 may be used.

Grout The grout for bonding new concrete to old concrete shall be proportioned by weight (mass) and mixed at the job site, or it may be ready-mixed if agitated while at the job site. The bonding grout shall consist of one part portland cement and one part sand, mixed with sufficient water to form a slurry. The bonding grout shall have a consistency allowing it to be scrubbed onto the prepared surface with a stiff brush or broom leaving a thin, uniform coating that will not run or puddle in low spots. Grout that can not be easily and evenly applied or has lost its consistency may be rejected by the Engineer. Grout that is more than two hours old shall not be used.

#### Equipment:

The equipment used shall be subject to the approval of the Engineer and shall meet the following requirements:

- (a) Surface Preparation Equipment. Surface preparation and concrete removal equipment shall be according to the applicable portions of Section 1100 and the following:
  - (1) Sawing Equipment. Sawing equipment shall be a concrete saw capable of sawing concrete to the specified depth.

- (2) Blast Cleaning Equipment. The blast cleaning may be performed by wet sandblasting, high-pressure waterblasting, shotblasting or abrasive blasting. Blast cleaning equipment shall be capable of removing rust and old concrete from exposed reinforcement bars, and shall have oil traps.
- (3) Power-Driven Hand Tools. Power-driven hand tools will be permitted including jackhammers lighter than the nominal 45 lb. (20 kg) class. Chipping hammers heavier than a nominal 15 lb. (6.8 kg) class shall not be used for removing concrete from below any reinforcing bar for partial depth repairs or final removal at the boundary of full-depth repairs. Jackhammers or chipping hammers shall not be operated at an angle in excess of 45 degrees measured from the surface of the slab.
- (4) Hydro-Scarification Equipment. The hydro-scarification equipment shall consist of filtering and pumping units operating with a remote-controlled robotic device. The equipment may use river, stream or lake water. Operation of the equipment shall be performed and supervised by qualified personnel certified by the equipment manufacturer. Evidence of certification shall be presented to the Engineer. The equipment shall be capable of removing concrete to the specified depth and removing rust and concrete particles from exposed reinforcing bars. Hydroscarification equipment shall be calibrated before being used and shall operate at a minimum of 18,000 psi (124 MPa).
- (b) Concrete Equipment: Equipment for proportioning and mixing the concrete shall be according to Article 1020.03.
- (c) Finishing Equipment: Finishing equipment shall be according to Article 1103.17. Adequate hand tools will be permitted for placing and consolidating concrete in the patch areas and for finishing small patches.

<u>Construction Requirements:</u> Sidewalks, curbs, drains, reinforcement and/or existing transverse and longitudinal joints which are to remain in place shall be protected from damage during removal and cleaning operations. All damage caused by the Contractor shall be corrected, at the Contractor's expense, to the satisfaction of the Engineer.

The Contractor shall control the runoff water generated by the various construction activities in such a manner as to minimize, to the maximum extent practicable, the discharge of construction debris into adjacent waters, and shall properly dispose of the solids generated according to Article 202.03. Runoff water will not be allowed to constitute a hazard on adjacent or underlying roadways, waterways, drainage areas or railroads nor be allowed to erode existing slopes.

(a) Hot-Mix Asphalt Surface Removal.

The hot-mix asphalt surface course and all waterproofing membrane shall be removed and disposed of according to applicable portions of Articles 440.04 and 440.06, except milling equipment will not be allowed if the deck is to receive a waterproofing membrane system. If the overlay or waterproofing membrane contains asbestos fibers, removal shall be in accordance with the Special Provision for "Asbestos Waterproofing Membrane or Asbestos Hot-mix Asphalt Surface Removal". Removal of the hot-mix asphalt surface by the use of radiant or direct heat will not be permitted. (b) Surface Preparation:

All loose, disintegrated and unsound concrete shall be removed from portions of the deck slab shown on the plans or as designated by the Engineer. The Engineer will determine the limits of removal as the work progresses.

The Contractor shall take care not to damage reinforcement bars or expansion joints which are to remain in place. Any damage to reinforcement bars or expansion joints shall be corrected at the Contractor's expense. All loose reinforcement bars, as determined by the Engineer, shall be retied at the Contractor's expense.

(1) Partial-Depth. Areas to be repaired will be determined and marked by the Engineer. A concrete saw shall be used to provide vertical edges approximately 3/4 in. (20 mm) deep around the perimeter of the area to be patched when an overlay is not specified. Where high steel is present, the depth may be reduced as directed by the Engineer. A saw cut will not be required on those boundaries along the face of the curb, parapet or joint or when sharp vertical edges are provided by hydroscarification.

The loose and unsound concrete shall be removed by chipping, with power driven hand tools or by hydro-scarification equipment. All exposed reinforcing bars and newly exposed concrete shall be thoroughly blast cleaned. Where, in the judgment of the Engineer, the bond between existing concrete and reinforcement steel within the patch area has been destroyed, the concrete adjacent to the bar shall be removed to a depth that will permit new concrete to bond to the entire periphery of the exposed bar. A minimum of 1 in. (25 mm) clearance will be required. The Engineer may require enlarging a designated removal area should inspection indicate deterioration beyond the limits previously designated. In this event, a new saw cut shall be made around the extended area before additional removal is begun. The removal area shall not be enlarged solely to correct debonded reinforcement or deficient lap lengths.

(2) Full-Depth. Concrete shall be removed as determined by the Engineer within all areas designated for full-depth repair and in all designated areas of partial depth repair in which unsound concrete is found to extend below half the concrete deck thickness. Full depth removal shall be performed according to Article 501.05. Saw cuts shall be made on the top of the deck, except those boundaries along the face of curbs, parapets and joints or where hydro-scarification provided sharp vertical edges. The top saw cut may be omitted if the deck is to receive an overlay.

Forms for full-depth repair may be supported by hangers with adjustable bolts or by blocking from the beams below. When approved by the Engineer, forms for Type 1 patches may be supported by No. 9 wires or other devices attached to the reinforcement bars.

All form work shall be removed after the curing sequence is complete and prior to opening to traffic.

- (3) Reinforcement Treatment. Care shall be exercised during concrete removal to protect the reinforcement bars and structural steel from damage. Any damage to the reinforcement bars or structural steel to remain in place shall be repaired or replaced to the satisfaction of the Engineer at the Contractor's expense. All existing reinforcement bars shall remain in place except as herein provided for corroded bars. Tying of loose bars will be required. Reinforcing bars which have been cut or have lost 25 percent or more of their original cross sectional area shall be supplemented by new in kind reinforcement bars. New bars shall be lapped a minimum of 32 bar diameters to existing bars. An approved mechanical bar splice capable of developing in tension at least 125 percent of the yield strength of the existing bars will be used when it is not feasible to provide the minimum bar lap. No welding of bars will be permitted.
- (4) Cleaning. Immediately after completion of the concrete removal and reinforcement repairs, the repair areas shall be cleaned of dust and debris. Once the initial cleaning is completed, the repair areas shall be thoroughly blast cleaned to a roughened appearance free from all foreign matter. Particular attention shall be given to removal of concrete fines. Any method of cleaning which does not consistently produce satisfactory results shall be discontinued and replaced by an acceptable method. All debris, including water, resulting from the blast cleaning shall be confined and shall be immediately and thoroughly removed from all areas of accumulation. If concrete placement does not follow immediately after the final cleaning, the area shall be carefully protected with well-anchored polyethylene sheeting.

Exposed reinforcement bars shall be free of dirt, detrimental scale, paint, oil, or other foreign substances which may reduce bond with the concrete. A tight non-scaling coating of rust is not considered objectionable. Loose, scaling rust shall be removed by rubbing with burlap, wire brushing, blast cleaning or other methods approved by the Engineer.

- (c) Placement & Finishing of Concrete Repair:
  - (1) Grout Placement. After the repair areas have been cleaned and immediately prior to concrete placement, the grout shall be applied to a dampened surface. A thin layer of grout shall be thoroughly scrubbed into the deck surface. All vertical as well as horizontal surfaces shall receive a thorough, even coating. The rate of grout placement shall be limited so the brushed grout does not dry out before it is covered with concrete. Grout that has become dry and chalky shall be blast cleaned and replaced at the Contractor's expense. No concrete shall be placed over dry grout.
  - (2) Concrete Placement.

The concrete shall be placed and consolidated according to Article 503.07 and as herein specified. Article 1020.14 shall apply.

When an overlay system is not specified, the patches shall be finished according to Article 503.16 (a), followed by a light brooming.

(d) Curing and Protection.

Concrete patches shall be cured by the Wetted Burlap or Wetted Cotton Mat Method according to Article 1020.13 (a)(3) or Article 1020.13 (a)(5). The curing period shall be 3 days for Class PP-1, PP-2, PP-3, and PP-4 concrete. The curing period shall be 7 days for Class BS concrete. In addition to Article 1020.13, when the air temperature is less than 55° F (13° C), the Contractor shall cover the patch according to Article 1020.13 (d)(1) with minimum R12 insulation. Insulation is optional when the air temperature is  $55^{\circ}$  F. -  $90^{\circ}$  F (13° C -  $32^{\circ}$  C). Insulation shall not be placed when the air temperature is greater than  $90^{\circ}$  F ( $32^{\circ}$  C). A 72-hour minimum drying period shall be required before placing waterproofing or hot-mix asphalt surfacing.

(e) Opening to Traffic.

No traffic will be permitted on a patch until after the specified cure period, and the concrete has obtained a minimum compressive strength of 4000 psi (27.6 MPa) or flexural strength of 675 psi (4.65 MPa).

Construction equipment will be permitted on a patch during the cure period if the concrete has obtained the minimum required strength. In this instance, the strength specimens shall be cured with the patch.

# Method of Measurement

When specified, hot-mix asphalt surface removal and full or partial depth repairs will be measured for payment and computed in square yards (square meters).

#### Basis of Payment

The hot-mix asphalt surface removal will be paid for at the contract unit price per square yard (square meter) for HOT-MIX ASPHALT SURFACE REMOVAL (DECK). Areas removed and replaced up to and including a depth of half the concrete deck thickness will be paid for at the contract unit price per square yard (square meter) for DECK SLAB REPAIR (PARTIAL). Areas requiring removal greater than a depth of half the concrete deck thickness shall be removed and replaced full depth and will be paid for at the contract unit price per square yard (square meter) for DECK SLAB REPAIR (FULL DEPTH, TYPE I) and/or DECK SLAB REPAIR (FULL DEPTH, TYPE II).

When corroded reinforcement bars are encountered in the performance of this work and replacement is required, the Contractor will be paid according to Article 109.04.

No payment will be allowed for removal and replacement of reinforcement bars damaged by the Contractor in the performance of his/her work or for any increases in dimensions needed to provide splices for these replacement bars.

Removal and disposal of asbestos waterproofing and/or asbestos bituminous concrete will be paid for as specified in the Special Provision for "Asbestos Waterproofing Membrane or Asbestos Hot-Mix Asphalt Surface Removal".

# SILICONE BRIDGE JOINT SEALER

Effective: August 1, 1995

Revised: January 1, 2007

<u>Description</u>: This work shall consist of furnishing all labor, equipment, technical assistance and materials necessary to install the silicone joint sealer as shown on the plans and as specified herein.

When specified, a polymer concrete nosing compatible with the silicone sealant as required by the sealant manufacturer shall be installed. The minimum dimensions for a polymer concrete nosing cross section are 1 1/2 in. (40 mm) deep by 3 1/2 in. (90 mm) wide. The polymer concrete shall be furnished and installed according to the Special Provision for "Polymer Concrete".

