

## **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 than 4:30 p.m. prevailing time twenty-one days prior to the letting of interest. This pre-qualification requirement applies to first time contractors, contractors renewing expired ratings, contractors maintaining continuous pre-qualification or contractors requesting revised ratings. To be eligible to bid, existing pre-qualification ratings must be effective through the date of 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](mailto:D&Econtracts@dot.il.gov)

Technical Questions about downloading these files may be directed to Tim Garman (217)524-1642 or [Timothy.Garman@illinois.gov](mailto:Timothy.Garman@illinois.gov).

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

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

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

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

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

<b>Questions Regarding</b>	<b>Call</b>
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 an addendum or revision could result in a bid being rejected as irregular.

RETURN WITH BID

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Proposal Submitted By
Name
Address
City

Letting November 6, 2009

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

**NOTICE TO PROSPECTIVE BIDDERS**

This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction.  
(SEE INSTRUCTIONS ON THE INSIDE OF COVER)

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



**Illinois Department  
of Transportation**

Springfield, Illinois 62764

Contract No. 91351  
MCLEAN County  
Section 93-00295-03-PV (Bloomington)  
Route FAU 6371 (Hamilton Road)  
Project ARA-M-5227(046)  
District 5 Construction Funds

PLEASE MARK THE APPROPRIATE BOX BELOW:

- A Bid Bond is included.
- A Cashier's Check or a Certified Check is included

Prepared by

Checked by

F

(Printed by authority of the State of Illinois)

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## INSTRUCTIONS

**ABOUT IDOT PROPOSALS:** All proposals issued by IDOT are potential bidding proposals. Each proposal contains all Certifications and Affidavits, a Proposal Signature Sheet and a Proposal Bid Bond required for Prime Contractors to submit a bid after written **Authorization to Bid** has been issued by IDOT's Central Bureau of Construction.

**WHO CAN BID?:** Bids will be accepted from only those companies that request and receive written **Authorization to Bid** from IDOT's Central Bureau of Construction. To request authorization, a potential bidder must complete and submit Part B of the Request for Authorization to Bid/or Not For Bid Status form (BDE 124 INT) and submit an original Affidavit of Availability (BC 57).

**WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?:** When a prospective prime bidder submits a "Request for 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 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. 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

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

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



RETURN WITH BID



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

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

Taxpayer Identification Number (Mandatory) \_\_\_\_\_

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

**Contract No. 91351  
MCLEAN County  
Section 93-00295-03-PV (Bloomington)  
Project ARA-M-5227(046)  
Route FAU 6371 (Hamilton Road)  
District 5 Construction Funds**

**Project consists of the construction of a new PCC pavement over stabilized subbase, storm sewers, curb and gutter, sidewalks, water main and sanitary sewer from 200 East of Timberlake Road to Main Street, widening and resurfacing of right turn lanes on Main Street at Hamilton road and new traffic signals at the intersection of Hamilton Road and Main Street, all located in the city of Bloomington.**

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.



**RETURN WITH BID**

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 No.	Sections Included in Combination	Combination Bid	
		Dollars	Cents

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

STATE JOB # - C-95-337-05  
 PPS NBR - 5-10588-0010

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT NUMBER - 91351

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COUNTY NAME	CODE	DIST	SECTION NUMBER	PROJECT NUMBER	ROUTE		
MCLEAN	113	05	93-00295-03-PV (BLOOMINGTON)	ARA-M-5227/046/000	FAU 6371		
ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE DOLLARS	CENTS	TOTAL PRICE DOLLARS	CTS
A2000116	T-ACERX FREM AB 2	EACH	1.000 X				
A2007116	T-QUERCUS RUBRA 2	EACH	2.000 X				
B2005216	T-MALUS SUT TF 2	EACH	3.000 X				
D2000148	E-ABIES CONCOLOR 4'	EACH	7.000 X				
D2001748	E-PICEA ABIES 4'	EACH	2.000 X				
D2002048	E-PICEA OMORIKA 4'	EACH	3.000 X				
XX000613	MODULAR BLOC RET WALL	SQ FT	1,236.000 X				
XX002161	ABAND EX WATER MAIN	EACH	1.000 X				
XX004735	RD INLET TY B T1 F&CL	EACH	1.000 X				
XX005476	D I WM 12 RJ	FOOT	6.000 X				
XX005478	D I WM 6 RJ	FOOT	20.000 X				
XX005479	D I WM 8 RJ	FOOT	89.000 X				
XX005480	D I WM 16 RJ	FOOT	177.000 X				
XX005931	TRAF SIGL P 16FT SPL	EACH	4.000 X				
XX006163	REM ELCBL FR CON SP	L SUM	1.000 X				

