### 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 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 "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 bidders check IDOT's website at <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 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 Timothy.Garman@illinois.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

### ADDENDUMS AND REVISIONS TO THE PROPOSAL FORMS

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

21

1(2101111111111111111111111111111111111
Proposal Submitted By
Name
Address
City

### Letting April 24, 2009

### 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. 91392 CHAMPAIGN County Section 07-00456-00-RS (Urbana) Route FAU 7175 (Goodwin Avenue) Project HSIP-5181(041) District 5 Construction Funds

PLEASE MARK THE APPROPRIATE BOX BELOW:
☐ A <u>Bid</u> <u>Bond</u> is included.
☐ A <u>Cashier's Check</u> or a <u>Certified Check</u> is included

Prepared	by	

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL (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 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).</u>

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 will indicate the reason for denial. If a contractor has requested to bid but has not received a 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.

Call

### WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

**Questions Regarding** 

J	
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

**District 5 Construction Funds** 

1. P	roposal of
Taxpa	ayer Identification Number (Mandatory)
fc	r the improvement identified and advertised for bids in the Invitation for Bids as:
	Contract No. 91392 CHAMPAIGN County Section 07-00456-00-RS (Urbana) Project HSIP-5181(041) Route FAU 7175 (Goodwin Avenue)

Street improvements including bicycle lanes, pavement milling and resurfacing, traffic signals, sidewalks, lighting and intersection improvements on Goodwin Avenue from Gregory Drive to Stoughton Street in Urbana.

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.

- 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:

<u>A</u>	mount o	of Bid	Proposal <u>Guaranty</u>	<u>Am</u>	ount c	Proposal <u>of Bid</u> <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	e proposal guaranty shall become
the property of the State of Illinois, and shall be considered as payment of da	mages due to delay and other causes suf	fered by the State because of the
failure to execute said contract and contract bond; otherwise, the bid bond s	shall become void or the proposal guaran	ity check shall be returned to the
undersigned.		

undersigned.		
Attach Cashier's	Check or Certif	ied Check Here
In the event that one proposal guaranty check is intended to cover to fithe proposal guaranties which would be required for each individuatate below where it may be found.		
The proposal guaranty check will be found in the proposal for:	Item	
	Section No.	
	County	
1		

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

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 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.

STATE JOB #- C-95-317-08 PPS NBR - 5-01660-0100

# ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 91392

ECMS002 DTGECM03 ECMR003 PAGE RUN DATE - 03/09/09 RUN TIME - 183245

CHAMPAIGN	WE CODE   DIST   SECTION   SECTION	JRBANA)	HSIP-	PROJECT 5181/041/	NUMBER 000	ROUTE FAU 7175
ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRIO	CENTS	TOTAL PRICE
i I	EEDING CL 1 SPL	SQ Y	1,544.000 X		н —	
X002184	HOTOELECTRIC CONTROL	EAC		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
X002895	N MAN REC F&L	EAC	1.000 X		1 - 11 - 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
X003313	EM & REIN BRIC PAVER	SQ F	060.0		- II - I	
X003581	LCBL C SERV 6 1C	F00	660.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
X004688	RICK PAVER SIDEWALK	SQ F	20.0			
X004735	D INLET: TY B T1 F&CL	EACH	1.0		. II	
06163	EM ELCBL FR CON SP	MNS	· · · ·	1 1 1 1 1 1 1	- 11	
X007744	ONCRETE ENCASEMENTS	EACH	1.0	 	 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
X007863	D INLET TY B T11 F&G	EAC			  -  -  -  -  -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
X007864	N S DI 8"	F00	0 1	i i i i i i	- II	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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1430	EC CONC PARK BLOCK	EAC	000	 	  -  -  -  -  -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
0321558	AN MH ADJ NEW TIF C	EACH	2.000 X	1 1 1 1 1 1 1	 	

# ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 91392

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	30.000	FOOT	CBL C GROUND 6 1C	8730027
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	0.000	FOOT	AN SEW, DUCT IRN, 12	0323200
	55.000	SQ FT	GMENT CONC BLK WALL	0322923
	1.000	EACH	EM RELOC EX MONUMENT	0322795
	4.000	EACH	ICYCLE LANE MARKING	032274
! ! ! ! ! !	1.000	EACH	BAN FILL EX SAN MAN	0322464
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	. 000	F00T	1 WAT MN 12	032190
- 11	000	SQ YD	ULCH SPL	032156
UNIT PRICE TOTAL PRICE DOLLARS CENTS DOLLARS CTS	QUANTITY	UNIT OF MEASURE	PAY ITEM DESCRIPTION	NUMBER

## ILLINOIS DEPARTMENT OF TRANSPORTATION E SCHEDULE OF PRICES F CONTRACT NUMBER - 91392

ION ECMS002 DTGECM03 ECMR003 PAGE RUN DATE - 03/09/09 RUN TIME - 183245

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE	ENTS	TOTAL PRICE	CTS
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876025	IBROTACTILE FEATURE	D ∣	.000		! ! ! - !! -	1 1 1 1 1 1 1	1 1 1
50106	IND LOOP DETECT (RM)	EAC	00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 - 11 -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
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0051500	REM & RESET ST SIGNS	EACH	4.000	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 - 11 -	1 1 1 1 1 1 1	 
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0201200	REM & DISP UNS MATL	CU .YD	.000	] ] ] ] ] ] ] ]	- II -	1 1 1 1 1 1 1 1	! ! !
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1001000	EOTECH FAB F/GR STA	Q YD	0.000	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 11 <del>- 1</del>	 	1 1 1
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1101645	TOPSOIL F & P	Ø 1	0	                     	- 11 <del>-</del> 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1

# ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 91392

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NUMBER	PAY ITEM DESCRIPTION	MEASURE	QUANTITY	DOLLARS	CENTS	DOLLARS	CTS
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600300 AGG	PR CT	NOT	0.000	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	  -  -  -	1 1 1 1 1 1 1	! !
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600990 TEM	ORARY RAMP	SQ YD	610.000	! ! ! ! ! ! !	  -  -  -  -	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
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603545 P H	A SC "D" N90	TON	60.000			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	! !
800050 IN	DENTAL HMA SURF	TON	0.00		1 1 1 1 1 1	1 1	I I I

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0	16.0	SQ Y	CL B PATCH T3 8	4200942
00	61.0	Q	CL B PATCH T2 8	4200934
00	,480.0	SQ FT	SIDEWALK REM	4000600
0	2,643.0	FOOT	COMB CURB GUTTER REM	4000500
00	91.0	FOOT	CURB REM	400030
000 X	4,211.0	SQ YD	HMA SURF REM 3 1/	4000162
000	2,471.	SQ YD	HMA SURF REM 2 1/2	4000159
000	822.	SQ YD	HMA SURF REM 1 1/2	400015
000	14,125.	SQ YD	HMA SURF REM 1	400015
000	2,271.	SQ YD	AVEMENT REM	400010
00	870.	SQF	DETECTABLE WARNINGS	240080
00 -×-	25,968.	SQ F	CONC SIDEWALK 6	42400300
TY DOLLARS CENTS DOLLARS CTS	QUANTITY	UNIT OF MEASURE	PAY ITEM DESCRIPTION	I TEM NUMBER

ECMS002 DTGECM03 ECMR003 PAGE RUN DATE - 03/09/09 RUN TIME - 183245

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- X - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	2.000	EACH	RD MAN 4 DIA T11F&G	022511
- X - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	4.000	EACH	RD MAN 4 DIA TIF CL	0224600
ı	230.000	CU YD	CONTR.LOW-STRENG MATL	930010
   1   1   1   1	8.000	FOOT	STORM SEW CL A 3 30	50A0730
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	8.000	FOOT	STORM SEW CL A 2 18	50A038
- X - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	25.000	FOOT	STORM SEW CL A 2 15	50A036
- X - II - I - I - I - I - I - I - I - I	70.000	FOOT	STORM SEW CL A 2 12	50A034
	20.000	FOOT	TORM SEW CL A 2 10	50A033
- 11	194.000	F00T	TORM SEW CL A	50A005
UNIT PRICE TOTAL PRICE DOLLARS CENTS DOLLARS CTS	QUANTITY	UNIT OF MEASURE	PAY ITEM DESCRIPTION	1 TEM NUMBER

# ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 91392

ECMS002 DTGECM03 ECMR003 PAGE RUN DATE - 03/09/09 RUN TIME - 183245

NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE TOTAL PRICE DOLLARS CENTS DOLLARS CTS
025550	AN ADJUST	C	10.000 X	11
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0255800	N ADJ NEW T1F CL	EAC	. 00	
0,256700	MAN ADU NEW T11F&G	AC	1.000 X	
257900	MAN RECONST	AC	1.000	
025820	AN RECON NEW T1F CL	ÁC		
0260050	SAN MAN RECONST	EACH	00	
0260100	INLETS ADJUST	EAC	.00	
0260400	INLETS ADJ NEW T1F CL	EAC	1.000 X	
0261300	NLETS ADJ NEW T11F&G	EAC	00	
0266600	VALVE BOX ADJ	EAC	5.00	
0266610	ALVE BOX ADJ SPL	AC	. 00	- 11
0300310	FR & LIDS ADJUST SP	AC	4.00	
050004	REMOV MANHOLES	EAC	. 0	
0500	EMOV INLETS	EACH	12.000 X	

ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 91392 ECMS002 DTGECM03 ECMR003 PAGE RUN DATE - 03/09/09 RUN TIME - 183245

ITEM	A V T T F M	UNIT OF		UNIT PRICE   TOTAL PRICE
NOMBER	PAT LIEW DESCRIPTION	ASUR	QUANTITY	DOLLARS CENTS DOLLARS CT
060050	PL	FO	Õ	. 11 —
060060	ONC CURB TB	80	219.000 X	
060100	ONC CURB TB SPL	- I	ŌI	
06042	COMB.CC&G TB6.12 SPL	1 1 1 1	. 00	
7100100	MOBILIZATION	L SUM	1.0	
0103700	TRAF CONT COMPL	L SUM	0	
300100	SHORT-TERM PAVT	F00	890,000	
030052	PAVT MARK TAPE T3 4	FOOT	540.000	
030056	AVT MARK TAPE T3 12	FOOT	225.000	
0300570	AVT MARK TAPE T3 24	F00	225.000	
0301000	ORK ZONE PAVT MK REM	SQ F	85.000	- 1
20001	IGN PANEL T1	SQ	119.000	
2000200	GN PANEL T2	SQ	58.000	
2900200	ETAL POST TY	F00	4.000	
300010	OOD SIN SUPPOR	FOOT	8.00	

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE TOTAL PRICE DOLLARS   CENTS   DOLLARS   CTS
8000100	HPL PVT MK LTR &	-	356.000 X	- 11
8000200	THPL PVT MK LINE 4	F00	10,729.000 X	
8000400	THPL PVT MK LINE 6	F0	7,799.000 X	
8000600	THPL PVT MK LINE 12	F00	4,	
8000650	THPL PVT MK LINE 24	F0	227.000 X	
00105	ELECT SERV INSTALL SP	EAC	1 000 X	
0501000	SERV INSTALL SPL	EAC	00	- H - H - H - H - H - H - H - H - H - H
1012300	CON T 1 PVC	T00	226.000	
1012400	CON T 1 1/4 PVC	F00T	39	- II - I - I - I - I - I - I - I - I -
1012500	ON T 1 1/2 PVC	F00	193.000	- 11 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
1012600	CON T 2 PVC	00	333.000	
1012700	CON T 2 1/2 PVC	Ōı	107.000 x	
1012800	CON T 3 PVC	00	.00	
13000	CON T.4 PVC	FOOT	38.000	1
102157	ON AUGERE	FOOT	80.000 X	

# ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 91392

ION ECMS002 DTGECM03 ECMR003 PAGE RUN DATE - 03/09/09 RUN TIME - 183245

	0,925.000 X		C C_XLP USE 1C	17021
	21,609.000 X	FOOT	C C XLP USE 1C 10	170211
1 1 1 1 1 1 1 1 1	11.000 X	AC	LFBOX JUNCTION CC	150012
	10.000 X	EACH	ANDHOLE C CONC	140073
	1.000 X	EACH	L HANDHOLE PCC	140072
	4.000	ACH	ANDHOLE PCC	0700
] ] ] [	2.000	EACH	NDHOLE TO BE ADJUST	140011
1	23.000	EACH	M EX JUNCTION BOX	130650
; ; ; ; ; ;	70.000	EAC	JUNCTION BOX SPL	1306100
	100.000	F00T	N AT ST 2 PVC GALVS	110060
	၊ ၊ ၊ ၊ တ ၊	F00T	N B&P CNC 3	102808
   1   1   1   1   1	2,707.000	F00	B&P CNC 2	102806
                 	4,270.000	FOOT	N B&P CNC 1 1/2	1028
11 11 11 11 11 11 11 11 11 11 11 11 11	95.000	007	N AUGERED 5 PVC	102160
	.000	F00T	N AUGERED 4 P	102159
UNIT PRICE TOTAL PRICE DOLLARS CENTS DOLLARS CTS	QUANTITY	MEASURE	PAY ITEM DESCRIPTION	NUMBER

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# ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 91392

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	,75	F00T	ELCBL C LEAD 18	7301515
	40.00	F00	ELCBL C SIGNAL 14 7C	73012
	,200.000	FOOT	ELCBL C SIGNAL 14 5C	730124
	1,400.000	FOOT	ELCBL C SIGNAL 14 3C	730122
	1,920.000	F00T	ELCBL C SIGNAL 14 2	01215
	1.000	EACH	UNINTER POWER SUP STD	6200200
	1.000	EACH	FAC T4 CAB SPL	5700205
	2.000	EACH	RELOC EX LT UNIT	4400105
! ! !	30.000	EACH	LIGHTING FDN REMOV	4200700
	30.000	EACH	REM EX LT U NO SALV	420060
	10.000	EACH	REM EX LT UNIT SALV	420050
	61.000	EACH	POLE FOUNDATION METAL	360040
	100.000	FOOT	TR & BKFIL W SCR/SAND	1900302
- 11 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	17	FOOT	TR & BKFIL F ELECT WK	190020
- 11 —	22,637.000	F00T	EC C XLP USE 1C 6	170213
UNIT PRICE TOTAL PRICE DOLLARS CENTS DOLLARS CTS	QUANTITY	UNIT OF MEASURE	PAY ITEM DESCRIPTION	ITEM NUMBER

# ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 91392

TION ECMS002 DTGECM03 ECMR003 PAGE RUN DATE - 03/09/09 RUN TIME - 183245

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I TEM NUMBER	PAY ITEM DESCRIPTION	MEASURE	QUANTITY	UNIT PRICE TOTAL PRICE DOLLARS CENTS DOLLARS CTS
750060	TS POST 10	EAC	.000	- 11 -
7501000	TS POST 14		2.000 X	
7501200	TS POST 16	EACH	. 0	
7600100	PED PUSH-BUT POST T1	EACH	.000	
850	STL COMB MAA&P 24	유	0 1	
7702880	STL COMB MAA&P 30	> □	1.000 X	
7702910	STL COMB MAA&P 36	EACH		
7800100	CONC FDN TY A	FOOT	21.000	
7800200	CONC FDN TY D	F00T	Ō	
7800400	CONC FDN TY E 30D	F00T	0 1	
7900200	DRILL EX HANDHOLE	EACH	2.000 X	
8040090	SH P LED 1F 3S MAM	EACH	.000	
8040160	SH P LED 1F 5S MAM	D i	4.000 X	
8040260	H P · LED 2F 1-3 1-5BM	EACH	4.000 X	- 11
8102810	ED SH P LED 1F BM	EACH	8.000 X	11 11

# ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 91392

ECMS002 DTGECM03 ECMR003 PAGE RUN DATE - 03/09/09 RUN TIME - 183245

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TOTAL \$				
	9.000 X	EAC	REMOV EX CONC FDN	89502385
	4.000 X	EACH	REMOV EX HANDHOLE	89502380
	0	: 유	MOD EX CONTR SPL	89502205
	2.000 X	EACH	HEAD	89500200
- 11 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2.0	AC	RELOC EX SIG HEAD	89500100
- 11 - 11 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1		유	MP TR SIG INS	89000100
	2.000 X	EACH	1 1 1 1 1 1 1 1 1 1 1 1	88800100
	1.000	AC	MP	88700300
	0	EACH	LIGHT DETECTOR	88700200
	1,070.000 X	F00	DET LOOP T1	88600100
- 11	8.000	E A	TS BACKPLATE	88200100
UNIT PRICE TOTAL PRICE DOLLARS CENTS DOLLARS CTS	QUANTITY	UNIT OF MEASURE	PAY ITEM DESCRIPTION	I TEM NUMBER

### NOTE:

<sup>\*\*\*</sup> PLEASE TURN PAGE FOR IMPORTANT NOTES \*\*\*

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- 1. EACH PAY ITEM SHOULD HAVE A UNIT PRICE AND A TOTAL PRICE.
- THE UNIT PRICE SHALL GOVERN IF NO TOTAL PRICE IS SHOWN OR IF THERE THE PRODUCT OF THE UNIT PRICE MULTIPLIED BY THE QUANTITY. IS A DISCREPANCY BETWEEN
- ω. IF A UNIT PRICE IS OMITTED, THE TOTAL PRICE WILL BE DIVIDED BY THE QUANTITY IN ORDER TO ESTABLISH A UNIT PRICE.
- 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 \$177,412.00. Sixty percent of the salary is \$106,447.20.

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

### 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 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, Section 50-60(c), provides:

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.

### M. Disclosure of Business Operations in Iran

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

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

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

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

	Check the appropriate statement:
	// Company has no business operations in Iran to disclose.
	// Company has business operations in Iran as disclosed the attached document.
N.	Registration with the State Board of Elections.
	Public Act 95-0971, amending the Illinois Procurement Code, 30 ILCS 500, adding new sections 20-160 and 50-37, and Executive Order 3 (2008) establish new requirements affecting contributions that contractors, consultants, vendors and bidders, including affiliated persons and entities, may make to state officeholders, declared candidates for state offices and political organizations established to benefit such officeholders and candidates. These provisions do not apply to federal-aid contracts.
	By submission of a bid, the bidder acknowledges and agrees that it has read and understands the requirements of PA 95-0971 and Executive Order 3 (2008), including but not limited to, all reporting requirements and all restrictions on soliciting and making contributions to state officeholders, declared candidates for state offices and covered political organizations that promote the candidacy of an officeholder or declared candidate for office. In addition, the bidder makes the following certifications:
	(1) As to Executive Order 3 (2008), the bidder certifies that no contribution will be made that would violate the order, and that the bidder will report all contributions as required by the order.
	(2) As to PA 95-0971, the bidder shall check either of the following certifications that apply:
	// The bidder is not required to register as a business entity with the State Board of Elections.
	// The bidder has registered as a business entity with the State Board of Elections, and acknowledges a continuing duty to update the registration as required the Act. A copy of the time-stamped certificate of registration is enclosed with the bid. The Department will not award this contract without the submission of a certificate of registration

In accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, this certification shall be part of the contract. Compliance with PA 95-0971 and Executive Order 3 (2008) is a material part of the contract and any breach shall be cause to void the contract under Section 50-60 of the Illinois Procurement Code.

### 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**

ac	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.							
_								
		Signature of Authorized Representative	Date					

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

D.

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on 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 NO
3.	Does anyone in your organization receive more than \$106,447.20 of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES NO
4.	Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than \$106,447.20? YES NO
	(Note: Only one set of forms needs to be completed <u>per person per bid</u> even if a specific individual would require a yes answer to more than one question.)
the bid	or answer to any of these questions requires the completion of Form A. The bidder must determine each individual in the bidding entity or ding 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 zed to execute contracts for your organization. <b>Photocopied or stamped signatures are not acceptable</b> . The person signing can be, but ot have to be, the person for which the form is being completed. The bidder is responsible for the accuracy of any information provided.
	nswer 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 on that is authorized to execute contracts for your company.
bidding	B: Identifying Other Contracts & Procurement Related Information Disclosure Form B must be completed for each bid submitted by the gentity. Note: Checking the NOT APPLICABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be sted, checked, and dated or the bidder may be considered nonresponsive and the bid will not be accepted.
ongoin	dder shall identify, by checking Yes or No on Form B, whether it has any pending contracts (including leases), bids, proposals, or other g procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the bidder only needs to complete the box on the bottom of Form B. If "Yes" is checked, the bidder must do one of the following:
agency attache and are	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 pending contracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an each sheet(s). Do not include IDOT contracts. Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and to be included. Contracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital perment Board must be included. Bidders who submit Affidavits of Availability are suggested to use Option II.
"See A	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 ffidavit of Availability" which indicates that the Affidavit of Availability is incorporated by reference and includes all non-IDOT State of Illinois pending contracts, leases, bids, proposals, and other ongoing procurement relationships. For any contracts that are not covered by the it of Availability, the bidder must identify them on Form B or on an attached sheet(s). These might be such things as leases.
<u>Bidder</u>	rs Submitting More Than One Bid
	s 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. indicate in the space provided below the bid item that contains the original disclosure forms and the bid items which incorporate the forms rence.
	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:

is

### ILLINOIS DEPARTMENT OF TRANSPORTATION

### Form A Financial Information & Potential Conflicts of Interest Disclosure

Contractor Name					
Legal Address					
City, State, Zip					
Telephone Number		Email Address		Fax Number (if available)	
LCS 500). Vendor potential conflict of publicly available contracts. <b>A public</b>	rs desiring to enter into a interest information as sontract file. This Form Actly traded company may set forth in Form A. See	contract with the State of pecified in this Disclosure A must be completed for by submit a 10K disclosu Disclosure Form Instruc	f Illinois in Form. bids in e re (or ections.	50-35 of the Illinois Procurement Code must disclose the financial information. This information shall become part of excess of \$10,000, and for all open-enquivalent if applicable) in satisfaction	and the ded
	DISCLO	SURE OF FINANCIAL	INFORM	<u>IATION</u>	
of ownership or dis of the Governor's s <b>A for each individ</b>	stributive income share in	excess of 5%, or an intere e copies of this form as r irements)	st which	interest in the BIDDER (or its parent) in to has a value of more than \$106,447.20 ( ry and attach a separate Disclosure F	(60%
NAME:					1
ADDRESS					
Type of own	nership/distributable incon	ne share:			i
stock % or \$ value	sole proprietorship of ownership/distributable in	Partnership ncome share:		other: (explain on separate sheet):	ĺ
				ndicate which, if any, of the following s "Yes", please attach additional pages a	₃nd
(a) State em	ployment, currently or in the	ne previous 3 years, includ	ling conti	ractual employment of services. Yes No	
If your an	swer is yes, please answe	er each of the following que	estions.	. 100 110	
	Are you currently an office dighway Authority?	r or employee of either the	Capitol I	Development Board or the Illinois Toll YesNo	
c e	urrently appointed to or er exceeds \$106,447.20, (60	mployed by any agency of	the State , as of 3	of the State of Illinois? If you are of Illinois, and your annual salary /1/09) provide the name the State	

3.	If you are currently appointed to or employed by any age salary exceeds \$106,447.20, (60% of the Governor's sa (i) more than 7 1/2% of the total distributable income corporation, or (ii) an amount in excess of the salary of th	alary as of 3/1/09) are you entitled to receive of your firm, partnership, association or
4.	If you are currently appointed to or employed by any age salary exceeds \$106,447.20, (60% of the Governor's sa or minor children entitled to receive (i) more than 15% in of your firm, partnership, association or corporation, or salary of the Governor?	alary as of 3/1/09) are you and your spouse aggregate of the total distributable income
` '	employment of spouse, father, mother, son, or daughter, in previous 2 years.	ncluding contractual employment for services
If your	answer is yes, please answer each of the following questi	YesNo ons.
1.	Is your spouse or any minor children currently an officer of Board or the Illinois Toll Highway Authority?	or employee of the Capitol Development YesNo
	Is your spouse or any minor children currently appointed of Illinois? If your spouse or minor children is/are curren agency of the State of Illinois, and his/her annual salary Governor's salary as of 3/1/09) provide the name of the spot the State agency for which he/she is employed and his.	tly appointed to or employed by any exceeds \$106,447.20, (60% of the pouse and/or minor children, the name
	If your spouse or any minor children is/are currently appostate of Illinois, and his/her annual salary exceeds \$106 as of 3/1/09) are you entitled to receive (i) more than 71/2 firm, partnership, association or corporation, or (ii) an Governor?	,447.20.00, (60% of the salary of the Governor 2% of the total distributable income of your
	If your spouse or any minor children are currently appoir State of Illinois, and his/her annual salary exceeds \$106,43/1/09) are you and your spouse or any minor children er aggregate of the total distributable income from your firm, (ii) an amount in excess of 2 times the salary of the Gove	147.20, (60% of the Governor's salary as of ntitled to receive (i) more than 15% in the partnership, association or corporation, or mor?
		Yes No
unit of I	e status; the holding of elective office of the State of Illinois local government authorized by the Constitution of the St currently or in the previous 3 years.	
	nship to anyone holding elective office currently or in the page daughter.	orevious 2 years; spouse, father, mother, YesNo
America of the S	tive office; the holding of any appointive government office a, or any unit of local government authorized by the Const State of Illinois, which office entitles the holder to compens charge of that office currently or in the previous 3 years.	itution of the State of Illinois or the statues
	nship to anyone holding appointive office currently or in the daughter.	e previous 2 years; spouse, father, mother, YesNo
(g) Employ	yment, currently or in the previous 3 years, as or by any re	gistered lobbyist of the State government. YesNo

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, son, or daughter.  YesNo _								
(i) Compensated employment, currently or in the previous 3 years, by any registered election committee registered with the Secretary of State or any county clerk of the State of Illinois, action committee registered with either the Secretary of State or the Federal Board of Election YesNo	or any political ons.							
(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.								
Yes No _	_							
APPLICABLE STATEMENT								
This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous pa	age.							
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							

### 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)						
	· · ·	Section 50-35 of the Illinois Procure						
· · ·	·	available contract file. This Form B m	ıust					
pe completed for bids in excess of \$7	•							
DISCLOSURE OF C	THER CONTRACTS AND PRO	CUREMENT RELATED INFORMATI	<u>ION</u>					
	g leases), bids, proposals, or oth Yes No	ion. The BIDDER shall identify wheth ner ongoing procurement relationship 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:								
Т	HE FOLLOWING STATEMENT	MUST BE CHECKED						
	Signature of Authorized Repre	esentative Date	<del></del>					

### **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.



**TRAINEES** 

Contract No. 91392 CHAMPAIGN County Section 07-00456-00-RS (Urbana) Project HSIP-5181(041) Route FAU 7175 (Goodwin Avenue) District 5 Construction Funds

PART I. IDENTIFIC	AHON																
Dept. Human Rights	s #						_ Du	ration (	of Proj	ect: _							
Name of Bidder:																	
PART II. WORKFO A. The undersigned which this contract wo projection including a p	bidder hark is to be	as analyz e perform	ed mir	d for the	ne locati	ions fro	m which	ch the b	idder re	ecruits	employe	ees, and he	reby sul	omits the fol	lowii con	ng workfo	n orce
		TOTA	AL Wo	rkforce	Projec	tion for	Contra	act						CURRENT		-	S
				MIN	ORITY I	EMPL C	YFFS			TRA	AINEES					GIGNED RACT	
JOB CATEGORIES	EMPL	TAL OYEES	_	ACK	HISP	ANIC	*OT MIN	HER IOR.	TIC	REN- ES	ON T	HE JOB INEES	EM	TOTAL PLOYEES		EMPL	ORITY
OFFICIALS	M	F	М	F	М	F	М	F	М	F	М	F	M	F		М	F
(MANAGERS)																	
SUPERVISORS																	
FOREMEN																	
CLERICAL																	
EQUIPMENT OPERATORS																	
MECHANICS																	
TRUCK DRIVERS																	
IRONWORKERS																	
CARPENTERS																	
CEMENT MASONS																	
ELECTRICIANS																	
PIPEFITTERS, PLUMBERS																	
PAINTERS																	
LABORERS, SEMI-SKILLED																	
LABORERS, UNSKILLED																	
TOTAL																	
		BLE C		, -					7			FOR	DEPAR	TMENT USE	10	NLY	•
TOTAL Training Projection for Contract  EMPLOYEES TOTAL *OTHER						-			. 010	,							
IN		OYEES	BL	ACK	HISF	ANIC		NOR.									
TRAINING	М	F	М	F	М	F	М	F									
APPRENTICES																	
ON THE JOB	1						1	1									

Note: See instructions on page 2

Other minorities are defined as Asians (A) or Native Americans (N).
Please specify race of each employee shown in Other Minorities column.

BC 1256 (Rev. 12/11/08)

Contract No. 91392 CHAMPAIGN County Section 07-00456-00-RS (Urbana) Project HSIP-5181(041) Route FAU 7175 (Goodwin Avenue) District 5 Construction Funds

### PART II. WORKFORCE PROJECTION - continued

B.	included in "Total Employees" under Table A is the total number of <b>new hires</b> 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 pro	ject is located; and/or (number)	is located; and/or (number) ould 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 direct undersigned bidder as well as a projection of numbers of persons to be employed by subcontractors.									
		undersigned bidder estimates that (number) person wirectly employed by the prime contractor and that (number) persons will be undersigned by subcontractors.								
PART I	II. AFFIRMATIVE ACTION PLAN									
A.	The undersigned bidder understands and agrees utilization projection included under <b>PART II</b> is d in any job category, and in the event that the uncommencement of work, develop and submit a v (geared to the completion stages of the contract) utilization are corrected. Such Affirmative Action the <b>Department of Human Rights</b> .	letermined to be an underutilizated dersigned bidder is awarded thin written Affirmative Action Plan in whereby deficiencies in minor	ation of minority persons or women is contract, he/she will, prior to ncluding a specific timetable ity and/or female employee							
B.	The undersigned bidder understands and agrees submitted herein, and the goals and timetable in to be part of the contract specifications.									
Compa	any	Telephone Num	ber							
Addres	SS									
	NOTICE RE	GARDING SIGNATURE								
	idder's signature on the Proposal Signature Sheet will completed only if revisions are required.		. The following signature block needs							
Signat	ure: 🗌	Title:	Date:							
Instructi	ons: All tables must include subcontractor personnel in a	addition to prime contractor personnel.								
Table A	<ul> <li>Include both the number of employees that would (Table B) that will be allocated to contract work, ar should include all employees including all minorities</li> </ul>	nd include all apprentices and on-the-jo	ob trainees. The "Total Employees" column							
Table B	<ul> <li>Include all employees currently employed that will be currently employed.</li> </ul>	be allocated to the contract work include	ling any apprentices and on-the-job trainees							
Table C	- Indicate the racial breakdown of the total apprentice	es and on-the-job trainees shown in Ta	ble A.							
			DO 4050 (D 40/44/00)							

#### **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
2.	If answer to #1 is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? YES NO

#### **RETURN WITH BID**

Contract No. 91392 CHAMPAIGN County Section 07-00456-00-RS (Urbana) Project HSIP-5181(041) Route FAU 7175 (Goodwin Avenue) District 5 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	
	Business Address	
	Firm Name	
(IF A CO-PARTNERSHIP)	Business Address	
,		
		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	Signature
(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE	Rusinoss Addross	•
SECOND PARTY SHOULD SIGN BELOW)	Dusilless Address	
	Corporate Name	
(IF A JOINT VENTURE)	_,	Signature of Authorized Representative
		Typed or printed name and title of Authorized Representative
	Attest	
		Signature
	Business Address	
If more than two parties are in the joint venture		



#### **Return with Bid**

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

			Item No.
			Letting Date
KNOW ALL MEN BY THESE PRESE	NTS. That We		
as PRINCIPAL, and			
as i Kilvoli AL, aliu			
specified in Article 102.09 of the "Sta	indard Specifications for Foe paid unto said STATE	Road and Bridge Construc	as SURETY, are um of 5 percent of the total bid price, or for the amount ction" in effect on the date of invitation for bids, whichever ayment of which we bind ourselves, our heirs, executors,
	h the Department of Tra		ne PRINCIPAL has submitted a bid proposal to the rovement designated by the Transportation Bulletin Item
and as specified in the bidding and of after award by the Department, the including evidence of the required in performance of such contract and for failure of the PRINCIPAL to make the to the Department the difference not	contract documents, submer PRINCIPAL shall enter in insurance coverages and or the prompt payment of required DBE submission to exceed the penalty he with another party to performers.	it a DBE Utilization Plan to a contract in accordan providing such bond as labor and material furnish or to enter into such cor reof between the amount	CIPAL; and if the PRINCIPAL shall, within the time that is accepted and approved by the Department; and if, nee with the terms of the bidding and contract documents specified with good and sufficient surety for the faithful shed in the prosecution thereof; or if, in the event of the ntract and to give the specified bond, the PRINCIPAL pays t specified in the bid proposal and such larger amount for y said bid proposal, then this obligation shall be null and
paragraph, then Surety shall pay the	penal sum to the Departm he Department may bring	nent within fifteen (15) day an action to collect the a	with any requirement as set forth in the preceding ys of written demand therefor. If Surety does not make full amount owed. Surety is liable to the Department for all its whole or in part.
		•	used this instrument to be signed by
·			A.D.,
PRINCIPAL	day or		
T KINOII AL			
(Company Nar	ne)	· · · · · · · · · · · · · · · · · · ·	(Company Name)
By	- 0 Tiu-)	Ву:	(Circulations of Attendance in Early)
(Signature	3 & Title)		(Signature of Attorney-in-Fact)
Notary Certification for Principal and	Surety		
STATE OF ILLINOIS, County of			
I,		, a Notary Pເ	ublic in and for said County, do hereby certify that
		and	
	Insert names of individual		
	his day in person and ackr		cribed to the foregoing instrument on behalf of PRINCIPAL that they signed and delivered said instrument as their free
Given under my hand and nota	rial seal this	day of	A.D
My commission expires			
<del>-</del>			Notary Public
In lieu of completing the above sect marking the check box next to the S and the Principal and Surety are firm!	ignature and Title line bel	ow, the Principal is ensu	ile an Electronic Bid Bond. By signing the proposal and iring the identified electronic bid bond has been executed ons of the bid bond as shown above.
Electronic Pid Pond ID#	Company / Bidd-	r Nama	Signature and Title
Electronic Bid Bond ID#	Company / Bidde	i indille	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. 91392 CHAMPAIGN County Section 07-00456-00-RS (Urbana) Project HSIP-5181(041) Route FAU 7175 (Goodwin Avenue) District 5 Construction Funds



# Illinois Department of Transportation

#### **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., April 24, 2009. 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. 91392 CHAMPAIGN County Section 07-00456-00-RS (Urbana) Project HSIP-5181(041) Route FAU 7175 (Goodwin Avenue) District 5 Construction Funds

Street improvements including bicycle lanes, pavement milling and resurfacing, traffic signals, sidewalks, lighting and intersection improvements on Goodwin Avenue from Gregory Drive to Stoughton Street in Urbana.

- 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

Gary Hannig, Acting Secretary

## INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

#### Adopted January 1, 2009

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 1-1-09)

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<u>10</u> 11		Use of Geotextile Fabric for Railroad Crossing (Eff. 1-1-95) (Rev. 1-1-07)	
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LR 105	81	$\boxtimes$	Cooperation with Utilities	Jan. 1, 1999	Jan. 1, 2007
LR 107-2			Railroad Protective Liability Insurance for Local Lettings	Mar. 1, 2005	Jan. 1, 2006
LR 107-3			Disadvantaged Business Enterprise Participation	Jan. 1, 2007	Nov. 1, 2008
LR 107-4	84	$\boxtimes$	Insurance	Feb. 1, 2007	Aug. 1, 2007
LR 107-5		Ц	Substance Abuse Prevention Program	Jan. 1, 2008	Jan. 8, 2008
LR 108		Ц	Combination Bids	Jan. 1, 1994	Mar. 1, 2005
LR 212		H	Shaping Roadway	Aug. 1, 1969	Jan. 1, 2002
LR 355-1		님	Asphalt Stabilized Base Course, Road Mix or Traveling Plant Mix	Oct. 1, 1973	Jan. 1, 2007
LR 355-2		$\vdash$	Asphalt Stabilized Base Course, Plant Mix	Feb. 2, 1963	Jan. 1, 2007
LR 400-1		님	Bituminous Treated Earth Surface	Jan. 1, 2008	
LR 400-2		H	Bituminous Surface Mixture (Class B)	Jan. 1, 2008	
LR 400-3		님	Pavement Rehabilitation by the Heat-Scarify-Overlay Method	Jan. 1, 2008	l 1 0007
LR 402		H	Salt Stabilized Surface Course	Feb. 20, 1963	Jan. 1, 2007
LR 403-2		H	Bituminous Hot Mix Sand Seal Coat	Aug. 1, 1969	Jan. 1, 2007
LR 406		H	Filling HMA Core Holes with Non-shrink Grout	Jan. 1, 2008	lan 0 0007
LR 420		H	PCC Pavement (Special)	May 12, 1964 Jan. 1, 2004	Jan. 2, 2007 Jun. 1, 2007
LR 442 LR 451		H	Bituminous Patching Mixtures for Maintenance Use	Oct. 1, 1991	Jan. 1, 2007
		H	Crack Filling Bituminous Pavement with Fiber-Asphalt Furnishing Class SI Concrete	Oct. 1, 1991 Oct. 1, 1973	Jan. 1, 2007
LR 503-1 LR 503-2		H	Furnishing Class SI Concrete (Short Load)	Jan. 1, 1989	Jan. 1, 2002
LR 503-2 LR 542		H	Pipe Culverts, Type (Furnished)	Sep. 1, 1964	Jan. 1, 2002
LR 663		H	Calcium Chloride Applied	Jun. 1, 1958	Jan. 1, 2007
LR 702		H	Construction and Maintenance Signs	Jan. 1, 2004	Jun. 1, 2007
LR 1004		H	Coarse Aggregate for Bituminous Surface Treatment	Jan. 1, 2002	Jan. 1, 2007
LR 1013		Ħ	Rock Salt (Sodium Chloride)	Aug. 1, 1969	Jan. 1, 2002
LR 1030		Ħ	Growth Curve	Mar. 1, 2008	0411. 1, 2002
LR 1032-1		Ħ	Penetrating Emulsions	Jan. 1, 2007	Feb. 1, 2007
LR 1032-2		Ħ	Multigrade Cold Mix Asphalt	Jan. 1, 2007	Feb. 1, 2007
LR 1102		靣	Road Mix or Traveling Plan Mix Equipment	Jan. 1, 2007	,

#### BDE SPECIAL PROVISIONS For the April 24 and June 12, 2009 Lettings

The following special provisions indicated by an "X" are applicable to this contract. An \* indicates a new or revised special provision for the letting.

