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 an Authorization to Bid or Not for Bid Report, approved by the Central Bureau of Construction that indicates which items have been approved For Bidding. If Authorization to Bid cannot be approved, the Authorization to Bid or Not for Bid Report will indicate the reason for denial.

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 http://www.dot.il.gov/desenv/delett.html before submitting final bid information.

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

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

Technical Questions about downloading these files may be directed to Tim Garman (217)524-1642 or <u>Timothy.Garman@illinois.gov.</u>

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.

Proposal Submitted By



Name

Address

City

Letting June 11, 2010

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)

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

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



Springfield, Illinois 62764

Contract No. 76C49 ST CLAIR County Section 82-1-2HB **District 8 Construction Funds** Route FAI 64

PLEASE MARK THE APPROPRIATE BOX BELOW:

A Bid Bond is included.

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

Prepared by

S

Checked by Printed by authority of the State of Illinois)

INSTRUCTIONS

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

WHO CAN BID?: Bids will be accepted from only those companies that request and receive written **Authorization to Bid** from IDOT's Central Bureau of Construction. To request authorization, a potential bidder <u>must complete and submit Part</u> <u>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 "Authorization to Bid or Not for Bid" form, he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued a Authorization to Bid or Not for Bid Report, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If Authorization to Bid cannot be approved, the Authorization to Bid or Not for Bid Report will indicate the reason for denial. If a contractor has requested to bid but has not received a Authorization to Bid or Not for Bid Report, they should contact the Central Bureau of Construction in advance of the letting date.

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

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

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

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

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

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



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of ______

Taxpayer Identification Number (Mandatory) ______a

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

Contract No. 76C49 ST CLAIR County Section 82-1-2HB Route FAI 64 District 8 Construction Funds

Bridge removal and replacement, intersection/interchange reconstruction, retaining walls and other work on 15th Street over I-64 in East St. Louis (SN 082-0151).

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

BD 353A (Rev. 12/2005)

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

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

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

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

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

Attach Cashier's Check or Certified Check Here

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

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

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		Combinatio	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. **AUTHORITY TO DO BUSINESS IN ILLINOIS.** Section 20-43 of the Illinois Procurement Code (30 ILCS 500/20-43) provides that a person (other than an individual acting as a sole proprietor) must be a legal entity authorized to do business in the State of Illinois prior to submitting the bid.

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Project Number

Route

FAI 64

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
A2005824	T-PLATANUS OCC 3	EACH	3.000				
C20058G5	S-RHUS AROMA GL 5G	EACH	44.000				
K1004467	PEREN PLANTS ORN H-TY	UNIT	1.430				
X0320815	SLEEPER SLAB	FOOT	16.000				
X0320870	BRACED EXCAVATION	CU YD	163.000				
X0321907	SS 2 WAT MN 12	FOOT	82.000				
X0321908	SS 2 WAT MN 15	FOOT	75.000				
X0322141	REM TEMP WOOD POLE	EACH	1.000				
X0322256	TEMP INFO SIGNING	SQ FT	710.000				
X0322628	FILL EXIST PIEZOMETER	EACH	4.000				
X0323080	DRAINAGE SCUPPR DS-12	EACH	4.000				
X0323255	DRILLED WELL	EACH	3.000				
X0323988	TEMP SOIL RETEN SYSTM	SQ FT	1,521.000				
X0324181	DISCON SN LTG/RM WIRE	EACH	4.000				
X0325702	NIGHT WORK ZONE LIGHT	L SUM	1.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0326690	TOPSOIL PLANT MIX 12	SQ YD	179.000				
X0326808	INTERST WKEND CLSR SP	L SUM	1.000				
X0326931	RECORDER WELL	EACH	1.000				
X0326932	REB REFL VERT MKR	EACH	17.000				
X0326933	REB REFL VERT MKR REM	EACH	15.000				
X0326934	HDP PIPE 12"	FOOT	215.000				
X0326969	DEEP WELL MONITORING	EACH	2.000				
X0462500	SUBMERSIBLE PUMP	EACH	3.000				
X0712400	TEMP PAVEMENT	SQ YD	1,062.000				
X5080600	MECHANICAL SPLICERS	EACH	830.000				
X6370015	CONC BARRIER SP 32	FOOT	36.000				
X7030068	GRV RCSD PVT LT N SYM	SQ FT	155.000				
X7030070	GRV RCSD PVT MRKG 5	FOOT	8,561.000				
X7030074	GRV RCSD PVT MRKG 7	FOOT	447.000				
X7030076	GRV RCSD PVT MRKG 9	FOOT	1,216.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X7030078	GRV RCSD PVT MRKG 13	FOOT	541.000				
X8730027	ELCBL C GROUND 6 1C	FOOT	883.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0018800	DRAINAGE SYSTEM	L SUM	1.000				
Z0022800	FENCE REMOVAL	FOOT	2,272.000				
Z0024110	FILL DEEP WELL	EACH	4.000				
Z0024120	FILL RECORDER WELL	EACH	1.000				
Z0030270	IMP ATTN TEMP FRW TL3	EACH	8.000				
Z0030330	IMP ATTN REL FRD TL3	EACH	6.000				
Z0040000	PIEZOMETERS	EACH	3.000				
Z0048665	RR PROT LIABILITY INS	L SUM	1.000				
20100110	TREE REMOV 6-15	UNIT	217.000				
20100210	TREE REMOV OVER 15	UNIT	417.000				
20101700	SUPPLE WATERING	UNIT	13.000				
20200100	EARTH EXCAVATION	CU YD	45,009.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
20700400	POROUS GRAN EMB SPEC	CU YD	758.000				
20800150	TRENCH BACKFILL	CU YD	535.000				
21101615	TOPSOIL F & P 4	SQ YD	1,284.000				
25000210	SEEDING CL 2A	ACRE	9.250				
25000400	NITROGEN FERT NUTR	POUND	852.000				
25000500	PHOSPHORUS FERT NUTR	POUND	852.000				
25000600	POTASSIUM FERT NUTR	POUND	852.000				
25100115	MULCH METHOD 2	ACRE	9.250				
25100630	EROSION CONTR BLANKET	SQ YD	1,109.000				
25200110	SODDING SALT TOLERANT	SQ YD	1,284.000				
28000250	TEMP EROS CONTR SEED	POUND	3,858.000				
28000305	TEMP DITCH CHECKS	FOOT	384.000				
28000315	AGG DITCH CHECKS	TON	301.000				
28000400	PERIMETER EROS BAR	FOOT	4,288.000				
28000500	INLET & PIPE PROTECT	EACH	64.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
28100107	STONE RIPRAP CL A4	SQ YD	7.000				
28200200	FILTER FABRIC	SQ YD	7.000				
31101200	SUB GRAN MAT B 4	SQ YD	28.000				
35100100	AGG BASE CSE A	TON	269.000				
35101100	AGG BASE CSE A 12	SQ YD	21,571.000				
35300500	PCC BSE CSE 10	SQ YD	738.000				
40201000	AGGREGATE-TEMP ACCESS	TON	200.000				
40600200	BIT MATLS PR CT	TON	16.000				
40600300	AGG PR CT	TON	34.000				
40600635	LEV BIND MM N70	TON	655.000				
40603085	HMA BC IL-19.0 N70	TON	616.000				
40603340	HMA SC "D" N70	TON	910.000				
40603595	P HMA SC "F" N90	TON	299.000				
42000501	PCC PVT 10 JOINTED	SQ YD	6,451.000				
42000511	PCC PVT 10 1/2 JOINTD	SQ YD	4,592.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
42001300	PROTECTIVE COAT	SQ YD	21,605.000				
42100340	CONT REINF PCC PVT 12	SQ YD	1,516.000				
42100940	PAVT REINFORCEMENT 12	SQ YD	1,516.000				
42300200	PCC DRIVEWAY PAVT 6	SQ YD	66.000				
42300400	PCC DRIVEWAY PAVT 8	SQ YD	208.000				
42400100	PC CONC SIDEWALK 4	SQ FT	10,441.000				
42400800	DETECTABLE WARNINGS	SQ FT	138.000				
44000100	PAVEMENT REM	SQ YD	14,562.000				
44000158	HMA SURF REM 2 1/4	SQ YD	1,191.000				
44000198	HMA SURF REM VAR DP	SQ YD	153.000				
44000200	DRIVE PAVEMENT REM	SQ YD	388.000				
44000300	CURB REM	FOOT	881.000				
44000500	COMB CURB GUTTER REM	FOOT	5,779.000				
44000600		SQ FT	14,338.000				
	CONC BARRIER REMOV	FOOT	59.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
44003100	MEDIAN REMOVAL	SQ FT	4,156.000				
44004250	PAVED SHLD REMOVAL	SQ YD	5,783.000				
44201349	CL C PATCH T1 10	SQ YD	100.000				
44201353	CL C PATCH T2 10	SQ YD	100.000				
44201357	CL C PATCH T3 10	SQ YD	100.000				
48101200	AGGREGATE SHLDS B	TON	164.000				
48101620	AGGREGATE SHLDS B 10	SQ YD	56.000				
48300510	PCC SHOULDERS 10 1/2	SQ YD	2,698.000				
48300700	PCC SHOULDERS 12	SQ YD	1,863.000				
48300850	PCC SHOULDERS 15 1/2	SQ YD	529.000				
48300900	PCC SHOULDERS 18	SQ YD	498.000				
50100300	REM EXIST STRUCT N1	EACH	1.000				
50100400	REM EXIST STRUCT N2	EACH	1.000				
50157300	PROTECTIVE SHIELD	SQ YD	1,402.000				
50200100	STRUCTURE EXCAVATION	CU YD	4,379.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
50300225	CONC STRUCT	CU YD	1,254.600				
50300255	CONC SUP-STR	CU YD	825.800				
50300260	BR DECK GROOVING	SQ YD	1,521.000				
50300285	FORM LINER TEX SURF	SQ FT	4,600.000				
50300300	PROTECTIVE COAT	SQ YD	1,998.000				
50500105	F & E STRUCT STEEL	L SUM	1.000				
50500505	STUD SHEAR CONNECTORS	EACH	3,771.000				
50800205	REINF BARS, EPOXY CTD	POUND	350,190.000				
50800515	BAR SPLICERS	EACH	119.000				
50901730	BRIDGE FENCE RAILING	FOOT	286.000				
50901735	BR FEN RAIL (SDWALK)	FOOT	287.000				
51200959	FUR M S PILE 14X0.312	FOOT	9,225.000				
51201900	FUR STL PILE HP14X89	FOOT	3,744.000				
51202305	DRIVING PILES	FOOT	12,969.000				
51204650	PILE SHOES	EACH	1.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
51500100	NAME PLATES	EACH	1.000				
52000110	PREF JT STRIP SEAL	FOOT	122.000				
52100010	ELAST BEARING ASSY T1	EACH	15.000				
52100510	ANCHOR BOLTS 3/4	EACH	16.000				
52100520	ANCHOR BOLTS 1	EACH	14.000				
52100530	ANCHOR BOLTS 1 1/4	EACH	16.000				
54213657	PRC FLAR END SEC 12	EACH	2.000				
54213660	PRC FLAR END SEC 15	EACH	2.000				
54213663	PRC FLAR END SEC 18	EACH	2.000				
54248510	CONCRETE COLLAR	CU YD	10.000				
550A0050	STORM SEW CL A 1 12	FOOT	178.000				
550A0070	STORM SEW CL A 1 15	FOOT	129.000				
550A0090	STORM SEW CL A 1 18	FOOT	74.000				
550A0120	STORM SEW CL A 1 24	FOOT	10.000				
550A0130	STORM SEW CL A 1 27	FOOT	243.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
550A0340	STORM SEW CL A 2 12	FOOT	947.000				
550A0360	STORM SEW CL A 2 15	FOOT	318.000				
550A0380	STORM SEW CL A 2 18	FOOT	216.000				
550A0410	STORM SEW CL A 2 24	FOOT	510.000				
550A0430	STORM SEW CL A 2 30	FOOT	20.000				
550A0450	STORM SEW CL A 2 36	FOOT	20.000				
55100500	STORM SEWER REM 12	FOOT	1,167.000				
55100900	STORM SEWER REM 18	FOOT	213.000				
55101200	STORM SEWER REM 24	FOOT	52.000				
552A0900	SS JKD CL A 24	FOOT	79.000				
552A1100	SS JKD CL A 30	FOOT	69.000				
58700300	CONCRETE SEALER	SQ FT	3,140.000				
59100100	GEOCOMPOSITE WALL DR	SQ YD	564.000				
60100060	CONC HDWL FOR P DRAIN	EACH	4.000				
60100907	PIPE DRAINS 5	FOOT	42.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
60100915	PIPE DRAINS 6	FOOT	214.000				
60100925	PIPE DRAINS 8	FOOT	42.000				
60107600	PIPE UNDERDRAINS 4	FOOT	4,695.000				
60108100	PIPE UNDERDRAIN 4 SP	FOOT	244.000				
60109580	P UNDR FOR STRUCT 4	FOOT	288.000				
60200105	CB TA 4 DIA T1F OL	EACH	1.000				
60200205	CB TA 4 DIA T1F CL	EACH	6.000				
60200305	CB TA 4 DIA T3F&G	EACH	4.000				
60200805	CB TA 4 DIA T8G	EACH	4.000				
60201340	CB TA 4 DIA T24F&G	EACH	16.000				
60204505	CB TA 5 DIA T8G	EACH	1.000				
60205040	CB TA 5 DIA T24F&G	EACH	4.000				
60207105	CB TC T3F&G	EACH	1.000				
60208240	CB TC T24F&G	EACH	2.000				
60218300	MAN TA 4 DIA T1F OL	EACH	1.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
60218400	MAN TA 4 DIA T1F CL	EACH	4.000				
60221100	MAN TA 5 DIA T1F CL	EACH	9.000				
60223800	MAN TA 6 DIA T1F CL	EACH	2.000				
60224446	MAN TA 7 DIA T1F CL	EACH	1.000				
60234200	INLETS TA T1F OL	EACH	2.000				
60235700	INLETS TA T3F&G	EACH	2.000				
60236200	INLETS TA T8G	EACH	5.000				
60237470	INLETS TA T24F&G	EACH	8.000				
60240301	INLETS TB T8G	EACH	1.000				
60240328	INLETS TB T24F&G	EACH	1.000				
60255800	MAN ADJ NEW T1F CL	EACH	15.000				
60258200	MAN RECON NEW T1F CL	EACH	4.000				
60261540	INLETS ADJ NEW T24F&G	EACH	6.000				
60500040	REMOV MANHOLES	EACH	3.000				
60500060	REMOV INLETS	EACH	25.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
60602500	CONC GUTTER TA	FOOT	387.000				
60605000	COMB CC&G TB6.24	FOOT	5,271.000				
60608600	COMB CC&G TM6.06	FOOT	29.000				
60618300	CONC MEDIAN SURF 4	SQ FT	639.000				
60622800	CONC MED TSM6.12	SQ FT	446.000				
63000001	SPBGR TY A 6FT POSTS	FOOT	775.000				
63100045	TRAF BAR TERM T2	EACH	2.000				
63100070	TRAF BAR TERM T5	EACH	1.000				
63100089	TRAF BAR TERM T6B	EACH	4.000				
63100167	TR BAR TRM T1 SPL TAN	EACH	6.000				
63200310	GUARDRAIL REMOV	FOOT	1,419.000				
63302400	REM RE-E T B TERM T5	EACH	1.000				
63500105	DELINEATORS	EACH	27.000				
63500120	DELINEATOR REMOVAL	EACH	11.000				
63700175	CONC BAR 1F 42HT	FOOT	153.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
63700279	CONC BAR 1F 42HT SPL	FOOT	498.000				
63700805	CONC BAR TRANS	FOOT	10.000				
63700900	CONC BARRIER BASE	FOOT	36.000				
66400305	CH LK FENCE 6	FOOT	2,198.000				
66407600	CH LK GATES 6X12 DBL	EACH	2.000				
66900200	NON SPL WASTE DISPOSL	CU YD	6,500.000				
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				
66900530	SOIL DISPOSAL ANALY	EACH	6.000				
67000400	ENGR FIELD OFFICE A	CAL MO	15.000				
67000600	ENGR FIELD LAB	CAL MO	15.000				
67100100	MOBILIZATION	L SUM	1.000				
70101700	TRAF CONT & PROT	L SUM	1.000				
70103815	TR CONT SURVEILLANCE	CAL DA	300.000				
70300100	SHORT-TERM PAVT MKING	FOOT	10,645.000				
70300210	TEMP PVT MK LTR & SYM	SQ FT	89.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70300220	TEMP PVT MK LINE 4	FOOT	38,461.000				
70300250	TEMP PVT MK LINE 8	FOOT	1,441.000				
70300260	TEMP PVT MK LINE 12	FOOT	1,512.000				
70300280	TEMP PVT MK LINE 24	FOOT	186.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	10,976.000				
70400100	TEMP CONC BARRIER	FOOT	4,596.000				
70400200		FOOT	2,754.000				
72000100		SQ FT	485.000				
72000200		SQ FT	16.000				
72000300		SQ FT	1,501.000				
72200100		EACH	1.000				
72400100	REMOV SIN PAN ASSY TA	EACH	17.000				
72400200	REMOV SIN PAN ASSY TB	EACH	14.000				
72400310	REMOV SIGN PANEL T1	SQ FT	30.000				
72400320	REMOV SIGN PANEL T2	SQ FT	86.000				

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ltem		Unit of					
Number	Pay Item Description	Measure	Quantity	X	Unit Price	=	Total Price
72400500	RELOC SIN PAN ASSY TA	EACH	9.000				
72400600	RELOC SIN PAN ASSY TB	EACH	20.000				
72600100	MILEPOST MKR ASSEMBLY	EACH	1.000				
72800100	TELES STL SIN SUPPORT	FOOT	454.000				
73300200	OVHD SIN STR-SPAN T2A	FOOT	73.000				
73300300	OVHD SIN STR-SPAN T3A	FOOT	87.000				
73302170	OSS CANT 2CA 3-0X5-6	FOOT	29.000				
73304000	OVHD SIN STR BR MT	FOOT	20.000				
73305000	OVHD SIN STR WALKWAY	FOOT	146.000				
73400200	DRILL SHAFT CONC FDN	CU YD	71.800				
73600100	REMOV OH SIN STR-SPAN	EACH	2.000				
73600200	REMOV OH SIN STR-CANT	EACH	1.000				
73602000	REM OVHD SN STR-BR MT	EACH	1.000				
73700300	REM CONC FDN-OVHD	EACH	9.000				
78000200	THPL PVT MK LINE 4	FOOT	10,982.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78001110	PAINT PVT MK LINE 4	FOOT	2,767.000				
78001140	PAINT PVT MK LINE 8	FOOT	796.000				
78001150	PAINT PVT MK LINE 12	FOOT	262.000				
78003100	PREF PL PM TB LTR-SYM	SQ FT	155.000				
78003110	PREF PL PM TB LINE 4	FOOT	8,561.000				
78003130	PREF PL PM TB LINE 6	FOOT	447.000				
78003140	PREF PL PM TB LINE 8	FOOT	1,216.000				
78003150	PREF PL PM TB LINE 12	FOOT	541.000				
78004200	PREF PL PM TB INL L&S	SQ FT	262.000				
78004210	PREF PL PM TB INL L4	FOOT	3,522.000				
78004230	PREF PL PM TB INL L6	FOOT	102.000				
78004240	PREF PL PM TB INL L8	FOOT	110.000				
78004250	PREF PL PM TB INL L12	FOOT	113.000				
78004280	PREF PL PM TB INL L24	FOOT	72.000				
78100100	RAISED REFL PAVT MKR	EACH	205.000				

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ltem Unit of Number **Unit Price Total Price** Measure Quantity Pay Item Description х = 78100105 RAISED REF PVT MKR BR EACH 10.000 78200300 PRISMATIC CURB REFL EACH 30.000 EACH 78200410 GUARDRAIL MKR TYPE A 17.000 78200530 BAR WALL MKR TYPE C EACH 11.000 78201000 TERMINAL MARKER - DA EACH 12.000 80400100 ELECT SERV INSTALL EACH 2.000 FOOT 81000800 CON T 3 GALVS 10.000 FOOT 323.000 81012300 CON T 1 PVC 81012600 CON T 2 PVC FOOT 623.000 81012800 CON T 3 PVC FOOT 284.000 81013000 CON T 4 PVC FOOT 35.000 FOOT 81021370 CON P 4 PVC 1,120.000 FOOT 81100200 CON AT ST 3/4 GALVS 270.000 FOOT 81100600 CON AT ST 2 GALVS 233.000 FOOT 20.000 81100800 CON AT ST 3 GALVS

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
81300220	JUN BX SS AS 6X6X4	EACH	5.000				
81300550	JUN BX SS AS 12X12X6	EACH	1.000				
81400100	HANDHOLE	EACH	7.000				
81400300	DBL HANDHOLE	EACH	2.000				
81603035	UD 2#6 #6G XLPUSE 1	FOOT	480.000				
81603085	UD 3#4#4GXLPUSE 1 1/4	FOOT	6,220.000				
81702450	EC C XLP USE 3-1C 10	FOOT	350.000				
81800230	A CBL 2-1C6 MESS WIRE	FOOT	4,150.000				
81900200	TR & BKFIL F ELECT WK	FOOT	3,123.000				
81900302	TR & BKFIL W SCR/SAND	FOOT	497.000				
82102400	LUM SV HOR MT 400W	EACH	20.000				
82107300		EACH	5.000				
83057290	LT P WD 50 CL 4	EACH	9.000				
83057355		EACH	20.000				
	REM TEMP LIGHT UNIT	EACH	3.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
84200500	REM LT UNIT SALV	EACH	17.000				
84200804	REM POLE FDN	EACH	17.000				
85700200	FAC T4 CAB	EACH	2.000				
87100160	FO CAB C 62.5/125 24F	FOOT	719.000				
87301215	ELCBL C SIGNAL 14 2C	FOOT	1,246.000				
87301225	ELCBL C SIGNAL 14 3C	FOOT	1,254.000				
87301245	ELCBL C SIGNAL 14 5C	FOOT	7,064.000				
87301405	ELCBL C LEAD 16 1PR	FOOT	2,584.000				
87301805	ELCBL C SERV 6 2C	FOOT	280.000				
87502490	TS POST GALVS 15	EACH	1.000				
87700170	S MAA & P 26	EACH	1.000				
	S MAA & P 30	EACH	1.000				
	S MAA & P 36	EACH	1.000				
	S MAA & P 46	EACH	1.000		 	+	
	S MAA & P 48	EACH	1.000			<u> </u>	

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
87700290	S MAA & P 50	EACH	1.000				
87700320	S MAA & P 55	EACH	1.000				
87702730	S MAA & P DUAL MA 50	EACH	1.000				
87800200	CONC FDN TY D	FOOT	7.000				
87800300	CONC FDN TY E 24D	FOOT	3.000				
87800400	CONC FDN TY E 30D	FOOT	10.000				
87800415	CONC FDN TY E 36D	FOOT	85.000				
88030020	SH LED 1F 3S MAM	EACH	18.000				
88030050	SH LED 1F 3S BM	EACH	11.000				
88030070	SH LED 1F 4S BM	EACH	4.000				
88030080	SH LED 1F 4S MAM	EACH	4.000				
88102717	PED SH LED 1F BM CDT	EACH	8.000				
88200100	TS BACKPLATE	EACH	37.000				
88500100	INDUCTIVE LOOP DETECT	EACH	8.000				
88600100	DET LOOP T1	FOOT	2,809.000				

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ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
88800100	PED PUSH-BUTTON	EACH	8.000				
89502375	REMOV EX TS EQUIP	EACH	10.000				

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THIS IS THE TOTAL BID \$

NOTES:

- 1. Each PAY ITEM should have a UNIT PRICE and a TOTAL PRICE.
- 2. The UNIT PRICE shall govern if no TOTAL PRICE is shown or if there is a discrepancy between the product of the UNIT PRICE multiplied by the QUANTITY.
- 3. If a UNIT PRICE is omitted, the TOTAL PRICE will be divided by the QUANTITY in order to establish a UNIT PRICE.
- 4. A bid may be declared UNACCEPTABLE if neither a unit price nor a total price is shown.

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

I. GENERAL

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

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

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for the chief procurement officer to void the contract, or subcontract, and may result in the suspension or debarment of the bidder or subcontractor.

II. ASSURANCES

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

A. Conflicts of Interest

1. The Illinois Procurement Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

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

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

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

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

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

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

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

B. Negotiations

1. The Illinois Procurement Code provides in pertinent part:

Section 50-15. Negotiations.

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

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

C. Inducements

1. The Illinois Procurement Code provides:

Section 50-25. Inducement. Any person who offers or pays any money or other valuable thing to any person to induce him or her not to bid for a State contract or as recompense for not having bid on a State contract is guilty of a Class 4 felony. Any person who accepts any money or other valuable thing for not bidding for a State contract or who withholds a bid in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

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

D. <u>Revolving Door Prohibition</u>

1. The Illinois Procurement Code provides:

Section 50-30. Revolving door prohibition. Chief procurement officers, State purchasing officers, procurement compliance monitors, their designees whose principal duties are directly related to State procurement, and executive officers confirmed by the Senate are expressly prohibited for a period of 2 years after terminating an affected position from engaging in any procurement activity relating to the State agency most recently employing them in an affected position for a period of at least 6 months. The prohibition includes, but is not limited to: lobbying the procurement process; specifying; bidding; proposing bid, proposal, or contract documents; on their own behalf or on behalf of any firm, partnership, association, or corporation. This Section applies only to persons who terminate an affected position on or after January 15, 1999.

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

E. Reporting Anticompetitive Practices

1. The Illinois Procurement Code provides:

Section 50-40. Reporting anticompetitive practices. When, for any reason, any vendor, bidder, contractor, chief procurement officer, State purchasing officer, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, 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.

F. Confidentiality

1. The Illinois Procurement Code provides:

Section 50-45. Confidentiality. Any chief procurement officer, State purchasing officer, designee, or executive officer who willfully uses or allows the use of specifications, competitive bid documents, proprietary competitive information, proposals, contracts, or selection information to compromise the fairness or integrity of the procurement, bidding, or contract process shall be subject to immediate dismissal, regardless of the Personnel code, any contract, or any collective bargaining agreement, and may in addition be subject to criminal prosecution.

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

G. 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

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

A. Bribery

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

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

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

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

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

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

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 1961.

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

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

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

B. Felons

1. The Illinois Procurement Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

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

C. Debt Delinquency

1. The Illinois Procurement Code provides:

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

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

D. Prohibited Bidders, Contractors and Subcontractors

1. The Illinois Procurement Code provides:

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

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

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-12 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Procurement Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the chief procurement officer may declare the contract void if this certification is false.

F. Educational Loan

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

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

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

G. Bid-Rigging/Bid Rotating

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

§ 33E-11. (a) Every bid submitted to and public contract executed pursuant to such bid by the State or a unit of local government shall contain a certification by the prime contractor that the prime contractor is not barred from contracting with any unit of State or local government as a result of a violation of either Section 33E-3 or 33E-4 of this Article. The State and units of local government shall provide the appropriate forms for such certification.

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

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

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government. 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.

H. International Anti-Boycott

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

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

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

I. Drug Free Workplace

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

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

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

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

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

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

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

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

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

J. Disclosure of Business Operations in Iran

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

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

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

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

Check the appropriate statement:

- /___/ Company has no business operations in Iran to disclose.
- /___/ Company has business operations in Iran as disclosed the attached document.

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.

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.

TO BE RETURNED WITH BID

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

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

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

The undersigned business entity certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. A copy of the certificate of registration shall be submitted with the bid. The bidder is cautioned that the Department will not award a contract without submission of the certificate of registration.

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

M. Lobbyist Disclosure

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

(i) Disclose all costs, fees, compensation, reimbursements, and other remunerations paid or to be paid to the lobbyist related to the contract,

 Not bill or otherwise cause the State of Illinois to pay for any of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration, and

(iii) Sign a verification certifying that none of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration were billed to the State.

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

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

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

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

Or

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

Name and address of person:

All costs, fees, compensation, reimbursements and other remuneration paid to said person:_

IV. DISCLOSURES

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

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

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Illinois Procurement Code provides that all bids of more than \$10,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the contract. Furthermore, pursuant to Section 5-5, the Procurement Policy Board may review a proposal, bid, or contract and issue a recommendation to void a contract or reject a proposal or bid based on any violation of the Procurement Code or the existence of a conflict of interest as provided in subsections (b) and (d) of Section 50-35.

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

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

2. <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 Instructions for Financial Information & Potential Conflicts of Interest

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

- 1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO
- 2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than \$106,447.20? YES NO____
- Does anyone in your organization receive more than \$106,447.20 of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES ____ NO ___
- 4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than \$106,447.20? YES ____ NO ___

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

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

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

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

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

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

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

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

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

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than \$106,447.20 (60% of the Governor's salary as of 7/1/07). (Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)

INDIVIDUAL	. (type or print information)		
NAME:			
ADDRESS			
Type of own	ership/distributable income share	9:	
Type of own	ership/distributable income share	e: Partnership	other: (explain on separate sheet):

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

(a) State employment, currently or in the previous 3 years, including contractual employment of services.

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

1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois Toll Highway Authority? Yes ____No ___

Yes <u>No</u>

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

RETURN WITH BID/OFFER

- If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 7/1/07) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ____No ___
- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 7/1/07) are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes ____No ___
- (b) State employment of spouse, father, mother, son, or daughter, including contractual employment services in the previous 2 years.

Yes No

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

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois Toll Highway Authority? Yes ____No ___
- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$106,447.20, (60 % of the Governor's salary as of 7/1/07) provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary.
- 3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$106,447.20, (60% of the salary of the Governor as of 7/1/07) are you entitled to receive (i) more then 71/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes No
- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 7/1/07) are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor?

Yes <u>No</u>

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years.
Yes ____No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ____No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes ____No ___

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

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

RETURN WITH BID/OFFER

- (h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes <u>No</u>
- (i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes No
- (j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.

Yes ___No ___

2. Communication Disclosure.

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

Name and address of person(s):

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

Name of person(s):		
Nature of disclosure:		
	ABLE STATEMENT	
This Disclosure Form A is submitted on behalf of penalty of perjury, I certify the contents of this dis knowledge.		
Completed by:		
Signature of Individual of	or Authorized Representative	Date
NOT APPL	ICABLE STATEMENT	
Under penalty of perjury, I have determined that n the criteria that would require the completion of the		anization meet
This Disclosure Form A is submitted on behalf of	the CONTRACTOR listed on the previ	ous page.
Signature of Auth	orized Representative	Date

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Other Contracts & Procurement Related Information Disclosure

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Act (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of \$10,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

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

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

-	Signature of Authorized Representative	Date

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

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

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

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



Contract No. 76C49 ST CLAIR County Section 82-1-2HB Route FAI 64 District 8 Construction Funds

PART I. IDENTIFICATION

Dept. Human Rights #_____

Name of Bidder:

PART II. WORKFORCE PROJECTION

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

Duration of Project: ____

		TOT	AL Wo	rkforce	Project	tion for	Contra	ict	1					(CURRENT TO BE		IPLOYEE IGNED	S
				MIN	ORITY E	EMPLC	YEES			TR	AINEES	;			TO CO	ТИС	RACT	
JOB		TAL					*OT	HER	APPI			HE JOB			DTAL			RITY
CATEGORIES		OYEES		ACK	HISP		MIN		TIC						OYEES			DYEES
OFFICIALS	М	F	М	F	М	F	М	F	М	F	М	F		М	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							-	Γ		EOD			IENT US			
	OTAL Tra		ojectio	n for C	ontract							FUR	DE	PARIN				
EMPLOYEES		TAL						THER										
IN		OYEES		ACK	HISP			NOR.	_									
TRAINING	М	F	М	F	М	F	Μ	F	-									
APPRENTICES																		
ON THE JOB TRAINEES																		

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

Note: See instructions on page 2

BC 1256 (Rev. 12/11/07)

RETURN WITH BID Contract No. 76C49 ST CLAIR County Section 82-1-2HB Route FAI 64 **District 8 Construction Funds**

PART II. WORKFORCE PROJECTION - continued

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

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

office or base of operation is located.

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

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

PART III. AFFIRMATIVE ACTION PLAN

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

Company _____

Telephone Number

Address _____

NOTICE REGARDING SIGNATURE

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

Signature:

_____ Title: _____ Date: ____

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

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

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

BC-1256 (Rev. 12/11/07)

RETURN WITH BID Contract No. 76C49 ST CLAIR County Section 82-1-2HB Route FAI 64 District 8 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 Ву Business Address (IF A CO-PARTNERSHIP) Name and Address of All Members of the Firm: ____ Corporate Name Ву ____ Signature of Authorized Representative Typed or printed name and title of Authorized Representative (IF A CORPORATION) Attest Signature (IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW) Business Address Corporate Name Ву _____ Signature of Authorized Representative Typed or printed name and title of Authorized Representative (IF A JOINT VENTURE) Attest Signature Business Address If more than two parties are in the joint venture, please attach an additional signature sheet.



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

(Effective November 1, 1992

Item No.

Letting Date

KNOW ALL MEN BY THESE PRESENTS, That We

as PRINCIPAL, and

as SURETY, are

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

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

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

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

In TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by

their respective officers this	day of		A.D.,
PRINCIPAL		SURETY	
(Company Nar	ne)		(Company Name)
Ву		Ву:	
(Signature	e & Title)		(Signature of Attorney-in-Fact)
	Notary Certif	ication for Principal and Sure	ety
STATE OF ILLINOIS,			
County of			
l,		, a Notary Public	in and for said County, do hereby certify that
		and	
(Insert names of individuals	signing on behalf of PRINCI	IPAL & SURETY)
	is day in person and ackno		d to the foregoing instrument on behalf of PRINCIPAL hey signed and delivered said instrument as their free
Given under my hand and notal	rial seal this	day of	A.D.
My commission expires			
-			Notary Public
	nature and Title line below,	the Principal is ensuring the	n Electronic Bid Bond. By signing the proposal and e identified electronic bid bond has been executed and bid bond as shown above.
		[
Electronic Bid Bond ID#	Company / Bidder	Name	Signature and Title

BDE 356B (Rev. 10/24/07)

PROPOSAL ENVELOPE



PROPOSALS

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

Item No.	Item No.	Item No.

Submitted By:

ame:	
ddress:	
hone 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. 76C49 ST CLAIR County Section 82-1-2HB Route FAI 64 District 8 Construction Funds



SUBCONTRACTOR DOCUMENTATION

P.A. 96-0795, effective July 1, 2010, enacted substantial changes to the provisions of the Illinois Procurement Code (30 ILCS 500). Among the changes are provisions affecting subcontractors. The Contractor awarded this contract will be required as a material condition of the contract to implement and enforce the contract requirements applicable to subcontractors approved in accordance with article 108.01 of the Standard Specifications for Road and Bridge Construction.

If the Contractor seeks approval of subcontractors to perform a portion of the work, and approval is granted by the Department, the Contractor shall provide a copy of the subcontract to the Chief Procurement Officer within 20 calendar days after execution of the subcontract.

The subcontract shall contain the certifications required to be made by subcontractors pursuant to Article 50 of the Illinois Procurement Code. This Notice to Bidders includes a document incorporating all required subcontractor certifications and disclosures for use by the Contractor in compliance with this mandate. The document is entitled <u>State</u> <u>Required Ethical Standards Governing Subcontractors</u>.

STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

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

The certifications hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed should the Department approve the subcontractor. The chief procurement officer may terminate or void the subcontract approval if it is later determined that the bidder or subcontractor rendered a false or erroneous certification.

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

A. Bribery

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

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

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

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

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

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

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract to which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 1961.

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

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

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

B. <u>Felons</u>

1. The Illinois Procurement Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

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

C. Debt Delinquency

1. The Illinois Procurement Code provides:

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

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

D. Prohibited Bidders, Contractors and Subcontractors

1. The Illinois Procurement Code provides:

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

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

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-12 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Procurement Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the chief procurement officer may declare the contract void if this certification is false.

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

	contracting Company	
Date	prized Officer	
[prized Officer	

SUBCONTRACTOR DISCLOSURES

I. DISCLOSURES

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

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

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Illinois Procurement Code provides that all subcontracts of more than \$10,000 shall be accompanied by disclosure of the financial interests of the subcontractor. This disclosed information for the subcontractor, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the Prime Contractor's contract. Furthermore, pursuant to this Section, the Procurement Policy Board may recommend to allow or void a contract or subcontract based on a potential conflict of interest.

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

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

2. <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 Instructions for Financial Information & Potential Conflicts of Interest

If the subcontractor is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor should answer each of the following questions. A "YES" answer indicates Form A must be signed and dated by a person that is authorized to execute contracts for the subcontracting company. Note: These questions are for assistance only and are not required to be completed.

- 1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ____ NO
- 2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than \$106,447.20? YES ____ NO____
- Does anyone in your organization receive more than \$106,447.20 of the subcontracting entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES ____ NO ___
- 4. Does anyone in your organization receive greater than 5% of the subcontracting entity's or parent entity's total distributive income, but which is less than \$106,447.20? YES ____ NO ___

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

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

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

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

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

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

Yes No ____

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

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

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the SUBCONTRACTOR (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than \$106,447.20 (60% of the Governor's salary as of 7/1/07). (Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)

OR INDIVIDUAL	(type or print information)		
NAME:			
ADDRESS			
Type of owne	ership/distributable income share	9:	
stock	sole proprietorship	Partnership	other: (explain on separate sheet):
% or \$ value of	of ownership/distributable income sl	hare:	

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

(a) State employment, currently or in the previous 3 years, including contractual employment of services.

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

- 1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois Toll Highway Authority? Yes ____No ___
- Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 7/1/07) provide the name the State agency for which you are employed and your annual salary.

- If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 7/1/07) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ____No ___
- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 7/1/07) are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes No ___
- (b) State employment of spouse, father, mother, son, or daughter, including contractual employment services in the previous 2 years.

Yes <u>No</u>

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

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois Toll Highway Authority? Yes ____No ___
- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$106,447.20, (60 % of the Governor's salary as of 7/1/07) provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary.
- 3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$106,447.20, (60% of the salary of the Governor as of 7/1/07) are you entitled to receive (i) more then 71/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ____No ___
- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 7/1/07) are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor?

Yes <u>No</u>

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years.
Yes ____No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ____No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes ____No ___

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

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

- (h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ____No ___
- (i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.
 Yes No ___
- (j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.

Yes No ____

APPLICABLE STATEMENT

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

Completed by:

Signature of Individual or Authorized Officer

Date

NOT APPLICABLE STATEMENT

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

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

 Signature of Authorized Officer	Date

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Subcontractor: Other Contracts & Procurement Related Information Disclosure

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

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Act (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of \$10,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature of Authorized Officer	Date
	Duto

NOTICE TO BIDDERS



- TIME AND PLACE OF OPENING BIDS. Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., June 11, 2010. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- 2. DESCRIPTION OF WORK. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

Contract No. 76C49 ST CLAIR County Section 82-1-2HB Route FAI 64 District 8 Construction Funds

Bridge removal and replacement, intersection/interchange reconstruction, retaining walls and other work on 15th Street over I-64 in East St. Louis (SN 082-0151).

- 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, Secretary

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FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2010

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 1-1-10)

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STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2007, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of FAI Route 64 (I-64); Section 82-1-2HB; St. Clair County; Contract No. 76C49 and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

<u>15th Street Bridge over I-64</u>: This improvement to 15th Street begins at Station 3+00.00 and ends at Station 13+92.79; the improvements to St. Clair Avenue begins at Station 34+88.67 and ends at Station 39+88.38; the improvements to Baugh Avenue (N15) begins at Station 5+00.00 and ends at Station 6+50.00; the improvements to Baugh Avenue (S15) begins at Station 110+00.00 and ends at Station 112+20.00; the improvements on WB I-64 begins at Station 87+42.35 and ends at Station 105+15.26; the improvement to Ramp A begins at Station 7+71.49 and ends at Station 19+62.07; improvements to Ramp B begins at Station 10+00.00 and ends at Station 15+41.39 and improvements to Ramp E begins at Station 10+91.65 and ends at Station 24+01.28. The gross length of improvement is 1,092.79 feet (0.207 miles) and the net length of the improvement is 1,092.79 feet (0.207 miles), all of which is located in the city of East St. Louis and in St. Clair County, Illinois.

DESCRIPTION OF PROJECT

This improvement consists of the reconstruction of the 15th Street Bridge (Structure Number 082-0377) with approaches, entrance ramps to WB and EB I-64, exit ramp from EB I-64 and reconstruction and resurfacing of local roads. The work also includes drainage, lighting, signing, traffic signals, traffic control and protection, pavement markings, deep wells and all incidental and collateral work necessary to complete the improvements as shown on the plans and as described herein.

MONTHLY LABOR SUMMARY AND ACTIVITY REPORTING SYSTEM

Effective: 1-1-1995

Revised June 2001

I. Monthly Labor Summary Report, Form SBE 148

The <u>prime Contractor and each first and second tier sub-Contractor</u>, (hereinafter referred to as "subContractor") shall submit a certified Monthly Labor Summary Report directly to the District Engineer.

This report is in lieu of submittal of the Monthly Workforce Analysis Report, Form SBE 956.

This report must be received in District Eight no later than the tenth day of the next month.

This Report shall be submitted by the prime Contractor and each subContractor, for each consecutive month, from the start, to the completion of their work on the contract.

The data source for this Report will be a summation of all personnel and hours worked on each subject contract for the month based on weekly payrolls for that month.

The Monthly Labor Summary Report is required to be submitted in one of the following formats:

- a.) For Contractors having IDOT contracts valued in the aggregate at \$250,000 or less, the report may be typed or clearly handwritten using Form SBE 148 for submittal to the District Engineer for District Eight.
- b.) For Contractors having IDOT contracts valued in the aggregate at more than \$250,000, the report must be submitted in a specific "Fixed Length Comma Delimited ASCII Text File Format". The subject file format is detailed on the next page. Submittal of this file may be by 3.5 inch disk, modem, or by e-mail.
- II. Monthly Contract Activity Report, Form SBE 248

The prime Contractor and each subContractor shall submit a monthly report directly to the District Engineer reflecting their contract activity on all Illinois Department of Transportation contracts they have in force in District Eight.

This report shall be submitted for each consecutive month, from the start, to the completion of all contracts in District Eight.

The report must be received in the District Office no later than the tenth day of the next month.

Monthly Labor Summary and Activity Reporting System Codes and Formats

Indicated below for your reference are the Employee Codes and File Formats required for this system.

I.) Monthly Labor Summary Report, Form SBE 148

The following employee codes are to be used to identify each individual on the Summary Report:

- 1. Gender: M Male F Female
- 2. Ethnic Group: 1 White 2 Black 3 Hispanic
 4 American Indian/Alaskan Native 5 Asian/Pacific Islander

FAI Route 64 (I-64) Section 82-1-2HB St. Clair County Contract No. 76C49

- Work Classification: OF Official SU Supervisor FO Foremen
 CL Clerical CA Carpenter EO Operator ME Mechanic
 TD Truck Driver IW Ironworker PA Painter OT Other
 EL Electrician PP Pipefitter TE Technical LA Laborer
 CM Cement Mason
- 4.Employee Status:
C CompanyO Owner Operator
A ApprenticeJ Journeyman
T Trainee

Specific "Fixed Length Comma Delimited ASCII File Format"

Order	Field Name	Type	<u>Size</u>
1	Contractor Number	Α	4
2	Contractor Reference Number	Α	6
3	Contract Number	Α	5
4	Period (07/28/2000)	D	10
5	SSN (111-11-1111)	Α	11
6	Name	Α	40
7	Gender	Α	1
8	Ethnic Group	Α	1
9	Work Classification	Α	1
10	Employee Status	Α	1
11	Total Hours (0000060.00)	Ν	10

File Name Conventions: (Contractor Number + Report Month/Year).Txt i.e. 20001298.Txt

II.) Monthly Contract Activity Report, Form SBE 248

The following activity codes are to be used to identify the Contractor's contract status each month on the Monthly Activity Report, Form SBE 248:

Α.	Contract Status:	1 - Not Started	2 - Active	3 - No Work
	4 - Suspended	5 - Complete		

Failure to comply with this special provision may result in the withholding of payments to the Contractor, and/or cancellation, termination, or suspension of the contract in whole or part.

Compliance with this Special Provision shall be considered incidental to the cost of the contract and no additional compensation will be allowed for any costs incurred.

All prime and subContractors having contracts in the aggregate exceeding \$250,000 must provide a "Fixed Length Comma Delimited ASCII File" for approval prior to the start of construction.

This Special Provision must be included in each subcontract agreement.

The Department of Transportation is requesting disclosure of information necessary to accomplish the statutory purpose as outlined under 23CFR part 230 and 41CFR part 60.4 and the Illinois Human Rights Act.

Disclosure of this information is REQUIRED. Failure to comply with this special provision may result in the withholding of payments to the Contractor, and/or cancellation, termination, or suspension of the contract in whole or part.

Compliance with this Special Provision shall be considered incidental to the cost of the contract and no additional compensation will be allowed for any costs incurred.

This Special Provision must be included in each subcontract agreement.