FAU 6371  
 93-00295-03-PV (BLOOMINGTON)  
 MCLEAN

ILLINOIS DEPARTMENT OF TRANSPORTATION  
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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE
				DOLLARS	CENTS	
XX006377	SEPTIC TANK TO BE PUMPED	EACH	2.000	=		
XX006533	PED SH P LED 1F BM CT	EACH	8.000	=		
XX007744	CONCRETE ENCASEMENTS	EACH	1.000	=		
XX008164	D I WM 14 RJ	FOOT	14.000	=		
XX008165	RD MAN 6 DIA T37M G	EACH	1.000	=		
XX008166	HDPE WM DIR DRILL 14	FOOT	120.000	=		
XX008167	CASING PIPE 4	FOOT	40.000	=		
XX008168	CASING PIPE 18	FOOT	22.000	=		
XX008169	PED PUSH-BUT POST SPL	EACH	4.000	=		
XX008170	WATER SERV DIR DILL 1	FOOT	790.000	=		
X0321905	SS 1 WAT MN 12	FOOT	273.000	=		
X0321907	SS 2 WAT MN 12	FOOT	211.000	=		
X0321908	SS 2 WAT MN 15	FOOT	206.000	=		
X0323954	SS 2 WAT MN 18	FOOT	22.000	=		
X0325365	RD INLET TYB T8 GRATE	EACH	1.000	=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE
				DOLLARS	CENTS	
X0488100	REM EX SEPTIC TANK	EACH	2.000	=		
X0962500	REMOV EX TS EQUIP	L SUM	1.000	=		
X6020125	RD INLET TY B T3 F&G	EACH	3.000	=		
X7015005	CHANGEABLE MESSAGE SN	CAL DA	14.000	=		
X8250215	PHOTOCELL CONTROL SYS	EACH	1.000	=		
X8730027	ELCBL C GROUND 6 1C	FOOT	2,225.000	=		
X8850106	IND LOOP DETECT (RM)	EACH	14.000	=		
X8850107	IND LOOP DET (RM) SO	EACH	12.000	=		
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000	=		
Z0022800	FENCE REMOVAL	FOOT	20.000	=		
Z0023900	FILL EXIST WELLS	EACH	1.000	=		
Z0051500	REM & RESET ST SIGNS	EACH	1.000	=		
Z0059500	SAN SEW T2 6	FOOT	116.000	=		
Z0059600	SAN SEW T2 8	FOOT	663.000	=		
Z0060800	SAN SEW T3 6	FOOT	479.000	=		

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	CTS
				DOLLARS	CENTS		
Z0060900	SAN SEW T3 8	FOOT	1,303.000	=			
20100110	TREE REMOV 6-15	UNIT	92.000	=			
20100210	TREE REMOV OVER 45	UNIT	66.000	=			
20101200	TREE ROOT PRUNING	EACH	8.000	=			
20101350	TREE PRUN OVER 10	EACH	8.000	=			
20200100	EARTH EXCAVATION	CU YD	12,726.000	=			
20201200	REM & DISP UNS MATL	CU YD	650.000	=			
20800150	TRENCH BACKFILL	CU YD	6,622.000	=			
20900330	GRANULAR BACKFILL	TON	1,333.000	=			
21001000	GEOTECH FAB F/GR STAB	SQ YD	1,950.000	=			
21101505	TOPSOIL EXC & PLAC	CU YD	2,255.000	=			
21101615	TOPSOIL F & P 4	SQ YD	500.000	=			
25000110	SEEDING CL 1A	ACRE	4.200	=			
25000400	NITROGEN FERT NUTR	POUND	378.000	=			
25000500	PHOSPHORUS FERT NUTR	POUND	378.000	=			