File Name	Pg#		Special Provision Title	<u>Effective</u>	Revised
80099	85	Х	Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2007
80186	-		Alkali-Silica Reaction for Cast-in-Place Concrete	Aug. 1, 2007	Jan. 1, 2009
80213	87	X	Alkali-Silica Reaction for Precast and Precast Prestressed Concrete	Jan. 1, 2009	•
80207	90	$\frac{\hat{x}}{x}$	Approval of Proposed Borrow Areas, Use Areas, and/or Waste Areas Inside	Nov. 1, 2008	
00207	50	^`	Illinois State Borders	,	
80192			Automated Flagger Assistance Device	Jan. 1, 2008	
* 80173	91	Х	Bituminous Materials Cost Adjustments	Nov. 2, 2006	April 1, 2009
5026I		//	Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	Jan. 1, 2007
50481			Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	Jan. 1, 2007
5049i			Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	Jan. 1, 2007
50491 50531			Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	Jan. 1, 2007
	94	Х	Cement	Jan. 1, 2007	April 1, 2009
* 80166	94	^_	Completion Date (via calendar days)	April 1, 2008	April 1, coup
80198					
80199			Completion Date (via calendar days) Plus Working Days	April 1, 2008	April 1, 2009
* 80094			Concrete Admixtures	Jan. 1, 2003	Aprii I, Zuua
80193			Concrete Barrier	Jan. 1, 2008	
80214			Concrete Gutter, Type A	Jan. 1, 2009	
80215			Concrete Joint Sealer	Jan. 1, 2009	
* 80226			Concrete Mix Designs	April 1, 2009	
* 80227	96	X	Determination of Thickness	April 1, 2009	
80177			Digital Terrain Modeling for Earthwork Calculations	April 1, 2007	
80029	108	X	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Nov. 1, 2008
80178			Dowel Bars	April 1, 2007	Jan. 1, 2008
80179			Engineer's Field Office Type A	April 1, 2007	Aug. 1, 2008
80205			Engineer's Field Office Type B	Aug. 1, 2008	
80175			Epoxy Pavement Markings	Jan. 1, 2007	
80189	116	X	Equipment Rental Rates	Aug. 2, 2007	Jan. 2, 2008
* 80228			Flagger at Side Roads and Entrances	April 1, 2009	
* 80229			Fuel Cost Adjustment	April 1, 2009	
80169		*************	High Tension Cable Median Barrier	Jan. 1, 2007	
80194			HMA – Hauling on Partially Completed Full-Depth Pavement	Jan. 1, 2008	
80181	118	Х	Hot-Mix Asphalt – Field Voids in the Mineral Aggregate	April 1, 2007	April 1, 2008
80201	120	X	Hot-Mix Asphalt – Plant Test Frequency	April 1, 2008	7 (p.m. 1) 2000
80202	122	$\frac{\hat{x}}{x}$	Hot-Mix Asphalt Transportation	April 1, 2008	
80136	122	^	Hot-Mix Asphalt — Harisportation Hot-Mix Asphalt Mixture IL-4.75	Nov. 1, 2004	Jan. 1, 2008
				Jan. 1, 2008	0an. 1, 2000
80195			Hot-Mix Asphalt Mixture IL-9.5L	Nov. 1, 2003	Nov. 1, 2008
80109			Impact Attenuators	Nov. 1, 2003	
80110			Impact Attenuators, Temporary	5.00E00040000C07000000C070000EC000C07000C0700000CCC00000C0C0000CCC	Jan. 1, 2007
* 80230	123	Χ	Liquidated Damages	April 1, 2009	la-a d 0000
80196	124	X	Mast Arm Assembly and Pole	Jan. 1, 2008	Jan. 1, 2009
80045			Material Transfer Device	June 15, 1999	Jan. 1, 2009
* 80203	126	Х	Metal Hardware Cast into Concrete	April 1, 2008	April 1, 2009
80165			Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2007
80082			Multilane Pavement Patching	Nov. 1, 2002	
80180	127	Χ	National Pollutant Discharge Elimination System / Erosion and Sediment	April 1, 2007	Nov. 1, 2008
			Control Deficiency Deduction		
			(NOTE: This special provision was previously named "Erosion and Sediment		
			Control Deficiency Deduction".)		
80208			Nighttime Work Zone Lighting	Nov. 1, 2008	
80129	128	Χ	Notched Wedge Longitudinal Joint	July 1, 2004	Jan. 1, 2007
80182			Notification of Reduced Width	April 1, 2007	
80069			Organic Zinc-Rich Paint System	Nov. 1, 2001	Jan. 1, 2008
80216			Partial Exit Ramp Closure for Freeway/Expressway	Jan. 1, 2009	
* 80231			Pavement Marking Removal	April 1, 2009	
80022	130	Х	Payments to Subcontractors	June 1, 2000	Jan. 1, 2006
* 80235	132	X	Payrolls and Payroll Records	Mar. 1, 2009	,
DUZOD	194	· · · · · · · · · · · · · · · · · · ·	By One and ayear mooned	·	

File Name	Pa#		Special Provision Title	<b>Effective</b>	<u>Revised</u>
80209	134	X	Personal Protective Equipment	Nov. 1, 2008	
* 80232			Pipe Culverts	April 1, 2009	
80134	***************************************		Plastic Blockouts for Guardrail	Nov. 1, 2004	Jan. 1, 2007
80119	135	X	Polyurea Pavement Marking	April 1, 2004	Jan. 1, 2009
80210			Portland Cement Concrete Inlay or Overlay	Nov. 1, 2008	•
80170	142	X	Portland Cement Concrete Plants	Jan. 1, 2007	•
80217			Post Clips for Extruded Aluminum Signs	Jan. 1, 2009	
80171	144	X	Precast Handling Holes	Jan. 1, 2007	
* 80218			Preventive Maintenance - Bituminous Surface Treatment	Jan. 1, 2009	April 1, 2009
* 80219			Preventive Maintenance – Cape Seal	Jan. 1, 2009	April 1, 2009
80220			Preventive Maintenance – Micro-Surfacing	Jan. 1, 2009	
80221			Preventive Maintenance – Slurry Seal	Jan. 1, 2009	
80211			Prismatic Curb Reflectors	Nov. 1, 2008	
80015			Public Convenience and Safety	Jan. 1, 2000	
34261			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157			Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
80223			Ramp Closure for Freeway/Expressway	Jan. 1, 2009	
* 80172	146	Х	Reclaimed Asphalt Pavement (RAP)	Jan. 1, 2007	April 1, 2009
80183	153	X	Reflective Sheeting on Channelizing Devices	April 1, 2007	Nov. 1, 2008
* 80151	154	Х	Reinforcement Bars	Nov. 1, 2005	April 1, 2009
* 80206	156	Х	Reinforcement Bars – Storage and Protection	Aug. 1, 2008	April 1, 2009
80224			Restoring Bridge Approach Pavements Using High-Density Foam	Jan. 1, 2009	
80184	157	X	Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay	April 1, 2007	
***************************************			Film for Highway Signs		
* 80233			Right-of-Entry Permit	April 1, 2009	
80131	163	Х	Seeding	July 1, 2004	Jan. 1, 2009
80152			Self-Consolidating Concrete for Cast-In-Place Construction	Nov. 1, 2005	Jan. 1, 2009
80132	165	X	Self-Consolidating Concrete for Precast Products	July 1, 2004	Jan. 1, 2007
80212	167	Х	Sign Panels and Sign Panel Overlays	Nov. 1, 2008	
80197			Silt Filter Fence	Jan. 1, 2008	
	168	X	Steel Cost Adjustment	April 2, 2004	April 1, 2009
80153			Steel Plate Beam Guardrail	Nov. 1, 2005	Aug. 1, 2007
80191			Stone Gradation Testing	Nov. 1, 2007	
* 80234			Storm Sewers	April 1, 2009	
80143	172	X	Subcontractor Mobilization Payments	April 2, 2005	
80075			Surface Testing of Pavements	April 1, 2002	Jan. 1, 2007
80087	173	Х	Temporary Erosion Control	Nov. 1, 2002	Jan. 1, 2008
80225			Temporary Raised Pavement Marker	Jan. 1, 2009	
80176	174	Χ	Thermoplastic Pavement Markings	Jan. 1, 2007	
20338			Training Special Provisions	Oct. 15, 1975	
80185			Type ZZ Retroreflective Sheeting, Nonreflective Sheeting, and Translucent	April 1, 2007	
00440			Overlay Film for Highway Signs	Aug. 1, 2005	Jan. 1, 2007
80149			Variable Spaced Tining	Aug. 1, 2005 Jan. 1, 2002	Jan. 1, 2007
80071			Working Days Woven Wire Fence	Jan. 1, 2002 April 1, 2008	
80204			VVOVEH VVHE FEHCE	April 1, 2006	

The following special provisions are in the 2009 Supplemental Specifications and Recurring Special Provisions:

File Name	Special Provision Title	New Location	<u>Effective</u>	<u>Revised</u>
80108	Asbestos Bearing Pad Removal	Check Sheet #32	Nov. 1, 2003	
7254I	Asbestos Waterproofing Membrane and Asbestos Hot-Mix	Check Sheet #33	June 1, 1989	Jan. 2, 2007
	Asphalt Surface Removal			
80167	Electrical Service Installation - Traffic Signals	Section 805	Jan. 1, 2007	
80164	Removal and Disposal of Regulated Substances	Section 669	Aug. 1, 2006	Jan. 1, 2007
80161	Traffic Signal Grounding	Sections 873 and 1076	April 1, 2006	Jan. 1, 2007
80162	Uninterruptable Power Supply (UPS)	Sections 801, 862 and 1074	April 1, 2006	Jan. 1, 2007
80163	Water Blaster with Vacuum Recovery	Articles 783.02 and 1101.12	April 1, 2006	Jan. 1, 2007

The following special provisions require additional information from the designer. The additional information needs to be included in a separate document attached to this check sheet. The Project Development and Implementation section will then include the information in the applicable special provision. The Special Provisions are:

- Building Removal-Case I Building Removal-Case II Building Removal-Case III Building Removal-Case IV
- Completion Date
- Completion Date Plus Working Days
- DBE Participation
- Material Transfer Device

- Railroad Protective Liability Insurance
- Right-of-Entry Permit Training Special Provisions Working Days

### GUIDE BRIDGE SPECIAL PROVISION INDEX/CHECK SHEET Effective: January 12, 2009

	Da	Eila Nama	Title	Effective	Revised
7	<u>Pg</u> #	<u>File Name</u>	1 title		<u>rteviseu</u>
		GBSP4	Polymer Modified Portland Cement Mortar	June 7, 1994	June 1, 2007
		GBSP11	Permanent Steel Sheet Piling	Dec 15, 1993	Jan 1, 2007
		GBSP12	Drainage System	June 10, 1994	Jan 1, 2007
		GBSP13	High-Load Multi-Rotational Bearings	Oct 13, 1988	Jan 1, 2007
		GBSP14	Jack and Remove Existing Bearings	April 20, 1994	Jan 1, 2007
		GBSP15	Three Sided Precast Concrete Structure	July 12, 1994	June 1, 2007
		GBSP16	Jacking Existing Superstructure	Jan 11, 1993	Jan 1, 2007
		GBSP17	Bonded Preformed Joint Seal	July 12, 1994	Jan 1, 2007
		GBSP18	Modular Expansion Joint	May 19, 1994	Jan 1, 2007
		GBSP21	Cleaning and Painting Contact Surface Areas of Existing Steel Structures	June 30, 2003	Jan 1, 2007
		GBSP22	Cleaning and Painting New Metal Structures	Sept 13, 1994	Jan 1, 2007
		GBSP25	Cleaning and Painting Existing Steel Structures	Oct 2, 2001	July 9, 2008
		GBSP26	Containment and Disposal of Lead Paint Cleaning Residues	Oct 2, 2001	July 9, 2008
		GBSP28	Deck Slab Repair	May 15, 1995	Jan 12, 2009
		GBSP29	Bridge Deck Microsilica Concrete Overlay	May 15, 1995	June 1, 2007
		GBSP30	Bridge Deck Latex Concrete Overlay	May 15, 1995	June 1, 2007
		GBSP31	Bridge Deck High-Reactivity Metakaolin (HRM) Conc Overlay	Jan 21, 2000	June 1, 2007
		GBSP32	Temporary Sheet Piling	Sept 2, 1994	Jan 1, 2007
		GBSP33	Pedestrian Truss Superstructure	Jan 13, 1998	Nov 14, 2008
		GBSP34	Concrete Wearing Surface	June 23, 1994	Jan 12, 2009
		GBSP35	Silicone Bridge Joint Sealer	Aug 1, 1995	Jan 1, 2007
		GBSP36	Surface Preparation and Painting Req. for Weathering Steel	Nov 21, 1997	Jan 12, 2009
		GBSP37	Underwater Structure Excavation Protection	April 1, 1995	Jan 1, 2007
		GBSP38	Mechanically Stabilized Earth Retaining Walls	Feb 3, 1999	Jan 15, 2008
		GBSP42	Drilled Soldier Pile Retaining Wall	Sept 20, 2001	Feb 2, 2007
		GBSP43	Driven Soldier Pile Retaining Wall	Nov 13, 2002	Feb 2, 2007
		GBSP44	Temporary Soil Retention System	Dec 30, 2002	Jan 1, 2007
		GBSP45	Bridge Deck Thin Polymer Overlay	May 7, 1997	Jan 1, 2007
		GBSP46	Geotextile Retaining Walls	Sept 19, 2003	June 1, 2007
		GBSP47	High Performance Concrete Structures	Aug 5, 2002	Jan 1, 2007
		GBSP50	Removal of Existing Non-composite Bridge Decks	June 21, 2004	Jan 1, 2007
		GBSP51	Pipe Underdrain for Structures	May 17, 2000	Jan 1, 2007
		GBSP52	Porous Granular Embankment (Special)	Sept 28, 2005	Nov 14, 2008
		GBSP53	Structural Repair of Concrete	Mar 15, 2006	April 2, 2008
		GBSP55	Erection of Curved Steel Structures	June 1, 2007	
		GBSP56	Setting Piles in Rock	Nov 14, 1996	Jan 1, 2007
		GBSP57	Temporary Mechanically Stabilized Earth Retaining Walls	Jan 6, 2003	April 2, 2008
		GBSP58	Mechanical Splice	Sep 21, 1995	Jan 1, 2007
		GBSP59	Diamond Grinding and Surface Testing Bridge Sections	Dec 6, 2004	July 9, 2008
		GBSP60	Containment and Disposal of Non-Lead Pain Cleaning Residues	Nov 25, 2004	July 9, 2008
		GBSP61	Slipform Parapet	June 1, 2007	Jan 12, 2009
		GBSP62	Concrete Deck Beams	June 13, 2008	Nov 14, 2008
		GBSP63	Demolition Plans for Removal of Existing Structures	Sept 5, 2007	
$\overline{x}$	176	GBSP64	Segmental Concrete Block Wall	Jan 7, 1999	July 9, 2008
寸		GBSP65	Precast Modular Retaining Walls	Mar 19, 2001	Nov 14, 2008
寸		GBSP66	Wave Equation Analysis of Piles	Nov 14, 2008	

LIST ADDITIONAL SPECIAL PROVISIONS BELOW

#### SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction" adopted January 1, 2007, the latest edition of the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", in effect on the date of invitation for bids, the "Manual of Test Procedures for Materials", in effect on the date of invitation for bids, the "Supplemental Specifications and Recurring Special Provisions" indicated on the Check Sheet included herein, the "Bureau of Design and Environment Special Provisions" indicated on the Check Sheet included herein, the "Guide Bridge Special Provisions" indicated on the Check Sheet included herein, the "Local Roads Special Provisions" included herein, and the latest edition of the "Standard Specifications for Water and Sewer Main Construction in Illinois", which apply to and govern the construction of Section 07-00456-00-RS, and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

#### LOCATION AND DESCRIPTION OF WORK

The proposed street improvements are located on Goodwin Avenue between Gregory Drive and Springfield Avenue in the City of Urbana, Champaign County, Illinois.

The work under this contract shall consist of:

- Construction of storm sewers and associated storm drainage structures;
- Construction of curb extensions at intersections and mid-block crossings:
- Construction of concrete base course, curb and gutter, and sidewalk;
- Pavement milling and resurfacing;
- Traffic signal modernization;
- Roadway lighting removal and replacement;
- Pavement marking; and
- Various removals, excavations, landscaping, and other work necessary to complete the construction as shown in the plans and required by the specifications and special provisions.

The work shall include all labor, materials, tools and equipment necessary for the proper execution and completion of the work as shown in the plans and as specified. It shall also include all work not specifically mentioned but which is reasonably and properly inferable and necessary for the completion of the work.

#### **SUBMITTALS**

Submittals shall be in accordance with the Standard Specifications and the Special Provisions, and as directed by the Engineer.

#### CONSTRUCTION SEQUENCE

The Contractor shall present a Traffic Control Plan to the City for review and approval at the preconstruction conference. The Engineer will also review the proposed Traffic Control Plan and make any modifications deemed necessary for safety and other reasonable considerations. The Contractor shall be free to propose a construction sequence that is most beneficial to him/her and meets the completion date and the requirements below. The City shall have final approval of the proposed sequence.

All costs that result from adhering to the construction sequence shall be considered as included in the unit bid prices of the contract and no additional compensation will be allowed.

At each intersection, the Contractor shall limit construction operations to two adjacent quadrants at a time, either both on the east side of Goodwin Avenue or both on the west side of Goodwin Avenue. Work at multiple intersections performed simultaneously shall be performed on the same side of Goodwin Avenue. The Contractor's Traffic Control Plan and construction sequence shall include these requirements.

The Contractor shall coordinate his/her construction operations to accommodate the University's move-in schedule. Goodwin Avenue shall not be closed to all traffic at any time during the month of August 2009. The traffic signal work at the intersection of Goodwin Avenue and Green Street shall be complete by Friday, August 15, 2009, and the traffic signals shall be fully operational. No work shall be performed on Tuesday, August 18, 2009 or Thursday, August 20, 2009. All lanes shall be open to traffic on those two dates. The Contractor shall coordinate his/her construction operations near the Goodwin & Green Apartments on Saturday, August 1, 2009 and Saturday, August 15, 2009. No additional compensation will be allowed for coordinating construction operations to accommodate the University's move-in schedule.

#### PROJECT COMPLETION DATE

Time is of the essence to the contract. Prompt prosecution and timely completion of the work is important to the City to help alleviate excessive hardship or inconvenience to adjacent property owners.

The assessment of liquidated damages in accordance with Article 108.09 of the Standard Specifications shall be defined with respect to the following project completion dates and not the number of available working days.

The Contractor shall have until 8:00 p.m. on Friday, November 27, 2009 for final completion of all work under this contract. Final completion means that all work described in the plans and special provisions or all work necessary to restore land damaged or impacted by the project shall be accomplished in its entirety. This work includes any and all construction, grading, shaping, seeding, mulching, restoration, or clean up that may be required on the project. Punch list items shall also be

corrected or reconstructed in their entirety prior to final completion. The full amount of liquidated damages specified in Article 108.09 of the Standard Specifications shall be assessed per calendar day in accordance with Article 108.09 should the Contractor fail to complete the specified work on or before 8:00 p.m. on Friday, November 27, 2009.

#### TRAFFIC CONTROL COMPLETE

#### Description

This work shall consist of providing the necessary traffic control personnel and devices and the installation, maintenance, relocation and removal of these devices during construction of the improvement. The City of Urbana will be responsible for notifying the public, the University of Illinois, the United States Postal Service, the Champaign-Urbana Mass Transit District, and the emergency service agencies for road closures and changes in the traffic maintenance plans.

#### General

The primary concern of the City is to maintain a safe traveled way for the public and a safe environment for the worker in the construction zone.

The Contractor shall strive to contain all operations in as small an area as possible so as to cause as little disruption as possible. As the Contractor moves around the construction site, he/she shall safeguard the work to protect pedestrian and vehicular traffic. It is the intent of the City to avoid traffic conflicts as much as possible.

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

Special attention is called to Articles 107.09, 107.14, 107.15, 107.16 and 107.25 and Sections 701 and 703 of the Standard Specifications, the following Highway Standards, listed Supplemental Specifications and Recurring Special Provisions, and Special Plan Details and Notations.

#### Highway Standards

701006, 701301, 701311, 701501, 701606, 701701, 701801, 701901

#### **Special Provisions**

Check Sheet #25 Night Time Inspection of Roadway Lighting

LRS 3 Work Zone Traffic Control LRS 4 Flaggers in Work Zones

BDE 80183 Reflective Sheeting on Channelizing Devices

Plan Details

Traffic Control Plan

The Contractor shall present a Traffic Control Plan to the City for review and approval at the preconstruction conference. The Engineer will also review the proposed Traffic Control Plan and make any modifications deemed necessary for safety and other reasonable considerations. Any delays, inconveniences, or expenses which the Contractor incurs in complying with these requirements shall be considered as included in the unit bid prices of the contract and no additional compensation will be allowed.

At each intersection, the Contractor shall limit construction operations to two adjacent quadrants at a time, either both on the east side of Goodwin Avenue or both on the west side of Goodwin Avenue. Work at multiple intersections performed simultaneously shall be performed on the same side of Goodwin Avenue. The Contractor's Traffic Control Plan and sequence of construction operations shall include these requirements.

Refer to the section "Construction Sequence and Coordination" of these Special Provisions for additional traffic control requirements.

#### Traffic Control Devices

The Contractor shall be responsible for the proper location, installation and arrangement of all traffic control devices. Special attention shall be given to advance warning signs during construction operations in order to keep lane assignment consistent with barricade placement at all times. The Contractor shall immediately remove, cover or turn from the view of the motorists all traffic control devices which are inconsistent with detour or lane assignments patterns and conflicting conditions during the transition from one construction state to another. When the Contractor elects to cover conflicting or inappropriate signing materials used, he/she shall totally block out reflectivity of the sign and shall cover the entire sign. The method used for covering the signing shall meet the approval of the Engineer.

The Contractor shall coordinate all traffic control work on this project with adjoining or overlapping projects, including barricade placement necessary to provide a uniform traffic detour pattern. When directed by the Engineer, the Contractor shall remove all traffic control devices which were furnished and installed and maintained by him/her under this contract, and such devices shall remain the property of the Contractor. All traffic control devices shall remain in place until specific authorization for relocation or removal is received from the Engineer.

The Contractor shall ensure that all traffic control devices installed by him/her are operational, functional, and effective 24 hours a day, including Sundays and holidays.

All barricades, drums, and vertical panels shall be equipped with a flashing light when used during the hours of darkness.

#### Quality of Traffic Control Devices

Traffic Control Devices include signs and their supports, signals, pavement markings, barricades with sand bags, channelizing devices, warning lights, arrow boards, flaggers, or any device used for

the purpose of regulating, detouring, warning or guiding traffic through or around the construction zone.

Only signs, barricades, vertical panels, drums, and cones that meet the requirements of the Department's "Quality Standard for Work Zone Traffic Control Devices 2004" shall be used on this project. Copies of this publication are available from the City Engineer for the Contractor's use prior to the initial setup. At the time of the initial setup or at the time of major stage changes, 100% of each type of device (cones, drums, barricades, vertical panels or signs) shall be acceptable as defined by the referenced publication. Throughout the duration of the project, the percentage of acceptable devices may decrease to 75 percent only as a result of damage and/or deterioration during the course of the work. Work shall not begin until a determination has been made that the traffic control devices meet the quality required in this standard. The Contractor is required to conduct routine inspections of the work site at a frequency that will allow for the prompt replacement of any traffic control device that has become displaced or damaged to the extent that it no longer conforms to the shape, dimensions, color and operational requirements of the MUTCD and the Traffic Control Standards, or that it no longer presents a neat appearance to motorists. A sufficient quantity of replacement devices, based on vulnerability to damage, shall be readily available to meet this requirement.

#### Traffic Control Surveillance

Traffic control surveillance will be required, but will not be paid for separately on this project. Recurring Local Roads and Streets Special Provision LRS 3 "Work Zone Traffic Control" will apply for the inspection of traffic control devices on this project.

#### Solar Powered Arrow Boards

Arrow boards shall be used as required by the Standards and as directed by the Engineer. All arrow boards to be used on this project shall be solar powered. Any additional cost in meeting this requirement shall be included in the contract lump sum price for TRAFFIC CONTROL COMPLETE and no additional compensation will be allowed.

#### Signs

Construction signs referring to daytime lane closures during working hours shall be removed, covered or turned away from the view of motorists during non-working hours.

Flashing lights shall be used on each approach in advance of the work area, and in accordance with the details shown in the plans and the Highway Standards.

All provisions of Article 107.25 of the Standard Specifications shall apply except the third paragraph shall be revised to read: "The Contractor shall maintain, furnish, and replace at his/her own expense, any traffic sign or post which has been damaged or lost by the Contractor or a third party."

#### Portable Changeable Message Signs

Portable changeable message signs shall be furnished, placed, and maintained in accordance with Article 701.15(j) of the Standard Specifications and the Traffic Control Plans and as directed by the Engineer. The signs shall be placed at the locations shown on the Traffic Control Plans five days prior to closing intersection of Goodwin Avenue and Illinois Street to traffic. The signs shall remain in place and operational until such time that the Engineer determines that the signs can be removed. The message for the signs will be provided by the Engineer. The Contractor shall inspect the signs by 8:00 a.m. each day to ensure that the signs are fully operational and in proper working order. Furnishing, placing, maintaining, and removing the portable changeable message signs shall be included in the contract lump sum price for TRAFFIC CONTROL COMPLETE and no additional compensation will be allowed.

#### Placement and Removal of Signs and Barricades

Placement of all signs and barricades shall proceed in the direction of flow of traffic. Removal of all signs and barricades shall start at the end of the construction areas and proceed toward oncoming traffic unless otherwise directed by the Engineer.

#### Removing and Resetting Traffic Signs

This work shall consist of the removal, relocation, and resetting of traffic signs which interfere with construction operations. This work shall also include the removal, relocation, and resetting of existing wood signs and other miscellaneous signs which interfere with construction operations. This work shall be performed in accordance with the applicable portions of Article 107.25 of the Standard Specifications and as directed by the Engineer. The Contractor shall remove, temporarily relocate, and/or permanently reset existing signs which interfere with the construction operations. The Engineer will determine which signs will be removed, temporarily relocated, and/or permanently reset.

The Contractor shall temporarily relocate the existing stop signs at each stop-controlled intersection as required by the construction operations or as directed by the Engineer. The temporary relocation of the existing stop signs shall be included in the contract lump sum price for TRAFFIC CONTROL COMPLETE and no additional compensation will be allowed.

The removal of the existing wood posts for the existing stop signs and the resetting of the existing stop signs on new wood posts at their proposed locations will be paid for under the items Removing and Resetting Street Signs and Wood Sign Support. The stop signs shall be reset in accordance with the Special Provisions and as directed by the Engineer.

The City of Urbana will remove the existing signs that are mounted to existing light poles. The City of Urbana will install these signs at their proposed locations.

#### Pedestrian Access

The Contractor shall provide a safe means of travel through or around the work zone for pedestrians. The safety of pedestrians is paramount, and the Contractor shall be responsible and liable for injuries or damages due to inadequate protection.

The Contractor shall provide pedestrian access to all adjacent businesses and residences in the project area at all times. The Contractor shall install, maintain, and remove necessary signs and barricades needed to direct pedestrians to usable sidewalks and walkways during the construction. At each point of closure, a sufficient number of barricades shall be used to completely close the sidewalk to pedestrian movement.

The furnishing, placement, compaction, maintenance, removal, and disposal of all aggregate material used for providing pedestrian access shall be included in the cost of Aggregate for Temporary Access, and no additional compensation will be allowed.

#### Public Safety and Convenience

To ensure a prompt response to incidents involving the integrity of the work zone traffic control devices, the Contractor shall provide a telephone number where a responsible individual can be contacted on a 24-hour-a-day basis to receive notification of any deficiencies regarding traffic control and protection.

The provisions of Article 105.03 of the Standard Specifications shall apply for traffic control deficiencies.

When traveling in lanes open to public traffic, the Contractor's vehicles shall always move with and not against or across the flow of traffic. These vehicles shall enter or leave work areas in a manner which will not be hazardous to, or interfere with traffic and shall not park or stop except within areas designated by the Engineer.

Personal vehicles will not be allowed to park within the right-of-way. The Contractor shall provide for off-site parking of his/her personal vehicles.

The Contractor shall maintain entrances and side roads along the proposed improvement. Interference with traffic movements and inconvenience to owners of abutting property and the public shall be kept to a minimum. Any delays or inconveniences caused to the Contractor by complying with these requirements shall be included in the contract lump sum price for TRAFFIC CONTROL COMPLETE and no additional compensation will be allowed.

#### **Brooming Roadway**

All traffic lanes which are closed to through traffic during construction shall be broomed or swept free of all loose gravel or construction debris before the traffic lane is reopened to traffic. All roadway surface conditions shall be approved by the Engineer before they are opened to traffic. This work will not be paid for separately, but shall be included in the contract lump sum price for TRAFFIC CONTROL COMPLETE and no additional compensation will be allowed.

#### Basis of Payment

All work prescribed and referenced herein shall be paid for at the contract lump sum price for TRAFFIC CONTROL COMPLETE. This price shall include all labor, materials, transportation,

handling and incidental work necessary to furnish, install, relocate, maintain and remove all traffic control devices as required by the Traffic Control Plans and Highway Standards and as approved by the Engineer, for the duration of the contract. No separate payment will be made for complying with the provisions of individual Highway Standards.

#### CONSTRUCTION NOISE RESTRICTIONS

All engines and engine driven equipment used for hauling or construction shall be equipped with an adequate muffler in constant operation and properly maintained to prevent excessive or unusual noise.

Construction within 600 feet of an occupied residence, library, hospital, or similar receptor shall be confined to the period beginning at 8 A.M. and ending at 8 P.M. This time regulation shall not apply to sawing contraction joints, to maintenance or operation of safety and traffic control devices such as barricades, signs, and lighting, or to construction of an emergency nature.

Exception: Any machine or device or part thereof which is regulated by or becomes regulated by Federal or State of Illinois noise standards shall conform to those standards. Such equipment shall be operated as designated above.

Any arrow boards used in Traffic Control that is to remain in place overnight shall be of a non-motorized type in order to eliminate noise and comply with the City's Ordinance.

Request to modify or deviate from these requirements shall be submitted in writing to the Engineer by the Contractor and must be approved in writing by the Engineer.

#### CONTROL OF OFF-SITE TRACKING AND CONSTRUCTION DEBRIS

Where the Contractor's equipment is operated on any portion of the pavement or structures used by traffic on or adjacent to the section under construction, the Contractor shall eliminate offsite tracking of mud, dust and debris, and clean the pavement of all dirt and debris at the end of each day's operations, and at other times as directed by the Engineer.

The Contractor shall at his/her own expense clean up and remove all dirt, mud, trench backfill materials, temporary surface, unused materials, stored materials, and other debris resulting from the work from the pavement surfaces.

Physical scraping of the pavement surface alone is not acceptable. Use of a rotary power broom is not acceptable. Contractor may employ a street sweeper with pressure wash ability, or may wash down adjacent streets manually provided that approved inlet sediment collection filter bags are installed at all inlets that will collect wash water. Contractor shall maintain filters and remove sediment from the bag upon collection of 50% of the bag capacity.

On a daily basis, at the completion of the workday, the Contractor shall remove all his/her equipment and put the area of the work in a neat and clean condition and do all other cleaning to complete the work in a workmanlike manner, ready for use and satisfactory to the Engineer.

In the event that the Contractor fails to clean up and neaten the work site within 18 hours of a request to do so, all progress payments shall be suspended and shall not be resumed until cleanup in a manner satisfactory to the Engineer has occurred.

The cost for the Contractor to comply with the Control of Off-Site Tracking and construction Debris requirements herein described shall be included in the unit prices bid. No additional compensation will be allowed.

#### **COMMITMENTS**

There was one commitment made for this project as described in the Project Development Report.

1. Proposed storm sewer will be designed for a 10-year storm.

#### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

This work shall be done in accordance with the "National Pollutant Discharge Elimination System Permit" (NPDES) requirements. The project is covered by the City of Urbana's NPDES permit number ILR40-0462. The Contractor will be required to comply with all terms of the permit. As a part of these requirements the Contractor will be required to fill out the "Contractor Certification Statement" on form number BDE 2342 and submit it to the Engineer at the pre-construction conference. A copy of the form is attached.



#### Storm Water Pollution Prevention Plan

Route	FAU 7175 (Goodwin Avenue)		Marked Rt.	No
Section	07-00456-00-RS		Project No.	HSIP-5181(41)
County Champaign			Contract No.	91392
Environr has also	n has been prepared to comply with the nental Protection Agency on May 30, been prepared to comply with the properties and separate storm sewer systems if ch	2003 for storm wa ovisions of NPDES	ater discharges f	t Number ILR10, issued by the Illinois rom Construction Site Activities. This plan r ILR40 for discharges from small
NPDES □ ⊠	permits associated with this project: ILR10 Permit No. (if applicable): ILR40 Permit No. (if applicable):	ILR40-0462		
accordar submitte for gathe complete	nce with a system designed to assure d. Based on my inquiry of the person ering the information, the information	e that qualified per n or persons who r submitted is, to the	sonnel properly of manage the system to best of my kno	red under my direction or supervision in gathered and evaluated the information em, or those persons directly responsible wledge and belief, true, accurate and ormation, including the possibility of fine
	William R. Gray, P.E.		_ W	Signature 8
	Print Name Director of Public Works		1/	
	Title  City of Urbana  Agency			' Date
	Agency		÷	

#### I. Site Description:

A. The following is a description of the project location:

The project is located in the City of Urbana. Goodwin Avenue is a north-south collector street that runs through the University of Illinois campus.

B. The following is a description of the construction activity which is the subject of this plan:

The project includes the addition of on-street bicycle lanes, the removal of turn lanes, the addition of curb extensions at intersections and mid-block crossings, the addition of consolidated bus stops, pavement milling and resurfacing, sidewalk and curb ramp removal and replacement, traffic signal removal and replacement, and roadway lighting removal and replacement.

C. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site, such as grubbing, excavation and grading:

Excavating and grading for storm sewers, pavement subgrade, sidewalks, traffic signals, roadway lighting, top soil placement, and seeding.

D. The total area of the construction site is estimated to be 10 acres.

The total area of the site that is estimated will be disturbed by excavation, grading or other activities is 1.3 acres.

E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:

0.60 (Rational Method)

F. The following is a description of the soil types found at the project site followed by information regarding their erosivity:

The soil types are clays and loams typical to the area.

G. The following is a description of potentially erosive areas associated with this project:

The project area consists mostly of paved surface with some areas of established turf. Erosion is not anticipated to be an issue.

H. The following is a description of soil disturbing activities, their locations, and their erosive factors (e.g. steepness of slopes, length of slopes, etc):

Excavating and grading for, storm sewers, pavement subgrade, sidewalks, traffic signals, roadway lighting, top soil placement, and seeding will be performed throughout the project. Side slopes average 2% in curb and gutter sections.

- I. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands) and locations where storm water is discharged to surface water including wetlands.
- J. The following is a list of receiving water(s) and the ultimate receiving water(s), and areal extent of wetland acreage at the site. The location of the receiving waters can be found on the erosion and sediment control plans:

The project site is outlet by storm sewers to the Boneyard Creek. There are no wetlands being disturbed.