EMBANKMENT

Revised November 1, 2006

Material which is proposed for use by the Contractor to be used for embankment construction must be inspected and approved by the District Geotechnical Engineer. In order to be approved for use as embankment material, it must meet all applicable requirements of Sections 202, 203, 204, 205, and 502 of the Standard Specifications and meet the following requirements:

- 1. It must fall in one of the following Highway Research Board Classifications: A-1, A-2, A-3, A-4, A-6, or A-7-6.
- 2. It shall have a Liquid Limit of 49 or less.
- 3. Any A-4, A-6 or A-7-6 material to be used as borrow for embankment construction shall not have an organic content greater than 7%.
- 4. Classification of the material for points 1 and 2 shall be determined in accordance with the latest AASHTO Designation: M 145.
- 5. When tested for density in place, any soil classified as an A-4 shall not contain more than 100% of optimum moisture content determined according to AASHTO T-99.

The outside 9 feet (3 meters) of those portions of the embankment which will be permanently exposed in the completed roadway shall be constructed using native materials of a classification that will support vegetation and contain a plasticity index of 12 or greater as directed by the Engineer.

The lime modified soil layer shall be constructed with a minimum of 18 inches (450 mm) of "reactive" soil as defined by Article 1009.02 of the Standard Specifications.

HOT-MIX ASPHALT SURFACE REMOVAL W/SKETCH OF ILLINOIS STANDARD W8-I106

Effective: October 1, 1985

Revised: August 10, 2007

This work shall consist of removing bituminous surface to the limits specified on the plans according to Section 440 of the Standard Specifications except as herein modified.

The cuttings from the hot-mix asphalt surface removal shall become the property of the Contractor, unless otherwise noted in the General Notes, and their salvage value shall be reflected in the contract unit price for HOT-MIX ASPHALT SURFACE REMOVAL.

Concrete patches which have to be partially removed will be paid for as HOT-MIX ASPHALT SURFACE REMOVAL.

Manholes and valve vaults which are exposed by the hot-mix asphalt surface removal and transverse cuts at the end of the day which are more than 1/2 inch (12 mm) deep shall be tamped with a bituminous cold mix. The cost of this temporary taper shall be included in HOT-MIX ASPHALT SURFACE REMOVAL.

When the removal width of the machine is less than the width of the lane, the operations shall be planned such that after the hot-mix asphalt surface for a portion of the lane has been removed the remaining portion shall have been removed by the end of the day so that the two passes begin and terminate even with each other.

If the depth of removal is greater than 1/2 inch (12 mm), the removal shall be tapered at the terminating point at the end of each day's operation when the lane is open to traffic.

All materials, equipment, and labor necessary to complete the work and maintenance of the tapers as specified above will be included in the contract unit bid price for HOT-MIX ASPHALT SURFACE REMOVAL.

Where hot-mix asphalt surface removal has been performed and water would be pocketed on the pavement prior to resurfacing, the Contractor shall construct temporary ditches through the shoulder to permit drainage as directed by the Engineer. Where the existing shoulders are hot-mix asphalt, narrow strips of surface removal to permit drainage will be done only on the specific instructions from the Engineer. The Contractor shall repair the shoulder to its original condition after the resurfacing is completed.

After any hot-mix asphalt removal operation has been performed, the Contractor shall erect special "ROUGH GROOVED SURFACE" signs, as shown on the attached sheet, in advance of the construction zone in both directions, if applicable. In addition, these signs shall also be erected along major side streets in advance of the construction zone.

These signs shall remain in place until they are no longer applicable as determined by the Engineer. They shall then be removed by the Contractor and become his property.

The cost of furnishing, erecting, maintaining, and removing these signs will not be paid for separately, but shall be considered in the cost of the HOT-MIX ASPHALT SURFACE REMOVAL.

At the end of each day's work, temporary pavement marking line shall be in place on the planed surface in accordance with Section 703 of the Standard Specifications.

FAI Route 64 (I-64) Section 82-1-2HB St. Clair County Contract No. 76C49

ILLINOIS STANDARD W8–I106



∠ c COLOR: LEGEND AND BORDER — BLACK NON-REFLECTORIZED BACKGROUND — ORANGE REFLECTORIZED

SIGN			D	IMENS	IONS			
SIZE	А	в	с	D	Е	F	G	н
36X36	36.0	17.2	2.2	24.3	23.5	5.5	10.5	2.5
48X48	48.0	24.1	3.0	34.0	33.0	6.0	13.0	3.5

SIGN SIZE	SERIES LINES			MAR- GIN	BOR- DER	BLANK STD.
	36X36	5C	5C	5C	0.6	0.8
48X48	7C	7C	70	0.8	1.2	B4-48D

All dimensions in inches.

RIGHT-OF-WAY AND PROPERTY CORNERS

Effective: April 15, 2006

<u>Description</u>. This work shall consist of resetting right-of-way and property corners that are disturbed prior to or during construction.

<u>Materials</u>. For right-of-way and permanent easement corners, a 5/8" X 30" rebar with a Division of Highways aluminum cap bearing the surveyor's license number shall be used. The aluminum cap design shall be as shown on the plans.

For the intersection of property lines with proposed right-of-way lines and permanent easement lines, a 5/8" X 30" rebar with a plastic cap bearing the surveyor's license number shall be used.

CONSTRUCTION REQUIREMENTS

<u>General</u>. Upon completion of the construction operations, the Contractor and Engineer shall locate and inventory the right-of-way and property corners. A written report of any missing right-of-way and property corners shall be submitted to the District Chief of Plats and Plans.

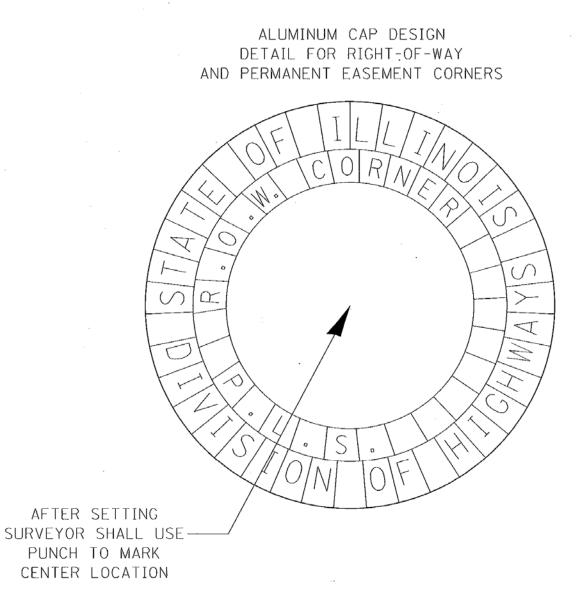
An Illinois Professional Land Surveyor, with a Department prequalification in "Special Services – Land Survey", shall be obtained by the Contractor to set the right-of-way and property corners.

The right of way and property corners shall be set after the construction work is complete, and there is no possibility of disturbance of the marker. Corners shall be set in compliance with the "Minimum Standards of Practice" for a Boundary Survey as prescribed under the "Rules for the Administration of the Illinois Professional Land Surveyor's Act of 1989" as set forth by the Illinois Department of Professional Regulation, amended at 28 III. Reg. 15297, effective November 10, 2004.

<u>Method of Measurement</u>. Resetting of right-of-way and property corners that are disturbed through no fault of the Contractor will be measured for payment as each. Resetting of corners that are not protected and carefully preserved according to Article 107.20 of the Standard Specifications will not be measured for payment.

Basis of Payment. This work will be paid for at the contract unit price per each for RIGHT-OF-WAY AND PROPERTY CORNERS.

FAI Route 64 (I-64) Section 82-1-2HB St. Clair County Contract No. 76C49



OFFICE COPY MACHINE

Effective: January 1, 1987

Revised: November 1, 2006

The copier specified in Article 670.02 shall meet the following specifications:

- (1) Edge-to-edge copying.
- (2) Up to 11 in x 17 in (275 mm x 425 mm) size for copy-size capabilities.
- (3) A detachable platen cover in order to copy portions of large-bound documents.
- (4) A cabinet stand for the copier.

TELEPHONE ANSWERING MACHINE

Effective: January 11, 1990

Revised: November 1, 2006

The telephone answering machine specified in Article 670.02 shall meet the following minimum specifications:

- (1) Time/Day Indication A computerized voice records the date and time that each message is received.
- (2) Beeperless Remote Any remote touch-tone phone can be used to review all messages by the use of an access code.
- (3) Digital System Pre-recorded and received messages are managed on separate cassettes.
- (4) Conversation Record The operator can record any phone call.
- (5) Remote Turn-On Any remote touch-tone phone can be used to turn on the answering machine by the use of an access code.
- (6) Full Message The Caller is advised if the memory is insufficient to record the call.
- (7) Battery Back-Up The settings and messages are protected from power failures.
- (8) Two-Line Capacity Projects that have a second phone line through the provision of a 670.05 Engineer's Field Laboratory shall provide a single phone answering machine that services both lines.

Prior to the purchase of this item, the Contractor shall submit specifications for the proposed machine to the Engineer for his approval.

TRAFFIC CONTROL AND PROTECTION STANDARD 701501

Effective: October 1, 1984

Revised: November 1, 2006

This work shall conform to the applicable portions of Section 700 of the Standard Specifications, the details as shown on the plans, and as specified herein.

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Traffic control and protection during patching operations will be in accordance with TRAFFIC CONTROL AND PROTECTION STANDARD 701501 except when the distance between successive patches is less than 700 ft (210 m), the entire operation may be considered as one work area for signing purposes; and, when the distance between successive patches exceeds 700 ft (210 m), additional warning signs and taper shall be placed as shown on the plans.

This work shall be measured according to Article 701.19(c) of the Standard Specifications.

This work will be paid for according to Article 701.20(b) at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION STANDARD 701501.

TRAFFIC CONTROL PLAN

Effective: July 12, 1993

Revised: May 12, 1997

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

Special attention is called to Articles 107.09 and 107.14 of the "Standard Specifications for Road and Bridge Construction and the following Highway Standards relating to traffic control:

701006 701011 701101 701106 701401 701402 701411 701422 701446 701451 701456 701501 701502 701601 701701 701801 701901 704001 701001 701400

In addition, the following Special Provision(s) will also govern traffic control for this project:

Traffic Control and Protection Interstate Weekend Closure, Special Contractor Cooperation Impact Attenuators, Temporary Ramp Closure for Freeway/Expressway Pavement Marking Removal Work Zone Public Information Signs Maintenance of Roadways Work During Peak Hours Temporary Information Signing

INSTALLATION OF TEMPORARY CONCRETE BARRIERS AND/OR TEMPORARY BRIDGE RAIL

Effective: May 18, 1993

Revised: November 1, 2006

The following procedure and traffic control shall be used for the placement, relocation and removal of temporary concrete barrier and/or temporary bridge rail on this project:

- A. Placement of Temporary Concrete Barrier and/or Temporary Bridge Rail:
 - 1. Erect Traffic Control and Protection Standard 701321 as shown on the plans for Stage 1 Construction except for the temporary concrete barrier and/or temporary bridge rail.
 - 2. Place the temporary traffic signals in the red flash mode.
 - 3. Close the Stage 1 Construction lane to traffic and route two-way traffic over the Stage 1 traffic lane. One flagman will be required at each end of the lane closure, at all times, to direct traffic.
 - 4. Erect the temporary concrete barrier and/or temporary bridge rail in the Stage 1 location, beginning at the approach end of the lane closure and proceeding to the departure end.
- B. Relocation of Temporary Concrete Barrier and/or Temporary Bridge Rail:
 - 1. When Stage 1 Construction is complete, relocate temporary concrete barrier tapers parallel to the roadway centerline beginning at the departure end and proceeding to the approach end. Place cones at 25 ft (8 meters) centers to establish temporary tapers to close the Stage 2 Construction lane to traffic and route traffic over the Stage 2 traffic lane.
 - 2. Place the temporary concrete barrier and/or temporary bridge rail in the Stage 2 location starting with the approach end and proceed to the departure end.
 - 3. This procedure shall be followed for any adjustment of temporary concrete barrier and/or bridge rail during any stage.
- C. Removal of the Temporary Concrete Barrier and/or Temporary Bridge Rail:
 - 1. When Stage 2 Construction is completed, remove the temporary concrete barrier and/or temporary bridge rail beginning at the departure end of the lane closure and proceeding to the approach end. Place cones at 25 ft (8 meters) centers to delineate the closed lane until all the temporary concrete barrier and/or bridge rail is removed.
 - 2. Remove the Traffic Control and Protection Standard 701321 and route two-way traffic over the structure.

- D. Additional Requirements During Placement, Relocation and Removal of Temporary Concrete Barrier and/or Temporary Bridge Rail:
 - 1. One lane of traffic shall be maintained at all times.
 - 2. Men and equipment will not be permitted to encroach on the lane open to traffic.
 - 3. Any length of temporary concrete barrier and/or temporary bridge rail not complete in one-day time period shall be protected by barricades with steady-burning lights at 25 ft (8 meters) centers until the barrier work is complete. A temporary attenuator shall be placed on the end of any length of temporary concrete barrier and/or temporary bridge rail not completed.
 - 4. Traffic control devices, as specified on the plans for Traffic Control and Protection Standard 701321 shall be placed on all temporary concrete barrier and/or temporary bridge rail in use overnight.

The cost of complying with this procedure shall be considered included in the cost of TEMPORARY CONCRETE BARRIER, RELOCATING TEMPORARY CONCRETE BARRIER, and/or TEMPORARY BRIDGE RAIL outlined in the plans.

DETECTOR LOOP FOR TRAFFIC COUNTERS

Effective: November 1, 1992

Revised: November 1, 2006

This work shall consist of furnishing, installing, and testing detector loops in the pavement in conformance with the requirements of the plans, Section 886 of the Standard Specifications with the following exceptions:

If the saw slot was dry cut, water does not have to be used in the cleaning of the sawed slot. The slot may be cleaned by air pressure alone. If water is used, all water must be cleaned from slots by compressed air before wire installation.

The resistance shall be a minimum of 100 megohms above ground under any conditions of weather or moisture. The loop and lead-in circuit shall have an inductance between 50 and 350 microhenries, 175 microhenries nominal. The quality factor (Q) shall be greater than 5. The Contractor shall provide the necessary instruments and do all the testing in the presence of the Engineer, and shall provide a copy of test results.

Each detector lead-in shall be installed in a separate PVC. conduit as shown in the plans. This conduit extends from the edge of pavement to the nearest gulfbox or terminal facility. The lead-in wires from each loop shall be twisted a minimum of 5 turns per 12"(300 mm).

Detector loops shall be centered in traffic lanes unless designated otherwise on the plans or by the Engineer.

Traffic lanes shall be referred to by number as shown on the plans, and loop wires shall be color-coded accordingly. Color code shall be: Lane #1 - red, Lane #2 - white, Lane #3 - green, and Lane #4 - blue.

At all locations where pavement joints that are not dowelled or pavement separation cracks (including areas where bituminous pavement abuts concrete pavement) are encountered by the slots sawed for the placement of the detector loops or lead-ins, a cored expansion hole shall be made per Standard 886001. The cored expansion holes are included in this pay item and no additional compensation will be made.

This work will be paid for at the contract unit price per foot (meter) of DETECTOR LOOP, SPECIAL of the type specified, measured along the sawed slot in the pavement containing the loops and lead-in, rather than the actual length of wire in the slot.

TEMPERATURE CONTROL FOR CONCRETE PLACEMENT

Effective: October 17, 2008

Delete the second and third sentences of the second paragraph of Article 1020.14(a) of the Standard Specifications.

CONSTRUCTION AND MAINTENANCE SIGN SUPPORTS

Effective: April 21, 1981

Revised: November 1, 2006

This work shall be done according to Section 1106 of the Standard Specifications and Highway Standard 701901 except as herein modified.

All construction signs mounted on permanent support for use in temporary traffic control having an area of 10 square feet (1 square meter) or more shall be mounted on two 4 in x 4 in (100 mm x 100 mm) or two 4 in x 6 in (100 mm x 150 mm) wood posts.

Type A metal post (two for each sign) conforming to Article 1006.29 of the Standard Specifications may be used in lieu of wood posts. Type A metal posts used for these signs may be unfinished.

This work shall not be paid for separately; but shall be considered included in the cost of the traffic control items in this contract.

NAME AND ADDRESS OF UTILITY	TYPE	LOCATION	ESTIMATED DATE RELOCATION COMPLETED
Illinois American Water 100 Water Works Drive PO Box 24040 Belleville, IL 62223-9040 Brent O'Neill 618-239-3253	Water	IAWC has two conflicts; a 6" main from 15 th Street parallel along Baugh Ave. from Approx. Stas. 110+00 to 117+00 and a 10" main parallel along St. Clair Ave. from Approx. Stas.34+50 to 38+50 that will be relocated.	11/01/2010

STATUS OF UTILITIES TO BE ADJUSTED

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AT&T Illinois 2250 North Jasper St. Decatur, IL 62526 Tom Long 217-429-8596	Telephone	AT&T has one conflict; an aerial cable and pole running parallel on St. Clair Ave from Approx. Sta. 35+00 to on Job # 7570009	11/01/2010
Charter Communications 941 Charter Commons Town and Country, MO 63017 Cory Birk 636-387-6643	CATV	No conflicts anticipated	N/A
Ameren IP-Electric 1050 West Blvd. PO Box 428 Belleville, IL 62220 Jason Klein 618-236-4309	Electric	Ameren has one conflict; an overhead lighting circuit and 5 poles that will be relocated on Ameren Job # 043363.	11/01/2010
Ameren IP-Gas 1050 West Blvd. PO Box 428 Belleville, IL 62220 Brian Kelly 618-267-1916	Gas	No conflicts anticipated	N/A

The above represents the best information of the Department and is only included for the convenience of the bidder. The applicable provisions of Section 102 and Articles 105.07 and 107.20 of the Standard Specifications for Road and Bridge Construction shall apply.

If any utility adjustment or removal has not been completed when required by the Contractor's operation, the Contractor should notify the Engineer in writing. A request for an extension of time will be considered to the extent the Contractor's operations were affected.

TRAFFIC SIGNAL TURN-ON AND FINAL INSPECTION

Effective: Unknown

Revised: November 3, 2006

The Contractor may request a turn-on and final inspection of completed traffic signal work at each separate location.

For a new traffic signal installation (at a location where traffic signals did not previously exist) the Contractor must advise the Department a minimum of 10 calendar days prior to the proposed turn-on date to allow for an appropriate press release to be issued. The turn-on date of new controllers at locations where traffic signals are being modified or replaced shall be in accordance with the shut down period allowed as specified elsewhere in these provisions.

The Department or responsible local agency will begin paying energy consumption charges upon issuance of signal acceptance notice by the Engineer according to Article 801.11 (b)(5a). Facility charges will be paid under the contract up to 30 days prior to the turn-on date. However, the Contractor is responsible for payment of any energy consumption charges prior to turn-on. Facility charges prior to turn-on are to be submitted for payment under Article 109.05 of the Standard Specifications along with the utility company connection charges in accordance with Section 805.

Waiting for electric service to be connected by the utility company will not be a cause to suspend working day charges. However, working days will not be charged while waiting for turn-on if all other contract work is complete, including electric service connection.

Subsequent to turn-on, a final inspection must be requested a minimum of 7 calendar days prior to the proposed inspection date. The Department or responsible local agency will assume maintenance responsibility including knockdowns at the time that all deficiencies noted during the final inspection are corrected to the satisfaction of the Engineer. Acceptance of the controller will not be made until the requirements of Section 801 are met.

MAINTENANCE OF EXISTING ELECTRICAL DEVICES

Effective: Unknown

Revised: November 1, 2006

This work shall be performed according to the Articles 801.10 and 801.11, and as modified herein.

The existing electrical devices which lie within the construction limits of this project will continue to be the maintenance responsibility of the Illinois Department of Transportation. Electrical devices are defined to mean highway lighting installations, traffic signals, flashing beacons, sign truss illumination units, changeable message signs, ITS, motorist aid call boxes, dewatering pumps, speed monitoring devices, traffic volume count stations, wrong way movement detectors, following-too-close monitors, ice/fog detectors or any such devices or facilities the Department may have to maintain.

Any damage or malfunctions of these devices, observed by the Contractor, shall be reported immediately to the Department.

If it is determined by the Engineer that the Contractor is responsible for damage of any type to above-mentioned existing electrical devices, including underground wiring, as a result of negligence or poor workmanship, the Contractor shall be responsible for the repair of these facilities. These repairs shall be accomplished by whatever method the Department deems necessary. In the event the repairs are not made by the Contractor, the Contractor shall be required to reimburse the Department for such repairs within 60 days of receiving written notification of said damage.

The Department will continue to maintain the existing electrical devices until such time as the Contractor removes these devices, if required by this Contract. Any new, rebuilt, or modernized equipment installed as a requirement of this Contract shall be the maintenance responsibility of the Contractor until such time as this equipment is final inspected and found to be installed in a satisfactory manner by the Department. Existing individual equipment not involved with the work of this Contract will continue to be the maintenance responsibility of the Department.

TRENCH AND BACKFILL FOR ELECTRICAL WORK (SPECIAL)

Effective: Unknown

Revised: November 1, 2006

This work shall consist of constructing a trench beneath the bituminous paved shoulder and backfilling it.

The trench shall be constructed in accordance with and at the locations specified in the plans or as directed by the Engineer. The sides of the trench shall be saw-cut through the full depth of the bituminous shoulder material.

The trench shall not be less than 24" (600 mm) in depth. The width shall be as required to accommodate the appropriate number of conduits required at each specified location. The bottom of the trench shall be tamped and the trench shall be inspected by the Engineer before the conduits are placed in the trench.

All trenches shall be backfilled as soon as possible after the installation of the conduits. The trench shall be backfilled with sand. Cinders, rocks or other deleterious materials will not be permitted in the backfilling material.

Backfilling materials shall be deposited in the trench in layers not to exceed 6" (150 mm) in depth, and shall be thoroughly compacted with a mechanical tamper before the next layer is deposited in the trench.

Incidental hot-mix asphalt surfacing shall be used to restore the shoulders to the existing grade and will not be paid for separately. The hot-mix asphalt material shall be compacted and finished as directed by the Engineer.

This work will be paid for at the contract unit price per foot (meter), measured in place along a line perpendicular to the roadway centerline and between the edge of pavement and the outside edge of the shoulders, for TRENCH AND BACKFILL FOR ELECTRICAL WORK (SPECIAL).

PEDESTRIAN PUSH BUTTONS

Effective: March 20, 1997

Revised: November 1, 2006

Pedestrian push buttons shall be installed in accordance with Section 888 of the Standard Specifications except as follows:

Article 888.03 shall be revised to read as follows:

The pedestrian push buttons shall be mounted approximately 30 in (760 mm) above the curb ramp level.

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

Effective: Unknown

Revised: November 1, 2006

This item consists of removing an existing traffic signal installation. This work shall conform to Section 895 of the Standard Specifications. The existing traffic signal installation shall remain in operation until the new traffic signal installation is ready for operation. Upon approval by the Engineer, the Contractor shall remove the existing traffic signal equipment pursuant to the direction of IDOT's Bureau of Operations by contacting Dave Walker at 618/346-3274.

The removed equipment shall remain the property of the State of Illinois.

Upon removal of the existing traffic signal equipment specified above, the Contractor shall deliver such equipment to the Illinois Department of Transportation, Traffic and Maintenance Yard, 9601 St. Clair Avenue, Fairview Heights, Illinois. Such delivery shall be made under other provisions of this contract.

This work will be paid for at the contract unit price each for REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

PROTECTION AND RESTORATION OF PROPERTY

Condition Surveys:

In addition to the requirements of Article 107.20 of the standard specifications, the Contractor shall conduct pre-construction surveys of all structures adjacent to the construction limits that may be potentially affected by vibration prior to any work by the Contractor. These preconstruction survey records shall be provided to the Engineer prior to beginning any work that may cause damage to private property. The Contractor shall conduct and document post-construction surveys of any nearby buildings or structures that have a potential for vibration damage and make these records available to the Engineer for review. The Contractor shall be responsible for any damage resulting from excessive vibration-causing operations.

These condition surveys shall consist of visually inspecting and recording all existing defects in the structures before and after construction. Photographs and/or videotape may be used to assist in documentation. The Contractor shall submit a written report to the department detailing the visual and photographic investigation of potentially affected structures. This report will include copies of the Contractor preconstruction survey(s) and Contractor post-construction survey(s) and discuss any discrepancies and findings of these surveys.

Vibration Control and Monitoring:

When performing pile driving, steel sheet driving, shaft drilling or any other activities that in the opinion of the Engineer could induce the potential for vibration damage to adjacent buildings, structures, or utilities, the Contractor shall monitor the operations with an approved seismograph, located as approved, between the vibration-causing work and the closest structure subject to vibration damage, and as close as practical to the subject structure.

Vibration monitoring shall be performed by a vibration specialist with a seismograph, subject to the Engineer's approval. The vibration specialist shall monitor vibration levels in accordance with the specification provided below: Vibrations measured at the foundation or basement floor of any structure shall not exceed the following limitations:

Displacement:

Frequency	Amplitude (in inches)
2	0.1
5	0.01
10	0.005
20	0.0018
30	0.001
40	0.0008
50	0.0006
60	0.0005

Data recorded for each occurrence shall be furnished to the Engineer prior to the next vibrationcausing work and shall include the following:

- 1. Identification of vibration monitoring instrument used.
- 2. Description of Contractor's equipment.
- 3. Name of qualified observer and interpreter.
- 4. Distance and direction of recording station from vibration-causing area.
- 5. Type of ground at recording station and material on which the instrument is sitting.
- 6. Principal frequency, amplitude and particle velocity in each component.
- 7. A dated and signed copy of records of seismograph readings.

8. Contractor documentation of any operational changes necessary to reduce vibration levels below the acceptable levels.

If the recorded vibration data exceeds the allowable levels as specified in this article, the Contractor shall immediately halt all work creating the excessive vibrations until such time that the Contractor changes the work operations and can show that acceptable vibration levels will be maintained.

All costs associated with the work described will not be paid for separately, but shall be considered as included in the contract unit bid prices, and no additional compensation will be allowed.

FENCE REMOVAL

<u>Description</u>: This work shall consist of removing and disposing the existing fence of all kinds as shown in the plans.

<u>Construction Requirements</u>: No removal work shall be completed without the approval of the Engineer. All associated hardware and appurtenances of the existing fence shall be removed off-site and disposed of by the Contractor in a legal disposal site. All postholes shall be backfilled and compacted to the satisfaction of the Engineer.

<u>Basis of Payment</u>: Fence removal shall be measured for payment in feet of FENCE REMOVAL and measured along the top of the fence from center to center of end post, including the length occupied by gates.

CONCRETE BARRIER REMOVAL

Description. This work shall consist of removing and disposing of existing single-face and double-face concrete barrier as shown in the plans and as directed by the Engineer.

Construction Requirements. Meet the requirements of Article 440.02 of the Standard Specifications. Concrete barrier removal shall include the complete removal of the barrier base. Disposal shall meet the requirements of Article 440.06 of the Standard Specifications.

Method of Measurement. Concrete Barrier Removal shall be measured for payment in feet along the top of the barrier.

Basis of Payment. This work will be paid for at the contract unit price per foot for CONCRETE BARRIER REMOVAL, for which said price shall include all labor, equipment, and incidentals necessary for removal and disposal of the barrier.

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

<u>Description</u>: This item is for cold milling of existing Hot-Mix Asphalt surfaces on which the proposed Hot-Mix Asphalt Surface Course Overlay material shall be placed.

Item shall include the milling of existing pavement adjacent to curbs. These areas shall be Edge Milled 1½ inches at the curb and taper uniformly to 0-inches in 4 feet toward the overlay area. Limits of the Milling shall be as indicated on the Plans or as directed by the Engineer. These items shall include the removal and satisfactory disposal of Bituminous Material milled. All milled areas shall be swept clean of dirt, debris, and loose material prior to placement of Bituminous Material (Prime Coat) and considered incidental to pavement removal. No additional compensation will be allowed. Milling shall be in accordance with Section 440.03 and 440.06 of the Standard Specifications for Road and Bridge Construction.

<u>Basis of Payment</u>: This work shall be paid for at the Contract unit price per square yard of the measured surface area for HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH. No additional compensation will be allowed.

SLEEPER SLAB

<u>Description</u>. This work shall consist of a sleeper slab composed of reinforced Portland cement concrete, constructed on a prepared subgrade, as shown on the plans.

<u>Materials</u>. Materials shall meet the applicable requirements of Division 1000 of the Standard Specifications.

<u>Construction Requirements</u>. Meet applicable requirements of Section 420 of the Standard Specifications. Construct sleeper slabs at the locations, widths and thicknesses shown on the plans. Provide reinforcement as shown on the plans.

<u>Method of Measurement</u>. SLEEPER SLAB will be measured for payment in place per foot of slab of the width and thickness shown on the plans.

Basis of Payment. Work will be paid for at the contract unit price per foot of SLEEPER SLAB.

AGGREGATE SHOULDERS, TYPE B 10"

<u>Description</u>: This item of work shall consist of furnishing, placing, shaping, and compacting aggregate on a prepared subgrade adjacent to the edges of the completed pavement structure or stabilized shoulder.

<u>Construction Requirements.</u> This work shall be performed in accordance with Section 481 of the Standard Specifications and as directed by the Engineer.

<u>Method of Measurement</u>. AGGREGATE SHOULDERS, TYPE B 10" will be measured for payment in place per square yard.

<u>Basis of Payment</u>. Work will be paid for at the contract unit price per square yard of AGGREGATE SHOULDERS, TYPE B 10".

PORTLAND CEMENT CONCRETE SHOULDERS - 15½" AND 18"

<u>Description</u>: This item of work shall consist of constructing portland cement concrete shoulders of $15 \frac{1}{2}$ " or 18" thickness on a prepared subgrade or subbase.

<u>Construction Requirements</u>. This work shall be performed in accordance with Section 483 of the Standard Specifications and as directed by the Engineer. The specified thickness shall be the thickness shown on the plans at the edge of the pavement.

<u>Method of Measurement</u>. PORTLAND CEMENT CONCRETE SHOULDERS, 15½" or 18" will be measured for payment in place per square yard.

Basis of Payment. Work will be paid for at the contract unit price per square yard of PORTLAND CEMENT CONCRETE SHOULDERS, 15½" or 18".

TEMPORARY PAVEMENT (INTERSTATE)

<u>Description</u>. This work shall consist of constructing hot-mix asphalt (HMA) binder and surface course on a prepared base, as shown on the plans.

Materials: Materials shall be according to section 406.02 of the Standard Specifications.

Item	Article/Section
(a) Hot-Mix Asphalt	
(b) Bituminous Material	
(c) Fine Aggregate	

<u>Construction Requirements</u>. Meet applicable requirements of Section 406 of the Standard Specifications. Construct TEMPORARY PAVEMENT (INTERSTATE) at the locations, widths and thicknesses shown on the plans.

<u>Method of Measurement</u>. TEMPORARY PAVEMENT (INTERSTATE) will be measured for payment in place per square yard of TEMPORARY PAVEMENT (INTERSTATE), widths and thicknesses shown on the plans.

<u>Basis of Payment</u>. Work will be paid for at the contract unit price per square yard of TEMPORARY PAVEMENT (INTERSTATE), which price shall include all preparation and all other items necessary to complete the work.

REMOVAL AND REINSTALLATION OF EXISTING TRAFFIC BARRIER TERMINAL, TYPE 5

<u>Description</u>: This item of work shall consist of the complete removal and reinstalling of existing traffic barrier terminal type 5 in accordance with Section 633 of the Standard Specifications and as directed by the Engineer.

<u>Method of Measurement and Basis of Payment</u>: This work will be measured for payment at the contract unit price per EACH of REMOVAL AND REINSTALLATION OF EXISTING TRAFFIC BARRIER TERMINAL, TYPE 5 which price will be considered payment in full to perform the work as specified.

CONCRETE BARRIER, SPECIAL, 32" HEIGHT

<u>Description</u>: This item of work shall consist of constructing concrete barrier double face in accordance with Section 637 of the Standard Specifications, details in plan and as directed by the Engineer.

<u>Method of Measurement and Basis of Payment</u>: This work will be measured for payment at the contract unit price per foot of CONCRETE BARRIER, SPECIAL, 32" HEIGHT which price will be considered payment in full to perform the work as specified.

CONCRETE BARRIER, SINGLE FACE, 42 INCH HEIGHT (SPECIAL)

<u>Description</u>: This item of work shall consist of constructing CONCRETE BARRIER, SINGLE FACE, 42 INCH HEIGHT (SPECIAL) in accordance with Section 637 of the Standard Specifications, details in plan and as directed by the Engineer.

<u>Materials</u>: Materials shall meet the applicable requirements of Division 1000 of the Standard Specifications.

<u>Construction Requirements:</u> Meet applicable requirements of Section 637 of the Standard Specifications. Construct single face barrier at the locations, widths and thickness shown on the plans. Provide reinforcement as shown on the plans.

The coarse aggregate to be used in the concrete barrier walls shall conform to the requirements for the coarse aggregate that is used for superstructure concrete.

<u>Method of Measurement</u>: CONCRETE BARRIER, SINGLE FACE, 42 INCH HEIGHT (SPECIAL) will be measured for payment in place per foot, along the centerline of the concrete barrier.

The cost of reinforcing bars shall be included in the cost of the CONCRETE BARRIER, SINGLE FACE, 42 INCH HEIGHT (SPECIAL).

Basis of Payment: This work will be paid for at the contract unit price per foot for CONCRETE BARRIER, SINGLE FACE, 42 INCH HEIGHT (SPECIAL).

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TRAFFIC SIGNAL CONCRETE FOUNDATION

<u>Description</u>: This work shall consist of constructing a concrete foundation for a traffic signal post or mast arm pole.

<u>Construction Requirements:</u> Work under this item shall be performed in accordance with Section 878 of the Standard Specifications and per IDOT Highway Standard 878001.

<u>Method of Measurement:</u> The foundation will be measured for payment in feet in place. The length measured will be limited to that shown on the plans or authorized by the Engineer.

<u>Basis of Payment:</u> This work shall be paid for at the contract unit price per foot of depth of CONCRETE FOUNDATION, of the type and diameter specified.

MAINTENANCE OF ROADWAYS

Beginning on the date that work begins on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

If items of work have not been provided in the contract, or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the Standard Specifications.

TRAFFIC CONTROL AND PROTECTION

Traffic Control and Protection shall be provided as called for in the plans, these Special Provisions, applicable Highway Standards, applicable sections of the Standard Specifications, or as directed by the Engineer.

The governing factor in the execution and staging of work for this project is to provide the motoring public with the safest possible travel conditions along the roadway through the construction zone. The Contractor shall arrange his operations to keep the closing of any lane of the roadway to a minimum.

Traffic Control Devices include signs and their supports, temporary pavement markings, barricades with sand bags, channelizing devices, warning lights, arrow boards, flaggers, and any other device used for the purpose of regulating, detouring, warning or guiding traffic through or around the construction zone. Traffic Control Devices will also include any custom made detour signs that are specific to this contract, as well as mounting hardware, supports, sand bags, bases, and any other material used to properly install said signage.

The Contractor is required to conduct routine inspections of the worksite at a frequency that will allow for the prompt replacement of any traffic control device that has become displaced, worn or damaged to the extent that it no longer conforms to the shape, dimensions, color and operational requirements of the MUTCD, the Traffic Control Standards or will no longer present a neat appearance to motorists. A sufficient quantity of replacement devices, based on vulnerability to damage, shall be readily available to meet this requirement.

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 assignment patterns and conflicting conditions during the transition from one construction stage to another. When the Contractor elects to cover conflicting or inappropriate signing, materials used shall totally block out reflectivity of the sign and shall cover the entire sign. The method used for covering the signing shall meet with 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, installed and maintained by him 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 are operational, functional and effective 24 hours a day, including Sundays and holidays.

<u>Signs</u>. All signs, except those referring to daily lane closures, shall be post mounted in accordance with Standard 702001 for all projects that exceed four days.

Prior to the beginning of construction operations, the Contractor will be provided a sign log of all existing signs within the limits of the construction zone. The Contractor is responsible for verifying the accuracy of the sign log. Throughout the duration of this project, all existing traffic signs shall be maintained by the Contractor. All provisions of Article 107.25 of the Standard Specifications shall apply.

Whenever any vehicle, equipment, workers or their activities infringe on the shoulder or within 4.5 m (15 feet) of the traveled way and the traveled way remains unobstructed, then the applicable Traffic Control Standard shall be 701006. "Shoulder Work Ahead" sign (W21-5(0)-48) shall be used in lieu of the "Workers" sign (W21-1 or W21-1a).

<u>Barricades</u>. Any drop off greater than 75 mm (3 inches), but less than 150 mm (6 inches) within 2.5 m (8 feet) of the pavement edge shall be protected by Type I or II barricades equipped with mono-directional steady burn lights at 30 m (100 feet) center to center spacing. If the drop off within 2.5 m (8 feet) of the pavement edge exceeds 150 mm (6 inches), the barricades mentioned above shall be placed at 15 m (50 feet) center to center spacing. Barricades that must be placed in excavated areas shall have leg extensions installed such that the top of the barricade is in compliance with the height requirements of Standard 702001.

All Type I and Type II barricades, drums, and vertical panels shall be equipped with a steady burn light when used during hours of darkness unless otherwise stated herein.

Check barricades shall be placed in work areas perpendicular to traffic every 300 m (1,000 feet), one per lane and per shoulder, to prevent motorists from using work areas as a traveled way. Two additional check barricades shall be placed in advance of each patch excavation or any hazard in the work area, the first at the edge of the open traffic lane and the second centered in the closed lane. Check barricades shall be Type I or II and equipped with a flashing light.

<u>Public Convenience and Safety</u>. At the preconstruction meeting, the Contractor shall furnish the name of the individual in his direct employ who is to be responsible for the installation and maintenance of the Traffic Control for this project. The Contractor shall also 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 Contractor shall dispatch men, materials and equipment to correct any such deficiencies. The Contractor shall respond to any call from the Department concerning any request for improving or correcting traffic control devices and begin making the requested repairs within two hours from the time of notification.

Personal vehicles shall not park within the right-of-way except in specific areas designated by the Engineer.

No road closure, lane closures or restriction shall be permitted without prior approval by the Engineer.

<u>Traffic Control Details and Highway Standards</u>. All work shall conform to the Traffic Control details shown in the plan and the following Highway Standards:

- 701001-02 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
- 701006-03 OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24 " (600 mm) FROM PAVEMENT EDGE
- 701011-02 OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
- 701101-02 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24 " (600 mm) FROM PAVEMENT EDGE
- 701106-02 OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
- 701400-04 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-05 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701402-07 LANE CLOSURE, FREEWAY/EXPRESSWAY WITH BARRIER
- 701411-06 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP FOR SPEEDS >= 45 MPH
- 701422-02 LANE CLOSURE, MULTILANE, FOR SPEEDS 45 MPH TO 55 MPH
- 701446-01 TWO LANE CLOSURE FREEWAY/EXPRESSWAY
- 701451-01 RAMP CLOSURE FREEWAY/EXPRESSWAY

- 701456 PARTIAL EXIT RAMP CLOSURE FREEWAY/EXPRESSWAY
- 701501-05 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701502-03 URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
- 701601-06 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
- 701701-06 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-04 LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
- 701901-01 TRAFFIC CONTROL DEVICES
- 704001-06 TEMPORARY CONCRETE BARRIER

<u>Notice of Detour</u>. Two weeks prior to closing a road and detouring traffic, the Contractor shall submit a completed "Road Construction Information" form (OPER 2410) to the Department and the city of East St. Louis.

<u>Method of Measurement</u>. This item of work will be measured on a lump sum basis for furnishing, installing, maintaining, replacing, relocating and removing all traffic control devices and detour signage used for the purpose of regulating, warning, directing or diverting traffic during the construction or maintenance of this improvement as required in the plans, specifications, listed Highway Standards, and these Special Provisions. Applications of individual Highway Standards will not be measured separately.

<u>Basis of Payment</u>. This work will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION and no additional compensation will be allowed. Applications of individual Highway Standards will not be paid for separately but shall be included in the contract unit price for TRAFFIC CONTOL AND PROTECTION. The salvage value of the materials removed shall be reflected in the bid price for this item. Contractor will be paid on a monthly basis using the following calculation:

<u>1</u> Project Duration (months) x Lump Sum Price = Monthly Payment

Note that no additional compensation will be provided for extensions of schedule. INTERSTATE WEEKEND CLOSURE, SPECIAL will be paid for separately.

INTERSTATE WEEKEND CLOSURE, SPECIAL

This work shall consist of furnishing, installing, maintaining, monitoring, and complete removal of all traffic control devices necessary to successfully and safely detour traffic around a weekend Interstate closure.

Interstate I-64 will be closed for one weekend to allow the demolition of the 15th Street Bridge.

The weekend closure will not be allowed if the proposed weekend includes, or is adjacent to the 7 major holiday periods specified in section 107.09. These holidays include New Year's Day, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day.

The Interstate closure will not be allowed during major events in the St. Louis Metro area. These events include, but are not limited to, St. Louis Cardinals' baseball home games, St. Louis Rams' football home games, St. Louis Blues home games, the Fair St. Louis Celebration, the Mardi Gras Parade, the Big Muddy Blues' Festival, Gateway International Raceway Events, and other possible events not listed here. The final determination on the acceptability of a weekend to do the closure will rest with the Engineer.

The Contractor shall notify the Engineer 3 weeks (21 days) prior to the anticipated weekend closure. 2 weeks (14 days) prior to the anticipated shutdown, the Contractor shall have Changeable Message Signs (CMS) in place according to the Interstate Weekend Closure Plan Sheets to alert the motoring public to the upcoming closure. These messages shall be coordinated with IDOT's Traffic Management Center (TMC) at 618-346-3279. IDOT will be responsible for all media releases regarding the closure.

Resident Engineer will be responsible for contacting the agencies listed below 2 weeks (14 days) prior to the weekend closure.

- 1. St. Clair County Transit District, (618) 628-8090, Attn: Bill Grogan
- 2. Madison County Transit District, Fax (618) 797-7547
- 3. East St. Louis Police Department, (618) 482-6767
- 4. East St. Louis Fire Department, (618) 482-6840
- 5. St. Clair County Emergency Telephone System Board, Fax (618) 277-7668, Attn: Carolyn Ligon

Interstate I-64 will be closed from the I-55/70 and I-64 Interchange in East St. Louis to 18th Street in East. St. Louis. Detour signing and specific lane closures are detailed in the plan set on the Interstate Weekend Closure Plan Sheets. These drawings show the appropriate traffic control standards to be used. Any variation from the plans shown shall be approved by the Engineer.

The Interstate may be completely closed to traffic from 9:00 PM Friday evening to 5:00 AM Monday morning. The Contractor will be allowed to begin traffic control set up at 6:00 PM Friday Evening according to the Interstate Weekend Closure Plan Sheets, as long as there is no direct impact to the PM traffic leaving St. Louis.

Contractor shall field-mark intended locations of signs a minimum of 7 days prior to the scheduled closure. The Resident Engineer must approve the marked locations before the Contractor begins to install the signs. Sign that are installed prior to 6:00 PM of the Friday Evening of the scheduled closure must be completely covered until needed.

All devices used to provide traffic control shall be NCHRP 350 Compliant.

The Contractor shall designate a representative that is solely responsible for the traffic control related to this item. This representative shall be able to be contacted and respond accordingly at all times during the closure. Due to the continuous work schedule, it is anticipated the appointed representative may experience shift change. This is acceptable, as long as the Engineer is notified of the representative's shift schedule before the closure begins.

Dynamic Message Signs (DMS) are part of the existing ITS system owned and maintained by IDOT. The Interstate 64 Weekend Closure Plan Sheets detail messages that the Contractor shall coordinate with IDOT's Traffic Management Center during the weekend closure. The Contractor is not responsible for providing or maintaining the DMS during the weekend closure.

Liquidated Damages. Should the Contractor, or in case of default, the surety, fail to open up the Interstate 64 mainline pavement, both northbound and southbound, by 5:00 a.m. on the first Monday following the weekend closure required for the 15^{th} Street Bridge Demolition, the Department, the traveling public, state and local police and governmental authorities will be damaged in various ways, including but not limited to, increased construction administration cost, potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public. These damages are not reasonably capable of being computed or quantified. Therefore, the Contractor will be charged with liquidated damages specified in the amount of \$2,500.00 for every fifteen (15) minute increment beginning strictly at 5:00 a.m. on the first Monday morning following the weekend closure, with liquidated damages continuing at 5:15 a.m., 5:30 a.m. and so on. It shall be the responsibility of the Engineer to determine the quantity of excess closure time.

Basis of Payment: This work shall be paid for at the contract unit price per LUMP SUM for INTERSTATE WEEKEND CLOSURE, SPECIAL, which will be payment in full for furnishing, installing, maintaining, and removing traffic control for the closure described.

CONTRACTOR COOPERATION

<u>Description</u>: This work shall consist of any coordination of proposed project start dates and sequence of construction with the Engineer and other Contractors required for an effective and timely schedule, in accordance with Section 105.08 of the Standard Specifications. This work also pertains to delays and inconvenience incurred by the Contractor resulting from lack of coordination specified herein.