Materials:

(a) <u>Silicone Joint Sealer</u>. The silicone joint sealer shall be rapid cure, self-leveling, cold applied, two component silicone sealant. The sealant, upon curing, shall demonstrate resilience, flexibility and resistance to moisture and puncture. The sealant shall also demonstrate excellent adhesion to portland cement concrete, polymer concrete and steel over a range of temperatures from -30 to 130°F (-34 to 54°C) while maintaining a watertight seal. The sealant shall not contain any solvents or diluents that cause shrinkage or expansion during curing. Acid cure sealants are not acceptable. The date of manufacture shall be provided with each lot. Materials twelve months old or older from the date of manufacture will not be accepted. The manufacturer shall certify that the sealant meets or exceeds the following test requirements before installation begins. The Department reserves the right to test representative samples from material proposed for use.

Physical Properties:

Each component as supplied:

Specific Gravity (ASTM D1475) Extrusion Rate (MIL-5-8802) Flow	1.2-1.4 200 - 600 grams per minute Self-leveling
Durometer Hardness, Shore (ASTM D 2240) "00" (32°F and 77+3°F (0° and 25°C + 1°C))	40-80
Ozone and U.V. (ASTM C 793) Resistance	No chalking, cracking or bond loss after 5,000 hours
<u>After Mixing</u> : Tack Free Time (ASTM C679) Joint Cure Rate (% of total cure)	60 minutes max. 50% within 4 - 6 hours 75% within 24 hours 100% within 48 - 160 hours

<u>Upon Complete Cure</u>: (ASTM D-3569<sup>'</sup>) Joint Elongation (adhesion to concrete/steel/polymer concrete) Joint Modulus

600% min 3-15 psi (21-103 kPa) @ 100% elongation

<sup>1</sup>Modified; Sample cured 2 days at 77±2°F (25±1°C) 50±5% relative humidity

(b) Backer Rod. The backer rod shall conform to ASTM D5249, Type 3.

# **CONSTRUCTION REQUIREMENTS**

<u>General</u>: Technical assistance provided by the manufacturer during surface preparation and installation shall be furnished at no additional cost to the Department. The Contractor shall furnish the Engineer with the manufacturer's written product information, installation procedures, and instructional video at least two weeks prior to installation. The Contractor, the manufacturer's representative, and the Engineer shall meet to review and clarify installation procedures, and requirements prior to starting the work. A technical representative must be present for the start of surface preparations and installation for at least one day. The Contractor shall contact the manufacturer at least two weeks prior to installation.

When placing the silicone against concrete, the concrete surface shall be dry. For newly placed concrete, the concrete shall be fully cured and allowed to dry out a minimum of 7 additional days prior to placement of the silicone. Cold, wet, inclement weather will require an extended drying time.

(a) Surface Preparation:

(1) Sandblasting. Both faces of the joint shall be sandblasted. A separate pass for each face for the full length of the joint and to the design depth of the center of the backer rod will be required. The nozzle shall be held at an angle of 30-90 degrees to the joint face, at a distance of 1 - 2 in. (25-50 mm).

For portland cement concrete and polymer concrete surfaces, sandblasting will be considered acceptable when both joint faces have a roughened surface with clean, exposed aggregate. The surface shall be free of foreign matter or plastic residue. For steel surfaces, sandblasting will be considered acceptable when the steel surfaces have been cleaned to an SSPC-SP10 degree of cleanliness.

After sandblasting is completed, the joint shall be cleaned of debris using compressed air with a minimum pressure of 90 psi (620 kPa). The air compressor shall be equipped with traps to prevent the inclusion of water and/or oil in the air line.

(2) Priming. This operation will immediately follow sandblasting and cleaning and will only be permitted to proceed with the air and substrate temperatures are at least 41°F (5°C) and rising. Sandblasting, priming and sealing must be performed on the same day. The entire sandblasted surface shall be primed using a brush applied primer. The primer

shall be allowed to dry a minimum of one hour or more until it is thoroughly dry, whichever is longer, before proceeding. For steel surfaces, the minimum drying time shall be extended to 90 minutes when the substrate temperature is below 60°F (15°C).

For portland cement concrete and polymer concrete, the primer shall be in according to the manufacturer's recommendations. For steel surfaces, the primer shall be a rust inhibiting primer recommended by the sealant manufacturer.

The primer shall be supplied in original containers and shall have a "use-by" date clearly marked on them. Only primer, freshly poured from the original container into clean pails will be permitted. The primer must be used immediately. All primer left in the pail after priming shall be disposed of and shall not be reused.

- (b) Joint Installation:
  - (1) Backer Rod Placement. The backer rod shall be installed to a uniform depth as specified on the plans and as recommended by the manufacturer. All splices in the backer rod shall be taped to prevent material loss during sealing. The backer rod shall be installed to within 1/8 in. (3 mm) tolerance prior to sealing.
  - (2) Sealant Placement. The sealant shall be 1/2 in. (13 mm) thick within ± 1/8 in. (3 mm) tolerance as measured in the center of the joint at the thinnest point. The sealant thickness shall be measured during installation every ±2 ft. (±600 mm). Adjustments to correct sealant thickness to within tolerance shall be made immediately before the sealant begins to set up. Sealant placement will only be permitted when the air and substrate temperatures are above 41°F (5°C) and 5°F (2.8°C) above the dew point. The joint must be kept clean and dry during sealing. If the joint becomes wet and/or dirty during sealing, the operation will be halted until the joint has been restored to a clean and dry state.

Sealing shall be performed using a pneumatic gun approved by the sealant manufacturer. Prior to sealing, the gun shall be inspected to insure that it is in proper working order and that it is being operated at the recommended air pressure.

The gun must demonstrate proper mixing action before sealant will be allowed into the joint. Unmixed sealant will not be permitted in the joint. All unmixed sealant found in the joint will be removed and replaced at the Contractors expense.

After the Engineer has determined that the pneumatic gun is functioning properly, the joint shall be sealed to the thickness and depth as shown on the plans. The sealant must be allowed to achieve initial set before opening the joint to traffic.

End of seal treatment at vertical faces of curbs, sidewalks or parapets shall be as recommended by the manufacturer and as shown on the plans.

Sealant placed incorrectly shall be removed and replaced by the Contractor at no additional cost to the Department.

(3) Field Testing. A minimum of one joint per bridge per joint configuration will be tested by the Engineer by performing a Pull Test. The sealant shall be allowed to cure for a minimum of 24 hours before testing. The locations for the tests will be determined by the Engineer. The tests will be performed per the manufacture's written instructions. As part of the test, the depth and thickness of the sealant will be verified. All joint system installations failing to meet the specifications shall be removed and replaced, by the Contractor, to the satisfaction of the Engineer at no additional cost to the Department. In addition, the "Pull Test" is a destructive test, the Contractor shall repair the joint after completion of the test per the manufacturer's written instructions at no additional cost to the Department.

<u>Method of Measurement:</u> The installed joint sealer will be measured in feet (meters) along the centerline of the joint.

<u>Basis of Payment:</u> The silicone joint sealer measured as specified will be paid for at the contract unit price per foot (meter) for SILICONE JOINT SEALER, of the size specified. The size is defined as the joint opening at 50°F (10°C), rounded to the nearest 1/2 in. (13 mm). When a polymer concrete nosing is specified it shall not be included in this item but will be paid for according to the Special Provision for "Polymer Concrete".

# CEMENT (BDE)

Effective: January 1, 2007

Revised: November 1, 2007

Revise Section 1001 of the Standard Specifications to read:

#### **"SECTION 1001. CEMENT**

#### **1001.01** Cement Types. Cement shall be according to the following.

(a) Portland Cement. Acceptance of portland cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland cement shall be according to ASTM C 150, and shall meet the standard physical and chemical requirements. Type I or Type II may be used for cast-in-place, precast, and precast prestressed concrete. Type III may be used according to Article 1020.04, or when approved by the Engineer. All other cements referenced in ASTM C 150 may be used when approved by the Engineer.

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement and the total of all inorganic processing additions shall be a maximum of 4.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids that improve the flowability of cement, reduce pack set, and improve grinding efficiency. Inorganic processing additions shall be limited to granulated blast-furnace slag according to the chemical requirements of AASHTO M 302 and Class C fly ash according to the chemical requirements of AASHTO M 295.

(b) Portland-Pozzolan Cement. Acceptance of portland-pozzolan cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland-pozzolan cement shall be according to ASTM C 595 and shall meet the standard physical and chemical requirements. Type IP or I(PM) may be used for cast-in-place, precast, and precast prestressed concrete, except when Class PP concrete is used. The pozzolan constituent for Type IP shall be a maximum of 21 percent of the weight (mass) of the portland-pozzolan cement. All other cements referenced in ASTM C 595 may be used when approved by the Engineer.

For cast-in-place construction, portland-pozzolan cements shall not be used in concrete mixtures when the air temperature is below 40 °F (4 °C) without permission of the Engineer. If permission is given, the mix design strength requirement may require the Contractor to increase the cement or eliminate the cement factor reduction for a water-reducing or high range water-reducing admixture which is permitted according to Article 1020.05(b).

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids as defined in (a) above. Inorganic processing additions shall not be used.

(c) Portland Blast-Furnace Slag Cement. Acceptance of portland blast-furnace slag cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland blast-furnace slag cement shall be according to ASTM C 595 and shall meet the standard physical and chemical requirements. Type I(SM) slag-modified portland cement may be used for cast-in-place, precast, and precast prestressed concrete, except when Class PP concrete is used. All other cements referenced in ASTM C 595 may be used when approved by the Engineer.

For cast-in-place construction, portland blast-furnace slag cements shall not be used in concrete mixtures when the air temperature is below 40 °F (4 °C) without permission of the Engineer. If permission is given, the mix design strength requirement may require the Contractor to increase the cement or eliminate the cement factor reduction for a water-reducing or high range water-reducing admixture which is permitted according to Article 1020.05(b).

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids as defined in (a) above. Inorganic processing additions shall not be used.

(d) Rapid Hardening Cement. Rapid hardening cement shall be used according to Article 1020.04 or when approved by the Engineer. The cement shall be on the Department's current "Approved List of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs", and shall be according to the following.

- (1) The cement shall have a maximum final set of 25 minutes, according to Illinois Modified ASTM C 191.
- (2) The cement shall have a minimum compressive strength of 2000 psi (13,800 kPa) at 3.0 hours, and 4000 psi (27,600 kPa) at 24.0 hours, according to Illinois Modified ASTM C 109.
- (3) The cement shall have a maximum drying shrinkage of 0.050 percent at seven days, according to Illinois Modified ASTM C 596.
- (4) The cement shall have a maximum expansion of 0.020 percent at 14 days, according to Illinois Modified ASTM C 1038.
- (5) The cement shall have a minimum 80 percent relative dynamic modulus of elasticity; and shall not have a weight (mass) gain in excess of 0.15 percent or a weight (mass) loss in excess of 1.0 percent, after 100 cycles, according to Illinois Modified AASHTO T 161, Procedure B. At 100 cycles, the specimens are measured and weighed at 73 °F (23 °C).
- (e) Calcium Aluminate Cement. Calcium aluminate cement shall be used when specified by the Engineer. The cement shall meet the standard physical requirements for Type I cement according to ASTM C 150, except the time of setting shall not apply. The chemical requirements shall be determined according to ASTM C 114 and shall be as follows: minimum 38 percent aluminum oxide (Al<sub>2</sub>O<sub>3</sub>), maximum 42 percent calcium oxide (CaO), maximum 1 percent magnesium oxide (MgO), maximum 0.4 percent sulfur trioxide (SO<sub>3</sub>), maximum 1 percent loss on ignition, and maximum 3.5 percent insoluble residue.