K. The following pollutants of concern will be associated with this construction project:

$\boxtimes$	Soil Sediment	Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)
$\boxtimes$	Concrete	Antifreeze / Coolants
$\boxtimes$	Concrete Truck Waste	Waste water from cleaning construction equipment
$\boxtimes$	Concrete Curing Compounds	Other (specify)
	Solid Waste Debris	Other (specify)
	Paints	Other (specify)
	Solvents	Other (specify)
$\boxtimes$	Fertilizers / Pesticides	Other (specify)

#### II. Controls:

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in I.C. above and for all use areas, borrow sites, and waste sites. For each measure discussed, the contractor will be responsible for its implementation as indicated. The contractor shall provide to the resident engineer a plan for the implementation of the measures indicated. The contractor, and subcontractors, will notify the resident engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant with the permit. Each such contractor has signed the required certification on forms which are attached to, and are a part of, this plan:

#### A. Erosion and Sediment Controls

- 1. Stabilized Practices: Provided below is a description of interim and permanent stabilization practices, including site specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II(A)(1)(a) and II(A)(3), stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of 21 or more calendar days.
  - a. Where the initiation of stabilization measures by the 14<sup>th</sup> day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

The following Stabilization Practices will be used for this project:

<ul> <li>✓ Preservation of Mature Vegetation</li> <li>✓ Vegetated Buffer Strips</li> <li>✓ Protection of Trees</li> <li>✓ Temporary Erosion Control Seeding</li> <li>✓ Temporary Turf (Seeding, Class 7)</li> <li>✓ Temporary Mulching</li> <li>✓ Permanent Seeding</li> </ul>		Erosion Control Blanket / Mulching Sodding Geotextiles Other (specify) Other (specify) Other (specify) Other (specify)
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Describe how the Stabilization Practices listed above will be utilized:

Permanent seeding of disturbed areas will be done as soon as possible. Inlet filters will be installed at all drainage structures within paved areas to prevent silt from entering the drainage system. Permanent sodding, seeding, and mulching will be done when the grading is complete.

2. Structural Practices: Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The following Structural Practices will be used for this project:

$\sqcup$	Perimeter Erosion Barrier	<u></u>	Rock Outlet Protection
	Temporary Ditch Check		Riprap
$\boxtimes$	Storm Drain Inlet Protection		Gabions
	Sediment Trap	1	Slope Mattress
	Temporary Pipe Slope Drain		Retaining Walls
	Temporary Sediment Basin		Slope Walls
	Temporary Stream Crossing		Concrete Revetment Mats
	Stabilized Construction Exits		Level Spreaders
	Turf Reinforcement Mats		Other (specify)
	Permanent Check Dams		Other (specify)
	Permanent Sediment Basin		Other (specify)
	Aggregate Ditch		Other (specify)
	Paved Ditch		Other (specify)

Describe how the Structural Practices listed above will be utilized:

Permanent seeding of disturbed areas will be done as soon as possible. Inlet filters will be installed at all drainage structures within paved areas to prevent silt from entering the drainage system. Permanent sodding, seeding, and mulching will be done when the grading is complete.

- 3. Storm Water Management: Provided below is a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.
  - a. Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

The practices selected for implementation were determined on the basis of the technical guidance in Section 59-8 (Erosion and Sediment Control) in Chapter 59 (Landscape Design and Erosion Control) of the Illinois Department of Transportation Bureau of Design and Environment Manual. If practices other than those discussed in Section 59-8 are selected for implementation or if practices are applied to situations different from those covered in Section 59-8, the technical basis for such decisions will be explained below.

b. Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Description of Storm Water Management Controls.

The project site is outlet by storm sewers to the Boneyard Creek. Storm water detention will not be provided.

#### 4. Other Controls:

a. Vehicle Entrances and Exits – Stabilized construction entrances and exits must be constructed to prevent tracking of sediments onto roadways.

The contractor will provide the resident engineer with a written plan identifying the location of stabilized entrances and exits and the procedures (s)he will use to construct and maintain them.

- b. Material Delivery, Storage, and Use The following BMPs shall be implemented to help prevent discharges of construction materials during delivery, storage, and use:
  - All products delivered to the project site must be properly labeled.
  - Water tight shipping containers and/or semi trailers shall be used to store hand tools, small
    parts, and most construction materials that can be carried by hand, such as paint cans,
    solvents, and grease.
  - A storage/containment facility should be chosen for larger items such as drums and items shipped or stored on pallets. Such material is to be covered by a tin roof or large sheets of plastic to prevent precipitation from coming in contact with the products being stored.
  - Large items such as light stands, framing materials and lumber shall be stored in the open in a general storage area. Such material shall be elevated with wood blocks to minimize contact with storm water runoff.
  - Spill clean-up materials, material safety data sheets, an inventory of materials, and emergency contact numbers shall be maintained and stored in one designated area and each Contractor is to inform his/her employees and the resident engineer of this location.

- c. Stockpile Management BMPs shall be implemented to reduce or eliminate pollution of storm water from stockpiles of soil and paving materials such as but not limited to portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, aggregate sub base, and premixed aggregate. The following BMPs may be considered:
  - Perimeter Erosion Barrier
  - Temporary Seeding
  - Temporary Mulch
  - Plastic Covers
  - Soil Binders
  - Storm Drain Inlet Protection

The contractor will provide the resident engineer with a written plan of the procedures (s)he will use on the project and how they will be maintained.

- d. Waste Disposal. No materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.
- e. The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.
- f. The contractor shall provide a written and graphic plan to the resident engineer identifying where each of the above areas will be located and how they are to be managed.

#### 5. Approved State or Local Laws

The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual, 1995. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

The drainage plan has been approved by IDOT and the City of Urbana.

#### III. Maintenance:

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. The resident engineer will provide maintenance guides to the contractor for the practices associated with this project.

The Contractor will be responsible for installing and maintaining the erosion control systems as directed by the Engineer.

#### IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site. Such inspections shall be conducted at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.

- A. Disturbed areas, use areas (storage of materials, stockpiles, machine maintenance, fueling, etc.), borrow sites, and waste sites shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Discharge locations or points that are accessible, shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off site sediment tracking.
- B. Based on the results of the inspection, the description of potential pollutant sources identified in section I above and pollution prevention measures identified in section II above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within ½ hour to 1 week based on the urgency of the situation. The resident engineer will notify the contractor of the time required to implement such actions through the weekly inspection report.
- C. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken in accordance with section IV(B) shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI. G of the general permit.
- D. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the resident engineer shall complete and file an "Incidence of Noncompliance" (ION) report for the identified violation. The resident engineer shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit.

The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency Division of Water Pollution Control Attn: Compliance Assurance Section 1021 North Grand East Post Office Box 19276 Springfield, Illinois 62794-9276

#### V. Non-Storm Water Discharges:

Except for flows from fire fighting activities, sources of non-storm water that is combined with storm water discharges associated with the industrial activity addressed in this plan must be described below. Appropriate pollution prevention measures, as described below, will be implemented for the non-storm water component(s) of the discharge.

- A. Spill Prevention and Control BMPs shall be implemented to contain and clean-up spills and prevent material discharges to the storm drain system. The contractor shall produce a written plan stating how his/her company will prevent, report, and clean up spills and provide a copy to all of his/her employees and the resident engineer. The contractor shall notify all of his/her employees on the proper protocol for reporting spills. The contractor shall notify the resident engineer of any spills immediately.
- B. Concrete Residuals and Washout Wastes The following BMPs shall be implemented to control residual concrete, concrete sediments, and rinse water:
  - Temporary Concrete Washout Facilities shall be constructed for rinsing out concrete trucks. Signs shall be installed directing concrete truck drivers where designated washout facilities are located.
  - The contractor shall have the location of temporary concrete washout facilities approved by the resident engineer.
  - All temporary concrete washout facilities are to be inspected by the contractor after each use and all spills must be reported to the resident engineer and cleaned up immediately.
  - Concrete waste solids/liquids shall be disposed of properly.

- C. Litter Management A proper number of dumpsters shall be provided on site to handle debris and litter associated with the project. The Contractor is responsible for ensuring his/her employees place all litter including marking paint cans, soda cans, food wrappers, wood lathe, marking ribbon, construction string, and all other construction related litter in the proper dumpsters.
- D. Vehicle and Equipment Cleaning Vehicles and equipment are to be cleaned in designated areas only, preferably off site.
- E. Vehicle and Equipment Fueling A variety of BMPs can be implemented during fueling of vehicles and equipment to prevent pollution. The contractor shall inform the resident engineer as to which BMPs will be used on the project. The contractor shall inform the resident engineer how (s)he will be informing his/her employees of these BMPs (i.e. signs, training, etc.). Below are a few examples of these BMPs:
  - Containment
  - Spill Prevention and Control
  - Use of Drip Pans and Absorbents
  - Automatic Shut-Off Nozzles
  - Topping Off Restrictions
  - Leak Inspection and Repair
- F. Vehicle and Equipment Maintenance On site maintenance must be performed in accordance with all environmental laws such as proper storage and no dumping of old engine oil or other fluids on site.

#### VI. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of an Erosion and Sediment Control Deficiency Deduction against the contractor and/or penalties under the NPDES permit which could be passed onto the contractor.



County

Champaign

#### **Contractor Certification Statement**

their own separate form.

This certification statement is part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

Route FAU 7175 (Goodwin Avenue) Marked Rt. No

Section 07-00456-00-RS Project No. HSIP-5181(41)

Contract No. 91392

The Resident Engineer is to make copies of this form and every contractor and sub-contractor will be required to complete

(NPDES) permit (ILR 10) that authorizes the storm water construction site identified as part of this certification. I ha stated in the Storm Water Pollution Prevention Plan for the	of the general National Pollutant Discharge Elimination System discharges associated with industrial activity from the ave read and understand all of the information and requirements above mentioned project. I have provided all documentation ater Pollution Prevention Plan and will provide timely updates to
☐ Contractor	
☐ Sub-Contractor	
Print Name	Signature
Title	Date
Name of Firm	Telephone
Street Address	City/State/ZIP

#### CONSTRUCTION ON PRIVATE PROPERTY

Whenever excavation is made within a temporary construction easement or permanent easement on private property for sidewalks, retaining walls, drainage and utility work, or other construction, the topsoil disturbed by the excavation operations shall be restored as nearly as possible to its original position and the whole area involved in the construction operation shall be left in a neat and presentable condition.

The Contractor shall use reasonable care to avoid disturbing portions of private property not necessary to the construction operations. If, in the judgment of the Engineer, areas are disturbed unnecessarily, the Contractor shall restore these areas at his/her own expense. The Contractor shall not pile excavated material outside the limits of the right-of-way upon adjacent private property without the written consent of the property owner and the Engineer.

The cost of compliance with this Special Provision will not be paid for separately but shall be considered as included in the cost of the various removal pay items and no additional compensation will be allowed.

#### PRESERVING PROPERTY MARKERS

The Contractor shall locate the existing property corner markers along this section. Any such monuments unnecessarily destroyed by the Contractor's operations shall be replaced by a registered Illinois Land Surveyor at the Contractor's expense.

Any expense, inconveniences or delays caused the Contractor in complying with this Special Provision shall be considered as included in the cost of the various removal pay items and no additional compensation will be allowed.

#### **EXISTING TREES AND SHRUBS**

Existing trees and shrubs in the area of the project site shall be protected from damage unless indicated on the Plans to be removed. The Contractor shall install temporary fencing as directed by the Engineer. Once the fence is installed no construction activity or material will be allowed within the enclosure. The fence shall not be removed until approved by the Engineer.

The Contractor shall be liable for damages for trees and shrubs which were to have been protected as directed by the Engineer, unless such damages are determined by the Engineer to have been unavoidable. Such trees or shrubs shall immediately be repaired or replaced in accordance with Section 201.07 of the Standard Specifications.

The City of Urbana will perform all tree pruning to accommodate construction operations. If the Contractor encounters any limbs that will impede the progress of construction, the Contractor shall request the City to remove them. The Contractor shall not prune trees.

This work will not be paid for separately but shall be considered as included in the cost of the various removal pay items and no additional compensation will be allowed.

# REMOVAL OF UNCLASSIFIED MATERIALS

Debris or unclassified materials shall be removed at the locations shown on the plans or as designated by the Engineer. The material removed as required in this Special Provision shall be disposed of outside the limits of the right-of-way in accordance with Article 202.03 of the Standard Specifications and as directed by the Engineer. This work will not be paid for separately but shall be considered as included in the cost of the various removal pay items and no additional compensation will be allowed.

# STOCKPILE AREAS

Short-term stockpile of topsoil, backfill, and aggregate material will be allowed only where directed by the Engineer. Temporary stockpiles of materials shall not interfere with local and through traffic as described on the traffic control plans.

Stockpiles of materials shall not be allowed on private property (unless permission is granted by owner in writing) outside street rights-of-way; and shall not be allowed to block private driveways or sidewalks. Any grass area that is damaged by stockpiled material shall be repaired by either seeding or sodding as determined by the Engineer. These areas shall not be measured for payment and the Contractor shall repair them at his/her own expense.

#### HAND GRADING

Grading shall be done by hand around light poles, utility poles, sign posts, shrubs, trees or other natural or man-made objects where shallow fills or cuts are adjacent to the items. It is the intent that the limits of construction be such as to preserve in the original state as much of the adjacent area as possible. The decision as to items to remain in place shall be as directed by the Engineer. This work will not be paid for separately but shall be considered as included in the cost of the various removal pay items and no additional compensation will be allowed.

#### CUTTING EXISTING PAVEMENT, SIDEWALK, OR CURB AND GUTTER

At locations where it is necessary to cut asphalt surfaces, concrete pavement, concrete sidewalk, or concrete curb and gutter, where it will abut the proposed new construction, a uniformly straight cut shall be obtained by the use of a diamond concrete saw. The use of pneumatic tools to make these cuts will not be allowed. This work will not be paid for separately but shall be considered as included in the contract unit prices for the various pay items of the proposed construction involved and no additional compensation will be allowed.

# CURB AND GUTTER TRANSITIONS AND THICKNESS

Whenever it is necessary to make a smooth connection between the proposed curb and gutter and the existing curb and gutter the Contractor shall vary the horizontal and/or vertical dimensions of the proposed curb and gutter as directed by the Engineer. This work will not be paid for separately but shall be considered as included in the contract unit prices for the various curb and gutter pay items and no additional compensation will be allowed.

# EXISTING SEWERS AND DRAINAGE STRUCTURES TO BE PLUGGED

Where existing sewers are to be abandoned or removed as shown in the plans, or as directed by the Engineer, the abandoned sewers and drainage structure openings which remain shall be plugged with concrete or brick masonry plugs in a workmanlike manner and to the satisfaction of the Engineer. This work will not be paid for separately but shall be considered as included in the contract unit prices for the various storm sewer pay items and no additional compensation will be allowed.

# CONNECTING INTO EXISTING MANHOLES AND STORM SEWERS

At locations indicated in the plans, proposed storm sewers are to be connected into existing manholes or existing storm sewers. These connections shall be made by core drilling holes in the structures or pipes and constructing brick and masonry around the connections to prevent leakage. This work will not be paid for separately but shall be considered as included in the contract unit prices for storm sewers of the size and type specified, and no additional compensation will be allowed.

#### MANHOLE STEPS

The manhole steps required for proposed manholes shall be the plastic type as depicted on Highway Standard 602701. The cost of compliance with this Special Provision shall be included in the cost of the various manhole pay items and no additional compensation will be allowed.

#### EARTH EXCAVATION

All earth excavation necessary for the construction of the improvements shall be considered as included in the cost of the individual pay item requiring excavation. The Contractor, at his/her expense, shall dispose of all surplus excavation outside of the project limits at a location approved by the Engineer. The Contractor is encouraged to recycle any materials that can be recycled, such as concrete, asphalt concrete, and metals. The cost of all disposal and all excavation shall be included in the unit costs for each item of work encountered. No additional compensation will be allowed. No additional payment for overhaul will be allowed for the excavated material moved to or from any source.

# REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

# Description

This work shall consist of undercutting, removing, and disposing of unsuitable material below the proposed sub-base limits in accordance with Section 202 of the Standard Specifications and the following additions or exceptions.

The unsuitable material shall be removed at the locations determined by the Engineer. All unsuitable materials shall be disposed of off the site unless otherwise directed by the Engineer. The excavations below the sub-base limits shall be backfilled with Granular Embankment, Special as shown on the "Subgrade Removal and Replacement Detail" in the plans and as directed by the Engineer.

A quantity for Removal and Disposal of Unsuitable Material has been included in the plans for the purpose of establishing a unit bid price in case unsuitable materials are discovered. It is hereby understood that the City of Urbana reserves the right to delete any or all of this pay item from the contract. Should the City delete any or all of this pay item from the contract, the Contractor will not receive payment for the deleted item or for the reduction in quantities of Granular Embankment, Special and Geotechnical Fabric for Ground Stabilization.

# Measurement and Payment

This work will be measured for payment in accordance with Article 202.07(b) of the Standard Specifications and will be paid for at the contract unit price per cubic yard for REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL, which price shall include all labor, equipment, and material necessary to complete the work as specified. Backfilling the excavated areas with Granular Embankment, Special will be paid for separately.

#### GRANULAR EMBANKMENT, SPECIAL

#### Description

This work shall consist of placing a granular material as fill in areas where unsuitable material has been removed as shown on the "Subgrade Removal and Replacement Detail" in the plans and as directed by the Engineer. This work shall be performed in accordance with Sections 207 and 210 of the Standard Specifications.

# Materials

The granular material shall be in accordance with Article 1004.04 of the Standard Specifications except that the material gradation shall meet the following requirements:

Sieve Size	Percent Passing*		Sieve Size	Percent Passing*
6 inch	100		6 inch	100
4 inch	85 <u>+</u> 15		4 inch	85 <u>+</u> 15
2 inch	60 <u>+</u> 20	or	2 inch	45 <u>+</u> 25
1 inch	45 <u>+</u> 20		1 inch	10 <u>+</u> 10
#4	20 <u>+</u> 10		#200	2 <u>+</u> 2
#200	5+5			

<sup>\*</sup>A dry gradation will be required to verify the #200 sieve specification.

# Construction Requirements

The material shall be placed in two lifts with a maximum lift thickness of 9 inches. A vibratory roller meeting the requirements of Article 1101.01 of the Standard Specifications shall be used to compact each lift of material to the satisfaction of the Engineer.

A quantity for Granular Embankment, Special has been included in the plans for the purpose of establishing a unit bid price in case unsuitable materials are discovered. It is hereby understood that the City of Urbana reserves the right to delete any or all of this pay item from the contract. Should the City delete any or all of this pay item from the contract, the Contractor will not receive payment for the deleted item or for the reduction in quantities of Removal and Disposal of Unsuitable Material and Geotechnical Fabric for Ground Stabilization.

#### Basis of Payment

This work will be paid for at the contract unit price per ton for GRANULAR EMBANKMENT, SPECIAL, which price shall include all labor, equipment, and material necessary to complete the work as specified.

TOPSOIL SEEDING MULCH

#### Description

This work shall consist of preparing the seedbed and furnishing, transporting, and placing the topsoil, seed, and mulch as required in the seeding operations. The areas for seeding and mulching shall be any areas disturbed beyond the existing condition by the Contractor's construction operations. This work shall be performed in accordance with Sections 211, 250, and 251 of the Standard Specifications and the following additions or exceptions.

#### Materials

All materials shall meet the requirements of Sections 211 and 250 of the Standard Specifications.

Topsoil shall be fertile, friable, natural black sandy loam, surface soil reasonably free of subsoil, roots, stumps, stones larger than 1 inch in any dimension and any other extraneous or toxic matter harmful to plant growth. Topsoil shall have a pH value range of 5.5 to 7.0 and shall be approved by the Engineer.

Seeding shall be Class 1 lawn mixture Kentucky Bluegrass 100 pounds per acre, Perennial Rye Grass 60 pounds per acre and Creeping Red Fescue 40 pounds per acre. The acceptable period for planting shall be in accordance with the Standard Specifications.

The mulch mixture shall be Penn Mulch with starter fertilizer blended in, spread at the application rate recommended by the manufacturer so as to promote and replicate the following:

- 1. Immediate germination and rapid root development without burning.
- 2. Expand and provide soil surface coverage to promote young seedling establishment and greatly reduce soil erosion.

The seed enhancing mulch mixture should be watered immediately following application to sufficiently make the mulch expand as designed.

For non-seeded areas that are shown on the plans to be mulched, shredded tree bark mulch shall be used in accordance with Article 1081.06(b) of the Standard Specifications and as directed by the Engineer. Furnishing and placing the shredded tree bark mulch shall be included in the cost of the Mulch, Special, and no additional compensation will be allowed.

# Construction Requirements

The Contractor shall place a minimum of 6 inches of topsoil in all areas to be seeded and mulched.

To prevent erosion and to satisfy the requirements of the NPDES permit, seeding and mulching should be completed in conjunction with each separate stage of the project. The Contractor will be responsible for the seeded areas until they are fully established which may require reseeding of any bare areas and placing additional mulch until seed growth is established. The Contractor shall maintain the seeded areas until such time as the requirements of the NPDES permit are satisfied and the permit is terminated.

The Contractor shall make every effort to assure grass is established in the turf restoration areas. Five supplemental waterings shall be applied under this contract as directed by the Engineer. One application of water will be required every two days or as directed by the Engineer. Depending upon weather conditions, more or fewer supplemental waterings may be necessary. Water shall be applied at the rate of two gallons per square yard per application or as directed by the Engineer. All watering described shall be done with a spray application. An open end hose will not be acceptable. The

method of watering shall meet the approval of the Engineer. During periods exceeding 80°F or subnormal rainfall, additional watering may be required to assure establishment. If the seed has not been established to the satisfaction of the Engineer, reseeding will be required at the Contractor's expense.

# Method of Measurement

This work will be measured for payment in accordance with Articles 211.07, 250.09, and 251.05 of the Standard Specifications, except that the areas shall be computed in square yards. Supplemental watering will be measured for payment in units of 1000 gallons of water applied on the seeded areas. Shredded tree bark mulch will not be measured for payment.

# Basis of Payment

This work will be paid for at the contract unit price per square yard for TOPSOIL FURNISH AND PLACE, of the thickness specified; at the contract unit price per square yard for SEEDING, CLASS 1, SPECIAL; and at the contract unit price per square yard for MULCH, SPECIAL, which prices shall include all labor, equipment, and material necessary to complete the work as specified.

Any additional seeding and mulch required for bare areas after the initial seeding and mulching will not be paid for separately, but will be included in the cost of the seeding and mulch pay items.

The Contractor is advised that payment for seeding and mulch will be made for only those areas which were necessarily disturbed by construction operations as determined by the Engineer. Turf areas which are unnecessarily disturbed by construction operations shall be repaired with sod as directed by the Engineer and at the Contractor's expense.

Supplemental watering will be paid for at the contract unit price per unit for SUPPLEMENTAL WATERING. Shredded tree bark mulch will not be paid for separately.

#### SODDING

#### SUPPLEMENTAL WATERING

# Description

This work shall consist of preparing the ground surface and furnishing and placing sod and other materials required in the sodding operations in accordance with Section 252 of the Standard Specifications and the following additions or exceptions.

Sod shall be placed at the locations shown on the plans. Fertilizer nutrients shall be applied in accordance with Article 252.03 of the Standard Specifications. Sod shall be watered in accordance with Articles 252.08 and 252.09 of the Standard Specifications and as directed by the Engineer.

Five supplemental waterings shall be applied under this contract as directed by the Engineer. One application of water will be required every two days or as directed by the Engineer. Depending upon weather conditions, more or fewer supplemental waterings may be necessary. Water shall be applied at

the rate of two gallons per square yard per application or as directed by the Engineer. All watering described shall be done with a spray application. An open end hose will not be acceptable. The method of watering shall meet the approval of the Engineer.

# Method of Measurement

This work will be measured for payment in accordance with Article 252.12 of the Standard Specifications. Fertilizer will not be measured for payment. Supplemental watering will be measured for payment in units of 1000 gallons of water applied on the sodded areas. Sod used to repair areas which are unnecessarily disturbed by construction operations will not be measured for payment.

# Basis of Payment

This work will be paid for at the contract unit price per square yard for SODDING, which price shall include all labor, equipment, and material necessary to complete the work as specified. Supplemental watering will be paid for at the contract unit price per unit for SUPPLEMENTAL WATERING. Fertilizer will not be paid for separately.

#### AGGREGATE BASE COURSE

# Description

This work shall consist of furnishing and placing Type B aggregate base course in accordance with Section 351 of the Standard Specifications and the following additions or exceptions.

Aggregate base course shall be used to fill the voids under proposed sidewalks that were created by removal of the existing pavement. Aggregate base course shall also be used under brick paver sidewalks at the locations where a concrete base is not used. Aggregate base course may be used at other locations as directed by the Engineer.

#### Method of Measurement

This work will be measured for payment in accordance with Article 351.11 of the Standard Specifications.

# Basis of Payment

This work will be paid for at the contract unit price per ton for AGGREGATE BASE COURSE, TYPE B, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# PORTLAND CEMENT CONCRETE BASE COURSE

# Description

This work shall consist of constructing a portland cement concrete base course in accordance with Section 353 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

Portland cement concrete base course shall be placed so that the concrete base course depth is 8 inches thick after milling. Therefore, if the Contractor chooses to construct the concrete base course prior to milling, then the Contractor shall fill in the void between the top surface of the concrete base course and the top surface of the existing asphalt with incidental hot-mix asphalt surfacing in accordance with Section 408 of the Standard Specifications and as directed by the Engineer.

High-early-strength concrete shall be used at the locations shown on the plans or as directed by the Engineer. The concrete mix used for construction of high-early-strength concrete base course shall be an IDOT approved Class PV mix in accordance with Section 1020 of the Standard Specifications and shall include the use of Type III high-early-strength portland cement, a rich mix of Type I portland cement, or a concrete mixture containing an accelerator approved by the Engineer. The concrete mix shall obtain a compressive strength of 3,500 psi at 72 hours.

# Method of Measurement

This work will be measured for payment in accordance with Article 353.12 of the Standard Specifications.

# Basis of Payment

This work will be paid for at the contract unit price per square yard for PORTLAND CEMENT CONCRETE BASE COURSE 8", which price shall include all labor, equipment, and material necessary to complete the work as specified. No additional compensation will be allowed for the use of high-early-strength concrete.

Incidental hot-mix asphalt surfacing will be paid for separately.

#### AGGREGATE FOR TEMPORARY ACCESS

#### Description

This work shall consist of furnishing and placing Type B aggregate surface course in accordance with Section 402 of the Standard Specifications and the following additions or exceptions.

The aggregate surface course shall be used as required by the Traffic Control Plan and as directed by the Engineer. The aggregate material shall also be used at the locations shown in the plans where aggregate surface course is to be provided.

#### Method of Measurement

This work will be measured for payment in accordance with Article 402.12 of the Standard Specifications.

#### Basis of Payment

This work will be paid for at the contract unit price per ton for AGGREGATE FOR TEMPORARY ACCESS, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# INCIDENTAL HOT-MIX ASPHALT SURFACING

# Description

This work shall consist of constructing a temporary hot-mix asphalt surface in accordance with Section 408 of the Standard Specifications and the following additions or exceptions.

If the Contractor chooses to construct the proposed concrete base course and the proposed concrete pavement patches prior to milling, then the Contractor shall fill in the void between the top surface of the proposed concrete and the top surface of the existing asphalt with incidental hot-mix asphalt surfacing.

Incidental hot-mix asphalt surfacing shall also be used at proposed drainage structures within the pavement area as described in the Special Provision for Restricted Depth Manholes and Restricted Depth Inlets.

Bituminous priming material will not be required for the temporary hot-mix asphalt surface.

# Method of Measurement

This work will be measured for payment in accordance with Article 408.04 of the Standard Specifications.

# Basis of Payment

This work will be paid for at the contract unit price per ton for INCIDENTAL HOT-MIX ASPHALT SURFACING, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# PORTLAND CEMENT CONCRETE SIDEWALK

**DETECTABLE WARNINGS** 

PORTLAND CEMENT CONCRETE SIDEWALK CURB

#### Description

This work shall consist of construction of portland cement concrete sidewalk, sidewalk curb ramps, and sidewalk curb, including detectable warnings, curbs on ramps, and monolithic sidewalk curb. This work shall be performed in accordance with Section 424 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

# Materials

The concrete mix used for this work shall be an IDOT approved Class SI mix for sidewalk in accordance with Section 1020 of the Standard Specifications.

High-early-strength concrete shall be used at the locations shown on the plans or as directed by the Engineer. The concrete mix used for construction of high-early-strength concrete sidewalk shall be an IDOT approved Class SI mix in accordance with Section 1020 of the Standard Specifications and

shall include the use of Type III high-early-strength portland cement, a rich mix of Type I portland cement, or a concrete mixture containing an accelerator approved by the Engineer. The concrete mix shall obtain a compressive strength of 3,500 psi at 72 hours.

The reinforcement bars used in the portland cement concrete sidewalk curb shall be in accordance with Article 1006.10 of the Standard Specifications.

Detectable warnings shall meet the requirements of Article 424.09 of the Standard Specifications and the details of Highway Standard 424001. Provide documentation for the detectable warnings as required by Article 424.09 of the Standard Specifications. Detectable warning surfaces shall be dark red to contrast visually with the adjacent light concrete walking surfaces. Submit color samples of detectable warning surfaces for approval by the Engineer.

Detectable warning surfaces shall be clay brick pavers, concrete pavers, or ceramic composite panels. Clay brick pavers shall be 8" x 4" x 2-1/4" detectable warning paver bricks as manufactured by Whitacre Greer, or equivalent. Clay brick pavers shall be supplied with spacer bars "lugs" on each unit. Concrete pavers shall be 7-13/16" x 3-7/8" x 2-3/8" detectable warning pavers as manufactured by Pavestone, or equivalent. Concrete pavers shall be supplied with spacer bars on each unit to insure a minimum joint width between each unit into which sand is placed. Ceramic composite panels shall be 2" x 2" EZ-Set Polymer Concrete Panels with anchoring fasteners as manufactured by Detectable Warning Systems of Orange, California, or equivalent.

# Construction Requirements

General: Sidewalks and curb ramps shall be a minimum of 6 inches thick and shall be the width indicated on the plans. Cross slopes shall be 2% maximum, unless existing conditions prohibit.

Concrete for sidewalk construction shall be vibrated with a mechanical concrete vibrator at the time of placement.

Sidewalks shall be edged with a standard 1/4 inch radius edger, including adjacent to castings, valves and expansion material. Contraction joints shall be hand grooved with a standard 1/4 inch radius jointer. Contraction joints shall extend to 1/4 the depth of the sidewalk, shall not be less than 1/8 inch or more than 1/4 inch in width, and shall be edged with an edging tool having a 1/4 inch radius. Joint spacing shall be the same as the sidewalk width unless otherwise directed by the Engineer. The maximum joint spacing shall be 10' unless otherwise directed by the Engineer.

After the water sheen has disappeared, the surface shall be given a final finish by brushing with a concrete finish broom. The brush shall be drawn across the sidewalk at right angles to the edges of the walk, with adjacent strokes slightly overlapping, producing a uniform, slightly roughened surface with parallel brush marks.

Sidewalks shall be cured using an approved curing compound or polyethylene film. Concrete curing materials shall be in accordance with Section 1022 of the Standard Specifications. Sidewalks shall be properly protected during hot weather and cold weather conditions.

Forms shall not be removed for 24 hours. Care should be exercised when removing forms so that concrete edges are not cracked or damaged. Immediately after forms are removed, all visible voids and honeycombs shall be filled in with mortar or grout and brushed smooth.

Backfill shall be placed against the sides of the sidewalk immediately after removal of forms and curing of sidewalk. The area adjacent to the sidewalks shall be graded and cleaned up as soon as possible. The Contractor shall remove all debris resulting from construction from the site.

Six inch wide monolithic curb shall be constructed with the sidewalks at the locations shown on the plans or as directed by the Engineer. The height of the curb shall be as shown on the plans.

Portland Cement Concrete Sidewalk Curb: The reinforced concrete sidewalk curb shall be constructed in accordance with the details in the plans. The sidewalk curb may be poured monolithically with the sidewalk. The sidewalk curb will be measured and paid for separately.

Curb Ramps: Curb ramps shall be constructed according to the Americans with Disabilities Act Accessibility Guidelines (ADAAG), the Illinois Accessibility Code, and as shown on the plans. The maximum running slope of the ramp shall be 8.3%. The maximum cross slope shall be 2%, unless existing conditions prohibit. A "landing" shall be provided at the top of each ramp with a maximum cross slope of 1.5%, or as otherwise shown on the plans, for turning or bypassing the ramp. The maximum running slope of sidewalk that precedes a curb ramp shall be 5%.

The forms for all ramps shall be checked in the field by the Engineer prior to pouring the ramp.

Curb ramps may require a curb poured monolithically along the back or sides of the ramp or a raised curb island poured monolithically between the ramps. Curbs or curb islands shall be constructed at the locations shown on the plans or as directed by the Engineer. If a curb or curb island is required, the curb or curb island will be paid for per square foot as part of the sidewalk, unless otherwise called out on the plans.

Detectable Warnings: Detectable warning surfaces shall be provided at the locations shown on the plans.

The detectable warning surface shall extend 24 inches minimum in the direction of travel and the full width of the curb ramp, landing, or blended transition. The installation shall be an integral part of the walking surface and only the actual domes shall project above the walking surface.

Truncated domes shall be aligned on a square grid aligned in rows parallel and perpendicular to the predominant direction of travel to permit rolling of wheels between the domes. Domes shall not be skewed diagonally to the direction of travel.

The portland cement concrete sidewalk below clay brick pavers or concrete pavers shall be cured using polyethylene sheeting only; curing compound shall not be allowed. The surface of the

sidewalk below the pavers shall be rough textured. The sidewalk below the pavers shall have a minimum thickness of six inches. The Contractor shall provide a 2" diameter PVC pipe through the sidewalk at the lowest corner below the pavers for drainage.

The portland cement concrete sidewalk below ceramic composite panels shall have a minimum thickness of six inches.

#### Method of Measurement

Portland cement concrete sidewalk and curb ramps will be measured for payment in place, and the area computed in square feet. Portland cement concrete sidewalk construction will be measured through the detectable warning surface where the sidewalk is constructed as a base for the detectable warning area. No deduction will be made for detectable warnings located within a curb ramp.

Detectable warnings will be measured for payment in place, and the area computed in square feet.

Portland cement concrete sidewalk curb will be measured for payment in place in feet along the face of the curb wall.

#### Basis of Payment

Portland cement concrete sidewalk will be paid for at the contract unit price per square foot for PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH, which price shall include installing all necessary joints and constructing the sidewalk and curb ramps as specified, including curbs along the ramps, 6" wide monolithic curb along the sidewalks, and curb islands between the ramps. No additional compensation will be allowed for the use of high-early-strength concrete.

Detectable warnings will be paid for at the contract unit price per square foot for DETECTABLE WARNINGS, which price shall include all labor, equipment, and material necessary to complete the work as specified.

Portland cement concrete sidewalk curb will be paid for at the contract unit price per foot for PORTLAND CEMENT CONCRETE SIDEWALK CURB, which price shall include all labor, equipment, and material necessary to complete the work as specified, including all reinforcement bars.

#### PAVEMENT REMOVAL

#### Description

This work shall consist of the complete removal of existing pavement in accordance with Section 440 of the Standard Specifications and the following additions or exceptions.

Pavement removal shall be defined as portland cement concrete, HMA, or brick pavement and shall include portland cement concrete, HMA, or brick bases and HMA overlays. Materials resulting from the removal of existing pavement and appurtenances shall be disposed of in accordance with Article 202.03 of the Standard Specifications.

# Measurement and Payment

This work will be measured for payment in accordance with Article 440.07 of the Standard Specifications and will be paid for at the contract unit price per square yard for PAVEMENT REMOVAL, which price shall include all labor, equipment, and material necessary to complete the work as specified.

No additional compensation will be allowed for pavement removal due to variations in the existing pavement type, thickness, or amount of reinforcement. The adjustment of quantities as specified in Article 440.07(c) of the Standard Specifications shall not apply.

# HOT-MIX ASPHALT SURFACE REMOVAL

# Description

This work shall consist of the removal and disposal of hot-mix asphalt surfaces in preparation for subsequent resurfacing in accordance with Section 440 of the Standard Specifications and the following additions or exceptions.

If the Contractor elects not to pave the day after the milling operation for a particular street, no additional compensation will be allowed for cleaning and sweeping prior to resurfacing.

# Method of Measurement

The area milled will be measured for payment in place and the area computed in square yards.

# Basis of Payment

This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT SURFACE REMOVAL, of the thickness specified, which price shall include all labor, equipment, and material necessary to complete the work as specified.

#### CLASS B PATCHES

#### Description

This work shall consist of the removal of the existing pavement, the necessary excavation, and the replacement with the class and type of patch specified at designated locations. This work shall be performed in accordance with Section 442 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

#### Materials

Materials shall meet the requirements of Section 442.02 of the Standard Specifications.

The concrete mix used for construction of all portland cement concrete patching shall be an IDOT approved Class PP-4 mix in accordance with Section 1020 of the Standard Specifications. The concrete mix shall obtain a compressive strength of 3,200 psi at 8 hours.