The Contractor must be aware that, during the duration of this Contract, other separate contracts may be under construction on or near the work covered by this Contract. Special attention is brought to the work covered by this Contract that may be on or near the work covered by Contract Nos. 76C38, 76C47, 76C51 and 76C55.

<u>Construction Requirements</u>: The Contractor shall schedule and conduct work and shall place and dispose of material being used so as not to interfere with or cause unnecessary inconvenience or delay to the operations of other Contractors within the limits of the same project. The Contractor shall perform the work in proper sequence with the work of the other Contractors. Full cooperation of the Contractors involved, in careful and complete coordination of their respective activities in the area, will be required.

<u>Basis of Payment</u>: Any additional costs, delays, or inconvenience incurred by the Contractor to meet the requirements of this provision or resulting from failure to meet the requirements of this provision shall be considered incidental to this contract and no additional compensation will be allowed.

TEMPORARY INFORMATION SIGNING

<u>Description:</u> This work shall consist of furnishing, installing, maintaining, relocating for various states of construction and eventually removing temporary informational signs. Included in this item may be ground mount signs, skid mount signs, truss mount signs, bridge mount signs, and overlay sign panels which cover portions of existing signs.

Information to be conveyed and/or standard signs to be provided with this work shall be consistent with that required for construction stages 1, 2, 3, 4, and 5A, as defined in the contract documents. This work shall not include furnishing, installing, maintaining, or relocating signs covered under the applicable highway standards, as defined with these Special Provisions.

<u>Material Requirements:</u> Materials shall be according to the following Articles of Section 1000 - Materials:

Item	Article/Section
a.) Sign Base	1090
b.) Sign Face	1091
c.) Sign Legends	1092
d.) Sign Supports	1093
e.) Overlay Panels	1090.02

<u>Construction Requirements</u>: The sign sizes and legend sizes shall be verified by the Contractor prior to fabrication. Signs which are placed along the roadway and/or within the construction zone shall be installed according to the requirements of Article 701.14 and Article 720.04. The signs shall be 7 feet above the near edge of the pavement and shall be a minimum of 2 feet beyond the edge of the paved shoulder. A minimum of 2 posts shall be used.

The attachment of temporary signs to existing sign structures or sign panels shall be approved by the Engineer. Any damage to the existing signs due to the Contractor's operations shall be repaired or signs replaced, as determined by the Engineer, at the Contractor's expense. Signs which are placed on overhead bridge structures shall be fastened to the handrail with stainless steel bands. These signs shall rest on the concrete parapet where possible. The Contractor shall furnish mounting details for approval by the Engineer.

<u>Method of Measurement:</u> This work shall be measured for payment in square feet edge to edge (horizontally and vertically). All hardware, posts or skids, supports, bases for ground mounted signs, connections, which are required for mounting these signs will be included as part of this pay item.

<u>Basis of Payment:</u> This work shall be paid for at the contract unit price per square feet for TEMPORARY INFORMATION SIGNING, which price shall be full compensation for all labor, equipment and materials required for performing the work as herein specified.

STREET NAME SIGN MAST ARM MOUNT

<u>Description</u>: This work shall consist of installing mast arm-mounted street name signs of the specified size at the locations shown on the plans or as directed by the Engineer.

<u>Construction Requirements:</u> Work under this item shall be performed in accordance with Section 701 of the Standard Specifications and per IDOT Highway Standard 720016, except as noted herein.

Method of Measurement: This work will be measured for payment in place per EACH.

<u>Basis of Payment:</u> This work shall be paid for at the contract unit price each for STREET NAME SIGN MAST ARM MOUNT, which price shall include the cost of all labor, equipment, and materials required to complete the work as specified herein.

STORM SEWERS, TYPE 2, WATER MAIN QUALITY PIPE

<u>Description</u>: This work shall consist of providing water main quality pipe, for purposes of storm water conveyance, of the diameter designated, placed and backfilled as specified in the contract documents or as directed by the Engineer.

<u>Material Requirements:</u> Water main quality pipe and joints shall comply with 35 Illinois Administrative Code 653.119 and shall be pressure tested in accordance with "AWWA Standard for Installation of Ductile-Iron Water Mains and their Appurtenances" for a working pressure equal to or greater than the maximum possible surcharge head to assure water tightness before backfilling.

<u>Construction Requirements:</u> Work under this item shall be performed in accordance with Section 561 of the Standard Specifications, except as noted herein.

<u>Method of Measurement</u>: This work will be measured for payment in place per FOOT along the geometrical center of the pipe.

<u>Basis of Payment:</u> This work shall be paid for at the contract unit price per foot for STORM SEWERS, TYPE 2, WATER MAIN QUALITY PIPE for the diameter specified, which price shall include the cost of all labor, equipment, and materials required to complete the work as specified herein.

HIGH DENSITY POLYETHYLENE PIPE

<u>Description</u>: This work shall consist of providing corrugated polyethylene pipe of the diameter designated, placed and backfilled as specified in the contract documents or as directed by the Engineer.

<u>Material Requirements:</u> All material shall be in accordance with Division 1000, Materials, and specifically as follows: Polyethylene (PE) Pipe, Section 1040.04. The Contractor shall provide a smooth interior wall unless approved otherwise by the Engineer.

<u>Construction Requirements:</u> All pipe shall be handled to avoid damage. Damaged pipe will be rejected and shall be repaired or replaced at the Contractor's expense to the satisfaction of the Engineer. Flexible pipe shall be laid as shown on the plans, with bell ends upstream and with the spigot end entered the full length into the adjacent section of pipe. Any pipe that is not in true alignment or that shows any undue settlement after laying shall be taken up and relaid at the Contractor's expense. Camber shall be built into the pipe structure to allow for settlement from fill loads if shown on the plans or directed by the Engineer. Two (2) joints shall be soiltight and shall be installed such that the connection of pipe sections will form a continuous line free from appreciable irregularities in the flow line. Field joints may be corrugated bands, double bell couplings, bell and spigot pipe ends with a rubber o-ring gasket in accordance with ASTM F 477, or an alternative connection approved by the Engineer.

The allowable overfill height shall be in accordance with the plans, unless specified otherwise. Minimum cover will be measured as shown on the plans. Backfill material for polyethylene pipe shall consist of gravel, sand or sandy silt soil as shown on the plans. Backfill shall be free of organic material or frozen clumps. Backfill for pipe with diameters 15 inches (375 mm) or less shall have a maximum particle size of 3/4 inch (19 mm). Backfill for pipe with diameters greater than 15 inches (375 mm) shall have a maximum particle size of 1 1/2 inches (38 mm). Gravel and sand shall consist of a well-graded mixture of stone fragments, gravel and sand, and shall be in accordance with AASHTO M 145, Classification Al or A3. Sandy silt soil shall consist of non-plastic granular material with silt content higher than that of gravel or sand, and shall be in accordance with AASHTO M 145, Classification A2-4 or A2-5. Bedding material for pipe with diameters 15 inches (375 mm) or less shall have a maximum particle size of 3/4 inch (19 mm). Bedding material for pipe with diameters greater than 15 inches (375 mm) or less shall have a maximum particle size of 3/4 inch (19 mm). Bedding material for pipe with diameters greater than 15 inches (375 mm) shall have a maximum particle size of 1 1/4 inches (30 mm).

Pipe shall be installed in a trench, whether installed below grade or in an embankment. The construction sequence shall be as shown on the plans. When pipe is installed in an embankment, the embankment shall be placed and compacted to the required density to a minimum elevation of one foot (300 mm) above the top of pipe before a subtrench is excavated. The backfill shall be placed to the required thickness and grade taking care to avoid compaction of the backfill under the middle one third of the pipe. The backfill outside the middle one third of the pipe shall be compacted to the required density shown on the plans before placing the pipe. Compaction of backfill material under the haunches of the pipe shall be accomplished without disturbing the pipe alignment. If rock is encountered, the bedding depth shall be increased to 6 inches (150 mm) below the bottom of the pipe. If soft, spongy or unstable material is encountered, the material shall be removed and excavated to a minimum depth of 10 inches (250 mm) below the bottom of the pipe and replaced with a suitable granular material. Payment for removal of unsuitable material and for backfilling will be made in accordance with Section 109.04, unless the unsuitable material is a result of the Contractor's operations, in which case removing and backfilling shall be at the Contractor's expense. Backfilling shall be completed as soon as practical. Suitable backfill material free from large lumps, clods or rocks shall be placed alongside the pipe and compacted as shown on the plans. The placement of the remainder of the backfill shall be conducted in a manner to prevent misalignment of the pipe and in accordance with Sec 208. Backfill shall be compacted to a minimum of 90 percent standard maximum density or otherwise specified embankment density.

Before heavy construction equipment is operated over the pipe, the Contractor shall provide adequate depth and width of compacted backfill or other cover to protect the pipe from damage or displacement. Any damage or displacement shall be repaired or corrected at the Contractor's expense.

<u>Inspection:</u> The internal diameter of the barrel shall not be reduced by more than 5 percent of the pipe's nominal inside diameter when measured no less than 30 days following completion of installation. After the roadway has been completed and before final inspection of the project, the Engineer will inspect all pipe locations for proper installation. Any section of pipe found to be improperly installed, shall be replaced or repaired by the Contractor at the Contractor's expense and to the satisfaction of the Engineer. Repaired or replaced pipe will be re-inspected by the Engineer. The Contractor shall provide equipment and assistance as deemed necessary by the Engineer to perform any testing. Pipe deflections will be determined by the Engineer by having the Contractor either pushing or pulling a mandrel through the pipe, or verifying deflections by other methods approved by the Engineer. Mandrels used for deflection testing may have either fixed or adjustable arms, but shall be approved by the Engineer prior to use. The following will constitute improper installation:

- 1. If any horizontal or vertical alignment is in excess of 15 percent from plan alignment, will restrict flow or will cause excessive ponding within the pipe.
- 2. Any section of pipe with deflections greater than 5 percent, based upon the units of measurement used in fabricating the pipe.
- 3. If settlement is greater than one inch (25 mm) at 5 percent or more joints.
- 4. The pipe shows evidence of being crushed or buckled at any location.
- 5. The pipe shows evidence of joint separation.

<u>Method of Measurement</u>: This work will be measured for payment in place per FOOT along the geometrical center of the pipe.

<u>Basis of Payment:</u> This work shall be paid for at the contract unit price per foot for HIGH DENSITY POLYETHYLENE PIPE, for the diameter specified, which price shall include the cost of all labor, equipment, and materials required to complete the work as specified herein.

WORK DURING PEAK HOURS

The Contractor shall have all lanes in each direction open to traffic during peak hours. The Contractor will not be permitted to conduct any operation in the open lanes nor will the Contractor be permitted to restrict or impede the flow of traffic during peak hours. Peak hours for this project are defined as occurring from 3:00 PM to 6:00 PM in the eastbound direction, and 6:00 AM to 9:00 AM in the westbound direction.

Additionally, there are events of regional significance that may impact traffic within the project limits. For these events, the Contractor will be informed by the Engineer regarding special peak hour restrictions that will be implemented. Events of regional significance will include, but may not be limited to, St. Louis Cardinal home games, racing events at Gateway International Raceway, Fair St. Louis, and Live on the Levee.

Peak hour restrictions for Cardinal home night games will be defined as occurring from 3:00 PM to 7:00 PM in the westbound direction, and from 9:00 PM to 30 minutes after the end of the game in the eastbound direction. The peak hour restrictions for day games are defined as 10:00 AM to 1:00 PM in the westbound direction, and 2:00 PM to 30 after the end of the game in the eastbound direction.

<u>Failure To Open Traffic Lanes To Traffic For Peak Periods</u> If the Contractor fails to completely open and keep open all lanes of traffic open during the peak hours described elsewhere in these Special Provisions, he shall be liable to the Department in the amount of \$1000 for each and every 15 minute interval or portion thereof that a lane is blocked outside the allowable time limitations. No provision of this clause shall be construed as a penalty but as liquidated and ascertained damages. Such damages may be deducted by the Department from any monies due to the Contractor. These damages shall apply during the length of the contract and includes any extensions of the contract time.

DISCONNECT SIGN LIGHTING AND REMOVE WIRING TO NEAREST SPLICE

<u>Description</u>. This item consists of the disconnection, removal, and disposal of the existing electric connection to the sign lighting. Removal of the existing sign luminaire(s) will be included with removal of the sign structure.

<u>Removal</u>. The Contractor must disconnect the existing power feed to the sign lighting units and remove the wiring back to the nearest location where the sign lighting is spliced to the roadway lighting circuit. The Contractor must provide all materials and labor required to maintain operation of the existing lighting circuit.

No removal work shall be permitted without approval from the Engineer. Cables in unit duct will be removed from the duct and become property of the Contractor. The empty duct shall be removed to 1 foot below ground level and the hole shall be backfilled.

All equipment and material removed as part of this item shall become property of the Contractor and shall be removed from the site.

<u>Method of Measurement</u>. Each electric connection to an existing disconnect switch for sign lighting on a structure that is disconnected, removed, and disposed of, including associated wiring back to the nearest splice, will be measured for payment.

Basis of Payment. This work will be paid for at the Contract unit price each for DISCONNECT SIGN LIGHTING AND REMOVE WIRING TO NEAREST SPLICE.

LUMINAIRE

Add the following table(s) to Article 1067 of the Standard Specifications:

	GIVEN CONDITIONS	
ROADWAY DATA	Pavement Width	16 ft.
	Number of Lanes	1
	Median Width	N/A
	I.E.S. Surface Classification	R3
	Q-Zero Value	0.07
MOUNTING DATA	Mounting Height	45 ft.
	Mast Arm Length	15 ft.
	Set-Back From Edge of Pavement	25 ft.
LUMINAIRE DATA	Lamp Type	HPS
	Lamp Lumens	51000
	I.E.S. Vertical Distribution	Medium
	I.E.S. Control Of Distribution	Cutoff
	I.E.S. Lateral Distribution	III
	Total Light Loss Factor	0.7
LAYOUT DATA	Spacing	240 ft.
	Configuration	Single Sided
	Luminaire Overhang Over Edge of Pavement	N/A

IDOT DISTRICT 8 LUMINAIRE PERFORMANCE TABLE (FOR LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT)

NOTE: Variations from the above specified I.E.S. distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINANCE	Average Horizontal Illuminance, E _{AVE} Uniformity Ratio, E _{AVE} /E _{MIN}	1.0 Ft-c 3:1 (Max)
LUMINANCE	Average Luminance, LAVE	0.6 cd/m ²
	Uniformity Ratio, L _{AVE} /L _{MIN}	3.5:1
	Uniformity Ratio, L _{MAX} /L _{MIN}	6.0:1
	Veiling Luminance Ratio, L _V /L _{AVE}	0.3

IDOT DISTRICT 8 LUMINAIRE PERFORMANCE TABLE (FOR UNDERPASS LUMINAIRE, 150 WATT, HIGH PRESSURE SODIUM VAPOR)

	GIVEN CONDITIONS	
ROADWAY DATA	Pavement Width	36 ft.
	Number of Lanes	3
	Median Width	N/A.
	I.E.S. Surface Classification	R3
	Q-Zero Value	0.07
MOUNTING DATA	Mounting Height	18.5ft.
	Mast Arm Length	0 ft.
	Set-Back From Edge of Pavement	2 ft.
LUMINAIRE DATA	Lamp Type	HPS
	Lamp Lumens	16000
	I.E.S. Vertical Distribution	Medium
	I.E.S. Control Of Distribution	Cutoff
	I.E.S. Lateral Distribution	III
	Total Light Loss Factor	0.7
LAYOUT DATA	Spacing	65 ft.
	Configuration	Opposite
	Luminaire Overhang Over Edge of Pavement	N/A

NOTE: Variations from the above specified I.E.S. distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

Average Horizontal Illuminance, E _{AVE} Uniformity Ratio, E _{AVE} /E _{MIN}	4.0 Fc 2.7:1 (Max)
Average Luminance, L _{AVE} Uniformity Ratio, L _{AVE} /L _{MIN}	N/A N/A
Uniformity Ratio, L _{MAX} /L _{MIN}	N/A
Veiling Luminance Ratio, L _V /L _{AVE}	N/A
	Uniformity Ratio, E_{AVE}/E_{MIN} Average Luminance, L_{AVE} Uniformity Ratio, L_{AVE}/L_{MIN} Uniformity Ratio, L_{MAX}/L_{MIN}

REMOVE TEMPORARY WOOD POLE

<u>Description.</u> This work shall consist of removing an existing temporary wood pole, aerial cable and all associated apparatus and hardware, as shown on the Plans and as directed by the Engineer.

<u>Construction Requirements.</u> Removal shall be in accordance with Article 841.02 of the Standard Specifications, except as herein modified.

<u>Method of Measurement.</u> Each wood pole, aerial cable and associated apparatus and hardware, removed and disposed of as indicated, will be counted as a unit for payment.

<u>Basis of Payment.</u> This work will be paid for at the Contract unit price each for REMOVE TEMPORARY WOOD POLE, which shall be payment in full for the work described herein.

DEEP WELL CONSTRUCTION, ADJUSTMENT, AND FILLING – GENERAL

<u>Description</u>. This item consists of the construction of new high capacity deep wells and associated piezometers, the adjustment of and/or filling of existing deep wells and associated piezometers as shown on the Plans, as directed by the Engineer, and as specified herein and elsewhere in these provisions.

A Licensed Well Contractor will be required for all work associated with deep well or piezometer construction, adjustment, or abandonment as herein specified. All work shall be in conformance to the rules and regulations of the Department of Public Health, Water Well Construction Code, latest revision, and all applicable Federal, State, and Local rules and regulations.

<u>Confined Space Entry</u>. The existing deep well enclosure boxes are considered to be confined spaces. The Contractor shall comply with all OSHA requirements relative to confined space entry. An oxygen deficient, toxic, explosive or flammable atmosphere may exist within these confined spaces. Atmosphere testing shall be conducted prior to entry, and continuously recorded while employees are working within a confined space. The Contractor shall inform the Engineer of who will serve as the rescue responder in an emergency and what system will be used to notify the responder that an emergency exists. Compliance with this provision shall be considered included in the contract and no additional compensation will be allowed.

<u>Permits, Fees, and Regulations</u>. The Contractor shall apply for and obtain permits for the deep wells and associated piezometers from the Illinois Department of Public Health or an approved local health department prior to construction. The Contractor shall be responsible for all permit fees and for filing the deep well completion report and water well sealing forms with the Illinois Department of Public Health.

<u>Protection of Wells</u>. At all times during the progress of the work, the Contractor shall protect each deep well in such manner as to effectively prevent either tampering with or the entrance of foreign matter into the deep well.

<u>Well Logs and Construction Drawings</u>. The Contractor shall keep a log of the geologic material encountered in the drilling of each deep well and shall furnish four typewritten copies of such log to the Engineer upon completion of the well.

The Contractor shall also furnish four (4) copies of a drawing for each deep well depicting the depth and exact construction giving all dimensions regarding lengths and diameters of casing and screen, size of slot openings, and other pertinent details and dimensions. Formation samples shall be collected at 5 ft intervals and delivered to a location directed by the Engineer.

<u>Water Supply</u>. The Contractor is advised that existing dewatering wells may be used as non-potable water supply source for the various operations.

<u>Electrical Supply</u>. The Contractor is advised that the deep well electrical control panels may be used as a power source for temporary pumps or other requirements as necessary. The Contractor will be required to furnish all wiring and electrical fixtures including motor starters.

The Contractor shall take into account the requirements as herein specified, in submitting the contract unit price for the various items of work involved as no additional compensation will be allowed for any costs incurred as a result of compliance with this provision.

FILL DEEP WELL

<u>Description</u>. This item consists of furnishing all materials, labor, tools, and equipment necessary to fill and seal existing deep wells as indicated on the Plans, as directed by the Engineer, and as specified herein.

<u>General</u>. The Contractor shall notify Engineer at least 48 hours in advance when a deep well is ready to be shut down and filled.

<u>Electrical Equipment Removal</u>. All existing electrical equipment and wiring associated with an existing deep well to be filled shall be removed.

The existing deep well feeder conductors shall be disconnected from the existing deep well control center terminal strip for the deep well that is being filled. The existing conductors and conduit between the existing deep well control center and the well enclosure box shall be abandoned in place.

The existing pump power cable shall be disconnected from the existing disconnect switch located within the existing well enclosure box.

The existing equipment ground conductor between the existing disconnect switch and the existing ground rod shall be disconnected and removed.

The existing ground rod shall be removed.

The existing disconnect switch shall be disconnected and removed from the existing well enclosure box.

The existing junction box shall be disconnected and removed from the existing well enclosure box.

All material removed shall become the property of the Contractor and shall be disposed of offsite.

<u>Well Head Removal</u>. The removal of existing well heads shall be performed in accordance with the applicable portions of Section 501 of the Standard Specifications, and as herein specified.

The removal of existing well heads shall include the removal of submersible pumps including pump motors, column pipe, concrete thrust block, and all piping and appurtenances within the well enclosure box as required for the deep well abandonment.

The submersible pumps, pump motors, and the stainless steel pump columns shall remain the property of the Department. The Contractor shall deliver and unload the submersible pumps, pump motors, and the stainless steel pump columns to the Illinois Department of Transportation, Bowman Pump Station, 728 Exchange Avenue.

All other material removed shall become the property of the Contractor and shall be disposed of off-site.

<u>Well Enclosure Box Removal</u>. The removal and satisfactory disposal of existing well enclosure boxes shall be performed in accordance with the applicable portions of Section 605 of the Standard Specifications, and as herein specified.

The existing well enclosure box to be removed under this item is reinforced concrete. The well enclosure box shall be completely removed and shall include the riser and heavy duty frame and grate as shown on the Plans.

The heavy duty frame and grate shall remain the property of the Department. The Contractor shall deliver and unload the heavy duty frame and grate to the Illinois Department of Transportation, Bowman Pump Station, 728 Exchange Avenue.

All other material removed shall become the property of the Contractor and shall be disposed of off-site.

<u>Deep Well Filling and Sealing</u>. The sealing of filled deep wells shall be performed in accordance with the Illinois Water Well Construction Code of the Department of Public Health.

The deep wells shall be sealed by a licensed water well driller pursuant to the Water Well and Pump Installation Contractor's License Act.

The Department of Public Health shall be notified by telephone or in writing at least 48 prior to the commencement of any work to seal the deep wells. The filling of the deep wells shall be performed under the supervision of a well inspector of the Department of Public Health.

Two properly executed and notarized Water Well Sealing Forms of the Department of Public Health are required. One is to be filled with the Division of Environmental Health, Department of Public Health at Springfield, and the other with the Illinois Department of Transportation – District 8.

Before filling, the deep well is to be checked for obstructions. Any that would interfere with the effective sealing of the well shall be removed.

The deep wells shall be sealed by grouting from the bottom up by using neat cement containing bentonite or aquajel from 2% to 6% by dry weight, or pure bentonite in any form. This material shall be applied the full depth of the well and shall terminate within three feet of the ground surface.

The well casing shall be removed at least 3 feet below final grade or existing ground whichever is lower. Any concrete, brickwork, masonry, pipe, or other unsuitable material within three feet of final grade or existing ground whichever is lower shall be removed, and the hole shall be filled to final grade with sand, soil, or earth approved by the Engineer. The fill shall be placed and compacted to the satisfaction of the Engineer.

<u>Method of Measurement</u>. Each deep well that is filled and sealed including the removal of existing electrical equipment, well head, and well enclosure box in accordance with this provision will be measured for payment.

Basis of Payment. This work will be paid for at the Contract unit price each for FILL DEEP WELL.

FILL EXISTING PIEZOMETERS

<u>Description</u>. This item consists of furnishing all materials, labor, tools, and equipment necessary to fill and seal existing piezometers as indicated on the Plans, as directed by the Engineer, and as specified herein.

<u>General</u>. The Contractor shall notify Engineer at least 48 hours in advance when a piezometer is ready to be filled.

<u>Piezometer Filling and Sealing</u>. The existing piezometers associated with deep wells to be filled shall be abandoned in accordance with the Water Well Construction Code, latest edition, 77 Illinois Administrative Code, Chapter 1, and Section 920.120 thereof.

The existing piezometers associated with deep wells to be filled shall be sealed by filling with disinfected clean pea gravel or limestone chips to 10 feet above the piezometer screen. Disinfection of the piezometer shall be accomplished in accordance with Section 920.100(b) of the Water Well Construction Code. Neat cement containing bentonite or aquajel from 2% to 6% by dry weight, or pure Bentonite in any form shall be placed for a minimum of 20 feet above this point. An impervious clay slurry or concrete material shall be used to fill the remaining upper part of the well to the surface.

Concrete piezometer head protectors shall be removed and the piezometer filled as herein specified.

All material removed shall become the property of the Contractor and shall be disposed of offsite. <u>Method of Measurement</u>. Each piezometer that is filled and sealed in accordance with this provision will be measured for payment.

Basis of Payment. This work will be paid for at the Contract unit price each for FILL EXISTING PIEZOMETER.

FILL RECORDER WELL

<u>Description</u>. This item consists of furnishing all materials, labor, tools, and equipment necessary to fill and seal existing recorder wells as indicated on the Plans, as directed by the Engineer, and as specified herein.

<u>General</u>. The Contractor shall notify Engineer at least 48 hours in advance when a recorder well is ready to be shut down and filled.

<u>Recorder Well Enclosure Box Removal</u>. The existing above grade recorder well enclosure box and all associated equipment and hardware including the chart recorder and accessories shall be completely removed. The concrete base that supports both the chart recorder and enclosure shall be removed. After the base is removed, the well casing must be cut flush with the existing grade.

The above grade recorder well enclosure box and all associated equipment and hardware including the chart recorder and accessories shall remain the property of the Department. The Contractor shall deliver and unload the above grade recorder well enclosure box and all associated equipment and hardware including the chart recorder and accessories to the Illinois Department of Transportation, Bowman Pump Station, 728 Exchange Avenue.

All other material removed shall become the property of the Contractor and shall be disposed of off-site.

<u>Recorder Well Filling and Sealing</u>. The sealing of filled recorder wells shall be performed in accordance with the Illinois Water Well Construction Code of the Department of Public Health.

The recorder wells shall be sealed by a licensed water well driller pursuant to the Water Well and Pump Installation Contractor's License Act.

The Department of Public Health shall be notified by telephone or in writing at least 48 prior to the commencement of any work to seal the recorder wells. The filling of the recorder wells shall be performed under the supervision of a well inspector of the Department of Public Health.

Two properly executed and notarized Water Well Sealing Forms of the Department of Public Health are required. One is to be filled with the Division of Environmental Health, Department of Public Health at Springfield, and the other with the Illinois Department of Transportation – District 8.

Before filling, the recorder well is to be checked for obstructions. Any that would interfere with the effective sealing of the well shall be removed.

The recorder wells shall be sealed by grouting from the bottom up by using neat cement containing bentonite or aquajel from 2% to 6% by dry weight, or pure bentonite in any form. This material shall be applied the full depth of the well and shall terminate within three feet of the ground surface.

The well casing shall be removed at least 3 feet below final grade or existing ground whichever is lower. Any concrete, brickwork, masonry, pipe, or other unsuitable material within three feet of final grade or existing ground whichever is lower shall be removed, and the hole shall be filled to final grade with sand, soil, or earth approved by the Engineer. The fill shall be placed and compacted to the satisfaction of the Engineer.

<u>Method of Measurement</u>. Each recorder well that is filled and sealed in accordance with this provision will be measured for payment.

Basis of Payment. This work will be paid for at the Contract unit price each for FILL RECORDER WELL.

DRILLED WELL

<u>Description</u>. This item consists of furnishing all materials, labor, tools, and equipment necessary for the construction of new gravel packed deep wells at the locations as indicated on the Plans, as directed by the Engineer, and as specified herein.

<u>Casings</u>. The casing for each well shall be Schedule 30 stainless steel not less than 24 inch outside diameter by 0.5 inch wall thickness. The casing shall extend from the top of the screen to the elevation indicated on the Plans. Steel casings shall be fabricated from ANSI 18-8 type 304 stainless steel. Joints shall be welded and watertight.

<u>Screens</u>. Well screens shall be manufactured by a firm regularly engaged in the manufacturer of well screens. Screens shall be fabricated from ANSI type 304 stainless steel. The outside diameter of the screen shall not be less than 24 inches. The vertical height of the screen shall be as indicated on the Plans, unless otherwise directed by the Engineer.

Screens or member and elements thereof shall be of adequate strength and thickness to meet the required service conditions. The screen shall be wire wound continuous slot. The width of screen openings shall be 50 slot for the deep well. The screen open area shall be 238 in² per foot of screen. All members and elements between slots shall be of adequate section and strength to safely withstand all loads and stresses to which they may be subjected. The screens shall have sufficient strength to safely support vertically the load imposed thereon by the casing. Screen sections shall be fabricated by the welding of all joints and points of contact of the assembled parts. All joints between screen sections shall be securely welded by continuous weld meeting the approval of the Engineer.

The end of the screen shall be tightly sealed by means of a stainless plate not less than 3/8 inch nominal thickness, attached to the screen by means of a continuous weld around its entire circumference. This plate will serve the dual purpose of closing the bottom of the deep well and of providing a support for the casing and screen assembly.

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<u>Gravel</u>. All materials used for the gravel wall around the inner well casing shall be clean, wellrounded particles of 95% siliceous material which has been thoroughly cleaned of all silt, dust, and other foreign matter. The filter gravel as herein specified shall be uniformly graded between 2.25 mm to 3.75 mm and no more than 5% by weight should fall outside the upper and lower limits specified. The Contractor will provide signed certification that states the gravel is composed of not less than 95 percent silica and meets the gradation requirements of this special provision. Contractor will need to sample every super sack or every 5,000 lbs of proposed gravel pack two weeks prior to drilling to verify the proposed gravel pack meets the special provisions. A representative of the Department will be present to witness the gravel sampling. Each super sack will have its own sieve analysis performed on the proposed gravel pack. Once the sieve analysis has been completed by an independent lab the results will be turned into the department for approval. Any super sacks not meeting the specifications will be rejected. Contractor will then have to replace the super sack with new and test again. The cost for testing will be included in this pay item.

<u>Well Construction</u>. Each well shall be constructed by using a Pier Rig method and/or Rotary Reverse method. If Reverse Rotary is used no pit will be allowed to be dug. A portable pit or tank will be allowed. A trench for the portable tank or pit will be allowed to be dug from the proposed well to the portable pit or tank. If a trench is used it must be lined. All cuttings will remain on site and will be graded out. The drilled hole shall be 3.5 feet in diameter. The Contractor shall provide a continuous and sufficient supply of water so that the drilled hole will be kept full of water at all times during the entire drilling operation.

No use of drilling mud or other Bentonite-type drilling additives shall be used in the drilling process, unless otherwise permitted by the Engineer.

The Contractor shall be prepared to use temporary casing or other approved means to keep the hole open during construction. Temporary casing used during the drilling shall be removed and recovered by the Contractor. Should the drilling water become heavy with fines and mud, the Engineer will require the Contractor to pump the drilling fluid to waste and refill with clean water.

After the drilling is complete, the casing and screen shall be installed in the drilled hole. Care shall be taken that the closed end of the well screen shall have a uniform bearing on the bottom of the hole. The bottom of the casing shell be centered concentrically plumb in the hole. Centering guides designed to hold the screen in the center of the borehole shall be installed as shown on the Plans. The screen and casing shall be no more than 5 inches in 100 feet out of plumb.

The casing (including the screen sections) shall extend from the bottom of the well to the elevation indicated on the Plans.

Gravel shall be placed in annular space between the casing and the side of the drilled hole from the bottom of the well up to the elevation indicated on the Plans. Gravel shall be placed with a tremie in one continuous operation. The outside diameter of the gravel wall shall be not less than 3.5 feet and the horizontal thickness of the gravel pack shall not be less than 9 inches.

During the placement of the gravel, the elevation of the bottom of the tremie pipe shall be so controlled that at no time shall the bottom of the pipe be more than 5 feet above the top of the gravel already deposited in the well.

All operations of handling and placing the gravel shall be regulated to prevent the segregation of sizes of gravel particles. The water used to wash the mixture down the tremie pipe shall contain a chlorine concentration of 400 ppm, obtained by the addition of sodium hypochlorite.

The annular space between the casing and the 3.5 foot drilled hole directly above the gravel pack shall be filled with a 3 foot Bentonite layer and then the remaining annular space between the casing and the drilled hole wall shall be filled with cement grout as indicated on the Plans. The grout shall be mixed 1 bag of cement to 6 gallons of water with 1% Bentonite added to reduce shrinkage. The Grout shall be placed with a tremie similar to the gravel pack, when placed below water level. No water from drilling of the new well will be allowed on the roadway pavement. Cost for this will be incidental to the project.

<u>Well Development</u>. Each well shall be fully developed to obtain the maximum yield of water per foot of drawdown as approved by the Engineer. Each deep well shall be bailed, washed, backwashed, surged, and developed until the water produced has turbidity not greater than the raw water turbidity and contains not more than 5.00 ppm of sand by weight. Attention is directed to Appendix D of <u>AWWA A100</u>.

The final phase of the development shall be done by use of the test pump as wherein specified. During this final phase of development, the test pump shall be stopped and started frequently to provide a surging action to the operation. The pumping phase of the development shall be performed until the turbidity at the rate specified for the constant rate pumping test is within the specified limits.

In the event water pumped from the deep well does not meet the turbidity requirements specified, the Contractor will be required to remove the pump and redevelop the deep well by use of surge block and bailer, then reinstall the pump and repeat the pumping phase of the redevelopment at no additional compensation regardless of the number of times this procedure must be repeated.

<u>Test Pump</u>. An electric turbine test pump capable of pumping at least 1000 gallons per minute under the static water levels indicated shall be furnished by the Contractor and temporarily installed in the deep well to complete development of the deep well and to conduct a final pumping test of the deep well as herein specified. A valve shall be installed in the discharge pipe from the pump to control the rate of pumping. Flow shall be measured by a freely discharging office of proper dimensions installed at the end of the discharge pipe, together with a transparent plastic manometer tube or by a calibrated propeller flow meter. The test pump shall be capable of operating at least 24 hours without shutdown.

<u>Constant Rate Pumping Test</u>. A 3 hour pumping test shall be conducted on the deep well as directed by the Engineer. The constant rate pumping test shall start after a shut down period of 12 hours. The Contractor shall be required to pump the deep well during the test for the full 3-hour period without shutdown. In the event a shutdown does occur during the test period, the Contractor will be required to repeat the test the following day with no additional compensation. During each constant rate pumping test, the pumping rate shall be maintained at 600 gallons per minute or as directed by the Engineer. The Contractor shall measure and record water levels in the deep well and provide a written record of the pumping rates, time and water levels.

Recording of the water levels shall begin one (1) hour prior to the start of pumping and shall continue for the duration of test pumping and recovery. Water levels shall be measured during the static readings and during the test in the new piezometer constructed as specified elsewhere in these provisions.

The minimum frequency and interval of water level measurements shall be as follows:

	<u>Frequency</u>	Interval
Preceding Pumping	10 minutes	1 hour
Pumping (3 hrs)	1 minute	0 to 5 minutes
	2 minutes	5 to 15 minutes
	5 minutes	15 to 60 minutes
	10 minutes	second hour
	20 minutes	third hour
Recovery (30 min.)	1 minute	0 to 5 minutes
	2 minutes 5 minutes	next 10 minutes remaining 15 min.

Step-Drawdown Pumping Test. The pumping test shall be step-drawdown type pumping test in which pumping rates shall be:

<u>Rate</u>	Period
200 gal/min 400 gal/min	15 minutes 15 minutes
600 gal/min	15 minutes

The drawdowns shall be measured in the well as follows:

Pumping

Frequency	Period
1 minute	First 9 minutes
2 minutes	Next 6 minutes

Within one (1) week following the end of the pumping test, the Contractor shall submit to the Engineer four (4) copies of a report summarizing the work. The report shall contain all data from the test pumping and recovery period reduced by computation and plotted in accordance with a satisfactory method to determine the following:

The degree of development of each water supply well.

The efficiency of each water supply well.

<u>Submersible Pump Column Pipe and Well Head</u>. Stainless steel pipe and fittings shall be Type 304L Schedule 40 stainless steel. Flanges shall be ANSI B16.5, 150 psi pressure rated. Bolts, nuts, and washers shall be 304 stainless steel. Flange gaskets shall be Buna-N. Stainless steel couplings shall be 304 stainless steel construction, consisting of full circle single band, and Grade 30 gasket material. Coupling width shall be no less than 12.5 in.

HDPE piping and fittings shall meet requirements specified elsewhere in these provisions.

<u>Well Head Ball Valves</u>. Valves shall be suitable for bi-directional service. Manual operators shall be safety oval type:

Type 1, Grade 1 PVC, body and ball, 150 psi pressure rating at 73°F; true union style, tfe seats, and EPDM or fluoroelastomer seals. Socket or flanged joint according to piping service.

Ball valves as herein specified shall be furnished by a manufacturer regularly engaged in the manufacture of such valves.

All valves shall be installed in accordance with the manufacturer's specification and fully tested for operation.

<u>Well Head Knife Gate Valves</u>. Valve shall be a bonnetless, wafer-type gate valve with a fabricated steel body. Port areas shall be 100% of the full pipe area throughout the entire length. All sizes shall have two (2) full-port rubber slurry sleeve halves which shall be supported and compressed between the flanges. The gate shall be stainless steel ASTM A240 T-316. The valve shall meet MSS SP-81 face-to-face dimensions and ANSI B16.5 Class 150 drilling dimensions. The gate will be of sufficient thickness to provide against permanent deformation at 1.2 times the rated working pressure. The seat halves will be molded rubber and shall act as a wiper blade to clean the gate as it strokes. The stem nut will be acid resistant bronze. Wetted parts will include the rubber slurry sleeves and gate only. Flush port area will be located in the base of the valve, and will be drilled, tapped, and plugged. Valve shall have steel plate body AISI 1020/1025 with pressure rating of 150 psi. Valve stem shall be stainless steel ASTM A276 T-304. Handwheel shall be cast iron. Bolts, nuts and washers for connection of valve to pipe line shall be 304SS of the size recommended by the manufacturer.

All valves shall be installed in accordance with the manufacturer's specification and fully tested for operation.

The well head including valves and appurtenances shall be constructed as shown on the Plans. The valves used shall conform to the provision Well Head Valves included elsewhere in these provisions.

<u>Well Enclosure Box</u>. The well enclosure box including access doors shall be constructed as indicated on the Plans, in accordance with the applicable portions of Section 602 of the Standard Specifications, and as herein specified.

The well enclosure box shall be constructed of reinforced cast in place or precast concrete. The Plans reflect the cast in place option. Should the Contractor elect to use precast units, shop drawings will be required.

Access Doors (Hatches). The channel frame shall be constructed of aluminum, minimum ¹/₄ inch thick with aluminum anchor flange around the perimeter and have a minimum cross-sectional area of 7.5 square inches to allow for adequate water drainage.

Covers shall be constructed of aluminum checkered plate, minimum ¹/₄ inch thick. Covers shall be reinforced for H20 loading. Cover shall open 90 degrees and lock automatically in that position. A handle shall be provided to release the cover for closing.

Hinges shall be of heavy forged brass with stainless steel pins. A stainless steel snap lock with removable handle shall be provided. A 1.5 inch drainage coupling shall be provided at locations shown on the Plans. Pentahead recessed bolt lock (2 each) and pentahead tee wrench required.

Provide factory finished units. Finish shall be mill finish with bituminous coating applied to exterior of frame.

<u>Well Electrical</u>. The Contractor shall provide electrical equipment and wiring in new wells which shall include:

Furnish and install a 100 amp, 600 volt, 3 pole with ground lug, heavy duty, non-fused disconnect switch with a NEMA 4X stainless steel enclosure in the well enclosure box. The proposed disconnect switch shall have a $1\frac{1}{2}$ " grommeted opening at the bottom for connecting power cable to the pump motor.

Furnish and install proposed 6 inch wide by 8 inch high by 4 inch deep NEMA 4X stainless steel junction box in the well enclosure box.

The proposed disconnect switch shall be grounded with a proposed number 6 AWG grounding electrode conductor that shall be connected to the ground rod.

Furnish and install liquid-tight flexible non-metallic conduit between the junction box and the disconnect switch to contain the conductors from the feeder unit duct cable assembly. The feeder conductors shall not be spliced in the junction box.

The pump power cable from the pump motor shall be connected to the proposed disconnect switch in the well enclosure box.

The exposed pump power cable shall be routed along the walls of the well enclosure box, from the well head to the proposed disconnect switch. The exposed pump power cable shall be supported on 12 inch centers by stainless steel expansion anchors and nylon "Ty-Raps" along the entire exposed length of the power cable.

Furnish and install grounding and bonding for the well enclosure as shown on the Plans. Furnish and install number 6 AWG bonding conductors from the ground rod to the well casing and to the access hatch frame. Bond the conductors to the well casing and to the access hatch frame.

Materials shall be according to the following Articles of Section 1000 – Materials:

	ltem	Article/Section
(a)	Grounding	
(b)	Junction Box	
(c)	Wire and Cable	

<u>Contractor's Responsibility</u>. The Contractor shall be responsible for performing all of the work in strict accordance with these specifications.

If evidence indicates that the screen or casing in the well is broken or that the well is not constructed in accordance with the specifications to the satisfaction of the Engineer, the Engineer may order that proper changes be made by the Contractor, or in the event that proper changes cannot be made, the Engineer may order the Contractor to abandon such well without cost to the Department and to drill a new well.

<u>Drawings and Data</u>. Complete specifications, data, and catalog cuts and Plans covering the fabricated items furnished under this section shall be submitted in accordance with the standard specifications.

<u>Method of Measurement</u>. Each deep well installed complete with submersible pump column, associated valves, piping, enclosure and electrical equipment in accordance with this provision will be measured for payment.

Basis of Payment. This work will be paid for at the Contract unit price each for DRILLED WELL.

SUBMERSIBLE PUMP

<u>Description</u>. This item consists of furnishing all materials, labor, tools, and equipment necessary to install a submersible pump and motor in the proposed new wells at the locations as indicated on the Plans, as directed by the Engineer, and as specified herein.

<u>Submersible Pumps</u>. Pumps shall be submersible motor driven deep well turbine rated for performance under the following conditions:

WELL NUMBER	10			18	19
Pump Discharge (gal/min)	600		6	600	600
TDH	80			80	80
Well Diameter	24"		2	24"	24"
Discharge Pipe Centerline Elev.	394.9	5'	38	9.02'	394.38'
Well Depth – Elev.	295.)'	29	98.0'	297.0'
Screen Length	30			30	30
Depth of Setting, Pump Intake	SEE PLANS				
Water Temperature (°F)	60	60		60	
Power	460 Volts, 3 Ph, 60 Hz				

Note: The total dynamic head (TDH) includes the total change in elevation of the water, from the pumping water level to the point of discharge level, plus the friction and turbulence losses through the drop pipe and force main, valves, and fittings, from the pump to the point of discharge.

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<u>Submersible Pump Bowl Assembly</u>. (ANSI/NSF Standard 61 Classified). Pump bowls, suction and discharge cases shall be lead and zinc free cast bronze, ASTM B584, free of blow holes, sand holes, or other imperfections. Tensile strength shall be a minimum of 300,000 psi. The bowl assembly shall be flanged construction utilizing 304 stainless steel bolts; or if threaded, must be left hand threads. Right hand threads will not be permitted. All mating surfaces shall be precision machined and fitted and no gaskets will be allowed. Rabbeted fits shall be utilized throughout the bowl assembly for accurate fit and alignment. Each bowl casting shall be factory tested at hydrostatic test pressure of 150 psi before assembly to assure integrity of each bowl, and certification of test shall be provided if requested.

Impellers shall be precision lead and zinc free cast bronze, ASTM B584, machined and dynamically balanced for maximum efficiency and vibration-free operation. Enclosed type impellers, with sufficient skirt material thickness to enable repair and restoration of proper running clearance by installation of wear rings shall be furnished. Each impeller shall be securely fastened to the shaft with a split taper collet of stainless steel or lead and zinc free bronze.

The shaft shall be of sufficient diameter to transmit the pump horsepower with a liberal safety factor and rigidly support the impellers between the bowl or case bearings. The shaft material shall be 416SS, polished and precision straightened, with a minimum diameter of 1 inch.

The motor coupling shall be a stainless steel coupling, accurately machined for perfect alignment, balance, and power transmission. The coupling shall be fastened to the end of the pump shaft by means of reset Allen screw to prevent loss of coupling during handling and disassembly. The coupling shall be keyed to the pump shaft and splined to the motor shaft. The coupling shall be capable of transmitting the total torque of the unit, regardless of the direction of rotation.

Intermediate bowls, motor adapter and discharge case shall have cutlass rubber bearings to support and guide the shaft, and lend resistance to sand abrasion wear on shaft bearing surface. The discharge case shall be grease packed, with a top bearing plug to seal the bearing and also restrict excessive vertical upthrust on the shaft during start-up, imposed hydraulically or by positive suction pressures.

The suction screen shall be 304 stainless steel material with a net open area at least four (4) times the area of the impeller eye.

The pump shall have been classified by UL Laboratories as complying with ANSI/NSF Standard 61 and shall carry a label to clearly and positively show compliance.