**1001.02** Uniformity of Color. Cement contained in single loads or in shipments of several loads to the same project shall not have visible differences in color.

**1001.03** Mixing Brands and Types. Different brands or different types of cement from the same manufacturing plant, or the same brand or type from different plants shall not be mixed or used alternately in the same item of construction unless approved by the Engineer.

**1001.04 Storage.** Cement shall be stored and protected against damage, such as dampness which may cause partial set or hardened lumps. Different brands or different types of cement from the same manufacturing plant, or the same brand or type from different plants shall be kept separate."

# **DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)**

Effective: September 1, 2000

Revised: January 1, 2007

<u>FEDERAL OBLIGATION</u>. 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 DBE Directory or most recent addendum.

<u>STATE OBLIGATION</u>. 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.

<u>CONTRACTOR ASSURANCE</u>. 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.

<u>OVERALL GOAL SET FOR THE DEPARTMENT</u>. 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 firms performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

<u>CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR</u>. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 10.0% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will 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 firmly committed 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.

<u>DBE LOCATOR REFERENCES</u>. Bidders may consult the DBE Directory as a reference source for DBE companies certified by the Department. 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.

<u>BIDDING PROCEDURES</u>. Compliance with the bidding procedures of this Special Provision is required prior to the award of the contract and the failure of the as-read low bidder to comply will render the bid not responsive.

- (a) In order to assure the timely award of the contract, the as-read low bidder shall submit a Disadvantaged Business Utilization Plan on Department form SBE 2026 within seven working days after the date of letting. To meet the seven day requirement, the bidder may send the Plan by certified mail or delivery service within the seven working day period. If a question arises concerning the mailing date of a Plan, the mailing date will be established by the U.S. Postal Service postmark on the original certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service. It is the responsibility of the bidder to ensure that the postmark or receipt date is affixed within the seven working days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Plan is to be submitted 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). It is the responsibility of the bidder to obtain confirmation of telefax delivery. The Department will not accept a Utilization Plan if it does not meet the seven day submittal requirement and the bid will be declared not responsive. In the event the bid is declared not responsive due to a failure to submit a Plan or failure to comply with the bidding procedures set forth herein, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty, and may deny authorization to bid the project if re-advertised for bids. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration or to extend the time for award.
- (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. The signatures on these forms must be original signatures.

(1) The name and address of each DBE to be used;

- (2) A description, including pay item numbers, of the commercially useful work to be done by each DBE;
- (3) The price to be paid to each DBE for the identified work specifically stating 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) A commitment statement signed by the bidder and each DBE evidencing availability and intent to perform commercially useful work on the project; and
- (5) If the bidder is a joint venture comprised of DBE firms and non-DBE firms, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s).
- (d) The contract will not be awarded until the Utilization Plan submitted by the bidder is approved. The Utilization Plan will be approved by the Department if the Plan commits sufficient commercially useful DBE work performance to meet the contract goal. The Utilization Plan will not be approved by the Department if the Plan does not commit sufficient DBE performance to meet the contract goal unless the bidder documents that it made a good faith effort to meet the goal. The good faith procedures of Section VIII of this special provision apply. If the Utilization Plan is not approved because it is deficient in a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no less than a five working day period in order to cure the deficiency.

<u>CALCULATING DBE PARTICIPATION</u>. 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 firm 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 firm 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 contact. Credit will be given for the full value of all such DBE trucks operated using DBE employed drivers. Goal credit will be limited to the value of the reasonable fee or commission received by the DBE if trucks are leased from a non-DBE company.
- (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.

<u>GOOD FAITH EFFORT PROCEDURES</u>. If the bidder cannot obtain sufficient DBE commitments to meet the contract goal, the bidder must document in the Utilization Plan the good faith efforts made in the attempt 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 could reasonably be expected to obtain sufficient DBE participation. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts are not good faith efforts; rather, the bidder is expected to have taken those efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.
  - (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.

- (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.
  - b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.
- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
- (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.

- (b) If the Department determines that the 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 a good faith effort has not been made, the Department will notify the bidder of that preliminary determination by contacting the responsible company official designated in the Utilization Plan. The preliminary determination shall include a statement of reasons why good faith efforts have not been found, and may include additional good faith efforts that the bidder could take. The notification will designate a five working day period during which the bidder shall take additional efforts. The bidder is not limited by a statement of additional efforts, but may take other action beyond any stated additional efforts in order to obtain additional DBE commitments. The bidder shall submit an amended Utilization Plan if additional DBE commitments to meet the contract goal are secured. If additional DBE commitments sufficient to meet the contract goal are not secured, the bidder shall report the final good faith efforts made in the time allotted. All additional efforts taken by the bidder will be considered as part of the bidder's good faith efforts. If the bidder is not able to meet the goal after taking additional efforts, the Department will make a pre-final determination of the good faith efforts of the bidder and will notify the designated responsible company official of the reasons for an adverse determination.
- (c) The bidder may request administrative reconsideration of a pre-final determination adverse to the bidder within the five working days after 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 pre-final 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. In addition, the request shall be considered a consent by the bidder to extend the time for award. 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.

<u>CONTRACT COMPLIANCE</u>. 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 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) 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. If a DBE listed in the Utilization Plan is terminated for reasons other than convenience, or fails to complete its work on the contract for any reason, the Contractor shall make good faith efforts to find another DBE to substitute for the terminated 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 DBE that was terminated, but only to the extent needed to meet the contract goal or the amended contract goal. 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 and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau 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.
- (c) 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 therefor 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 Report on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the Report shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Plan, the Department will deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.

- (d) 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.
- (e) 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.

# DOWEL BARS (BDE)

Effective: April 1, 2007

Revised: January 1, 2008

Revise the fifth and sixth sentences of Article 1006.11(b) of the Standard Specifications to read:

"The bars shall be epoxy coated according to AASHTO M 284, except the thickness of the epoxy shall be 7 to 12 mils (0.18 to 0.30 mm) and patching of the ends will not be required. The epoxy coating applicator shall be certified according to the current Bureau of Materials and Physical Research Policy Memorandum, "Epoxy Coating Plant Certification Procedure". The Department will maintain an approved list."

## ENGINEER'S FIELD OFFICE TYPE A (BDE)

Effective: April 1, 2007

Add the following to Article 670.02 of the Standard Specifications:

- "(n) One wireless data router with wireless network connection to access the Department's network for the exclusive use of the Engineer. The wireless data router shall operate within a temperature range of 32 to 131°F (0 to 55°C) and have the following capabilities.
  - (1) Connection.
    - a. CDMA wireless technology with authentication and identification system for security.
    - b. CDMA based EV-DO(rev.A) transmission capabilities.
    - c. EVDO(rev.A) shall be backward compatible through both EVDO(rev0) and 1XRTT.

- d. Connection shall be capable of compression in order to optimize the connection speed.
- (2) Router.
  - a. A minimum of four ethernet ports for wired connection.
  - b. Capable of 802.11b & g for wireless LAN interface.
  - c. Configurable ability to port data to fax capabilities through the router using efax or IP fax devices.
  - d. Automatic receipt of IP addresses with DHCP server.
  - e. Configurable OFDM (Orthogonal Frequency Division Multiplexing) technology.
- (3) Security.
  - a. Configurable capable of 64-bit or 128-bit WEP encryption, and WPA-PSK authentication wireless security (WiFi Protected Access Pre-shared Key Mode).
  - b. Configurable LAN security: NAT with DHCP, PPTP VPN pass-through, MAC filtering, IP filtering, and filter scheduling.
  - c. Configurable firewall security at the router."

# EQUIPMENT RENTAL RATES (BDE)

Effective: August 2, 2007

Revised: January 2, 2008

Replace the second and third paragraphs of Article 105.07(b)(4)a. of the Standard Specifications with the following:

"Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4)."

Replace Article 109.04(b)(4) of the Standard Specifications with the following:

- "(4) Equipment. Equipment used for extra work shall be authorized by the Engineer. The equipment shall be specifically described, be of suitable size and capacity for the work to be performed, and be in good operating condition. For such equipment, the Contractor will be paid as follows.
  - a. Contractor Owned Equipment. Contractor owned equipment will be paid for by the hour using the applicable FHWA hourly rate from the "Equipment Watch Rental Rate Blue Book" (Blue Book) in effect when the force account work begins. The FHWA hourly rate is calculated as follows.

FHWA hourly rate = (monthly rate/176) x (model year adj.) x (Illinois adj.) + EOC

The time allowed will be the actual time the equipment is operating on the extra work. For the time required to move the equipment to and from the site of the extra work and any authorized idle (standby) time, payment will be made at the following hourly rate: 0.5 x (FHWA hourly rate - EOC).

All time allowed shall fall within the working hours authorized for the extra work.

The rates above include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance, and all incidentals. The rates do not include labor.

The Contractor shall submit to the Engineer sufficient information for each piece of equipment and its attachments to enable the Engineer to determine the proper equipment category. If a rate is not established in the Blue Book for a particular piece of equipment, the Engineer will establish a rate for that piece of equipment that is consistent with its cost and use in the industry.

b. Rented Equipment. Whenever it is necessary for the Contractor to rent equipment to perform extra work, the rental and transportation costs of the equipment plus five percent for overhead will be paid. In no case shall the rental rates exceed those of established distributors or equipment rental agencies.

All prices shall be agreed to in writing before the equipment is used."

# **EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION (BDE)**

Effective: April 1, 2007

Revise Article 105.03(a) of the Standard Specifications to read:

"(a) Erosion and Sediment Control Deficiency Deduction. When the Engineer is notified or determines an erosion and/or sediment control deficiency(s) exists, he/she will notify and direct the Contractor to correct the deficiency within a specified time. The specified time, which begins upon notification to the Contractor, will be from 1/2 hour to 1 week based on the urgency of the situation and the nature of the deficiency. The Engineer will be the sole judge.

A deficiency may be any lack of repair, maintenance, or implementation of erosion and/or sediment control devices included in the contract, or any failure to comply with the conditions of the National Pollutant Discharge Elimination System (NPDES) Storm Water Permit for Construction Site Activities. A deficiency may also be applied to situations where corrective action is not an option such as the failure to participate in a jobsite inspection of the project, failure to install required measures prior to initiating earth moving operations, disregard of concrete washout requirements, or other disregard of the NPDES permit.

If the Contractor fails to correct a deficiency within the specified time, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The calendar day(s) will begin with notification to the Contractor and end with the Engineer's acceptance of the correction. The daily monetary deduction will be either \$1000.00 or 0.05 percent of the awarded contract value, whichever is greater. For those deficiencies where corrective action was not an option, the monetary deduction will be immediate and will be valued at one calendar day."

# HIGH TENSION CABLE MEDIAN BARRIER (BDE)

Effective: January 1, 2007

<u>Description</u>. This work shall consist of furnishing and installing a high tension cable (HTC) median barrier with terminals/end anchorages.

Materials. Materials shall be according to the following.

Item	Article/Section
(a) Reinforcement Bars	1006.10(a)
(b) Portland Cement Concrete (Note 1)	
(c) Wire Rope (Cable) and Fittings (Note 2)	

Note 1. The portland cement concrete shall be Class SI.

Note 2. The wire rope (cable) shall be according to AASHTO M 30, Type 1 with Class A coating, of the diameter shown in the manufacturer's specifications. Additionally, the wire rope shall be prestretched and shall have a breaking strength of 39,285 lbs (175 kN) for 3/4 in. (19 mm) wire rope (individual wire strength equivalent to 174,000 psi (1200 N/mm)) and the prestretched wire rope shall have a minimum modulus of elasticity of 11,805,000 psi (8300 kg/mm).