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
25000600	POTASSIUM FERT NUTR	POUND	378.000	X	=		
25100125	MULCH METHOD 3	ACRE	3.200	X	=		
25100630	EROSION CONTR BLANKET	SQ YD	5,000.000	X	=		
25200100	SODDING	SQ YD	50.000	X	=		
25200200	SUPPLE WATERING	UNIT	1.000	X	=		
25300910	SALV & TRANSP TREE SP	EACH	3.000	X	=		
28000255	TEMP EROS CONTR SEED	ACRE	4.200	X	=		
28000400	PERIMETER EROS BAR	FOOT	3,675.000	X	=		
28000500	INLET & PIPE PROTECT	EACH	4.000	X	=		
28000510	INLET FILTERS	EACH	53.000	X	=		
31200500	STAB SUBBASE HMA 4	SQ YD	15,153.000	X	=		
35100500	AGG BASE CSE A 6	SQ YD	2,817.000	X	=		
35101100	AGG BASE CSE A 12	SQ YD	16,878.000	X	=		
35300400	PCC BSE CSE 9	SQ YD	1,250.000	X	=		
35800100	PREPARATION OF BASE	SQ YD	900.000	X	=		



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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	CTS
				DOLLARS	CENTS		
40200800	AGG SURF CSE B	TON	450.000	=			
40201000	AGGREGATE-TEMP ACCESS	TON	405.000	=			
40600100	BIT MATLS PR CT	GALLON	980.000	=			
40600300	AGG PR CT	TON	5.000	=			
40600400	MIX CR JTS FLANGEWYS	TON	1.000	=			
40600845	P LEV BIND MM N90	TON	128.000	=			
40600985	PCC SURF REM BUTT JT	SQ YD	64.000	=			
40600990	TEMPORARY RAMP	SQ YD	393.000	=			
40603315	HMA SC "C" N70	TON	330.000	=			
40603545	P HMA SC "D" N90	TON	192.000	=			
42000301	PCC PVT 8 JOINTED	SQ YD	13,667.000	=			
42001300	PROTECTIVE COAT	SQ YD	14,926.000	=			
42300200	PCC DRIVEWAY PAVT 6	SQ YD	415.000	=			
42300400	PCC DRIVEWAY PAVT 8	SQ YD	771.000	=			
42400100	PC CONC SIDEWALK 4	SQ FT	14,169.000	=			

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	CTS
				DOLLARS	CENTS		
42400800	DETECTABLE WARNINGS	SQ FT	80.000	=			
44000100	PAVEMENT REM	SQ YD	5,914.000	=			
44000159	HMA SURF REM 2 1/2	SQ YD	576.000	=			
44000200	DRIVE PAVEMENT REM	SQ YD	1,516.000	=			
44000300	CURB REM	FOOT	72.000	=			
44000500	COMB CURB GUTTER REM	FOOT	2,196.000	=			
44000600	SIDEWALK REM	SQ FT	2,910.000	=			
44003100	MEDIAN REMOVAL	SQ FT	473.000	=			
44200962	CL B PATCH T3 9	SQ YD	25.000	=			
44201741	CL D PATCH T2 8	SQ YD	25.000	=			
44300200	STRIP REF CR CON TR	FOOT	1,652.000	=			
50105210	REM EXIST CULVERTS	FOOT	96.000	=			
54248515	CONCRETE COLLAR	EACH	15.000	=			
550A0050	STORM SEW CL A 1 12	FOOT	78.000	=			
550A0180	STORM SEW CL A 1 42	FOOT	6.000	=			

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE
				DOLLARS	CENTS	
550A0340	STORM SEW CL A 2 12	FOOT	1,324.000	X	=	
550A0360	STORM SEW CL A 2 15	FOOT	785.000	X	=	
550A0380	STORM SEW CL A 2 18	FOOT	16.000	X	=	
550A0410	STORM SEW CL A 2 24	FOOT	1,051.000	X	=	
550A0430	STORM SEW CL A 2 30	FOOT	653.000	X	=	
550B0010	STORM SEW CL B 1 4	FOOT	20.000	X	=	
550B0030	STORM SEW CL B 1 8	FOOT	89.000	X	=	
55100200	STORM SEWER REM 6	FOOT	95.000	X	=	
55100500	STORM SEWER REM 12	FOOT	285.000	X	=	
55100900	STORM SEWER REM 18	FOOT	40.000	X	=	
55101800	STORM SEWER REM 42	FOOT	6.000	X	=	
56103400	D I WATER MAIN 16	FOOT	1,925.000	X	=	
56104400	WATER VALVES 1	EACH	10.000	X	=	
56104600	WATER VALVES 2	EACH	7.000	X	=	
56105000	WATER VALVES 8	EACH	2.000	X	=	