<u>Submersible Pump Motor</u>. The motor shall be of the submersible type designed for continuous underwater operation. The motor shall be 20 HP, 3600 RPM, 460 volt, 3 phase, 60 Hz of the squirrel cage induction type, suitable for across the line starting, and conforming to the latest National Electrical Manufacturers Association (NEMA) Specifications for submersible motors.

The motor thrust bearing shall be of the Kingsbury design, sized to carry the weight of all rotating parts plus the hydraulic thrust of the pump. The thrust bearing shall have sufficient capacity to permit the pump to operate momentarily with the discharge valve closed.

The motor shaft shall be stainless steel, splined and fitted with a rotary face type seal to prevent entry of foreign material into the motor.

Motor leads shall be of sufficient length to be spliced above the bowl assembly. Leads shall be protected for the entire length of the bowl assembly by a stainless steel cable guard supplied with the pump. The motor shall have provisions for proper grounding.

Minimum flow velocity around the motor shall be 6 in/sec. If design flow velocity is less than 6 in/sec or the motor is installed within the screened section of the well, a shroud shall be installed around the pump and motor to direct the flow of water around the motor for cooling purposes.

<u>Submersible Pump Cable</u>. The power cable shall be sized such that the voltage drop will not exceed 5% from the power source to the motors terminals, at the motor full load current and voltage. Cable shall be three (3) conductor with ground jacketed, and all four (4) included in a single outer jacket. The conductor insulation shall be water and oil resistant, suitable for continuous immersion. The cable shall be suitably strapped to the column pipe by means of stainless steel bands on each joint of pipe. The cable shall have 3 layers of electrical tape applied, half-lapped, extending ³/₄-inches each side of each stainless steel band. A continuous length of cable, without splices, from the motor leads through the surface plate is required. The splice of the motor leads to the cable shall be watertight at the pressure encountered in the application. The entire length of cable and motor, together, shall be checked for insulation resistance (cable to ground) and winding resistance (cable to cable) and shall be within the motor manufacturers recommended values.

<u>Submersible Pump Submittal</u>. Complete data shall be submitted to the Engineer for approval, including a single stage pump performance characteristic curve, with actual horsepower required per stage and pump efficiency shown clearly. Statements from the pump manufacturer confirming ANSI/NSF Standard 61 may be required.

<u>Submersible Pump Warranty</u>. The pump manufacturer shall warrant the units being supplied to the Department against defect in workmanship and materials for a period of one (1) year from the date of acceptance of Department.

<u>Submersible Pump Quality Assurance</u>. The pump manufacturer shall perform the following inspections and tests on the pumps before shipment from the factory.

- 1. Impeller size, motor rating, and electrical connections shall first be checked for compliance to the customers purchase order.
- 2. A motor and cable insulation test for moisture content or insulation defects.
- 3. Pressurize the motor with an environmentally safe gas and use a sniffer device to check for leaks at all joints and seals.
- 4. Prior to submergence, the pump shall be run dry to establish correct rotation, proper amp readings, and mechanical integrity.
- 5. The pump shall be run for 30 minutes submerged a minimum of 6 feet under water.
- 6. After operational test No. 5, the insulation test (No. 2) is to be performed again.

A written report stating the foregoing has been done shall be supplied with each pump at the time of shipment.

The pump manufacturer's representative shall witness the pump installation and testing after the installation is complete. A written report covering the representative's findings and installation certification shall be submitted to the Engineer covering all inspections and outlining, in detail, any deficiencies noted.

<u>Submersible Pump Testing</u>. Before final acceptance of the pumps specified herein, the Contractor shall submit five (5) copies of certified and properly identified performance curves which shall reflect the operating characteristics of each pump model and impeller combination being supplied. The curves shall indicate head, capacity, horsepower, efficiency, and input QU. Test shall be performed in accordance with test code for Centrifugal Pumps per the standards of Hydraulic Institute. Tests shall be performed on the actual assembled pumps to be supplied – prototype model tests are not acceptable. Test shall cover a range from shut-off to a minimum 20% beyond specified design.

<u>Method of Measurement</u>. Each new submersible pump installed complete in accordance with this provision will be measured for payment.

Basis of Payment. This work will be paid for at the Contract unit price each for SUBMERSIBLE PUMP.

PIEZOMETER

<u>Description</u>. This item consists of furnishing all materials, labor, tools, and equipment necessary for the construction of new piezometers wells associated with each new drilled well at the locations as indicated on the Plans, as directed by the Engineer, and as specified herein.

<u>Piezometer Well.</u> Piezometer wells shall be constructed of 2 inch PVC Schedule 40 material. A minimum 6 inch diameter bore hole shall be constructed to the depth shown on the Plans and 50 feet of 2 inch diameter PVC well screen and casing shall be installed. The width of screen openings shall be 10 slots. An end cap shall be placed on the bottom of the screen. At least four (4) stainless steel centralizers will be equally spaced on the screen and casing.

A gravel pack will be placed in the annular area to about 20 feet below the surface. On the gravel pack a 3 foot Bentonite layer will be placed and then the remaining annular space shall be filled with cement grout as indicated on the plans. The grout shall be mixed 1 bag of cement to 6 gallons of water with 1% Bentonite added to reduce shrinkage.

All materials used for the gravel wall around the inner well casings shall be clean, well-rounded particles of 95% siliceous material which has been thoroughly cleaned of all silt, dust, and other foreign matter. The filter gravel as herein specified shall be uniformly graded between 0.02 inch to 0.04 inch and no more than 5% by weight should fall outside the upper and lower limits specified.

After installation, the piezometer shall be flushed of all drilling fluids until clean. A falling head permeability test shall be performed to ensure hydraulic continuity with the aquifer.

<u>Contractor's Responsibility</u>. The Contractor shall be responsible for performing all of the work in strict accordance with these specifications. If evidence indicates that the screen or casing in the well is broken or that the well is not constructed in accordance with the specifications to the satisfaction of the Engineer, the Engineer may order that proper changes be made by the Contractor, or in the event that proper changes cannot be made, the Engineer may order the Contractor to abandon such well without cost to the Department and to drill a new well.

<u>Method of Measurement</u>. Each new piezometer installed complete in accordance with this provision will be measured for payment.

Basis of Payment. This work will be paid for at the Contract unit price each for PIEZOMETER.

RECORDER WELL

<u>Description</u>. This item consists of furnishing all materials, labor, tools, and equipment necessary for the construction of new recorder wells at the locations as indicated on the Plans, as directed by the Engineer, and as specified herein.

<u>Casings</u>. The casing for the recorder well shall be Schedule 80, stainless steel not less than 8 inch OD by 3/8 inch wall thickness, extending from the top of the screen to the elevation indicated on the Plans. Steel casings shall be fabricated from ANSI 18-8 type 304 stainless steel. Joints shall be welded and shall be watertight.

<u>Screens</u>. The well screen shall be manufactured by a firm regularly engaged in the manufacturer of well screens. Screens shall be fabricated from ANSI type 304 stainless steel. The outside diameter of the screen shall not be less than 8 inches. The vertical height of the screen shall be indicated on the Plans, unless otherwise directed by the Engineer.

The screen or members and elements thereof shall be of adequate strength and thickness to meet the required service conditions. The screen shall be wire wound continuous slot. The width of screen openings shall be 50 slot for the recorder well. The screen open area shall be 238 in² per foot of screen. All members and elements between slots shall be of adequate section and strength to safely withstand all loads and stresses to which they may be subjected. The screens shall have sufficient strength to safely support vertically the load imposed thereon by the casing. Screen sections shall be fabricated by the welding of all joints and points of contact of the assembled parts. All joints between screen sections shall be securely welded by continuous weld meeting the approval of the Engineer.

The end of the screen shall be tightly sealed by means of a stainless plate not less than 3/8 inch nominal thickness, attached to the screen by means of a continuous weld around its entire circumference. This plate will serve the dual purpose of closing the bottom of the recorder well and of providing a support for the casing and screen assembly.

<u>Gravel</u>. All materials used for the gravel wall around the inner well casing shall be clean, wellrounded particles of 95% siliceous material which has been thoroughly cleaned of all silt, dust, and other foreign matter. The filter gravel as herein specified shall be uniformly graded between 2.25 mm to 3.75 mm and no more than 5% by weight should fall outside the upper and lower limits specified.

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The Contractor will provide signed certification that states the gravel is composed of not less than 95 percent silica and meets the gradation requirements of this special provision. Contractor will need to sample every super sack or every 5,000 lbs of proposed gravel pack two weeks prior to drilling to verify the proposed gravel pack meets the special provisions. A representative of the Department will be present to witness the gravel sampling. Each super sack will have its own sieve analysis performed on the proposed gravel pack. Once the sieve analysis has been completed by an independent lab the results will be turned into the department for approval. Any super sacks not meeting the specifications will be rejected. Contractor will then have to replace the super sack with new and test again. The cost for testing will be included in this pay item.

<u>Recorder Well Construction</u>. The recorder well shall be constructed by using a Pier Rig method and/or Rotary Reverse method. If Reverse Rotary is used no pit will be allowed to be dug. A portable pit or tank will be allowed. A trench for the portable tank or pit will be allowed to be dug from the proposed well to the portable pit or tank. If a trench is used it must be lined. All cuttings will remain on site and will be graded out. The drilled hole shall be 1.5 feet in diameter. The Contractor shall provide a continuous and sufficient supply of water so that the drilled hole will be kept full of water at all times during the entire drilling operation.

No use of drilling mud or other Bentonite-type drilling additives shall be used in the drilling process, unless otherwise permitted by the Engineer.

The Contractor shall be prepared to use temporary casing or other approved means to keep the hole open during construction. Temporary casing used during the drilling shall be removed and recovered by the Contractor. Should the drilling water become heavy with fines and mud, the Engineer will require the Contractor to pump the drilling fluid to waste and refill with clean water.

After the drilling is complete, the casing and screen shall be installed in the drilled hole. Care shall be taken that the closed end of the well screen shall have a uniform bearing on the bottom of the hole. The bottom of the casing shell be centered concentrically plumb in the hole. Centering guides designed to hold the screen in the center of the borehole shall be installed as shown on the Plans. The screen and casing shall be no more than 5 inches in 100 feet out of plumb.

The casing (including the screen sections) shall extend from the bottom of the well to the elevation indicated on the Plans.

Gravel shall be placed in annular space between the casing and the side of the drilled hole from the bottom of the well up to the elevation indicated on the Plans. Gravel shall be placed with a tremie in one continuous operation. The outside diameter of the gravel wall shall be not less than 1.5 feet and the horizontal thickness of the gravel pack shall not be less than 6 inches.

During the placement of the gravel, the elevation of the bottom of the tremie pipe shall be so controlled that at no time shall the bottom of the pipe be more than 5 feet above the top of the gravel already deposited in the well. All operations of handling and placing the gravel shall be regulated to prevent the segregation of sizes of gravel particles. The water used to wash the mixture down the tremie pipe shall contain a chlorine concentration of 400 ppm, obtained by the addition of sodium hypochlorite.

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The annular space between the casing and the 1.5 foot drilled hole directly above the gravel pack shall be filled with a 3 foot Bentonite layer and then the remaining annular space between the casing and the drilled hole wall shall be filled with cement grout as indicated on the Plans. The grout shall be mixed 1 bag of cement to 6 gallons of water with 1% Bentonite added to reduce shrinkage. Grout shall be placed with a tremie similar to the gravel pack, when placed below water level. No water from drilling of the new well will be allowed on the roadway pavement. Cost for this will be incidental to the project.

<u>Recorder Well Electrical</u>. The Contractor shall provide electrical equipment and wiring for new recorder wells which shall include:

Furnish and install a recorder well instrument enclosure box complete with sides, top and access doors. The well enclosure box shall be constructed of #16 (0.065") stainless steel plate complete with heavy duty hinges and hasps.

Furnish and install a water level chart recorder. The water level chart recorder shall be capable of permanently recording the varying level of any liquid surface. The movement of the float on fluctuating water surfaces causes the chart drum to be turned proportionally as the time – controlled pen moves across the chart at a constant speed. The chart recorder shall be adjustable to last from 12 hours to 32 days. The power supply shall be a plug-in transformer type, 12 volt DC 400 mA output. The water level chart recorder shall be Stevens Type "F" Water Level Recorder. The power supply shall be Stevens Part Number 90740.

The chart recorder and desired accessories shall be mounted on a ¹/₄ inch plate as indicated on the Plans.

Furnish and install a 15 ampere, ground fault interrupting, and premium specification grade duplex receptacle. The receptacle shall be mounted within a single gang cast aluminum "Bell" box complete with cover, for 120 V single phase power supply to chart recorder.

Furnish and install a stainless steel junction box sized as shown on the Plans for the splicing of the unit duct conductors to the receptacle conductors and the recorder well grounding.

Furnish and install a unit duct power feeder from a well control center to the new recorder well and connect the conductors to the GFI duplex receptacle. The unit duct shall be measured for payment under a separate pay item.

Connect the conductors to the terminal strip for the 120 volt recorder well circuit within the well control center.

Each recorder well shall be grounded as shown on the Plans.

Materials shall be according to the following Articles of Section 1000 – Materials:

	Item	Article/Section
(a)	Grounding	
(b)	Wire and Cable	
(c)	Rigid Metal Conduit	
(d)	Enclosures	

<u>Contractor's Responsibility</u>. The Contractor shall be responsible for performing all of the work in strict accordance with these specifications. If evidence indicates that the screen or casing in the well is broken or that the well is not constructed in accordance with the specifications to the satisfaction of the Engineer, the Engineer may order that proper changes be made by the Contractor, or in the event that proper changes cannot be made, the Engineer may order the Contractor to abandon such well without cost to the Department and to drill a new well.

<u>Drawings and Data</u>. Complete specifications, data, and catalog cuts and Plans covering the fabricated items furnished under this section shall be submitted in accordance with the standard specifications.

<u>Method of Measurement</u>. Each new recorder well installed complete in accordance with this provision will be measured for payment.

Basis of Payment. This work will be paid for at the Contract unit price each for RECORDER WELL.

REMOVAL OF EXISTING STRUCTURES NO. 1

<u>Description</u>. This item must consist of the removal and satisfactory disposal of existing 15th Street Bridge over I-64, Structure No. 082-0151, including bridge substructure, wingwalls, superstructure, concrete deck and asbestos overlay (if any) as detailed in the plans, described herein and according to Section 501 of the Standard Specifications, and as directed by the Engineer. The scope of this item must also include removal and disposal of miscellaneous items appurtenant to the structures, including but not limited to bridge railings, sidewalks, fence, expansion joint materials and anchorages, partial removal of piles, drainage scuppers and down spouts, structural steel, reinforcing steel, bearings, existing conduits, conduit supports, electrical wires, junction boxes, traffic signals etc. The Contractor must submit a detailed procedure for removing the existing structures, to the Engineer for approval, prior to starting this Work.

The Contractor shall remove existing substructure units, wingwalls and associated piles to the elevation as describe below:

<u>Existing North Abutment & Wingwalls:</u> Remove existing North Abutment and Wingwalls to the bottom of existing footing elevation. All piles shall be removed to at least 1 ft below existing footing elevation. This work shall also include extraction and satisfactory disposal of any existing piles that are found to be in conflict with proposed piles for the new construction.

<u>Existing Median Pier No. 2:</u> Remove existing Median Pier No. 2 to the bottom of existing footing elevation. All piles shall be removed to at least 1 ft below existing footing elevation. This work shall also include extraction and satisfactory disposal of any existing piles that are found to be in conflict with proposed piles for the new construction.

<u>Existing Pier No. 1 & Pier No. 3</u>: Remove existing Pier No. 1 & Pier No. 3 to the top of existing footing elevation. This work shall also include extraction and satisfactory disposal of any existing piles that are found to be in conflict with proposed piles for the new construction.

Existing South Abutment & Wingwalls: Remove existing South Abutment and Wingwalls to the bottom of existing footing elevation. All piles shall be removed to the elevation 389.60. This work shall also include extraction and satisfactory disposal of any existing piles that are found to be in conflict with proposed piles for the new construction.

The Contractor must take all necessary precautions in removing, handling, transporting and subsequent disposal of all materials removed containing asbestos. All such work must be performed in conformance with all governing laws, codes, ordinances or other regulations.

<u>Existing Plans</u>. See contract drawings for original plans for the existing structures involved in this work. The original plans, however, may not show all modifications that have been made to the structures over the years. The completeness of these plans is not guaranteed and no responsibility is assumed by IDOT for their accuracy. Information is furnished for the Contractor's convenience and is to be used solely at the Contractor's risk.

<u>Construction Requirements</u>. The removal of existing structures must be performed according to Section 501 of the Standard Specifications. Materials that are required to be salvaged (if any) under the contract are listed in the plans. Materials to be salvaged must be carefully removed and stored near the project site at a location designated by the Engineer.

Piles that are identified for extraction must be extracted to their full length and the holes left must be filled with FA1 or FA2 according to section 1000 of the Standard Specifications. The Contractor must submit a list of equipment and proposed method for removal and disposal of the existing piles for the Engineer's review.

Prior to commencing this work, the Contractor must verify the location of existing utilities and adjacent facilities. This work must be performed in such a manner so as not to cause any settlement or damage to the existing utilities and/or adjacent facilities. Any damage to existing utilities and/or adjacent facilities must be repaired by the Contractor at his/her own expense and in a manner satisfactory to the Engineer

All removed materials containing asbestos must be stockpiled separately from other removed materials. All stockpiled materials containing asbestos must be hauled to an approved landfill disposal site. These materials must be wetted down and covered with an approved wetting material while stockpiled and being hauled away in trucks to prevent debris or dust from entering into the atmosphere.

Under no circumstances will the disposed material containing asbestos be permitted for use in recycling. The Contractor must keep records of removal, stockpiling, trucking and the landfill disposal site used, and submit such records to the Engineer.

<u>Method of Measurement</u>. No separate measurement will be made for removal of existing structures.

Excavation of earth necessary to perform the removal of existing structures will not be measured for payment.

Pile extraction and filling of the holes with granular material will not be measured for payment.

<u>Basis of Payment</u>. This item will be paid for at a contract unit price Each for REMOVAL OF EXISTING STRUCTURES NO. 1, which payment must constitute full compensation for all labor, materials, tools and equipment required for removal and disposal of existing structures and incidental items, as detailed in the plans, described herein and as directed by the Engineer.

REMOVAL OF EXISTING STRUCTURES NO. 2

<u>Description</u>. This item must consist of the removal and satisfactory disposal of existing Retaining Wall "D" located along existing westbound I-64 entrance ramp D at North-West quadrant of existing 15th Street bridge over I-64 (Structure No. 082-0151). The scope of this item must include, but not limited to excavation, removal of existing concrete, reinforcing steel, miscellaneous steel embedded or attached thereto including electrical conduits, conduit supports, electrical wires, junction boxes, traffic signals, light poles, fencing, railings etc., as detailed in the plans, described herein and according to Section 501 of the Standard Specifications, and as directed by the Engineer. The Contractor must submit a detailed procedure for removing the existing structures, to the Engineer for approval, prior to starting this Work.

The Contractor shall remove existing Retaining Wall "D" to the bottom of existing footing elevation. All associated piles shall be removed to at least 1 ft below existing footing elevation.

<u>Construction Requirements</u>. The removal of existing structures must be performed according to Section 501 of the Standard Specifications. Materials that are required to be salvaged (if any) under the contract are listed in the plans. Materials to be salvaged must be carefully removed and stored near the project site at a location designated by the Engineer.

Prior to commencing this work, the Contractor must verify the location of existing utilities and adjacent facilities. This work must be performed in such a manner so as not to cause any settlement or damage to the existing utilities and/or adjacent facilities. Any damage to existing utilities and/or adjacent facilities must be repaired by the Contractor at his/her own expense and in a manner satisfactory to the Engineer

All removed materials containing asbestos must be stockpiled separately from other removed materials. All stockpiled materials containing asbestos must be hauled to an approved landfill disposal site. These materials must be wetted down and covered with an approved wetting material while stockpiled and being hauled away in trucks to prevent debris or dust from entering into the atmosphere.

Under no circumstances will the disposed material containing asbestos be permitted for use in recycling. The Contractor must keep records of removal, stockpiling, trucking and the landfill disposal site used and submit such records to the Engineer.

<u>Existing Plans</u>. See contract drawings for original plans for the existing structures involved in this work. The original plans, however, may not show all modifications that have been made to the structures over the years. The completeness of these plans is not guaranteed and no responsibility is assumed by IDOT for their accuracy. Information is furnished for the Contractor's convenience and is to be used solely at the Contractor's risk.

<u>Method of Measurement</u>. No separate measurement will be made for removal of existing structures.

Excavation of earth necessary to perform the removal of existing structures will not be measured for payment.

<u>Basis of Payment</u>. This item will be paid for at a contract unit price each for REMOVAL OF EXISTING STRUCTURES NO. 2, which payment must constitute full compensation for all labor, materials, tools and equipment required for removal and disposal of existing structures and incidental items, as detailed in the plans, described herein and as directed by the Engineer.

PLANTING PERENNIAL PLANTS

This Special Provision revises Section 254 (PLANTING PERENNIAL PLANTS) of the Standard Specifications for Road and Bridge Construction as follows:

Revise the following Article 254.03 (b) Ornamental Herbaceous Plants as follows:

Ornamental Herbaceous Plants. Ornamental herbaceous plants shall be of the color and variety specified as shown on the plans and the following list.

PERENNIAL PLANTS, HEMEROCALLIS HYBRID 'STELLA DE ORO' (STELLA DE ORO DAYLILY), CONTAINER GROWN 1-GALLON

PLANTING WOODY PLANTS

This Special Provision amends Section 253 (PLANTING WOODY PLANTS) of the Standard Specifications for Road and Bridge Construction as follows:

Revise the first paragraph of Article 253.10 to read:

"The backfill shall consist of a mixture of three (3) parts topsoil according to Article 1081.05(a), one (1) part sand and one (1) part peat."

Add the following to the first paragraph of Article 253.11:

"The weed barrier fabric shall include a pre-emergent herbicide."

TOPSOIL PLANTING MIX

This work shall consist of furnishing and placing an amended topsoil planting mix.

The planting mix shall consist of three (3) parts topsoil according to Article 1081.05(a), one (1) part sand, and one (1) part decomposed mushroom compost.

The topsoil planting mix shall not be placed until the area to be covered has been excavated to a depth of 12". If the existing underlying surface is hardened or crusted, it shall be disked or raked or otherwise broken up so as to provide a bond with the topsoil planting mix to be applied.

The Engineer will verify that the proper proportion of planting mix components has been provided. After verification the Contractor shall completely incorporate the sand and mushroom compost into the topsoil creating the planting mix.

The surface of the topsoil planting mix shall be free from clods, stones, sticks and debris and shall be placed according to the lines and grades shown on the plans.

Upon completion of the work, all areas shall be cleared of equipment, debris, and excess material. Surplus or waste material resulting from this work shall be disposed of according to Article 202.03.

The planting mix furnish and place will be measured for payment in square yards.

This work will be paid for at the contract unit price per square yard for TOPSOIL PLANTING MIX, 12".

TREE BRACING

This work shall be done according to Articles 253.13 and 253.14 of the Standard Specifications except as herein modified:

Upon inspection and acceptance of plantings at the completion of the period of establishment, the Engineer shall direct the Contractor to remove the posts and wire used for bracing.

This work will be included in the contract unit price per each for the planting material specified.

DELINEATOR REMOVAL

This item of work shall include the existing delineator posts and reflectors at the locations shown on the plans or as directed by the Engineer. Upon removal of the reflectors and posts the Contractor shall be responsible for their disposal.

Method of Measurement: This work will be measured for payment in place in units of each.

Basis of Payment: The work of removing the delineator posts and reflectors will be paid for at the contract unit price per each for DELINEATOR REMOVAL. No additional compensation will be allowed for two single reflectors placed on one post.

GROOVING FOR RECESSED PAVEMENT MARKING

<u>Description</u>. This work shall consist of the grooving of an existing pavement surface in preparation for the application recessed pavement marking lines.

<u>Equipment</u>. The grooving equipment shall be equipped with a free-floating cutting or grinding head. The grinding or cutting head shall be equipped with diamond saw blades, steel star cutters and/or carbide tipped star cutters. A grinder head configuration may be used on hot-mix asphalt (HMA) surfaces to achieve a rough surface texture in the bottom of the groove. Diamond saw blades shall be used on the cutting head when a smooth surface in the bottom of the groove is required by the Engineer, or contract specifications, or pavement marking material manufacturer's recommendations.

CONSTRUCTION REQUIREMENTS

<u>Pavement Grooving Methods</u>. The grooves for recessed pavement markings shall be constructed using the following methods.

- a) Wet Saw Blade Operation. When water is required or used to cool the saw blades, such as during a continuous edge line grooving operation, the groove shall be flushed with high pressure water immediately following the cut to avoid build up and hardening of slurry in the groove. The pavement surface shall be allowed to dry for 24 hours prior to the application of the pavement markings following a wet saw blade operation. Short term pavement markings shall be installed and will not be paid for as a separate item, but will be considered incidental to Wet Saw Blade Operation.
- b) Dry Saw Blade Operation. If the grooving is done with dry saw blades, the groove shall be flushed with high-pressure air to remove debris and dust generated during the cutting operation.

<u>Pavement Grooving</u>. Grooves shall be cut into the pavement prior to the application of the pavement marking. The grooves shall be cut such that the width is 1 in. (25 mm) wider than that of the line to be placed. Grooves for letters and symbols shall be cut in a shape so that the entire marking will fit. The position of the edge of the grooves shall be a minimum of 2 in. (50 mm) from the edge of concrete joints or HMA paving seams along edge or centerlines. The depth of the groove shall not be less than the manufacturer's recommendations for the marking material specified, but shall be installed to a minimum depth of 100 mils (2.54 mm) +/- 10 mils for pavement marking tapes and 40 mils (1.02 mm) +/- 10 mils for liquid markings.

On new HMA surfaces the Engineer shall determine if the new HMA has achieved the necessary strength and hardness to support grooving prior to the start of a grooving operation. Some HMA mixes may require 14 or more days to achieve adequate hardness to support a grooving operation. On existing HMA surfaces some existing HMA pavements may not be strong enough to support a grooving operation. For existing HMA pavements the Engineer shall determine if the existing HMA has the necessary strength and hardness to support grooving prior to the start of a grooving operation.

<u>Cleaning</u>. Immediately prior to the application of the pavement markings the groove shall be cleaned with high-pressure air blast.

<u>Method of Measurement</u>. This work will be measured for payment in place, in linear feet (meter) of the pavement marking lines applied and accepted, for the groove width specified.

Grooving for letters, numbers and symbols will be measured in square feet (square meters) as specified in the plans.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per foot (meter) for GROOVING FOR RECESSED PAVEMENT MARKING of the groove width specified, and per square foot (square meter) for GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS, NUMBERS AND SYMBOLS, of the type specified.

REBOUNDABLE REFLECTORIZED VERTICAL MARKER REMOVAL

This item of work shall involve removal of the existing reboundable reflectorized vertical markers and any attached base hardware at the location shown on the plans or as directed by the Engineer. Upon removal, these markers shall be delivered to METRO at the location specified by the contact person shown below.

Method of Measurement: This work will be measured for payment in units of each vertical marker panel. Each unit shall include both the marker and any attached base hardware.

Basis of Payment: This work shall be paid for at the contract unit price per each for REBOUNDABLE REFLECTORIZED VERTICAL MARKER REMOVAL.

Contact Information for METRO: Trent Smith Director of Rail System Maintenance 314 982-1400 x 2813.

REBOUNDABLE REFLECTORIZED VERTICAL MARKER

This item of work shall include providing and installing reboundable reflectorized vertical markers and bases at the location shown on the plans or as directed by the Engineer. These vertical markers shall be Qwick Kurb model L104 Mega Markers, designed as two sided panels and have Type III reflective sheeting with a height of 29" and width of 8" on each side and shall be attached to a Qwick Kurb model L50 Stand alone base unit and anchored to the median according to manufacturer specifications.

Method of Measurement: This work will be measured for payment in place in units of each vertical marker panel. Each unit shall include both the marker and base

Basis of Payment: This work shall be paid for at the contract unit price per each for REBOUNDABLE REFLECTORIZED VERTICAL MARKER.

These specific Sign Panels are required as per METRO's requirements to replace those being removed at this location and shall become the property and responsibility of METRO upon completion of the project.

FAI Route 64 (I-64) Section 82-1-2HB St. Clair County Contract No. 76C49

Contact Information for this material: Qwick Kurb, Inc. 1916 US 41 South Ruskin, FL 33570 Phone (813)645-5072 www.gwickkurb.com

BRACED EXCAVATION

<u>Description.</u> This work shall consist of furnishing, installing and removing all necessary sheeting and bracing members required to support the excavation according to the applicable requirements of Section 502 of the Standard Specifications. This item shall also include all excavation of earth necessary to obtain the bottom of footing elevations shown on the plans where braced excavation is indicated. The bracing shall properly support excavations by the use of sheeting, timber or plates etc., to prevent movement of soil, structures, pavements or utilities outside of the excavated area.

<u>Construction Requirements.</u> The Contractor shall submit design calculations and shop drawings prepared and sealed by an Illinois Licensed Structural Engineer for the temporary earth retention system. Shop drawings shall show the design and all necessary details for the construction of the bracing system. The design calculations and shop drawings shall be submitted to the Engineer for approval.

Approval of the Engineer shall be received before the Contractor proceeds with his construction operations. However, in any event, the Contractor shall be fully responsible for the safety, stability and adequacy of the bracing system and shall be solely responsible and liable for all damages resulting from his construction operations or from failure or inadequacy of the bracing system.

In the event the bracing system protecting the existing embankment fails or is otherwise inadequate, in the judgment of the Engineer, the Contractor shall, at his own expense, take all necessary steps to restore the embankments to a safe operating condition to the satisfaction of the Engineer.

Bracing members shall be installed as soon as an excavation level is reached to permit their installation.

<u>Method of Measurement.</u> This work shall be measured in cubic yards (cubic meters) according to the requirements for structure excavation as specified in Section 502.12(b) of the Standard Specifications.

<u>Basis of Payment.</u> This work, as herein specified and shown on the plans, will be paid for at the contract unit price per cubic yard (cubic meter) for BRACED EXCAVATION. Payment for BRACED EXCAVATION will be limited to those locations shown on the plans. All sheeting and bracing members associated with braced excavation will not be measured for payment but shall be included in the cost for BRACED EXCAVATION. No separate payment will be made for structure excavation where BRACED EXCAVATION is shown.

FORM LINER TEXTURED SURFACE

<u>Description</u>: This work shall be performed in accordance with applicable portions of Section 503 of IDOT Standard Specification for Road and Bridge Construction except as modified herein. This item shall include, but not be limited to designing, developing, furnishing and installing form liners and forming concrete using single and/or multiple use form liners to produce Bush Hammer surface texture. Apply Bush Hammer surface texture at locations shown in the contract drawings. Provide form liners to produce a Bush Hammer surface texture with a maximum relief range of ${}^{3}/{}_{16}$ ".

Provide architectural form liners from the listed manufacturers or an approved equal.

1. Greenstreak, Inc.

3400 Tree Court Industrial Boulevard St. Louis, Missouri 63122 (800) 325-9504 www.greenstreak.com

2. Scott System, Inc.

10777 East 45th Ave. Denver, CO 80239 (303) 373-2500 www.scottsystem.com

3. Symons

2400 Arthur Avenue Elk Grove, IL 60007 (800) 937-2700 www.symons.com

<u>Submittals</u>: Contractor shall submit qualification data demonstrating capabilities and experience; include list of past projects with contact information. Shop drawings shall be submitted for approval depicting the form liner pattern along with an installation procedure coordinated with the Contractor.

Contractor shall provide a full scale mock-up containing Bush Hammer surface texture for approval. The mock-up shall be a minimum 5 ft x 5 ft x 6 inches thick.

<u>Material:</u> Provide Single-Use Form Liners of the Rigid polymer (HIPS) or polystyrene (SPS) plastic type, Multiple-Use Form Liners of the Rigid Polymer (ABS) or Elastomeric Urethane type. Form liners shall be of high quality and capable of withstanding anticipated concrete pour pressure without causing leakage or physical defect. Form liners shall attach easily to forms and be removable without causing concrete surface damage or weakness in the substrate. Form liner release agent shall be according to recommendations of the form liner manufacturer. Form liner release agents shall be compatible with all curing agents and admixtures. Form liner release agent shall be non-staining, non-residual, non-reactive and shall not contribute to the degradation of the form liner material.

<u>Method of Measurement</u>. This work will be measured for payment in place and the area computed in square feet.

Basis of Payment. This work will be paid for at the contract unit price per square foot for Form Liner Textured Surface.

DEEP WELL MONITORING

<u>Description:</u> This work shall consist of furnishing, installing, testing, and monitoring deep wells in the Tri-Level Area for an increase in sand production resulting from pile driving activities associated with new construction.

<u>Installation:</u> The Contractor will need to tap each well immediately after each 90 degree elbow that are on top of each dewatering well casing (within 2 discharge pipe diameters) and install the Rossum Sand Tester on each identified well according to the requirements of tech memo 005-7 under the supervision of one of IDOT's Operational staff.

<u>Notification</u>: The Contractor shall notify contact the following Pete Sawyer 618-346-3275 and or Dave Walker 618-346-3274, one week prior installation of Rossum Sand Testers and one week prior to any pile driving activities.

Requirements:

Insert Tech Memo 005-7 "Monitoring Sand Content"

<u>Well Identification:</u> The following well numbers <u>Example 10, 12, 13,</u> are to have the Rossum Sand Tester installed and monitored.

<u>Pre-Testing:</u> 48 hours prior to the pile driving activities each well that is noted by this provision shall be sampled for a 24 hour period. At the conclusion of the 24 period the Contractor and an individual from IDOT's Operation's staff and or his representative will review and collect all samples for the designated wells that are to be tested. Once the samples are collected the results shall be documented and copies sent to the Resident Engineer, Pete Sawyer, and Dave Walker, both with Bureau of Operations - IDOT. This initial test will be measuring the present day amount of sand that is being discharge and will be documented. This data will be used in creating the base line by which the post test will be measured.

<u>Deep Well Shut-Down</u>: The deep wells that are in close vicinity and have been noted in this provision will be turned off during pile driving activities and other wells will be started if necessary. This work will be done by **IDOT OPERATIONS ONLY** and in close coordination with the Contractor.

<u>Post-Testing</u>: Post Testing will be done after pile driving activities have been completed in that area that is in close proximity to each well. Post testing will follow the same procedure as the pre-testing procedure noted above and any well showing 25% increase in sand from the nominal base line will be replaced by **Standard Spec. Article 109.14**

<u>Method of Measurement:</u> Deep Well Monitoring shall be measured for payment per EACH well that requires this monitoring as denoted in this provision and at the conclusion of this contract each Rossum Sand Tester will become the property of the Department.

<u>Basis of Payment:</u> The work of furnishing, installing, testing, and monitoring the deep wells will be per each for DEEP WELL MONITORING that is noted in this provision and plans. The cost of all work necessary for this, including any work noted above in this Special Provision, shall be included in the unit cost of this item and all work shall be approved by one of IDOT's Operational staff or Resident.

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

This work shall be according to Article 669 of the Standard Specifications and the following:

<u>Qualifications</u>. The term environmental firm shall mean an environmental firm that is prequalified in hazardous waste by the Department. The environmental firm selected shall not be a former or current consultant or have any ties with any of the properties contained within and/or adjacent to this construction project.

<u>General.</u> Implementation of this Special Provision will likely require the Contractor to subcontract for the execution of certain activities. It will be the Contractor's responsibility to assess the working conditions and adjust anticipated production rates accordingly.

All contaminated materials shall be managed as non-special waste. <u>This work shall include</u> monitoring and potential sampling, analytical testing, and management of a material contaminated by regulated substances.

Any soil classified as a non-special waste shall be excavated and disposed of as directed by this project or the Engineer. Any excavation or disposal beyond what is required by this project or the Engineer will be at no additional cost to the Department. The preliminary site investigation (PSI) report, available through the District's Environmental Studies Unit, estimated the excavation quantity of non-special waste at the following location. The information available at the time of plan preparation determined the limits of the contamination and the quantities estimated were based on soil excavation for construction purposes only. The lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit whichever is less. Any soil samples or analysis without the approval of the Engineer will be at no additional cost to the Department.

- A) The Environmental Firm shall continuously monitor for worker protection and the Contractor shall manage and dispose of all soils excavated within the following areas as classified below.
 - 1. Station 29+40 to Station 31+00 0 to 30 feet RT (Former Auto Repair, Site 601M-FK, St Clair Avenue) non-special waste. Contaminants of concern sampling parameters: PAHs and Mercury.
 - Station 11+50 to Station 13+60 0 to 50 feet LT and RT (Proposed I-64 Ramp B) nonspecial waste. Contaminants of concern sampling parameters: PAHs, Dieldrin, PCBs, Lead, and Mercury.

- B) The Environmental Firm shall continuously monitor for worker protection and the Contractor shall manage any excavated soils within the construction limits of this project as fill. Although the soil concentrations exceed a residential property's Tier 1 soil remediation objective for the ingestion exposure pathway, they can be utilized within the construction limits as fill because the roadway is not considered a residential property. All storm sewer excavated soils can be placed back into the excavated trench as backfill unless trench backfill is specified. If the soils cannot be utilized within the construction limits as fill then they must be managed off-site as a non-special waste. The following areas can be managed within the construction limits as fill.
 - 1. Station 11+00 to Station 15+00 0 to 40 feet LT and RT (Proposed I-64 Westbound Ramp E) non-special waste. Contaminants of concern sampling parameters: Dieldrin.
 - Station 10+75 to Station 12+20 0 to 50 feet LT (Gethsemane Church, Site 601V1-FG, 1435 Baugh Avenue) – non-special waste. Contaminants of concern sampling parameters: Lead.
 - Station 3+70 to Station 4+75 0 to 70 feet LT and RT (Vacant Building, Site 601V1-FH, 1524 St. Clair Avenue) – non-special waste. Contaminants of concern sampling parameters: Lead.
 - Station 15+50 to Station 19+50 0 to 80 feet LT and RT (Proposed I-64 Eastbound Ramp A) – non-special waste. Contaminants of concern sampling parameters: Dieldrin and Lead.
 - Station 32+75 to Station 34+20 0 to 50 feet LT and RT (Vacant Lot, Site 601V1-FI, 1526-1530 St. Clair Avenue) – non-special waste. Contaminants of concern sampling parameters: Lead.

COMPLETION DATES (VIA CALENDAR DATE)

The Contractor shall complete all work on or before October 5, 2011.

The completion date is based on a contract execution date of August 1, 2010. Any delay to the execution date will result in an extension in completion date equal to the number of calendar days of the delay.

ON-THE-JOB TRAINING SPECIAL PROVISION (NMRB)

Effective: April 1, 2010

This On-the-Job Training Special Provision (OJT special provision) supplements Recurring Special Provisions, Check Sheet #3: SPECIAL PROVISION FOR EEO and in the implementation of CFR 230, Subpart A.

It is the policy of the IDOT to require full utilization of all available training and skill-improvement opportunities to assure the increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The intent of the OJT special provision is to recruit entry-level individuals, when feasible, and provide them with meaningful training intended to lead to journey-level employment. IDOT and its sub-recipients, in carrying out the responsibilities of a federally assisted contract, shall determine which federal-aid construction contract shall include "Training Special Provisions." Under the Training Special Provisions, the Contractor shall make every reasonable effort to enroll minority, disadvantaged persons and women trainees to the extent such persons are available within a reasonable recruitment area. This training provision is not intended, and shall not be used to discriminate against any applicant for training.

As part of the Contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The Contractor shall provide training opportunities aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract is 7. In the event the Contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The Contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

Prior to commencing construction, the Contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. The Contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period.

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Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. Accordingly, form SBE 1146 shall be submitted and approved prior to commencing work. It is the intention of these provisions that training is to be provided in the construction crafts rather then clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the Contractor will be reimbursed \$3.50 per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the Contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the Contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the Contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A Contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision. The Contractor shall furnish the trainee a copy of the program he will follow in providing the training. The Contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The Contractor shall provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

Reports

The Contractor shall provide for the maintenance of records and furnish weekly reports documenting the Contractor's performance under this provision on form SBE 1014. All trainee notifications must be submitted prior to the start of the project. If a trainee has been previously approved by IDOT, the Contractor must still notify IDOT of the name of the individual(s) and proposed craft the trainees will be trained in, as well as, indicate which project the trainees will be working on. The trainee notifications or listing of the proposed trainees must be submitted via fax, mail or electronically to the District EEO Office. If the Contractor fails to submit the trainee notification or list of proposed trainees prior to the onset of the project, the Contractor will be subject to the sanctions as outlined in this OJT special provision. Weekly reports shall include at least the following information:

Contractor's name and address

Period, which the report covers

Job Number, Description, and Federal Aid number

Information for each employee being trained on the project, including:

- Trainee Name and Individual Identification Number
- Ethic Group
- Work Classification
- Status
- Hours and Days Worked
- Hours this Week
- Hours to Date

IDOT monitors contracts with training special provisions through onsite visits, investigations, weekly training and construction reports. These reports are generated by the Contractor and are to be disseminated to the Resident Engineer Office. If there are problems, the District EEO Office will contact the Contractor to address the deficiencies.

If there are deficiencies, the Contractor must provide a corrective action plan addressing the deficiencies.

No payment will be made under the bid item "Training" if the Contractor fails to provide the required training.

Payment will not be made if the Contractor fails to submit trainee reports in a timely manner.

Method of Measurement

The unit of measurement is in hours.

Basis of Payment

This work will be paid for at the contract unit price of \$3.50 per hour for TRAINEES. The estimated total number of hours, unit price, and total price have been included in the schedule of prices.

Liquidated Damages

Progress payments shall be withheld for failing to comply with all OJT special provision requirements unless IDOT accepts evidence of the Contractor's good faith efforts.

If the training hours have not been obtained and evidence of good faith efforts have not been displayed upon project completion, the Contractor will be assessed liquidated damages in the amount of \$7.00 per hour for those hours not realized. If the Department approves the Contractor's good faith efforts, these liquidated damages will not be assessed.

In the event the Contract will exceed the trainee goal on the project, the Contractor must submit a request to District EEO Office to obtain an extension of hours. The maximum amount of hours beyond those enumerated in the contract cannot exceed 500 hours per 1,000. For instance, if the goal was 1,000, the Contractor can be granted an extra 500 hours subject to the advance approval of the District EEO Office, and concurrence from the FHWA.

Trainee reports must be submitted in accordance with the Instruction to Contractors for Completing Form SBE 1014. Failure to submit timely reports will result in trainee hours not credited. In the cases of voluntary or involuntary trainee termination or when the trainee completes the hours specified in the program, the contractor must complete the final trainee report within five working days. The Contractor's failure to submit the proper reports in a timely manner may result in the loss of reimbursement for the training hours for that month

Failure to satisfactorily comply with the OJT special provision requirements will be reflected in the Contractor's performance evaluation.

DRAINAGE SYSTEM

Effective: June 10, 1994

Revised: January 1, 2007

<u>Description.</u> This work shall consist of furnishing and installing a bridge drainage system as shown on the plans, including all piping, fittings, support brackets, inserts, bolts, and splash blocks when specified.

<u>Material.</u> The pipe and fittings shall be reinforced fiberglass according to ASTM D 2996 RTRP with a 30,000 psi (207 MPa) minimum short-time rupture strength hoop tensile stress. The reinforced fiberglass shall also have an apparent stiffness factor at 5 percent deflection exceeding 200 cu in.-lbf/sq. in. (22.6 cu mm-kPa) and a minimum wall thickness of 0.10 in. (2.54 mm).

All pipe supports and associated hardware shall be hot dip galvanized according to AASHTO M 232 (M 232M). The fiberglass pipe and fittings furnished shall be pigmented through out, or have a resin-rich pigmented exterior coat, specifically designed for overcoating fiberglass, as recommended by the manufacturer. The color shall be as specified by the Engineer. The resin in either case shall have an ultraviolet absorber designed to prevent ultraviolet degradation. The supplier shall certify the material supplied meets or exceeds these requirements.

<u>Design.</u> The drainage system shall be designed as an open system with allowances for the differential expansion and contraction expected between the superstructure and the substructure to which the drainage system is attached.

<u>Installation.</u> All connections of pipes and fittings shown on the plans to facilitate future removal for maintenance cleanout or flushing shall be made with a threaded, gasketed coupler or a bolted gasketed flange system. Adhesive bonded joints will be permitted for runs of pipe between such connections. The end run connection shall feature a minimum nominal 6 in. (150 mm) female threaded fiberglass outlet. Straight runs may utilize a 45 degree reducing saddle bonded to the pipe. The female outlet shall be filled with a male threaded PVC plug.

Runs of pipe shall be supported at spacings not exceeding those recommended by the manufacturer of the pipe. Supports that have point contact or narrow supporting areas shall be avoided. Standard slings, clamps, clevis hangers and shoe supports designed for use with steel pipe may be used. A minimum strap width for hangers shall be 1 1/2 in. (40 mm) for all pipe under 12 in. (300 mm) in diameter and 2 in. (50 mm) for diameters 12 in. (300 mm) or greater. Straps shall have 120 degrees of contact with the pipe. Pipes supported on less than 120 degrees of contact shall have a split fiberglass pipe protective sleeve bonded in place with adhesive.