The barrier shall be tested and accepted under the National Cooperative Highway Research Program (NCHRP) Report 350 for the required test level and be on the Department's approved list. Barriers installed on front slope grades of 1:6 or flatter shall be Test Level 4. Barriers installed on front slope grades steeper than 1:6 but 1:4 or flatter shall be Test Level 3.

The terminals/end anchorages shall be tested and accepted under NCHRP Report 350 Test Level 3 and be on the Department's approved list.

Equipment. Equipment shall be according to the barrier manufacturer's specifications.

#### Construction Requirements

<u>General</u>. The HTC median barrier shall be constructed to the lines and grades shown on the plans and according to the manufacturer's specifications except as modified by the contracts documents.

<u>Line Post Foundations</u>. Line posts for the HTC median barrier shall be placed in concrete socket foundations. The minimum depth of the foundations shall be as shown on the plans. The minimum diameter for the foundations shall be 12 in. (300 mm) and the tops of the foundations shall be crowned 1/2 in. (13 mm).

When the barrier is to be placed within paved shoulders or mow strips, the paved area(s) shall be constructed first and the concrete foundations placed in cored or formed holes.

End Anchorages. The Contractor shall submit shop drawings and calculations to the Engineer prepared and sealed by an Illinois Licensed Structural Engineer detailing the required end anchorage foundation system at each location. The system shall utilize drilled shaft foundation of a diameter, depth, reinforcement, and cable connection determined by the supplier. The design shall utilize Broms method utilizing a minimum factor of safety of 1.5. The design loadings shall consist of the theoretical cumulative cable tension expected for temperature fluctuations to -10 °F (-23 °C). The dynamic vehicle impact loading shall not be added to the cable temperature loading for the analysis. The foundation soils shall be assumed to be submerged granular material with a friction angle of 30 degrees or clay soils with a cohesive intercept of 1.0 kip/sq ft (48 kPa), unless site specific soil parameters are specified.

<u>Tensioning</u>. Prior to acceptance of the work, the tension of the HTC median barrier shall be checked, and adjusted as necessary, according to the manufacturer's temperature/tension chart or relationship.

<u>Hands-On Demonstration</u>. When included in the contract, a hands-on demonstration(s) of maintenance/repair procedures, recommendations and discussion of vehicle recovery, and provisions for emergency openings in the barrier shall be conducted. These demonstrations shall be for emergency responders, maintenance personnel, and others invited by the Engineer and shall either be conducted either at the job-site or at another agreed to meeting facility. Up to 30 attendees shall be accommodated at each demonstration.

<u>Method of Measurement</u>. HTC median barrier will be measured for payment in feet (meters) along the top cable between terminals. Terminals shall be defined as the end anchorages and other components from the extreme ends of a run to a point 50 ft (15.2 m) into the run. This definition of the terminal applies regardless of the length of need point, transitions from anchorage to full height cable, or other features that may vary between systems.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for HIGH TENSION CABLE MEDIAN BARRIER.

The terminals/end anchorages and demonstrations will be paid for at the contract per each for HIGH TENSION CABLE MEDIAN BARRIER TERMINALS and HIGH TENSION CABLE MEDIAN BARRIER DEMONSTRATION respectively.

HOT-MIX ASPHALT - FIELD VOIDS IN THE MINERAL AGGREGATE (BDE) Effective: April 1, 2007

Add the following to the table in Article 1030.05(d)(2)a. of the Standard Specifications:

"Parameter	Frequency of Tests	Frequency of Tests	Test Method See Manual of Test
	High ESAL Mixture	All Other Mixtures	Procedures for Materials
VMA	1 per half day of production for first 2 days and 1 per day thereafter (first sample	1 per day	Illinois-Modified AASHTO R 35
Note 5.	of the day)		

Note 5. The  $G_{sb}$  used in the voids in the mineral aggregate (VMA) calculation shall be the same average  $G_{sb}$  value listed in the mix design."

Add the following to the Control Limits table in Article 1030.05(d)(4) of the Standard Specifications:

"CONTROL LIMITS				
Parameter         High ESAL         High ESAL         All Other           Low ESAL         Low ESAL         Low ESAL         All Other				
	Individual Test	Moving Avg. of 4	Individual Test	
VMA	-0.7 % <sup>2/</sup>	-0.5 % <sup>2/</sup>	N/A	

2/ Allowable limit below minimum design VMA requirement"

Add the following to the table in Article 1030.05(d)(5) of the Standard Specifications:

"CONTROL CHART REQUIREMENTS	High ESAL Low ESAL	All Other
	VMA"	

Revise the heading of Article 1030.05(d)(6)a.1. of the Standard Specifications to read:

"1. Voids, VMA, and Asphalt Binder Content."

Revise the first sentence of the first paragraph of Article 1030.05(d)(6)a.1.(a.) of the Standard Specifications to read:

"If the retest for voids, VMA, or asphalt binder content exceeds control limits, HMA production shall cease and immediate corrective action shall be instituted by the Contractor."

Revise the table in Article 1030.05(e) of the Standard Specifications to read:

"Test Parameter	Acceptable Limits of Precision
% Passing: 1/	
1/2 in. (12.5 mm)	5.0 %
No. 4 (4.75 mm)	5.0 %
No. 8 (2.36 mm)	3.0 %
No. 30 (600 μm)	2.0 %
Total Dust Content	2.2 %
No. 200 (75 μm) <sup>1/</sup>	2.2.70
Asphalt Binder Content	0.3 %
Maximum Specific Gravity of Mixture	0.026
Bulk Specific Gravity	0.030
VMA	1.4 %
Density (% Compaction)	1.0 % (Correlated)

1/ Based on washed ignition."

# HOT-MIX ASPHALT MIXTURE IL-9.5L (BDE)

Effective: January 1, 2008

Revise the table entry for C Surface Mixture in Article 1004.03(a) of the Standard Specifications to read:

"Use	Mixture	Aggregates Allowed
HMA	C Surface	Crushed Gravel
High ESAL	IL-12.5, IL-9.5,	Crushed Stone
Low ESAL	or IL-9.5L	Crushed Sandstone
		Crushed Slag (ACBF)
		Crushed Steel Slag (except when used as leveling binder)"

Revise the second sentence of the first paragraph of Article 1004.03(b) of the Standard Specifications to read:

"For Class A (seal or cover coat), and other binder courses, the coarse aggregate shall be Class C quality or better."

Revise the table in Article 1030.04(b)(2) of the Standard Specifications to read:

"VOLUMETRIC REQUIREMENTS Low ESAL					
Mixture	Design	Design	VMA (Voids	VFA (Voids	
Composition					
				Asphalt	
	Aggregate), Binder),				
	% min. %				
IL-9.5L	N <sub>DES</sub> =30	4.0	15.0	65-78	
IL-19.0L	N <sub>DES</sub> =30	4.0	13.0	N/A"	

# IMPACT ATTENUATORS, TEMPORARY (BDE)

Effective: November 1, 2003

Revised: January 1, 2007

<u>Description</u>. This work shall consist of furnishing, installing, maintaining, and removing temporary impact attenuators of the category and test level specified.

<u>Materials</u>. Materials shall meet the requirements of the impact attenuator manufacturer and the following:

Item	Article/Section
(a) Fine Aggregate (Note 1)	
(b) Steel Posts, Structural Shapes, and Plates	
(c) Rail Elements, End Section Plates, and Splice Plates	
(d) Bolts, Nuts, Washers and Hardware	
(e) Hollow Structural Tubing	1006.27(b)
(f) Wood Posts and Wood Blockouts	
(g) Preservative Treatment	
(h) Packaged Rapid Hardening Mortar	

Note 1. Fine aggregate shall be FA 1 or FA 2, Class A quality. The sand shall be unbagged and shall have a maximum moisture content of five percent.

## **CONSTRUCTION REQUIREMENTS**

<u>General</u>. Impact Attenuators shall meet the testing criteria contained in National Cooperative Highway Research Program (NCHRP) Report 350 for the test level specified and shall be on the Department's approved list.

<u>Installation</u>. Regrading of slopes or approaches for the installation shall be as shown on the plans.

Attenuator bases, when required by the manufacturer, shall be constructed on a prepared subgrade according to the manufacturer's specifications. The surface of the base shall be slightly sloped or crowned to facilitate drainage.

Impact attenuators shall be installed according to the manufacturer's specifications and include all necessary transitions between the impact attenuator and the item to which it is attached.

When water filled attenuators are used between November 1 and April 15, they shall contain anti-freeze according to the manufacturer's recommendations.

<u>Markings</u>. Sand module impact attenuators shall be striped with alternating reflectorized Type AA or Type AP fluorescent orange and reflectorized white horizontal, circumferential stripes. There shall be at least two of each stripe on each module.

Other types of impact attenuators shall have a terminal marker applied to their nose and reflectors along their sides.

<u>Maintenance</u>. All maintenance of the impact attenuators shall be the responsibility of the Contractor until removal is directed by the Engineer.

<u>Relocate</u>. When relocation of temporary impact attenuators is specified, they shall be removed, relocated and reinstalled at the new location. The reinstallation requirements shall be the same as those for a new installation.

<u>Removal</u>. When the Engineer determines the temporary impact attenuators are no longer required, the installation shall be dismantled with all hardware becoming the property of the Contractor.

Surplus material shall be disposed of according to Article 202.03. Anti-freeze, when present, shall be disposed of/recycled according to local ordinances.

When impact attenuators have been anchored to the pavement, the anchor holes shall be repaired with rapid set mortar Only enough water to permit placement and consolidation by rodding shall be used and the material shall be struck-off flush.

<u>Method of Measurement</u>. This work will be measured for payment as each, where each is defined as one complete installation.

Basis of Payment. This work will be paid for at the contract unit price per each for IMPACT ATTENUATORS. TEMPORARY (FULLY REDIRECTIVE. NARROW): IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, WIDE); IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, RESETTABLE); IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, NARROW); IMPACT ATTENUATORS, TEMPORARY (SEVERE USE, WIDE); or IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) of the test level specified.

Relocation of the devices will be paid for at the contract unit price per each for IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE); IMPACT ATTENUATORS, RELOCATE (SEVERE USE); or IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE); of the test level specified.

Regrading of slopes or approaches will be paid for according to Section 202 and/or Section 204 of the Standard Specifications.

## MULTILANE PAVEMENT PATCHING (BDE)

Effective: November 1, 2002

Pavement broken and holes opened for patching shall be completed prior to weekend or holiday periods. Should delays of any type or for any reason prevent the completion of the work, temporary patches shall be constructed. Material able to support the average daily traffic and meeting the approval of the Engineer shall be used for the temporary patches. The cost of furnishing, placing, maintaining, removing and disposing of the temporary work, including traffic control, shall be the responsibility of the Contractor.

# NOTIFICATION OF REDUCED WIDTH (BDE)

Effective: April 1, 2007

Add the following after the first paragraph of Article 701.06 of the Standard Specifications:

"Where the clear width through a work zone with temporary concrete barrier will be 16.0 ft (4.88 m) or less, the Contractor shall notify the Engineer at least 21 days in advance of implementing the traffic control for that restriction."

# PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: June 1, 2000

Revised: January 1, 2006

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

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

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

When progress payments are made to the Contractor according to Article 109.07 of the Standard Specifications, the Contractor shall make a corresponding payment to each subcontractor and material supplier in proportion to the work satisfactorily completed by each subcontractor and for the material supplied to perform any work of the contract. The

proportionate amount of partial payment due to each subcontractor and material supplier throughout the contracting chain shall be determined by the quantities measured or otherwise determined as eligible for payment by the Department and included in the progress payment to the Contractor. Subcontractors and material suppliers shall be paid by the Contractor within 15 calendar days after the receipt of payment from the Department. The Contractor shall not hold retainage from the subcontractors. These obligations shall also apply to any payments made by subcontractors and material suppliers to their subcontractors and material suppliers; and to all payments made to lower tier subcontractors and material suppliers throughout the contracting chain. Any payment or portion of a payment subject to this provision may only be withheld from the subcontractor or material supplier to whom it is due for reasonable cause.

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

# PLASTIC BLOCKOUTS FOR GUARDRAIL (BDE)

Effective: November 1, 2004

Revised: January 1, 2007

Add the following to Article 630.02 of the Standard Specifications:

"(g) Plastic Blockouts (Note 1.)

Note 1. Plastic blockouts may be used in lieu of wood blockouts for steel plate beam guardrail. The plastic blockouts shall be the minimum dimensions shown on the plans and shall be on the Department's approved list."

## PRECAST CONCRETE HANDLING HOLES (BDE)

Effective: January 1, 2007

Add the following to Article 540.02 of the Standard Specifications:

Add the following paragraph after the sixth paragraph of Article 540.06 of the Standard Specifications:

"Handling holes shall be filled with a precast concrete plug and sealed with mastic or mortar, or filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation. When metal lifting inserts are used, their sockets shall be filled with mastic or mortar."

Add the following to Article 542.02 of the Standard Specifications:

Revise the fifth paragraph of Article 542.04(d) of the Standard Specifications to read:

"Handling holes in concrete pipe shall be filled with a precast concrete plug and sealed with mastic or mortar; or filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation."

Add the following to Article 550.02 of the Standard Specifications:

"(o) Handling Hole Plugs......1042.16"

Replace the fourth sentence of the fifth paragraph of Article 550.06 of the Standard Specifications with the following:

"Handling holes in concrete pipe shall be filled with a precast concrete plug and sealed with mastic or mortar; or filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation."

Add the following to Article 602.02 of the Standard Specifications:

"(p) Handling Hole Plugs...... 1042.16(a)"

Replace the fifth sentence of the first paragraph of Article 602.07 of the Standard Specifications with the following:

"Handling holes shall be filled with a precast concrete plug and sealed with mastic or mortar. The plug shall not project beyond the inside surface after installation. When metal lifting inserts are used, their sockets shall be filled with mastic or mortar."

Add the following to Section 1042 of the Standard Specifications:

"**1042.16 Handling Hole Plugs.** Plugs for handling holes in precast concrete products shall be as follows.

- (a) Precast Concrete Plug. The precast concrete plug shall have a tapered shape and shall have a minimum compressive strength of 3000 psi (20,700 kPa) at 28 days.
- (b) Polyethylene Plug. The polyethylene plug shall have a "mushroom" shape with a flat round top and a stem with three different size ribs. The plug shall fit snuggly and cover the handling hole.

The plug shall be according to the following.

Mechanical Properties	Test Method	Value (min.)
Flexural Modulus	ASTM D 790	3300 psi (22,750 kPa)
Tensile Strength (Break)	ASTM D 638	1600 psi (11,030 kPa)
Tensile Strength (Yield)	ASTM D 638	1200 psi (8270 kPa)

Thermal Properties	Test Method	Value (min.)
Brittle Temperature	ASTM D 746	-49 °F (-45 °C)
Vicat Softening Point	ASTM D 1525	194 °F (90 °C)"

# **RECLAIMED ASPHALT PAVEMENT (RAP) (BDE)**

Effective: January 1, 2007

Revised: August 1, 2007

In Article 1030.02(g), delete the last sentence of the first paragraph in (Note 2).

Revise Section 1031 of the Standard Specifications to read:

# "SECTION 1031. RECLAIMED ASPHALT PAVEMENT

**1031.01 Description.** Reclaimed asphalt pavement (RAP) is reclaimed asphalt pavement resulting from cold milling or crushing of an existing dense graded hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.

**1031.02 Stockpiles.** The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type as listed below (i.e. "Homogeneous Surface").

Prior to milling, the Contractor shall request the District to provide verification of the quality of the RAP to clarify appropriate stockpile.

- (a) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures and represent:
  1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag);
  3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.
- (b) Conglomerate 5/8. Conglomerate 5/8 RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an

inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate 5/8 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate 5/8 RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

- (c) Conglomerate 3/8. Conglomerate 3/8 RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least B quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate 3/8 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 3/8 in. (9.5 mm) or smaller screen. Conglomerate 3/8 RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (d) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, Superpave (High or Low ESAL), HMA (High or Low ESAL), or equivalent mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (e) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

**1031.03 Testing.** When used in HMA, the RAP shall be sampled and tested either during or after stockpiling.

For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Before extraction, each field sample shall be split to obtain two samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

- (a) Testing Conglomerate 3/8. In addition to the requirements above, conglomerate 3/8 RAP shall be tested for maximum theoretical specific gravity (G<sub>mm</sub>) at a frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).
- (b) Evaluation of Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable G<sub>mm</sub>. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	Homogeneous / Conglomerate	Conglomerate "D" Quality
1 in. (25 mm)		± 5 %
1/2 in. (12.5 mm)	±8%	± 15 %
No. 4 (4.75 mm)	±6%	± 13 %
No. 8 (2.36 mm)	± 5 %	
No. 16 (1.18 mm)		± 15 %
No. 30 (600 μm)	± 5 %	
No. 200 (75 μm)	± 2.0 %	$\pm$ 4.0 %
Asphalt Binder	$\pm$ 0.4 % <sup>1/</sup>	$\pm$ 0.5 %
G <sub>mm</sub>	$\pm$ 0.02 $^{2/}$	

- 1/ The tolerance for conglomerate 3/8 shall be  $\pm$  0.3 %.
- 2/ Applies only to conglomerate 3/8. When variation of the  $G_{mm}$  exceeds the  $\pm$  0.02 tolerance, a new conglomerate 3/8 stockpile shall be created which will also require an additional mix design.

If more than 20 percent of the individual sieves are out of the gradation tolerances, or if more than 20 percent of the asphalt binder content test results fall outside the appropriate tolerances, the RAP shall not be used in HMA unless the RAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

**1031.04 Quality Designation of Aggregate in RAP.** The quality of the RAP shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

- (a) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) surface mixtures are designated as containing Class B quality coarse aggregate.
- (b) RAP from Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder and IL-9.5L surface mixtures are designated as Class D quality coarse aggregate.

- (c) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
- (d) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

**1031.05 Use of RAP in HMA.** The use of RAP in HMA shall be as follows.

- (a) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.
- (b) Steel Slag Stockpiles. RAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) surface mixtures only.
- (c) Use in HMA Surface Mixtures (High and Low ESAL). RAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be either homogeneous or conglomerate 3/8, in which the coarse aggregate is Class B quality or better.
- (d) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be homogeneous, conglomerate 5/8, or conglomerate 3/8, in which the coarse aggregate is Class C quality or better.
- (e) Use in Shoulders and Subbase. RAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be homogeneous, conglomerate 5/8, conglomerate 3/8, or conglomerate DQ.
- (f) The use of RAP shall be a contractor's option when constructing HMA in all contracts. When the contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in the table for a given N Design.

HMA MIXTURES <sup>1/, 3/</sup>	MAXIMUM % RAP		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	30	30	10
50	25	15	10
70	15 / 25 <sup>2/</sup>	10 / 15 <sup>2/</sup>	10
90	10	10	10
105	10	10	10

## Max RAP Percentage

1/ For HMA Shoulder and Stabilized Sub-Base (HMA) N-30, the amount of RAP shall not exceed 50% of the mixture.

- 2/ Value of Max % RAP if 3/8 RAP is utilized.
- 3/ When RAP exceeds 20%, the high & low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25% RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

**1031.06 HMA Mix Designs.** At the Contractor's option, HMA mixtures may be constructed utilizing RAP material meeting the above detailed requirements.

RAP designs shall be submitted for volumetric verification. If additional RAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein, are outside of the control tolerances set for the original RAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP stockpiles may be used in the original mix design at the percent previously verified.

**1031.07 HMA Production.** The coarse aggregate in all RAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.

To remove or reduce agglomerated material, a scalping screen, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP and either switch to the virgin aggregate design or submit a new RAP design. When producing mixtures containing conglomerate 3/8 RAP, a positive dust control system shall be utilized.

HMA plants utilizing RAP shall be capable of automatically recording and printing the following information.

- (a) Dryer Drum Plants.
  - (1) Date, month, year, and time to the nearest minute for each print.
  - (2) HMA mix number assigned by the Department.
  - (3) Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
  - (4) Accumulated dry weight of RAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
  - (5) Accumualted mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
  - (6) Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.

- (7) Residual asphalt binder in the RAP material as a percent of the total mix to the nearest 0.1 percent.
- (8) Aggregate and RAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP are printed in wet condition.)
- (b) Batch Plants.
  - (1) Date, month, year, and time to the nearest minute for each print.
  - (2) HMA mix number assigned by the Department.
  - (3) Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
  - (4) Mineral filler weight to the nearest pound (kilogram).
  - (5) RAP weight to the nearest pound (kilogram).
  - (6) Virgin asphalt binder weight to the nearest pound (kilogram).
  - (7) Residual asphalt binder in the RAP material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

**1031.08 RAP in Aggregate Surface Course and Aggregate Shoulders.** The use of RAP in aggregate surface course and aggregate shoulders shall be as follows.

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Other". The testing requirements of Article 1031.03 shall not apply.
- (b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted."

## **REFLECTIVE SHEETING ON CHANNELIZING DEVICES (BDE)**

Effective: April 1, 2007

Revise the seventh paragraph of Article 1106.02 of the Standard Specifications to read:

"At the time of manufacturing, the retroreflective prismatic sheeting used on channelizing devices shall meet or exceed the initial minimum coefficient of retroreflection as specified in the following table. Measurements shall be conducted according to ASTM E 810, without

averaging. Sheeting used on cones, drums and flexible delineators shall be reboundable as tested according to ASTM D 4956. Prestriped sheeting for rigid substrates on barricades shall be white and orange.

Initial Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material						
Observation	Entrance Angle			Fluorescent		
Angle (deg.)	(deg.)	White	Orange	Orange		
0.2	-4	365	160	150		
0.2	+30	175	80	70		
0.5	-4	245	100	95		
0.5	+30	100	50	40"		

Revise the first sentence of the first paragraph of Article 1106.02(c) of the Standard Specifications to read:

"Barricades and vertical panels shall have alternating white and orange stripes sloping downward at 45 degrees toward the side on which traffic will pass."

Revise the third sentence of the first paragraph of Article 1106.02(d) of the Standard Specifications to read:

"The bottom panels shall be 8 x 24 in. (200 x 600 mm) with alternating white and orange stripes sloping downward at 45 degrees toward the side on which traffic will pass."

## **REINFORCEMENT BARS (BDE)**

Effective: November 1, 2005

Revised: January 2, 2008

Revise Article 1006.10(a) of the Standard Specifications to read:

- " (a) Reinforcement Bars. Reinforcement bars will be accepted according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reinforcement Bar and/or Dowel Bar Plant Certification Procedure". The Department will maintain an approved list of producers.
  - (1) Reinforcement Bars (Non-Coated). Reinforcement bars shall be according to ASTM A 706 (A 706M), Grade 60 (420) for deformed bars and the following.
    - a. For straight bars furnished in cut lengths and with a well-defined yield point, the yield point shall be determined as the elastic peak load, identified by a halt or arrest of the load indicator before plastic flow is sustained by the bar and dividing it by the nominal cross-sectional area of the bar.
    - b. For bars without a well-defined yield point, including bars straightened from coils, the yield strength shall be determined by taking the corresponding load at 0.005 strain as measured by an extensometer (0.5% elongation under load) and dividing it by the nominal cross-sectional area of the bar.