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE
				DOLLARS	CENTS	
56105760	BUTTERFLY VALVES 16	EACH	4.000	X	=	
56109100	TAP VALVE & SLEEVE 12	EACH	1.000	X	=	
56200700	WATER SERV LINE 2	FOOT	85.000	X	=	
56400100	FIRE HYDNTS TO BE MVD	EACH	1.000	X	=	
56400500	FIRE HYDNTS TO BE REM	EACH	5.000	X	=	
56400800	FIRE HYDNT & VAL MVD	EACH	1.000	X	=	
56400820	FIRE HYD W/AUX V & VB	EACH	6.000	X	=	
56500500	DOM MET VLTS	EACH	1.000	X	=	
60218400	MAN TA 4 DIA T1F CL	EACH	5.000	X	=	
60218500	MAN TA 4 DIA T3F&G	EACH	1.000	X	=	
60221100	MAN TA 5 DIA T1F CL	EACH	5.000	X	=	
60224600	RD MAN 4 DIA T1F CL	EACH	5.000	X	=	
60225400	RD MAN 5 DIA T1F CL	EACH	3.000	X	=	
60228000	MAN SANITARY	EACH	8.000	X	=	
60234200	INLETS TA T1F OL	EACH	1.000	X	=	

FAU 6371  
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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	CTS
				DOLLARS	CENTS		
60235700	INLETS TA T3F&G	EACH	3.000	=			
60236200	INLETS TA T8G	EACH	3.000	=			
60240215	INLETS TB T1F CL	EACH	3.000	=			
60240220	INLETS TB T3F&G	EACH	2.000	=			
60242850	INLETS SPL TH	EACH	42.000	=			
60255500	MAN ADJUST	EACH	3.000	=			
60255800	MAN ADJ NEW T1F CL	EACH	3.000	=			
60257600	MAN ADJ F&G SPL	EACH	1.000	=			
60260100	INLETS ADJUST	EACH	1.000	=			
60266600	VALVE BOX ADJ	EACH	4.000	=			
60500040	REMOV MANHOLES	EACH	2.000	=			
60500060	REMOV INLETS	EACH	6.000	=			
60600505	CONC CURB SPL	FOOT	65.000	=			
60600605	CONC CURB TB	FOOT	56.000	=			
60604400	COMB CC&G TB6.18	FOOT	4,534.000	=			

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	CTS
				DOLLARS	CENTS		
60605400	COMB CC&G TB6.24 SPL	FOOT	1,171.000	X	=		
60623100	CONC MED TSM6.12 SPL	SQ FT	104.000	X	=		
66410400	CH LK FENCE REM & RE	FOOT	50.000	X	=		
66700105	PERM SURV MKRS SPL	EACH	1.000	X	=		
67100100	MOBILIZATION	L SUM	1.000	X	=		
70101800	TRAF CONT & PROT SPL	L SUM	1.000	X	=		
70101835	TRAF CONT-PROT BLR 22	L SUM	1.000	X	=		
70101855	TR CONT-PROT BLR21 SP	L SUM	1.000	X	=		
70102620	TR CONT & PROT 701501	L SUM	1.000	X	=		
70102640	TR CONT & PROT 701801	L SUM	1.000	X	=		
70102665	TC-PROT 701606 SPL	L SUM	1.000	X	=		
70102670	TC-PROT 701601 SPL	L SUM	1.000	X	=		
70102675	TC-PROT 701701 SPL	L SUM	1.000	X	=		
70300220	TEMP PVT MK LINE 4	FOOT	470.000	X	=		
70300510	PAVT MARK TAPE T3 L&S	SQ FT	188.000	X	=		

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ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	CTS
				DOLLARS	CENTS		
70300520	PAVT MARK TAPE T3 4	FOOT	5,948.000	X	=		
70300570	PAVT MARK TAPE T3 24	FOOT	88.000	X	=		
70301000	WORK ZONE PAVT MK REM	SQ FT	2,347.000	X	=		
72000100	SIGN PANEL T1	SQ FT	40.000	X	=		
72000200	SIGN PANEL T2	SQ FT	50.000	X	=		
78000100	THPL PVT MK LTR & SYM	SQ FT	156.000	X	=		
78000200	THPL PVT MK LINE 4	FOOT	347.000	X	=		
78000400	THPL PVT MK LINE 6	FOOT	848.000	X	=		
78000500	THPL PVT MK LINE 8	FOOT	242.000	X	=		
78000600	THPL PVT MK LINE 12	FOOT	83.000	X	=		
78000650	THPL PVT MK LINE 24	FOOT	149.000	X	=		
78005100	EPOXY PVT MK LTR-SYM	SQ FT	344.000	X	=		
78005130	EPOXY PVT MK LINE 6	FOOT	7,973.000	X	=		
78005140	EPOXY PVT MK LINE 8	FOOT	339.000	X	=		
78005150	EPOXY PVT MK LINE 12	FOOT	16.000	X	=		