All reinforced fiberglass pipe, fittings, and expansion joints shall be handled and installed according to guidelines and procedures recommended by the manufacturer or supplier of the material.

<u>Basis of Payment.</u> This work will be paid for at the contract lump sum price for DRAINAGE SYSTEM.

CLEANING AND PAINTING NEW METAL STRUCTURES

Effective Date: September 13, 1994 Revised Date: January 22, 2010

<u>Description.</u> The material and construction requirements that apply to cleaning and painting new structural steel shall be according to the applicable portion of Sections 506 of the Standard Specifications except as modified herein. The three coat paint system shall be the system as specified on the plans and as defined herein. Unless stated otherwise, requirements imposed on the "Contactor" in this specification apply to both the shop painting contractor and the field painting contractor.

<u>Materials.</u> All materials to be used on an individual structure shall be produced by the same manufacturer. The Bureau of Materials and Physical Research has established a list of all products that have met preliminary requirements. Each batch of material must be tested and approved by that bureau before use.

The paint materials shall meet the requirements of the following articles of the Standard Specification:

Item	Article
(a) Inorganic Zinc-Rich Primer	1008.02
(b) Waterborne Acrylic	1008.04
(c) Aluminum Epoxy Mastic	1008.03
(d) Organic Zinc-Rich Primer (Note 1)	
(e) Epoxy Intermediate (Note 1)	

(f) Aliphatic Urethane (Note 1)

Note 1: These material requirements shall be according to the Special Provision for the Organic Zinc-Rich Paint System.

<u>Submittals.</u> At least 30 days prior to beginning shop or field painting respectively, the Contractor shall submit for the Engineer's review and acceptance, the following applicable plans, certifications and information for completing the field work. Painting work shall not proceed until the submittals are accepted by the Engineer. Qualifications, certifications and QC plans for shop and field cleaning and painting shall be available for review by the QA Inspector.

- a) Contractor Shop Qualifications. Except for miscellaneous steel items such as bearings, side retainers, expansion joint devices, and other items allowed by the Engineer, or unless stated otherwise in the contract, the shop painting Contractors-shall be certified to perform the work as follows: the shop painting Contractor shall possess AISC Sophisticated Paint Endorsement or SSPC-QP3 certification. Evidence of current qualifications shall be provided.
- b) Contractor Field Qualifications. Unless indicated otherwise on the contract plans, the field painting contractor shall possess current SSPC QP1 certification. Evidence of current qualifications shall be provided. The Contractor shall maintain certified status throughout the duration of the painting work under the contract. The Department reserves the right to accept Contractors documented to be currently enrolled in the SSPC-QP7, Painting Contractor Introductory Program, in lieu of the QP certifications noted above.
- c) QC Personnel Qualifications. Personnel managing the shop and field Quality Control program(s) for this work shall possess a minimum classification as a National Association of Corrosion Engineers (NACE) Coating Inspector Level 2-Certified, or shall provide evidence of successful inspection of 3 projects of similar or greater complexity and scope that have been completed in the last 2 years. Copies of the certification and/or experience shall be provided, including names, addresses and telephone numbers of contact persons employed by the bridge owner.

The personnel performing the QC tests for this work shall be trained in coatings inspection and the use of the testing instruments. Documentation of training shall be provided. The QC personnel shall not perform hands on surface preparation or paint activities unless otherwise approved by the Engineer. Painters shall perform wet film thickness measurements, with QC personnel conducting random spot checks of the wet film. The Contractor shall not replace the QC personnel assigned to the project without advance notice to the Engineer, and acceptance of the replacement(s), by the Engineer.

- d) Quality Control (QC) Program. The shop and field QC Programs shall identify the following; the instrumentation that will be used, a schedule of required measurements and observations, procedures for correcting unacceptable work, and procedures for improving surface preparation and painting quality as a result of quality control findings. The shop program shall include a copy of the quality control form(s) that will be completed daily. The field program shall incorporate the IDOT Quality Control Daily Report form, as supplied by the Engineer.
- e) Field Cleaning and Painting Inspection Access Plan. The inspection access plan for use by Contractor QC personnel for ongoing inspections and by the Engineer during Quality Assurance (QA) observations.
- f) Surface Preparation/Painting Plan. The surface preparation/painting plan shall include the methods of surface preparation and type of equipment to be utilized for solvent cleaning, abrasive blast cleaning, washing, and power tool cleaning. The plan shall include the manufacturer's names of the materials that will be used, including Product Data Sheets and Material Safety Data Sheets (MSDS).

A letter or written instructions from the coating manufacturer shall be included, indicating the required drying time for each coat at the minimum, normal, and maximum application temperatures before the coating can be exposed to temperatures or moisture conditions that are outside of the published application parameters. Application shall be performed in accordance with the coating manufacturer's instructions.

<u>Quality Control (QC) Inspections.</u> The Contractor shall perform first line, in process QC inspections of each phase of the work. The submitted and accepted QC Program(s) shall be used to insure that the work accomplished complies with these specifications. The shop painting Contractor shall use their forms as supplied in their submittal. These shop reports shall be made available for review when requested by the Engineer. The field painting Contractor shall use the IDOT Quality Control Daily Report form supplied by the Engineer to record the results of quality control tests. These field reports shall be turned into the Engineer before work resumes the following day.

The Contractor shall supply all necessary equipment to perform the QC inspections. Equipment shall include the following at a minimum:

- Psychrometer or comparable equipment for the measurement of dew point and relative humidity, together with all necessary weather bureau tables or psychrometric charts.
- Surface temperature thermometer.
- Bresle Cell Kits or CHLOR*TEST kits for chloride determinations, or equivalent.(only required when erected steel is exposed through the winter prior to field painting.)
- Wet Film Thickness Gage.
- Blotter paper for compressed air cleanliness checks.
- Type 2 Magnetic Dry Film Thickness Gage per SSPC PA2.
- Calibration standards for dry film thickness gage.
- Light meter for measuring light intensity during cleaning, painting, and inspection activities.
- All applicable ASTM and SSPC Standards used for the work.

• Commercially available putty knife of a minimum thickness of 40 mils (1 mm) and a width between 1 and 3 in. (25 and 75 mm). Note that the putty knife is only required in touch-up areas where the coating is being feathered and must be tested with a dull putty knife.

The instruments shall be calibrated by the Contractor's personnel according to the equipment manufacturer's recommendations and the Contractor's QC Program. All inspection equipment shall be made available to the Engineer for QA observations on an as needed basis.

<u>Quality Assurance (QA) Observations</u>. The Engineer may conduct QA observations of any or all phases of the shop or field work. The Engineer's observations in no way relieve the Contractor of the responsibility to provide all necessary daily QC inspections of his/her own and to comply with all requirements of this Specification.

<u>Inspection Access and Lighting.</u> The Contractor shall facilitate the Engineer's observations as required, including allowing ample time to view the work. The field Contractor shall furnish, erect and move scaffolding or other mechanical equipment to permit close observation of all surfaces to be cleaned and painted. This equipment shall be provided during all phases of the work. Examples of acceptable access structures include:

- Mechanical lifting equipment, such as, scissor trucks, hydraulic booms, etc.
- Platforms suspended from the structure comprised of trusses or other stiff supporting members and including rails and kick boards.
- Simple catenary supports are permitted only if independent life lines for attaching a fall arrest system according to Occupational Safety and Health Administration (OSHA) regulations are provided.

When the surface to be inspected is more than 6 ft. (1.8 m) above the ground or water surface, and fall protection is not provided (e.g. guardrails) the Contractor shall provide the Engineer with a safety harness and a lifeline according to OSHA regulations. The lifeline and attachment shall not direct the fall into oncoming traffic. The Contractor shall provide a method of attaching the lifeline to the structure independent of the inspection facility or any support of the platform. When the inspection facility is more than 2 1/2 ft. (800 mm) above the ground, the Contractor shall provide an approved means of access onto the platform.

The Contractor shall provide artificial lighting in areas where natural light is inadequate, as determined by the Engineer, to allow proper cleaning, inspection, and painting. Illumination for inspection shall be at least 30 foot candles (325 LUX). Illumination for cleaning and painting, including the working platforms, access, and entryways shall be at least 20 foot candles (215 LUX).

Construction Requirements for Field Painting. The Contractor shall be responsible for any damage caused to persons, vehicles, or property, except as indemnified by the Response Action Contractor Indemnification Act. Whenever the intended purposes of the protective devices are not being accomplished, as determined by the Engineer, work shall be immediately suspended until corrections are made. Painted surfaces damaged by any Contractor's operation shall be removed and repainted, as directed by the Engineer, at the Contractor's expense.

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The Contractor shall comply with the provisions of the Illinois Environmental Protection Act. Paint drips, spills, and overspray are not permitted to escape into the air or onto any other surfaces or surrounding property not intended to be painted. Containment shall be used to control paint drips, spills, and overspray, and shall be dropped and all equipment secured when sustained wind speeds of 40 mph (64 kph) or greater occur, unless the containment design necessitates action at lower wind speeds. When the containment needs to be attached to the structure, it shall be attached by clamping or similar means. Welding or drilling into the structure shall be prohibited unless otherwise approved by the Engineer in writing. The Contractor shall evaluate project-specific conditions to determine the specific type and extent of containment debris (droplets, spills, overspray, etc.) to the Engineer for approval prior to starting the work. Approval shall not relieve the Contractor of their ultimate responsibility for controlling paint debris from escaping the work zone.

<u>Hold Point Notification for Field Painting.</u> Specific inspection items throughout this specification are designated as Hold Points. Unless other arrangements are made at the project site, the Contractor shall provide the Engineer with a minimum 4-hour notification before a Hold Point inspection will be reached. If the 4-hour notification is provided and the Work is ready for inspection at that time, the Engineer will conduct the necessary observations. If the Work is not ready at the appointed time, unless other arrangements are made, an additional 4-hour notification is required. Permission to proceed beyond a Hold Point without a QA inspection will be granted solely at the discretion of the Engineer, and only on a case by case basis. The Engineer has the right to reject any work that was performed without adequate provision for QA observations.

<u>Field Surface Preparation (HOLD POINT).</u> The following processes shall be used to prepare the shop-coated steel surfaces for field painting.

1. <u>Low Pressure Water Cleaning and Solvent Cleaning</u>. The Contractor shall notify the Engineer 24 hours in advance of beginning surface preparation operations.

Washing shall involve the use of potable water at a minimum of 1000 psi (7 MPa) and less than 5000 psi (34 MPa) according to "Low Pressure Water Cleaning" of SSPCSP12. Paint spray equipment shall not be used to perform the water cleaning. The cleaning shall be performed in such a manner as to remove dust, dirt, chalk, insect and animal nests, bird droppings, and other foreign matter prior to solvent cleaning.

If detergents or other additives are added to the water, the detergents/additives shall be included in the submittals and not used until accepted by the Engineer. When detergents or additives are used, the surface shall be rinsed with potable water before the detergent water dries.

After washing has been accepted by the Engineer, all traces of asphaltic cement, oil, grease, diesel fuel deposits, and other soluble contaminants which remain on the steel surfaces to be painted shall be removed according to SSPC – SP1 Solvent Cleaning, supplemented with scraping (e.g., to remove large deposits of asphaltic cement) as required. The solvent(s) used for cleaning shall be compatible with the primer. The Contractor shall identify the proposed solvent(s) in the submittals. If the primer is softened, wrinkled, or shows other signs of attack from the solvents, the Contractor shall immediately discontinue their use.

The name and composition of replacement solvents, together with MSDS, shall be submitted for Engineer acceptance prior to use. If solvent cleaning/scraping is not successful in removing the foreign matter, the Contractor shall use other methods identified in SP1, such as steam cleaning as necessary.

- 2. <u>Water Cleaning Between Coats.</u> When foreign matter has accumulated on a newly applied coat, washing shall be performed prior to the application of subsequent coats.
- 3. <u>Power Tool Cleaning of Shop-Coated Steel.</u> Damaged and rusted areas shall be spot cleaned according Power Tool Cleaning SSPC-SP3 (Modified). The edges of the coating surrounding the spot repairs shall be feathered. A power tool cleaned surface shall be free of all loose rust, loose and peeling paint, and loose rust that is bleeding through and/or penetrating the coating. All locations of visible corrosion and rust bleed, and lifting or loose paint shall be prepared using the power tools.

Upon completion of the cleaning, rust, rust bleed, and surrounding paint are permitted to remain if they cannot be lifted using a dull putty knife.

<u>Field Soluble Salt Remediation (HOLD POINT)</u>. If the erected steel is exposed to winter weather prior to field painting, the Contractor shall implement surface preparation procedures and processes that will remove chloride from the surfaces prior to field painting. Surfaces that may be contaminated with chloride include, but are not limited to, expansion joints and all areas that are subject to roadway splash or run-off such as fascia beams and stringers.

Methods of chloride removal may include, but are not limited to, steam cleaning or pressure washing with or without the addition of a chemical soluble salt remover as approved by the coating manufacturer, and scrubbing before or after initial paint removal. The water does not need to be collected. The Contractor shall provide the proposed procedures for chloride remediation in the Surface Preparation/Painting Plan.

Upon completion of the chloride remediation steps, the Contractor shall use cell methods of field chloride extraction and test procedures (e.g., silver dichromate) accepted by the Engineer, to test representative surfaces for the presence of remaining chlorides. Remaining chloride levels shall be no greater than $7\mu g/sq$ cm as read directly from the surface without any multiplier applied to the results. The testing must be performed, and the results must be acceptable.

<u>Surface and Weather Conditions (HOLD POINT)</u>. Surfaces to be painted after cleaning shall remain free of moisture and other contaminants. The Contractor shall control his/her operations to insure that dust, dirt, or moisture does not come in contact with surfaces cleaned or painted that day.</u>

Prepared surfaces, shall meet the requirements of the respective degrees of cleaning immediately prior to painting, and shall be painted before rusting appears on the surface. If rust appears or bare steel remains unpainted for more than 12 hours, the affected area shall be prepared again at the expense of the Contractor.

The surface temperature shall be at least $5^{\circ}F$ ($3^{\circ}C$) above the dew point during final surface preparation operations. The paint manufacturers' published literature shall be followed for specific temperature, dew point, and humidity restrictions during the application of each coat, and for the minimum and maximum time between coats.

The Contractor shall monitor temperature, dew point, and humidity every 4 hours during surface preparation and coating application in the specific areas where the work is being performed. The frequency of monitoring shall increase if weather conditions are changing. The Engineer has the right to reject any work that was performed under unfavorable weather conditions. Rejected work shall be removed, and repainted at the Contractor's expense.

<u>Seasonal Restrictions on Field Cleaning and Painting.</u> Field cleaning and painting work shall be accomplished between April 15 and October 31 unless authorized otherwise by the Engineer in writing.

Inorganic Zinc-rich/ Waterborne Acrylic Paint system. This system shall be for shop and field application of the coating system. Shop application of the intermediate and top coats will not be allowed.

In the shop, all structural steel designated to be painted shall be given one coat of inorganic zinc rich primer. In the field, before the application of the intermediate coat, the prime coat and any newly installed fasteners shall be spot solvent cleaned per SSPC-SP 1 and all surfaces pressure washed as specified above. All damaged shop primed areas shall be spot cleaned per SSPC-SP3 Modified, All damaged areas and all installed fasteners shall be fully primed with aluminum epoxy mastic. The structural steel shall then receive one full intermediate coat and one full topcoat of waterborne acrylic paint.

- a) Coating Dry Film Thickness (dft), measured according to SSPC-PA2:
 - a. Zinc Primer: 3 mils (75 microns) min., 6 mils (150 microns) max.
 - b. Epoxy Mastic (spot coat): 5 mils (125 microns) min., 7 mils (180 microns) max.
 - c. Intermediate Coat: 2 mils (50 microns) min., 4 mils (100 microns) max.
 - d. Topcoat: 2 mils (50 microns) min., 4 mils (100 microns) max.
- b) The total dry film thickness, excluding the spot areas touched up with epoxy mastic, shall be between 7 and 14 mils (180 and 355 microns).
- c) The pressure washing requirement above may be waived if the QC and QA Inspectors verify the primed surfaces have not been contaminated.
- d) Damage to the completed paint system shall be spot cleaned using SSPC-SP3 (Modified). The cleaned areas shall be spot painted with a penetrating sealer as recommended by the manufacturer, which shall overlap onto the existing topcoat. Then the aluminum epoxy mastic shall be spot applied not to go beyond the area painted with the sealer. The acrylic intermediate and topcoat shall be spot applied to the mastic with at least a 6 inch (150 mm) overlap onto the existing topcoat.

Organic Zinc-Rich/ Epoxy/ Urethane Paint System. This system shall be for full shop application of the coating system, or when specified on the plans, for the application of two coats in the shop with the finish coat applied in the field. All contact surfaces shall be masked off prior to shop-application of the intermediate and top coats.

In addition to the requirements of Section 3.2.9 of the AASHTO/AWS D1.5/D1.5:2002 Bridge Welding Code (breaking thermal cut corners of stress carrying members), rolled and thermal cut corners to be painted with organic zinc primer shall be broken if they are sharper than a 1/16 in. (1.5 mm) radius.

Corners shall be broken by a single pass of a grinder or other suitable device at a 45 degree angle to each adjoining surface prior to final blast cleaning, so the resulting corner approximates a 1/16 in. (1.5 mm) or larger radius after blasting. Surface anomalies (burrs, fins, deformations) shall also be treated to meet this criteria before priming.

In the shop, all structural steel designated to be painted shall be given one coat of organic zinc rich primer, one coat of epoxy intermediate, and unless stated otherwise in the plans, one coat of urethane finish. Before the application of the field coats, the shop coats and any newly installed fasteners shall be spot solvent cleaned per SSPC-SP 1 and all surfaces pressure washed as specified above to remove dirt, oil, lubricants, oxidation products, and foreign substances. All damaged shop coated areas shall then be spot cleaned per SSPC-SP3 (Modified). The surrounding coating at each repair location shall be feathered for a minimum distance of 1 1/2 in. (40 mm) to achieve a smooth transition between the prepared areas and the existing coating. The existing coating in the feathered area shall be roughened to insure proper adhesion of the repair coats.

All damaged areas and all newly installed fasteners shall be fully primed with epoxy mastic. One intermediate coat of epoxy shall be applied over the epoxy mastic and on exposed shop primer. One topcoat of aliphatic urethane shall be applied to all areas where the intermediate coat is visible, whether the intermediate coat was applied in the shop or in the field. The field applied coats shall only overlap onto the existing finish coat where sanding has been performed.

When the plans require the urethane coat to be applied in the field, the maximum recoat time for the intermediate coat shall be observed. If the recoat time for the intermediate coat is exceeded, the Contractor shall remove the shop-applied system, or submit for approval by the Engineer, written recommendations from the coating manufacturer for the procedures necessary to extend that recoat window or otherwise prepare the intermediate coat to receive the finish.

- (a) Coating Dry Film Thickness (dft), measured according to SSPC-PA2:
 Organic Zinc-Rich Primer: 3 mils (75 microns) min., 5 mils (125 microns) max.
 Aluminum Epoxy Mastic (spot coat): 5 mils (125 microns) min., 7 mils (180 microns) max.
 Epoxy Intermediate Coat: 3 mils (75 microns) min., 6 mils (150 microns) max.
 Aliphatic Urethane Top Coat: 2.5 mils (65 microns) min., 4 mils (100 microns) max.
- (b) The total dry film thickness, excluding the spot areas touched up with epoxy mastic, shall be between 8.5 and 15 mils (215 and 375 microns).
- (c) All faying surfaces of field connections shall be masked off after priming and shall not receive the intermediate or top coats in the shop. The intermediate and top coats for field connections shall be applied, in the field, after erection of the structural steel is completed.

Special Instructions.

Painting Date/System Code. At the completion of the work, the Contractor shall stencil in contrasting color paint the date of painting the bridge, the painting Contractors name, and the paint type code from the Structure Information and Procedure Manual for the system used.

The letters shall be capitals, not less than 2 in. (50 mm) and not more than 3 in. (75 mm) in height. When all coats are applied in the shop the shop Contractor shall do the stenciling. When 1 or more coats are applied in the field, the field contractor shall do the stenciling.

The stencil shall contain the following wording "PAINTED BY (insert the name of the painting Contractor)" and shall show the month and year in which the painting was completed, followed by "CODE S" for the Inorganic Zinc/ Acrylic System, "CODE X" for the Organic Zinc/ Epoxy/ Urethane System (field applied finish coats), "CODE AB" for the Organic Zinc/ Epoxy/ Urethane System (shop applied), all stenciled on successive lines. This information shall be stenciled on the cover plate of a truss end post near the top of the railing, or on the outside face of an outside stringer near both ends of the bridge facing traffic, or at some equally visible surface designated by the Engineer.

<u>Method of Measurement.</u> Shop cleaning and painting new structures will not be measured for payment. Field cleaning and painting will not be measured for payment except when performed under a contract that contains a separate pay item for this work.

Basis of Payment. This work will be paid for according to Article 506.07.

TEMPORARY SOIL RETENTION SYSTEM

Effective: December 30, 2002

Revised : May 11, 2009

<u>Description.</u> This work shall consist of designing, furnishing, installing, adjusting for stage construction when required and subsequent removal of the temporary soil retention system according to the dimensions and details shown on the plans and in the approved design submittal.

<u>General.</u> The temporary soil retention system shall be designed by the Contractor as a minimum, to retain the exposed surface area specified in the plans or as directed by the Engineer.

The design calculations and details for the temporary soil retention system proposed by the Contractor shall be submitted to the Engineer for approval. The calculations shall be prepared and sealed by an Illinois Licensed Structural Engineer. This approval will not relieve the Contractor of responsibility for the safety of the excavation. Approval shall be contingent upon acceptance by all involved utilities and/or railroads.

<u>Construction.</u> The Contractor shall verify locations of all underground utilities before installing any of the soil retention system components or commencing any excavation. Any disturbance or damage to existing structures, utilities or other property, caused by the Contractor's operation, shall be repaired by the Contractor in a manner satisfactory to the Engineer at no additional cost to the Department. The soil retention system shall be installed according to the Contractor's approved design, or as directed by the Engineer, prior to commencing any related excavation. If unable to install the temporary soil retention system as specified in the approved design, the Contractor shall have the adequacy of the design re-evaluated. Any reevaluation shall be submitted to the Engineer for approval prior to commencing the excavation adjacent to the area in question. The Contractor shall not excavate below the maximum excavation line shown in the approved design without the prior permission of the Engineer. The temporary soil retention system shall remain in place until the Engineer determines it is no longer required.

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The temporary soil retention system shall be removed and disposed of by the Contractor when directed by the Engineer. When allowed, the Contractor may elect to cut off a portion of the temporary soil retention system leaving the remainder in place. The remaining temporary soil retention system shall be removed to a depth which will not interfere with the new construction, and as a minimum, to a depth of 12 in. (300 mm) below the finished grade, or as directed by the Engineer. Removed system components shall become the property of the Contractor.

When an obstruction is encountered, the Contractor shall notify the Engineer and upon concurrence of the Engineer, the Contractor shall begin working to break up, push aside, or remove the obstruction. An obstruction shall be defined as any object (such as but not limited to, boulders, logs, old foundations etc.) where its presence was not obvious or specifically noted on the plans prior to bidding, that cannot be driven or installed through or around, with normal driving or installation procedures, but requires additional excavation or other procedures to remove or miss the obstruction.

<u>Method of Measurement</u>. The temporary soil retention system furnished and installed according to the Contractor's approved design or as directed by the Engineer will be measured for payment in place, in square feet (square meters). The area measured shall be the vertical exposed surface area envelope of the excavation supported by temporary soil retention system. Portions of the temporary soil retention system left in place for reuse in later stages of construction shall only be measured for payment once.

Any temporary soil retention system installed beyond those dimensions shown on the contract plans or the approved contractor's design without the written permission of the Engineer, shall not be measured for payment but shall be done at the contractor's own expense.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per square foot (square meter) for TEMPORARY SOIL RETENTION SYSTEM.

Payment for any excavation, related solely to the installation and removal of the temporary soil retention system and/or its components, shall not be paid for separately but shall be included in the unit bid price for TEMPORARY SOIL RETENTION SYSTEM. Other excavation, performed in conjunction with this work, will not be included in this item but shall be paid for as specified elsewhere in this contract.

Obstruction mitigation shall be paid for according to Article 109.04 of the Standard Specifications.

PIPE UNDERDRAINS FOR STRUCTURES

Effective: May 17, 2000

Revised: January 22, 2010

<u>Description</u>. This work shall consist of furnishing and installing a pipe underdrain system as shown on the plans, as specified herein, and as directed by the Engineer.

Materials. Materials shall meet the requirements as set forth below:

The perforated pipe underdrain shall be according to Article 601.02 of the Standard Specifications. Outlet pipes or pipes connecting to a separate storm sewer system shall not be perforated.

The drainage aggregate shall be a combination of one or more of the following gradations, FA1, FA2, CA5, CA7, CA8, CA11, or CA13 thru 16, according to Sections 1003 and 1004 of the Standard Specifications.

The fabric surrounding the drainage aggregate shall be Geotechnical Fabric for French Drains according to Article 1080.05 of the Standard Specifications.

<u>Construction Requirements.</u> All work shall be according to the applicable requirements of Section 601 of the Standard Specifications except as modified below.

The pipe underdrains shall consist of a perforated pipe drain situated at the bottom of an area of drainage aggregate wrapped completely in geotechnical fabric and shall be installed to the lines and gradients as shown on the plans.

<u>Method of Measurement.</u> Pipe Underdrains for Structures shall be measured for payment in feet (meters), in place. Measurement shall be along the centerline of the pipe underdrains. All connectors, outlet pipes, elbows, and all other miscellaneous items shall be included in the measurement. Concrete headwalls shall be included in the cost of Pipe Underdrains for Structures, but shall not be included in the measurement for payment.

<u>Basis of Payment.</u> This work will be paid for at the contract unit price per foot (meter) for PIPE UNDERDRAINS FOR STRUCTURES of the diameter specified. Furnishing and installation of the drainage aggregate, geotechnical fabric, forming holes in structural elements and any excavation required, will not be paid for separately, but shall be included in the cost of the pipe underdrains for structures.

POROUS GRANULAR EMBANKMENT, SPECIAL

Effective: September 28, 2005

Revised: November 14, 2008

<u>Description</u>. This work shall consist of furnishing and placing porous granular embankment special material as detailed on the plans, according to Section 207 except as modified herein.

<u>Materials.</u> The gradation of the porous granular material may be any of the following CA 8 thru CA 18, FA 1 thru FA 4, FA 7 thru FA 9, and FA 20 according to Articles 1003 and 1004.

<u>Construction</u>. The porous granular embankment special shall be installed according to Section 207, except that it shall be uncompacted.

Basis of Payment. This work will be paid for at the contract unit price per Cubic Yard (Cubic Meter) for POROUS GRANULAR EMBANKMENT, SPECIAL.

MECHANICAL SPLICERS

Effective: September 21, 1995

Revised: May 11, 2009

Description. This work shall consist of furnishing and installing mechanical splices according to the plans and this special provision.

<u>Materials and Procedures</u>. The mechanical connection may be made by means of an approved mechanical splicer. Splicer bar type systems lapped with the primary reinforcement will not be allowed. The mechanical splicer shall develop in tension at least 125 percent of the specified yield strength of the bar.

When both reinforcement bars being spliced are epoxy coated the mechanical splicer shall also be epoxy coated according to AASHTO M284.

Contact the Bureau of Materials for a current list of approved mechanical reinforcing bar splicers/coupler systems.

Installation. The Contractor shall supply the manufacturer's written installation instructions to the Engineer prior to installing the mechanical splices.

<u>Testing</u>. A minimum of two tension tests will be made with the method of splicing selected on each size bar to be spliced. The Contractor shall furnish certified copies of the test reports from an independent testing laboratory.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price each for MECHANICAL SPLICERS.

DEMOLITION PLANS FOR REMOVAL OF EXISTING STRUCTURES

Effective: September 5, 2007

Add to the beginning of Article 501.02 of the Standard Specifications.

"The Contractor shall submit a demolition plan to the Engineer for approval, detailing the proposed methods of demolition and the amount, location(s) and type(s) of equipment to be used. With the exception of removal of single box culverts, for work adjacent to or over an active roadway, railroad or navigable waterway, the demolition plan shall include an assessment of the structure's condition and an evaluation of the structure's strength and stability during demolition and shall be sealed by an Illinois Licensed Structural Engineer."

PILING Effective: May 11, 2009

Revised: January 22, 2010

Revise Article 512.04(a) of the Standard Specifications to read:

"(a) Splicing. Splicing of metal shell piles shall be as follows.

(1) Planned Splices. Planned field or shop splices may be used when allowed per Article 512.10 or when the lengths specified in Article 512.16 exceed the estimated lengths specified in the contract plans by at least 10 ft (3 m). The location of planned splices shall be approved by the Engineer and located to minimize the chance they will occur within the 10 ft (3 m) below the base of the footing, abutment, or pier. (2) Unplanned Splices. Unplanned field splices shall be used as required to furnish lengths beyond those specified in Article 512.16. The length of additional segments shall be specified by the Engineer."

Revise Article 512.05(a) of the Standard Specifications to read:

- "(a) Splicing. Splicing of steel piles shall be as follows.
 - (1) Planned Splices. Planned field or shop splices may be used when allowed per Article 512.10 or when the lengths specified in Article 512.16 exceed the estimated lengths specified in the contract plans by at least 10 ft (3 m). The location of planned splices shall be approved by the Engineer and located to minimize the chance they will occur within the 10 ft (3 m) below the base of the footing, abutment, or pier.
 - (2) Unplanned Splices. Unplanned field splices shall be used as required to furnish lengths beyond those specified in Article 512.16. The length of additional segments shall be specified by the Engineer."

Revise the first three paragraphs of Article 512.10 of the Standard Specifications to read:

"512.10 Driving Equipment. The equipment for driving piles shall be adequate for driving piles at least 10 ft (3 m) longer than the longest estimated pile length specified in the contract plans without splicing, unless the estimated pile length exceeds 55 ft (17 m) or prevented by vertical clearance restrictions. The use of shorter length equipment or the use of preplanned splices (necessitated by estimated pile lengths exceeding 55 ft (17 m) or vertical clearance restrictions) shall meet the approval of the Engineer. The equipment for driving piles shall be according to the following.

(a) Hammers. Piles shall be driven with an impact hammer such as a drop, steam/air, hydraulic, or diesel. The driving system selected by the Contractor shall not result in damage to the pile. The impact hammer shall be capable of being operated at an energy which will maintain a pile penetration rate between 1 and 10 blows per 1 in. (25 mm) when the nominal driven bearing of the pile approaches the nominal required bearing.

For hammer selection purposes, the minimum and maximum hammer energy necessary to achieve these penetrations may be estimated as follows.

$$E \ge \frac{32.90 R_N}{F_{eff}}$$
 (English)

$$E \leq \frac{65.80 \text{ R}_{\text{N}}}{\text{F}_{\text{eff}}}$$
 (English)

$$E \geq \frac{10.00 R_N}{F_{\text{eff}}}$$
 (metric)

$$E \leq \frac{20.00 \text{ R}_{\text{N}}}{\text{F}_{\text{eff}}}$$
 (metric)

Where:

- R_N = Nominal required bearing in kips (kN)
- *E* = Energy developed by the hammer per blow in ft lb (J)
- F_{eff} = Hammer efficiency factor according to Article 512.14."

Add the following sentence to the beginning of the fourth paragraph of Article 512.11 of the Standard Specifications:

"Except as required to satisfy the minimum tip elevations required in 512.11(b) above, piles are not required to be driven more than one additional foot (300 mm) after the nominal driven bearing equals or exceeds the nominal required bearing; more than three additional inches (75 mm) after the nominal driven bearing exceeds 110 percent of the nominal required bearing; or more than one additional inch (25 mm) after the nominal driven bearing exceeds 150 percent of the nominal required bearing."

Revise the first paragraph of Article 512.14 of the Standard Specifications to read:

***512.14 Determination of Nominal Driven Bearing.** The nominal driven bearing of each pile shall be determined by the WSDOT formula as follows.

$$R_{NDB} = \frac{6.6 \ F_{\text{eff}} \ E \ Ln \left(10 \ N_b\right)}{1000} \quad \text{(English)}$$

$$R_{NDB} = \frac{21.7 F_{eff} E Ln(10N_b)}{1000}$$
 (metric)

Where:

 R_{NDB} = Nominal driven bearing of the pile in kips (kN)

- N_b = Number of hammer blows per inch (25 mm) of pile penetration
- *E* = Energy developed by the hammer per blow in ft lb (J)

 F_{eff} = Hammer efficiency factor taken as:

0.55 for air/steam hammers

0.47 for open-ended diesel hammers and steel piles or metal shell piles

- 0.37 for open-ended diesel hammers and concrete or timber piles
- 0.35 for closed-ended diesel hammers
- 0.28 for drop hammers"

Add the following to Article 512.18 of the Standard Specifications.

"(h) When the lengths specified in Article 512.16 exceed the estimated lengths specified in the contract plans by at least 10 ft (3m), additional field splices (for metal shell and steel piles) required to provide the lengths specified in Article 512.16 will be paid for according to Article 109.04."

ALKALI-SILICA REACTION FOR CAST-IN-PLACE CONCRETE (BDE)

Effective: August 1, 2007

Revised: January 1, 2009

<u>Description</u>. This special provision is intended to reduce the risk of a deleterious alkali-silica reaction in 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 precast products or precast prestressed products.

<u>Aggregate Expansion Values</u>. 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 ($Na_2O + 0.658K_2O$) 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	Fine Aggregate Blend			
ASTM C 1260 Expansion	ASTM C 1260 Expansion			
	≤ 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.

For Class PP-3 concrete the mixture options are not applicable, and any cement may be used with the specified finely divided minerals.

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 = $(a/100 \times A) + (b/100 \times B) + (c/100 \times C) + \dots$

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 PV, BS, MS, DS, SC, and SI concrete and cement aggregate mixture II (CAM II), 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 PV, MS, SC, and SI 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.

For Class PP-1, RR, BS, and DS concrete and CAM II, Class C fly ash with less than 26.5 percent calcium oxide content shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

3) Ground Granulated Blast-Furnace Slag. For Class PV, BS, MS, SI, DS, and SC concrete, ground granulated blast-furnace slag shall replace 25 percent of the portland cement at a minimum replacement ratio of 1:1.

For Class PP-1 and RR concrete, ground granulated blast-furnace slag shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

For Class PP-2, ground granulated blast-furnace slag shall replace 25 to 30 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 (Na₂O + 0.658K₂O) 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 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. For latex concrete, the ASTM C 1567 test shall be performed without the latex. 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 $(Na_2O + 0.658K_2O)$, 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 (Na₂O + 0.658K₂O) 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 Concrete 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.

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.

<u>Aggregate Expansion Values</u>. 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 (Na₂O + $0.658K_2O$) 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	Fine Aggregate Blend			
ASTM C 1260 Expansion	ASTM C 1260 Expansion			
	≤ 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 = $(a/100 \times A) + (b/100 \times B) + (c/100 \times C) + \dots$

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.
- 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 (Na₂O + 0.658K₂O) 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 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 $(Na_2O + 0.658K_2O)$, 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 (Na₂O + $0.658K_2O$) 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.

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."

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 (Al₂O₃), maximum 42 percent calcium oxide (CaO), maximum 1 percent magnesium oxide (MgO), maximum 0.4 percent sulfur trioxide (SO₃), 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."

CONCRETE ADMIXTURES (BDE)

Effective: January 1, 2003

Revised: April 1, 2009

Replace the first paragraph of Article 1020.05(b) of the Standard Specifications to read:

"(b) Admixtures. The use of admixtures to increase the workability or to accelerate the hardening of the concrete will be permitted when approved by the Engineer. Admixture dosages shall result in the mixture meeting the specified plastic and hardened properties. The Department will maintain an Approved List of Corrosion Inhibitors. Corrosion inhibitor dosage rates shall be according to Article 1020.05(b)(12). The Department will also maintain an Approved List of Concrete Admixtures, and an admixture technical representative shall be consulted when determining an admixture dosage from this list. The dosage shall be within the range indicated on the approved list unless the influence by other admixtures, jobsite conditions (such as a very short haul time), or other circumstances warrant a dosage outside the range. The Engineer shall be notified when a dosage is proposed outside the range. To determine an admixture dosage, air temperature, concrete temperature, cement source and quantity, finely divided mineral sources(s) and quantity, influence of other admixtures, haul time, placement conditions, and other factors as appropriate shall be considered. The Engineer may request the Contractor to have a batch of concrete mixed in the lab or field to verify the admixture dosage is correct. An admixture dosage or combination of admixture dosages shall not delay the initial set of concrete by more than one hour. When a retarding admixture is required or appropriate for a bridge deck or bridge deck overlay pour, the initial set time shall be delayed until the deflections due to the concrete dead load are no longer a concern for inducing cracks in the completed work. However, a retarding admixture shall not be used to further extend the pour time and justify the alteration of a bridge deck pour sequence.

When determining water in admixtures for water/cement ratio, the Contractor shall calculate 70 percent of the admixture dosage as water, except a value of 50 percent shall be used for a latex admixture used in bridge deck latex concrete overlays."

Revise Section 1021 of the Standard Specifications to read:

"SECTION 1021. CONCRETE ADMIXTURES

1021.01 **General.** Admixtures shall be furnished in liquid form ready for use. The admixtures shall be delivered in the manufacturer's original containers, bulk tank trucks or such containers or tanks as are acceptable to the Engineer. Delivery shall be accompanied by a ticket which clearly identifies the manufacturer and trade name of the material. Containers shall be readily identifiable as to manufacturer and trade name of the material they contain.

Corrosion inhibitors will be maintained on the Department's Approved List of Corrosion Inhibitors. All other concrete admixture products will be maintained on the Department's Approved List of Concrete Admixtures. For the admixture submittal, a report prepared by an independent laboratory accredited by the AASHTO Materials Reference Laboratory (AMRL) for Portland Cement Concrete shall be provided. The report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications. However, for corrosion inhibitors the ASTM G 109 test information specified in ASTM C 1582 is not required to be from and independent lab.

All other information in ASTM C 1582 shall be from and independent lab.

Tests shall be conducted using materials and methods specified on a "test" concrete and a "reference" concrete, together with a certification that no changes have been made in the formulation of the material since the performance of the tests. Per the manufacturer's option, the cement content for all required tests shall either be according to applicable specifications or 5.65 cwt/cu yd (335 kg/cu m). Compressive strength test results for six months and one year will not be required.

Prior to the approval of an admixture, the Engineer reserves the right to request a sample for testing. The test and reference concrete mixtures tested by the Engineer will contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). For freeze-thaw testing, the Department will perform the test according to AASHTO T 161, Procedure B. The flexural strength test will be performed according to AASHTO T 177. If the Engineer decides to test the admixture, the manufacturer shall submit AASHTO T 197 water content and set time test results on the standard cement used by the Department. The test and reference concrete mixture shall contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). The manufacturer may select their lab or an independent lab to perform this testing. The laboratory is not required to be accredited by AASHTO.

The manufacturer shall include in the submittal the following admixture information: the manufacturing range for specific gravity, the midpoint and manufacturing range for residue by oven drying, and the manufacturing range for pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

For air-entraining admixtures according to Article 1021.02, the specific gravity allowable manufacturing range shall be established by the manufacturer and the test method shall be according to ASTM C 494. For residue by oven drying and pH, the allowable manufacturing range and test methods shall be according to ASTM C 260.

For admixtures according to Articles 1021.03, 1021.04, 1021.05, 1021.06, and 1021.07, the pH allowable manufacturing range shall be established by the manufacturer and the test method shall be according to ASTM E 70. For specific gravity and residue by oven drying, the allowable manufacturing range and test methods shall be according to ASTM C 494.

When test results are more than seven years old, the manufacturer shall re-submit the infrared spectrophotometer trace and the report prepared by an independent laboratory accredited by AASHTO.

All admixtures, except chloride-based accelerators, shall contain a maximum of 0.3 percent chloride by weight (mass).

Random field samples may be taken by the Department to verify an admixture meets specification. A split sample will be provided to the manufacturer if requested. Admixtures that do not meet specification requirements or an allowable manufacturing range established by the manufacturer shall be replaced with new material.

1021.02Air-Entraining Admixtures. Air-entraining admixtures shall be according to AASHTO M 154.

1021.03Retarding and Water-Reducing Admixtures. The admixture shall be according to the following.

- (a) The retarding admixture shall be according to AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).
- (b) The water-reducing admixture shall be according to AASHTO M 194, Type A.
- (c) The high range water-reducing admixture shall be according to AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding).

1021.04Accelerating Admixtures. The admixture shall be according to AASHTO M 194, Type C (accelerating) or Type E (water reducing and accelerating).

1021.05Self-Consolidating Admixtures. The self-consolidating admixture system shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete mixture that can flow around reinforcement and consolidate under its own weight without additional effort and without segregation.

The high range water-reducing admixture shall be according to AASHTO M 194, Type F.

The viscosity modifying admixture shall be according to ASTM C 494, Type S (specific performance).

1021.06Rheology-Controlling Admixture. The rheology-controlling admixture shall be capable of producing a concrete mixture with a lower yield stress that will consolidate easier for slipform applications used by the Contractor. The rheology-controlling admixture shall be according to ASTM C 494, Type S (specific performance).

1021.07Corrosion Inhibitor. The corrosion inhibitor shall be according to one of the following.

- (a) Calcium Nitrite. The corrosion inhibitor shall contain a minimum 30 percent calcium nitrite by weight (mass) of solution, and shall comply with the requirements of AASHTO M 194, Type C (accelerating).
- (b) Other Materials. The corrosion inhibitor shall be according to ASTM C 1582."

CONCRETE GUTTER, TYPE A (BDE)

Effective: January 1, 2009

Revise the first two paragraphs of Article 606.07 of the Standard Specifications to read:

"606.07 Concrete Gutter, Curb, and Curb and Gutter. Joints in concrete gutter, curb, and combination curb and gutter shall be a continuation of the joints in the adjacent portland cement concrete pavement, base course, base course widening, or shoulder. Expansion joints adjacent to drainage castings may be placed in prolongation with other joint types.

When concrete gutter, curb, and combination curb and gutter are constructed adjacent to flexible pavement or shoulders, joints shall be constructed according to the details shown on the plans."

Delete the fourth sentence of the fourth paragraph of Article 606.07 of the Standard Specifications.

CONCRETE JOINT SEALER (BDE)

Effective: January 1, 2009

Add the following to the end of the second paragraph of Article 503.19 of the Standard Specifications:

"After the surface is clean and before applying protective coat, joints being sealed according to Section 588 shall be covered with a masking tape."

Revise Section 588 of the Standard Specifications to read:

"SECTION 588. CONCRETE JOINT SEALER

588.01 Description. This work shall consist of sealing the transverse joint in the bridge roadway slab.

588.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Hot-Poured Joint Sealer	1050.02
(b) Preformed Flexible Foam Expansion Joint Filler	1051.09

CONSTRUCTION REQUIREMENTS

588.03 General. The faces of all joints to be sealed shall be free of foreign matter, curing compound, oils, grease, dirt, free water, and laitance. Concrete joints to be sealed shall be free of cracked or spalled areas. Any cracked areas shall be chipped back to sound concrete before placing joint sealer.

The hot-poured joint sealer shall be placed when the air temperature in the shade is 40 °F (5 °C) or higher, unless approved by the Engineer.

A continuous length of expansion joint filler of the size designated on the plans, shall be placed in the joint opening at the depth below the finished surface of the joint shown on the plans. Hot-poured joint sealer shall be stirred during heating to prevent localized overheating. The sealing material shall be applied to each joint opening according to the details shown on the plans or as directed by the Engineer, without spilling on the exposed concrete surfaces.

All bridge joints shall be filled to 1/4 in. (6 mm) below the finished surface of the joint. This is to be interpreted to mean that the surface of the sealant shall be level and the point of its contact with the sidewalls of the joint shall be 1/4 in. (6 mm) below the finished surface of the joint.

Any sealing compound that is not bonded to the joint wall or face 24 hours after placing shall be removed and the joint shall be cleaned and resealed.

588.04 Basis of Payment. This work will not be paid for as a separate item, but shall be considered as included in the unit price bid for the major item of construction involved."