- c. For bars straightened from coils or bars bent from fabrication, there shall be no upper limit on yield strength; and for bar designation Nos. 3 6 (10 19), the elongation after rupture shall be at least 9%.
- d. Heat Numbers. Bundles or bars at the construction site shall be marked or tagged with heat identification numbers of the bar producer.
- e. Guided Bend Test. Bars may be subject to a guided bend test across two pins which are free to rotate, where the bending force shall be centrally applied with a fixed or rotating pin of a certain diameter as specified in Table 3 of ASTM A 706 (A 706M). The dimensions and clearances of this guided bend test shall be according to ASTM E 190.
- f. Spiral Reinforcement. Spiral reinforcement shall be deformed or plain bars conforming to the above requirements or cold-drawn steel wire conforming to AASHTO M 32.
- (2) Epoxy Coated Reinforcement Bars. Epoxy coated reinforcement bars shall be according to Article 1006.10(a)(1) and shall be epoxy coated according to AASHTO M 284 (M 284M) and the following.
  - Certification. The epoxy coating applicator shall be certified according to the current Bureau of Materials and Physical Research Policy Memorandum, "Epoxy Coating Plant Certification Procedure". The Department will maintain an approved list.
  - b. Coating Thickness. The thickness of the epoxy coating shall be 7 to 12 mils (0.18 to 0.30 mm). When spiral reinforcement is coated after fabrication, the thickness of the epoxy coating shall be 7 to 20 mils (0.18 to 0.50 mm).
  - c. Cutting Reinforcement. Reinforcement bars may be sheared or sawn to length after coating, providing the end damage to the coating does not extend more than 0.5 in. (13 mm) back and the cut is patched before any visible rusting appears. Flame cutting will not be permitted."

## SEEDING (BDE)

Effective: July 1, 2004

Revised: August 1, 2007

Revise the following seeding mixtures shown in Table 1 of Article 250.07 of the Standard Specifications to read:

	"Table 1 - SEEDING MIXTURES				
	Class – Type	Seeds	lb/acre (kg/hectare)		
2	Roadside Mixture 7/	Tall Fescue (Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV)	100 (110)		
		Perennial Ryegrass	50 (55)		
		Creeping Red Fescue	40 (50)		
		Red Top	10 (10)		
2A	Salt Tolerant Roadside Mixture 7/	Tall Fescue (Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV)	60 (70)		
		Perennial Ryegrass	20 (20)		
		Red Fescue (Audubon, Sea Link, or Epic)	30 (20)		
		Hard Fescue (Rescue 911, Spartan II, or Reliant IV)	30 (20)		
		Fults Salt Grass 1/	60 (70)"		

Revise Table II of Article 1081.04(c)(6) of the Standard Specifications to read:

TABLE II						
	Hard Pure			Secondary *		
	Seed	Purity	Live	Weed	Noxious Weeds	
	%	%	Seed %	%	No. per oz (kg)	
Variety of Seeds	Max.	Min.	Min.	Max.	Max. Permitted	Notes
Alfalfa	20	92	89	0.50	6 (211)	1/
Clover, Alsike	15	92	87	0.30	6 (211)	2/
Red Fescue, Audubon	0	97	82	0.10	3 (105)	-
Red Fescue, Creeping	-	97	82	1.00	6 (211)	-
Red Fescue, Epic	-	98	83	0.05	1 (35)	-
Red Fescue, Sea Link	-	98	83	0.10	3 (105)	-
Tall Fescue, Blade Runner	-	98	83	0.10	2 (70)	-
Tall Fescue, Falcon IV	-	98	83	0.05	1 (35)	-
Tall Fescue, Inferno	0	98	83	0.10	2 (70)	-
Tall Fescue, Tarheel II	-	97	82	1.00	6 (211)	-
Tall Fescue, Quest	0	98	83	0.10	2 (70)	
Fults Salt Grass	0	98	85	0.10	2 ( 70)	-
Kentucky Bluegrass	-	97	80	0.30	7 (247)	4/
Oats	-	92	88	0.50	2 ( 70)	3/
Redtop	-	90	78	1.80	5 (175)	3/
Ryegrass, Perennial, Annual	-	97	85	0.30	5 (175)	3/
Rye, Grain, Winter	-	92	83	0.50	2 ( 70)	3/
Hard Fescue, Reliant IV	-	98	83	0.05	1 (35)	-
Hard Fescue, Rescue 911	0	97	82	0.10	3 (105)	-
Hard Fescue, Spartan II	-	98	83	0.10	3 (105)	-
Timothy	-	92	84	0.50	5 (175)	3/
Wheat, hard Red Winter	-	92	89	0.50	2 ( 70)	3/"

"The seed quantities indicated per acre (hectare) for Prairie Grass Seed in Classes 3, 3A, 4, 4A, 6, and 6A in Article 250.07 shall be the amounts of pure, live seed per acre (hectare) for each species listed."

## SELF-CONSOLIDATING CONCRETE FOR PRECAST PRODUCTS (BDE)

Effective: July 1, 2004

## Revised: January 1, 2007

<u>Definition</u>. Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation.

<u>Usage</u>. Self-consolidating concrete may be used for precast concrete products.

Materials. Materials shall be according to Section 1021 of the Standard Specifications.

Mix Design Criteria. The mix design criteria shall be as follows:

- (a) The minimum cement factor shall be according to Article 1020.04 of the Standard Specifications. If the maximum cement factor is not specified, it shall not exceed 7.05 cwt/cu yd (418 kg/cu m).
- (b) The maximum allowable water/cement ratio shall be according to Article 1020.04 of the Standard Specifications or 0.44, whichever is lower.
- (c) The slump requirements of Article 1020.04 of the Standard Specifications shall not apply.
- (d) The coarse aggregate gradations shall be CA 13, CA 14, CA 16, or a blend of these gradations. CA 11 may be used when the Contractor provides satisfactory evidence to the Engineer that the mix will not segregate. The fine aggregate proportion shall be a maximum 50 percent by weight (mass) of the total aggregate used.
- (e) The slump flow range shall be ±2 in. (± 50 mm) of the Contractor target value, and within the overall Department range of 20 in. (510 mm) minimum to 28 in. (710 mm) maximum.
- (f) The visual stability index shall be a maximum of 1.
- (g) The J-ring value shall be a maximum of 4 in. (100 mm). The Contractor may specify a lower maximum in the mix design.
- (h) The L-box blocking ratio shall be a minimum of 60 percent. The Contractor may specify a higher minimum in the mix design.
- (i) The column segregation index shall be a maximum 15 percent.

(j) The hardened visual stability index shall be a maximum of 1.

<u>Placing and Consolidating</u>. The maximum distance of horizontal flow from the point of deposit shall be 25 ft (7.6 m), unless approved otherwise by the Engineer.

Concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator shall be the pencil head type with a maximum diameter or width of 1 in. (25 mm). Any other method for restoring the fluidity of the concrete shall be approved by the Engineer.

<u>Mix Design Approval</u>. The Contractor shall obtain mix design approval according to the Department's Policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products".

# SILT FILTER FENCE (BDE)

Effective: January 1, 2008

For silt filter fence fabric only, revise Article 1080.02 of the Standard Specifications to read:

"**1080.02** Geotextile Fabric. The fabric for silt filter fence shall be a woven fabric meeting the requirements of AASHTO M 288 for unsupported silt fence with less than 50 percent geotextile elongation."

Replace the last sentence of Article 1081.15(b) of the Standard Specifications with the following:

"Silt filter fence stakes shall be a minimum of 4 ft (1.2 m) long and made of either wood or metal. Wood stakes shall be 2 in. x 2 in. (50 mm x 50 mm). Metal stakes shall be a standard T or U shape having a minimum weight (mass) of 1.32 lb/ft (600 g/300 mm)."

## STEEL PLATE BEAM GUARDRAIL (BDE)

Effective: November 1, 2005

Revised: August 1, 2007

Revise the first paragraph of Article 1006.25 of the Standard Specifications to read:

"1006.25 Steel Plate Beam Guardrail. Steel plate beam guardrail, including bolts, nuts, and washers, shall be according to AASHTO M 180. The guardrail shall be Class A, with a Type II galvanized coating; except the weight (mass) of the coating for each side of the guardrail shall be at least 2.00 oz/sq ft (610 g/sq m). The coating will be determined for each side of the guardrail using the average of at least three non-destructive test readings taken on that side of the guardrail. The minimum average thickness for each side shall be 3.4 mils (86 μm)."

# STONE GRADATION TESTING (BDE)

Effective: November 1, 2007

Revise the first sentence of note 1/ of the Erosion Protection and Sediment Control Gradations table of Article 1005.01(c)(1) of the Standard Specifications to read:

FAI Route 55 (I-55), FAI Route 72 (I-72) FAP Route 666 (I-55 BUS) Project ACIM-ACHSIP-000S (554) Section D6 Interstate RS, BR, MCAB 2008 Contract No. 72659 Sangamon County "A maximum of 15 percent of the total test sample by weight may be oversize material."

# SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005

To account for the preparatory work and operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting in accordance with Article 108.01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

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

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

# SURFACE TESTING OF PAVEMENTS (BDE)

Effective: April 1, 2002

Revised: January 1, 2007

## Hot-Mix Asphalt (HMA) Overlays

Revise Article 406.03(h) of the Standard Specifications to read:

"(h) Pavement Surface Test Equipment ......1101.10"

Revise Article 406.11 of the Standard Specifications to read:

"406.11 Surface Tests. The finished surface of the pavement shall be tested for smoothness within three days of paving. Testing shall be performed in the presence of the Engineer.

Prior to testing, a copy of the approval letter and recorded settings from the Profile Equipment Verification (PEV) Program shall be submitted to the Engineer; and all objects and debris shall be removed from the pavement.

(a) Test Sections/Equipment.

- (1) High-Speed Mainline Pavement. High-speed mainline pavement shall consist of pavements, ramps, and loops with a posted speed greater than 45 mph. These sections shall be tested using a profile testing device.
- (2) Low-Speed Mainline Pavement. Low-speed mainline pavement shall consist of pavements, ramps, and loops with a posted speed of 45 mph or less. These sections shall be tested using a profile testing device.

- (3) Miscellaneous Pavement. Miscellaneous pavement shall consist of:
  - a. pavement on horizontal curves with a centerline radius of curvature of less than or equal to 1000 ft (300 m) and pavement within the superelevation transition of such curves;
  - b. pavement on vertical curves having a length of less than or equal to 200 ft (60 m) in combination with an algebraic change in tangent grades greater than or equal to three percent, as may occur on urban ramps or other constricted-space facilities;
  - c. the first or last 15 ft (4.5 m) of a pavement section where the Contractor is not responsible for the adjoining surface;
  - d. intersections;
  - e. variable width pavements;
  - f. side street returns;
  - g. crossovers;
  - h. connector pavement from mainline pavement expansion joint to the bridge approach pavement;
  - i. bridge approach pavement; and
  - j. other miscellaneous pavement surfaces (i.e. a turn lane) as determined by the Engineer.

Miscellaneous pavement shall be tested using a 16 ft (5 m) straightedge set to a 3/8 in. (10 mm) tolerance.