The concrete mix shall exhibit the following minimum strength parameters:

Property	<u>Value</u>	<u>Time</u>
Compressive strength	3,200 psi	8 hours
	or	
Flexural strength	600 psi	8 hours

Completed work comprised of concrete that fails to meet the specified minimum strength requirements shall be paid for at a rate less than the established contract unit prices. The City is paying a premium for high-early-strength concrete and will not pay that premium when the material fails to perform as specified.

The payment rates shall be determined from the following equation:

$$R = U * \{(C_1 + C_2 + ... + C_n) / (3,200 * n)\}$$

(Note: If flexural strength is used, substitute 600 for 3,200)

Where:

R = Reduced Rate of Payment

U = Unit Bid Price Established in the Contract Documents for Pay Item in Question

C = Compressive Strength (Flexural Strength) of Individual Test Specimen at 8 Hours

n = Number of Test Specimens

The calculated payment rate shall be used only for that portion of the work represented by the test specimens. The Engineer shall keep detailed records of the locations where test specimens were obtained, and the quantities of work completed in conjunction with that days concrete pour. In no case shall the rate of payment exceed the Contract Unit Price.

The concrete shall ultimately reach a strength of 3,500 psi at 14 days. Any concrete that does not meet the final strength of 3,500 at 14 days shall be removed and replaced by the Contractor at no expense to the City.

# Construction Requirements

The limits of pavement removal shall extend to the depth required for the installation of the 4" granular sub-base, the pavement patch, and the hot-mix asphalt binder and/or surface courses. Pavement removal shall include the complete removal of all existing materials including portland cement concrete, hot-mix asphalt, brick, and aggregate.

Patches over 20' long shall have longitudinal construction joints in accordance with Article 442.06(a)(2) of the Standard Specifications and transverse contraction joints in accordance with Article 442.06(a)(2)(a) of the Standard Specifications unless otherwise directed by the Engineer.

Pavement fabric shall not be required for Type III or Type IV patches. Epoxy coating on dowel bars and tie bars shall not be required.

Pavement patches shall be placed so that the concrete patch depth is 8 inches thick after milling. Therefore, if the Contractor chooses to patch prior to milling, then the Contractor shall fill in the void between the top surface of the pavement patch and the top surface of the existing asphalt with incidental hot-mix asphalt surfacing in accordance with Section 408 of the Standard Specifications and as directed by the Engineer.

It is necessary to protect patches from people who would drive or park on the concrete before it has achieved its strength. To protect the concrete, barricades should be placed around the patch and a continuous strip of plastic ribbon or other marking line should be placed. The intent is to communicate as clearly as possible that people should not drive or park on the new concrete surface.

# Method of Measurement

Pavement patching will be measured for payment in place, and the area computed in square yards.

#### Basis of Payment

This work will be paid for at the contract unit price for CLASS B PATCHES, of the type and thickness specified, which price shall include all labor, equipment, and material necessary to complete the work as specified, including all saw cutting, removal and disposal of existing material, dowel bars, tie bars, joint material, and joint sealing.

Sub-base granular material, incidental hot-mix asphalt surfacing, and hot-mix asphalt binder and/or surface courses will be paid for separately.

# CONCRETE COLLAR

#### Description

This work shall consist of constructing concrete collars around joints of pipes where the pipes being joined are of different diameters or types of materials. The concrete collars shall be as shown on the detail in the plans and shall be constructed with Class SI concrete in accordance with Section 1020 of the Standard Specifications. The excavation and backfilling shall be as specified for the associated pipe installation.

# Measurement and Payment

This work will be measured for payment as individual items and will be paid for at the contract unit price each for CONCRETE COLLAR, which price shall include all labor, equipment and material necessary to complete the work as specified.

#### CONTROLLED LOW-STRENGTH MATERIAL

# Description

This work shall consist of furnishing and placing controlled low-strength material (CLSM) for backfilling trenches in accordance with Section 593 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

CLSM shall be used to backfill excavations for storm or sanitary sewer construction and storm or sanitary sewer removal at the locations shown in the plans and as directed by the Engineer. CLSM shall be used in place of the sand backfill specified in Article 602.12 of the Standard Specifications to backfill around manholes and inlets at the locations shown in the plans and as directed by the Engineer. CLSM shall be used in place of the sand backfill specified in Article 605.03 of the Standard Specifications to backfill excavations for manhole or inlet removal at the locations shown in the plans and as directed by the Engineer. CLSM shall be used in place of the sand backfill specified in Article 605.04 of the Standard Specifications to fill existing manholes or inlets to be abandoned at the locations shown in the plans and as directed by the Engineer.

#### Measurement and Payment

The CLSM used to backfill around manholes or inlets will not be measured for payment but shall be included in the cost of the specified manhole or inlet in accordance with Article 602.12 of the Standard Specifications.

The CLSM used to backfill excavations for manhole or inlet removal will not be measured for payment but shall be included in the cost of the specified manhole or inlet to be removed in accordance with Article 605.03 of the Standard Specifications.

The CLSM used to fill existing manholes or inlets to be abandoned will not be measured for payment but shall be included in the cost of the specified manhole or inlet to be abandoned and filled in accordance with Article 605.04 of the Standard Specifications.

The CLSM used to backfill excavations for storm or sanitary sewer construction and storm or sanitary sewer removal will be measured for payment in accordance with Article 593.05 of the Standard Specifications and will be paid for at the contract unit price per cubic yard for CONTROLLED LOW-STRENGTH MATERIAL, which price shall include all labor, equipment, and material necessary to complete the work as specified.

RESTRICTED DEPTH MANHOLES
MANHOLES, SPECIAL
INLETS
RESTRICTED DEPTH INLETS

#### **Description**

This work shall consist of constructing manholes, conflict manholes, and inlets with frames and grates or lids in accordance with Section 602 of the Standard Specifications; the details of Highway Standards 602301, 602306, 602401, 602601, 602701, 604001, 604036, and 604051; the details in the plans; and the following additions or exceptions.

Restricted depth manholes, conflict manholes, and restricted depth inlets shall be constructed of precast units and shall have precast reinforced concrete flat slab tops. Inlets shall be constructed of precast units. All manholes shall be Type A.

The conflict manhole shall have an inside diameter of five feet.

All 24-inch diameter precast concrete adjusting rings required to achieve the top-of-frame elevations as shown on the plans shall be included in the cost of the structure.

# Frames and Grates or Lids

Frames and grates or lids shall be furnished unpainted. Furnishing and installing the frame and grate or lid shall be included in the cost of the structure.

All new Type 11 frame and grate curb boxes shall have an educational message cast directly into the structure, with no additional compensation allowed for complying with this Special Provision. Acceptable messages include any of the following or an approved equivalent:

1. DUMP NO WASTE < fish icon > DRAINS TO RIVER, STREAM, or WATERWAY

Type 11 frames and grates shall be furnished with open curb boxes.

The special frame and grate shall be Neenah Foundry No. R-3305 or approved equal and shall be installed at the location shown on the plans.

# Backfilling

The structure shall be backfilled in accordance with Article 602.12 of the Standard Specifications except that controlled low-strength material shall be used for the backfill material in accordance with Article 593.04 of the Standard Specifications. The structure shall be backfilled to the bottom elevation of the proposed sub-base granular material. Backfilling the structure with controlled low-strength material shall be included in the cost of the structure.

#### Structures in Pavement Areas

For structures in pavement areas with closed lids, the adjusting rings and frames and lids shall not be placed until after the resurfacing. The Contractor shall be responsible for locating the structures after they have been overlaid. The opening in the precast reinforced concrete flat slab top shall be covered with a steel plate. An area measuring 5 feet by 5 feet shall be blocked out around the structure prior to the placement of the portland cement concrete base course. This area shall be filled to the top of the existing asphalt surface with a temporary pavement patch consisting of Type B aggregate base course and 6" of incidental hot-mix asphalt surfacing as shown on the detail in the plans.

Once the resurfacing is complete, the temporary pavement patch and steel plate shall be removed, and the entire casting shall be adjusted to grade in accordance with the Special Provision for Manholes to be Adjusted and Inlets to be Adjusted. This work shall be included in the cost of the structure and no additional compensation will be allowed.

#### Basis of Payment

This work will be paid for at the contract unit price each for RESTRICTED DEPTH MANHOLES; MANHOLES, SPECIAL; INLETS; or RESTRICTED DEPTH INLETS, of the type or diameter specified, and with the type of frame and grate or lid specified, which prices shall include all labor, equipment, and material necessary to complete the work as specified, including all excavation, backfill with controlled low-strength material, flat slab tops, adjusting rings, manhole steps, and frames and grates or lids.

For structures in pavement areas with closed lids, furnishing and installing the steel plate, removing the temporary pavement patch and steel plate, adjusting the casting to grade, and furnishing and placing the Class SI concrete with integral black coloring around the casting shall also be included in the cost of the structure. The Type B aggregate base course and incidental hot-mix asphalt surfacing used for the temporary pavement patch will be paid for separately.

The sanitary sewer required for the conflict manhole will be paid for separately.

MANHOLES TO BE ADJUSTED

MANHOLES TO BE RECONSTRUCTED

SANITARY MANHOLES TO BE ADJUSTED

SANITARY MANHOLES TO BE RECONSTRUCTED

INLETS TO BE ADJUSTED

VALVE BOXES TO BE ADJUSTED

FRAMES AND GRATES TO BE ADJUSTED

# Description

This work shall consist of adjusting or reconstructing manholes, inlets, or valve boxes in accordance with Section 603 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

# Frames and Grates or Lids

Frames and grates or lids shall be furnished unpainted. Furnishing and installing the frame and grate or lid shall be included in the cost of the structure adjustment or reconstruction.

Frames and grates or lids shall meet the requirements of Highway Standards 604001 and 604051. For sanitary manholes, Type 1 sealed frames and lids shall be Neenah Foundry No. R-1713 with Type B self-sealing lids with "SANITARY" cast into the lids, or approved equal.

All new Type 11 frame and grate curb boxes shall have an educational message cast directly into the structure, with no additional compensation allowed for complying with this Special Provision. Acceptable messages include any of the following or an approved equivalent:

1. DUMP NO WASTE <fish icon> DRAINS TO RIVER, STREAM, or WATERWAY

Type 11 frames and grates shall be furnished with open curb boxes.

# Construction Requirements

The Contractor shall reuse the existing casting frame and grate or lid or, if indicated, remove the frame and grate or lid, dispose of them, and provide a new frame and grate or lid. Manholes to be reconstructed shall receive new concrete adjusting rings or precast reinforced concrete cone sections as shown on the plans.

Manhole frames and lids, utility frames and lids, and valve box frames for structures within the pavement area shall be adjusted to grade after resurfacing. The Contractor shall be responsible for locating the frames and lids after they have been overlaid. Frames and lids that are overlaid shall not remain covered for more than 10 working days before they are exposed for adjustment.

The entire casting shall be adjusted to grade. For structures within the pavement area, an area of pavement measuring 5 feet by 5 feet for manholes and 2 feet by 2 feet for valve boxes shall be saw cut full-depth and removed around the casting. The base shall be removed to the bottom of the pavement or 8 inches, whichever is greater, and shall be compacted to the satisfaction of the Engineer.

Once the frame and lid have been removed, the Contractor shall clean the top of the manhole barrel section so that a smooth and clean surface remains to apply a mortar layer. When the top of the barrel section has been cleaned to the satisfaction of the Engineer, the Contractor shall apply a layer of mortar around the entire width and circumference of the top of the barrel section. The mortar shall be of sufficient thickness to completely seal any gaps between the bottom of the new frame and the top of the barrel section. The minimum mortar thickness shall be one-half inch.

Once the mortar has been applied, the Contractor shall reset the existing frame or install a new frame on the top of the barrel section in such a manner that the mortar shall completely seal the joint between the frame casting and the barrel section. The casting shall be adjusted to finish grade. The Contractor shall set the existing lid or the new lid inside the frame.

The Contractor shall allow the mortar to cure before beginning backfill and pavement placement operations. Any loss of seal or displacement of the frame casting caused by backfilling or pavement placement shall be repaired at the Contractor's expense.

For structures within the pavement area, the Contractor shall place Class SI concrete around the casting and strike it off at finish grade. The concrete shall have an integral black coloring to blend with the adjacent hot-mix asphalt surfacing.

For structures to be reconstructed, this work shall include the structures identified on the plans to be adjusted to grade with new concrete adjusting rings and/or concrete cone sections.

The unused materials resulting from the construction as herein specified shall be disposed of in a licensed landfill, recycled, reused or otherwise disposed of as allowed by State or Federal solid waste disposal laws and regulations and solid waste determinations of the IEPA. The Contractor is strongly encouraged to recycle or reuse the removed material.

The following pay items shall be used for the adjustment or reconstruction of structures within the pavement area and shall include the saw cutting, pavement removal, and Class SI black colored concrete:

Manholes to be Adjusted (Special);

Manholes to be Adjusted with New Type 1 Frame, Closed Lid;

Manholes to be Reconstructed;

Manholes to be Reconstructed with New Type 1 Frame, Closed Lid;

Sanitary Manholes to be Adjusted with New Type 1 Frame, Closed Lid;

Sanitary Manholes to be Reconstructed;

Sanitary Manholes to be Reconstructed with New Frame and Lid; and

Valve Boxes to be Adjusted (Special).

At the locations shown in the plans, the concrete adjacent to valve boxes shall be stamped with the legends indicated. The size of the legend shall match the size of the existing legend. This work will not be paid for separately but shall be included in the cost of the valve box adjustment.

#### Basis of Payment

This work will be paid for at the contract unit price each for MANHOLES TO BE ADJUSTED; MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID; MANHOLES TO BE ADJUSTED WITH NEW TYPE 11 FRAME AND GRATE; MANHOLES TO BE RECONSTRUCTED; MANHOLES TO BE RECONSTRUCTED WITH NEW TYPE 1 FRAME, CLOSED LID; SANITARY MANHOLES TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID; SANITARY MANHOLES TO BE RECONSTRUCTED; SANITARY MANHOLES TO BE RECONSTRUCTED WITH NEW FRAME AND LID; INLETS TO BE ADJUSTED; INLETS TO BE ADJUSTED WITH NEW TYPE 1 FRAME, CLOSED LID; INLETS TO BE ADJUSTED WITH NEW TYPE 1 FRAME AND GRATE; VALVE BOXES TO BE ADJUSTED; VALVE BOXES TO BE ADJUSTED (SPECIAL); and FRAMES AND LIDS TO BE ADJUSTED (SPECIAL); which prices shall include all labor, equipment, and material necessary to complete the work as specified.

# REMOVING MANHOLES REMOVING INLETS FILLING MANHOLES

#### Description

This work shall consist of removing or filling existing manholes and inlets in accordance with Section 605 of the Standard Specifications and the following additions or exceptions.

# Construction Requirements

Existing manholes and inlets designated to be removed shall be removed for the full depth of structure. The ends of the pipes that are not designated to be removed shall be sealed with Class SI concrete or brick and mortar. After the concrete or mortar has set, the hole formed by the removal of the structure shall be backfilled with controlled low-strength material. The controlled low-strength material will not be paid for separately.

Removal and disposal items for this work include but are not limited to the pavement, frame grate or lid assembly, the structure walls, the structure invert, and backfill material that surrounds the structure and is within the horizontal limits of excavation necessary to remove the structure.

When a new structure is to be installed at the location of an existing structure, the Contractor shall saw cut and remove a section of the pavement large enough to remove the existing structure and install the new structure. The Contractor shall then excavate down to the elevation necessary to place the new structure. The cost of pavement removal and any excavation below the pavement shall be included in the cost of these pay items and will not be paid for separately.

The Contractor shall be responsible for maintaining the flow in the structures during removal operations. Any procedures used to maintain the flow shall be included in the cost of these pay items and will not be paid for separately.

During removal operations, the Contractor shall take care so as to not damage any incoming pipes that enter the structure. Any damage to the incoming pipes shall be repaired at the Contractor's expense and to the satisfaction of the Engineer.

The work for structures to be abandoned and filled shall be performed in accordance with Article 605.04 of the Standard Specifications, except that the existing structure shall be filled with controlled low-strength material. The controlled low-strength material will not be paid for separately.

The materials resulting from the removal of the existing structure shall be disposed of in a licensed landfill, recycled, reused, or otherwise disposed of as allowed by State or Federal solid waste disposal laws and regulations and solid waste determinations of the IEPA. The Contractor is strongly encouraged to recycle or reuse the removed material.

#### Basis of Payment

This work will be paid for at the contract unit price each for REMOVING MANHOLES, REMOVING INLETS, or ABANDON AND FILL EXISTING SANITARY MANHOLE, which prices shall include all labor, equipment, and material necessary to complete the work as specified. Controlled low-strength material will not be paid for separately but shall be included in the cost of removing or filling the structure.

# CONCRETE CURB (SPECIAL)

# Description

This work shall consist of constructing reinforced concrete curb in accordance with Section 606 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The reinforced concrete curb shall be constructed in accordance with the details in the plans. The reinforcement bars shall be included in the cost of the concrete curb.

# Basis of Payment

This work will be paid for at the contract unit price per foot for CONCRETE CURB (SPECIAL), which price shall include all labor, equipment, and material necessary to complete the work as specified, including all excavation and backfilling.

# CONCRETE CURB, TYPE B

#### Description

This work shall consist of constructing concrete curb in accordance with Section 606 of the Standard Specifications, the details of Highway Standard 606001, and the following additions or exceptions.

The concrete curb shall be constructed with the curb heights above grade as shown in the plans.

# Basis of Payment

This work will be paid for at the contract unit price per foot for CONCRETE CURB, TYPE B, which price shall include all labor, equipment, and material necessary to complete the work as specified, including all excavation and backfilling.

# CONCRETE CURB, TYPE B (SPECIAL)

# **Description**

This work shall consist of constructing a reinforced concrete curb wall in accordance with Section 606 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The reinforced concrete curb wall shall be constructed in accordance with the details in the plans. The reinforcement bars shall be included in the cost of the concrete curb.

#### Basis of Payment

This work will be paid for at the contract unit price per foot for CONCRETE CURB, TYPE B (SPECIAL), which price shall include all labor, equipment, and material necessary to complete the work as specified, including all excavation and backfilling.

#### COMBINATION CONCRETE CURB AND GUTTER

# Description

This work shall consist of constructing combination concrete curb and gutter in accordance with Section 606 of the Standard Specifications, the details of Highway Standard 606001, and the following additions or exceptions.

The combination concrete curb and gutter shall be constructed to the thickness of the adjacent pavement as shown on the plans. The increased thickness of curb and gutter will be included in the cost of this item.

The combination concrete curb and gutter shall be constructed with a curb height of 4 inches at the locations shown on the plans. The varying curb heights will be included in the cost of this item.

The combination concrete curb and gutter shall be constructed with varying gutter flag slopes at the locations shown on the plans. The varying gutter flag slopes will be included in the cost of this item.

High-early-strength concrete shall be used at the locations shown on the plans or as directed by the Engineer. The concrete mix used for construction of high-early-strength concrete curb and gutter shall be an IDOT approved Class SI mix in accordance with Section 1020 of the Standard Specifications and shall include the use of Type III high-early-strength portland cement, a rich mix of Type I portland cement, or a concrete mixture containing an accelerator approved by the Engineer. The concrete mix shall obtain a compressive strength of 3,500 psi at 72 hours.

# Basis of Payment

This work will be paid for at the contract unit price per foot for COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12 (SPECIAL), which price shall include all labor, equipment, and material necessary to complete the work as specified. No additional compensation will be allowed for the use of high-early-strength concrete.

# **WORK ZONE PAVEMENT MARKING REMOVAL**

# **Description**

This work shall consist of removing existing pavement markings and temporary pavement markings in accordance with Sections 703 and 783 of the Standard Specifications and the following additions or exceptions.

Existing pavement markings that conflict with the Traffic Control Plan shall be removed in accordance with Section 783 of the Standard Specifications and as directed by the Engineer. The removal of existing pavement markings that conflict with the Traffic Control Plan will not be paid for separately, but shall be included in the cost of the Work Zone Pavement Marking Removal, and no additional compensation will be allowed.

#### Basis of Payment

This work will be paid for at the contract unit price per square foot for WORK ZONE PAVEMENT MARKING REMOVAL, which price shall include all labor, equipment, and material necessary to complete the work as specified. No additional compensation will be allowed for the removal of existing pavement markings.

# SIGN PANEL

# Description

This work shall consist of furnishing and installing sign panels in accordance with Section 720 of the Standard Specifications and the following additions or exceptions.

Sign panels shall conform to Article 720.02 and Sections 1090, 1091, and 1092 of the Standard Specifications and BDE Special Provision 80184.

Sign panels shall have a reflectorized sign face and non-reflectorized sign legend.

Each sign face shall have (either by symbol or in words) the name of the fabricator, the year of fabrication and "City of Urbana" in the border at the lower edge of the sign face. The letter size shall be 3/8 inch in height. Sign faces which are delivered without this information will not be accepted.

The following standard MUTCD signs shall be furnished:

MUTCD	Sign Description	Size		Colors		Sheeting
Code		W	Н	Legend	Background	Sheeting
R3-17	Bike Lane	30"	24"	black	white	AP
R3-17a	Ahead	30"	12"	black	white	AP
R3-17b	Ends	30"	12"	black	white	AP
R1-5	Yield Here to Peds	18"	18"	black	FYG <sup>1</sup>	$AZ^2$

<sup>&</sup>lt;sup>1</sup> FYG = fluorescent yellow green

Sign panels mounted to metal posts shall be installed in accordance with Article 720.04 of the Standard Specifications.

Sign panels mounted to street light poles shall use ¾" wide stainless steel banding with a band thickness of 0.030". Strapping brackets for mounting signs to street light poles shall be stainless steel flared leg brackets. Wing clips for strapping shall be stainless steel and ¾".

<sup>&</sup>lt;sup>2</sup> 0 degree rotation

Basis of Payment

This work will be paid for at the contract unit price per square foot for SIGN PANEL - TYPE 1, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# **METAL POST**

Description

This work shall consist of furnishing and installing metal posts in accordance with Section 729 of the Standard Specifications and the following additions or exceptions.

Metal posts shall conform to Articles 729.02 and 1006.29 of the Standard Specifications and Highway Standard 720011.

Posts for sign panels shall be Type B enameled steel posts. Posts shall be green in color and shall be provided in 12-foot lengths.

Basis of Payment

This work will be paid for at the contract unit price per foot for METAL POST - TYPE B, which price shall include all labor, equipment, and material necessary to complete the work as specified.

#### WOOD SIGN SUPPORT

Description

This work shall consist of furnishing and installing wood sign supports in accordance with Section 730 of the Standard Specifications and the following additions or exceptions.

The wood sign supports shall be 4"x6" wood posts and shall be provided in 12-foot lengths.

Wood posts shall be installed in accordance with Article 730.04 of the Standard Specifications. For wood posts to be installed in concrete sidewalk or brick paver sidewalk areas, the Contractor shall block out a 12" x 12" area for the post installation. The Contractor shall set the post in the blocked out area and backfill the hole to the proposed finish grade.

Basis of Payment

This work will be paid for at the contract unit price per foot for WOOD SIGN SUPPORT, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# PRECAST CONCRETE PARKING BLOCK

**Description** 

This work shall consist of furnishing and installing precast concrete parking blocks at the locations shown on the plans or as directed by the Engineer.

The precast concrete parking block shall be 6 feet long and 5 inches tall. The block shall be machine made with 3,500 psi concrete and reinforced with two #3 deformed steel bars. Dowel holes shall be cast in the block to receive two #6 x 24" long rebar anchors. Catalog cuts shall be submitted as shop drawings.

Basis of Payment

This work will be paid for at the contract unit price each for PRECAST CONCRETE PARKING BLOCK, which price shall include all labor, equipment, and materials necessary to complete the work as specified.

# STORM SEWERS, WATER MAIN QUALITY PIPE

Description

This item is intended to satisfy the EPA requirements for horizontal and vertical separation of sewer and water mains outlined in Section 41 of the Standard Specifications for Water and Sewer Main Construction in Illinois. This work shall consist of constructing storm sewers of the required inside diameter with the necessary fittings or joints in accordance with Section 550 of the Standard Specifications and the following additions or exceptions.

Materials

The materials allowed for the water main quality storm sewer pipe shall be a reinforced concrete pressure pipe or a ductile iron pipe of the type and diameter indicated on the plans. The materials shall be in accordance with Articles 40-2.01, 40-2.02 and 40-2.05A of the Standard Specifications for Water and Sewer Main Construction in Illinois. Joints between different pipe material types shall be water tight and made with concrete collars as detailed on the plans and as approved by the Engineer. The water main quality pipe joints shall be of the type approved by the Illinois Environmental Protection Agency for storm sewer lines crossing above water mains.

Basis of Payment

This work will be paid for at the contract unit price per foot for STORM SEWERS, WATER MAIN QUALITY PIPE, of the type and diameter specified, which price shall include all labor, equipment, and materials necessary to complete the work as specified, except for the concrete collars. The pipe types shown on the plans refer to the fill heights over the pipes as indicated in Article 550.03 of the Standard Specifications. The concrete collars will be paid for separately.

# **CONCRETE ENCASEMENTS**

Description

This work shall consist of constructing concrete encasements around sanitary sewers, to protect the pipes from damage or collapse, at the location shown on the plans. The concrete encasements shall be constructed as shown on the detail in the plans and as directed by the Engineer. The concrete for the encasement shall be Class SI in accordance with Section 1020 of the Standard Specifications.

The reinforcement bars shall be in accordance with Article 1006.10 of the Standard Specifications. The excavated area shall be backfilled with controlled low-strength material as shown on the detail.

# Basis of Payment

This work will be paid for at the contract unit price each for CONCRETE ENCASEMENTS, which price shall include all labor, equipment, and material necessary to complete the work as specified, including all required reinforcement bars. Controlled low-strength material will be paid for separately.

# BICYCLE LANE MARKING

#### Description

This work shall consist of furnishing and applying bicycle lane pavement markings.

# Materials

The materials shall be polyurea pavement marking Type I in accordance with BDE Special Provision 80119.

#### Construction Requirements

See Sheet 45 of the plans for the typical bicycle lane markings. All work shall be in accordance with BDE Special Provision 80119.

# Method of Measurement

The Bike Rider Symbol and the Bike Lane Arrow together (as shown on Sheet 45 of the plans) shall be considered one Bicycle Lane Marking. Bicycle lane markings shall be measured for payment in place per each.

# Basis of Payment

This work will be paid for at the contract unit price each for BICYCLE LANE MARKING, which price shall include all labor, equipment, and materials necessary to complete the work as specified. Each Bicycle Lane Marking shall consist of the Bike Rider Symbol and the Bike Lane Arrow together.

#### REMOVE AND RELOCATE EXISTING MONUMENT

#### Description

This work shall consist of removing and relocating an existing monument and foundation at the location shown on the plans and as directed by the Engineer.

The existing monument and foundation shall be removed. The resultant void at the removal location shall be backfilled with controlled low-strength material or topsoil as directed by the Engineer. The existing monument and foundation shall be installed at the proposed location shown on the plans or as directed by the Engineer. After the monument and foundation are set at the proposed location, the void around the foundation shall be backfilled with controlled low-strength material. Any damage to

the existing monument or foundation during this work shall be repaired by the Contractor at his/her own expense. If the damage cannot be repaired to the satisfaction of the Engineer, then the Contractor shall replace the damaged monument or foundation at his/her own expense.

If the existing monument and foundation cannot be installed at the proposed location after the removal operation, then the Contractor shall store and protect the existing monument and foundation on the project site until they can be installed, and no additional compensation will be allowed.

#### Basis of Payment

This work will be paid for at the contract unit price each for REMOVE AND RELOCATE EXISTING MONUMENT, which price shall include all labor, equipment, and materials necessary to complete the work as specified, including all excavation, controlled low-strength material, and backfill.

# SEGMENTAL CONCRETE BLOCK WALL

# **Description**

This work shall consist of furnishing and installing segmental concrete block retaining wall units, backfill, and drain pipe as shown on the plans and in accordance with Guide Bridge Special Provision No. 64.

# Drain Pipe

The drain pipe (toe drain) shall be a 4" perforated pipe in accordance with Article 601.02 of the Standard Specifications. Outlet pipes or pipes connecting to a separate storm sewer system shall not be perforated.

The drain pipe shall be routed to the nearest storm sewer structure for outlet as shown on the plans. A minimum one percent gradient shall be maintained.

# **Expansion Joint**

The expansion joint between the proposed sidewalk and the proposed block wall shall be in accordance with the details in the plans and the applicable portions of Section 424 of the Standard Specifications, except that the expansion joint shall be installed with a removable vinyl cap and sealed with a sealant as manufactured by Sonneborn, Type SL-1 or approved equal.

#### Measurement and Payment

This work will be measured for payment as specified in Guide Bridge Special Provision No. 64. Earth excavation, leveling pad, select granular backfill, earth backfill, cap block adhesive, drain pipe, drain pipe outlet connections to storm sewer structures, and the sidewalk expansion joint and sealant will not be measured for payment.

This work will be paid for at the contract unit price per square foot for SEGMENTAL CONCRETE BLOCK WALL, which price shall include all labor, equipment, and materials necessary to complete the work as specified.

#### SANITARY SEWERS

# Description

This work shall consist of constructing a sanitary sewer of the required inside diameter with the necessary fittings at locations shown on the plans. All construction related to the installation of the sanitary sewers shall be in accordance with the details in the plans and the following sections from the Standard Specifications for Water and Sewer Main Construction in Illinois, current edition.

- a. Sanitary sewer pipe materials shall be ductile iron pipe conforming to ANSI A 21.51 (AWWA C-151) with a class thickness per AWWA C-150. Ductile iron pipe shall have a standard cement mortar lining and shall be tar (seal) coated to conform to AWWA C-104.
- b. Ductile iron pipe joints shall be mechanical joints and conform to AWWA C-110 with tar (seal) coating conforming to AWWA C-104. Concrete collars or Mission Flexible Couplings or approved equal shall be used to connect the proposed pipe to the existing pipe.

# Construction Requirements

The existing sewer pipe shall be cut and removed to provide a smooth vertical end. The proposed pipes shall be connected to the existing pipes with concrete collars or flexible couplings. The openings in the manholes around the pipes shall be sealed to prevent leakage as directed by the Engineer. Bedding material will not be required under the pipe for the portion of the pipe that passes through the conflict manhole. The entire excavation shall be backfilled with controlled low-strength material as shown on the details in the plans.

#### Basis of Payment

This work will be paid for at the contract unit price per foot for SANITARY SEWER, DUCTILE IRON, of the diameter specified, which price shall include all labor, equipment, and materials necessary to complete the work as specified, including excavation, removal of the existing pipe, and installation of the proposed pipe with fittings and couplings, except for the concrete collars. The concrete collars will be paid for separately. Controlled low-strength material will be paid for separately.

#### REMOVE AND REINSTALL BRICK PAVERS

# Description

This work shall consist of removing existing brick pavers, salvaging the brick pavers, and reinstalling the brick pavers on an aggregate base or a portland cement concrete sidewalk base at the locations shown on the plans or as directed by the Engineer.

The Contractor shall remove, store, and reinstall the existing brick pavers in a workmanlike manner to avoid damaging the material. Materials unnecessarily damaged by the Contractor's operations shall be replaced as directed by the Engineer at the Contractor's expense. The Engineer will determine if the removed pavers are suitable for reinstallation.

The existing brick pavers shall be installed at the locations shown on the plans in accordance with the Special Provision for Brick Paver Sidewalk. Brick pavers shall be installed on a 6" portland cement concrete sidewalk base or a compacted aggregate base with a minimum thickness of 4". The proposed locations for the brick pavers may not be the same as their original locations. Brick pavers that are removed for the removal or installation of parking meters, light poles, or junction boxes shall be reinstalled at their original locations.

#### Basis of Payment

This work will be paid for at the contract unit price per square foot for REMOVE AND REINSTALL BRICK PAVER, which price shall include all labor, equipment, and materials necessary to complete the work as specified, including all removal, transportation, storage, and reinstallation of the brick pavers and all bedding material. The portland cement concrete sidewalk base on the northwest quadrant of the Goodwin Avenue and Oregon Street intersection will be paid for separately. The aggregate base at other locations will be paid for separately. Refer to the Special Provision for Brick Paver Sidewalk.

#### BRICK PAVER SIDEWALK

# Description

This work shall consist of constructing a sidewalk composed of brick pavers on an aggregate base or a portland cement concrete sidewalk base in accordance with the applicable portions of Check Sheet #LRS14 and as specified herein.

#### Materials

The pavers used along the edge of the pattern shall be "Holland" as manufactured by Paveloc Industries, or approved equivalent. The pavers used for the inside of the pattern shall be "Cobble II" as manufactured by Paveloc Industries, or approved equivalent. The color of the pavers shall be "Range 1 Red Charcoal". The pavers shall have a nominal thickness of 2-3/8".

#### Installation

The pattern of the proposed brick paver sidewalk shall match the pattern of the adjacent brick paver sidewalk.

The pavers to be installed on the northwest quadrant of the Goodwin Avenue and Oregon Street intersection shall be installed on top of a 6" portland cement concrete sidewalk base. The Contractor shall drill 1" diameter holes on 2' centers through the concrete sidewalk base for drainage. The pavers shall be set on a 3%" sand bedding course placed on top of the concrete sidewalk base. The bedding material shall be included in the cost of the brick paver sidewalk. The concrete sidewalk base will be paid for separately.

The pavers to be installed at other locations shall be installed on a compacted aggregate base with a minimum thickness of 4". The pavers shall be set on a 1" to 1.5" sand bedding course placed on top of the aggregate base. The bedding material shall be included in the cost of the brick paver sidewalk. The aggregate base will be paid for separately.

# Basis of Payment

This work will be paid for at the contract unit price per square foot for BRICK PAVER SIDEWALK, which price shall include all labor, equipment, and materials necessary to complete the work as specified, including all bedding material. Installation of salvaged pavers will be paid for under the item Remove and Reinstall Brick Paver. The portland cement concrete sidewalk base on the northwest quadrant of the Goodwin Avenue and Oregon Street intersection will be paid for under the item Portland Cement Concrete Sidewalk 6 Inch. The compacted aggregate base at other locations will be paid for under the item Aggregate Base Course, Type B.

# <u>FURNISHING AND SETTING STEEL POSTS</u> PARKING METER POSTS TO BE REMOVED

#### Description

This work shall consist of the removal of existing parking meter posts and the installation of new parking meter posts in accordance with the details in the plans and as specified herein.

The City of Urbana will remove the existing parking meters and install the new parking meters. The Contractor shall contact Jerry Rabbit (217-384-2314) for removal of the existing parking meters and installation of the new parking meters.

The Contractor shall remove the existing parking meter posts at the locations shown on the plans or as directed by the Engineer. Existing parking meter posts that are removed shall not be reused. The sidewalk around existing parking meter posts to be removed shall be removed in accordance with the details in the plans or as directed by the Engineer.

The Contractor shall furnish and install new parking meter posts at the locations shown on the plans or as directed by the Engineer. The parking meter posts shall be installed in accordance with the details in the plans or as directed by the Engineer.

#### Basis of Payment

This work will be paid for at the contract unit price each for FURNISHING AND SETTING STEEL POSTS, and at the contract unit price each for PARKING METER POSTS TO BE REMOVED, which prices shall include all labor, equipment, and materials necessary to complete the work as specified, including all excavation and backfill, all buckets filled with concrete for installation in grass areas, and all core drilling of existing sidewalks. Sidewalk removal and replacement will be paid for separately.

#### PERMANENT BENCH MARKS

# **Description**

This work shall consist of constructing a permanent bench mark in accordance with the applicable portions of the National Geodetic Survey publication "Bench Mark Reset Procedures", the details of Highway Standard 668001, and the following additions or exceptions.

University of Illinois Bench Mark #31 shall be reset at the location shown on the plans or as directed by the Engineer. The concrete encasement shall be constructed in accordance with the details of Highway Standard 668001 except that the depth of the encasement shall be 4'-0". The University of Illinois will provide the tablet for the bench mark. The Contractor shall contact Renee Nagy at the University of Illinois (217-333-0923) to obtain the tablet.

The Contractor shall establish the elevation of the proposed bench mark and reset the bench mark in accordance with the publication "Bench Mark Reset Procedures". The proposed bench mark elevation shall be based directly on the University of Illinois Bench Mark #31, Elevation = 725.316. Therefore, this work must be completed prior to removing or disturbing Bench Mark #31.

All survey related work shall be performed by, or under the direct supervision of, an Illinois Professional Land Surveyor and shall certify that the new benchmark elevation has been determined using 3<sup>rd</sup> order accuracy leveling procedures. The Contractor shall provide a copy of all field notes and a location tie sheet to the Engineer upon completion of the work.

# Basis of Payment

This work will be paid for at the contract unit price each for PERMANENT BENCH MARKS, which price shall include all labor, material, and equipment necessary to complete the work as specified, including the services of an Illinois Professional Land Surveyor.

#### REMOVING AND RESETTING STREET SIGNS

#### **Description**

This work shall consist of removing and resetting of existing "Stop" signs, "All Way" signs, and "Do Not Enter" signs at the locations shown on the plans and as directed by the Engineer.