CONCRETE MIX DESIGNS (BDE)

Effective: April 1, 2009

Add the following to Article 1020.05(c) of the Standard Specifications:

- "(5) Performance Based Finely Divided Mineral Combination. For Class PV and SI concrete a performance based finely divided mineral combination may be used. The minimum cement factor, maximum cement factor, and water cement ratio of Article 1020.04 shall be replaced with the values below, and the performance based finely divided mineral combination herein is an alternative to Articles 1020.05(c)(1), (c)(2), (c)(3), and (c)(4). The mix design shall meet the following requirements and the Engineer may request a trial batch.
 - a. The mixture shall contain a minimum of 375 lbs/cu yd (222 kg/cu m) of portland cement. For a blended cement, a sufficient amount shall be used to obtain the required 375 lbs/cu yd (222 kg/cu m) of portland cement in the mixture. For example, a blended cement stated to have 20 percent finely divided mineral, ignoring any ASTM C 595 tolerance on the 20 percent, would require a minimum of 469 lbs/cu yd (278 kg/cu m) of material in the mixture. When the mixture is designed for cement content from 375 lbs/cu yd (222 kg/cu m) to 400 lbs/cu yd (237 kg/cu m), the total of organic processing additions, inorganic processing additions, and limestone addition in the cement shall not exceed 5.0 percent.
 - b. The mixture shall contain a maximum of two finely divided minerals. The finely divided mineral in a blended cement shall count toward the total number of finely divided minerals allowed. The finely divided mineral(s) shall constitute a maximum of 35.0 percent of the total cement plus finely divided mineral(s). The fly ash portion shall not exceed 30.0 percent for Class C fly ash or 25.0 percent for Class F fly ash. The Class C and F fly ash combination shall not exceed 30.0 percent. The ground granulated blast-furnace slag portion shall not exceed 35.0 percent. The microsilica or high-reactivity metakaolin portion used together or separately shall not exceed 5.0 percent. The finely divided mineral in the blended cement shall apply to the maximum 35.0 percent, and shall be determined as discussed in a. above for determining portland cement in blended cement.
 - c. For central mixed Class PV and SI concrete, the mixture shall contain a minimum of 535 lbs/cu yd (320 kg/cu m) of cement and finely divided mineral(s) summed together, and a water-reducing admixture shall be used. The value shall be 565 lbs/cu yd (335 kg/cu m) without a water-reducing admixture.

For truck mixed or shrink mixed Class PV and SI concrete, the mixture shall contain a minimum of 575 lbs/cu yd (345 kg/cu m) of cement and finely divided mineral(s) summed together, and a water-reducing admixture shall be used. The value shall be 605 lbs/cu yd (360 kg/cu m) without a water-reducing admixture.

- d. The mixture shall contain a maximum of 705 lbs/cu yd (418 kg/cu m) of cement and finely divided mineral(s) summed together.
- e. The mixture shall have a water/cement ratio of 0.32 0.44.
- f. The mixture shall not be used for placement underwater.
- g. The combination of cement and finely divided mineral(s) shall have an ASTM C 1567 expansion value ≤ 0.16 percent, and shall be performed on the aggregate in 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.

If during the two year time period the Contractor needs to replace the portland cement, and the replacement portland cement has an equal or lower total equivalent alkali content (Na₂O + $0.658K_2O$), a new ASTM C 1567 test will not be required. However, replacement of a blended cement with another cement will require a new ASTM C 1567 test."

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010

The reduction of emissions of particulate matter (PM) for off-road equipment shall be accomplished by installing retrofit emission control devices. The term "equipment" refers to diesel fuel powered devices rated at 50 hp and above, to be used on the jobsite in excess of seven calendar days over the course of the construction period on the jobsite (including rental equipment).

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted using the phased in approach shown below. Equipment that is of a model year older than the year given for that equipment's respective horsepower range shall be retrofitted:

Effective Dates	Horsepower Range	Model Year
June 1, 2010 ^{1/}	600-749	2002
	750 and up	2006
June 1, 2011 ^{2/}	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006

June 1, 2012 ^{2/}	50-99	2004
	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006

- 1/ Effective dates apply to Contractor diesel powered off-road equipment assigned to the contract.
- 2/ Effective dates apply to Contractor and subcontractor diesel powered off-road equipment assigned to the contract.

The retrofit emission control devices shall achieve a minimum PM emission reduction of 50 percent and shall be:

- a) Included on the U.S. Environmental Protection Agency (USEPA) Verified Retrofit Technology List (<u>http://www.epa.gov/otaq/retrofit/verif-list.htm</u>), or verified by the California Air Resources Board (CARB) (<u>http://www.arb.ca.gov/diesel/verde/verdev.htm</u>); or
- b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

FAI Route 64 (I-64) Section 82-1-2HB St. Clair County Contract No. 76C49

Revised: July 1, 2009

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

Diesel Retrofit Deficiency Deduction

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected. Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

CONSTRUCTION AIR QUALITY - DIESEL VEHICLE EMISSIONS CONTROL (BDE)

Effective: April 1, 2009

<u>Diesel Vehicle Emissions Control</u>. The reduction of construction air emissions shall be accomplished by using cleaner burning diesel fuel. The term "equipment" refers to any and all diesel fuel powered devices rated at 50 hp and above, to be used on the project site in excess of seven calendar days over the course of the construction period on the project site (including any "rental" equipment).

All equipment on the jobsite, with engine ratings of 50 hp and above, shall be required to: use Ultra Low Sulfur Diesel fuel (ULSD) exclusively (15 ppm sulfur content or less).

Diesel powered equipment in non-compliance will not be allowed to be used on the project site, and is also subject to a notice of non-compliance as outlined below.

The Contractor shall submit copies of monthly summary reports and include certified copies of the ULSD diesel fuel delivery slips for diesel fuel delivered to the jobsite for the reporting time period, noting the quantity of diesel fuel used.

If any diesel powered equipment is found to be in non-compliance with any portion of this specification, the Engineer will issue the Contractor a notice of non-compliance and identify an appropriate period of time, as outlined below under environmental deficiency deduction, in which to bring the equipment into compliance or remove it from the project site.

Any costs associated with bringing any diesel powered equipment into compliance with these diesel vehicle emissions controls shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall also not be grounds for a claim.

<u>Environmental Deficiency Deduction</u>. When the Engineer is notified, or determines that an environmental control deficiency exists, he/she will notify the Contractor in writing, and direct the Contractor to correct the deficiency within a specified time period. The specified time-period, which begins upon Contractor notification, will be from 1/2 hour to 24 hours long, based on the urgency of the situation and the nature of the deficiency. The Engineer shall be the sole judge regarding the time period.

The deficiency will be based on lack of repair, maintenance and diesel vehicle emissions control.

If the Contractor fails to correct the deficiency within the specified time frame, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

If a Contractor or subcontractor accumulates three environmental deficiency deductions in a contract period, the Contractor will be shutdown until the deficiency is corrected. Such a shutdown will not be grounds for any extension of contract time, waiver of penalties, or be grounds for any claim.

CONSTRUCTION AIR QUALITY - IDLING RESTRICTIONS (BDE)

Effective: April 1, 2009

<u>Idling Restrictions</u>. The Contractor shall establish truck-staging areas for all diesel powered vehicles that are waiting to load or unload material at the jobsite. Staging areas shall be located where the diesel emissions from the equipment will have a minimum impact on adjacent sensitive receptors. The Department will review the selection of staging areas, whether within or outside the existing highway right-of-way, to avoid locations near sensitive areas or populations to the extent possible. Sensitive receptors include, but are not limited to, hospitals, schools, residences, motels, hotels, daycare facilities, elderly housing and convalescent facilities. Diesel powered engines shall also be located as far away as possible from fresh air intakes, air conditioners, and windows. The Engineer will approve staging areas before implementation.

Diesel powered vehicle operators may not cause or allow the motor vehicle, when it is not in motion, to idle for more than a total of 10 minutes within any 60 minute period, except under any of the following circumstances:

- 1) The motor vehicle has a gross vehicle weight rating of less than 8000 lb (3630 kg).
- 2) The motor vehicle idles while forced to remain motionless because of on-highway traffic, an official traffic control device or signal, or at the direction of a law enforcement official.
- 3) The motor vehicle idles when operating defrosters, heaters, air conditioners, or other equipment solely to prevent a safety or health emergency.
- 4) A police, fire, ambulance, public safety, other emergency or law enforcement motor vehicle, or any motor vehicle used in an emergency capacity, idles while in an emergency or training mode and not for the convenience of the vehicle operator.
- 5) The primary propulsion engine idles for maintenance, servicing, repairing, or diagnostic purposes if idling is necessary for such activity.

- 6) A motor vehicle idles as part of a government inspection to verify that all equipment is in good working order, provided idling is required as part of the inspection.
- 7) When idling of the motor vehicle is required to operate auxiliary equipment to accomplish the intended use of the vehicle (such as loading, unloading, mixing, or processing cargo; controlling cargo temperature; construction operations, lumbering operations; oil or gas well servicing; or farming operations), provided that this exemption does not apply when the vehicle is idling solely for cabin comfort or to operate non-essential equipment such as air conditioning, heating, microwave ovens, or televisions.
- 8) When the motor vehicle idles due to mechanical difficulties over which the operator has no control.
- 9) The outdoor temperature is less than 32 °F (0 °C) or greater than 80 °F (26 °C).

When the outdoor temperature is greater than or equal to 32 °F (0 °C) or less than or equal to 80 °F (26 °C), a person who operates a motor vehicle operating on diesel fuel shall not cause or allow the motor vehicle to idle for a period greater than 30 minutes in any 60 minute period while waiting to weigh, load, or unload cargo or freight, unless the vehicle is in a line of vehicles that regularly and periodically moves forward.

The above requirements do not prohibit the operation of an auxiliary power unit or generator set as an alternative to idling the main engine of a motor vehicle operating on diesel fuel.

<u>Environmental Deficiency Deduction</u>. When the Engineer is notified, or determines that an environmental control deficiency exists based on non-compliance with the idling restrictions, he/she will notify the Contractor, and direct the Contractor to correct the deficiency.

If the Contractor fails to correct the deficiency a monetary deduction will be imposed. The monetary deduction will be \$1,000.00 for each deficiency identified.

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 (150 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:

<i>xi</i> =	Individual values (core lengths) under consideration
n =	Number of individual values under consideration (10 per lot)
\overline{x} =	Average of the values under consideration
LSL =	Lower Specification Limit (98% of plan thickness)
Q _L =	Lower Quality Index
<i>s</i> =	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:

$$S = \sqrt{\frac{\sum (x_i - \bar{x})^2}{n-1}} \quad \text{where} \qquad \sum (x_i - \bar{x})^2 = (x_1 - \bar{x})^2 + (x_2 - \bar{x})^2 + \dots + (x_{10} - \bar{x})^2$$

Determine Q_L for the lot to the nearest two decimal places using:

$$\mathsf{Q}_{\mathsf{L}} = \frac{\left(\overline{x} - LSL\right)}{S}$$

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:

Payment = (((TPF/100)-1) x CUP) x (TOTPAVT - DEFPAVT)

TPF=Total Pay FactorCUP=Contract Unit PriceTOTPAVT=Area of Pavement Subject to CoringDEFPAVT=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.

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PERCENT WITHIN LIMITS							
Quality Index	Percent Within Limits	Quality Index	Percent Within Limits	Quality Index	Percent Within Limits	Quality Index	Percent Within Limits
(Q _L)*	(PWL)	(Q _L)*	(PWL)	(Q _L)*	(PWL)	(Q _L)*	(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

*For Q_L values less than zero, subtract the table value from 100 to obtain $\ensuremath{\mathsf{PWL}}$

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	PERCEN	T WITHIN	LIMITS (c	ontinued)	
Quality Index (Q _L)*	Percent Within Limits (PWL)	Quality Index (Q _L)*	Percent Within Limits (PWL)	Quality Index (Q _L)*	Percent Within Limits (PWL)
1.60	95.46	2.00	98.83	2.40	99.89
1.61	95.58	2.01	98.88	2.41	99.90
1.62	95.70	2.02	98.92	2.42	99.91
1.63	95.81	2.03	98.97	2.43	99.91
1.64	95.93	2.04	99.01	2.44	99.92
1.65	96.05	2.05	99.06	2.45	99.93
1.66	96.16	2.06	99.10	2.46	99.94
1.67	96.27	2.07	99.14	2.47	99.94
1.68	96.37	2.08	99.18	2.48	99.95
1.69	96.48	2.09	99.22	2.49	99.95
1.70	96.59	2.10	99.26	2.50	99.96
1.71	96.69	2.11	99.29	2.51	99.96
1.72	96.78	2.12	99.32	2.52	99.97
1.73	96.88	2.13	99.36	2.53	99.97
1.74	96.97	2.14	99.39	2.54	99.98
1.75	97.07	2.15	99.42	2.55	99.98
1.76	97.16	2.16	99.45	2.56	99.98
1.77	97.25	2.17	99.48	2.57	99.98
1.78	97.33	2.18	99.50	2.58	99.99
1.79	97.42	2.19	99.53	2.59	99.99
1.80	97.51	2.20	99.56	2.60	99.99
1.81	97.59	2.21	99.58	2.61	99.99
1.82	97.67	2.22	99.61	2.62	99.99
1.83	97.75	2.23	99.63	2.63	100.00
1.84	97.83	2.22	99.66	2.64	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		

*For Q _L values less than zero, subtrac	t the table value from 100 to obtain PWL
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- (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. When 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."

DIGITAL TERRAIN MODELING FOR EARTHWORK CALCULATIONS (BDE)

Effective: April 1, 2007

Revise the first and second paragraphs of Article 202.07(b) of the Standard Specifications to read:

"(b) Measured Quantities. Earth and rock excavation will be measured in cubic yards (cubic meters) in their original positions. The volumes will be computed by the method of average end areas using before and after cross sections; or by the method of digital terrain modeling using before and after total station surveys. The volume of any unstable or unsuitable material removed will be measured for payment in cubic yards (cubic meters).

In rock excavation, the Contractor shall strip ledge rock of overburden so that necessary survey shots for measurement may be taken. Vertical measurements shall extend from the surface of the rock to an elevation not more than 6 in. (150 mm) below the subgrade of the proposed pavement structure, as shown on the plans, or to the bottom of the rock where that point is above the subgrade of the proposed pavement structure. Horizontal measurements shall extend not more than 6 in. (150 mm) beyond the slope lines fixed by the Engineer for the work. Boulders and rocks 1/2 cu yd (0.5 cu m) or more in volume will be measured individually and the volume computed from average dimensions taken in three directions."

Revise the first paragraph of Article 204.07 of the Standard Specifications to read.

"204.07 Method of Measurement. Borrow excavation will be measured in cubic yards (cubic meters) in its original position. The volume will be computed by the method of average end areas using before and after cross sections; or by the method of digital terrain modeling using before and after total station surveys."

Revise the embankment definition of Article 204.07(b) of the Standard Specifications to read:

"Embankment = the volume of fill in its final position computed by the method of average end areas or digital terrain modeling. Both methods will be based upon the existing ground line as shown on the plans, except as noted in (1) and (2) below;"

Revise Article 207.04 of the Standard Specifications to read:

"**207.04 Method of Measurement.** This work will be measured for payment in tons (metric tons) according to Article 311.08(b), or in cubic yards (cubic meters) compacted in place and the volume computed by the method of average end areas or digital terrain modeling by total station measurement."

Revise the second sentence of the second paragraph of Article 211.07(b) of the Standard Specifications to read:

"The volume will be computed by the method of average end areas or digital terrain modeling by total station measurement."

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

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Revised: January 1, 2010
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<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.

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

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

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

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

<u>CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR</u>. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform **20.0%** of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work.

A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

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

<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 this Special Provision is a material bidding requirement. The failure of the bidder to comply will render the bid not responsive.

(a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.

(b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.

(c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:

(1) The names and addresses of DBE firms that will participate in the contract;

(2) A description, including pay item numbers, of the work each DBE will perform;

(3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;

(4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;

(5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,

(6) If the contract goal is not met, evidence of good faith efforts.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document the good faith efforts of the bidder before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan commits sufficient commercially useful DBE work performance to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not commit sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the guality, guantity, and intensity of the kinds of efforts that the bidder has made. Mere pro forma efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

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

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

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

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

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

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.

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

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

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

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

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

(c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery.

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The determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issue of whether an adequate good faith effort was made to meet the contract goal. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

<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 following:

(1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.

- (2) The DBE may also lease trucks from a non-DBE firm, including from an owneroperator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement.
- (e) DBE as a material supplier:
- (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
- (2) 100 percent goal credit for the cost of materials or supplies obtained from a DBE manufacturer.
- (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

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

(a) No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.

(b) The Contractor must notify and obtain written approval from the Department's Bureau of Small Business Enterprises prior to replacing a DBE or making any change in the participation of a DBE. Approval for replacement will be granted only if it is demonstrated that the DBE is unable or unwilling to perform. The Contractor must make every good faith effort to find another certified DBE subcontractor to substitute for the original DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the original DBE, to the extent needed to meet the contract goal.

(c) Any deviation from the DBE condition-of-award or contract specifications must be approved, in writing, by the Department. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract.

(d) In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals.

Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:

- (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
- (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
- (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonably competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.

(e) Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A, must be signed and submitted.

(f) If the commitment of work is in the form of additional tasks assigned to an existing subcontract, than a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

(g) All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the Bureau of Small Business Enterprises to amend the Utilization Plan. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor shall contact the Bureau of Small Business Enterprises and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau of Small Business Enterprises will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.

(h) The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed.

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If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (j) of this part.

(i) The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

(j) Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

DOWEL BARS (BDE)

Effective: April 1, 2007

Revised: January 1, 2008

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

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

ENGINEER'S FIELD OFFICE TYPE A (BDE)

Effective: April 1, 2007

Revised: August 1, 2008

Revise Article 670.02 of the Standard Specifications to read:

"**670.02 Engineer's Field Office Type A.** Type A field offices shall have a minimum ceiling height of 7 ft (2 m) and a minimum floor space 450 sq ft (42 sq m). The office shall be provided with sufficient heat, natural and artificial light, and air conditioning.

The office shall have an electronic security system that will respond to any breach of exterior doors and windows. Doors and windows shall be equipped with locks. Doors shall also be equipped with dead bolt locks or other secondary locking device.

Windows shall be equipped with exterior screens to allow adequate ventilation. All windows shall be equipped with interior shades, curtains, or blinds. Adequate all-weather parking space shall be available to accommodate a minimum of ten vehicles.

Suitable on-site sanitary facilities meeting Federal, State, and local health department requirements shall be provided, maintained clean and in good working condition, and shall be stocked with lavatory and sanitary supplies at all times.

Sanitary facilities shall include hot and cold potable running water, lavatory and toilet as an integral part of the office where available. Solid waste disposal consisting of two waste baskets and an outside trash container of sufficient size to accommodate a weekly provided pick-up service.

In addition, the following furniture and equipment shall be furnished.

- (a) Four desks with minimum working surface 42 x 30 in. (1.1 m x 750 mm) each and five non-folding chairs with upholstered seats and backs.
- (b) One desk with minimum working surface 48 x 72 in. (1.2 x 1.8 m) with height adjustment of 23 to 30 in. (585 to 750 mm).
- (c) One four-post drafting table with minimum top size of 37 1/2 x 48 in. (950 mm x 1.2 m). The top shall be basswood or equivalent and capable of being tilted through an angle of 50 degrees. An adjustable height drafting stool with upholstered seat and back shall also be provided.
- (d) Two free standing four drawer legal size file cabinet with lock and an underwriters' laboratories insulated file device 350 degrees one hour rating.
- (e) One 6 ft (1.8 m) folding table with six folding chairs.
- (f) One equipment cabinet of minimum inside dimension of 44 in. (1100 mm) high x 24 in. (600 mm) wide x 30 in. (750 mm) deep with lock. The walls shall be of steel with a 3/32 in. (2 mm) minimum thickness with concealed hinges and enclosed lock constructed in such a manner as to prevent entry by force. The cabinet assembly shall be permanently attached to a structural element of the field office in a manner to prevent theft of the entire cabinet.
- (g) One refrigerator with a minimum size of 16 cu ft (0.45 cu m) with a freezer unit.
- (h) One electric desk type tape printing calculator.
- (i) A minimum of two communication paths. The configuration shall include:
 - (1) Internet Connection. An internet service connection using telephone DSL, cable broadband, or CDMA wireless technology. Additionally, an 802.11g/N wireless router shall be provided, which will allow connection by the Engineer and up to four Department staff.
 - (2) Telephone Lines. Three separate telephone lines.

- (j) One plain paper copy machine capable of reproducing prints up to 11 x 17 in. (280 x 432 mm) with an automatic feed tray capable of storing 30 sheets of paper. Letter size and 11 x 17 in. (280 x 432 mm) paper shall be provided.
- (k) One plain paper fax machine with paper.
- (I) Two telephones, with touch tone, where available, and a digital telephone answering machine, for exclusive use by the Engineer.
- (m) One electric water cooler dispenser.
- (n) One first-aid cabinet fully equipped.
- (o) One microwave oven, 1 cu ft (0.03 cu m) minimum capacity.
- (p) One fire-proof safe, 0.5 cu ft (0.01 cu m) minimum capacity.
- (q) One electric paper shredder.
- (r) One post mounted rain gauge, located on the project site for each 5 miles (8 km) of project length."

Revise the first sentence of the first paragraph of Article 670.07 of the Standard Specifications to read:

"The building or buildings fully equipped as specified will be paid for on a monthly basis until the building or buildings are released by the Engineer."

Revise the last sentence of the first paragraph of Article 670.07 of the Standard Specifications to read:

"This price shall include all utility costs and shall reflect the salvage value of the building or buildings, equipment, and furniture which become the property of the Contractor after release by the Engineer, except that the Department will pay that portion of the monthly long distance telephone bills that, when combined, exceed \$150."

EQUIPMENT RENTAL RATES (BDE)

Revised: January 2, 2008

Effective: August 2, 2007

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: $0.5 \times (FHWA$ 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."

HMA - HAULING ON PARTIALLY COMPLETED FULL-DEPTH PAVEMENT (BDE) Effective: January 1, 2008

Revise Article 407.08 of the Standard Specifications to read:

"407.08 Hauling on the Partially Completed Full-Depth Pavement. Legally loaded trucks will be permitted on the partially completed full-depth HMA pavement only to deliver HMA mixture to the paver, provided the last lift has cooled a minimum of 12 hours. Hauling shall be limited to the distances shown in the following tables. The pavement surface temperature shall be measured using an infrared gun.

The use of water to cool the pavement to permit hauling will not be allowed. The Contractor's traffic pattern shall minimize hauling on the partially completed pavement and shall vary across the width of the pavement such that "tracking" of vehicles, one directly behind the other, does not occur.

MAXIMUM HAULING DISTANCE FOR PAVEMENT SURFACE TEMPERATURE BELOW 105 °F (40 °C)					
Total In-Place			ft Being Placed	0 0)	
Thickness Being	3 in. (75 m	m) or less	More than 3	in. (75 mm)	
Hauled On,	Modified Soil	Granular	Modified Soil	Granular	
in. (mm)	Subgrade	Subbase	Subgrade	Subbase	
3.0 to 4.0	0.75 miles	1.0 mile	0.50 miles	0.75 miles	
(75 to 100)	(1200 m)	(1600 m)	(800 m)	(1200 m)	
4.1 to 5.0	1.0 mile	1.5 miles	0.75 miles	1.0 mile	
(101 to 125)	(1600 m)	(2400 m)	(1200 m)	(1600 m)	
5.1 to 6.0	2.0 miles	2.5 miles	1.5 miles	2.0 miles	
(126 to 150)	(3200 m)	(4000 m)	(2400 m)	(3200 m)	
6.1 to 8.0	2.5 miles	3.0 miles	2.0 miles	2.5 miles	
(151 to 200)	(4000 m)	(4800 m)	(3200 m)	(4000 m)	
Over 8.0 (200)	No Restrictions				

MAXIMUM HAULING DISTANCE FOR					
PAVEMENT S	SURFACE TEMPE	ERATURE OF 10	05 °F (40 °C) ANE) ABOVE	
Total In-Place		Thickness of Li	ft Being Placed		
Thickness Being	3 in. (75 m	m) or less	More than 3	in. (75 mm)	
Hauled On,	Modified Soil	Granular	Modified Soil	Granular	
in. (mm)	Subgrade	Subbase	Subgrade	Subbase	
3.0 to 4.0	0.50 miles	0.75 miles	0.25 miles	0.50 miles	
(75 to 100)	(800 m)	(1200 m)	(400 m)	(800 m)	
4.1 to 5.0	0.75 miles	1.0 mile	0.50 miles	0.75 miles	
(101 to 125)	(1200 m)	(1600 m)	(800 m)	(1200 m)	
5.1 to 6.0	1.0 mile	1.5 miles	0.75 miles	1.0 mile	
(126 to 150)	(1600 m)	(2400 m)	(1200 m)	(1600 m)	
6.1 to 8.0	2.0 miles	2.5 miles	1.5 miles	2.0 miles	
(151 to 200)	(3200 m) (4000 m) (2400 m) (3200 m)				
Over 8.0 (200)	No Restrictions				

Permissive hauling on the partially completed pavement shall not relieve the Contractor of his/her responsibility for damage to the pavement. Any portion of the full-depth HMA pavement that is damaged by hauling shall be removed and replaced, or otherwise repaired to the satisfaction of the Engineer.

Crossovers used to transfer haul trucks from one roadway to the other shall be at least 1000 ft (300 m) apart and shall be constructed of material that will prevent tracking of dust or mud on the completed HMA lifts. The Contractor shall construct, maintain, and remove all crossovers."

HOT-MIX ASPHALT – ANTI-STRIPPING ADDITIVE (BDE)

Effective: November 1, 2009

Revise the first and second paragraphs of Article 1030.04(c) of the Standard Specifications to read:

"(c) Determination of Need for Anti-Stripping Additive. The mixture designer shall determine if an additive is needed in the mix to prevent stripping. The determination will be made on the basis of tests performed according to Illinois Modified AASHTO T 283. To be considered acceptable by the Department as a mixture not susceptible to stripping, the conditioned to unconditioned split tensile strength ratio (TSR) shall be equal to or greater than 0.85 for 6 in. (150 mm) specimens. Mixtures, either with or without an additive, with TSRs less than 0.85 for 6 in. (150 mm) specimens will be considered unacceptable. Also, the conditioned tensile strength for mixtures containing an anti-strip additive shall not be lower than the original conditioned tensile strength determined for the same mixture without the anti-strip additive.

If it is determined that an additive is required, the additive may be hydrated lime, slaked quicklime, or a liquid additive, at the Contractor's option."

HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE) Effective: January 1, 2010

<u>Description</u>. This work shall consist of testing the density of longitudinal joints as part of the quality control/quality assurance (QC/QA) of hot-mix asphalt (HMA). Work shall be according to Section 1030 of the Standard Specifications except as follows.

<u>Quality Control/Quality Assurance (QC/QA)</u>. Delete the second and third sentence of the third paragraph of Article 1030.05(d)(3) of the Standard Specifications.

Add the following paragraphs to the end of Article 1030.05(d)(3) of the Standard Specifications:

"Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 2 in. (50 mm), from each pavement edge. (i.e. for a 4 in. (100 mm) lift the near edge of the density gauge or core barrel shall be within 4 in. (100 mm) from the edge of pavement.) Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

- a. Confined Edge. Each confined edge density shall be represented by a oneminute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.
- b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced ten feet apart longitudinally along the unconfined pavement edge and centered at the random density test location."

Revise the Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

"Mixture Composition	Parameter	Individual Test (includes confined edges)	Unconfined Edge Joint Density Minimum
IL-9.5, IL-12.5	Ndesign ≥ 90	92.0 - 96.0%	90.0%
IL-9.5,IL-9.5L, IL-12.5	Ndesign < 90	92.5 - 97.4%	90.0%
IL-19.0, IL-25.0	Ndesign ≥ 90	93.0 - 96.0%	90.0%
IL-19.0, IL-19.0L, IL-25.0	Ndesign < 90	93.0 - 97.4%	90.0%
SMA	Ndesign = 50 & 80	93.5 - 97.4%	91.0%
All Other	Ndesign = 30	93.0 - 97.4%	90.0%"

HOT-MIX ASPHALT – DROP-OFFS (BDE)

Effective: January 1, 2010

Revise the third paragraph of Article 701.07 of the Standard Specifications to read:

"At locations where construction operations result in a differential in elevation exceeding 3 in. (75 mm) between the edge of pavement or edge of shoulder within 3 ft (900 mm) of the edge of the pavement and the earth or aggregate shoulders, Type I or II barricades or vertical panels shall be placed at 100 ft (30 m) centers on roadways where the posted speed limit is 45 mph or greater and at 50 ft (15 m) centers on roadways where the posted speed limit is less than 45 mph."

HOT-MIX ASPHALT - FINE AGGREGATE (BDE)

Effective: April 1, 2010

Add the following to the gradation tables of Article 1003.01(c) of the Standard Specifications:

"FINE AGGREGATE GRADATIONS						
Grad No.	Sieve Size and Percent Passing					
Glau No.	3/8 No. 4 No. 8 No. 16 No. 200					
FA 22	100 6/ 6/ 8±8 2±2					

FINE AGGREGATE GRADATIONS (Metric)						
Grad No.	Sieve Size and Percent Passing					
Giau No.	9.5 mm 4.75 mm 2.36 mm 1.18 mm 75					
FA 22	100 6/ 6/ 8±8 2±2					

6/ For the fine aggregate gradation FA 22, the aggregate producer shall set the midpoint percent passing, and the Department will apply a range of ± ten percent. The midpoint shall not be changed without Department approval."

Revise Article 1003.03(a) of the Standard Specifications to read:

"(a) Description. Fine aggregate for HMA shall consist of sand, stone sand, chats, slag sand, or steel slag sand. For gradation FA 22, uncrushed material will not be permitted."

Revise Article 1003.03(c) of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradation for all HMA shall be FA 1, FA 2, FA 20, FA 21, or FA 22.

Gradation FA 1, FA 2, or FA 3 shall be used when required for prime coat aggregate application for HMA."

HOT-MIX ASPHALT – PLANT TEST FREQUENCY (BDE)

Effective: April 1, 2008

Revised: January 1, 2010

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

"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
Aggregate Gradation % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 μm) No. 200 (75 μm) Note 1.	1 washed ignition oven test on the mix per half day of production Note 4.	1 washed ignition oven test on the mix per day of production Note 4.	Illinois Procedure
Asphalt Binder Content by Ignition Oven Note 2.	1 per half day of production	1 per day	Illinois-Modified AASHTO T 308
VMA Note 3.	Day's production ≥ 1200 tons: 1 per half day of production	N/A	Illinois Modified AASHTO R 35
	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)		

Air Voids	Day's production ≥ 1200 tons:		
Bulk Specific Gravity	1 per half day of production	1 per day	Illinois-Modified AASHTO T 312
of Gyratory Sample	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)		
MaximumSpecificGravity of Mixture1 per half day of production		1 per day	Illinois-Modified AASHTO T 209
	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 1. The No. 8 (2.36 mm) and No. 30 (600 $\mu\text{m})$ sieves are not required for All Other Mixtures.

Note 2. The Engineer may waive the ignition oven requirement for asphalt binder content if the aggregates to be used are known to have ignition asphalt binder content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the asphalt binder content.

Note 3. The G_{sb} used in the voids in the mineral aggregate (VMA) calculation shall be the same average G_{sb} value listed in the mix design.

Note 4. The Engineer reserves the right to require additional hot bin gradations for batch plants if control problems are evident."

HOT-MIX ASPHALT – QC/QA ACCEPTANCE CRITERIA (BDE)

Effective: January 1, 2010

Revise Article 1030.05(f)(3) of the Standard Specifications to read:

"(3) Department assurance tests for voids, field VMA, and density."

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.

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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."

IMPACT ATTENUATORS, TEMPORARY (BDE)

Effective: November 1, 2003

Revised: January 1, 2007

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

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

Item	Article/Section
(a) Fine Aggregate (Note 1)	003.01
(b) Steel Posts, Structural Shapes, and Plates	1006.04
(c) Rail Elements, End Section Plates, and Splice Plates	1006.25
(d) Bolts, Nuts, Washers and Hardware	1006.25
(e) Hollow Structural Tubing	1006.27(b)
(f) Wood Posts and Wood Blockouts	1007.01, 1007.02, 1007.06
(g) Preservative Treatment	1007.12
(h) Packaged Rapid Hardening Mortar	1018.01

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

CONSTRUCTION REQUIREMENTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

IMPROVED SUBGRADE (BDE)

Effective: January 1, 2010

Revise the second paragraph of Article 302.04 of the Standard Specifications to read:

"The quantity of modified soil constructed shall be limited to that which can be covered by the full thickness of portland cement concrete pavement or HMA binder during the same construction season."

Revise the first paragraph of Article 302.07 of the Standard Specifications to read:

"**302.07 Application of Modifier.** The modifier shall be applied uniformly on the soil. The application of modifier shall be limited to that amount which can be mixed with the soil within the same working day."

Revise the first paragraph of Article 302.08 of the Standard Specifications to read:

"**302.08 Mixing.** The modifier, soil, and water shall be thoroughly mixed. Mixing shall continue until a homogenous layer of the required thickness has been obtained and a minimum of 75 percent of the mixture is smaller than 1 in. (25 mm). The moisture content of the modified soil shall be above optimum moisture content with a maximum of three percent above optimum."

Revise Article 302.10 of the Standard Specifications to read:

" **302.10** Finishing and Curing. When multiple lifts are used to construct the modified soil layer, the top lift shall be a minimum of 6 in. (150 mm) thick when compacted.

Construction of pipe underdrains shall follow the requirements of Article 407.07. The surface of the modified soil shall be kept drained according to Article 301.09 and shall maintain moisture content not exceeding three percent above optimum prior to pavement construction.

When compaction of the modified soil is nearing completion, the surface shall be shaped to the required lines, grades, and cross section shown on the plans. For HMA base course and pavement (full-depth) and portland cement concrete base course and pavement, the surface of the modified soil shall be brought to true shape and correct elevation according to Article 301.07, except well compacted earth shall not be used to fill low areas.

The modified soil shall be cured for a minimum of 24 hours. The ambient air temperature shall be above 45 °F (7 °C) during curing.

During the curing period, the moisture content of the modified soil shall be maintained at optimum by sprinkling with water, use of plastic sheeting, or applying bituminous materials according to Article 312.14. During this period, no equipment or traffic will be permitted on the completed work beyond that required for maintenance of curing.

Equipment of such weight, or used in such a way as to cause a rut depth of 1/2 in. (13 mm) or more in the finished modified soil, shall be removed, or the rutting otherwise prevented, as directed by the Engineer."

Revise the first paragraph of Article 302.11 of the Standard Specifications to read:

"**302.11 Subgrade Stability.** Following curing, the Engineer will determine the stability of the modified soil in terms of the immediate bearing value (IBV), according to Illinois Test Procedure 501. The IBV shall be a minimum of 10.0 measured within 10 calendar days prior to pavement construction."

Revise the second paragraph of Article 310.04 of the Standard Specifications to read:

"The quantity of lime stabilized soil mixture constructed shall be limited to that which can be covered by the full thickness of portland cement concrete pavement or HMA binder during the same construction season."

Revise the first paragraph of Article 310.08(a) of the Standard Specifications to read:

"(a) Initial Mixing. The lime, soil, and water shall be thoroughly mixed until a uniform mixture throughout the required depth and width is obtained. All clods and lumps shall be reduced to a maximum size of 2 in. (50 mm). The moisture content of the stabilized soil shall be above optimum moisture content with a maximum of three percent above optimum."

Insert the following paragraph after the first paragraph of Article 310.10 of the Standard Specifications:

"Construction of pipe underdrains shall follow the requirements of Article 407.07. The surface of the lime stabilized soil shall be kept drained according to Article 301.09 and shall maintain a maximum moisture content of three percent above optimum prior to pavement construction."

Revise the first paragraph of Article 310.11 of the Standard Specifications to read:

"**310.11 Subgrade Stability.** Following curing, the Engineer will determine the stability of the lime stabilized soil mixture in terms of the immediate bearing value (IBV) according to Illinois Test Procedure 501. The IBV shall be a minimum of 23.0 measured within 10 calendar days prior to pavement construction."

Revise the second paragraph of Article 311.05 of the Standard Specifications to read:

"The granular material shall be placed and compacted at least three days prior to the placement of pavement or base course. Except where required for temporary access, the quantity of subbase granular material Types A or B to be placed shall be limited to that which can be covered by the full thickness of PCC pavement or HMA binder during the same construction season."

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				
From More Than	To and Including	Calendar Day	Work Day	
\$ 0 \$ 100,000 \$ 375 \$ 100,000 500,000 625 \$				

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 4th 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:

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, 2009

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 portion of a calendar day until the deficiency is corrected to the satisfaction of the Engineer. The calendar day(s) will begin with notification to the Contractor and end with the Engineer's acceptance of the correction. The base value of the daily monetary deduction is \$1000.00 and will be applied to each location for which a deficiency exists. The value of the deficiency deduction assessed for each infraction will be determined by multiplying the base value by a Gravity Adjustment Factor provided in Table A. Except for failure to participate in a required jobsite inspection of the project prior to initiating earthmoving operations which will be based on the total acreage of planned disturbance at the following multipliers: <5 Acres: 1; 5-10 Acres: 2; >10-25 Acres: 3; >25 Acres: 5. For those deficiencies where corrective action was not an option, the monetary deduction will be immediate and will be valued at one calendar day multiplied by a Gravity Adjustment Factor.

Table A				
Deficiency Deduction	n Gravity A	djustment F	actors	
Types of Violations	Soil Dist	urbed an	d Not P	ermanently
	Stabilized	At Time of	Violation	
	< 5	5 - 10	>10 - 25	> 25
	Acres	Acres	Acres	Acres
Failure to Install or Properly	0.1 - 0.5	0.2 - 1.0	0.5 - 2.5	1.0 - 5
Maintain BMP				
Careless Destruction of BMP	0.2 - 1	0.5 - 2.5	1.0 - 5.	1.0 - 5
Intrusion into Protected Resource	1.0 - 5	1.0 - 5	2.0 - 10	2.0 - 10
Failure to properly manage	0.2 - 1	0.2 - 1	0.5 - 2.5	1.0 - 5
Chemicals, Concrete Washouts or				
Residuals, Litter or other Wastes				
Improper Vehicle and Equipment	0.1 - 0.5	0.2 - 1	0.2 - 1	0.5 - 2.5
Maintenance, Fueling or Cleaning				
Failure to Provide or Update	0.2 - 1	0.5 - 2.5	1.0 - 5	1.0 - 5
Written or Graphic Plans Required				
by SWPPP				
Failure to comply with Other	0.1 - 0.5	0.2 - 1	0.2 - 1	0.5 - 2.5"
Provisions of the NPDES Permit				

NIGHTTIME WORK ZONE LIGHTING (BDE)

Effective: November 1, 2008

<u>Description</u>. This work shall consist of furnishing, installing, maintaining, moving, and removing lighting for nighttime work zones. Nighttime shall be defined as occurring shortly before sunset until after sunrise.

<u>Materials</u>. The lighting shall consist of mobile and/or stationary lighting systems as required herein for the specific type of construction. Mobile lighting systems shall consist of luminaires attached to construction equipment or moveable carts. Stationary lighting systems shall consist of roadway luminaires mounted on temporary poles or trailer mounted light towers at fixed locations. Some lighting systems, such as balloon lights, may be adapted to both mobile and stationary applications.

<u>Equipment</u>. The Contractor shall furnish an illuminance meter for use by the Engineer. The meter shall have a digital display calibrated to NIST standards, shall be cosine and color corrected, and shall have an accuracy of \pm five percent. The sensor shall have a level indicator to ensure measurements are taken in a horizontal plane.

CONSTRUCTION REQUIREMENTS

<u>General</u>. At the preconstruction conference, the Contractor shall submit the type(s) of lighting system to be used and the locations of all devices.

Before nighttime construction may begin, the lighting system shall be demonstrated as being operational.

<u>Nighttime Flagging</u>. The requirements for nighttime flagging shall be according to Article 701.13 of the Standard Specifications and the glare control requirements contained herein.

Lighting System Design. The lighting system shall be designed to meet the following.

(a) Lighting Levels. The lighting system shall provide a minimum of 5 foot candles (54 lux) throughout the work area. For mobile operations, the work area shall be defined as 25 ft (9 m) in front of and behind moving equipment. For stationary operations, the work area shall be defined as the entire area where work is being performed.

Lighting levels will be measured with an illuminance meter. Readings will be taken in a horizontal plane 3 ft (1 m) above the pavement or ground surface.

(b) Glare Control. The lighting system shall be designed and operated so as to avoid glare that interferes with traffic, workers, or inspection personnel. Lighting systems with flood, spot, or stadium type luminaires shall be aimed downward at the work and rotated outward no greater than 30 degrees from nadir (straight down). Balloon lights shall be positioned at least 12 ft (3.6 m) above the roadway.

As a large component of glare, the headlights of construction vehicles and equipment shall not be operated within the work zone except as allowed for specific construction operations. Headlights shall never be used when facing oncoming traffic.

(c) Light Trespass. The lighting system shall be designed to effectively light the work area without spilling over to adjoining property. When, in the opinion of the Engineer, the lighting is disturbing adjoining property, the Contractor shall modify the lighting arrangement or add hardware to shield the light trespass.

<u>Construction Operations</u>. The lighting design required above shall be provided at any location where construction equipment is operating or workers are present on foot. When multiple operations are being carried on simultaneously, lighting shall be provided at each separate work area.

The lighting requirements for specific construction operations shall be as follows.

- (a) Installation or Removal of Work Zone Traffic Control. The required lighting level shall be provided at each truck and piece of equipment used during the installation or removal of work zone traffic control. Headlights may be operated in the work zone.
- (b) Milling and Paving. The required lighting level shall be provided by mounting a minimum of one balloon light to each piece of mobile construction equipment used in the work zone. This would include milling machines, mechanical sweepers, material transfer devices, spreading and finishing machines, and rollers; but not include trucks used to transport materials and personnel or other vehicles that are continuously moving in and out of the work zone. The headlights of construction equipment shall not be operated within the work zone.
- (c) Patching. The required lighting level shall be provided at each patching location where work is being performed.

(d) Pavement Marking and Raised Reflective Pavement Marker Removal/Installation. The striping truck and the attenuator/arrow board trucks may by operated by headlights alone; however, additional lighting may be necessary for the operator of the striping truck to perform the work.

For raised reflective pavement marker removal and installation and other pavement marking operations where workers are on foot, the required lighting level shall be provided at each truck and piece of equipment.

(e) Layout, Testing, and Inspection. The required lighting level shall be provided for each active area of construction layout, material testing, and inspection. The work area shall be defined as 15 ft (7.6 m) in front and back of the individual(s) performing the tasks.

Basis of Payment. This work will be paid for at the contract lump sum price for NIGHTTIME WORK ZONE LIGHTING.

NOTIFICATION OF REDUCED WIDTH (BDE)

Effective: April 1, 2007

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

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

PARTIAL EXIT RAMP CLOSURE FOR FREEWAY/EXPRESSWAY (BDE)

Effective: January 1, 2009

Description. This work shall consist of furnishing and installing traffic control for the partial closure of exit ramps on a freeway/expressway. Work shall be according to Section 701 except as modified herein.

Add the following after the fourth paragraph of Article 701.07 of the Standard Specifications:

"Drop-offs at the edge of pavement greater than 1 1/2 in. (40 mm) caused by the Contractor's operations will be allowed only on one side of the ramp at a time."

Delete the third paragraph of Article 701.17(e)(1) of the Standard Specifications.

Delete the third paragraph of Article 701.18(e)(3) of the Standard Specifications.

Revise the first sentence of Article 701.19(c) of the Standard Specifications to read:

"Traffic control and protection required under Standards 701201, 701206, 701306, 701326, 701336, 701406, 701421, 701456, 701501, 701502, 701601, 701602, 701606, 701701 and 701801 will be measured for payment on a lump sum basis."

Add the following to the first paragraph of Article 701.20(b) of the Standard Specifications:

"TRAFFIC CONTROL AND PROTECTION STANDARD 701456;"

PAVEMENT MARKING REMOVAL (BDE)

Effective: April 1, 2009

Add the following to the end of the first paragraph of Article 783.03(a) of the Standard Specifications:

"The use of grinders will not be allowed on new surface courses."

PAVEMENT PATCHING (BDE)

Effective: January 1, 2010

Revise the first sentence of the second paragraph of Article 701.17(e)(1) of the Standard Specifications to read:

"In addition to the traffic control and protection shown elsewhere in the contract for pavement, two devices shall be placed immediately in front of each open patch, open hole, and broken pavement where temporary concrete barriers are not used to separate traffic from the work area."

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.

FAI Route 64 (I-64) Section 82-1-2HB St. Clair County Contract No. 76C49

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.

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."

POST CLIPS FOR EXTRUDED ALUMINUM SIGNS (BDE)

Effective: January 1, 2009

Revise the sixth paragraph of Article 1090.03 of the Standard Specifications to read:

"Stainless steel post clips shall be according to ASTM A 276, Type 304. In place of stainless steel post clips the manufacturer may substitute aluminum post clips according to ASTM B 108, 356-T6. A flat washer shall be used under each nut to prevent gouging of the clip."

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)"

PRISMATIC CURB REFLECTORS (BDE)

Effective: November 1, 2008

Add the following paragraph to the end of Article 782.03 of the Standard Specifications:

"The installed height of the prismatic curb reflectors shall be a maximum of 3/4 in. (19 mm) above the mounting surface. The unit shall have one reflective surface that is placed approximately perpendicular to the mounting surface."

Add the following Article to Section 1097 of the Standard Specifications:

"**1097.04 Prismatic Curb Reflectors.** The unit shall provide a reflective area between 1 1/2 sq in. (960 sq mm) and 2 sq in. (1290 sq mm). The base of the marker shall be designed for adhesive mounting.