- (b) Lots/Sublots. Mainline pavement test sections will be divided into lots and sublots.
  - (1) Lots. A lot will be defined as a continuous strip of pavement 1 mile (1600 m) long and one lane wide. When the length of a continuous strip of pavement is less than 1 mile (1600 m), that pavement will be included in an adjacent lot. Structures will be omitted when measuring pavement length.
  - (2) Sublots. Lots will be divided into 0.1 mile (160 m) sublots. A partial sublot greater than or equal to 250 ft (76 m) resulting from an interruption in the pavement will be subject to the same evaluation as a whole sublot. Partial sublots less than 250 ft (76 m) shall be included with the previous sublot for evaluation purposes.
- (c) Testing Procedure. One wheel track shall be tested per lane. Testing shall be performed 3 ft (1 m) from and parallel to the edge of the lane away from traffic. A guide shall be used to maintain the proper distance.

The profile trace generated shall have stationing indicated every 500 ft (150 m) at a minimum. Both ends of the profile trace shall be labeled with the following information: contract number, beginning and ending stationing, which direction is up on the trace, which direction the data was collected, and the device operator name(s). The top portion of the Department supplied form, "Profile Report of Pavement Smoothness" shall be completed and secured around the trace roll.

Although surface testing of intermediate lifts will not be required, they may be performed at the Contractor's option. When this option is chosen, the testing shall be performed and the profile traces shall be generated as described above.

The Engineer may perform his/her own testing at any time for monitoring and comparison purposes.

(d) Trace Reduction and Bump Locating Procedure. All traces shall be reduced. Traces produced by a mechanical recorder shall be reduced using an electronic scanner and computer software. This software shall calculate the profile index of each sublot in in./mile (mm/km) and indicate any high points (bumps) in excess of 0.30 in. (8 mm) with a line intersecting the profile on the printout. Computerized recorders shall provide the same information.

The profile index of each track, average profile index of each sublot, average profile index of the lot and locations of bumps shall be recorded on the form.

All traces and reports shall be provided within two working days of completing the testing to the Engineer for the project file. Traces from either a computerized profile testing device or analysis software used with a manual profile testing device shall display the settings used for the data reduction. The Engineer will compare these settings with the approved settings from the PEV Program. If the settings do not match, the results will be rejected and the section shall be retested/reanalyzed with the appropriate settings.

The Engineer will use the results of the testing to evaluate paving methods and equipment. If the average profile index of a lot exceeds 40.0 in./mile (635 mm/km) for high-speed mainline pavement or 65.0 in./mile (1025 mm/km) for low-speed mainline pavement, the paving operation will be suspended until corrective action is taken by the Contractor.

- (e) Corrective Work. All bumps in excess of 0.30 in. (8 mm) in a length of 25 ft (8 m) or less shall be corrected. If the bump is greater than 0.50 in. (13 mm), the pavement shall be removed and replaced. The minimum length of pavement to be removed shall be 3 ft (900 mm).
  - (1) High-Speed Mainline Pavement. Any sublot having a profile index within the range of, greater than 30.0 to 40.0 in./mile (475 to 635 mm/km) including bumps, shall be corrected to reduce the profile index to 30.0 in./mile (475 mm/km) or less on each trace. Any sublot having a profile index greater than 40.0 in./mile (635 mm/km) including bumps, shall be corrected to reduce the profile index to 30.0 in./mile (475 mm/km) or less on each trace, or replaced at the Contractor's option.

- (2) Low-Speed Mainline Pavement. Any sublot having a profile index within the range of, greater than 45.0 to 65.0 in./mile (710 to 1025 mm/km) including bumps, shall be corrected to reduce the profile index to 45.0 in./mile (710 mm/km) or less on each trace. Any sublot having a profile index greater than 65.0 in./mile (1025 mm/km) including bumps, shall be corrected to reduce the profile index to 45.0 in./mile (710 mm/km) or less on each trace, or replaced at the Contractor's option.
- (3) Miscellaneous Pavement. Surface variations which exceed the 3/8 in. (10 mm) tolerance will be marked by the Engineer and shall be corrected by the Contractor.

Corrective work shall be completed using either an approved grinding device consisting of multiple saws or by removing and replacing the pavement. Corrective work shall be applied to the full lane width. When completed, the corrected area shall have uniform texture and appearance, with the beginning and ending of the corrected area squared normal to the centerline of the paved surface.

Upon completion of the corrective work, the surface of the sublot(s) shall be retested. The Contractor shall furnish the profile tracing(s) and the completed form(s) to the Engineer within two working days after corrections are made. If the profile index and/or bumps still do not meet the requirements, additional corrective work shall be performed.

Corrective work shall be at no additional cost to the Department.

(f) Smoothness Assessments. Assessments will be paid to or deducted from the Contractor for each sublot of mainline pavement, per the Smoothness Assessment Schedule. Assessments will be based on the average profile index of each sublot prior to performing any corrective work unless the Contractor has chosen to remove and replace the sublot. For sublots that are replaced, assessments will be based on the profile index determined after replacement.

Assessments will not be paid or deducted until all other contract requirements for the pavement are satisfied. Pavement that is corrected or replaced for reasons other than smoothness, shall be retested as stated herein.

SMOOTHNESS ASSESSMENT SCHEDULE (HMA Overlays)				
High-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Low-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Assessment per sublot		
6.0 (95) or less	15.0 (240) or less	+\$150.00		
>6.0 (95) to 10.0 (160)	>15.0 (240) to 25.0 (400)	+\$80.00		
>10.0 (160) to 30.0 (475)	>25.0 (400) to 45.0 (710)	+\$0.00		
>30.0 (475) to 40.0 (635)	>45.0 (710) to 65.0 (1025)	+\$0.00		
Greater than 40.0 (635)	Greater than 65.0 (1025)	-\$300.00		

FAI Route 55 (I-55), FAI Route 72 (I-72) FAP Route 666 (I-55 BUS) Project ACIM-ACHSIP-000S (554) Section D6 Interstate RS, BR, MCAB 2008 Contract No. 72659 Sangamon County Smoothness assessments will not be applied to miscellaneous pavement sections."

# Hot-Mix Asphalt (HMA) Pavement (Full-Depth)

Revise Article 407.09 of the Standard Specifications to read:

"**407.09 Surface Tests.** The finished surface of the pavement shall be tested for smoothness according to Article 406.11, except as follows:

Two wheel tracks shall be tested per lane. Testing shall be performed 3 ft (1 m) from and parallel to each lane edge.

SMOOTHNESS ASSESSMENT SCHEDULE (Full-Depth HMA)			
High-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Low-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Assessment per sublot	
6.0 (95) or less		+\$800.00	
>6.0 (95) to 11.0 (175)	15.0 (240) or less	+\$550.00	
>11.0 (175) to 17.0 (270)	>15.0 (240) to 25.0 (400)	+\$350.00	
>17.0 (270) to 30.0 (475)	>25.0 (400) to 45.0 (710)	+\$0.00	
>30.0 (475) to 40.0 (635)	>45.0 (710) to 65.0 (1025)	+\$0.00	
Greater than 40.0 (635)	Greater than 65.0 (1025)	-\$500.00"	

Delete the third paragraph of Article 407.12 of the Standard Specifications.

# Portland Cement Concrete Pavement

Revise Article 420.10 of the Standard Specifications to read:

"**420.10 Surface Tests.** The finished surface of the pavement shall be tested for smoothness according to Article 406.11, except as follows:

The finished surface of the pavement shall be tested for smoothness once the pavement has attained a flexural strength of 550 psi (3800 kPa) or a compressive strength of 3000 psi (20,700 kPa).

Two wheel tracks shall be tested per lane. Testing shall be performed 3 ft (1 m) from and parallel to each lane edge.

Membrane curing damaged during testing shall be repaired as directed by the Engineer at no additional cost to the Department.

No further texturing for skid resistance will be required for areas corrected by grinding. Protective coat shall be reapplied to ground areas according to Article 420.18 at no additional cost to the Department.

For pavement that is corrected by removal and replacement, the minimum length to be removed shall meet the requirements of either Class A or Class B patching.

SMOOTHNESS ASSESSMENT SCHEDULE (PCC)			
High-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Low-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Assessment per sublot	
6.0 (95) or less		+\$1200.00	
>6.0 (95) to 11.0 (175)	15.0 (240) or less	+\$950.00	
>11.0 (175) to 17.0 (270)	>15.0 (240) to 25.0 (400)	+\$600.00	
>17.0 (270) to 30.0 (475)	>25.0 (400) to 45.0 (710)	+\$0.00	
>30.0 (475) to 40.0 (635)	>45.0 (710) to 65.0 (1025)	+\$0.00	
Greater than 40.0 (635)	Greater than 65.0 (1025)	-\$750.00"	

Delete the fourth paragraph of Article 420.20 of the Standard Specifications.

## **Testing Equipment**

Revise Article 1101.10 of the Standard Specifications to read:

"**1101.10 Pavement Surface Test Equipment.** Required surface testing and analysis equipment and their jobsite transportation shall be provided by the Contractor.

- (a) 16 ft (5 m) Straightedge. The 16 ft (5 m) straightedge shall consist of a metal I-beam mounted between two wheels spaced 16 ft (5 m) between the axles. Scratcher bolts which can be easily and accurately adjusted, shall be set at the 1/4, 1/2, and 3/4 points between the axles. A handle suitable for pushing and guiding shall be attached to the straightedge.
- (b) Profile Testing Device. The profile testing device shall have a decal displayed to indicate it has been tested through the Profile Equipment Verification (PEV) Program administered by the Department.
  - (1) California Profilograph. The California Profilograph shall be either computerized or manual and have a frame 25 ft (8 m) in length supported upon multiple wheels at either end. The profile shall be recorded from the vertical movement of a wheel attached to the frame at mid point.

The California Profilograph shall be calibrated according to the manufacturer's recommendations and California Test 526. All calibration traces and calculations shall be submitted to the Engineer for the project file.

(2) Inertial Profiler. The inertial profiler shall be either an independent device or a system that can be attached to another vehicle using one or two non-contact sensors

to measure the pavement profile. The inertial profiler shall be capable of performing a simulation of the California Profilograph to provide results in the Profile Index format.

The inertial profiler shall be calibrated according to the manufacturer's recommendations. All calibration traces and calculations shall be submitted to the Engineer for the project file.

(3) Trace Analysis. The Contractor shall reduce/evaluate these traces using a 0.00 in. (0.0 mm) blanking band and determine a Profile Index in in./mile (mm/km) for each section of finished pavement surface. Traces produced using a computerized profile testing device will be evaluated without further reduction. When using a manual profile testing device, the Contractor shall provide an electronic scanner, a computer, and software to reduce the trace. All analysis equipment (electronic scanner, computerized recorder, etc.) shall be able to accept 0.00 in. (0.0 mm) for the blanking band.

All traces from pavement sections tested with the profile testing device shall be recorded on paper with scales of 300:1 longitudinally and 1:1 vertically. Equipment and software settings of the profile testing device and analysis equipment shall be set to those values approved through the PEV Program.

The Engineer may retest the pavement at any time to verify the accuracy of the equipment."

## TEMPORARY EROSION CONTROL (BDE)

Effective: November 1, 2002

Revised: January 1, 2008

Revise the third paragraph of Article 280.03 of the Standard Specifications to read:

"Erosion control systems shall be installed prior to beginning any activities which will potentially create erodible conditions. Erosion control systems for areas outside the limits of construction such as storage sites, plant sites, waste sites, haul roads, and Contractor furnished borrow sites shall be installed prior to beginning soil disturbing activities at each area. These offsite systems shall be designed by the Contractor and be subject to the approval of the Engineer."