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE DOLLARS	CENTS	TOTAL PRICE DOLLARS	CTS
78005180	EPOXY PVT MK LINE 24	FOOT	73.000				
78300100	PAVT MARKING REMOVAL	SQ FT	1,056.000				
80501000	SERV INSTALL SPL	EACH	1.000				
81012600	CON T 2 PVC	FOOT	591.000				
81017515	CON T 1 1/4 CNC	FOOT	200.000				
81017525	CON T 2 CNC	FOOT	1,060.000				
81017530	CON T 2 1/2 CNC	FOOT	160.000				
81017535	CON T 3 CNC	FOOT	47.000				
81017555	CON T 5 CNC	FOOT	10.000				
81028060	CON B&P CNC	FOOT	695.000				
81028100	CON B&P CNC	FOOT	230.000				
81028120	CON B&P CNC	FOOT	155.000				
81306500	REM EX JUNCTION BOX	EACH	2.000				
81400700	HANDHOLE PCC	EACH	15.000				
81400720	DBL HANDHOLE PCC	EACH	1.000				



ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	CTS
				DOLLARS	CENTS		
81702130	EC C XLP USE 1C 6	FOOT	1,700.000	=			
81900200	TR & BKFIL F ELECT WK	FOOT	581.000	=			
81900302	TR & BKFIL W SCR/SAND	FOOT	1,490.000	=			
82102400	LUM SV HOR MT 400W	EACH	4.000	=			
83600110	LIGHT POLE FDN SPL	EACH	3.000	=			
84200700	LIGHTING FDN REMOV	EACH	3.000	=			
84400105	RELOC EX LT UNIT	EACH	3.000	=			
85700305	FAC T5 CAB SPL	EACH	1.000	=			
86200200	UNINTER POWER SUP STD	EACH	1.000	=			
87301215	ELCBL C SIGNAL 14 2C	FOOT	1,450.000	=			
87301225	ELCBL C SIGNAL 14 3C	FOOT	1,650.000	=			
87301245	ELCBL C SIGNAL 14 5C	FOOT	2,375.000	=			
87301255	ELCBL C SIGNAL 14 7C	FOOT	2,775.000	=			
87301305	ELCBL C LEAD 14 1PR	FOOT	11,600.000	=			
87301805	ELCBL C SERV 6 2C	FOOT	75.000	=			

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	CTS
				DOLLARS	CENTS		
87704188	STL COMB MAA&P 54 SPL	EACH	4.000	X	=		
87800100	CONC FDN TY A	FOOT	12.000	X	=		
87800150	CONC FDN TY C	FOOT	4.000	X	=		
87800415	CONC FDN TY E 36D	FOOT	60.000	X	=		
88040070	SH P LED 1F 3S BM	EACH	2.000	X	=		
88040090	SH P LED 1F 3S MAM	EACH	8.000	X	=		
88040150	SH P LED 1F 5S BM	EACH	6.000	X	=		
88040160	SH P LED 1F 5S MAM	EACH	6.000	X	=		
88200410	TS BACKPLATE L F PLAS	EACH	22.000	X	=		
88600100	DET LOOP T1	FOOT	1,900.000	X	=		
88700200	LIGHT DETECTOR	EACH	4.000	X	=		
88700300	LIGHT DETECTOR AMP	EACH	1.000	X	=		
88800100	PED PUSH-BUTTON	EACH	8.000	X	=		
89000100	TEMP TR SIG INSTALL	EACH	1.000	X	=		
89502380	REMOV EX HANDHOLE	EACH	5.000	X	=		

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ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
89502385	REMOV EX CONC FDN	EACH	9.000	X		=	

TOTAL \$

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

## RETURN WITH BID

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

#### **I. GENERAL**

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

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

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for termination of the contract and the suspension or debarment of the bidder.

#### **II. ASSURANCES**

A. The assurances hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous assurance, and the surety providing the performance bond shall be responsible for the completion of the contract.

##### **B. Felons**

1. The Illinois Procurement Code provides:

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

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

##### **C. Conflicts of Interest**

1. The Illinois Procurement Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

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

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

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

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

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

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

## RETURN WITH BID

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

### **D. Negotiations**

1. The Illinois Procurement Code provides in pertinent part:

Section 50-15. Negotiations.