The unit shall support an 800 lb (360 kg) load. This shall be determined by placing the unit on a flat plate and slowly applying the load by means of another plate evenly to the entire top flat surface of the unit. Breakage or significant deformation of the unit shall constitute failure.

The coefficient of luminous intensity of each reflector shall be equal to or exceed the following minimum values regardless of reflector orientation.

Divergence	Entrance	Inter	nsity
Angle	Angle	Candle Power p	per Foot Candle
Degrees	Degrees	(candelas/lux)	
		Crystal	Amber
0.2°	0°	14 (1.3)	11 (1.0)
0.2°	+5° *	14 (1.3)	11 (1.0)
0.2°	+10° *	9 (0.8)	7 (0.7)
0.2°	+20° *	5 (0.5)	7 (0.4)

* Traffic side"

RAILROAD PROTECTIVE LIABILITY INSURANCE (5 AND 10) (BDE)

Effective: January 1, 2006

<u>Description</u>. Railroad Protective Liability and Property Damage Liability Insurance shall be carried according to Article 107.11 of the Standard Specifications, except the limits shall be a minimum of \$5,000,000 combined single limit per occurrence for bodily injury liability and property damage liability with an aggregate limit of \$10,000,000 over the life of the policy. A separate policy is required for each railroad unless otherwise noted.

NAMED INSURED & ADDRESS	NUMBER & SPEED OF PASSENGER TRAINS	NUMBER & SPEED OF FREIGHT TRAINS
Metro-Link 707 North First Street St. Louis, MO 63102 2595	300 per day @ 45 mph	No freight trains
DOT/AAR No.: 917326C RR Division: N/A	RR Mile Post: 18.45 RR Sub-Division: St. Cl	air
For Freight/Passenger Information Cont	act: Gerald Wittenauer Pho	one: 314/982-1400 ext 1671

For Freight/Passenger Information Contact: Gerald WittenauerPhone: 314/982-1400 ext 1671For Insurance Information Contact: Gerald WittenauerPhone: 314/982-1400 ext 1671

<u>Approval of Insurance</u>. The original and one certified copy of each required policy shall be submitted to the following address for approval:

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

The Contractor will be advised when the Department has received approval of the insurance from the railroad(s). Before any work begins on railroad right-of-way, the Contractor shall submit to the Engineer evidence that the required insurance has been approved by the railroad(s). The Contractor shall also provide the Engineer with the expiration date of each required policy.

<u>Basis of Payment</u>. Providing Railroad Protective Liability and Property Damage Liability Insurance will be paid for at the contract unit price per Lump Sum for RAILROAD PROTECTIVE LIABILITY INSURANCE.

RAISED REFLECTIVE PAVEMENT MARKERS (BDE)

Effective: November 1, 2009

Revised: April 1, 2010

Revise the first sentence of the second paragraph of Article 781.03(a) of the Standard Specifications to read:

"The pavement shall be cut to match the bottom contour of the marker using a concrete saw fitted with 18 and 20 in. (450 and 500 mm) diameter blades."

RAMP CLOSURE FOR FREEWAY/EXPRESSWAY (BDE)

Effective: January 1, 2009

Description. This work shall consist of furnishing and installing traffic control for the closure of ramps on a freeway/expressway. Work shall be according to Section 701 except as modified herein.

Delete the third paragraph of Article 701.17(e)(1) of the Standard Specifications.

Add the following to Article 701.18 of the Standard Specifications:

"(k) Standard 701451. Only one interchange at a time may have ramps closed and only one exit ramp and one entrance ramp may be closed at a time.

The Contractor shall furnish a portable changeable message sign to be placed on the mainline in advance of the ramp closure. The exact placement and display shall be as shown in the plans or as directed by the Engineer."

Revise the first sentence of Article 701.19(c) of the Standard Specifications to read:

"Traffic control and protection required under Standards 701201, 701206, 701306, 701326, 701336, 701406, 701421, 701451, 701501, 701502, 701601, 701602, 701606, 701701 and 701801 will be measured for payment on a lump sum basis."

Add the following to the first paragraph of Article 701.20(b) of the Standard Specifications:

"TRAFFIC CONTROL AND PROTECTION STANDARD 701451;"

RECLAIMED ASPHALT PAVEMENT (RAP) (BDE)

Effective: January 1, 2007

Revised: January 1, 2010

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) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be fractionated prior to testing by screening into a minimum of two size fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP in the coarse fraction shall pass one sieve size larger than the maximum sieve size specified for the mix the RAP will be used in.
- (b) 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.
- (c) 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.
- (d) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, Superpave (High or Low ESAL), HMA (High or Low ESAL), or equivalent mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(e) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP/FRAP 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/FRAP 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/FRAP 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	FRAP/Homogeneous /Conglomerate	Conglomerate "D" Quality
1 in. (25 mm)		± 5 %
1/2 in. (12.5 mm)	±8%	± 15 %
No. 4 (4.75 mm)	±6 %	± 13 %
No. 8 (2.36 mm)	± 5 %	
No. 16 (1.18 mm)		± 15 %
No. 30 (600 μm)	± 5 %	
No. 200 (75 μm)	± 2.0 %	\pm 4.0 %
Asphalt Binder	\pm 0.4 % $^{1/}$	\pm 0.5 %
G _{mm}	± 0.03	

1/ The tolerance for 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/FRAP shall not be used in HMA unless the RAP/FRAP 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/FRAP.

- (a) The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.
 - (1) RAP from Class I, Superpave (High ESAL)/HMA (High ESAL), or HMA (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
 - (2) RAP from Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
 - (3) 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.
 - (4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.
- (b) The aggregate quality of FRAP shall be determined as follows.

Fractionated stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5000 tons (4500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications."

1031.05 Use of RAP/FRAP in HMA. The use of RAP/FRAP shall be a Contractor's option when constructing HMA in all contracts. The use of RAP/FRAP 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/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be FRAP or 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/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.
- (e) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, 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.

HMA Mixtures ^{1/, 3/}	Maximum % RAP		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	30	30	10
50	25	15	10
70	15 / 25 ^{2/}	10 / 15 ^{2/}	10
90	10	10	10
105	10	10	10

Max RAP Percentage

- 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:

Overlays:

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.

HMA Mixtures ^{1/, 2/}	Maximum % FRAP		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	35	35	10
50	30	25	10
70	25	20	10
90	20	15	10
105	10	10	10

Max FRAP Percentage

- 1/ For HMA shoulder and stabilized subbase (HMA) N30, the amount of FRAP shall not exceed 50 percent of the mixture.
- 2/ When FRAP exceeds 20 percent, the high and low virgin asphalt binder grades shall each 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 PG58-28). 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/FRAP material meeting the above detailed requirements.

RAP/FRAP designs shall be submitted for volumetric verification. If additional RAP/FRAP 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/FRAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP/FRAP 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, gator, 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/FRAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP/FRAP and either switch to the virgin aggregate design or submit a new RAP/FRAP design.

HMA plants utilizing RAP/FRAP 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/FRAP 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/FRAP material as a percent of the total mix to the nearest 0.1 percent.
 - (8) Aggregate and RAP/FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP/FRAP 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/FRAP weight to the nearest pound (kilogram).
- (6) Virgin asphalt binder weight to the nearest pound (kilogram).
- (7) Residual asphalt binder in the RAP/FRAP 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 "Non-Quality" and "FRAP". 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.)	(deg.)	White	Orange	Orange		
0.2	-4	365	160	150		
0.2	+30	175	80	70		
0.5	-4	245	100	95		
0.5	+30	100	50	40"		

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

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

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

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

REINFORCEMENT BARS - 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."

SEEDING (BDE)

Effective: July 1, 2004

Revised: January 1, 2010

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)		
1A	Salt Tolerant	Bluegrass	60 (70)		
	Lawn Mixture 7/	Perennial Ryegrass	20 (20)		
		Red Fescue	20 (20)		
		(Audubon, Sea Link, or Epic)			
		Hard Fescue	20 (20)		
		(Rescue 911, Spartan II, or Reliant IV)	60 (70)		
2	Roadside Mixture 7/	Fults Salt Grass 1/ or Salty Alkaligrass Tall Fescue	60 (70)		
2	Roadside Mixture //	(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	Tall Fescue	60 (70)		
21 \	Roadside Mixture 7/	(Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV)	00 (10)		
		Perennial Ryegrass	20 (20)		
		Red Fescue	30 (20)		
		(Audubon, Sea Link, or Epic)	()		
		Hard Fescue	30 (20)		
		(Rescue 911, Spartan II, or Reliant IV)	~ /		
		Fults Salt Grass 1/ or Salty Alkaligrass	60 (70)		
3	Northern Illinois	Elymus Canadensis	5 (5)		
	Slope Mixture 7/	(Canada Wild Rye)			
		Perennial Ryegrass	20 (20)		
		Alsike Cover 2/	5 (5)		
		Desmanthus Illinoensis	2 (2)		
		(Illinois Bundleflower) 2/, 5/	10 (10)		
		Andropogon Scoparius (Little Bluestem) 5/	12 (12)		
		Bouteloua Curtipendula	10 (10)		
		(Side-Oats Grama)	10 (10)		
		Fults Salt Grass 1/ or Salty Alkaligrass	30 (35)		
		Oats, Spring	50 (55)		
		Slender Wheat Grass 5/	15 (15)		
		Buffalo Grass (Cody or Bowie) 4/, 5/, 9/	5 (5)		
6A	Salt Tolerant	Andropogon Scoparius	5 (5)		
	Conservation	(Little Bluestem) 5/			
	Mixture	Elymus Canadensis	2 (2)		
		(Canada Wild Rye) 5/	_ /=>		
		Buffalo Grass (Cody or Bowie) 4/, 5/, 9/	5 (5)		
		Vernal Alfalfa 2/	15 (15)		
		Oats, Spring	48 (55)		
		Fults Salt Grass 1/ or Salty Alkaligrass	20 (20)"		

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 the first paragraph of Article 1081.04(a) of the Standard Specifications to read:

"(a) Sampling and Testing. Each lot of seed furnished shall be tested by a State Agriculture Department (including other States) or by land grant college or university agricultural sections or by a Registered Seed Technologist. Testing of seed shall be accomplished within the 12 months prior to the seed being installed on the project."

Delete the last sentence of the first paragraph of Article 1081.04(c)(2) of the Standard Specifications.

		TA	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)	-
Salty Alkaligrass	0	98	85	0.10	2 (70)	-
Kentucky Bluegrass	-	97	80	0.30	7 (247)	4/
Oats	-	92	88	0.50	2 (70)	3/
Redtop	-	90	78	1.80	5 (175)	3/
Ryegrass, Perennial, Annual	-	97	85	0.30	5 (175)	3/
Rye, Grain, Winter	-	92	83	0.50	2 (70)	3/
Hard Fescue, Reliant IV	-	98	83	0.05	1 (35)	-
Hard Fescue, Rescue 911	0	97	82	0.10	3 (105)	-
Hard Fescue, Spartan II	-	98	83	0.10	3 (105)	-
Timothy	-	92	84	0.50	5 (175)	3/
Wheat, hard Red Winter	-	92	89	0.50	2 (70)	3/"

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

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."

SELF-CONSOLIDATING CONCRETE FOR CAST-IN-PLACE CONSTRUCTION (BDE)

Effective: November 1, 2005 Revised: January 1, 2009

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

<u>Usage</u>. Self-consolidating concrete may be used for cast-in-place concrete construction items involving Class MS, DS, and SI concrete.

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

<u>Mix Design Criteria</u>. Article 1020.04 of the Standard Specifications shall apply, except as follows:

- (a) The 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). The cement factor shall not be reduced if a water-reducing, retarding, or high range water-reducing admixture is used.
- (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 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>Test Methods</u>. Illinois Test Procedures SCC-1, SCC-2, SCC-3, SCC-4, SCC-5, SCC-6, and Illinois Modified AASHTO T 22, 23, 121, 126, 141, 152, 177, 196, and 309 shall be used for testing of self-consolidating concrete mixtures.

<u>Mix Design Submittal</u>. The Contractor's Level III PCC Technician shall submit a mix design according to the "Portland Cement Concrete Level III Technician" course manual, except target slump information is not applicable and will not be required. However, a slump flow target range shall be submitted. In addition, the design mortar factor may exceed 1.10 and durability test data will be waived.

A J-ring value shall be submitted if a lower mix design maximum will apply. An L-box blocking ratio shall be submitted if a higher mix design minimum will apply. The Contractor shall also indicate applicable construction items for the mix design.

Trial mixture information will be required by the Engineer. A trial mixture is a batch of concrete tested by the Contractor to verify the Contractor's mix design will meet specification requirements. Trial mixture information shall include test results as specified in the "Portland Cement Concrete Level III Technician" course manual. Test results shall also include slump flow, visual stability index, J-ring value, L-box blocking ratio, column segregation index, and hardened visual stability index. For the trial mixture, the slump flow shall be near the midpoint of the proposed slump flow target range.

<u>Trial Batch</u>. A minimum 2 cu yd (1.5 cu m) trial batch shall be produced, and the selfconsolidating concrete admixture dosage proposed by the Contractor shall be used. The slump flow shall be within 1.0 in. (25 mm) of the maximum slump flow range specified by the Contractor, and the air content shall be within the top half of the allowable specification range.

The trial batch shall be scheduled a minimum of 21 calendar days prior to anticipated use and shall be performed in the presence of the Engineer.

The Contractor shall provide the labor, equipment, and materials to test the concrete. The mixture will be evaluated by the Engineer for strength, air content, slump flow, visual stability index, J-ring value, L-box blocking ratio, column segregation index, and hardened visual stability index.

Upon review of the test data from the trial batch, the Engineer will verify or deny the use of the mix design and notify the Contractor. Verification by the Engineer will include the Contractor's target slump flow range. If applicable, the Engineer will verify the Contractor's maximum J-ring value and minimum L-box blocking ratio.

A new trial batch will be required whenever there is a change in the source of any component material, proportions beyond normal field adjustments, dosage of the self-consolidating concrete admixture, batch sequence, mixing speed, mixing time, or as determined by the Engineer. The testing criteria for the new trial batch will be determined by the Engineer.

When necessary, the trial batches shall be disposed of according to Article 202.03 of the Standard Specifications.

<u>Mixing Portland Cement Concrete</u>. In addition to Article 1020.11 of the Standard Specifications, the mixing time for central-mixed concrete shall not be reduced as a result of a mixer performance test. Truck-mixed or shrink-mixed concrete shall be mixed in a truck mixer for a minimum of 100 revolutions.

Wash water, if used, shall be completely discharged from the drum or container before the succeeding batch is introduced.

The batch sequence, mixing speed, and mixing time shall be appropriate to prevent cement balls and mix foaming for central-mixed, truck-mixed, and shrink-mixed concrete.

<u>Falsework and Forms</u>. In addition to Articles 503.05 and 503.06 of the Standard Specifications, the Contractor shall ensure the design of the falsework and forms is adequate for the additional form pressure caused by the fluid concrete. Forms shall be tight to prevent leakage of fluid concrete.

When the form height for placing the self-consolidating concrete is greater than 10.0 ft (3.0 m), direct monitoring of form pressure shall be performed according to Illinois Test Procedure SCC-10. The monitoring requirement is a minimum, and the Contractor shall remain responsible for adequate design of the falsework and forms. A minimum of one sensor will be required below each point of concrete placement to measure the maximum pressure. The first sensor below the point of concrete placement shall be approximately 12 in. (300 mm) above the base of the formwork. Additional sensors shall be installed above the bottom sensor when the form height is greater than 10.0 ft (3.0 m) above the bottom sensor. The additional sensors shall be installed at a maximum vertical spacing of 10.0 ft (3.0 m). The Contractor shall record the formwork pressure during concrete placement. This information shall be used by the Contractor to prevent the placement rate from exceeding the maximum formwork pressure allowed, to monitor the thixotropic change in the concrete during the pour, and to make appropriate adjustments to the mix design. This information shall be provided to the Engineer during the pour.

<u>Placing and Consolidating</u>. Concrete placement and consolidation shall be according to Article 503.07 of the Standard Specifications, except as follows:

Revise the third paragraph of Article 503.07 of the Standard Specifications to read:

"Open troughs and chutes shall extend as nearly as practicable to the point of deposit. The drop distance of concrete shall not exceed 5 ft (1.5 m). If necessary, a tremie shall be used to meet this requirement. The maximum distance of horizontal flow from the point of deposit shall be 25 ft (7.6 m), unless approved otherwise by the Engineer. For drilled shafts, free fall placement will not be permitted."

Delete the seventh, eighth, ninth, and tenth paragraphs of Article 503.07 of the Standard Specifications.

Add to the end of the eleventh paragraph of Article 503.07 of the Standard Specifications the following:

"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>Quality Control by Contractor at Plant</u>. The specified test frequencies for aggregate gradation, aggregate moisture, air content, unit weight/yield, and temperature shall be performed as indicated in the contract.

Slump flow, visual stability index, and J-ring or L-box tests shall be performed as needed to control production. The column segregation index test and hardened visual stability index test will not be required to be performed at the plant.

<u>Quality Control by Contractor at Jobsite</u>. The specified test frequencies for air content, strength, and temperature shall be performed as indicated in the contract.

Slump flow, visual stability index, and J-ring or L-box tests shall be performed on the first two truck deliveries of the day, and every 50 cu yd (40 cu m) thereafter. The Contractor shall select either the J-ring or L-box test for jobsite testing.

The column segregation index test will not be required to be performed at the jobsite. The hardened visual stability index test shall be performed on the first truck delivery of the day, and every 300 cu yd (230 cu m) thereafter. Slump flow, visual stability index, J-ring value or L-box blocking ratio, air content, and concrete temperature shall be recorded for each hardened visual stability index test.

The Contractor shall retain all hardened visual stability index cut cylinder specimens until the Engineer notifies the Contractor that the specimens may be discarded.

If mix foaming or other potential detrimental material is observed during placement or at the completion of the pour, the material shall be removed while the concrete is still plastic.

<u>Quality Assurance by Engineer at Plant</u>. For air content and aggregate gradation, quality assurance independent sample testing and split sample testing will be performed as indicated in the contract.

For slump flow, visual stability index, and J-ring or L-box tests, quality assurance independent sample testing and split sample testing will be performed as determined by the Engineer.

<u>Quality Assurance by Engineer at Jobsite</u>. For air content and strength, quality assurance independent sample testing and split sample testing will be performed as indicated in the contract.

For slump flow, visual stability index, J-ring or L-box, and hardened visual stability index tests, quality assurance independent sample testing will be performed as determined by the Engineer.

For slump flow and visual stability index quality assurance split sample testing, the Engineer will perform tests at the beginning of the project on the first three tests performed by the Contractor. Thereafter, a minimum of ten percent of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design. The acceptable limit of precision will be 1.5 in. (40 mm) for slump flow and a limit of precision will not apply to the visual stability index.

For the J-ring or the L-box quality assurance split sample testing, a minimum of 80 percent of the total tests required of the Contractor will be witnessed by the Engineer per plant, which will include a minimum of one witnessed test per mix design. The Engineer reserves the right to conduct quality assurance split sample testing. The acceptable limit of precision will be 1.5 in. (40 mm) for the J-ring value and ten percent for the L-box blocking ratio.

For each hardened visual stability index test performed by the Contractor, the cut cylinders shall be presented to the Engineer for determination of the rating. The Engineer reserves the right to conduct quality assurance split sample testing. A limit of precision will not apply to the hardened visual stability index.

SELF-CONSOLIDATING CONCRETE FOR PRECAST PRODUCTS (BDE)

Effective: July 1, 2004

Revised: January 1, 2007

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

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

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

Mix Design Criteria. The mix design criteria shall be as follows:

- (a) The minimum cement factor shall be according to Article 1020.04 of the Standard Specifications. If the maximum cement factor is not specified, it shall not exceed 7.05 cwt/cu yd (418 kg/cu m).
- (b) The maximum allowable water/cement ratio shall be according to Article 1020.04 of the Standard Specifications or 0.44, whichever is lower.
- (c) The slump requirements of Article 1020.04 of the Standard Specifications shall not apply.
- (d) The coarse aggregate gradations shall be CA 13, CA 14, CA 16, or a blend of these gradations. CA 11 may be used when the Contractor provides satisfactory evidence to the Engineer that the mix will not segregate. The fine aggregate proportion shall be a maximum 50 percent by weight (mass) of the total aggregate used.
- (e) The slump flow range shall be ± 2 in. (± 50 mm) of the Contractor target value, and within the overall Department range of 20 in. (510 mm) minimum to 28 in. (710 mm) maximum.
- (f) The visual stability index shall be a maximum of 1.
- (g) The J-ring value shall be a maximum of 4 in. (100 mm). The Contractor may specify a lower maximum in the mix design.
- (h) The L-box blocking ratio shall be a minimum of 60 percent. The Contractor may specify a higher minimum in the mix design.

- (i) The column segregation index shall be a maximum 15 percent.
- (j) The hardened visual stability index shall be a maximum of 1.

<u>Placing and Consolidating</u>. The maximum distance of horizontal flow from the point of deposit shall be 25 ft (7.6 m), unless approved otherwise by the Engineer.

Concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator shall be the pencil head type with a maximum diameter or width of 1 in. (25 mm). Any other method for restoring the fluidity of the concrete shall be approved by the Engineer.

<u>Mix Design Approval</u>. The Contractor shall obtain mix design approval according to the Department's Policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products".

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005

To account for the preparatory work and operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting in accordance with Article 108.01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

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

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

SURFACE TESTING OF PAVEMENTS (BDE)

Effective: April 1, 2002

Revised: January 1, 2007

Hot-Mix Asphalt (HMA) Overlays

Revise Article 406.03(h) of the Standard Specifications to read:

Revise Article 406.11 of the Standard Specifications to read:

"**406.11 Surface Tests.** The finished surface of the pavement shall be tested for smoothness within three days of paving. Testing shall be performed in the presence of the Engineer.

Prior to testing, a copy of the approval letter and recorded settings from the Profile Equipment Verification (PEV) Program shall be submitted to the Engineer; and all objects and debris shall be removed from the pavement.

- (a) Test Sections/Equipment.
 - (1) High-Speed Mainline Pavement. High-speed mainline pavement shall consist of pavements, ramps, and loops with a posted speed greater than 45 mph. These sections shall be tested using a profile testing device.
 - (2) Low-Speed Mainline Pavement. Low-speed mainline pavement shall consist of pavements, ramps, and loops with a posted speed of 45 mph or less. These sections shall be tested using a profile testing device.
 - (3) Miscellaneous Pavement. Miscellaneous pavement shall consist of:
 - pavement on horizontal curves with a centerline radius of curvature of less than or equal to 1000 ft (300 m) and pavement within the superelevation transition of such curves;
 - b. pavement on vertical curves having a length of less than or equal to 200 ft (60 m) in combination with an algebraic change in tangent grades greater than or equal to three percent, as may occur on urban ramps or other constricted-space facilities;
 - c. the first or last 15 ft (4.5 m) of a pavement section where the Contractor is not responsible for the adjoining surface;
 - d. intersections;
 - e. variable width pavements;
 - f. side street returns;
 - g. crossovers;
 - h. connector pavement from mainline pavement expansion joint to the bridge approach pavement;
 - i. bridge approach pavement; and
 - j. other miscellaneous pavement surfaces (i.e. a turn lane) as determined by the Engineer.

Miscellaneous pavement shall be tested using a 16 ft (5 m) straightedge set to a 3/8 in. (10 mm) tolerance.

(b) Lots/Sublots. Mainline pavement test sections will be divided into lots and sublots.

- (1) Lots. A lot will be defined as a continuous strip of pavement 1 mile (1600 m) long and one lane wide. When the length of a continuous strip of pavement is less than 1 mile (1600 m), that pavement will be included in an adjacent lot. Structures will be omitted when measuring pavement length.
- (2) Sublots. Lots will be divided into 0.1 mile (160 m) sublots. A partial sublot greater than or equal to 250 ft (76 m) resulting from an interruption in the pavement will be subject to the same evaluation as a whole sublot. Partial sublots less than 250 ft (76 m) shall be included with the previous sublot for evaluation purposes.
- (c) Testing Procedure. One wheel track shall be tested per lane. Testing shall be performed 3 ft (1 m) from and parallel to the edge of the lane away from traffic. A guide shall be used to maintain the proper distance.

The profile trace generated shall have stationing indicated every 500 ft (150 m) at a minimum. Both ends of the profile trace shall be labeled with the following information: contract number, beginning and ending stationing, which direction is up on the trace, which direction the data was collected, and the device operator name(s). The top portion of the Department supplied form, "Profile Report of Pavement Smoothness" shall be completed and secured around the trace roll.

Although surface testing of intermediate lifts will not be required, they may be performed at the Contractor's option. When this option is chosen, the testing shall be performed and the profile traces shall be generated as described above.

The Engineer may perform his/her own testing at any time for monitoring and comparison purposes.

(d) Trace Reduction and Bump Locating Procedure. All traces shall be reduced. Traces produced by a mechanical recorder shall be reduced using an electronic scanner and computer software. This software shall calculate the profile index of each sublot in in./mile (mm/km) and indicate any high points (bumps) in excess of 0.30 in. (8 mm) with a line intersecting the profile on the printout. Computerized recorders shall provide the same information.

The profile index of each track, average profile index of each sublot, average profile index of the lot and locations of bumps shall be recorded on the form.

All traces and reports shall be provided within two working days of completing the testing to the Engineer for the project file. Traces from either a computerized profile testing device or analysis software used with a manual profile testing device shall display the settings used for the data reduction. The Engineer will compare these settings with the approved settings from the PEV Program. If the settings do not match, the results will be rejected and the section shall be retested/reanalyzed with the appropriate settings.

The Engineer will use the results of the testing to evaluate paving methods and equipment. If the average profile index of a lot exceeds 40.0 in./mile (635 mm/km) for high-speed mainline pavement or 65.0 in./mile (1025 mm/km) for low-speed mainline pavement, the paving operation will be suspended until corrective action is taken by the Contractor.

- (e) Corrective Work. All bumps in excess of 0.30 in. (8 mm) in a length of 25 ft (8 m) or less shall be corrected. If the bump is greater than 0.50 in. (13 mm), the pavement shall be removed and replaced. The minimum length of pavement to be removed shall be 3 ft (900 mm).
 - (1) High-Speed Mainline Pavement. Any sublot having a profile index within the range of, greater than 30.0 to 40.0 in./mile (475 to 635 mm/km) including bumps, shall be corrected to reduce the profile index to 30.0 in./mile (475 mm/km) or less on each trace. Any sublot having a profile index greater than 40.0 in./mile (635 mm/km) including bumps, shall be corrected to reduce the profile index to 30.0 in./mile (475 mm/km) or less on each trace, or replaced at the Contractor's option.
 - (2) Low-Speed Mainline Pavement. Any sublot having a profile index within the range of, greater than 45.0 to 65.0 in./mile (710 to 1025 mm/km) including bumps, shall be corrected to reduce the profile index to 45.0 in./mile (710 mm/km) or less on each trace. Any sublot having a profile index greater than 65.0 in./mile (1025 mm/km) including bumps, shall be corrected to reduce the profile index to 45.0 in./mile (710 mm/km) or less on each trace, or replaced at the Contractor's option.
 - (3) Miscellaneous Pavement. Surface variations which exceed the 3/8 in. (10 mm) tolerance will be marked by the Engineer and shall be corrected by the Contractor.

Corrective work shall be completed using either an approved grinding device consisting of multiple saws or by removing and replacing the pavement. Corrective work shall be applied to the full lane width. When completed, the corrected area shall have uniform texture and appearance, with the beginning and ending of the corrected area squared normal to the centerline of the paved surface.

Upon completion of the corrective work, the surface of the sublot(s) shall be retested. The Contractor shall furnish the profile tracing(s) and the completed form(s) to the Engineer within two working days after corrections are made. If the profile index and/or bumps still do not meet the requirements, additional corrective work shall be performed.

Corrective work shall be at no additional cost to the Department.

(f) Smoothness Assessments. Assessments will be paid to or deducted from the Contractor for each sublot of mainline pavement, per the Smoothness Assessment Schedule. Assessments will be based on the average profile index of each sublot prior to performing any corrective work unless the Contractor has chosen to remove and replace the sublot. For sublots that are replaced, assessments will be based on the profile index determined after replacement.

Assessments will not be paid or deducted until all other contract requirements for the pavement are satisfied. Pavement that is corrected or replaced for reasons other than smoothness, shall be retested as stated herein.

SMOOTHNESS ASSESSMENT SCHEDULE (HMA Overlays)				
High-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Low-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Assessment per sublot		
6.0 (95) or less	15.0 (240) or less	+\$150.00		
>6.0 (95) to 10.0 (160)	>15.0 (240) to 25.0 (400)	+\$80.00		
>10.0 (160) to 30.0 (475)	>25.0 (400) to 45.0 (710)	+\$0.00		
>30.0 (475) to 40.0 (635)	>45.0 (710) to 65.0 (1025)	+\$0.00		
Greater than 40.0 (635)	Greater than 65.0 (1025)	-\$300.00		

Smoothness assessments will not be applied to miscellaneous pavement sections."

Hot-Mix Asphalt (HMA) Pavement (Full-Depth)

Revise Article 407.09 of the Standard Specifications to read:

"**407.09 Surface Tests.** The finished surface of the pavement shall be tested for smoothness according to Article 406.11, except as follows:

Two wheel tracks shall be tested per lane. Testing shall be performed 3 ft (1 m) from and parallel to each lane edge.

SMOOTHNESS ASSESSMENT SCHEDULE (Full-Depth HMA)				
High-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Low-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Assessment per sublot		
6.0 (95) or less		+\$800.00		
>6.0 (95) to 11.0 (175)	15.0 (240) or less	+\$550.00		
>11.0 (175) to 17.0 (270)	>15.0 (240) to 25.0 (400)	+\$350.00		
>17.0 (270) to 30.0 (475)	>25.0 (400) to 45.0 (710)	+\$0.00		
>30.0 (475) to 40.0 (635)	>45.0 (710) to 65.0 (1025)	+\$0.00		
Greater than 40.0 (635)	Greater than 65.0 (1025)	-\$500.00"		

Delete the third paragraph of Article 407.12 of the Standard Specifications.

Portland Cement Concrete Pavement

Revise Article 420.10 of the Standard Specifications to read:

"**420.10 Surface Tests.** The finished surface of the pavement shall be tested for smoothness according to Article 406.11, except as follows:

The finished surface of the pavement shall be tested for smoothness once the pavement has attained a flexural strength of 550 psi (3800 kPa) or a compressive strength of 3000 psi (20,700 kPa).

Two wheel tracks shall be tested per lane. Testing shall be performed 3 ft (1 m) from and parallel to each lane edge.

Membrane curing damaged during testing shall be repaired as directed by the Engineer at no additional cost to the Department.

No further texturing for skid resistance will be required for areas corrected by grinding. Protective coat shall be reapplied to ground areas according to Article 420.18 at no additional cost to the Department.

For pavement that is corrected by removal and replacement, the minimum length to be removed shall meet the requirements of either Class A or Class B patching.

SMOOTHNESS ASSESSMENT SCHEDULE (PCC)				
High-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Low-Speed Mainline Pavement Average Profile Index in./mile (mm/km)	Assessment per sublot		
6.0 (95) or less		+\$1200.00		
>6.0 (95) to 11.0 (175)	15.0 (240) or less	+\$950.00		
>11.0 (175) to 17.0 (270)	>15.0 (240) to 25.0 (400)	+\$600.00		
>17.0 (270) to 30.0 (475)	>25.0 (400) to 45.0 (710)	+\$0.00		
>30.0 (475) to 40.0 (635)	>45.0 (710) to 65.0 (1025)	+\$0.00		
Greater than 40.0 (635)	Greater than 65.0 (1025)	-\$750.00"		

Delete the fourth paragraph of Article 420.20 of the Standard Specifications.

Testing Equipment

Revise Article 1101.10 of the Standard Specifications to read:

"**1101.10 Pavement Surface Test Equipment.** Required surface testing and analysis equipment and their jobsite transportation shall be provided by the Contractor.

- (a) 16 ft (5 m) Straightedge. The 16 ft (5 m) straightedge shall consist of a metal I-beam mounted between two wheels spaced 16 ft (5 m) between the axles. Scratcher bolts which can be easily and accurately adjusted, shall be set at the 1/4, 1/2, and 3/4 points between the axles. A handle suitable for pushing and guiding shall be attached to the straightedge.
- (b) Profile Testing Device. The profile testing device shall have a decal displayed to indicate it has been tested through the Profile Equipment Verification (PEV) Program administered by the Department.

(1) California Profilograph. The California Profilograph shall be either computerized or manual and have a frame 25 ft (8 m) in length supported upon multiple wheels at either end. The profile shall be recorded from the vertical movement of a wheel attached to the frame at mid point.

The California Profilograph shall be calibrated according to the manufacturer's recommendations and California Test 526. All calibration traces and calculations shall be submitted to the Engineer for the project file.

(2) Inertial Profiler. The inertial profiler shall be either an independent device or a system that can be attached to another vehicle using one or two non-contact sensors to measure the pavement profile. The inertial profiler shall be capable of performing a simulation of the California Profilograph to provide results in the Profile Index format.

The inertial profiler shall be calibrated according to the manufacturer's recommendations. All calibration traces and calculations shall be submitted to the Engineer for the project file.

(3) Trace Analysis. The Contractor shall reduce/evaluate these traces using a 0.00 in. (0.0 mm) blanking band and determine a Profile Index in in./mile (mm/km) for each section of finished pavement surface. Traces produced using a computerized profile testing device will be evaluated without further reduction. When using a manual profile testing device, the Contractor shall provide an electronic scanner, a computer, and software to reduce the trace. All analysis equipment (electronic scanner, computerized recorder, etc.) shall be able to accept 0.00 in. (0.0 mm) for the blanking band.

All traces from pavement sections tested with the profile testing device shall be recorded on paper with scales of 300:1 longitudinally and 1:1 vertically. Equipment and software settings of the profile testing device and analysis equipment shall be set to those values approved through the PEV Program.

The Engineer may retest the pavement at any time to verify the accuracy of the equipment."

TEMPORARY EROSION CONTROL (BDE)

Effective: November 1, 2002

Revised: January 1, 2010

Add the following to Article 280.02 of the Standard Specifications to read:

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."

Revise Article 280.04(a) of the Standard Specifications to read:

"(a) Temporary Ditch Checks. This system consists of the construction of temporary ditch checks to prevent siltation, erosion, or scour of ditches and drainage ways. Temporary ditch checks shall be constructed with rolled excelsior, products from the Department's approved list, or with aggregate placed on filter fabric when specified. Filter fabric shall be installed according to the requirements of Section 282. Riprap shall be placed according to Article 281.04. Manufactured ditch checks shall be installed according to the manufacturer's specifications. Spacing of ditch checks shall be such that the low point in the center of one ditch check is at the same elevation as the base of the ditch check immediately upstream. Temporary ditch checks shall be sufficiently long enough that the top of the device in the middle of the ditch is lower than the bottom of the terminating ends of the ditch side slopes."

Revise the last sentence of the first paragraph of Article 280.04(g) of the Standard Specifications to read:

"The temporary mulch cover shall be according to either Article 251.03 or 251.04 except for any reference to seeding."

Revise Article 280.07(b) of the Standard Specifications to read:

"(b) Temporary Ditch Checks. This work will be measured for payment along the long axis of the device in place in feet (meters) except for aggregate ditch checks which will be measured for payment in tons (metric tons). Payment will not be made for aggregate in excess of 108 percent of the amount specified by the Engineer."

Revise Article 280.07(f) of the Standard Specifications to read:

"(f) Temporary Mulch. This work will be measured for payment according to Article 251.05(b)."

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."

Revise Article 280.08(b) of the Standard Specifications to read:

"(b) Temporary Ditch Checks. This work will be paid for at the contract unit price per foot (meter) for TEMPORARY DITCH CHECKS except for aggregate ditch checks which will be paid for at the contract unit price per ton (metric ton) for AGGREGATE DITCH CHECKS."

Revise Article 280.08(f) of the Standard Specifications to read:

"(f) Temporary Mulch. Temporary Mulch will be paid for according to Article 251.06."

Delete the tenth (last) paragraph of Article 280.08 of the Standard Specifications.

Revise the second sentence of the first paragraph of Article 1081.015(e) of the Standard Specifications to read:

"The upstream facing of the aggregate ditch check shall be constructed of gradation CA 3. The remainder of the ditch check shall be constructed of gradation RR 3."

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 highgrade pure (minimum 93 percent) titanium dioxide (TiO₂). 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 Reflectance75 percent min.*Yellow:Daylight Reflectance45 percent min.

*Shall meet the coordinates of the following color tolerance chart.

х	0.490	0.475	0.485	0.530
у	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 °F (50 °C) followed by four hours of condensation at 104 °F (40 °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."

TRAFFIC BARRIER TERMINAL, TYPE 6 (BDE)

Effective: January 1, 2010

Delete the fourth paragraph of Article 631.07 of the Standard Specifications.

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.

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

- Where: CA = Cost Adjustment, \$.
 - BPI_P = Bituminous Price Index, as published by the Department for the month the work is performed, \$/ton (\$/metric ton).
 - BPI_L = Bituminous Price Index, as published by the Department for the month prior to the letting, \$/ton (\$/metric ton).
 - $%AC_V$ = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_V 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_V and undiluted emulsified asphalt will be considered to be 65% AC_V.
 - Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: Q, tons = $A \times D \times (G_{mb} \times 46.8) / 2000$. For HMA mixtures measured in square meters: Q, metric tons = $A \times D \times (G_{mb} \times 24.99) / 1000$. 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:	Q, tons = V x 8.33 lb/gal x SG / 2000
For bituminous materials measured in liters:	Q, metric tons = V x 1.0 kg/L x SG / 1000

Where: A D	Area of the HMA mixture, sq yd (sq m).Depth of the HMA mixture, in. (mm).
G _{mb}	= 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 = { $(BPI_L - BPI_P) \div BPI_L$ } × 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 DEPARTMENTOPTION FOROF TRANSPORTATIONBITUMINOUS MATERIALS COST ADJUSTMENTS

The bidder shall submit this completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments. After award, this form, when submitted, shall become part of the contract.

Contract No.:					
Company Name:					
Contractor's Optio	<u>n</u> :				
Is your company opt	ting to include	this spe	cial provisior	n as part of the contract?	
Yes		No			
Signature:				Date:	

FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 1, 2009

Revised: July 1, 2009

<u>Description</u>. Fuel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in fuel 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 fuel cost adjustments for all categories of work. Failure to indicate "Yes" for any category of work will make that category of work exempt from fuel cost adjustment.

<u>General</u>. The fuel cost adjustment shall apply to contract pay items as grouped by category. The adjustment shall only apply to those categories of work checked "Yes", and only when the cumulative plan quantities for a category exceed the required threshold. Adjustments to work items in a category, either up or down, and work added by adjusted unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Added work paid for by time and materials will not be subject to fuel cost adjustment. Category descriptions and thresholds for application and the fuel usage factors which are applicable to each are as follows:

- (a) Categories of Work.
 - (1) Category A: Earthwork. Contract pay items performed under Sections 202, 204, and 206 including any modified standard or nonstandard items where the character of the work to be performed is considered earthwork. The cumulative total of all applicable item plan quantities shall exceed 25,000 cu yd (20,000 cu m). Included in the fuel usage factor is a weighted average 0.10 gal/cu yd (0.50 liters/cu m) factor for trucking.
 - (2) Category B: Subbases and Aggregate Base Courses. Contract pay items constructed under Sections 311, 312 and 351 including any modified standard or nonstandard items where the character of the work to be performed is considered construction of a subbase or aggregate, stabilized or modified base course. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is a 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
 - (3) Category C: Hot-Mix Asphalt (HMA) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 355, 406, 407 and 482 including any modified standard or nonstandard items where the character of the work to be performed is considered HMA bases, pavements and shoulders. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.

- (4) Category D: Portland Cement Concrete (PCC) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 353, 420, 421 and 483 including any modified standard or nonstandard items where the character of the work to be performed is considered PCC base, pavement or shoulder. The cumulative total of all applicable item plan quantities shall exceed 7500 sq yd (6000 sq m). Included in the fuel usage factor is 1.20 gal/cu yd (5.94 liters/cu m) factor for trucking.
- (5) Category E: Structures. Structure items having a cumulative bid price that exceeds \$250,000 for pay items constructed under Sections 502, 503, 504, 505, 512, 516 and 540 including any modified standard or nonstandard items where the character of the work to be performed is considered structure work when similar to that performed under these sections and not included in categories A through D.
- (b) Fuel Usage Factors.

English Units		
Category	Factor	Units
A - Earthwork	0.34	gal / cu yd
B – Subbase and Aggregate Base courses	0.62	gal / ton
C – HMA Bases, Pavements and Shoulders	1.05	gal / ton
D – PCC Bases, Pavements and Shoulders	2.53	gal / cu yd
E – Structures	8.00	gal / \$1000
Metric Units Category A - Earthwork B – Subbase and Aggregate Base courses C – HMA Bases, Pavements and Shoulders D – PCC Bases, Pavements and Shoulders	Factor 1.68 2.58 4.37 12.52	Units liters / cu m liters / metric ton liters / metric ton liters / cu m
E – Structures	30.28	liters / \$1000

(c) Quantity Conversion Factors.

Category	Conversion	Factor
В	sq yd to ton sq m to metric ton	0.057 ton / sq yd / in depth 0.00243 metric ton / sq m / mm depth
С	sq yd to ton sq m to metric ton	0.056 ton / sq yd / in depth 0.00239 m ton / sq m / mm depth
D	sq yd to cu yd sq m to cu m	0.028 cu yd / sq yd / in depth 0.001 cu m / sq m / mm depth

Method of Adjustment. Fuel cost adjustments will be computed as follows.

 $CA = (FPI_P - FPI_L) \times FUF \times Q$

Where: CA = Cost Adjustment, \$

- FPI_P = Fuel Price Index, as published by the Department for the month the work is performed, \$/gal (\$/liter)
- FPI_L = Fuel Price Index, as published by the Department for the month prior to the letting, \$/gal (\$/liter)
- FUF = Fuel Usage Factor in the pay item(s) being adjusted
- Q = Authorized construction Quantity, tons (metric tons) or cu yd (cu m)

The entire FUF indicated in paragraph (b) will be used regardless of use of trucking to perform the work.

Progress Payments. Fuel cost adjustments will be calculated for each calendar month in which applicable work is performed; and will be paid or deducted when all other contract requirements for the items of work are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Final Quantities. Upon completion of the work and determination of final pay quantities, an adjustment will be prepared to reconcile any differences between estimated quantities previously paid and the final quantities. The value for the balancing adjustment will be based on a weighted average of FPI_P and Q only for those months requiring the cost adjustment. The cost adjustment will be applicable to the final measured quantities of all applicable pay items.

<u>Basis of Payment</u>. Fuel cost adjustments may be positive or negative but will only be made when there is a difference between the FPI_L and FPI_P in excess of five percent, as calculated by:

Percent Difference = { $(FPI_L - FPI_P) \div FPI_L$ } × 100

Return With Bid

ILLINOIS DEPARTMENT OF TRANSPORTATION

OPTION FOR FUEL 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 fuel cost adjustments in all categories. Failure to indicate "Yes" for any category of work at the time of bid will make that category of work exempt from fuel 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 part of the contract plans for the following categories of work?

Signature:			_ Date:
Category E	Structures	Yes	
Category D	PCC Bases, Pavements and Shoulders	Yes	
Category C	HMA Bases, Pavements and Shoulders	Yes	
Category B	Subbases and Aggregate Base Courses	Yes	
Category A	Earthwork.	Yes	

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.

<u>Method of Adjustment</u>. 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: $MPI_M =$ 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_L = 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 MPI_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_L and MPI_M 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

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 part of the contract plans for the following items of work?

Signature:	Date:	
Frames and Grates	Yes	
Metal Railings (excluding wire fence)	Yes	
Steel Traffic Signal and Light Poles, Towers and Mast Arms	Yes	
Guardrail	Yes	
Dowel Bars, Tie Bars and Mesh Reinforcement	Yes	
Reinforcing Steel	Yes	
Structural Steel	Yes	
Metal Piling	Yes	

Illinois Department of Transportation PROJECT LABOR AGREEMENT

This Project Labor Agreement ("PLA") is entered into this ______ day of ______, by and between the Illinois Department of Transportation ("IDOT" or "Department") in its proprietary capacity, and each relevant Illinois AFL-CIO Building Trades Council made signatory hereto by the Illinois AFL-CIO Statewide Project Labor Agreement Committee on behalf of itself and each of its affiliated members (individually and collectively, the "Union"). This PLA shall apply to Construction Work (as defined herein) to be performed by IDOT's Prime Contractor and each of its relevant subcontractors of whatever tier ("Subcontractor" or "Subcontractors") on Contract 76C49 (hereinafter, the "Project").