Add the following paragraph after the third paragraph of Article 280.03 of the Standard Specifications:

"The temporary erosion and sediment control systems shown on the plans represent the minimum systems anticipated for the project. Conditions created by the Contractor's operations, or for the Contractor's convenience, which are not covered by the plans, shall be protected as directed by the Engineer at no additional cost to the Department. Revisions or modifications of the erosion and sediment control systems shall have the Engineer's written approval."

"Temporary or permanent erosion control systems required for areas outside the limits of construction will not be measured for payment."

Delete the tenth (last) paragraph of Article 280.08 of the Standard Specifications.

# WATER BLASTER WITH VACUUM RECOVERY (BDE)

Effective: April 1, 2006

Revised: January 1, 2007

Add the following to Article 783.02 of the Standard Specifications.

"(c) Water Blaster with Vacuum Recovery ......1101.12"

Revise Article 1101.12 of the Standard Specifications to read.

"**1101.12 Water Blaster with Vacuum Recovery.** The water blaster shall remove the stripe from the pavement using a high pressurized water spray with a vacuum recovery system to provide a clean, almost dry surface, without the use of a secondary cleanup process. The removal shall be to the satisfaction of the Engineer. The equipment shall contain a storage system that allows for the storage of the wastewater while retaining the debris. The operator shall be in immediate control of the blast head."

# BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID)

Effective: November 2, 2006

Revised: January 2, 2007

<u>Description</u>. For projects with at least 1200 tons (1100 metric tons) of work involving applicable bituminous materials, cost adjustments will be made to provide additional compensation to the Contractor, or credit to the Department, for fluctuations in the cost of bituminous materials when optioned by the Contractor. The adjustments shall apply to permanent and temporary hot-mix asphalt (HMA) mixtures, bituminous surface treatments (cover and seal coats), and pavement preservation type surface treatments. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, or joint filling/sealing.

The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

 $CA = (BPI_P - BPI_L) \times (\%AC_V / 100) \times Q$ 

Where: CA = Cost Adjustment, \$.

- BPI<sub>P</sub> = Bituminous Price Index, as published by the Department for the month the work is performed, \$/ton (\$/metric ton).
- $BPI_L$  = Bituminous Price Index, as published by the Department for the month prior to the letting, \$/ton (\$/metric ton).
- $%AC_V =$  Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC<sub>V</sub> will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC<sub>V</sub> and undiluted emulsified asphalt will be considered to be 65% AC<sub>V</sub>.
- Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: Q, tons = A x D x ( $G_{mb}$  x 46.8) / 2000. For HMA mixtures measured in square meters: Q, metric tons = A x D x ( $G_{mb}$  x 24.99) / 1000. When computing adjustments for full-depth HMA pavement, separate calculations will be made for the binder and surface courses to account for their different  $G_{mb}$  and % AC<sub>V</sub>.

For bituminous materials measured in gallons:	Q, tons = V x 8.33 lb/gal x SG / 2000
For bituminous materials measured in liters:	Q, metric tons = $V \times 1.0 \text{ kg/L} \times \text{SG} / 1000$

Where:	А	= Area of the HMA mixture, sq yd (sq m).
	D	= Depth of the HMA mixture, in. (mm).
	$G_{mb}$	= Average bulk specific gravity of the mixture, from the approved mix design.
	V	<ul> <li>Volume of the bituminous material, gal (L).</li> </ul>
	SG	Specific Gravity of bituminous material as shown on the bill of lading.

<u>Basis of Payment</u>. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the  $BPI_L$  and  $BPI_P$  in excess of five percent, as calculated by:

Percent Difference =  $\{(BPI_L - BPI_P) \div BPI_L\} \times 100$ 

Bituminous materials cost adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the items of work are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

**Return With Bid** 

# ILLINOIS DEPARTMENTOPTION FOROF TRANSPORTATIONBITUMINOUS MATERIALS COST ADJUSTMENTS

The bidder shall submit this completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments. After award, this form, when submitted, shall become part of the contract.

Contract No.: \_\_\_\_\_

Company Name:\_\_\_\_\_

## Contractor's Option:

Is your company opting to include this special provision as part of the contract?

Signature:			Date:
	Yes	No	

# STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 2, 2004

Revised: April 1, 2007

<u>Description</u>. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of steel cost adjustments.

<u>Types of Steel Products</u>. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling) Structural Steel Reinforcing Steel

Other steel materials such as dowel bars, tie bars, mesh reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), frames and grates, and other miscellaneous items will be subject to a steel cost adjustment when the pay item they are used in has a contract value of \$10,000 or greater.

<u>Documentation</u>. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) Evidence that increased or decreased steel costs have been passed on to the Contractor.
- (b) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (c) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

- SCA = Q X D
- Where: SCA = steel cost adjustment, in dollars
  - Q = quantity of steel incorporated into the work, in lb (kg)
  - D = price factor, in dollars per lb (kg)

 $D = CBP_M - CBP_L$ 

Where:  $CBP_M =$  The average of the Consumer Buying Price indices for Shredded Auto Scrap (Chicago) and No. 1 Heavy Melt (Chicago) as published by the American Metal Market (AMM) for the day the steel is shipped from the mill. The indices will be converted from dollars per ton to dollars per lb (kg).

CBP<sub>L</sub> = The average of the Consumer Buying Price indices for Shredded Auto Scrap (Chicago) and No. 1 Heavy Melt (Chicago) as published by the AMM for the day the contract is let. The indices will be converted from dollars per ton to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the  $CBP_M$  will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

<u>Basis of Payment</u>. Steel cost adjustments may be positive or negative but will only be made when there is a difference between the  $CBP_L$  and  $CBP_M$  in excess of five percent, as calculated by:

Percent Difference =  $\{(CBP_L - CBP_M) \div CBP_L\} \times 100$ 

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Attachment

Item Metal Piling (excluding temporary sheet piling)	Unit Mass (Weight)
Metal Piling (excluding temporary sheet piling)	
motor i ming (onordaning temporary shoet pining)	
Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness)	23 lb/ft (34 kg/m)
Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness)	32 lb/ft (48 kg/m)
Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness)	37 lb/ft (55 kg/m)
Other piling	See plans
Structural Steel	See plans for weights
	(masses)
Reinforcing Steel	See plans for weights
	(masses)
Dowel Bars and Tie Bars	6 lb (3 kg) each
Mesh Reinforcement	63 lb/100 sq ft (310 kg/sq m)
Guardrail	
Steel Plate Beam Guardrail, Type A w/steel posts	20 lb/ft (30 kg/m)
Steel Plate Beam Guardrail, Type B w/steel posts	30 lb/ft (45 kg/m)
Steel Plate Beam Guardrail, Types A and B w/wood posts	8 lb/ft (12 kg/m)
Steel Plate Beam Guardrail, Type 2	305 lb (140 kg) each
Steel Plate Beam Guardrail, Type 6	1260 lb (570 kg) each
Traffic Barrier Terminal, Type 1 Special (Tangent)	730 lb (330 kg) each
Traffic Barrier Terminal, Type 1 Special (Flared)	410 lb (185 kg) each
Steel Traffic Signal and Light Poles, Towers and Mast Arms	
Traffic Signal Post	11 lb/ft (16 kg/m)
Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 – 12 m)	14 lb/ft (21 kg/m)
Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 – 16.5 m)	21 lb/ft (31 kg/m)
Light Pole w/Mast Arm, 30 - 50 ft (9 – 15.2 m )	13 lb/ft (19 kg/m)
Light Pole w/Mast Arm, 55 - 60 ft (16.5 – 18 m)	19 lb/ft (28 kg/m)
Light Tower w/Luminaire Mount, 80 - 110 ft (24 – 33.5 m)	31 lb/ft (46 kg/m)
Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 - 42.5 m)	65 lb/ft (97 kg/m)
Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 – 48.5 m)	80 lb/ft (119 kg/m)
Metal Railings (excluding wire fence)	
Steel Railing, Type SM	64 lb/ft (95 kg/m)
Steel Railing, Type S-1	39 lb/ft (58 kg/m)
Steel Railing, Type T-1	53 lb/ft (79 kg/m)
Steel Bridge Rail	52 lb/ft (77 kg/m)
Frames and Grates	
Frame	250 lb (115 kg)
Lids and Grates	150 lb (70 kg)

Return With Bid

# ILLINOIS DEPARTMENT OF TRANSPORTATION

# OPTION FOR STEEL COST ADJUSTMENT

The bidder shall submit this completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of steel cost adjustments. After award, this form, when submitted shall become part of the contract.

Contract No.: \_\_\_\_\_

Company Name:\_\_\_\_\_

# Contractor's Option:

Is your company opting to include this special provision as part of the contract plans?

Signature:			Date:	
Yes	s 🗌	No 🗌		

#### REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

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#### ATTACHMENTS

A. Employment Preference for Appalachian Contracts (included in Appalachian contracts only)

#### I. GENERAL

1. These contract provisions shall apply to all word performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2; Section IV, paragraphs 1, 2, 3, 4 and 7; Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 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 DOL, or the contractor's employees or their representatives.

6. Selection of Labor: During the performance of this contract, the contractor shall not:

a. Discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. Employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

#### **II. NONDISCRIMINATION**

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60 (and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 <u>et seq.</u>) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: 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, preapprenticeship, and/or on-the-job-training."

2. EEO Officer: The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above

Page 1

agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employees referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish which such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any

Page 2

evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to

the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

 The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

#### **III. NONSEGREGATED FACILITIES**

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

#### IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

#### 1. General:

a. All mechanics and laborers 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 (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the

contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) 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. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, 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 paragraphs 4 and 5 of this Section IV.

b. 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.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

 the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

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

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

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification 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 DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or

Page 4

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.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional 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 question, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advised the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

#### 3. Payment of Fringe Benefits:

a. 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 or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any cost 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.

- 4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:
  - a. Apprentices:

(1) 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 DOL, 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/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.

(2) The allowable ratio of apprentices to journeyman-level employees 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 employee 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 listed in 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 or subcontractor 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-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) 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 journeymanlevel 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 for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) 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 or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

#### b. Trainees:

(1) 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 DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. 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 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.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level 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 Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which cases such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor 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.

#### c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV. 2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

#### 5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

#### 6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor or any other Federallyassisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainee's 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 SHA contracting officer may, after written notice to the contractor, 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.

#### 7. 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, trainees, and helpers described in paragraphs 4 and 5 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.

#### 8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the 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 paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall; upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

#### V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof 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. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found 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 and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period).

The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V.

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 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all suncontractors.

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

 that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such 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 the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less that the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. 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 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U/S. C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for

inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, 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 SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions 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.

#### VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all federal-aid contracts on the national highway system, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on /Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

#### VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractors' own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract.

Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

#### VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S. C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

#### IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

#### NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both."

#### X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more).

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 <u>et seq.</u>, as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 <u>et seq.</u>, as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of

any communication from the Director, Office of Federal Activities, EPA indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

#### XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an 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 a person from participation in this transaction.

c. 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.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. 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 meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. 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.

g. 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 Covered Transaction," provided by the department or agency entering into this covered transaction, without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that 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 portion of the "Lists of Parties Excluded from Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. 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 participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f 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.

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# Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-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 any Federal department or agency;

b. Have not within a 3-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 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 1b of this certification; and

d. Have not within a 3-year 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.

#### 2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. 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.

c. 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 by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage 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.

e. The prospective lower tie 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.

f. 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.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that 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.

h. 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 participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealing.

i. Except for transactions authorized under paragraph e 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.

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#### 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.

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# XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal 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.

b. 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 Federal 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.

2. 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 31 U.S.C. 1352. 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.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

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#### 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 <u>http://www.dot.state.il.us/desenv/delett.html</u>.

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.