The existing signs and posts shall be removed. The resultant voids at the sign post removal locations shall be backfilled with controlled low-strength material or topsoil as directed by the Engineer. The signs shall be temporarily relocated as required by the construction operations or as directed by the Engineer. The temporary relocation of the existing signs shall be included in the cost of Traffic Control Complete.

For the permanent resetting of the existing signs, the existing sign posts and concrete footings shall not be salvaged. Any signs damaged by the Contractor shall be replaced at his/her own expense.

The existing signs shall be reset to a proper mounting height on new wood posts as directed by the Engineer. Installing multiple existing signs on a single wood post will not be paid for separately. The wood posts shall be paid for under the item Wood Sign Support.

#### Basis of Payment

This work will be paid for at the contract unit price each for REMOVING AND RESETTING STREET SIGNS, which price shall include all labor, equipment, and materials necessary to complete the work as specified, including all excavation and backfill. The wood posts will be paid for separately.

# TRAFFIC SIGNALS AND ROADWAY LIGHTING

# DAMAGE TO EQUIPMENT

Any equipment damaged by the Contractor in his/her operations shall be replaced by the Contractor at his/her own expense, and no additional compensation will be allowed.

# TRAFFIC SIGNAL EQUIPMENT

The traffic signal equipment furnished for this contract shall be Siemens (formerly Eagle) brand in accordance with the proprietary letter between the State of Illinois and the City of Urbana dated May 8, 1990.

# ROADWAY LIGHTING COORDINATION

The Contractor shall notify the City of Urbana at least 48 hours in advance of any work that requires power to the existing City-owned lights to be shut off. The contact person at the City of Urbana Public Works Department is Mike Perkins (217-384-2342).

The Contractor shall notify the University of Illinois at least 48 hours in advance of any work that requires power to the existing University-owned lights to be shut off. The contact person at the University of Illinois Engineering Services Department is Eva Sweeney (217-333-2271).

#### ELECTRIC SERVICE INSTALLATION, SPECIAL

(Goodwin Avenue & Illinois Street)

# Description

This work shall be performed in accordance with Section 804 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The proposed service installation shall be furnished with a meter pan with a blockout for the meter socket and a disconnect box and shall be mounted on the right side of the lighting controller cabinet (when looking into the controller cabinet).

The proposed service shall be a 120/240 volt, single phase, three wire service. The main circuit breaker for the service installation shall be two pole and rated 200 amps.

The University of Illinois Facilities and Services Division will provide the electric service for the lighting installation, including all service and grounding cables. The Contractor shall furnish and install a 3" diameter conduit from the meter socket located on the lighting controller cabinet to a proposed composite concrete handhole that shall be installed outside of Morrill Hall at a location to be determined in the field. All exposed conduit used for the service cable shall be 3" diameter galvanized steel conduit in accordance with Article 1088.01(a) of the Standard Specifications. Furnishing and installing the service conduit shall be included in the cost of the electric service installation. The composite concrete handhole will be paid for separately.

The Contractor shall coordinate his/her efforts with the University's staff in installing the electric service, and any modifications not noted herein shall be considered as included in the cost of the electric service installation and no additional compensation will be allowed.

The University will perform all work inside of the building, drill through the building foundation for the service conduit, provide service conduit from the building to the composite concrete handhole installed by the Contractor, and furnish and install all service and grounding cables from the building to the lighting controller cabinet.

# Grounding

The neutral is bonded to ground at the service disconnect located inside Morrill Hall. The Contractor shall not bond the neutral to ground at the lighting controller.

# Basis of Payment

The work will be paid for at the contract unit price each for ELECTRIC SERVICE INSTALLATION (SPECIAL), which price shall include all labor, equipment, and material necessary to complete the work as specified. The composite concrete handhole will be paid for separately.

#### SERVICE INSTALLATION (SPECIAL)

(Goodwin Avenue & Springfield Avenue)

# Description

This work shall be performed in accordance with Section 805 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The proposed service installation shall be furnished with a meter pan with a blockout for the meter socket and a disconnect box and shall be mounted on the right side of the traffic signal controller cabinet (when looking into the controller cabinet).

The proposed service shall be a 120/240 volt, single phase, three wire service. The main circuit breaker for the service installation shall be two pole and rated 60 amps.

The University of Illinois Facilities and Services Division will provide the electric service for the traffic signal installation, including all service and grounding cables. The Contractor shall furnish and install a 2" diameter conduit from the meter socket located on the traffic signal controller cabinet to a proposed gulfbox that shall be installed outside of the Engineering Sciences Building at a location to be determined in the field. All exposed conduit used for the service cable shall be 2" diameter galvanized steel conduit in accordance with Article 1088.01(a) of the Standard Specifications. Furnishing and installing the service conduit shall be included in the cost of the service installation. The gulfbox will be paid for separately.

The Contractor shall coordinate his/her efforts with the University's staff in installing the electric service, and any modifications not noted herein shall be considered as included in the cost of the service installation and no additional compensation will be allowed.

The University will perform all work inside of the building, drill through the building foundation for the service conduit, provide service conduit from the building to the gulfbox installed by the Contractor, and furnish and install all service and grounding cables from the building to the traffic signal controller cabinet.

Grounding

The neutral is bonded to ground at the service disconnect located inside the Engineering Sciences Building. The Contractor shall not bond the neutral to ground at the traffic signal controller.

Basis of Payment

The work will be paid for at the contract unit price each for SERVICE INSTALLATION (SPECIAL), which price shall include all labor, equipment, and material necessary to complete the work as specified. The gulfbox will be paid for separately.

# **CONDUIT**

Description

This work shall be performed in accordance with Sections 810 and 811 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

Polyethylene duct shall be used for conduit that is bored and pulled at the locations shown on the plans. PVC conduit shall be used for conduit laid in trench at the locations shown on the plans. The substitution of polyethylene duct conduit in place of PVC conduit, augered or in trench, of the size specified in the plans is permitted with no change in compensation of this item.

The term augered shall cover both the pushed and bored method of installing the conduit. Because of differences in the equipment and techniques, the Contractor may use either method to install the conduit for the item augered.

If the Contractor chooses to install conduit runs designated as trenched in the plans by augering, payment for this work will be made at the contract unit price per foot for Conduit in Trench of the size specified, along with trench and backfill.

When PVC conduit is required to be spliced to steel conduit sections, a heavy wall set screw connector with PVC female adapter shall be installed and sealed by duct seal and plastic tape.

A 1/4" polypropylene pull rope shall be installed in all conduit runs exceeding 20 feet. A minimum of 2 feet of rope shall be provided at each end of a conduit run.

PVC coated rigid steel conduit shall be used for the conduit that passes through the Boneyard Creek structure. Provide all core drilling with sealant as necessary, which shall be included in the cost of the conduit installation. Provide all stainless steel rods, anchors, brackets, and miscellaneous mounting hardware, along with PVC coated threaded hubs to handholes, which shall be included in the cost of the conduit installation.

#### Basis of Payment

This work will be paid for at the contract unit price per foot for CONDUIT IN TRENCH; CONDUIT, AUGERED; or CONDUIT, BORED AND PULLED; of the type and size specified, and at the contract unit price per foot for CONDUIT ATTACHED TO STRUCTURE, 2" DIA., PVC COATED GALVANIZED SIEEL; which prices shall include all labor, equipment, and material necessary to complete the work as specified. Trench and backfill will be paid for separately.

# JUNCTION BOX (SPECIAL)

Description

This work shall be performed in accordance with the applicable portions of Sections 813 and 815 of the Standard Specifications and the following additions or exceptions.

The junction box size shall be as shown on the plans. The junction box shall be composite concrete in accordance with Article 1088.05 of the Standard Specifications. The base shall be constructed in accordance with Article 815.03(b) of the Standard Specifications.

The junction box shall be manufactured by CDR Company or approved equal.

The junction box cover shall be of the same material as the junction box and shall have the words "STREET LIGHTING" cast into the cover. The junction box cover and collar shall be standard concrete grey color in sidewalks and shall be the manufacturer's dark green color in grass areas.

#### Basis of Payment

This work will be paid for at the contract unit price each for JUNCTION BOX (SPECIAL), which price shall include all labor, equipment, and material necessary to complete the work as specified.

#### REMOVE EXISTING JUNCTION BOX

Description

This work shall consist of the removal and disposal of existing junction boxes as specified herein.

The junction box shall be removed in its entirety. Portions of the existing cables and conduits that interfere in any way with the proposed construction shall be removed. Existing cables that do not interfere with the proposed construction shall be abandoned in place unless otherwise directed by the Engineer. Existing conduits that do not interfere with the proposed construction shall be capped and abandoned in place unless otherwise directed by the Engineer. Removal of the existing cables and conduits shall be included in the cost of Remove Existing Junction Box, and no additional compensation will be allowed.

The voids caused by the removal of the junction box, cable, and conduit shall be backfilled in accordance with Article 819.04 of the Standard Specifications. The junction box that is removed

shall not be reused, shall become the property of the Contractor, and shall be disposed of outside the right-of-way in accordance with Article 202.03 of the Standard Specifications.

# Basis of Payment

This work will be paid for at the contract unit price each for REMOVE EXISTING JUNCTION BOX, which price shall include all labor, equipment, and material necessary to complete the work as specified.

## HANDHOLE TO BE ADJUSTED

# Description

This work shall include all labor, equipment, tools, and materials needed to adjust existing traffic signal handholes located within proposed sidewalk curb ramps or as directed by the Engineer.

## Materials

The frames and lids for the handholes shall be Neenah R-6660-JH Light Duty Square Slab Type Manhole Frame and Solid Lid.

## Construction Requirements

The Contractor shall remove and dispose of the existing handhole frame and lid.

The existing handholes are cast-in-place concrete boxes. The tops of these boxes shall be saw cut to the appropriate elevation and slope to fit within the proposed sidewalk curb ramps.

The Contractor shall provide a new frame and lid for the adjusted handhole.

#### Basis of Payment

This work will be paid for at the contract unit price each for HANDHOLE TO BE ADJUSTED, which price shall include all labor, equipment, and material necessary to complete the work as specified.

#### HANDHOLE, COMPOSITE CONCRETE

#### Description

This work shall be performed in accordance with the applicable portions of Sections 813 and 815 of the Standard Specifications and the following additions or exceptions:

The handhole size shall be as shown on the plans. The handhole shall be composite concrete in accordance with Article 1088.05 of the Standard Specifications. The base shall be constructed in accordance with Article 815.03(b) of the Standard Specifications.

The handhole shall be manufactured by CDR Company or approved equal.

The handhole cover shall be of the same material as the handhole and shall have the words "STREET LIGHTING" cast into the cover. The handhole cover and collar shall be standard concrete grey color in sidewalks and shall be the manufacturer's dark green color in grass areas.

# Basis of Payment

This work will be paid for at the contract unit price each for HANDHOLE, COMPOSITE CONCRETE, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# **GULFBOX JUNCTION**

# Description

This work shall be performed in accordance with Section 815 of the Standard Specifications and the following additions or exceptions.

The gulfbox shall be composite concrete and manufactured by CDR Company or approved equal.

The gulfbox cover shall be of the same material as the gulfbox and shall have the words "TRAFFIC SIGNALS" cast into the cover. The gulfbox cover and collar shall be standard concrete grey color in sidewalks and shall be the manufacturer's dark green color in grass areas.

# Basis of Payment

This work will be paid for at the contract unit price each for GULFBOX JUNCTION, COMPOSITE CONCRETE, which price shall include all labor, equipment, and material necessary to complete the work as specified.

#### **ELECTRIC CABLE**

#### Description

This work shall be performed in accordance with Sections 817 and 873 of the Standard Specifications and the following additions or exceptions.

All lighting, signal, lead-in, communication, and service cable shall be tagged with wiring identification markers at each point of access. All handholes, gulfbox junctions, junction boxes, pole handholes, and controller cabinets shall be considered as points of access. Wiring identification markers shall be in accordance with Article 1066.07 of the Standard Specifications.

#### Basis of Payment

This work will be paid for at the contract unit price per foot for ELECTRIC CABLE IN CONDUIT, of the type, size, and number of conductors indicated, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# POLE FOUNDATION, METAL

# Description

This work shall consist of furnishing and installing steel light pole foundation as shown on the detail in the plans. The work shall be in accordance with the applicable Articles of Section 836 of the Standard Specifications, the details in the plans, and as directed by the Engineer.

### Materials

The steel foundation shall be the type manufactured by A. B. Chance Catalog #SA112-0567 or approved equivalent. Submit catalog cuts as shop drawings for approval. The Contractor shall coordinate the bolt circle diameter of the light pole foundations with the light poles that will be furnished and installed by the City of Urbana for this project.

After assembly a stainless steel mesh shall be placed to enclose the void between the foundation and the pole base as specified in Article 877.03 of the Standard Specifications. The stainless steel mesh and band shall be painted black.

# Basis of Payment

This work will be paid for at the contract unit price each for POLE FOUNDATION, METAL, which price shall include all labor, equipment, and material necessary to complete the work as specified, including the stainless steel mesh and band.

# REMOVAL OF EXISTING LIGHTING UNIT

## **Description**

This work shall consist of the removal and disposal or storage of existing lighting units in accordance with Section 842 of the Standard Specifications and the following additions or exceptions.

Removal of existing lighting units shall include the pole, arm, luminaire, pole wiring, and associated hardware and appurtenances. Lighting foundation removal will be paid for separately.

All existing lighting units south of station 15+60 shall be removed and salvaged as shown on the plans. The Contractor shall remove these existing lighting units and store them at a location designated by the Engineer for pick-up by the University's forces. The Contractor shall coordinate this work with Gary Michael (217-333-2284) at the University of Illinois.

Two existing lighting units at the Goodwin Avenue and Springfield Avenue intersection shall be removed and salvaged as shown on the plans. The Contractor shall remove these existing lighting units and store them at a location designated by the Engineer for pick-up by the City's forces. The Contractor shall coordinate this work with Mike Perkins (217-384-2342) at the City of Urbana.

The Contractor shall remove, store, and protect the removed and salvaged lighting units in a workmanlike manner to avoid damaging, denting, or scratching the material. Any repair or touch-up required shall be performed by the Contractor using a method approved by the Engineer and at the Contractor's expense.

All other lighting units to be removed throughout the project limits shall not be salvaged and shall be disposed of by the Contractor in accordance with Article 202.03 of the Standard Specifications.

The resultant voids from the removal of existing lighting units without foundations shall be backfilled with earth or controlled low-strength material as directed by the Engineer.

Junction boxes shall be installed at the lighting unit removal locations shown on the plans. The City of Urbana will perform the required wiring at these locations to close the existing series lighting circuits. The Contractor shall coordinate his/her efforts with the City's staff in performing this work, and no additional compensation will be allowed.

#### Basis of Payment

This work will be paid for at the contract unit price each for REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE, or REMOVAL OF EXISTING LIGHTING UNIT, NO SALVAGE, which prices shall include all labor, equipment, and material necessary to complete the work as specified, including all excavation and backfill. Junction boxes will be paid for separately.

## LIGHTING FOUNDATION REMOVAL

#### Description

This work shall consist of removing existing lighting unit concrete foundations in accordance with Section 842 of the Standard Specifications and the following additions or exceptions.

The concrete foundations shall be removed to a point at least two feet below grade or at least one foot below any proposed construction. The removal shall extend deeper where required to facilitate the proposed construction, and no additional compensation will be allowed.

Portions of the existing cables and conduits that interfere in any way with the proposed construction shall be removed. Existing cables that do not interfere with the proposed construction shall be abandoned in place unless otherwise directed by the Engineer. Existing conduits that do not interfere with the proposed construction shall be capped and abandoned in place unless otherwise directed by the Engineer. Removal of the existing cables and conduits shall be included in the cost of Lighting Foundation Removal, and no additional compensation will be allowed.

All material required to bring the ensuing excavation back up to grade shall be included in the cost of Lighting Foundation Removal. The voids caused by the partial removal of the concrete foundation shall be backfilled according to Article 819.04 of the Standard Specifications or as directed by the Engineer. If the Contractor chooses to completely remove the foundation, the ensuing excavation shall be backfilled with controlled low-strength material.

#### Basis of Payment

This work will paid for at the contract unit price each for LIGHTING FOUNDATION REMOVAL, which price shall include all labor, equipment, and material necessary to complete the work as specified, including all excavation and backfill.

#### RELOCATE EXISTING LIGHTING UNIT

# **Description**

This work shall consist of the removal, storage, and re-installation of existing lighting units and appurtenances at the locations shown on the plans as directed by the Engineer. The work shall be performed in accordance with the applicable Articles of Section 844 of the Standard Specifications.

Relocation of existing lighting units shall include the pole, arm, luminaire, pole wiring, and associated hardware and appurtenances.

The Contractor shall remove, store, protect, and reinstall the existing lighting units in a workmanlike manner to avoid damaging, denting, or scratching the material. Any repair or touch-up required shall be performed by the Contractor using a method approved by the Engineer and at the Contractor's expense. If a lighting unit is damaged by the Contractor, it shall be replaced with the same type of material at the Contractor's expense.

The Contractor shall reinstall the lighting units at the locations shown on the plans in accordance with the applicable Articles of Section 830 of the Standard Specifications. The light poles shall be direct embed. New conduit and cable shall be installed as shown on the plans.

# Basis of Payment

This work will be paid for at the contract unit price each for RELOCATE EXISTING LIGHTING UNIT, which price shall include all labor, equipment, and material necessary to complete the work as specified. Conduit and cable will be paid for separately.

#### FULL-ACTUATED CONTROLLER AND CABINET

(Goodwin Avenue & Springfield Avenue)

## Description

This work shall consist of furnishing and installing a traffic actuated solid state digital controller in the controller cabinet of the type specified with peripheral equipment. This work shall be performed in accordance with Section 857 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The anti-backup feature for controller programming required in Article 1073.01(c) of the Standard Specifications shall have the following added to the definition shown in Article 1073.01(a): "The components used to accomplish this feature shall be hardwired on the controller cabinet back panel and labeled for identification."

The controller cabinet shall be constructed of unpainted aluminum.

The controller cabinet shall have a detector test panel installed properly wired to the back panel and located on the interior of the service door. It shall be possible to register an input call by means of

one 3 position switch per each phase. The switch positions shall be off, on, and test. The test position shall be a momentary closure position which returns to the on position upon release. The test position shall allow a call to be manually placed to the controller for that phase. The call will be serviced as an actual call from a field detector. Each switch shall be properly identified per phase.

The controller cabinet shall contain the circuit breakers and lighting contactor as shown in the "Traffic Signal Controller Installation Diagram" included in the plans.

The controller cabinet shall contain a cabinet detector rack and power supply for the rack-mounted inductive loop detectors.

The controller cabinet shall contain separate ground and neutral buses. The neutral bus shall be electrically isolated from ground. The controller cabinet shall be bonded to the equipment grounding conductor in accordance with the NEC and the NESC.

The controller cabinet shall contain an engraved laminated plastic nameplate with the following message: "CAUTION – THE SCHOOL FLASHER CABLES SHARE CONDUIT WITH ROADWAY LIGHTING CABLES THAT ARE FED FROM A SEPARATE POWER SOURCE." The nameplate shall be red with white letters, and the letters shall be ½" high. The nameplate shall be mounted with corrosion-resistant screws in a prominent location inside the controller cabinet.

# Basis of Payment

This work will be paid for at the contract unit price each for FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL, which price shall include all labor, equipment, and material necessary to complete the work as specified.

## UNINTERRUPTABLE POWER SUPPLY

(Goodwin Avenue & Springfield Avenue)

#### Description

This work shall consist of furnishing and installing an uninterruptable power supply in accordance with Section 862 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The traffic signal controller cabinet shall contain a rack-mountable, NEMA-approved uninterruptable power supply (UPS) manufactured by Alpha Technologies or approved equivalent. The UPS shall provide a minimum of two hours of full run-time operation.

The battery cabinet for the UPS shall be mounted as shown on the plans and as specified herein. The battery cabinet shall be installed on the controller cabinet foundation and bolted directly to the left side of the controller cabinet (when looking into the controller cabinet) with at least four bolts. There shall not be a gap between the battery cabinet and the controller cabinet. The cables shall be routed through the sides of the cabinets, with the holes in the cabinets protected with grommets.

Only the batteries shall be housed in the battery cabinet; all other UPS equipment shall be housed in the controller cabinet.

# **Basis of Payment**

This work will be paid for at the contract unit price each for UNINTERRUPTABLE POWER SUPPLY, STANDARD, which price shall include all labor, material, and equipment necessary to complete the work as specified, including the battery cabinet.

#### TRAFFIC SIGNAL POST

# Description

This work shall be performed in accordance with Section 875 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The post and base shall be made of aluminum. The base shall be furnished with an aluminum reinforcing collar and a grounding lug suitable for connecting a copper equipment grounding conductor.

The traffic signal post assembly shall be finished with a standard black finish, except that the traffic signal post assembly to be installed on the southwest quadrant of the Goodwin Avenue and Green Street intersection shall be unpainted.

#### Basis of Payment

This work will be paid for at the contract unit price each for TRAFFIC SIGNAL POST, of the length specified, which price shall include all labor, material, and equipment necessary to complete the work as specified.

#### PEDESTRIAN PUSH-BUTTON POST

#### Description

This work shall be performed in accordance with Section 876 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The post and cap shall be made of aluminum.

The pedestrian push-button post assembly shall be finished with a standard black finish, except that the pedestrian push-button post assembly to be installed on the southwest quadrant of the Goodwin Avenue and Green Street intersection shall be unpainted.

The concrete foundation shall be included in the cost of the pedestrian push-button post.

# Basis of Payment

This work will be paid for at the contract unit price each for PEDESTRIAN PUSH-BUTTON POST, TYPE I, which price shall include all labor, material, and equipment necessary to complete the work as specified.

# STEEL COMBINATION MAST ARM ASSEMBLY AND POLE

#### Description

This work shall be performed in accordance with Section 877 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The pole, base, pole cap, signal arm, and luminaire arm shall have a powder coated black paint finish over galvanized steel. The stainless steel mesh and band at the pole base shall be painted black. The luminaire mounting height as measured from the pole base shall be 35 feet. The luminaire arm length shall be 12 feet. The luminaire arm shall be parallel to the signal mast arm.

The luminaire will be furnished and installed by the City of Urbana.

#### Basis of Payment

This work will be paid for at the contract unit price each for STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, of the signal arm length specified, which price shall include all labor, material, and equipment necessary to complete the work as specified.

## CONCRETE FOUNDATION, TYPE A

#### Description

This work shall consist of constructing a concrete foundation for a traffic signal post in accordance with Section 878 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The No. 6 AWG bare, solid copper grounding electrode conductor shall be exothermically welded to the ground rod in the concrete foundation. The exothermic weld shall be included in the cost of the concrete foundation.

## Basis of Payment

This work will be paid for at the contract unit price per foot of depth of CONCRETE FOUNDATION, TYPE A, which price shall include all labor, equipment, and material necessary to complete the work as specified.

#### CONCRETE FOUNDATION, TYPE D

#### Description

This work shall consist of constructing a concrete foundation for a traffic signal controller base in accordance with Section 878 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The ground rod for the concrete foundation shall be located in the double handhole rather than in the concrete foundation. A No. 6 AWG bare, solid copper grounding electrode conductor pigtail may be installed for use in splicing the equipment grounding conductors in the double handhole. The grounding electrode conductor pigtail shall be exothermically welded to the ground rod in the double handhole. The grounding electrode conductor pigtail and exothermic weld shall be included in the cost of the concrete foundation.

The concrete foundation shall be wide enough to accommodate the controller cabinet and the battery cabinet. The concrete apron shall match the width of the concrete foundation and shall extend a minimum of 3' beyond the concrete foundation. The concrete apron shall be a minimum of 6" thick. The concrete apron shall be included in the cost of the concrete foundation.

#### Basis of Payment

This work will be paid for at the contract unit price per foot of depth of CONCRETE FOUNDATION, TYPE D, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# CONCRETE FOUNDATION, TYPE E

# Description

This work shall consist of constructing a concrete foundation for a traffic signal mast arm pole in accordance with Section 878 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The No. 6 AWG bare, solid copper grounding electrode conductor shall be exothermically welded to the ground rod in the concrete foundation. The exothermic weld shall be included in the cost of the concrete foundation.

#### Basis of Payment

This work will be paid for at the contract unit price per foot of depth of CONCRETE FOUNDATION, TYPE E, 30-INCH DIAMETER, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# SIGNAL HEAD, POLYCARBONATE, LED

#### Description

This work shall be performed in accordance with Section 880 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The terminal compartment for two-way, post mounted signal heads shall be on top of the post in accordance with Standard 880006.

All signal heads shall be furnished with all LED indications conforming to current ITE (Institute of Transportation Engineers) specifications.

The signal head shall be black in color.

#### Basis of Payment

This work will be paid for at the contract unit price each for SIGNAL HEAD, POLYCARBONATE, LED, of the number of signal faces, the number of signal sections in each face, and the method of mounting specified, which price shall include all labor, material, and equipment necessary to complete the work as specified.

# PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED

## Description

This work shall be performed in accordance with Section 881 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The pedestrian signal heads shall have combination LED international symbols of a walking person (WALK) and an upraised hand (DON'T WALK) located on the top section and an LED countdown timer in the bottom section.

The pedestrian signal head shall be black in color.

#### Basis of Payment

This work will be paid for at the contract unit price each for PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED, which price shall include all labor, material, and equipment necessary to complete the work as specified.

#### DETECTOR LOOP, TYPE I

#### Description

This work shall consist of furnishing and installing a detector loop in accordance with Section 886 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

Each detector loop shall be wired to an individual pair of the lead-in cable unless otherwise noted in the plans. The loops shall be wired in series at the controller cabinet detector panel via the multipair lead-in cable.

The detector loop shall be tested in accordance with Article 801.13(b)(2) of the Standard Specifications. Testing of the inductance shall be done on individual loops at the handhole or gulfbox junction. Testing of the inductance shall also be done on the array of loops and the respective lead-in at the controller cabinet as they are grouped together on individual detector amplifiers. Testing shall include measurements of resistance, resistance to ground, inductance, and Q values. Documentation of all test results shall be left in the controller cabinet.

#### Method of Measurement

This work will be measured for payment in feet in place. Type I detector loop will be measured along the sawed slot in the payement containing the loop and lead-in, rather than the actual length of the wire. The wiring from the curb to the gulfbox junction or handhole will not be measured for payment.

# Basis of Payment

This work will be paid for at the contract unit price per foot for DETECTOR LOOP, TYPE I, which price shall include all labor, equipment, and material necessary to complete the work as specified, including all testing.

# LIGHT DETECTOR LIGHT DETECTOR AMPLIFIER

# Description

This work shall be performed in accordance with Section 887 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The emergency vehicle priority system shall be the Opticom or Tomar brand.

Bidirectional light detectors shall be provided. The system shall be installed in accordance with the manufacturer's instructions. The system shall include a card rack for the light detector amplifier.

A confirmation beacon shall be installed for each direction of travel. Furnishing and installing the confirmation beacon shall be included in the cost of the light detector.

#### Basis of Payment

This work will be paid for at the contract unit price each for LIGHT DETECTOR or LIGHT DETECTOR AMPLIFIER, which prices shall include all labor, equipment, and material necessary to complete the work as specified.

#### PEDESTRIAN PUSH-BUTTON

# **Description**

This work shall consist of furnishing and installing a pedestrian push-button in accordance with Section 888 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The pedestrian push-button shall be the BDLM2 push-button with momentary LED manufactured by Polara Engineering Inc. The push-button housing shall be finished with a standard yellow finish.

#### Basis of Payment

This work will be paid for at the contract unit price each for PEDESTRIAN PUSH-BUTTON, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# RELOCATE EXISTING SIGNAL HEAD RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD

# **Description**

This work shall consist of relocating an existing signal head or pedestrian signal head in accordance with Section 895 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The Contractor shall remove, store, protect, and reinstall the existing signal head or pedestrian signal head in a workmanlike manner to avoid damaging, denting, or scratching the material. Any repair or touch-up required shall be performed by the Contractor using a method approved by the Engineer and at the Contractor's expense.

## Basis of Payment

This work will be paid for at the contract unit price each for RELOCATE EXISTING SIGNAL HEAD or RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD, which prices shall include all labor, equipment, and material necessary to complete the work as specified.

#### MODIFY EXISTING CONTROLLER

(Goodwin Avenue & Green Street)

#### Description

This work shall consist of modifying an existing traffic signal controller and cabinet in accordance with Section 895 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

A cabinet detector rack and power supply shall be added to the existing controller cabinet for the new rack-mounted inductive loop detectors. All wiring modifications in the existing traffic signal controller cabinet shall be performed in accordance with Section 857 of the Standard Specifications and as directed by the Engineer.

#### Basis of Payment

This work will be paid for at the contract unit price each for MODIFY EXISTING CONTROLLER (SPECIAL), which price shall include all labor, equipment, and material necessary to complete the work as specified.

# REMOVE EXISTING HANDHOLE

#### Description

This work shall consist of the removal and disposal of existing handholes in accordance with Section 895 of the Standard Specifications and the following additions or exceptions.

The handhole shall be removed in its entirety. Portions of the existing cables and conduits that interfere in any way with the proposed construction shall be removed. Existing cables that do not interfere with the proposed construction shall be abandoned in place unless otherwise directed by the Engineer. Existing conduits that do not interfere with the proposed construction shall be capped and abandoned in place unless otherwise directed by the Engineer. Removal of the existing cables and conduits shall be included in the cost of Remove Existing Handhole, and no additional compensation will be allowed.

Voids created by the removals shall be backfilled with approved material as directed by the Engineer. All required excavation and backfill shall be included in the cost of Remove Existing Handhole.

## Basis of Payment

This work will be paid for at the contract unit price each for REMOVE EXISTING HANDHOLE, which price shall include all labor, equipment, and material necessary to complete the work as specified.

## REMOVE EXISTING CONCRETE FOUNDATION

#### Description

This work shall consist of removing an existing concrete foundation in accordance with Section 895 of the Standard Specifications and the following additions or exceptions.

The concrete foundation shall be removed to a level at least three feet below the adjacent grade in accordance with Article 895.05 of the Standard Specifications. All portions of the existing foundation below this elevation that interfere in any way with the proposed construction shall be removed.

Portions of the existing cables and conduits that interfere in any way with the proposed construction shall be removed. Existing cables that do not interfere with the proposed construction shall be abandoned in place unless otherwise directed by the Engineer. Existing conduits that do not interfere with the proposed construction shall be capped and abandoned in place unless otherwise directed by the Engineer. Removal of the existing cables and conduits shall be included in the cost of Remove Existing Concrete Foundation, and no additional compensation will be allowed.

Voids created by the removals shall be backfilled with approved material as directed by the Engineer. All required excavation and backfill shall be included in the cost of Remove Existing Concrete Foundation.

#### Basis of Payment

This work will be paid for at the contract unit price each for REMOVE EXISTING CONCRETE FOUNDATION, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# MODIFY EXISTING SERVICE INSTALLATION

(Goodwin Avenue & Green Street)

#### Description

This work shall consist of modifying an existing traffic signal service installation in accordance with the details in the plans and the following additions or exceptions.

The equipment for the existing service installation shall remain in placed and be reused unless otherwise directed by the Engineer. All wiring modifications shall be performed in accordance with Section 805 of the Standard Specifications and as directed by the Engineer.

The Contractor shall coordinate with the utility company for disconnection and reconnection of the existing service installation.

#### Basis of Payment

This work will be paid for at the contract unit price each for MODIFY EXISTING SERVICE INSTALLATION, which price shall include all labor, equipment, and material necessary to complete the work as specified.

## REMOVE EXISTING CABLE

# Description

This work shall consist of removing roadway lighting cable from conduit in accordance with Section 895 of the Standard Specifications and the following additions or exceptions.

The electric cable for the University's existing roadway lighting system south of Nevada Street shall be removed from conduit at the locations shown on the plans or as directed by the Engineer. The electric cable that is removed shall not be reused. Direct burial cable that does not conflict with the proposed improvements shall be abandoned in place unless otherwise noted on the plans or directed by the Engineer.

The electric cable for the City's existing roadway lighting system north of Nevada Street that does not conflict with the proposed improvements shall be abandoned in place unless otherwise noted on the plans or directed by the Engineer. Aerial cable and cable in conduit shall be removed at the locations shown on the plans or as directed by the Engineer. The electric cable that is removed shall not be reused.

#### Basis of Payment

The removal of existing electric cable from conduit for the University's roadway lighting system south of Nevada Street will be paid for at the contract unit price per foot for REMOVE EXISTING CABLE, which price shall include all labor, equipment, and material necessary to complete the work as specified. Removal of direct burial cables will not be measured for payment or paid for separately, and no additional compensation will be allowed.

The removal of existing electric cable, whether aerial, direct burial, or in conduit, for the City's roadway lighting system north of Nevada Street will not be measured for payment or paid for separately, and no additional compensation will be allowed.

# REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

# Description

This work shall be performed in accordance with Section 895 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The Contractor shall remove the existing traffic signal equipment at each intersection as shown on the plans. The Contractor shall remove the equipment in a workmanlike manner to avoid damaging, denting, or scratching the material. Any repair or touch-up required shall be performed by the Contractor using a method approved by the Engineer and at the Contractor's expense. The Contractor shall store and protect the existing equipment at a location designated by the Engineer for pick-up by the City's forces.

# Basis of Payment

The removal of existing traffic signal equipment at the Goodwin Avenue & Green Street intersection and at the Goodwin Avenue & Springfield Avenue intersection will be paid for at the contract lump sum price for REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT, which price shall include all labor, equipment, and material necessary to complete the work as specified. Removal of individual items will not be paid for separately.

## LIGHTING CONTROLLER, LOCATION NO. 1

(Goodwin Avenue & Illinois Street)

#### Description

This work shall consist of furnishing and installing an electrical controller in cabinet with control devices, distribution equipment, foundation, and wiring for control of roadway lighting as specified, in accordance with Section 825 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

The construction and installation shall be according to NEC Article 373 and the NESC. The lighting controller installation shall be according to the details shown in the plans.

The lighting system shall be controlled by a photocell system installed inside the cabinet with a hole drilled through the side wall of the cabinet all as shown in the details in the plans.

Festoon receptacles (where shown) shall be controlled by the lighting photocell system to activate "on", and activate "off" shall be by an astronomical time clock. Program "off" times shall be set by the Contractor as directed by the Engineer.

# Basis of Payment

This work will be paid for at the contract lump sum price for LIGHTING CONTROLLER, LOCATION NO. 1, which price shall include all labor, equipment, and material necessary to complete the work as specified, including the concrete foundation.

## REMOVE EXISTING CONDUIT ATTACHED TO STRUCTURE

# Description

This work shall consist of removing and capping the existing exposed rigid lighting conduit passing through the Boneyard Creek structure as shown on the plans and as specified herein.

Existing lighting conduit supports shall be cut off flush with tunnel surfaces. Embedded portions of fasteners shall be abandoned in place.

Existing lighting conduits shall be cut and capped close to sidewalls once existing cabling has been removed. Remove and dispose of scrap conduit and hangers off-site.

#### Basis of Payment

This work will be paid for at the contract unit price per foot for REMOVE EXISTING CONDUIT ATTACHED TO STRUCTURE, which price shall include all labor, equipment, and material necessary to complete the work as specified.

#### ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C

#### Description

This work shall consist of furnishing and installing electric cables in conduit, complete with all splicing, identifications, and terminations, in accordance with Section 873 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

Equipment grounding conductors shall be made continuous by splicing. Splices shall only be permitted in handholes, double handholes, post bases, and pole handholes unless otherwise directed by the Engineer. All splices shall be irreversible hydraulic compression splices in accordance with Article 1066.06 of the Standard Specifications. No other types of splices shall be permitted. All compression splices shall be neat and direct to the path of ground.

Equipment grounding conductors shall be connected to each grounding electrode conductor in the traffic signal system with irreversible hydraulic compression splices or connected to each ground rod in the traffic signal system with exothermic welds or heavy duty ground rod clamps. Refer to the traffic signal grounding diagrams in the plans for additional information.

All required compression splices and heavy duty ground rod clamps and all exothermic welds not included in the cost of a concrete foundation shall be included in the cost of Electric Cable in Conduit, Grounding, No. 6 1C.

The grounding wire shall be bonded to the grounded conductor at the service disconnect per the NEC.

When the lighting system is supplied by the same source as the traffic signal system, the bonded ground system for the luminaires may utilize the bonded ground system for the traffic signals. All luminaires that are a part of the traffic signal system shall be grounded.

# Basis of Payment

This work will be paid for at the contract unit price per foot for ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C, which price shall include all labor, equipment, and material necessary to complete the work as specified.

#### ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED

### Description

This work shall consist of furnishing and installing electric cable in conduit in accordance with Section 873 of the Standard Specifications and the following additions or exceptions.

The electric cable shall service the light detectors. The cable shall be a continuous unbroken run from the light detector to the light detector amplifier. Splices in the cable are not allowed.

The electric cable shall be in accordance with the light detector manufacturer's specifications and requirements for warranty protection.