ARTICLE 1 - INTENT AND PURPOSES

- 1.1. This PLA is entered into in furtherance of Illinois Executive Order No. 2003-13. It is mutually understood and agreed that the terms and conditions of this PLA are intended to promote the public interest in obtaining timely and economical completion of the Project by encouraging productive and efficient construction operations; by establishing a spirit of harmony and cooperation among the parties; and by providing for peaceful and prompt settlement of any and all labor grievances or jurisdictional disputes of any kind without strikes, lockouts, slowdowns, delays or other disruptions to the prosecution of the work.
- 1.2. As a condition of the award of the contract for performance of work on the Project, IDOT's Prime Contractor and each of its Subcontractors shall be required to sign a "Contractor Letter of Assent", in the form attached hereto as Exhibit A, prior to commencing Construction Work on the Project. Each Union affiliate and separate local representing workers engaged in Construction Work on the Project in accordance with this PLA are bound to this agreement by the Illinois AFL-CIO Statewide Project Labor Agreement Committee which is the central committee established with full authority to negotiate and sign PLAs with the State on behalf of all respective crafts. Upon their signing the Letter of Assent, the Prime Contractor, each Subcontractor, and the individual Unions shall thereafter be deemed a party to this PLA. No party signatory to this PLA shall, contract or subcontract, nor permit any other person, firm, company or entity to contract or subcontract for the performance of Construction Work for the Project to any person, firm, company or entity that does not agree in writing to become bound by the terms of this PLA prior to commencing such work.
- 1.3. It is understood that the Prime Contractor(s) and each Subcontractor will be considered and accepted by the Unions as separate employers for the purposes of collective bargaining, and it is further agreed that the employees working under this PLA shall constitute a bargaining unit separate and distinct from all others. The Parties hereto also agree that this PLA shall be applicable solely with respect to this Project, and shall have no bearing on the interpretation of any other collective bargaining agreement or as to the recognition of any bargaining unit other than for the specific purposes of this Project.

- 1.4. In the event of a variance or conflict, whether explicit or implicit, between the terms and conditions of this PLA and the provisions of any other applicable national, area, or local collective bargaining agreement, the terms and conditions of this PLA shall supersede and control. For any work performed under the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, the National Agreement of the International Union of Elevator Constructors, and for any instrument calibration work and loop checking performed under the UA/IBEW Joint National Agreement for Instrument and Control Systems Technicians, the preceding sentence shall apply only with respect to Articles I, II, V, VI, and VII.
- 1.5. Subject to the provisions of paragraph 1.4 of this Article, it is the parties' intent to respect the provisions of any other collective bargaining agreements that may now or hereafter pertain, whether between the Prime Contractor and one or more of the Unions or between a Subcontractor and one or more of the Unions. Accordingly, except and to the extent of any contrary provision set forth in this PLA, the Prime Contractor and each of its Subcontractors agrees to be bound and abide by the terms of the following in order of precedence: (a) the applicable collective bargaining agreement between the Prime Contractor and one or more of the Unions made signatory hereto; (b) the applicable collective bargaining agreement between a Subcontractor and one or more of the Unions made signatory hereto; or (c) the current applicable area collective bargaining agreement for the relevant Union that is the agreement certified by the Illinois Department of Labor for purposes of establishing the Prevailing Wage applicable to the Project. The Union will provide copies of the applicable collective bargaining agreements pursuant to part (c) of the preceding sentence to the Prime Contractor. Assignments by the Contractors amongst the trades shall be consistent with area practices; in the event of unresolved disagreements as to the propriety of such assignments, the provisions of Article VI shall apply.
- 1.6. Subject to the limitations of paragraphs 1.4 and 1.5 of this Article, the terms of each applicable collective bargaining agreement as determined in accordance with paragraph 1.5 are incorporated herein by reference, and the terms of this PLA shall be deemed incorporated into such other applicable collective bargaining agreements only for purposes of their application to the Project.
- 1.7. To the extent necessary to comply with the requirements of any fringe benefit fund to which the Prime Contractor or Subcontractor is required to contribute under the terms of an applicable collective bargaining agreement pursuant to the preceding paragraph, the Prime Contractor or Subcontractor shall execute all "Participation Agreements" as may be reasonably required by the Union to accomplish such purpose; provided, however, that such Participation Agreements shall, when applicable to the Prime Contractor or Subcontractor solely as a result of this PLA, be amended as reasonably necessary to reflect such fact. Upon written notice from any applicable fringe benefit fund, IDOT will withhold from the Prime Contractor payment of any delinquencies arising from this Project.

1.8. In the event that the applicable collective bargaining agreement between a Prime Contractor and the Union or between the Subcontractor and the Union expires prior to the completion of this Project, the expired applicable contract's terms will be maintained until a new applicable collective bargaining agreement is ratified. The wages and fringe benefits included in any new applicable collective bargaining agreement will apply on and after the effective date of the newly negotiated collective bargaining agreement, except to the extent wage and fringe benefit retroactivity is specifically agreed upon by the relevant bargaining parties.

ARTICLE II – APPLICABILITY, RECOGNITION, AND COMMITMENTS

- 2.1 The term Construction Work as used herein shall include all "construction, prosecution, completion, or repair" work performed by a "laborer or mechanic" at the "site of the work" for the purpose of "building" the specific structures and improvements that constitute the Project. Terms appearing within quotation marks in the preceding sentence shall have the meaning ascribed to them pursuant to 29 CFR Part 5.
- 2.2 By executing the Letters of Assent, Prime Contractor and each of its Subcontractors recognizes the Unions signatory to this PLA as the sole and exclusive bargaining representatives for their craft employees employed on the jobsite for this Project. Unions who are signatory to this PLA will have recognition on the Project for their craft.
- 2.3 The Prime Contractor and each of its Subcontractors retains and shall be permitted to exercise full and exclusive authority and responsibility for the management of its operations, except as expressly limited by the terms of this PLA or by the terms and conditions of the applicable collective bargaining agreement.
- 2.4 Except to the extent contrary to an express provision of the relevant collective bargaining agreement, equipment or materials used in the Project may be pre-assembled or pre-fabricated, and there shall be no refusal by the Union to handle, transport, install, or connect such equipment or materials. Equipment or materials delivered to the job-site will be unloaded and handled promptly without regard to potential jurisdictional disputes; any such disputes shall be handled in accordance with the provisions of this PLA.
- 2.5 Unions commit to furnishing qualified and skilled craft persons as required by the Prime Contractor and its Subcontractors in fulfillment of their obligations to complete the Project. In order to promote the long-term development of a skilled and knowledgeable work force, the parties are encouraged to utilize apprentices to the maximum extent permitted by the applicable collective bargaining agreement.
- 2.6 The parties are mutually committed to promoting a safe working environment for all personnel at the job site. It shall be the responsibility of each employer to which this PLA applies to provide and maintain safe working conditions for its employees, and to comply with all applicable federal, state, and local health and safety laws and regulations.

- 2.7 The use or furnishing of alcohol or drugs and the conduct of any other illegal activity at the job-site is strictly prohibited. The parties shall take every practical measure consistent with the terms of applicable collective bargaining agreements to ensure that the job-site is free of alcohol and drugs.
- 2.8 All parties to this PLA agree that they shall not discriminate against any employee based on race, creed, color, national origin, union activity, age, or gender as required by all applicable federal, state, and local laws.
- 2.9 The Parties hereto agree that engineering consultants and materials testing employees, to the extent subject to the terms of this PLA, shall be fully expected to objectively and responsibly perform their duties and obligations owed to the Department without regard to the potential union affiliation of such employees or of other employees on the Project.

ARTICLE III - ADMINISTRATION OF AGREEMENT

- 3.1 In order to assure that all parties have a clear understanding of the PLA and to promote harmony, a post-award pre-job conference will be held among the Prime Contractor, all Subcontractors and Union representatives prior to the start of any Construction Work on the Project. No later than the conclusion of such pre-job conference, the parties shall, among other matters, provide to one another contact information for their respective representatives (including name, address, phone number, facsimile number, e-mail). Nothing herein shall be construed to limit the right of the Department to discuss or explain the purpose and intent of this PLA with prospective bidders or other interested parties prior to or following its award of the job.
- 3.2 Representatives of the Prime Contractor and the Unions shall meet as often as reasonably necessary following award until completion of the Project to assure the effective implementation of this PLA.
- 3.3 Not less than once per month, Prime Contractor and all Subcontractors shall make available in writing to the Unions a Project status report that shall include, though not necessarily be limited to, planned activities for the next 30 day period and estimated numbers of employees by craft required for the next 30 day period. The purpose of this Project status report is to promote effective workforce planning and to facilitate resolution of any potential jurisdictional or other problems.
- 3.4 Not later than the earlier of (a) five business days following the pre-job conference, or (b) commencement of Construction Work, the Unions and Prime Contractor (on behalf of itself and all its subcontractors of whatever tier) shall confer and jointly designate a slate of three (3) permanent arbitrators (each a "Permanent Arbitrator") for the purpose of hearing disputes pursuant to Articles V and VII of this PLA. The slate of Permanent Arbitrators shall be selected from among the following individuals: Thomas F. Gibbons, Thomas G. Pagan, Robert Perkovich, Byron Yaffee, and Glenn A. Zipp. In the event that the Unions and Prime Contractor are not able to agree on a full slate of three Permanent Arbitrators, the Department, after consultation with the Unions and Prime Contractor, shall designate such additional Permanent Arbitrators as may be necessary to establish the full slate.

A single Permanent Arbitrator shall be selected from the slate of three on a rotating basis to adjudicate each arbitrable matter as it arises. In the event a Permanent Arbitrator is not available to adjudicate a particular matter in the order of rotation, the arbitration assignment shall pass to the next available Permanent Arbitrator.

ARTICLE IV - HOURS OF WORK AND GENERAL CONDITIONS

- 4.1 The standard work day for Construction Work on the Project shall be an established consecutive eight (8) hour period between the hours of 7:00 a.m. and 5:00 p.m. with one-half hour designated as unpaid period for lunch. The standard work week shall be five (5) consecutive days of work commencing on Monday. Starting time shall be established at the pre-job conference, and shall be applicable to all craft employees on the Project unless otherwise expressly agreed in writing. In the event Project site or other job conditions dictate a change in the established starting time and/or a staggered lunch period for portions of the Project or for specific crafts, the Prime Contractor, relevant Subcontractors and business managers of the specific crafts involved shall confer and mutually agree to such changes as appropriate. If proposed work schedule changes cannot be mutually agreed upon between the parties, the hours fixed at the time of the pre-job meeting shall prevail.
- 4.2 Shift work may be established and directed by the Prime Contractor or relevant Subcontractor as reasonably necessary or appropriate to fulfill the terms of its contract with the Department. If used, shift hours, rates and conditions shall be as provided in the applicable collective bargaining agreement.
- 4.3 The parties agree that chronic and/or unexcused absenteeism is undesirable and must be controlled in accordance with procedures established by the applicable collective bargaining agreement. Any employee disciplined for absenteeism in accordance with such procedures shall be suspended from all work on the Project for not less than the maximum period permitted under the applicable collective bargaining agreement.
- 4.4 Except as may be otherwise expressly provided by the applicable collective bargaining agreement, employment begins and ends at the Project site; employees shall be at their place of work at the starting time; and employees shall remain at their place of work until quitting time.
- 4.5 Except as may be otherwise expressly provided by the applicable collective bargaining agreement, there shall be no limit on production by workmen, no restrictions on the full use of tools or equipment, and no restrictions on efficient use of manpower or techniques of construction other than as may be required by safety regulations.

- 4.6 The parties recognize that specialized or unusual equipment may be installed on the Project. In such cases, the Union recognizes the right of the Prime Contractor or Subcontractor to involve the equipment supplier or vendor's personnel in supervising the setting up of the equipment, making modifications and final alignment, and performing similar activities that may be reasonably necessary prior to and during the start-up procedure in order to protect factory warranties. The Prime Contractor or Subcontractor shall notify the Union representatives in advance of any work at the job-site by such vendor personnel in order to promote a harmonious relationship between the equipment vendor's personnel and other Project employees.
- 4.7 For the purpose of promoting full and effective implementation of this PLA, authorized Union representatives shall have access to the Project job-site during scheduled work hours. Such access shall be conditioned upon adherence to all reasonable visitor and security rules of general applicability that may be established for the Project site at the pre-job conference or from time to time thereafter.

ARTICLE V - GRIEVANCE AND ARBITRATION PROCEDURES

- 5.1 Except as provided in Articles VI or VII, it is specifically agreed among the parties that any grievance or dispute arising out of the interpretation or application of this PLA shall be settled by means of the expedited arbitration process set forth in Paragraph 5.2 below. No such grievance or dispute shall be recognized unless called to the attention of the Prime Contractor and relevant Subcontractor by the Union or to the Union by the Prime Contractor or relevant Subcontractor within five (5) working days after the alleged violation was committed or discovered by the grieving party.
- 5.2 Grievances shall be settled according to the following procedure:
 - 5.2.A. Step 1. The dispute shall be referred to the Steward of the craft union involved and a representative of the Prime Contractor and relevant Subcontractor at the job-site.
 - 5.2.B. Step 2. In the event that the Steward and the contractors' representatives at the job-site cannot reach agreement within two (2) working days after a meeting is arranged and held, the matter shall be referred to the Union Business Manager and to executive representatives of the Prime Contractor and relevant Subcontractor.
 - 5.2.C. Step 3. In the event the dispute is not resolved within five (5) working days after completion of Step 2, the relevant parties shall request a Permanent Arbitrator as determined in accordance with paragraph 3.4 of this PLA, who shall, within ten (10) working days, hear the grievance and make a written decision. Such decisions shall be final and binding on all parties. The parties shall each pay the expense of their own representative. The expense of the Permanent Arbitrator shall be divided equally between (1) the Prime Contractor and/or relevant Subcontractor, and (2) the involved Union.

- 5.3 Any failure of a party to comply fully with such final and binding decision of the Permanent Arbitrator may result in removal of the non-complying party from the site, in a holdback from the Prime Contractor or Subcontractor of any amounts awarded, or in such other relief as the Department may reasonably determine is necessary to promote final resolution of the dispute.
- 5.4 In the event any dispute or grievance should arise, the parties expressly agree that it shall be resolved without occurrence of any strike, work stoppage, slow-down or other prohibited activities as provided in Article VII of this PLA. Individuals or parties violating this section shall be subject to immediate discharge or other discipline.

ARTICLE VI - JURISDICTIONAL DISPUTES

- 6.1 As used in this Agreement, the term "jurisdictional dispute" shall be defined as any dispute, difference or disagreement involving the assignment of particular work to one class or craft of employees rather than to a different class or craft of employees, regardless of that Contractor's contractual relationship to any other employer, contractor, or organization on the site.
- 6.2 It is agreed by and between the parties to this Agreement that any and all jurisdictional disputes shall be resolved in the following manner; each of the steps hereinafter listed shall be initiated by the parties in sequence as set forth:
 - (a) Negotiation by and between the Local Business Representative of the disputing Union and Employer shall take place within two (2) business days. Business days are defined as Monday through Friday excluding contract holidays. Such negotiations shall be pursued until it is apparent that the dispute cannot be resolved at the local level.
 - (b) The International Representatives of the disputing Union shall meet or confer and attempt to resolve said dispute. This meeting shall take place within two (2) business days. Business days are defined as Monday through Friday excluding contract holidays.
 - (c) The parties to the Jurisdictional Dispute shall submit the dispute directly to an Arbitrator after complying with paragraph (2b) above. The parties shall meet with the Arbitrator within three (3) business days. Business days are defined as Monday through Friday excluding contract holidays. An Arbitrator will be selected based on availability from the slate of permanent Arbitrators. The Arbitrator's bench decision will be given the day of the hearing and will be final and legally binding on this project only. The Arbitrator's bench decision will be implemented without delay. The cost of Arbitration will be shared equally by the disputing parties. Any party to the dispute can require that a "long form" written decision will be the responsibility of the party making the request.

Notes:

- A jurisdictional dispute may be submitted based upon a pre-job assignment.
- If any party to the jurisdictional disputes does not fully comply with the steps and time limits with each step, then the party in non-compliance will lose by "automatic default".
- Time limits at any step can be extended if all parties to the jurisdictional dispute mutually agree in writing.
- All parties to a jurisdictional dispute can mutually agree to waive the time limits in steps (a) and (b) and proceed directly to an expedited arbitration hearing.
- (d) In rendering his decision, the Arbitrator shall determine:
 - First whether a previous agreement of record or applicable agreement, including a disclaimer agreement, between the National or International Unions to the dispute governs;
 - (2) Only if the Arbitrator finds that the dispute is not covered by an appropriate or applicable agreement of record or agreement between the crafts to the dispute, he shall then consider whether there is a previous decision of record governing the case;
 - (3) If the Arbitrator finds that a previous decision of record governs the case, the Arbitrator shall apply the decision of record in rendering his decision except under the following circumstances. After notice to the other parties to the dispute prior to the hearing that it intends to challenge the decision of record, if a trade challenging the decision of record is able to demonstrate that the recognized and established prevailing practice in the locality of the work has been contrary to the applicable decision of record, and that historically in that locality the work in dispute has not been performed by the other craft or crafts, the Arbitrator may rely on such prevailing practice rather than the decision of record. If the craft relying on the decision of record demonstrates that it has performed the work in dispute in the locality of the job, then the Arbitrator shall apply the decision of record in rendering his decision. If the Arbitrator finds that a craft has improperly obtained the prevailing practice in the locality through raiding, the undercutting of wagers or by the use of vertical agreements, the Arbitrator shall rely on the decision of record rather than the prevailing practice in the locality.
 - (4) If no decision of record is applicable, the Arbitrator shall then consider the established trade practice in the industry and prevailing practice in the locality; and

(5) Only if none of the above criteria is found to exist, the Arbitrator shall then consider that because efficiency, cost or continuity and good management are essential to the well being of the industry, the interest of the consumer or the past practice of the employer shall not be ignored.

The Arbitrator shall set forth the basis for his decision and shall explain his findings regarding the applicability of the above criteria. If lowerranked criteria are relied upon, the Arbitrator shall explain why the higherranked criteria were not deemed applicable. The Arbitrator's decision shall only apply to the job in dispute.

- (6) Agreements of record are applicable only to the party's signatory to such agreements. Decisions of record are applicable to all trades.
- (7) The Arbitrator is not authorized to award back pay or any other damages for a mis-assignment of work. Nor may any party bring an independent action for back pay or any other damages, based upon a decision of an Arbitrator.
- 6.3 The signatory parties to this Agreement agree that jurisdictional disputes cannot and shall not interfere with the efficient and continuous operations required for the successful application of this Agreement. In the event a dispute arises, the Contractor's assignment shall be followed until the dispute is resolved.
- 6.4 Equipment or material delivered to the job site will be unloaded promptly without regard to jurisdictional disputes which will be handled as per the provisions of this Agreement. The Contractor will supply the Union with delivery schedules, allowing as much time as possible to insure the appropriate crafts will be available to unload the materials or equipment.
- 6.5 All signatory affiliates agree that upon request, a representative shall be assigned without delay to attempt a settlement in the event of a question on assignments.

ARTICLE VII - WORK STOPPAGES AND LOCKOUTS

7.1 During the term of this PLA, no Union or any of its members, officers, stewards, employees, agents or representatives shall instigate, support, sanction, maintain, or participate in any strike, picketing, walkout, work stoppage, slow down or other activity that interferes with the routine and timely prosecution of work at the Project site or at any other contractor's or supplier's facility that is necessary to performance of work at the Project site. Hand billing at the Project site during the designated lunch period and before commencement or following conclusion of the established standard workday shall not, in itself, be deemed an activity that interferes with the routine and timely prosecution of work on the Project.

- 7.2 Should any activity prohibited by paragraph 7.1 of this Article occur, the Union shall undertake all steps reasonably necessary to promptly end such prohibited activities. No Union complying with its obligations under this Article shall be liable for acts of employees for which it has no responsibility or for the unauthorized acts of employees it represents. Any employee who participates in or encourages any activity prohibited by paragraph 7.1 shall be immediately suspended from all work on the Project for a period equal to the greater of (a) 60 days; or (b) the maximum disciplinary period allowed under the applicable collective bargaining agreement for engaging in comparable unauthorized or prohibited activity.
- 7.3 During the term of this PLA, the Prime Contractor and its Subcontractors shall not engage in any lockout at the Project site of employees covered by this Agreement.
- 7.4 Upon notification of violations of this Article, the principal officer or officers of the local area Building and Construction Trades Council, and the Illinois AFL-CIO Statewide Project Labor Agreement Committee as appropriate, will immediately instruct, order and use their best efforts to cause the affiliated union or unions to cease any violations of this Article. A Trades Council and the Committee otherwise in compliance with the obligations under this paragraph shall not be liable for unauthorized acts of its affiliates.
- 7.5 In the event that activities in violation of this Article are not immediately halted through the efforts of the parties, any aggrieved party may invoke the special arbitration provisions set forth in paragraph 7.6 of this Article.
- 7.6 Upon written notice to the other involved parties by the most expeditious means available, any aggrieved party may institute the following special arbitration procedure when a breach of this Article is alleged:
 - 7.6.A The party invoking this procedure shall notify the individual designated as the Permanent Arbitrator pursuant to Article III of the nature of the alleged violation; such notice shall be by the most expeditious means possible. The initiating party may also furnish such additional factual information as may be reasonably necessary for the Permanent Arbitrator to understand the relevant circumstances. Copies of any written materials provided to the arbitrator shall also be contemporaneously provided by the most expeditious means possible to the party alleged to be in violation and to all other involved parties.
 - 7.6.B Upon receipt of said notice the Permanent Arbitrator shall set and hold a hearing within twenty-four (24) hours if it is contended the violation is ongoing, but not before twenty-four (24) hours after the written notice to all parties involved as required above.
 - 7.6.C The Permanent Arbitrator shall notify the parties by facsimile or any other effective written means, of the place and time chosen by the Permanent Arbitrator for this hearing. Said hearing shall be completed in one session. A failure of any party or parties to attend said hearing shall not delay the hearing of evidence or issuance of an Award by the Permanent Arbitrator.

- 7.6.D The sole issue at the hearing shall be whether a violation of this Article has, in fact, occurred. An Award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without a written opinion. If any party desires a written opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with, or enforcement of, the Award. The Permanent Arbitrator may order cessation of the violation of this Article, and such Award shall be served on all parties by hand or registered mail upon issuance.
- 7.6.E Such Award may be enforced by any court of competent jurisdiction upon the filing of the Award and such other relevant documents as may be required. Facsimile or other hardcopy written notice of the filing of such enforcement proceedings shall be given to the other relevant parties. In a proceeding to obtain a temporary order enforcing the Permanent Arbitrator's Award as issued under this Article, all parties waive the right to a hearing and agree that such proceedings may be <u>ex parte</u>. Such agreement does not waive any party's right to participate in a hearing for a final order of enforcement. The Court's order or orders enforcing the Permanent Arbitrator's Award shall be served on all parties by hand or by delivery to their last known address or by registered mail.
- 7.7 Individuals found to have violated the provisions of this Article are subject to immediate termination. In addition, IDOT reserves the right to terminate this PLA as to any party found to have violated the provisions of this Article.
- 7.8 Any rights created by statue or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance therewith are hereby waived by parties to whom they accrue.
- 7.9 The fees and expenses of the Permanent Arbitrator shall be borne by the party or parties found in violation, or in the event no violation is found, such fees and expenses shall be borne by the moving party.

ARTICLE VIII – MISCELLANEOUS

- 8.1 If any Article or provision of this PLA shall be declared invalid, inoperative or unenforceable by operation of law or by final non-appealable order of any tribunal of competent jurisdiction, such provision shall be deemed severed or limited, but only to the extent required to render the remaining provisions of this PLA enforceable consistent with the intent of the parties. The remainder of this PLA or the application of such Article or provision to persons or circumstances other than those as to which it has been held invalid, inoperative or unenforceable shall not be affected thereby.
- 8.2 The term of this PLA shall commence as of and from the date of the notice of award to the Prime Contractor and shall end upon final acceptance by IDOT of all work on the Project by the parties hereto.

- 8.3 This PLA may not be changed or modified except by the subsequent written agreement of the parties. All parties represent that they have the full legal authority to enter into this PLA. This PLA may be executed by the parties in one or more counterparts.
- 8.4 Any liability arising out of this PLA shall be several and not joint. IDOT shall not be liable to any person or other party for any violation of this PLA by any other party, and no Contractor or Union shall be liable for any violation of this PLA by any other Contractor or Union.
- 8.5 The failure or refusal of a party to exercise its rights hereunder in one or more instances shall not be deemed a waiver of any such rights in respect of a separate instance of the same or similar nature.

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FAI Route 64 (I-64) Section 82-1-2HB St. Clair County Contract No. 76C49

Execution Page

Illinois Department of Transportation

Christine M. Reed, P.E., Director of Highways

Ann Schneider, Director Finance & Administration

Ellen Schanzle-Haskins, Chief Counsel

Gary Hannig, Secretary

(Date)

Illinois AFL-CIO Statewide Project Labor Agreement Committee, representing the local unions listed below:

List Union Locals:

(Date)

FAI Route 64 (I-64) Section 82-1-2HB St. Clair County Contract No. 76C49

** RETURN WITH BID **

Exhibit A – Contractor Letter of Assent

(Date)

To All Parties:

In accordance with the terms and conditions of the contract for Construction Work on [Contract 76C49], this Letter of Assent hereby confirms that the undersigned Prime Contractor or Subcontractor agrees to be bound by the terms and conditions of the Project Labor Agreement established and entered into by the Illinois Department of Transportation in connection with said Project.

It is the understanding and intent of the undersigned party that this Project Labor Agreement shall pertain only to the identified Project. In the event it is necessary for the undersigned party to become signatory to a collective bargaining agreement to which it is not otherwise a party in order that it may lawfully make certain required contributions to applicable fringe benefit funds, the undersigned party hereby expressly conditions its acceptance of and limits its participation in such collective bargaining agreement to its work on the Project.

(Authorized Company Officer)

(Company)

** RETURN WITH BID **

ILLINOIS DEPARTMENT OF LABOR

PREVAILING WAGES FOR ST. CLAIR COUNTY EFFECTIVE MAY 2010

The Prevailing rates of wages are included in the Contract proposals which are subject to Check Sheet #5 of the Supplemental Specifications and Recurring Special Provisions. The rates have been ascertained and certified by the Illinois Department of Labor for the locality in which the work is to be performed and for each craft or type of work or mechanic needed to execute the work of the Contract. As required by Prevailing Wage Act (820 ILCS 130/0.01, et seq.) and Check Sheet #5 of the Contract, not less than the rates of wages ascertained by the Illinois Department of Labor and as revised during the performance of a Contract shall be paid to all laborers, workers and mechanics performing work under the Contract. Post the scale of wages in a prominent and easily accessible place at the site of work.

If the Illinois Department of Labor revises the prevailing rates of wages to be paid as listed in the specification of rates, the contractor shall post the revised rates of wages and shall pay not less than the revised rates of wages. Current wage rate information shall be obtained by visiting the Illinois Department of Labor web site at http://www.state.il.us/agency/idol/ or by calling 312-793-2814. It is the responsibility of the contractor to review the rates applicable to the work of the contract at regular intervals in order to insure the timely payment of current rates. Provision of this information to the contractor by means of the Illinois Department of Labor web site satisfies the notification of revisions by the Department to the contractor pursuant to the Act, and the contractor agrees that no additional notice is required. The contractor shall notify each of its subcontractors of the revised rates of wages.

Saint Clair County Prevailing Wage for May 2010

Trade Name	-		-	Base	FRMAN *M-F>8			-	Pensn =====	Vac	Trng =====
ASBESTOS ABT-GEN		BLD			27.650 1.5	1.5		5.350		0.000	0.800
ASBESTOS ABT-MEC		BLD		26.610	27.610 1.5	1.5			2.500	0.000	0.250
BOILERMAKER		BLD		31.500	34.000 1.5	1.5	2.0	6.820	11.43	1.500	0.350
BRICK MASON		BLD		28.260	30.080 1.5	1.5	2.0	6.400	9.430	2.000	0.500
CARPENTER		ALL		32.480	33.980 1.5	1.5	2.0	5.800	5.250	0.000	0.350
CEMENT MASON		ALL		29.250	30.250 1.5	1.5	2.0	7.250	10.00	0.000	0.200
CERAMIC TILE FNSHER		BLD		24.660	0.000 1.5	1.5		5.550			0.430
ELECTRIC PWR EQMT OP		ALL		34.000	0.000 1.5	2.0	2.0	5.170	9.520	0.000	0.260
ELECTRIC PWR GRNDMAN		ALL		25.380	0.000 1.5	2.0			7.110		0.190
ELECTRIC PWR LINEMAN		ALL			40.980 1.5	2.0			10.95		0.290
ELECTRIC PWR TRK DRV		ALL		27.750	0.000 1.5	2.0		4.220		0.000	0.210
ELECTRICIAN		ALL			38.180 1.5	1.5		5.940			0.540
ELECTRONIC SYS TECH		BLD			30.870 1.5	1.5				0.000	
ELEVATOR CONSTRUCTOR		BLD			46.060 2.0	2.0		10.03		2.460	0.000
FLOOR LAYER		BLD		28.430	29.180 1.5	1.5			5.250	0.000	0.350
GLAZIER		BLD		31.460	0.000 2.0 35.760 1.5	2.0			9.300 9.860		0.310
HT/FROST INSULATOR IRON WORKER		BLD ALL			30.850 1.5	1.5 1.5			9.860		0.500
LABORER	N	ALL			27.150 1.5	1.5			8.850		0.420
LABORER	S	ALL		24.900		1.5			10.50	0.000	0.800
MACHINIST	D	BLD			44.770 1.5	1.5			8.690		
MARBLE FINISHERS		BLD		23.370	0.000 1.5	1.5			4.400		
MARBLE MASON		BLD			30.080 1.5	1.5		6.400		2.000	0.500
MILLWRIGHT		ALL			33.980 1.5	1.5			5.250	0.000	0.350
OPERATING ENGINEER			1		34.000 1.5	1.5	2.0	7.800		0.000	1.000
OPERATING ENGINEER					34.000 1.5	1.5			13.75		
OPERATING ENGINEER				25.390		1.5			13.75		
OPERATING ENGINEER		BLD	4	25.450	34.000 1.5	1.5	2.0	7.800	13.75	0.000	1.000
OPERATING ENGINEER		BLD	5	25.120	34.000 1.5	1.5	2.0	7.800	13.75	0.000	1.000
OPERATING ENGINEER		BLD	6	31.550	34.000 1.5	1.5	2.0	7.800	13.75	0.000	1.000
OPERATING ENGINEER		BLD	7	31.850	34.000 1.5	1.5	2.0	7.800	13.75	0.000	1.000
OPERATING ENGINEER		BLD	8		34.000 1.5	1.5		7.800		0.000	
OPERATING ENGINEER			9		34.000 1.5	1.5				0.000	
OPERATING ENGINEER				29.500		1.5			13.75	0.000	
OPERATING ENGINEER				28.370		1.5		7.800		0.000	
OPERATING ENGINEER		HWY	-		32.500 1.5	1.5			13.75		1.000
OPERATING ENGINEER				23.950					13.75		
OPERATING ENGINEER OPERATING ENGINEER					32.500 1.5 32.500 1.5				13.75 13.75		
OPERATING ENGINEER					32.500 1.5				13.75		
OPERATING ENGINEER					32.500 1.5				13.75		
OPERATING ENGINEER					32.500 1.5				13.75		
PAINTER		BLD	2		30.200 1.5				6.770		
PAINTER		HWY			31.400 1.5				6.770		
PAINTER OVER 30FT		BLD			31.200 1.5				6.770		
PAINTER PWR EQMT		BLD			31.200 1.5				6.770		
PAINTER PWR EQMT		HWY		30.900	32.400 1.5				6.770		
PILEDRIVER		ALL			33.980 1.5				5.250		
PIPEFITTER	NW	BLD		33.350	35.350 1.5	1.5	2.0	6.440	7.750	0.000	0.600
PIPEFITTER	SE	BLD			36.250 1.5				4.950		
PLASTERER		BLD			31.000 1.5				8.000		
PLUMBER		BLD			35.750 1.5				6.100		
PLUMBER	SE	BLD			36.250 1.5				4.950		
ROOFER		BLD			30.650 1.5				6.650		
SHEETMETAL WORKER		ALL			29.580 1.5				5.650		
SPRINKLER FITTER		BLD			40.230 2.0				9.700		
TERRAZZO FINISHER		BLD			0.000 1.5				1.360		
TERRAZZO MASON		BLD		32.530	32.830 1.5	1.5	2.0	5.550	4.480	0.000	0.0/0

TRUCK DRIVER	ALL 1 28.605	0.000 1.5	1.5 2.0 9.050 4.	200 0.000 0.250
TRUCK DRIVER	ALL 2 29.005	0.000 1.5	1.5 2.0 9.050 4.	200 0.000 0.250
TRUCK DRIVER	ALL 3 29.205	0.000 1.5	1.5 2.0 9.050 4.	200 0.000 0.250
TRUCK DRIVER	ALL 4 29.455	0.000 1.5	1.5 2.0 9.050 4.	200 0.000 0.250
TRUCK DRIVER	ALL 5 30.205	0.000 1.5	1.5 2.0 9.050 4.	200 0.000 0.250
TRUCK DRIVER	O&C 1 22.880	0.000 1.5	1.5 2.0 9.050 4.	200 0.000 0.250
TRUCK DRIVER	O&C 2 23.200	0.000 1.5	1.5 2.0 9.050 4.	200 0.000 0.250
TRUCK DRIVER	O&C 3 23.360	0.000 1.5	1.5 2.0 9.050 4.	200 0.000 0.250
TRUCK DRIVER	O&C 4 23.560	0.000 1.5	1.5 2.0 9.050 4.	200 0.000 0.250
TRUCK DRIVER	O&C 5 24.160	0.000 1.5	1.5 2.0 9.050 4.	200 0.000 0.250

Legend:

M-F>8 (Overtime is required for any hour greater than 8 worked each day, Monday through Friday.

OSA (Overtime is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations

ST. CLAIR COUNTY

LABORERS (NORTH) - The area bounded by Route 159 to a point south of Fairview Heights and west-southwest to Route 3 at Monroe County line.

PLUMBERS & PIPEFITTERS (SOUTHEAST) - That part of the county bordered by Rt. 50 on the North and West including Belleville.

PLUMBERS (NORTHWEST) - Towns of Aloraton, Brooklyn, Cahokia, Caseyville, Centreville, Dupo, East Carondelet, E. St. Louis, Fairview Heights, French Village, National City, O'Fallon, Sauget, and Washington Park.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial/Decoration Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration such as the day after Thanksgiving for Veterans Day. If in doubt, please check with IDOL.

Oil and chip resealing (O&C) means the application of road oils and liquid asphalt to coat an existing road surface, followed by application of aggregate chips or gravel to coated surface, and subsequent rolling of material to seal the surface.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER AND MARBLE FINISHER

The handling, at the building site, of all sand, cement, tile, marble or stone and all other materials that may be used and installed by [a] tile layer or marble mason. In addition, the grouting, cleaning, sealing, and mixing on the job site, and all other work as required in assisting the setter. The term "Ceramic" is used for naming the classification only and is in no way a limitation of the product handled. Ceramic takes into consideration most hard tiles.

ELECTRONIC SYSTEMS TECHNICIAN

Installation, service and maintenance of low-voltage systems which utilizes the transmission and/or transference of voice, sound, vision, or digital for commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, background/foreground music, intercom and telephone interconnect, field programming, inventory control systems, microwave transmission, multi-media, multiplex, radio page, school, intercom and sound burglar alarms and low voltage master clock systems.

Excluded from this classification are energy management systems, life safety systems, supervisory controls and data acquisition systems not intrinsic with the above listed systems, fire alarm systems, nurse call systems and raceways exceeding fifteen feet in length.

OPERATING ENGINEER - BUILDING

GROUP I. Cranes, Dragline, Shovels, Skimmer Scoops, Clamshells or Derrick Boats, Pile Drivers, Crane-Type Backhoes, Asphalt Plant Operators, Concrete Plant Operators, Dredges, Asphalt Spreading Machines, All Locomotives, Cable Ways or Tower Machines, Hoists, Hydraulic Backhoes, Ditching Machines or Backfiller, Cherrypickers, Overhead Cranes, Roller - Steam or Gas, Concrete Pavers, Excavators, Concrete Breakers, Concrete Pumps, Bulk Cement Plants, Cement Pumps, Derrick-Type Drills, Boat Operators, Motor Graders or Pushcats, Scoops or Tournapulls, Bulldozers, Endloaders or Fork Lifts, Power Blade or Elevating Graders, Winch Cats, Boom or Winch Trucks or Boom Tractors, Pipe Wrapping or Painting Machines, Asphalt Plant Engineer, Journeyman Lubricating Engineer, Drills (other than Derrick Type), Mud Jacks, or Well Drilling Machines, Boring Machines or Track Jacks, Mixers, Conveyors (Two), Air Compressors (Two), Water Pumps regardless of size (Two), Welding Machines (Two), Siphons or Jets (Two), Winch Heads or Apparatuses (Two), Light Plants (Two), All Tractors regardless of size (straight tractor only), Fireman on Stationary Boilers, Automatic Elevators, Form Grading Machines, Finishing Machines, Power Sub-Grader or Ribbon Machines, Longitudinal Floats, Distributor Operators on Trucks, Winch Heads or Apparatuses (One), Mobil Track air and heaters (two to five), Heavy Equipment Greaser, Relief Operator, Assistant Master Mechanic and Heavy Duty Mechanic, self-propelled concrete saws of all types and sizes with their attachments, gob-hoppers, excavators all sizes, the repair and greasing of all diesel hammers, the operation and set-up of bidwells, water blasters of all sizes and their clutches, hydraulic jacks where used for hoisting, operation of log skidders, iceolators used on and off of pipeline, condor cranes, bow boats, survey boats, bobcats and all their attachments, skid steer loaders and all their attachments, creter cranes, batch plants, operator (all sizes), self propelled roto mills, operation of conveyor systems of any size and any configuration, operation, repair and service of all vibratory hammers, all power pacs and their controls regardless of location, curtains or brush burning machines, stump cutter machines, Nail launchers when mounted on a machine or self-propelled, operation of con-cover machines, and all Operators except those listed below).

GROUP II. Assistant Operators.

GROUP III. Air Compressors (One), Water Pumps, regardless of Size (One), Waterblasters (one), Welding Machine (One), Mixers (One Bag), Conveyor (One), Siphon or Jet (One), Light Plant (One), Heater (One), Immobile Track Air (One), and Self Propelled Walk-Behind Rollers.

GROUP IV. Asphalt Spreader Oilers, Fireman on Whirlies and Heavy Equipment Oilers, Truck Cranes, Dredges, Monigans, Large Cranes -(Over 65-ton rated capacity) Concrete Plant Oiler, Blacktop Plant Oiler, and Creter Crane Oiler (when required).

GROUP V. Oiler.

GROUP VI. Operators on equipment with Booms, including jibs, 100 feet and over, and less than 150 feet long.

GROUP VII. Operators on equipment with Booms, including jibs, 150 feet and over, and less than 200 feet long.

GROUP VIII. Operators on Equipment with Booms, including jibs, 200 feet and over; Tower Cranes; and Whirlie Cranes.

GROUP IX. Master Mechanic

OPERATING ENGINEERS - Highway

GROUP I. Cranes, Dragline, Shovels, Skimmer Scoops, Clamshells or Derrick Boats, Pile Drivers, Crane-Type Backhoes, Asphalt Plant Operators, Concrete Plant Operators, Dredges, Asphalt Spreading Machines, All Locomotives, Cable Ways or Tower Machines, Hoists, Hydraulic Backhoes, Ditching Machines or Backfiller, Cherrypickers, Overhead Cranes, Roller - Steam or Gas, Concrete Pavers, Excavators, Concrete Breakers, Concrete Pumps, Bulk Cement Plants, Cement Pumps, Derrick-Type Drills, Boat Operators, Motor Graders or Pushcats, Scoops or Tournapulls, Bulldozers, Endloaders or Fork Lifts, Power Blade or Elevating Graders, Winch Cats, Boom or Winch Trucks or Boom Tractors, Pipe Wrapping or Painting Machines, Asphalt Plant Engineer, Journeyman Lubricating Engineer, Drills (other than Derrick Type), Mud Jacks, Well Drilling Machines, Boring Machines, Track Jacks, Mixers, Conveyors (Two), Air Compressors (Two), Water Pumps regardless of size (Two), Welding Machines (Two), Siphons or Jets (Two), Winch Heads or Apparatuses (Two), Light Plants (Two), All Tractors regardless of size (straight tractor only), Fireman on Stationary Boilers, Automatic Elevators, Form Grading Machines, Finishing Machines, Power Sub-Grader or Ribbon Machines, Longitudinal Floats, Distributor Operators on Trucks, Winch Heads or Apparatuses (One), Mobil Track air and heaters (two to five), Heavy Equipment Greaser, Relief Operator, Assistant Master Mechanic and Heavy Duty Mechanic, self-propelled concrete saws

of all types and sizes with their attachments, gob-hoppers, excavators all sizes, the repair and greasing of all diesel hammers, the operation and set-up of bidwells, water blasters of all sizes and their clutches, hydraulic jacks where used for hoisting, operation of log skidders, iceolators used on and off of pipeline, condor cranes, bow boats, survey boats, bobcats and all their attachments, skid steer loaders and all their attachments, creter cranes, batch plants, operator (all sizes), self propelled roto mills, operation of conveyor systems of any size and any configuration, operation, repair and service of all vibratory hammers, all power pacs and their controls regardless of location, curtains or brush burning machines, stump cutter machines, Nail launchers when mounted on a machine or self-propelled, operation of con-cover machines, and all Operators (except those listed below).

GROUP II. Assistant Operators.

GROUP III. Air Compressors (One), Water Pumps, regardless of Size (One), Waterblasters (one), Welding Machine (One), Mixers (One Bag), Conveyor (One), Siphon or Jet (One), Light Plant (One), Heater (One), Immobile Track Air (One), and Self Propelled Walk-Behind Rollers.

GROUP IV. Asphalt Spreader Oilers, Fireman on Whirlies and Heavy Equipment Oilers, Truck Cranes, Dredges, Monigans, Large Cranes -(Over 65-ton rated capacity) Concrete Plant Oiler, Blacktop Plant Oiler, and Creter Crane Oiler (when required).

GROUP V. Oiler.

GROUP VI. Operators on equipment with Booms, including jibs, 100 feet and over, and less than 150 feet long.

GROUP VII. Operators on equipment with Booms, including jibs, 150 feet and over, and less than 200 feet long.

GROUP VIII. Operators on Equipment with Booms, including jibs, 200 feet and over; Tower Cranes; and Whirlie Cranes.

GROUP IX. Mechanic

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION Class 1. Drivers on 2 axle trucks hauling less than 9 ton. Air compressor and welding machines and brooms, including those pulled by separate units, truck driver helpers, warehouse employees, mechanic helpers, greasers and tiremen, pickup trucks when hauling materials, tools, or workers to and from and on-the-job site, and fork lifts up to 6,000 lb. capacity.

Class 2. Two or three axle trucks hauling more than 9 ton but hauling less than 16 ton. A-frame winch trucks, hydrolift trucks, vactor trucks or similar equipment when used for transportation purposes. Fork lifts over 6,000 lb. capacity, winch trucks, four axle combination units, and ticket writers.

Class 3. Two, three or four axle trucks hauling 16 ton or more. Drivers on water pulls, articulated dump trucks, mechanics and working forepersons, and dispatchers. Five axle or more combination units.

Class 4. Low Boy and Oil Distributors.

Class 5. Drivers who require special protective clothing while

employed on hazardous waste work. TRUCK DRIVER - OIL AND CHIP RESEALING ONLY.

This shall encompass laborers, workers and mechanics who drive contractor or subcontractor owned, leased, or hired pickup, dump, service, or oil distributor trucks. The work includes transporting materials and equipment (including but not limited to, oils, aggregate supplies, parts, machinery and tools) to or from the job site; distributing oil or liquid asphalt and aggregate; stock piling material when in connection with the actual oil and chip contract. The Truck Driver (Oil & Chip Resealing) wage classification does not include supplier delivered materials.

TERRAZZO FINISHER

The handling of all materials used for Mosaic and Terrazzo work including preparing, mixing by hand, by mixing machine or transporting of pre-mixed materials and distributing with shovel, rake, hoe, or pail, all kinds of concrete foundations necessary for Mosaic and Terrazzo work, all cement terrazzo, magnesite terrazzo, Do-O-Tex terrazzo, epoxy matrix ter-razzo, exposed aggregate, rustic or rough washed for exterior or interior of buildings placed either by machine or by hand, and any other kind of mixture of plastics composed of chips or granules when mixed with cement, rubber, neoprene, vinyl, magnesium chloride or any other resinous or chemical substances used for seamless flooring systems, and all other building materials, all similar materials and all precast terrazzo work on jobs, all scratch coat used for Mosaic and Terrazzo work and sub-bed, tar paper and wire mesh (2x2 etc.) or lath. The rubbing, grinding, cleaning and finishing of same either by hand or by machine or by terrazzo resurfacing equipment on new or existing floors. When necessary finishers shall be allowed to assist the mechanics to spread sand bed, lay tarpaper and wire mesh (2x2 etc.) or lath. The finishing of cement floors where additional aggregate of stone is added by spreading or sprinkling on top of the finished base, and troweled or rolled into the finish and then the surface is ground by grinding machines.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.