The electric cable shall be tagged with wiring identification markers at each point of access. All handholes, gulfbox junctions, pole handholes, and controller cabinets shall be considered as points of access. Wiring identification markers shall be in accordance with Article 1066.07 of the Standard Specifications.

#### Basis of Payment

This work will be paid for at the contract unit price per foot for ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# ACCESSIBLE PEDESTRIAN SIGNALS VIBROTACTILE FEATURE

#### Description

This work shall consist of furnishing and installing accessible pedestrian signals in accordance with BDE Special Provision 80099, the details in the plans, and the following additions or exceptions.

The pedestrian push-buttons shall be ADA audible pedestrian type push-buttons. The accessible pedestrian signal system shall be the Polara Navigator brand.

# Basis of Payment

This work will be paid for at the contract unit price each for ACCESSIBLE PEDESTRIAN SIGNALS and VIBROTACTILE FEATURE, which prices shall include all labor, equipment, and material necessary to complete the work as specified.

# INDUCTIVE LOOP DETECTOR

# Description

This work shall consist of furnishing and installing an inductive loop detector in accordance with Section 885 of the Standard Specifications and the following additions or exceptions.

The inductive loop detector amplifiers shall be the card rack type. Independent units in individual housings shall not be permitted.

# Basis of Payment

This work will be paid for at the contract unit price each for INDUCTIVE LOOP DETECTOR, RACK MOUNTED, which price shall include all labor, equipment, and material necessary to complete the work as specified. If the detector unit has more than one complete detection channel, then each complete detection channel will be considered as a detector for payment.

# PHOTOELECTRIC CONTROL

#### Description

This work shall consist of furnishing and installing a photocell to control the combination mast arm lighting circuits at the Goodwin Avenue and Springfield Avenue intersection. A photoelectric eye shall be installed atop the luminaire on the combination mast arm assembly on the southeast quadrant of the intersection. The luminaire will be furnished and installed by the City of Urbana. The control equipment shall be included with the traffic signal controller cabinet. Electric cable shall wire the eye to a 30 amp contactor located in the traffic signal controller cabinet as shown on the plans.

# Basis of Payment

This work will be paid for at the contract unit price each for PHOTOELECTRIC CONTROL, which price shall include all labor, equipment, and material necessary to complete the work as specified. The electric cable will be paid for separately.

# ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 1C

#### Description

This work shall consist of furnishing and installing service cables in accordance with Section 873 of the Standard Specifications and the following additions or exceptions.

The Contractor shall furnish and install No. 6 AWG single conductor cables for electrical service from the existing disconnect box on the utility company's power pole to the existing traffic signal controller.

All vertical service cable required for the service installation will not be measured for payment and shall be included in the cost of the service cable.

#### Basis of Payment

This work will be paid for at the contract unit price per foot for ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 1C, which price shall include all labor, equipment, and material necessary to complete the work as specified.

# REMOVE ELECTRIC CABLE FROM CONDUIT (SPECIAL)

#### Description

This work shall consist of removing traffic signal cable from conduit in accordance with Section 895 of the Standard Specifications and the following additions or exceptions.

The electric cable for the existing traffic signals shall be removed from the existing signal item to the existing traffic signal controller cabinet unless otherwise noted on the plans or directed by the Engineer. The electric cable that is removed shall not be reused. The electric cable that does not conflict with the proposed improvements shall be abandoned in place unless otherwise noted on the plans or directed by the Engineer.

# Basis of Payment

The removal of existing electric cable at the Goodwin Avenue and Green Street intersection will be paid for at the contract lump sum price for REMOVE ELECTRIC CABLE FROM CONDUIT (SPECIAL), which price shall include all labor, equipment, and material necessary to complete the work as specified. Removal of individual cables will not be paid for separately.

The removal of existing electric cable at the Goodwin Avenue and Springfield Avenue intersection will not be paid for separately but shall be included in the contract lump sum price of Remove Electric Cable from Conduit (Special), and no additional compensation will be allowed.

# <u>LIGHT POLE, ALUMINUM</u> LUMINAIRE, METAL HALIDE

The light poles and luminaires for this project will be furnished and installed by the City of Urbana. The light poles will have a black powder coated finish. The luminaires will have a black finish. The light poles will be furnished with banner arms.

The pole wiring, including the surge protector and fusing located in the light pole handholes, will be furnished and installed by the City of Urbana. The City of Urbana will make the connections between the pole wiring and the wiring from the junction boxes at the light pole handholes.

The Contractor shall provide a sticker permanently attached to the light pole below the handhole indicating the lighting controller, circuit, and pole number as shown on the plans. This work will not be paid for separately but shall be considered as included in the contract unit prices for the various lighting pay items, and no additional compensation will be allowed.

#### STATUS OF UTILITIES TO BE ADJUSTED

The intent is for the utility adjustments to be made prior to the start of construction. It may be necessary for some of the utility relocations to be done during construction, and the Contractor shall be required to cooperate with the Utility Companies while they perform their work. The Utility Companies have been provided the following information.

#### Status

- A Indicates an item to be adjusted.
- R Indicates an item to be relocated or removed.
- P Indicates an item that has a potential conflict with the proposed improvements and requires further field investigation by the Contractor and Utility Owner.

The locations listed in the Status of Utilities to be Adjusted are approximate, and all locations may not be shown. Refer to General Note 20 on Sheet 2 of the Plans for additional information.

The Contractor shall adjust or remove the manholes, inlets, valve boxes, and frames and lids as shown on the plans.

NOTE: There is a utility line in the existing storm sewer manhole at 27+84 RT. The manhole will be removed and replaced by the Contractor. The Utility Owner will need to relocate the utility line to a location outside of the proposed manhole. The owner of the utility line is not known.

Name & Address of Utility Co.	Type	Location	<u>Status</u>
Ameren IP	Manhole	27+92 LT	A
1112 West Anthony Drive Urbana, Illinois 61803		400+70 LT	A
0104114, 11111012 01000	Underground	29+92 LT	P
	Electric Line	27+93 RT	P
	Overhead	199+58 LT	P
	Electric Line	17+44 LT	P
		18+66 LT	P
		19+88 LT	P
		300+48 RT	P
		29+13 LT	P
		30+21 LT	P
		31+29 LT	P
		32+37 LT	P
		33+62 LT	P
		34+22 LT	P

Name & Address of Utility Co.	<u>Type</u>	Location	Status
Ameren IP	Gas Line	99+76 RT	P
1112 West Anthony Drive		10+31 LT	P
Urbana, Illinois 61803		10+98 LT	P
(continued)		12+04 LT	P
` ,		12+88 LT	P
		13+10 LT	P
		14+18 LT	P
		15+08 LT	P
		16+58 LT	R
		20+57 RT	P
		34+22 LT	P
		35+24 LT	P
•		35+94 RT	P
		36+22 RT	P
		36+78 RT	P
		41+47 RT	P
		41+48 LT	P
		41+62 LT	P
	•	599+53 RT	P
		600+52 LT	P
AT&T	Manhole	27+43 RT	A
201 South Neil Street		27+46 RT	A
Champaign, Illinois 61820		41+58 RT	A
	Pedestal	300+60 RT	R
	Underground	15+08 LT	P
	Telephone Line	200+46 RT	P
		16+86 RT	P
		18+05 RT	P
•		19+27 RT	P
		20+57 RT	P
		21+87 RT	P
		23+16 RT	P
	·	24+10 RT	P
		25+40 RT	P
		26+68 RT	P
		27+27 RT	P
		400+49 RT	P

Name & Address of Utility Co.	<u>Type</u>	Location	<u>Status</u>
AT&T 201 South Neil Street Champaign, Illinois 61820 (continued)	Underground Telephone Line	27+49 RT 27+95 LT 28+04 RT 29+63 RT 30+75 RT 31+85 RT 32+46 RT 41+58 LT 599+55 LT	P P P P P P
Comcast 303 Fairlawn Drive Urbana, Illinois 61801	To Be Determined		
Illinois American Water 201 Devonshire Drive Champaign, Illinois 61820	Fire Hydrant	16+72 RT 300+54 RT 40+92 RT	R R R
	Water Line	200+46 RT 16+58 LT 16+86 RT 18+92 RT 19+22 RT 27+33 RT 27+59 RT 34+61 RT 36+82 RT 41+05 RT 41+73 RT	P P P P P P P

Name & Address of Utility Co.	<u>Type</u>	Location	<u>Status</u>
University of Illinois Campus Information Technologies	Emergency Telephone	99+48 LT	R
and Educational Services	Underground	100+43 RT	P
Digital Computer Laboratory	Communication Line	14+18 LT	P
1304 West Springfield Avenue		15+08 LT	P
Urbana, Illinois 61801		16+15 LT	P
		19+87 LT	P
		20+42 LT	P
		27+06 RT	P
		N side of Green St	P
University of Illinois	Underground	99+60 LT	P
Facilities and Services	Electric Line	19+92 LT	P
Physical Plant Services Building		19+92 RT	P
1501 South Oak Street		27+23 LT	P
Champaign, Illinois 61820		27+25 RT	P
		27+27 RT	P
		27+31 LT	P
		27+33 RT	P
•		27+86 LT	P
		28+19 LT	· <b>P</b>
	Fire Hydrant & Valve Box	41+70 LT	R
	Water Line	99+60 LT	P
		99+60 RT	P
		14+59 RT	P
		17+44 LT	P
		18+66 LT	P
		27+98 RT	P
		28+03 LT	P
		30+21 LT	P
		31+29 LT	P
·		32+37 LT	P
		32+46 LT	P
		33+62 LT	P
		36+44 LT	P
		36+79 LT	P
		599+53 RT	P
		NW Goodwin &	R
		Springfield	

Name & Address of Utility Co.	Type	<u>Location</u>	Status
University of Illinois	Chilled Water Line	10+43 RT	P
Facilities and Services		10+98 LT	P P
Physical Plant Services Building		11+51 RT	P
1501 South Oak Street		12+04 LT	P
Champaign, Illinois 61820		12+62 RT	P
(continued)		12+88 LT	P
		12+88 RT	P
		13+10 LT	P
		14+18 LT	P
		15+08 LT	P
•		23+80 LT	P
		26+68 RT	P
		28+46 RT	P
	Steam Tunnel	14+59 RT	P
		28+04 RT	P
		28+11 RT	P
		33+60 RT	P
		34+61 RT	P
•		35+63 RT	P
		35+94 RT	P
		36+22 RT	P
		36+70 RT	P
		37+36 LT	P
		38+01 RT	P

# State of Illinois Department of Transportation Bureau of Local Roads and Streets

# SPECIAL PROVISION FOR COOPERATION WITH UTILITIES

Effective: January 1, 1999 Revised: January 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

Replace Article 105.07 of the Standard Specifications with the following:

"105.07 Cooperation with Utilities. The adjustment of utilities consists of the relocation, removal, replacement, rearrangements, reconstruction, improvement, disconnection, connection, shifting, new installation or altering of an existing utility facility in any manner.

When the plans or special provisions include information pertaining to the location of underground utility facilities, such information represents only the opinion of the Department as to the location of such utilities and is only included for the convenience of the bidder. The Department assumes no responsibility in respect to the sufficiency or the accuracy of the information shown on the plans relative to the location of the underground utility facilities.

Utilities which are to be adjusted shall be adjusted by the utility owner or the owner's representative or by the Contractor as a contract item. Generally, arrangements for adjusting existing utilities will be made by the Department prior to project construction; however, utilities will not necessarily be adjusted in advance of project construction and, in some cases, utilities will not be removed from the proposed construction limits. When utility adjustments must be performed in conjunction with construction, the utility adjustment work will be shown on the plans and/or covered by Special Provisions.

When the Contractor discovers a utility has not been adjusted by the owner or the owner's representative as indicated in the contract documents, or the utility is not shown on the plans or described in the Special Provisions as to be adjusted in conjunction with construction, the Contractor shall not interfere with said utility, and shall take proper precautions to prevent damage or interruption of the utility and shall promptly notify the Engineer of the nature and location of said utility.

All necessary adjustments, as determined by the Engineer, of utilities not shown on the plans or not identified by markers, will be made at no cost to the Contractor except traffic structures, light poles, etc., that are normally located within the proposed construction limits as hereinafter defined will not be adjusted unless required by the proposed improvement.

- (a) Limits of Proposed Construction for Utilities Paralleling the Roadway. For the purpose of this Article, limits of proposed construction for utilities extending in the same longitudinal direction as the roadway, shall be defined as follows:
  - (1) The horizontal limits shall be a vertical plane, outside of, parallel to, and 600 mm (2 ft) distant at right angles from the plan or revised slope limits.
  - In cases where the limits of excavation for structures are not shown on the plans, the horizontal limits shall be a vertical plane 1.2 m (4 ft) outside the edges of structure footings or the structure where no footings are required.
  - (2) The upper vertical limits shall be the regulations governing the roadbed clearance for the specific utility involved.
  - (3) The lower vertical limits shall be the top of the utility at the depth below the proposed grade as prescribed by the governing agency or the limits of excavation, whichever is less.
- (b) Limits of Proposed Construction for Utilities Crossing the Roadway. For the purpose of this Article, limits of proposed construction for utilities crossing the roadway in a generally transverse direction shall be defined as follows:
  - (1) Utilities crossing excavations for structures that are normally made by trenching such as sewers, underdrains, etc. and all minor structures such as manholes, inlets, foundations for signs, foundations for traffic signals, etc., the limits shall be the space to be occupied by the proposed permanent construction unless otherwise required by the regulations governing the specific utility involved.
  - (2) For utilities crossing the proposed site of major structures such as bridges, sign trusses, etc., the limits shall be as defined above for utilities extending in the same general direction as the roadway.

The Contractor may make arrangements for adjustment of utilities outside of the limits of proposed construction provided the Contractor furnishes the Department with a signed agreement with the utility owner covering the adjustments to be made. The cost of any adjustments made outside the limits of proposed construction shall be the responsibility of the Contractor unless otherwise provided.

The Contractor shall request all utility owners to field locate their facilities according to Article 107.31. The Engineer may make the request for location from the utility after receipt of notice from the Contractor. On request, the Engineer will make an inspection to verify that the utility company has field located its facilities, but will not assume responsibility for the accuracy of such work. The Contractor shall be responsible for maintaining the excavations or markers provided by the utility owners. This field location procedure may be waived if the utility owner has stated in writing to the Department it is satisfied the construction plans are sufficiently accurate. If the utility owner does not submit such statement to the Department, and they do not field locate their facilities in both horizontal and vertical alignment, the Engineer will authorize the Contractor in writing to proceed to locate the facilities in the most economical and reasonable manner, subject to the approval of the Engineer, and be paid according to Article 109.04.

The Contractor shall coordinate with any planned utility adjustment or new installation and the Contractor shall take all precautions to prevent disturbance or damage to utility facilities. Any failure on the part of the utility owner, or their representative, to proceed with any planned utility adjustment or new installation shall be reported promptly by the Contractor to the Engineer orally and in writing.

The Contractor shall take all necessary precautions for the protection of the utility facilities. The Contractor shall be responsible for any damage or destruction of utility facilities resulting from neglect, misconduct, or omission in the Contractor's manner or method of execution or nonexecution of the work, or caused by defective work or the use of unsatisfactory materials. Whenever any damage or destruction of a utility facility occurs as a result of work performed by the Contractor, the utility company will be immediately notified. The utility company will make arrangements to restore such facility to a condition equal to that existing before any such damage or destruction was done.

It is understood and agreed that the Contractor has considered in the bid all of the permanent and temporary utilities in their present and/or adjusted positions.

No additional compensation will be allowed for any delays, inconvenience, or damage sustained by the Contractor due to any interference from the said utility facilities or the operation of relocating the said utility facilities.

# State of Illinois Department of Transportation Bureau of Local Roads and Streets

# SPECIAL PROVISION FOR INSURANCE

Effective: February 1, 2007 Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

City of Urbana				
University of Illinois	· · ·			
Clark Dietz, Inc.				
	<del></del>	<del> </del>		
			•	

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

# ACCESSIBLE PEDESTRIAN SIGNALS (APS) (BDE)

Effective: April 1, 2003 Revised: January 1, 2007

<u>Description</u>. This work shall consist of furnishing and installing accessible pedestrian signals (APS). Each APS shall consist of an interactive pedestrian pushbutton with speaker, an informational sign, a solid state electronic control board, a power supply, wiring, and mounting hardware. The APS shall meet the requirements of the MUTCD and Sections 801 and 873 of the Standard Specifications, except as modified herein.

<u>Electrical Requirements</u>. The APS shall operate with systems providing 95 to 130 VAC, 60 Hz and throughout an ambient air temperature range of –29 to +160 °F (-34 to +70 °C).

The APS shall contain a power protection circuit consisting of both fuse and transient protection.

Audible Indications. A pushbutton locator tone shall sound at each pushbutton.

A clear, verbal message shall be used to communicate the pedestrian walk interval. This message shall sound throughout the WALK interval only. The verbal message shall be "WALK SIGN", which may be followed by the name of the street to be crossed. No other messages shall be used to denote the WALK interval.

Automatic volume adjustments in response to ambient traffic sound level shall be provided up to a maximum volume of 89 dB. Locator tone and verbal messages shall be no more than 5 dB louder than ambient sound.

<u>Pedestrian Pushbutton</u>. Pedestrian pushbuttons shall be at least 2 in. (50 mm) in diameter or width. The force required to activate the pushbutton shall be no greater than 3.5 lb (15.5 N).

If a pushbutton is depressed for three seconds, a custom verbal message shall be given before the walk cycle goes into effect which tells the pedestrian their location or other pertinent information about the intersection.

A red light emitting diode (LED) shall be located on or near the pushbutton which, when activated, acknowledges the pedestrians request to cross the street.

<u>Signage</u>. A sign shall be located immediately above the pedestrian pushbutton and parallel to the crosswalk controlled by the pushbutton. The sign shall resemble either of the following:





<u>Tactile Arrow</u>. A tactile arrow, pointing in the direction of travel controlled by a pushbutton, shall be provided either on the pushbutton or its sign. This arrow shall meet the requirements of Section X02.5.1.4 of the U.S. Access Board's "Public Rights-of-way Access Advisory Committee Report, 2001".

<u>Vibrotactile Feature</u>. When specified on the plans, vibrotactile messages shall also be provided at each pedestrian pushbutton. The pushbutton shall pulse when depressed and shall vibrate continuously throughout the WALK interval.

Method of Measurement. This work will be measured for payment as each, per pushbutton.

When provided the vibrotactile feature will be measured for payment as each, per pushbutton.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per each for ACCESSIBLE PEDESTRIAN SIGNALS.

When provided, the vibrotactile feature will be paid for at the contract unit price per each for VIBROTACTILE FEATURE.

80099

# ALKALI-SILICA REACTION FOR PRECAST AND PRECAST PRESTRESSED CONCRETE (BDE)

Effective: January 1, 2009

<u>Description</u>. This special provision is intended to reduce the risk of a deleterious alkali-silica reaction in precast and precast prestressed concrete exposed to humid or wet conditions. The special provision is not intended or adequate for concrete exposed to potassium acetate, potassium formate, sodium acetate or sodium formate. The special provision shall not apply to the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy. The special provision shall also not apply to cast-in-place concrete.

Aggregate Expansion Values. Each coarse and fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II cement having a total equivalent alkali content (Na<sub>2</sub>O + 0.658K<sub>2</sub>O) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates and 0.03 percent to limestone or dolomite fine aggregates (manufactured stone sand); however the Department reserves the right to perform the ASTM C 1260 test.

<u>Aggregate Groups</u>. Each combination of aggregates used in a mixture will be assigned to an aggregate group. The point at which the coarse aggregate and fine aggregate expansion values intersect in the following table will determine the group.

AGGREGATE GROUPS				
Coarse Aggregate or	Fine Aggregate or			
Coarse Aggregate Blend  ASTM C 1260 Expansion	Fine Aggregate Blend ASTM C 1260 Expansion			
i i	≤ 0.16%	> 0.16% - 0.27%	> 0.27%	
≤ 0.16%	Group I	Group II	Group III	
> 0.16% - 0.27%	Group II	Group II	Group III	
> 0.27%	Group III	Group III	Group IV	

<u>Mixture Options</u>. Based upon the aggregate group, the following mixture options shall be used; however, the Department may prohibit a mixture option if field performance shows a deleterious alkali-silica reaction or Department testing indicates the mixture may experience a deleterious alkali-silica reaction.

Group I - Mixture options are not applicable. Use any cement or finely divided mineral.

Group II - Mixture options 1, 2, 3, 4, or 5 shall be used.

Group III - Mixture options 1, 2 and 3 combined, 4, or 5 shall be used.

Group IV - Mixture options 1, 2 and 4 combined, or 5 shall be used.

a) Mixture Option 1. The coarse or fine aggregates shall be blended to place the material in a group that will allow the selected cement or finely divided mineral to be used.

When a coarse or fine aggregate is blended, the weighted expansion value shall be calculated separately for the coarse and fine aggregate as follows:

Weighted Expansion Value =  $(a/100 \times A) + (b/100 \times B) + (c/100 \times C) + ...$ 

Where: a, b, c... = percentage of aggregate in the blend; A, B, C... = expansion value for that aggregate.

- b) Mixture Option 2. A finely divided mineral shall be used as described in 1), 2), 3), or 4) that follow. The replacement ratio is defined as "finely divided mineral:portland cement".
  - 1) Class F Fly Ash. For Class PC concrete, precast products, and PS concrete, Class F fly ash shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.
  - 2) Class C Fly Ash. For Class PC Concrete, precast products, and Class PS concrete, Class C fly ash with 18 percent to less than 26.5 percent calcium oxide content, and less than 2.0 percent loss on ignition, shall replace 20 percent of the portland cement at a minimum replacement ratio of 1:1; or at a minimum replacement ratio of 1.25:1 if the loss on ignition is 2.0 percent or greater. Class C fly ash with less than 18 percent calcium oxide content shall replace 20 percent of the portland cement at a minimum replacement ratio of 1.25:1.
  - 3) Ground Granulated Blast-Furnace Slag. For Class PC concrete, precast products, and Class PS concrete, ground granulated blast-furnace slag shall replace 25 percent of the portland cement at a minimum replacement ratio of 1:1.
  - 4) Microsilica or High Reactivity Metakaolin. Microsilica solids or high reactivity metakaolin shall be added to the mixture at a minimum 25 lb/cu yd (15 kg/cu m) or 27 lb/cu yd (16 kg/cu m) respectively.
- c) Mixture Option 3. The cement used shall have a maximum total equivalent alkali content (Na<sub>2</sub>O + 0.658K<sub>2</sub>O) of 0.60 percent. When aggregate in Group II is involved, any finely divided mineral may be used with a portland cement.
- d) Mixture Option 4. The cement used shall have a maximum total equivalent alkali content (Na₂O + 0.658K₂O) of 0.45 percent. When aggregate in Group II or III is involved, any finely divided mineral may be used with a portland cement.
- e) Mixture Option 5. The proposed cement or finely divided mineral may be used if the ASTM C 1567 expansion value is ≤ 0.16 percent when performed on the aggregate in

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the concrete mixture with the highest ASTM C 1260 test result. The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly. The 0.20 percent autoclave expansion limit in ASTM C 1567 shall not apply.

If during the two year time period the Contractor needs to replace the cement, and the replacement cement has an equal or lower total equivalent alkali content (Na<sub>2</sub>O + 0.658K<sub>2</sub>O), a new ASTM C 1567 test will not be required.

<u>Testing.</u> If an individual aggregate has an ASTM C 1260 expansion value > 0.16 percent, an ASTM C 1293 test may be performed by the Contractor to evaluate the Department's ASTM C 1260 test result. The ASTM C 1293 test shall be performed with Type I or II cement having a total equivalent alkali content (Na $_2$ O + 0.658K $_2$ O) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container or wick of absorbent material, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly.

The Engineer reserves the right to verify a Contractor's ASTM C 1293 or 1567 test result. The Engineer will not accept the result if the precision and bias for the test methods are not met.

The laboratory performing the ASTM C 1567 test shall either be accredited by the AASHTO Materials Reference Laboratory (AMRL) for ASTM C 227 under Portland Cement or Aggregate; or shall be inspected for Hydraulic Cement - Physical Tests by the Cement and Concrete Reference Laboratory (CCRL) and shall be approved by the Department. The laboratory performing the ASTM C 1293 test shall be inspected for Portland Cement Concrete by CCRL and shall be approved by the Department.

80213

BG

# APPROVAL OF PROPOSED BORROW AREAS, USE AREAS, AND/OR WASTE AREAS INSIDE ILLINOIS STATE BORDERS (BDE)

Effective: November 1, 2008

Revise the title of Article 107.22 of the Standard Specifications to read:

"107.22 Approval of Proposed Borrow Areas, Use Areas, and/or Waste Areas Inside Illinois State Borders."

Add the following sentence to the end of the first paragraph of Article 107.22 of the Standard Specifications:

"Proposed borrow areas, use areas, and/or waste areas outside of Illinois shall comply with Article 107.01."

80207

# BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID)

Effective: November 2, 2006

Revised: April 1, 2009

<u>Description</u>. Bituminous material 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.

 $CA = (BPI_P - BPI_1) \times (\%AC_V / 100) \times Q$ 

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<sub>L</sub> = Bituminous Price Index, as published by the Department for the month prior to the letting, \$/ton (\$/metric ton).

%AC<sub>V</sub> = 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 %  $AC_{V.}$ 

For bituminous materials measured in gallons: For bituminous materials measured in liters:

Q, tons = V x 8.33 lb/gal x SG / 2000

Q, metric tons =  $V \times 1.0 \text{ kg/L} \times \text{SG} / 1000$ 

Where: A = Area of the HMA mixture, sq yd (sq m).

D = Depth of the HMA mixture, in. (mm).

G<sub>mb</sub> = Average bulk specific gravity of the mixture, from the approved mix design.

V = Volume of the bituminous material, gal (L).

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 work placed during the month are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

#### Return With Bid

## ILLINOIS DEPARTMENT OF TRANSPORTATION

# OPTION FOR BITUMINOUS 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 spec	ial provision as part of the contract?
Yes No	
Signature:	Date:
80173	

### **CEMENT (BDE)**

Effective: January 1, 2007 Revised: April 1, 2009

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. The total of all inorganic processing additions shall be a maximum of 4.0 percent by weight (mass) of the cement. However, a cement kiln dust inorganic processing addition shall be limited to a maximum of 1.0 percent. 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, Class C fly ash according to the chemical requirements of AASHTO M 295, and cement kiln dust.

(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 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.

For cast-in-place construction, portland-pozzolan cement 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 be limited to cement kiln dust at a maximum of 1.0 percent.

(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 IS portland blast-furnace slag cement may be used for cast-in-place, precast, and precast prestressed concrete, except when Class PP concrete is used. The blast-furnace slag constituent for Type IS shall be a maximum of 25 percent of the weight (mass) of the portland blast-furnace slag cement.

For cast-in-place construction, portland blast-furnace slag cement 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 be limited to cement kiln dust at a maximum of 1.0 percent.

- (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, 3200 psi (22,100 kPa) at 6.0 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 AASHTO T 161, Procedure B.
- (e) Calcium Aluminate Cement. Calcium aluminate cement shall be used only where 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."

### **DETERMINATION OF THICKNESS (BDE)**

Effective: April 1, 2009

Revise Articles 353.12 and 353.13 of the Standard Specifications to Articles 353.13 and 353.14 respectively.

Add the following Article to the Standard Specifications:

"353.12 Tolerance in Thickness. The thickness of base course pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous area, except for temporary construction, bike paths, and individual locations less than 500 ft (150 m) long, will be evaluated. Temporary construction is defined as those areas constructed and removed under the same contract. If the base course cannot be cored for thickness prior to placement of the cover layer(s), the Engineer will determine the thickness of the cover layer(s), and subtract them from the measured core thickness to determine the base course thickness.

The procedure described in Article 407.10(b) will be followed, except the option of correcting deficient pavement with additional lift(s) shall not apply."

Revise Article 354.09 of the Standard Specifications to read:

"354.09 Tolerance in Thickness. The thickness of base course widening pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous area, except for temporary construction; bike paths and individual locations less than 3 ft (1 m) wide or 1000 ft (300 m) long, will be evaluated. Temporary construction is defined as those areas constructed and removed under the same contract. If the base course widening cannot be cored for thickness prior to placement of the cover layer(s), the Engineer will determine the thickness of the cover layer(s), and subtract them from the measured core thickness to determine the base course widening thickness.

The procedure described in Article 407.10(b) will be followed, except:

- (a) The width of a unit shall be the width of the widening along one edge of the pavement.
- (b) The length of the unit shall be 1000 ft (300 m).
- (c) The option of correcting deficient pavement with additional lift(s) shall not apply."

Revise Article 355.09 of the Standard Specifications to read:

"355.09 Tolerance in Thickness. The thickness of HMA base course pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous area, except for temporary construction; bike paths and individual locations less than 500 ft (150 m) long, will be evaluated according to Article 407.10(b). Temporary construction is defined as those areas constructed and removed under the same contract. If the base course cannot be cored for thickness prior to

placement of the cover layer(s), the Engineer will determine the thickness of the cover layer(s), and subtract them from the measured core thickness to determine the base course thickness."

Revise Article 356.07 of the Standard Specifications to read:

"356.07 Tolerance in Thickness. The thickness of HMA base course widening pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous area, except for temporary construction; bike paths and individual locations less than 3 ft (1 m) wide or 1000 ft (300 m) long, will be evaluated according to Article 407.10(b) except, the width of a unit shall be the width of the widening along one edge of the pavement and the length of a unit shall be 1000 ft (300 m). Temporary locations are defined as those constructed and removed under the same contract. If the base course widening cannot be cored for thickness prior to placement of the cover layer(s), the Engineer will determine the thickness of the cover layer(s)and subtract them from the measured core thickness to determine the base course widening thickness."

Revise Article 407.10 of the Standard Specifications to read:

"407.10 Tolerance in Thickness. Determination of pavement thickness shall be performed after the pavement surface tests and corrective action have been completed according to Article 407.09. Pay adjustments made for pavement thickness will be in addition to and independent of those made for pavement smoothness. Pavement pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous pavement shall be evaluated with the following exclusions: temporary pavements; variable width pavements; radius returns; short lengths of contiguous pavements less than 500 ft (125 m) in length; and constant width portions of turn lanes less than 500 ft (125 m) in length. Temporary pavements are defined as pavements constructed and removed under the same contract.

The method described in Article 407.10(a), shall be used except for those pavements constructed in areas where access to side streets and entrances necessitates construction in segments less than 1000 ft (300 m). The method described in Article 407.10(b) shall be used in areas where access to side streets and entrances necessitates construction in segments less than 1000 ft (300 m).

- (a) Percent Within Limits. The percent within limits (PWL) method shall be as follows.
  - (1) Lots and Sublots. The pavement will be divided into approximately equal lots of not more than 5000 ft (1500 m) in length. When the length of a continuous strip of pavement is 500 ft (1500 m) or greater but less than 5000 ft (1500 m), these short lengths of pavement, ramps, turn lanes, and other short sections of continuous pavement will be grouped together to form lots approximately 5000 ft (1500 m) in length. Short segments between structures will be measured continuously with the structure segments omitted. Each lot will be subdivided into ten equal sublots. The width of a sublot and lot will be the width from the pavement edge to the adjacent lane line, from one lane line to the next, or between pavement edges for single-lane pavements.

(2) Cores. Cores 2 in. (50 mm) in diameter shall be taken from the pavement by the Contractor, at locations selected by the Engineer. The exact location for each core will be selected at random, but will result in one core per sublot. Core locations will be specified prior to beginning the coring operations.

The Contractor and the Engineer shall witness the coring operations, as well as the measuring and recording of the core lengths. The cores will be measured with a device supplied by the Department immediately upon removal from the core bit and prior to moving to the next core location. Upon concurrence of the length, the core samples shall be disposed of according to Article 202.03.

Upon completion of each core, all water shall be removed from the hole and the hole then filled with a rapid hardening mortar or concrete. The material shall be mixed in a separate container, placed in the hole, consolidated by rodding, and struck-off flush with the adjacent pavement.

(3) Deficient Sublot. When the length of the core in a sublot is deficient by more than ten percent of plan thickness, the Contractor may take three additional cores within that sublot at locations selected at random by the Engineer. If the Contractor chooses not to take additional cores, the pavement in that sublot shall be removed and replaced.

When the three additional cores are taken, the length of those cores will be averaged with the original core length. If the average shows the sublot to be deficient by ten percent or less, no additional action is necessary. If the average shows the sublot to be deficient by more than ten percent, the pavement in that sublot shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such deficient sublots to remain in place. For deficient sublots allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When a deficient sublot is removed and replaced, or additional lifts are placed, the corrected sublot shall be retested for thickness. The length of the new core taken in the sublot will be used in determining the PWL for the lot.

When a deficient sublot is left in place, and no additional lift(s) are placed, no payment will be made for the deficient sublot. The length of the original core taken in the sublot will be used in determining the PWL for the lot.

(4) Deficient Lot. After addressing deficient sublots, the PWL for each lot will be determined. When the PWL of a lot is 60 percent or less, the pavement in that lot shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such deficient lots to remain in place. For deficient lots allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When a deficient lot is removed and replaced, or additional lifts are placed, the corrected lot shall be retested for thickness. The PWL for the lot will then be recalculated based upon the new cores; however, the pay factor for the lot shall be a maximum of 100 percent.

When a deficient lot is left in place, and no additional lift(s) are placed, the PWL for the lot will not be recalculated.

(5) Right of Discovery. When the Engineer has reason to believe the random core selection process will not accurately represent the true conditions of the work, he/she may order additional cores. The additional cores shall be taken at specific locations determined by the Engineer. The Engineer will provide notice to the Contractor containing an explanation of the reasons for his/her action. The need for, and location of, additional cores will be determined prior to commencement of coring operations.

When the additional cores show the pavement to be deficient by more than ten percent of plan thickness, more additional cores shall be taken to determine the limits of the deficient pavement and that area shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such areas of deficient pavement to remain in place. The area of deficient pavement will be defined using the length between two acceptable cores and the full width of the sublot. An acceptable core is a core with a length of at least 90 percent of plan thickness.

For deficient areas allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When an area of deficient pavement is removed and replaced, or additional lifts are placed, the corrected pavement shall be retested for thickness.

When an area of deficient pavement is left in place, and no additional lift(s) are placed, no payment will be made for the deficient pavement.

When the additional cores show the pavement to be at least 90 percent of plan thickness, the additional cores will be paid for according to Article 109.04.

- (6) Profile Index Adjustment. After any area of pavement is removed and replaced or any additional lifts are placed, the corrected areas shall be retested for pavement smoothness and any necessary profile index adjustments and/or corrections will be made based on these final profile readings prior to retesting for thickness.
- (7) Determination of PWL. The PWL for each lot will be determined as follows.

#### Definitions:

<sub>ci</sub> = Individual values (core lengths) under consideration

n = Number of individual values under consideration (10 per lot)

 $\bar{x}$  = Average of the values under consideration

LSL = Lower Specification Limit (98% of plan thickness)

 $Q_L$  = Lower Quality Index

s = Sample Standard Deviation

PWL = Percent Within Limits

Determine  $\bar{x}$  for the lot to the nearest two decimal places.

Determine *s* for the lot to the nearest three decimal places using:

$$S = \sqrt{\frac{\sum (1 - \bar{x}^2)}{n - 1}} \quad \text{where} \qquad \sum (1 - \bar{x}^2) + (1 - \bar{x}^2) + (2 - \bar{x}^2) + \dots + (10 - \bar{x}^2)$$

Determine Q<sub>1</sub> for the lot to the nearest two decimal places using:

$$Q_L = \frac{\langle \!\!\! \langle -LSL \rangle \!\!\!\!\rangle}{S}$$

Determine PWL for the lot using the  $Q_L$  and the following table. For  $Q_L$  values less than zero the value shown in the table must be subtracted from 100 to obtain PWL.

(8) Pay Factors. The pay factor (PF) for each lot will be determined, to the nearest two decimal places, using:

$$PF$$
 (in percent) = 55 + 0.5 (PWL)

If  $\bar{x}$  for a lot is less than the plan thickness, the maximum PF for that lot shall be 100 percent.

(9) Payment. Payment of incentive or disincentive for pay items subject to the PWL method will be calculated using:

CUP = Contract Unit Price

TOTPAVT = Area of Pavement Subject to Coring

DEFPAVT = Area of Deficient Pavement

The TPF for the pavement shall be the average of the PF for all the lots; however, the TPF shall not exceed 102 percent.

Area of Deficient pavement (DEFPAVT) is defined as an area of pavement represented by a sublot deficient by more than ten percent which is left in place with no additional thickness added.

Area of Pavement Subject to Coring (TOTPAVT) is defined as those pavement areas included in lots for pavement thickness determination.

	PERCENT WITHIN LIMITS						
Quality Index (Q <sub>L</sub> )*	Percent Within Limits (PWL)						
0.00	50.00	0.40	65.07	0.80	78.43	1.20	88.76
0.01	50.38	0.41	65.43	0.81	78.72	1.21	88.97
0.02	50.77	0.42	65.79	0.82	79.02	1.22	89.17
0.03	51.15	0.43	66.15	0.83	79.31	1.23	89.38
0.04	51.54	0.44	66.51	0.84	79.61	1.24	89.58
0.05	51.92	0.45	66.87	0.85	79.90	1.25	89.79
0.06	52.30	0.46	67.22	0.86	80.19	1.26	89.99
0.07	52.69	0.47	67.57	0.87	80.47	1.27	90.19
0.08	53.07	0.48	67.93	0.88	80.76	1.28	90.38
0.09	53.46	0.49	68.28	0.89	81.04	1.29	90.58
0.10	53.84	0.50	68.63	0.90	81.33	1.30	90.78
0.11	54.22	0.51	68.98	0.91	81.61	1.31	90.96
0.12	54.60	0.52	69.32	0.92	81.88	1.32	91.15
0.13	54.99	0.53	69.67	0.93	82.16	1.33	91.33
0.14	55.37	0.54	70.01	0.94	82.43	1.34	91.52
0.15	55.75	0.55	70.36	0.95	82.71	1.35	91.70
0.16	56.13	0.56	70.70	0.96	82.97	1.36	91.87
0.17	56.51	0.57	71.04	0.97	83.24	1.37	92.04
0.18	56.89	0.58	71.38	0.98	83.50	1.38	92.22
0.19	57.27	0.59	71.72	0.99	83.77	1.39	92.39
0.20	57.65	0.60	72.06	1.00	84.03	1.40	92.56
0.21	58.03	0.61	72.39	1.01	84.28	1.41	92.72
0.22	58.40	0.62	72.72	1.02	84.53	1.42	92.88
0.23	58.78	0.63	73.06	1.03	84.79	1.43	93.05
0.24	59.15	0.64	73.39	1.04	85.04	1.44	93.21
0.25	59.53	0.65	73.72	1.05	85.29	1.45	93.37
0.26	59.90	0.66	74.04	1.06	85.53	1.46	93.52
0.27	60.28	0.67	74.36	1.07	85.77	1.47	93.67
0.28	60.65	0.68	74.69	1.08	86.02	1.48	93.83
0.29	61.03	0.69	75.01	1.09	86.26	1.49	93.98
0.30	61.40	0.70	75.33	1.10	86.50	1.50	94.13
0.31	61.77	0.71	75.64	1.11	86.73	1.51	94.27
0.32	62.14	0.72	75.96	1.12	86.96	1.52	94.41
0.33	62.51	0.73	76.27	1.13	87.20	1.53	94.54
0.34	62.88	0.74	76.59	1.14	87.43	1.54	94.68
0.35	63.25	0.75	76.90	1.15	87.66	1.55	94.82
0.36	63.61	0.76	77.21	1.16	87.88	1.56	94.95
0.37	63.98	0.77	77.51	1.17	88.10	1.57	95.08
0.38	64.34	0.78	77.82	1.18	88.32	1.58	95.20
0.39	64.71	0.79	78.12	1.19	88.54	1.59	95.33

<sup>\*</sup>For  $\mathbf{Q}_{\mathrm{L}}$  values less than zero, subtract the table value from 100 to obtain PWL

	PERCEN	T WITHIN	LIMITS (c	ontinued)	
Quality Index (Q <sub>L</sub> )*	Percent Within Limits (PWL)	Quality Index (Q <sub>L</sub> )*	Percent Within Limits (PWL)	Quality Index (Q <sub>L</sub> )*	Percent Within Limits (PWL)
1.60 1.61 1.62 1.63 1.64	95.46 95.58 95.70 95.81 95.93	2.00 2.01 2.02 2.03 2.04	98.83 98.88 98.92 98.97 99.01	2.40 2.41 2.42 2.43 2.44	99.89 99.90 99.91 99.91 99.92
1.65 1.66 1.67 1.68 1.69	96.05 96.16 96.27 96.37 96.48	2.05 2.06 2.07 2.08 2.09	99.06 99.10 99.14 99.18 99.22	2.45 2.46 2.47 2.48 2.49	99.93 99.94 99.94 99.95 99.95
1.70 1.71 1.72 1.73 1.74	96.59 96.69 96.78 96.88 96.97	2.10 2.11 2.12 2.13 2.14	99.26 99.29 99.32 99.36 99.39	2.50 2.51 2.52 2.53 2.54	99.96 99.96 99.97 99.97 99.98
1.75 1.76 1.77 1.78 1.79	97.07 97.16 97.25 97.33 97.42	2.15 2.16 2.17 2.18 2.19	99.42 99.45 99.48 99.50 99.53	2.55 2.56 2.57 2.58 2.59	99.98 99.98 99.99 99.99
1.80 1.81 1.82 1.83 1.84	97.51 97.59 97.67 97.75 97.83	2.20 2.21 2.22 2.23 2.22	99.56 99.58 99.61 99.63 99.66	2.60 2.61 2.62 2.63 2.64	99.99 99.99 99.99 100.00 100.00
1.85 1.86 1.87 1.88 1.89	97.91 97.98 98.05 98.11 98.18	2.25 2.26 2.27 2.28 2.29	99.68 99.70 99.72 99.73 99.75	≥ 2.65	100.00
1.90 1.91 1.92 1.93 1.94	98.25 98.31 98.37 98.44 98.50	2.30 2.31 2.32 2.33 2.34	99.77 99.78 99.80 99.81 99.83		
1.95 1.96 1.97 1.98 1.99	98.56 98.61 98.67 98.72 98.78	2.35 2.36 2.37 2.38 2.39	99.84 99.85 99.86 99.87 99.88		

<sup>\*</sup>For  $Q_L$  values less than zero, subtract the table value from 100 to obtain PWL

- (b) Minimum Thickness. The minimum thickness method shall be as follows.
  - (1) Length of Units. The length of a unit will be a continuous strip of pavement 500 ft (150 m) in length.
  - (2) Width of Units. The width of a unit will be the width from the pavement edge to the adjacent lane line, from one lane line to the next, or between pavement edges for single-lane pavements.
  - (3) Thickness Measurements. Pavement thickness will be based on 2 in. (50 mm) diameter cores.

Cores shall be taken from the pavement by the Contractor at locations selected by the Engineer. When determining the thickness of a unit, one core shall be taken in each unit.

The Contractor and the Engineer shall witness the coring operations, as well as the measuring and recording of the cores. Core measurements will be determined immediately upon removal from the core bit and prior to moving to the next core location. Upon concurrence of the length, the core samples may be disposed of according to Article 202.03.

Upon completion of each core, all water shall be removed from the hole and the hole then filled with a rapid hardening mortar or concrete. The material shall be mixed in a separate container, placed in the hole, consolidated by rodding, and struck-off flush with the adjacent pavement.

- (4) Unit Deficient in Thickness. In considering any portion of the pavement that is deficient, the entire limits of the unit will be used in computing the deficiency or determining the remedial action required.
- (5) Thickness Equals or Exceeds Specified Thickness. When the thickness of a unit equals or exceeds the specified plan thickness, payment will be made at the contract unit price per square yard (square meter) for the specified thickness.
- (6) Thickness Deficient by Ten Percent or Less. When the thickness of a unit is less than the specified plan thickness by ten percent or less, a deficiency deduction will be assessed against payment for the item involved. The deficiency will be a percentage of the contract unit price as given in the following table.

Percent Deficiency (of Plan Thickness)	Percent Deduction (of Contract Unit Price)
0.0 to 2.0	0
2.1 to 3.0	20
3.1 to 4.0	28
4.1 to 5.0	32
5.1 to 7.5	43
7.6 to 10.0	50

(7) Thickness Deficient by More than Ten Percent. When a core shows the pavement to be deficient by more than ten percent of plan thickness, additional cores shall be taken on each side of the deficient core, at stations selected by the Contractor and offsets selected by the Engineer, to determine the limits of the deficient pavement. No core shall be located within 5 ft (1.5 m) of a previous core obtained for thickness determination. The first acceptable core obtained on each side of a deficient core will be used to determine the length of the deficient pavement. An acceptable core is a core with a thickness of at least 90 percent of plan thickness. The area of deficient pavement will be defined using the length between two acceptable cores and the full width of the unit. The area of deficient pavement shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such areas of deficient pavement to remain in place. For deficient areas allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When an area of deficient pavement is removed and replaced, or additional lifts are placed, the corrected pavement shall be retested for thickness. The thickness of the new core will be used to determine the pay factor for the corrected area.

When an area of deficient pavement is left in place, and no additional lift(s) are placed, no payment will be made for the deficient pavement. In addition, an amount equal to two times the contract cost of the deficient pavement will be deducted from the compensation due the Contractor.

The thickness of the first acceptable core on each side of the core more than ten percent deficient will be used to determine any needed pay adjustments for the remaining areas on each side of the area deficient by more than ten percent. The pay adjustment will be determined according to Article 407.10(b)(6).

(8) Right of Discovery. When the Engineer has reason to believe any core location does not accurately represent the true conditions of the work, he/she may order additional cores. These additional cores shall be taken at specific locations determined by the

Engineer. The Engineer will provide notice to the Contractor containing an explanation of the reasons for his/her action.

When the additional cores show the pavement to be deficient by more than ten percent of plan thickness, the procedures outlined in Article 407.10(b)(7) shall be followed, except the Engineer will determine the additional core locations.

When the additional cores, ordered by the Engineer, show the pavement to be at least 90 percent of plan thickness, the additional cores will be paid for according to Article 109.04.

(9) Profile Index Adjustment. After any area of pavement is removed and replaced or any additional lifts are added, the corrected areas shall be retested for pavement smoothness and any necessary profile index adjustments and/or corrections will be made based on these final profile readings prior to retesting for thickness."

Revise Article 482.06 of the Standard Specifications to read:

"482.06 Tolerance in Thickness. The shoulder shall be constructed to the thickness shown on the plans. When the contract includes square yards (square meters) as the unit of measurement for HMA shoulder, thickness determinations shall be made according to Article 407.10(b)(3) and the following.

- (a) Length of the Units. The length of a unit shall be a continuous strip of shoulder 2500 ft (750 m) long.
- (b) Width of the Units. The width of the unit shall be the full width of the shoulder.
- (c) Thickness Deficient by More than Ten Percent. When a core shows the shoulder to be deficient by more than ten percent of plan thickness, additional cores shall be taken on each side of the deficient core, at stations selected by the Contractor and offsets selected by the Engineer, to determine the limits of the deficient shoulder. No core shall be located within 5 ft (1.5 m) of a previous core obtained for thickness determination. The first acceptable core obtained on each side of a deficient core will be used to determine the length of the deficient shoulder. An acceptable core is a core with a thickness of at least 90 percent of plan thickness. The area of deficient shoulder will be defined using the length between two acceptable cores and the full width of the unit. The area of deficient shoulder shall be brought to specified thickness by the addition of the applicable mixture, at no additional cost to the Department and subject to the lift thickness requirements of Article 312.05, or by removal and replacement with a new mixture. However, the surface elevation of the completed shoulder shall not exceed by more than 1/8 in. (3 mm) the surface elevation of the adjacent pavement. requested in writing by the Contractor, the Engineer may permit in writing such thin shoulder to remain in place. When an area of thin shoulder is left in place, and no additional lift(s) are placed, no payment will be made for the thin shoulder. In addition,

an amount equal to two times the contract unit price of the shoulder will be deducted from the compensation due the Contractor.

When an area of deficient shoulder is removed and replaced, or additional lifts are placed, the corrected pavement shall be retested for thickness.

(d) Right of Discovery. When the Engineer has reason to believe any core location does not accurately represent the true conditions of the work, he/she may order additional cores. When the additional cores, ordered by the Engineer, show the shoulder to be at least 90 percent of plan thickness, the additional cores will be paid for according to Article 109.04. When the additional core shows the shoulder to be less than 90 percent of plan thickness, the procedure in (c), above shall be followed."

Revise Article 483.07 of the Standard Specifications to read:

"483.07 Tolerance in Thickness. The shoulder shall be constructed to the thickness shown on the plans. Thickness determinations shall be made according to Article 482.06 except the option of correcting deficient pavement with additional lift(s) shall not apply."

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

Effective: September 1, 2000 Revised: November 1, 2008

<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 Illinois Unified Certification Program (IL UCP) DBE Directory or most recent addendum.

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

<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.

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

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is

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

<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. 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. All elements of information indicated on the said form shall be provided, including but not limited to the following:
  - (1) The name and address of 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 companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s).
- (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 does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the 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.

GOOD FAITH EFFORT PROCEDURES. 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.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the 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 of Small Business Enterprises and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau of Small Business Enterprises will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.

- (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 Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the 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.

#### **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

Where: EOC = Estimated Operating Costs per hour (from the Blue Book)

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."

#### HOT-MIX ASPHALT - FIELD VOIDS IN THE MINERAL AGGREGATE (BDE)

Effective: April 1, 2007 Revised: April 1, 2008

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 Low ESAL Mixture	All Other Mixtures	Procedures for Materials
VMA	Day's production ≥ 1200 tons:	N/A	Illinois-Modified AASHTO R 35
Note 5.	1 per half day of production		
	Day's production < 1200 tons:		
	1 per half day of production for first		
	2 days and 1 per day thereafter (first sample of the day)		

Note 5. The  $G_{\text{sb}}$  used in the voids in the mineral aggregate (VMA) calculation shall be the same average  $G_{\text{sb}}$  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 Low ESAL Individual Test	High ESAL Low ESAL Moving Avg. of 4	All Other Individual Test
VMA	-0.7 % <sup>2/</sup>	-0.5 % <sup>2/</sup>	N/A

<sup>2/</sup> 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	High ESAL	All Other
REQUIREMENTS	Low ESAL	
	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 No. 200 (75 μm) <sup>1/</sup>	2.2 %
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)

<sup>1/</sup> Based on washed ignition."

## HOT-MIX ASPHALT – PLANT TEST FREQUENCY (BDE)

Effective: April 1, 2008

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

"Parameter	Frequency of Tests	Frequency of Tests  All Other Mixtures	Test Method See Manual of Test
raiametei	High ESAL Mixture	All Other Mixtures	Procedures for Materials
	Low ESAL Mixture		Waterials
Aggregate			
Gradation	1 dry gradation per day of	1 gradation per day of production.	Illinois Procedure
Hot bins for batch and continuous	production (either morning or	The first day of	
plants.	afternoon sample).	production shall be a washed ignition	
Individual cold-feed	and	oven test on the	
or combined belt- feed for drier drum plants.	1 washed ignition oven test on the mix per day of	mix. Thereafter, the testing shall alternate between	
% passing sieves: 1/2 in. (12.5 mm),	production . (conduct in the afternoon if dry	dry gradation and washed ignition oven test on the	
No. 4 (4.75 mm),	gradation is	mix.	
No. 8 (2.36 mm),	conducted in the	Nata 4	
No. 30 (600 μm) No. 200 (75 μm)	morning or vice versa).	Note 4.	
Note 1.	Note 3.		
	Note 4.		
Asphalt Binder	d man half day of	4 man day	Illinoio Modifical
Content by Ignition Oven	1 per half day of production	1 per day	Illinois-Modified AASHTO T 308
Note 2.			
Air Voids	Day's production ≥ 1200 tons:		
Bulk Specific	1200 tons.	1 per day	Illinois-Modified
Gravity	1 per half day of	. p.s,	AASHTO T 312
of Gyratory Sample	production		
	Day's production < 1200 tons:		
	1 per half day of production for first 2 days and 1 per day thereafter		
	(first sample of the day)		

"Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Frequency of Tests All Other Mixtures	Test Method See Manual of Test Procedures for Materials
Maximum Specific Gravity of Mixture	Day's production ≥ 1200 tons:  1 per half day of production  Day's production < 1200 tons:  1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	1 per day	Illinois-Modified AASHTO T 209"

#### **HOT-MIX ASPHALT - TRANSPORTATION (BDE)**

Effective: April 1, 2008

Revise Article 1030.08 of the Standard Specifications to read:

"1030.08 Transportation. Vehicles used in transporting HMA shall have clean and tight beds. The beds shall be sprayed with asphalt release agents from the Department's approved list. In lieu of a release agent, the Contractor may use a light spray of water with a light scatter of manufactured sand (FA 20 or FA 21) evenly distributed over the bed of the vehicle. After spraying, the bed of the vehicle shall be in a completely raised position and it shall remain in this position until all excess asphalt release agent or water has been drained.

When the air temperature is below 60 °F (15 °C), the bed, including the end, endgate, sides and bottom shall be insulated with fiberboard, plywood or other approved insulating material and shall have a thickness of not less than 3/4 in (20 mm). When the insulation is placed inside the bed, the insulation shall be covered with sheet steel approved by the Engineer. Each vehicle shall be equipped with a cover of canvas or other suitable material meeting the approval of the Engineer which shall be used if any one of the following conditions is present.

- (a) Ambient air temperature is below 60 °F (15 °C).
- (b) The weather is inclement.
- (c) The temperature of the HMA immediately behind the paver screed is below 250 °F (120 °C).

The cover shall extend down over the sides and ends of the bed for a distance of approximately 12 in. (300 mm) and shall be fastened securely. The covering shall be rolled back before the load is dumped into the finishing machine."

## LIQUIDATED DAMAGES (BDE)

Effective: April 1, 2009

Revise the table in Article 108.09 of the Standard Specifications to read:

"Schedule of Deductions for Each Day of Overrun in Contract Time			
Original Contract Amount Daily Charges			Charges
From More To and Than Including		Calendar Day	Work Day
\$ 0 100,000 500,000 1,000,000	\$ 100,000 500,000 1,000,000 3,000,000	\$ 375 625 1,025 1,125	\$ 500 875 1,425 1,550
3,000,000 5,000,000 10,000,000	5,000,000 10,000,000 And over	1,425 1,700 3,325	1,950 2,350 4,650"

#### MAST ARM ASSEMBLY AND POLE (BDE)

Effective: January 1, 2008 Revised: January 1, 2009

Revise Article 1077.03 of the Standard Specifications to read:

"1077.03 Mast Arm Assembly and Pole. Mast arm assembly and pole shall be as follows.

- (a) Steel Mast Arm Assembly and Pole and Steel Combination Mast Arm Assembly and Pole. The steel mast arm assembly and pole and steel combination mast arm assembly and pole shall consist of a traffic signal mast arm, a luminaire mast arm or davit (for combination pole only), a pole, and a base, together with anchor rods and other appurtenances. The configuration of the mast arm assembly, pole, and base shall be according to the details shown on the plans.
  - (1) Loading. The mast arm assembly and pole, and combination mast arm assembly and pole shall be designed for the loading shown on the Highway Standards or elsewhere on the plans, whichever is greater. The design shall be according to AASHTO "Standard Specification for Structural Supports for Highway Signs, Luminaries and Traffic Signals" 1994 Edition for 80 mph (130 km/hr) wind velocity. However, the arm-to-pole connection for tapered signal and luminaire arms shall be according to the "ring plate" detail as shown in Figure 11-1(f) of the 2002 Interim, to the AASHTO "Standard Specification for Structural Supports for Highway Signs, Luminaries and Traffic Signals" 2001 4<sup>th</sup> Edition.
  - (2) Structural Steel Grade. The mast arm and pole shall be fabricated according to ASTM A 595, Grade A or B, ASTM A 572 Grade 55, or ASTM A 1011 Grade 55 HSLAS Class 2. The base and flange plates shall be of structural steel according to AASHTO M 270 Grade 50 (M 270M Grade 345). Luminaire arms and trussed arms 15 ft (4.5 m) or less shall be fabricated from one steel pipe or tube size according to ASTM A 53 Grade B or ASTM A 500 Grade B or C. All mast arm assemblies, poles, and bases shall be galvanized according to AASHTO M 111.
  - (3) Fabrication. The design and fabrication of the mast arm assembly, pole, and base shall be according to the requirements of the Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals published by AASHTO. The mast arm and pole may be of single length or sectional design. If section design is used, the overlap shall be at least 150 percent of the maximum diameter of the overlapping section and shall be assembled in the factory.

The manufacturer will be allowed to slot the base plate in which other bolt circles may fit, providing that these slots do not offset the integrity of the pole. Circumferential welds of tapered arms and poles to base plates shall be full penetration welds.

- (4) Shop Drawing Approval. The Contractor shall submit detailed drawings showing design materials, thickness of sections, weld sizes, and anchor rods to the Engineer for approval prior to fabrication. These drawings shall be at least 11 x 17 in. (275 x 425 mm) in size and of adequate quality for microfilming.
- (b) Anchor Rods. The anchor rods shall be ASTM F 1554 Grade 105, coated by the hot-dip galvanizing process according to AASHTO M 232, and shall be threaded a minimum of 7 1/2 in. (185 mm) at one end and have a bend at the other end. The first 10 in. (250 mm) at the threaded end shall be galvanized. Two nuts, one lock washer, and one flat washer shall be furnished with each anchor rod. All nuts and washers shall be galvanized."

### METAL HARDWARE CAST INTO CONCRETE (BDE)

Effective: April 1, 2008 Revised: April 1, 2009

Add the following to Article 503.02 of the Standard Specifications:

"(g) Metal Hardware Cast into Concrete......1006.13"

Add the following to Article 504.02 of the Standard Specifications:

"(j) Metal Hardware Cast into Concrete.......1006.13"

Revise Article 1006.13 of the Standard Specifications to read:

"1006.13 Metal Hardware Cast into Concrete. Unless otherwise noted, all steel hardware cast into concrete, such as inserts, brackets, cable clamps, metal casings for formed holes, and other miscellaneous items, shall be galvanized according to AASHTO M 232 or AASHTO M 111. Aluminum inserts will not be allowed. Zinc alloy inserts shall be according to ASTM B 86, Alloys 3, 5, or 7.

The inserts shall be UNC threaded type anchorages having the following minimum certified proof load.

Insert Diameter	Proof Load
5/8 in. (16 mm)	6600 lb (29.4 kN)
3/4 in. (19 mm)	6600 lb (29.4 kN)
1 in. (25 mm)	9240 lb (41.1 kN)"

### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM / EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: April 1, 2007 Revised: November 1, 2008

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

"(a) National Pollutant Discharge Elimination System (NPDES) / Erosion and Sediment Control Deficiency Deduction. When the Engineer is notified or determines an erosion and/or sediment control deficiency(s) exists, or the Contractor's activities represents a violation of the Department's NPDES permits, the Engineer 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 work effort required. 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 Department's NPDES permits. 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."

#### NOTCHED WEDGE LONGITUDINAL JOINT (BDE)

Effective: July 1, 2004 Revised: January 1, 2007

<u>Description</u>. This work shall consist of constructing a notched wedge longitudinal joint between successive passes of hot-mix asphalt (HMA) binder course that is placed in 2 1/4 in. (57 mm) or greater lifts on pavement that is open to traffic.

The notched wedge longitudinal joint shall consist of a 1 to 1 1/2 in. (25 to 38 mm) vertical notch at the centerline or lane line, a 9 to 12 in. (230 to 300 mm) uniform taper extending into the open lane, and a second 1 to 1 1/2 in. (25 to 38 mm) vertical notch (see Figure 1).

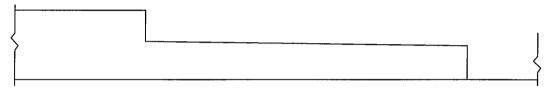


Figure 1

<u>Equipment</u>. Equipment shall meet the following requirements:

- a) Strike Off Device. The strike off device shall produce the notches and wedge of the joint and shall be adjustable. The device shall be attached to the paver and shall not restrict operation of the main screed.
- b) Wedge Roller. The wedge roller shall have a minimum diameter of 12 in. (300 mm), a minimum weight of 50 lb/in. (9 N/mm) of width, and a width equal to the wedge. The roller shall be attached to the payer.

#### CONSTRUCTION REQUIREMENTS

<u>Joint Construction</u>. The notched wedge longitudinal joint shall be formed by the strike off device on the paver. The wedge shall then be compacted by the joint roller.

<u>Compaction</u>. Initial compaction of the wedge shall be as close to final density as possible. Final density requirements of the entire binder mat, including the wedge, shall remain unchanged.

<u>Prime Coat</u>. Immediately prior to placing the adjacent lift of binder, the bituminous material specified for the mainline prime coat shall be applied to the entire face of the notched wedge longitudinal joint. The material shall be uniformly applied at a rate of 0.05 to 0.1 gal/sq yd (0.2 to 0.5 L/sq m).

<u>Method of Measurement</u>. The notched wedge longitudinal joint will not be measured for payment.

The prime coat will be measured for payment according to Article 406.13 of the Standard Specifications.

<u>Basis of Payment</u>. The work of constructing the notched wedge longitudinal joint will not be paid for separately but shall be considered as included in the cost of the HMA binder course being constructed.

The prime coat will be paid for according to Article 406.14 of the Standard Specifications.

#### 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.

### PAYROLLS AND PAYROLL RECORDS (BDE)

Effective: March 1, 2009

<u>FEDERAL AID CONTRACTS</u>. Revise the following section of Check Sheet #1 of the Recurring Special Provisions to read:

#### "STATEMENTS AND PAYROLLS

The payroll records shall include each worker's name, address, telephone number, social security number, classification, rate of pay, number of hours worked each day, starting and ending times of work each day, total hours worked each week, itemized deductions made, and actual wages paid.

The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number.). The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form."

STATE CONTRACTS. Revise Section IV of Check Sheet #5 of the Recurring Special Provisions to read:

### "IV. COMPLIANCE WITH THE PREVAILING WAGE ACT

- 1. Prevailing Wages. All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. If the Department of Labor revises the wage rates, the Contractor will not be allowed additional compensation on account of said revisions.
- 2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of three years from the date of completion of this contract, records of the wages paid to his/her workers. The payroll records shall include each worker's name, address, telephone number, social security number, classification, rate of pay, number of hours worked each day, starting and ending times of work each day, total hours worked each week, itemized deductions made, and actual wages paid. Upon two business days' notice, these records shall be available, at all reasonable hours at a location within the State, for inspection by the Department or the Department of Labor.

3. Submission of Payroll Records. The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form.

Each submittal shall be accompanied by a statement signed by the Contractor or subcontractor which avers that: (i) such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by the Act; and (iii) the Contractor or subcontractor is aware that filing a payroll record that he/she knows to be false is a Class B misdemeanor.

4. Employee Interviews. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor."

#### PERSONAL PROTECTIVE EQUIPMENT (BDE)

Effective: November 1, 2008

Revise the first sentence of Article 701.12 of the Standard Specifications to read:

"All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 for Conspicuity Class 2 garments."

#### POLYUREA PAVEMENT MARKING (BDE)

Effective: April 1, 2004 Revised: January 1, 2009

<u>Description</u>. This work shall consist of furnishing and applying pavement marking lines.

The type of polyurea pavement marking applied will be determined by the type of reflective media used. Polyurea Pavement Marking Type I shall use glass beads as a reflective media. Polyurea Pavement Marking Type II shall use a combination of composite reflective elements and glass beads as a reflective media.

Polyurea-based liquid pavement markings shall only be applied by Contractors on the list of Approved Polyurea Contractors maintained by the Engineer of Operations and in effect on the date of advertisement for bids.

Materials. Materials shall meet the following requirements:

- (a) Polyurea Pavement Marking. The polyurea pavement marking material shall consist of 100 percent solid two part system formulated and designed to provide a simple volumetric mixing ratio of two components (must be two or three volumes of Part A to one volume of Part B). No volatile or polluting solvents or fillers will be allowed.
- (b) Pigmentation. The pigment content by weight (mass) 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 an 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.
- (d) Daylight Reflectance. The daylight directional reflectance of the cured polyurea 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 degrees 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 polyurea shall visually match Color Number 33538 of Federal Standard 595a with chromaticity limits as follows:

X	0.490	0.475	0.485	0.539
Υ	0.470	0.438	0.425	0.456

(e) Weathering Resistance. The polyurea marking material, when mixed in the proper ratio and applied at 14 to 16 mils (0.35 to 0.41 mm) 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 122 °F (50 °C) and four hours of condensation at 104 °F (40 °C). 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) Dry Time. The polyurea pavement marking material, when mixed in the proper ratio and applied at 14 to 16 mils (0.35 to 0.41 mm) wet film thickness and with the proper saturation of reflective media, shall exhibit a no-tracking time of ten minutes or less when tested according to ASTM D 711.
- (g) Adhesion. The catalyzed polyurea pavement marking materials when applied to a 4 x 4 x 2 in. (100 x 100 x 50 mm) 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 3500 psi (24,100 kPa). A 2 in. (50 mm) square film of the mixed polyurea shall be applied to the brushed surface and allowed to cure for 72 hours at room temperature. A 2 in. (50 mm) square cube shall be affixed to the surface of the polyurea by means of an epoxy glue. After the glue has cured for 24 hours, the polyurea 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 2 in. (50 mm) cube (glued to the polyurea surface) is attached to the dynamometer head. Direct upward pressure shall be slowly applied until the polyurea system fails. The location of the break and the amount of concrete failure shall be recorded.

- (h) Hardness. The polyurea pavement marking materials when tested according to ASTM D 2240, shall have a shore D hardness of between 70 and 100. Films shall be cast on a rigid substrate at 14 to 16 mils (0.35 to 0.41 mm) in thickness and allowed to cure at room temperature for 72 hours before testing.
- (i) Abrasion. The abrasion resistance shall be evaluated according to ASTM D 4060 using a Taber Abrader with a 1,000 gram load and CS 17 wheels. The duration of the test shall be 1,000 cycles. The loss shall be calculated by difference and be less than 120 mgs. The tests shall be run on cured samples of polyurea material which have been applied at a film thickness of 14 to 16 mils (0.35 to 0.41 mm) 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) Reflective Media. The reflective media shall meet the following requirements:
  - (1) Type I The glass beads shall meet the requirements of Article 1095.07 of the Standard Specifications and the following requirements:

a. First Drop Glass Beads. The first drop glass beads shall be tested by the standard visual method of large glass spheres adopted by the Department. The beads shall have a silane coating and meet the following sieve requirements:

U.S. Standard	Sieve	% Passing
Sieve Number	Size	By Weight (mass)
12	1.70 mm	95-100
14	1.40 mm	75-95
16	1.18 mm	10-47
18	1.00 mm	0-7
20	850 um	0-5

- b. Second Drop Glass Beads. The second drop glass beads shall meet the requirements of Article 1095.07 of the Standard Specifications for Type B.
- (2) Type II The combination of microcrystalline ceramic elements and glass beads shall meet the following requirements:
  - a. First Drop Glass Beads. The first drop glass beads shall meet the following requirements:
    - Composition. The elements shall be composed of a titania opacified ceramic core having clear and or yellow tinted microcrystalline ceramic beads embedded to the outer surface.
    - Index of Refraction. All microcrystalline reflective elements embedded to the outer surface shall have an index of refraction of 1.8 when tested by the immersion method.
    - 3. Acid Resistance. A sample of microcrystalline ceramic beads supplied by the manufacturer, shall show resistance to corrosion of their surface after exposure to a one percent solution (by weight (mass)) of sulfuric acid. Adding 0.2 oz (5.7 ml) of concentrated acid into the water shall make the one percent acid solution. This test shall be performed by taking a 1 x 2 in. (25 x 50 mm) sample and adhering it to the bottom of a glass tray and placing just enough acid solution to completely immerse the sample. The tray shall be covered with a piece of glass to prevent evaporation and allow the sample to be exposed for 24 hours under these conditions. The acid solution shall be decanted (do not rinse, touch, or otherwise disturb the bead surfaces) and the sample dried while adhered to the glass tray in a 150 °F (66 °C) oven for approximately 15 minutes. Microscope examination (20X) shall show no white (corroded) layer on the entire surface.
  - b. Second Drop Glass Beads. The second drop glass beads shall meet the requirements of Article 1095.07 of the Standard Specifications for Type B or the following manufacturer's specification:
    - 1. Sieve Analysis. The glass beads shall meet the following sieve requirements:

U.S. Standard Sieve Number	Sieve Size	% Passing By Weight (mass)
20	850 μm	100
30	600 μm	75-95
50	300 μm	15-35
100	150 μm	0-5

The manufacturer of the glass beads shall certify that the treatment of the glass beads meets the requirements of the polyurea manufacturer.

- 2. Imperfections. The surface of the glass beads shall be free of pits and scratches. The glass beads shall be spherical in shape and shall contain a maximum of 20 percent by weight (mass) of irregular shapes when tested by the standard method using a vibratile inclined glass plate as adopted by the Department.
- 3. Index of Refraction. The index of refraction of the glass beads shall be a minimum of 1.50 when tested by the immersion method at 77 °F (25 °C).
- (k) Packaging. Microcrystalline ceramic reflective elements and glass beads shall be delivered in approved moisture proof bags or weather resistant bulk boxes. Each carton shall be legibly marked with the manufacturer, specifications and type, lot number, and the month and year the microcrystalline ceramic reflective elements and/or glass beads were packaged. The letters and numbers used in the stencils shall be a minimum of 1/2 in. (12.7 mm) in height.
  - (1) Moisture Proof Bags. Moisture proof bags shall consist of at least five ply paper construction unless otherwise specified. Each bag shall contain 50 lb (22.7 kg) net.
  - (2) Bulk Weather Resistance Boxes. Bulk weather resistance boxes shall conform to Federal Specification PPP-8-640D Class II or latest revision. Boxes are to be weather resistant, triple wall, fluted, corrugated-fiber board. Cartons shall be strapped with two metal straps. Straps shall surround the outside perimeter of the carton. The first strap shall be located approximately 2 in. (50 mm) from the bottom of the carton and the second strap shall be placed approximately in the middle of the carton. All cartons shall be shrink wrapped for protection from moisture. Cartons shall be lined with a minimum 4 mil polyester bag and meet Interstate Commerce Commission requirements. Cartons shall be approximately 38 x 38 in. (1 x 1 m), contain 2000 lb (910 kg) of microcrystalline ceramic reflective elements and/or glass beads and be supported on a wooden pallet with fiber straps.
- (I) Packaging. 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.
- (m) Verification. Prior to approval and use of the polyurea 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 polyurea and date of manufacture. The certification shall be accompanied by one 1 pt (1/2 L) 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 polyurea 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.

- (n) Acceptance samples. Acceptance samples shall consist of one 1 pt (1/2 L) 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 will be taken by a representative of the Department. The polyurea pavement marking materials shall not be used until tests are completed and they have met the requirements as set forth herein.
- (o) Material Retainage. The manufacturer shall retain the test sample for a minimum of 18 months.

Equipment. The polyurea pavement marking compounds shall be applied through equipment specifically designed to apply two component liquid materials, glass beads and/or reflective elements in a continuous and skip-line pattern. The two-component liquid materials shall be applied after being accurately metered and then mixed with a static mix tube or airless impingement mixing guns. The static mixing tube or impingement mixing guns shall accommodate plural component material systems that have a volumetric ratio of 2 to 1 or 3 to 1. This equipment shall produce the required amount of heat at the mixing head and gun tip and maintain those temperatures within the tolerances specified. The guns shall have the capacity to deliver materials from approximately 1.5 to 3 gal/min (5.7 to 11.4 L/min) to compensate for a typical range of application speeds of 6 to 8 mph (10 to 13 km/h). The accessories such as spray tip, mix chamber, and rod diameter shall be selected according to the manufacturer's specifications to achieve proper mixing and an acceptable spray pattern. The application equipment shall be maneuverable to the extent that straight lines can be followed and normal curves can be made in a true arc. 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 making application.

The equipment shall be capable of spraying both yellow and white polyurea, 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 polyurea tanks each of 110 gal (415 L) minimum capacity and be equipped with hydraulic systems and agitators. 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 the appropriate reflective media according to manufacturer's recommendations. All guns shall be in full view of operations 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 polyurea application techniques. Certification of equipment shall be provided at the pre-construction conference.

The mobile applicator shall include the following features:

- (a) Material Reservoirs. The applicator shall provide individual material reservoirs, or space for the storage of Part A and Part B of the resin composition.
- (b) Heating Equipment. The applicator shall be equipped with heating equipment of sufficient capacity to maintain the individual resin components at the manufacturer's recommended temperature of ±5 °F (±2.8 °C) for spray application.
- (c) Dispensing Equipment. The applicator shall be equipped with glass bead and/or reflective element dispensing equipment. The applicator shall be capable of applying the glass beads and/or reflective elements at a rate and combination indicated by the manufacturer.
- (d) Volumetric Usage. The applicator shall be equipped with metering devices or pressure gauges on the proportioning pumps as well as stroke counters to monitor volumetric usage. Metering devices or pressure gauges and stroke counters shall be visible to the Engineer.
- (e) Pavement Marking Placement. The applicator shall be equipped with all the necessary spray equipment, mixers, compressors and other appurtenances to allow for the placement of reflectorized pavement markings in a simultaneous sequence of operations.

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.

#### CONSTRUCTION REQUIREMENTS

<u>General</u>. 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 surface. New portland cement concrete pavements shall be air-blast-cleaned to remove all latents.

Widths, lengths, and shapes of the cleaned surface shall be of sufficient size to include the full area of the specified pavement marking to be placed.

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

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. No markings shall be applied until the Engineer approves the cleaning.

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 15 mils (0.4 mm) according to the manufacturer's installation instructions. On new hot-mix asphalt (HMA) surfaces the pavement markings shall be applied at a minimum uniform wet thickness of 20 mils (0.5 mm). The application of 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 and the ambient temperature shall be above 40 °F (4 °C) and rising. 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 set periods. The Engineer will determine the atmospheric conditions and pavement surface conditions that produce satisfactory results.

Using the application equipment, the pavement markings shall be applied in the following manner, as a simultaneous operation:

- (a) The surface shall be air-blasted to remove any dirt and residue.
- (b) The resin shall be mixed and heated according to manufacturer's recommendations and sprayed onto the pavement surface.

The edge of the center line or lane line shall be offset a minimum distance of 2 in. (50 mm) from a longitudinal crack or joint. Edge lines shall be approximately 2 in. (50 mm) from the edge of pavement. The finished center and lane lines shall be straight, with the lateral deviation of any 10 ft (3 m) line not to exceed 1 in. (25 mm).

<u>Notification</u>. The Contractor shall notify the Engineer 72 hours prior to the placement of the markings in order that he/she can be present during the operation. At the time of notification, the Contractor shall provide the Engineer the manufacturer and lot numbers of polyurea and reflective media that will be used.

<u>Inspection</u>. The polyurea pavement markings will be inspected following installation according to Article 780.10 of the Standard Specifications, except, no later than December 15, and inspected following a winter performance period that extends 180 days from December 15.

Method of Measurement. This work will be measured for payment as follows:

- (a) Contract Quantities. The requirements for the use of contract quantities shall be according to Article 202.07(a).
- (b) Measured Quantities. Lines will be measured for payment in place in feet (meters). Double yellow lines will be measured as two separate lines.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per foot (meter) for POLYUREA PAVEMENT MARKING TYPE I – LINE of the line width specified or for POLYUREA PAVEMENT MARKING TYPE II – LINE of the line width specified.

#### PORTLAND CEMENT CONCRETE PLANTS (BDE)

Effective: January 1, 2007

Add the following to Article 1020.11(a) of the Standard Specifications.

- "(9) Use of Multiple Plants in the Same Construction Item. The Contractor may simultaneously use central-mixed, truck-mixed, and shrink-mixed concrete from more than one plant, for the same construction item, on the same day, and in the same pour. However, the following criteria shall be met.
  - a. Each plant shall use the same cement, finely divided minerals, aggregates, admixtures, and fibers.
  - b. Each plant shall use the same mix design. However, material proportions may be altered slightly in the field to meet slump and air content criteria. Field water adjustments shall not result in a difference that exceeds 0.02 between plants for water/cement ratio. The required cement factor for central-mixed concrete shall be increased to match truck-mixed or shrink-mixed concrete, if the latter two types of mixed concrete are used in the same pour.
  - c. The maximum slump difference between deliveries of concrete shall be 3/4 in. (19 mm) when tested at the jobsite. If the difference is exceeded, but test results are within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and shall test subsequent deliveries of concrete until the slump difference is corrected. For each day, the first three truck loads of delivered concrete from each plant shall be tested for slump by the Contractor. Thereafter, when a specified test frequency for slump is to be performed, it shall be conducted for each plant at the same time.
  - d. The maximum air content difference between deliveries of concrete shall be 1.5 percent when tested at the jobsite. If the difference is exceeded, but test results are within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and shall test subsequent deliveries of concrete until the air content difference is corrected. For each day, the first three truck loads of delivered concrete from each plant shall be tested for air content by the Contractor. Thereafter, when a specified test frequency for air content is to be performed, it shall be conducted for each plant at the same time.
  - e. Strength tests shall be performed and taken at the jobsite for each plant. When a specified strength test is to be performed, it shall be conducted for each plant at the same time. The difference between plants for their mean strength shall not exceed 450 psi (3100 kPa) compressive and 80 psi (550 kPa) flexural. The strength standard deviation for each plant shall not exceed 650 psi (4480 kPa) compressive and 110 psi (760 kPa) flexural. The mean and standard deviation requirements shall apply to the test of record. If the strength difference requirements are exceeded, the Contractor shall take corrective action.

f. The maximum haul time difference between deliveries of concrete shall be 15 minutes. If the difference is exceeded, but haul time is within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and check subsequent deliveries of concrete until the haul time difference is corrected."

#### PRECAST CONCRETE HANDLING HOLES (BDE)

Effective: January 1, 2007 Add the following to Article 540.02 of the Standard Specifications: "(g) Handling Hole Plugs......1042.16" 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: "(ee) Handling Hole Plugs ......1042.16" 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: April 1, 2009

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. Conglomerate 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 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 RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (c) 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.

(d) 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.

Evaluation of Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable  $G_{mm}$ . 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 %	± 4.0 %
Asphalt Binder	± 0.4 % <sup>1/</sup>	± 0.5 %

1/ The tolerance for fractionated reclaimed asphalt pavement (FRAP) shall be  $\pm$  0.3 %.

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 shall be a Contractor's option when constructing HMA in all contracts. 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 homogeneous 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, or conglomerate, 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, or conglomerate DQ.
- (f) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in the table below for a given N Design.

Max RAP Percentage

HMA Mixtures 1/, 3/	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		

- 1/ For HMA shoulder and stabilized subbase (HMA) N-30, the amount of RAP shall not exceed 50% of the mixture.
- 2/ Value of Max % RAP if homogeneous RAP stockpile of IL-9.5 RAP is utilized.
- 3/ When RAP exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275°°F (135 °C) the grades shall be reduced as follows:

#### Overlavs:

When WMA contains between 20 and 30 percent RAP the high temperature shall be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-22). When WMA contains 30 percent or more RAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

#### Full Depth:

When WMA contains between 20 and 30 percent RAP, the low temperature shall be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG64-28). When the WMA contains 30 percent or more RAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

(g) When the Contractor chooses the FRAP option, the percentage of FRAP shall not exceed the amounts indicated in the table below for a given N Design.

Max FRAP Percentage<sup>1/</sup>

HMA Mixtures 21, 3/	Maximum % FRAP					
Ndesign	Binder/Leveling Surface Poly Binder Mod					
30	35	35	10			
50	30	25	10			
70	25	20	10			
90	20	15	10			
105	10	10	10			

- 1/ Minumum of two fractions for surface and binder applications.
- 2/ For HMA shoulder and stabilized subbase (HMA) N30, the amount of RAP shall not exceed 50 percent of the mixture.
- 3/ When FRAP exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275°°F (135 °C) the grades shall be reduced as follows:

#### Overlays:

When WMA contains between 20 and 30 percent FRAP the high temperature shall be reduced by one grade (i.e. 25 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-22). When WMA contains 30 percent or more FRAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

#### Full Depth:

When WMA contains between 20 and 30 percent FRAP, the low temperature shall be reduced by one grade (i.e. 25 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG64-28). When the WMA contains 30 percent or more FRAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent FRAP 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.

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) Accumulated 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 Revised: November 1, 2008

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. The sheeting shall be uniform in color and devoid of streaks throughout the length of each roll. The color shall conform to the latest appropriate standard color tolerance chart issued by the U.S. Department of Transportation, Federal Highway Administration, and to the daytime and nighttime color requirements of ASTM D 4956.

Initial Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material						
Observation	Entrance Angle			Fluorescent		
Angle (deg.)	Angle (deg.) (deg.) White Orange Orange					
0.2	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  $8 \times 24$  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: April 1, 2009

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. Tensile strength shall be a minimum of 1.20 times the yield strength.
    - 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.
    - a. 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. 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."

#### **REINFORCEMENT BARS - STORAGE AND PROTECTION (BDE)**

Effective: August 1, 2008 Revised: April 1, 2009

Revise Article 508.03 of the Standard Specifications to read:

"508.03 Storage and Protection. Reinforcement bars shall be stored off the ground using platforms, skids, or other supports; and shall be protected from mechanical injury and from deterioration by exposure. Epoxy coated bars shall be stored on wooden or padded steel cribbing and all systems for handling shall have padded contact areas. The bars or bundles shall not be dragged or dropped.

When epoxy coated bars are stored in a manner where they will be exposed to the weather more than 60 days prior to use, they shall be protected from deterioration such as that caused by sunlight, salt spray, and weather exposure. The protection shall consist of covering with opaque polyethylene sheeting or other suitable opaque material. The covering shall be secured and allow for air circulation around the bars to minimize condensation under the cover.

Covering of the epoxy coated bars will not be required when the bars are installed and tied, or when they are partially incorporated into the concrete."

## RETROREFLECTIVE SHEETING, NONREFLECTIVE SHEETING, AND TRANSLUCENT OVERLAY FILM FOR HIGHWAY SIGNS (BDE)

Effective: April 1, 2007

<u>General</u>. This special provision covers retroreflective sheeting and translucent overlay films intended for application on new or refurbished aluminum. The sheeting serves as the reflectorized background for sign messages and as cutout legends and symbols applied to the reflectorized background. Messages may be applied in opaque black or transparent colors.

This special provision also covers nonreflective sheeting for application on new or refurbished aluminum, and as material for cutout legends and symbols applied to the reflectorized background.

All material furnished under this specification shall have been manufactured within 18 months of the delivery date. All material shall be supplied by the same manufacturer.

<u>Retroreflective Sheeting Properties</u>. Retroreflective sheeting shall consist of a flexible, colored, prismatic, or glass lens elements adhered to a synthetic resin, encapsulated by a flexible, transparent plastic having a smooth outer surface and shall meet the following requirements.

Only suppliers whose products have been tested and approved in the Department's periodic Sheeting Study will be eligible to supply material. All individual batches and or lots of material shall be tested and approved by the Department. The Department reserves the right to sample and test delivered materials according to Federal Specification LS-300.

- (a) Adhesive. The sheeting shall have a Class 1, pre-coated, pressure sensitive adhesive according to ASTM D 4956. The adhesive shall have a protective liner that is easily removed when tested according to ASTM D 4956. The adhesive shall be capable of being applied to new or refurbished aluminum and reflectorized backgrounds without additional adhesive.
- (b) Color. The sheeting shall be uniform in color and devoid of streaks throughout the length of each roll. The color shall conform to the latest appropriate standard color tolerance chart issued by the U.S. Department of Transportation, Federal Highway Administration and to the daytime and nighttime color requirements of ASTM D 4956. Sheeting used for side by side overlay applications shall have a Hunter Lab Delta E of less than 3.
- (c) Coefficient of Retroreflection. When tested according to ASTM E 810, without averaging, the sheeting shall have a minimum coefficient of retroreflection as shown in the following tables. The brightness of the sheeting when totally wet shall be a minimum of 90 percent of the values shown when tested according to the standard rainfall test specified in Section 7.10.1 of AASHTO M 268-84.

Type A Sheeting
Minimum Coefficient of Retroreflection
candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type A

Observation Angle (deg.)	Entrance Angle (deg.)	White	Yellow	Orange	Red	Green	Blue	Brown
0.2	-4	250	170	100	45	45	20	12
0.2	+30	150	100	60	25	25	12	8.5
0.5	-4	95	65	30	15	15	8	5
0.5	+30	75	50	25	10	10	5	3.5

# Type AA Sheeting Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AA (0 and 90 degree rotation)

Observation	Entrance						
Angle (deg.)	Angle (deg.)	White	Yellow	Red	Green	Blue	FO
0.2	-4	800	660	215	80	43	200
0.2	+30	400	340	100	35	20	120
0.5	-4	200	160	45	20	9.8	80
0.5	+30	100	85	26	10	5.0	50

Type AA (45 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	Yellow	FO
0.2	-4	550	165
0.2	+30	130	45
0.5	-4	145	70
0.5	+30	70	40

# Type AP Sheeting Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AP

Observation	Entrance							
Angle (deg.)	Angle (deg.)	White	Yellow	Red	Green	Blue	Brown	FO
0.2	-4	550	425	100	75	50	30	275
0.2	+30	200	150	40	35	25	15	90
0.5	-4	300	250	60	35	25	20	150
0.5	+30	100	70	20	20	10	5	50

## Type AZ Sheeting Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AZ (0 degree rotation)

1,700.12 (0.409.00.1014.1011)								
Observation	Entrance							
Angle (deg.)	Angle (deg.)	White	Yellow	Red	Green	Blue	FYG	FY
0.2	-4	430	350	110	45	20	325	240
0.2	+30	235	140	60	24	11	200	150
0.5	-4	250	200	60	25	10	235	165
0.5	+30	170	135	40	19	7	105	75
1.0	-4	70	45	10	10	4	70	30
1.0	+30	30	20	7	5	2.5	45	15

Type AZ (90 degree rotation)

Observation	Entrance							
Angle (deg.)	Angle (deg.)	White	Yellow	Red	Green	Blue	FYG	FY
0.2	-4	320	250	100	45	20	300	220
0.2	+30	235	140	40	24	11	200	150
0.5	-4	240	200	60	25	10	235	165
0.5	+30	100	85	20	10	7	80	75
1.0	-4	30	30	7	5	4	65	20
1.0	+30	15	15	5	2	2	30	10

- (d) Gloss. The sheeting surface shall exhibit a minimum 85 degree gloss-meter rating of 50 when tested according to ASTM D 523.
- (e) Durability. When processed and applied, the sheeting shall be weather resistant.

Accelerated weathering testing will be performed for 1000 hours (300 hours for orange/FO) according to ASTM G 151. The testing cycle will consist of 8 hours of light at 140 °F (60 °C), followed by 4 hours of condensation at 104 °F (40 °C). Following accelerated weathering, the sheeting shall exhibit a minimum of 80 percent of its initial minimum coefficient of retroreflection as listed in the previous tables.

Outdoor weathering will entail an annual evaluation of material placed in an outdoor rack with a 45 degree angle and a southern sun exposure. The sheeting will be evaluated for five years. Following weathering, the test specimens will be cleaned by immersing them in a five percent hydrochloric acid solution for 45 seconds, then rinsed with water and blotted dry with a soft clean cloth. Following cleaning, the applied sheeting shall show no appreciable discoloration, cracking, streaking, crazing, blistering, or dimensional change. The sheeting shall exhibit a Hunter Lab Delta E of 5 or less when compared to the original.

- (f) Shrinkage. When tested according to ASTM D 4956, the sheeting shall not shrink in any dimension more than 1/32 in. (0.8 mm) in ten minutes and not more than 1/8 in. (3 mm) in 24 hours.
- (g) Workability. The sheeting shall show no cracking, scaling, pitting, blistering, edge lifting, inter-film splitting, curling, or discoloration when processed and applied using mutually acceptable processing and application procedures.
- (h) Splices. A single roll of sheeting shall contain a maximum of four splices per 50 yd (45 m) length. The sheeting shall be overlapped a minimum of 3/16 in. (5 mm) at each splice.
- (i) Adhesive Bond. The sheeting shall form a durable bond to smooth, corrosion and weather-resistant surfaces and adhere securely when tested according to ASTM D 4956.
- (j) Positionability. Sheeting, with ASTM D 4956 Class 3 adhesive, used for manufacturing cutout legends and borders shall provide sufficient positionability during the fabrication process to permit removal and reapplication without damage to either the legend or sign background and shall have a plastic liner suitable for use on bed cutting machines. Thereafter, all other adhesive and bond requirements contained in the specification shall apply.

Positionablility shall be verified by cutting 4 in. (100 mm) letters E, I, K, M, S, W, and Y out of the positionable material. The letters shall then be applied to a sheeted aluminum blank using a single pass of a two pound roller. The letters shall sit for five minutes and then a putty knife shall be used to lift a corner. The thumb and fore finger shall be used to slowly pull the lifted corner to lift letters away from the sheeted aluminum. The letters shall not tear or distort when removed.

- (k) Thickness. The thickness of the sheeting without the protective liner shall be less than or equal to 0.015 in. (0.4 mm), or 0.025 in. (0.6 mm) for prismatic material.
- (I) Processing. The sheeting shall permit cutting and color processing according to the sheeting manufacturer's specifications at temperatures of 60 to 100 °F (15 to 38 °C) and within a relative humidity range of 20 to 80 percent. The sheeting shall be heat resistant and permit forced curing without staining the applied or unapplied sheeting at temperatures recommended by the manufacturer. The sheeting shall be solvent resistant and capable of being cleaned with VM&P naptha, mineral spirits, and turpentine.

Transparent color and opaque black inks shall be single component and low odor. The inks shall dry within eight hours and not require clear coating. After color processing on white sheeting, the sheeting shall show no appreciable discoloration, cracking, streaking, crazing, blistering, or dimensional change when tested for durability (e). The ink on the weathered, prepared panel shall exhibit a Hunter Lab Delta E of 5 or less when compared to the original.

Transparent color electronic cutting films shall be acrylic. After application to white sheeting, the films shall show no appreciable discoloration, cracking, streaking, crazing, blistering, or dimensional change when tested for durability (e). The films on the weathered, prepared panel shall exhibit a Hunter Lab Delta E of 5 or less when compared to the original.

Transparent colors screened, or transparent acrylic electronic cutting films, on white sheeting, shall have a minimum initial coefficient of retroreflection values of 50 percent for yellow and red, and a minimum 70 percent for green, blue, and brown of the 0.2 degree observation angle/-4.0 degree entrance angle values as listed in the previous tables for the color being applied. After durability testing, the colors shall retain a minimum 80 percent of the initial coefficient of retroreflection.

- (m) Identification. The sheeting shall have a distinctive overall pattern in the sheeting unique to the manufacturer. If material orientation is required for optimum retroreflectivity, permanent orientation marks shall be incorporated into the face of the sheeting. Neither the overall pattern nor the orientation marks shall interfere with the reflectivity of the sheeting.
- (n) Packaging. Both ends of each box shall be clearly labeled with the sheeting type, color, adhesive type, manufacturer's lot number, date of manufacture, and supplier's name. Material Safety Data Sheets and technical bulletins for all materials shall be furnished to the Department with each shipment.

<u>Nonreflective Sheeting Properties</u>. Nonreflective sheeting shall consist of a flexible, pigmented cast vinyl film having a smooth, flat outer surface and shall meet the following requirements.

The Department reserves the right to sample and test delivered materials according to Federal Specification LS-300.

- (a) Adhesive. The sheeting shall have a Class 1, pre-coated, pressure sensitive adhesive according to ASTM D 4956. The adhesive shall have a protective liner that is easily removed when tested according to ASTM D 4956. The adhesive shall be capable of being applied to new or refurbished aluminum and reflectorized backgrounds without additional adhesive.
- (b) Color. The sheeting shall be uniform in color and devoid of streaks throughout the length of each roll.
- (c) Gloss. The sheeting shall exhibit a minimum 85 degree gloss-meter rating of 40 when tested according to ASTM D 523.
- (d) Durability. Applied sheeting that has been vertically exposed to the elements for seven years shall show no appreciable discoloration, cracking, crazing, blistering, delamination, or loss of adhesion. A slight amount of chalking is permitted but the sheeting shall not support fungus growth.

- (e) Testing. Test panels shall be prepared by applying the sheeting to 6 1/2 x 6 1/2 in. (165 x 165 mm) pieces of aluminum according to the manufacturer's specifications. The edges of the panel shall be trimmed evenly and aged 48 hours at 70 to 90 °F (21 to 32 °C). Shrinkage and immersion testing shall be as follows.
  - (1) Shrinkage. The sheeting shall not shrink more then 1/64 in. (0.4 mm) from any panel edge when subjected to a temperature of 150 °F (66 °C) for 48 hours and shall be sufficiently heat resistant to retain adhesion after one week at 150 °F (66 °C).
  - (2) Immersion Testing. The sheeting shall show no appreciable decrease in adhesion, color, or general appearance when examined one hour after being immersed to a depth of 2 or 3 in. (50 or 75 mm) in the following solutions at 70 to 90 °F (21 to 32 °C) for specified times.

Solution	Immersion Time (hours)
Reference Fuel (M I L-F-8799A) (15 parts xylol and 85 parts mineral spirits by weight)	1
Distilled Water	24
SAE No. 20 Motor Oil	24
Antifreeze (1/2 ethylene glycol, 1/2 distilled water)	24

- (f) Adhesive Bond: The sheeting shall form a durable bond to smooth, corrosion and weather-resistant surfaces and adhere securely when tested according to ASTM D 4956.
- (g) Thickness. The thickness of the sheeting without the protective liner shall be a maximum of 0.005 in. (0.13 mm).
- (h) Cutting. Material used on bed cutting machines shall have a smooth plastic liner.
- (i) Identification. The sheeting shall have a distinctive overall pattern in the sheeting unique to the manufacturer. If material orientation is required for optimum retroreflectivity, permanent orientation marks shall be incorporated into the face of the sheeting. Neither the overall pattern nor the orientation marks shall interfere with the reflectivity of the sheeting.
- (j) Packaging. Both ends of each box shall be clearly labeled with the sheeting type, color, adhesive type, manufacturer's lot number, date of manufacture, and supplier's name. Material Safety Data Sheets and technical bulletins for all materials shall be furnished to the Department with each shipment.

# **SEEDING (BDE)**

Effective: July 1, 2004 Revised: January 1, 2009

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 Note 7 of Table 1 – Seeding Mixtures of Article 250.07 of the Standard Specifications to read:

"7/ In Districts 1 through 6, the planting times shall be April 1 to June 15 and August 1 to November 1. In Districts 7 through 9, the planting times shall be March 1 to June 1 and August 1 to November 15. Seeding may be performed outside these dates provided the Contractor guarantees a minimum of 75 percent uniform growth over the entire seeded area(s) after a period of establishment. Inspection dates for the period of establishment will be as follows: Seeding conducted in Districts 1 through 6 between June 16 and July 31 will be inspected after April 15 and seeding conducted between November 2 and March 31 will be inspected after September 15. Seeding conducted in Districts 7 through 9 between June 2 and July 31 will be inspected after April 15 and seeding conducted between November 16 and February 28 will be inspected after September 15. The guarantee shall be submitted to the Engineer in writing prior to performing the work. After the period of establishment, areas not exhibiting 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the Department."

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

		TAI	BLE 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/
Dats	=	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/"

Revise the first sentence of the first paragraph of Article 1081.04(c)(7) of the Standard Specifications to read:

"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."

80131

### 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.

Usage. 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".

### SIGN PANELS AND SIGN PANEL OVERLAYS (BDE)

Effective: November 1, 2008

<u>Description</u>. This work shall consist of furnishing, fabricating, and installing sign panels and/or sign panel overlays. Work shall be according to Sections 720 and 721 of the Standard Specifications, except as modified herein.

<u>Materials</u>. Type AP and AZ sheeting shall meet the requirements of the special provision, "Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs". Type ZZ sheeting shall meet the requirements of the special provision, "Type ZZ Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs".

The sheeting for the background, legend, border, shields, and symbols shall be provided by the same manufacturer.

### **CONSTRUCTION REQUIREMENTS**

<u>Fabrication</u>. Signs shall be fabricated according to the current Bureau of Operations Policy Memorandum, "Fabrication of Highway Signs", the MUTCD, the FHWA Standard Highway Signs manual, the Illinois standard highway signs, and as shown on the plans.

Signs shall be fabricated such that the material for the background, legend, border, shields, and symbols is applied in the preferred orientation for the maximum retroreflectivity per the manufacturer's recommendation. The nesting of legend, border, shields, or symbols will not be permitted.

# STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 2, 2004 Revised: April 1, 2009

<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 indicate contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment.

<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), and frames and grates will be subject to a steel cost adjustment when the pay items 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) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (b) 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)

 $D = MPI_M - MPI_L$ 

Where: MPI<sub>M</sub> = The Materials Cost Index for steel as published by the Engineering News-

Record for the month the steel is shipped from the mill. The indices will be

converted from dollars per 100 lb to dollars per lb (kg).

MPI<sub>L</sub> = The Materials Cost Index for steel as published by the Engineering News-Record for the month prior to the letting. The indices will be converted from dollars per 100 lb 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  $\mathsf{MPI}_\mathsf{M}$  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 MPI<sub>L</sub> and MPI<sub>M</sub> in excess of five percent, as calculated by:

Percent Difference =  $\{(MPI_L - MPI_M) \div MPI_L\} \times 100$ 

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	Unit Mass (Weight)
Metal Piling (excluding temporary sheet piling)	, ,
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 properly complete contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment. 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 p following items of work?	art of the co	ntract plans for the
Metal Piling	Yes	
Structural Steel	Yes	
Reinforcing Steel	Yes	
Dowel Bars, Tie Bars and Mesh Reinforcement	Yes	
Guardrail	Yes	
Steel Traffic Signal and Light Poles, Towers and Mast Arms	Yes	
Metal Railings (excluding wire fence)	Yes	
Frames and Grates	Yes	
Signature:	Date:	· · · · · · · · · · · · · · · · · · ·

### 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.

### **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."

Add the following paragraph after the ninth paragraph of Article 280.07 of the Standard Specifications:

"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.

### THERMOPLASTIC PAVEMENT MARKINGS (BDE)

Effective: January 1, 2007

Revise Article 1095.01(a)(2) of the Standard Specifications to read:

"(2) Pigment. The pigment used for the white thermoplastic compound shall be a high-grade pure (minimum 93 percent) titanium dioxide (TiO<sub>2</sub>). The white pigment content shall be a minimum of ten percent by weight and shall be uniformly distributed throughout the thermoplastic compound.

The pigments used for the yellow thermoplastic compound shall not contain any hazardous materials listed in the Environmental Protection Agency Code of Federal Regulations (CFR) 40, Section 261.24, Table 1. The combined total of RCRA listed heavy metals shall not exceed 100 ppm when tested by X-ray fluorescence spectroscopy. The pigments shall also be heat resistant, UV stable and color-fast yellows, golds, and oranges, which shall produce a compound which shall match Federal Standard 595 Color No. 33538. The pigment shall be uniformly distributed throughout the thermoplastic compound."

Revise Article 1095.01(b)(1)e. of the Standard Specifications to read:

"e. Daylight Reflectance and Color. The thermoplastic compound after heating for four hours ± five minutes at 425 ± 3 °F (218.3 ± 2 °C) and cooled at 77 °F (25 °C) shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degree circumferential/zero degree geometry, illuminant C, and two degree 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.

White: Daylight Reflectance .....75 percent min. \*Yellow: Daylight Reflectance .....45 percent min.

\*Shall meet the coordinates of the following color tolerance chart.

x 0.490 0.475 0.485 0.530 y 0.470 0.438 0.425 0.456"

Revise Article 1095.01(b)(1)k. of the Standard Specifications to read:

"k. Accelerated Weathering. After heating the thermoplastic for four hours ± five minutes at 425 ± 3 °F (218.3 ± 2 °C) the thermoplastic shall be applied to a steel wool abraded aluminum alloy panel (Federal Test Std. No. 141, Method 2013) at a film thickness of 30 mils (0.70 mm) and allowed to cool for 24 hours at room temperature. The coated panel shall be subjected to accelerated weathering

using the light and water exposure apparatus (fluorescent UV - condensation type) for 75 hours according to ASTM G 53 (equipped with UVB-313 lamps).

The cycle shall consist of four hours UV exposure at 122  $^{\circ}$ F (50  $^{\circ}$ C) followed by four hours of condensation at 104  $^{\circ}$ F (40  $^{\circ}$ C). UVB 313 bulbs shall be used. At the end of the exposure period, the panel shall not exceed 10 Hunter Lab Delta E units from the original material."

#### SEGMENTAL CONCRETE BLOCK WALL

Effective: January 7, 1999 Revised: July 9, 2008

<u>Description.</u> This work shall consist of furnishing the design computations, shop plans, materials, equipment and labor to construct a Segmental Concrete Block Retaining Wall to the limits shown on the plans.

<u>General.</u> The wall shall consist of a leveling pad, precast concrete blocks (either dry-cast or wet cast), select granular backfill and, if required by the design, soil reinforcement. The wall shall be designed and constructed according to the lines, grades, and dimensions shown on the contract plans and approved shop plans.

<u>Submittals</u>. The wall supplier shall submit design computations and shop plans to the Engineer according to Article 1042.03(b) of the Standard Specifications. No work or ordering of materials for the structure shall be done by the Contractor until the submittal has been approved in writing by the Engineer. The shop plans shall be sealed by an Illinois Licensed Structural Engineer and shall include all details, dimensions, quantities, and cross sections necessary to construct the wall and shall include, but not be limited to, the following items:

- (a) Plan, elevation, and cross section sheet(s) for each wall showing the following:
  - (1) A plan view of the wall indicating the offsets from the construction centerline to the first course of blocks at all changes in horizontal alignment. These shall be calculated using the offsets to the front face of the block shown on the contract plans and the suppliers proposed wall batter. The plan view shall indicate bottom (and top course of block when battered), the excavation and select granular backfill limits as well as any soil reinforcing required by the design. The centerline of any drainage structure or pipe behind or passing through/under the wall shall also be shown.
  - (2) An elevation view of the wall, indicating the elevation and all steps in the top course of blocks along the length of the wall. The top of these blocks shall be at or above the theoretical top of block line shown on the contract plans. This view shall also show the steps and proposed top of leveling pad elevations as well as the finished grade line at the wall face specified on the contract plans. These leveling pad elevations shall be located at or below the theoretical top of leveling line shown on the contract plans. The location, size, and length of any soil reinforcing connected to the blocks shall be indicated.
  - (3) Typical cross section(s) showing the limits of the select granular backfill, soil reinforcement if used in the design. The right-of-way limits shall be indicated as well as the proposed excavation, cut slopes, and the elevation relationship between existing ground conditions and proposed grades.
  - (4) All general notes required for constructing the wall.

- (b) All details for the leveling pads, including the steps, shall be shown. The theoretical top of the leveling pad shall either be below the anticipated frost depth or 1.5 ft. (450 mm) below the finished grade line at the wall face, whichever is greater; unless otherwise shown on the plans. The minimum leveling pad thickness shall be 6 in. (152 mm)
- (c) Cap blocks shall be used to cover the top of the standard block units. The top course of blocks and cap blocks shall be stepped to satisfy the top of block line shown on the contract plans.
- (d) All details of the block and/or soil reinforcement placement around all appurtenances located behind, on top of, or passing through the wall shall be clearly indicated. Any modifications to the design of these appurtenances to accommodate a particular design arrangement shall also be submitted.
- (e) All details of the blocks, including color and texture shall be shown. The exterior face shall preferably be straight, textured with a "split rock face" pattern, and dark gray in color unless otherwise stated on the plans.
- (f) All block types (standard, cap, corner, and radius turning blocks) shall be detailed showing all dimensions.
- (g) All blocks shall have alignment/connection devices such as shear keys, leading/trailing lips, or pins. The details for the connection devices between adjacent blocks and the block to soil reinforcement shall be shown. The block set back or face batter shall be limited to 20 degrees from vertical, unless otherwise shown by the plans.

### **<u>Materials.</u>** The materials shall meet the following requirements:

- (a) Dry-Cast Concrete Block: Dry-cast concrete block proposed for use shall be pre-cast and produced according Article 1042.02 and the requirements of ASTM C1372 except as follows:
  - 1. :Fly ash shall be according to Articles 1010.01 and 1010.02(b).
  - 2. Ground granulated blast-furnace slag shall be according to Articles 1010.01 and 1010.05.
  - 3. Aggregate shall be according to Articles 1003.02 and 1004.02, with the exception of gradation.
  - 4. Water shall be according to Section 1002.
  - 5. Testing for freeze-thaw durability will not be required. However, unsatisfactory field performance as determined by the Department will be cause to prohibit the use of the block on Department projects.

- (b) Wet-cast Concrete Block. Wet-cast concrete block proposed for use shall be pre-cast and produced according to Section 1020 and Article 1042.02. The concrete shall be Class PC with a minimum compressive strength of at least 3000 psi (31 MPa) at 28 days.
- (c) Select Granular Backfill: The select granular backfill material shall consist of either a coarse aggregate according to Article 1004.05(a), or a fine aggregate according to the first sentence of Article 1003.04(a). The aggregate used shall also meet the following:

Coarse Aggregate Gradation Fine Aggregate Gradation Coarse Aggregate Quality Fine Aggregate Quality Internal Friction Angle pH (if reinforcement is used) CA 6 thru CA 16 (Article 1004.01(c))
FA 1, FA 2, or FA 20 (Article 1003.01(c))
Minimum Class C (Article 1004.01(b))
Minimum Class C (Article 1003.01(b))
34° minimum (AASHTO T 236 or T 296)
4.5 to 9 (AASHTO T 289)

When a fine aggregate is selected, the rear of all block joints shall be covered by a non-woven needle punch geotextile filter material according to Article 1080.05 of the Standard Specifications and shall have a minimum permeability according to ASTM D4491 of 0.008 cm/sec. All fabric overlaps shall be 6 in. (150 mm) and non-sewn. As an alternative to the geotextile, a coarse aggregate shall be placed against the back face of the blocks to create a minimum 12 in. (300 mm) wide continuous gradation filter to prevent the select fill material from passing through the block joints.

- (d) Leveling pad: The material shall be either Class SI concrete according to Article 1020.04 or compacted coarse aggregate according to Articles 1004.04, (a) and (b). The compacted coarse aggregate gradation shall be CA 6 or CA 10.
- (e) Soil Reinforcement: If soil reinforcement is required by the approved design, the Contractor shall submit a manufacturer's certification for the soil reinforcement properties which equals or exceeds those required in the design computations. The soil reinforcement shall be manufactured from high density polyethylene (HDPE) uniaxial or polypropylene biaxial resins or high tenacity polyester fibers with a PVC coating, stored between -20 and 140° F (-29 and 60° C). The following standards shall be used in determining and demonstrating the soil reinforcement capacities:

ASTM D638 Test Method for Tensile Properties of Plastic

ASTM D1248 Specification for Polyethylene Plastics Molding and Extrusion Materials

ASTM D4218 Test Method for Carbon Black Content in Polyethylene Compounds

ASTM D5262 Test Method for Evaluating the Unconfined Tension Creep Behavior of Geosynthetics

GG1-Standard Test Method for Geogrid Rib Tensile Strength

GG2-Standard Test Method for Geogrid Junction Strength

GG4-Standard Practice for Determination of the Long Term Design Strength of Geogrid

GG5-Standard Practice for Evaluating Geogrid Pullout Behavior

<u>Design Criteria</u>. The design shall be according to AASHTO Specifications and commentaries for Earth Retaining Walls or FHWA Publication No. HI-95-038, SA-96-071 and SA-96-072. The wall supplier shall be responsible for all internal stability aspects of the wall design.

Internal stability design shall insure that adequate factors of safety against overturning and sliding are present at each level of block. If required by design, soil reinforcement shall be utilized and the loading at the block/soil reinforcement connection as well as the failure surface must be indicated. The calculations to determine the allowable load of the soil reinforcement and the factor of safety against pullout shall also be included. The analysis of settlement, bearing capacity, and overall slope stability are the responsibility of the Department.

External loads such as those applied through structure foundations, from traffic or railroads, slope surcharge etc., shall be accounted for in the internal stability design. The presence of all appurtenances behind, in front of, mounted upon, or passing through the wall volume such as drainage structures, utilities, structure foundation elements, or other items shall be accounted for in the internal stability design of the wall.

<u>Construction Requirements</u>. The Contractor shall obtain technical assistance from the supplier during wall erection to demonstrate proper construction procedures and shall include all costs related to this technical assistance in the unit price bid for this item.

The foundation material for the leveling pad and select granular backfill volume shall be graded to the design elevation and compacted according to Article 205.05, except the minimum required compaction shall be 95 percent of the standard laboratory density. Any foundation soils found to be unsuitable shall be removed and replaced as directed by the Engineer and shall be paid for according to Article 109.04.

The select granular backfill lift placement shall closely follow the erection of each course of blocks. All aggregate shall be swept from the top of the block prior to placing the next block lift. If soil reinforcement is used, the select granular backfill material shall be leveled and compacted before placing and attaching the soil reinforcement to the blocks. The soil reinforcement shall be pulled taut, staked in place, and select fill placed from the rear face of the blocks outward. The lift thickness shall be the lesser of 10 in. (255 mm) loose measurement or the proposed block height.

The select granular backfill shall be compacted according to Article 205.05, except the minimum required compaction shall be 95 percent of the standard laboratory density. Compaction shall be achieved using a minimum of 3 passes of a lightweight mechanical tamper, roller, or vibratory system. The top 12 in. (300 mm) of backfill shall be a cohesive, impervious material capable of supporting vegetation, unless other details are specified on the plans.

The blocks shall be maintained in position as successive lifts are compacted along the rear face of the block. Vertical, horizontal, and rotational alignment tolerances shall not exceed 0.5 in. (12 mm) when measured along a 10 ft. (3 m) straight edge.

<u>Method of Measurement</u>. Segmental Concrete Block Wall will be measured by the square foot (square meter) of wall face from the top of block line to the theoretical top of the leveling pad for the length of the wall in a vertical plane, as shown on the contract plans.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per square foot (square meter) for SEGMENTAL CONCRETE BLOCK WALL.

# 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 et seq.) 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 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 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:
  - (1) 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:
- (1) 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 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.

#### 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 journeyman-level 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 listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-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 Federally-assisted 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 submitting payroll copies of all subcontractors.

- **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:
- (1) 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 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., 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.

\* \* \* \* \* \*

# 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.

\* \* \* \* \* \*

# 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.

\* \* \* \* \* \*

# 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.

# 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 <a href="http://www.dot.state.il.us/desenv/delett.html">http://www.dot.state.il.us/desenv/delett.html</a>.

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.