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

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

### **E. Inducements**

1. The Illinois Procurement Code provides:

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

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

### **F. Revolving Door Prohibition**

1. The Illinois Procurement Code provides:

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

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

### **G. Reporting Anticompetitive Practices**

1. The Illinois Procurement Code provides:

Section 50-40. Reporting anticompetitive practices. When, for any reason, any vendor, bidder, contractor, chief procurement officer, State purchasing officer, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, offerors, contractors, proposers, or employees of the State, a notice of the relevant facts shall be transmitted to the Attorney General and the chief procurement officer.

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

### **H. Confidentiality**

1. The Illinois Procurement Code provides:

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

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

## RETURN WITH BID

### **I. Insider Information**

1. The Illinois Procurement Act provides:

Section 50-50. Insider information. It is unlawful for any current or former elected or appointed State official or State employee to knowingly use confidential information available only by virtue of that office or employment for actual or anticipated gain for themselves or another person.

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

### **III. CERTIFICATIONS**

**A.** The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous certification, and the surety providing the performance bond shall be responsible for completion of the contract.

#### **B. Bribery**

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

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

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

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

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

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

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

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

- (d) Certification. Every bid submitted to and contract executed by the State shall contain a certification by the contractor that the contractor is not barred from being awarded a contract or subcontract under this Section. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

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

#### **C. Educational Loan**

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

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

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

#### **D. Bid-Rigging/Bid Rotating**

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

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

## RETURN WITH BID

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

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

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

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

### **E. International Anti-Boycott**

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

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

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

### **F. Drug Free Workplace**

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

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

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

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

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

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

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

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

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

## RETURN WITH BID

### **G. Debt Delinquency**

1. The Illinois Procurement Code provides:

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

The contractor or bidder certifies that it, or any affiliate, is not barred from being awarded a contract under 30 ILCS 500. Section 50-11 prohibits a person from entering into a contract with a State agency if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The contractor further acknowledges that the contracting State agency may declare the contract void if this certification is false or if the contractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

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

1. The Illinois Procurement Code, Section 50-60(c), provides:

The contractor certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 for a period of five years prior to the date of the bid or contract. The contractor acknowledges that the contracting agency shall declare the contract void if this certification is false.

### **I. Addenda**

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

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

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

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

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

**NA - FEDERAL**

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

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

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



## RETURN WITH BID

### **M. Disclosure of Business Operations in Iran**

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

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

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

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

Check the appropriate statement:

Company has no business operations in Iran to disclose.

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

### **N. Political Contributions and Registration with the State Board of Elections**

Sections 20-160 and 50-37 of the Illinois Procurement Code regulate political contributions from business entities and any affiliated entities or affiliated persons bidding on or contracting with the state. Generally under Section 50-37, any business entity, and any affiliated entity or affiliated person of the business entity, whose current year contracts with all state agencies exceed an awarded value of \$50,000, are prohibited from making any contributions to any political committees established to promote the candidacy of the officeholder responsible for the awarding of the contracts or any other declared candidate for that office for the duration of the term of office of the incumbent officeholder or a period 2 years after the termination of the contract, whichever is longer. Any business entity and affiliated entities or affiliated persons whose state contracts in the current year do not exceed an awarded value of \$50,000, 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.

**TO BE RETURNED WITH BID**

**IV. DISCLOSURES**

**A.** The disclosures hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous disclosure, and the surety providing the performance bond shall be responsible for completion of the contract.

**B. Financial Interests and Conflicts of Interest**

1. Section 50-35 of the Illinois Procurement Code provides that all bids of more than \$10,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act.

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

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

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. Subject individuals should be covered each by one form. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies. **The forms must be included with each bid or incorporated by reference.**

**C. Disclosure Form Instructions**

**Form A: For bidders that have previously submitted the information requested in Form A**

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

**CERTIFICATION STATEMENT**

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

\_\_\_\_\_  
(Bidding Company)



\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Date

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

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

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES \_\_\_ NO \_\_\_
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than \$102,600.00? YES \_\_\_ NO \_\_\_
3. Does anyone in your organization receive more than \$106,447.20 of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES \_\_\_ NO \_\_\_
4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than \$106,447.20? YES \_\_\_ NO \_\_\_  
(Note: Only one set of forms needs to be completed 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 on page 2 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

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

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

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

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

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

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

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

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RETURN WITH BID/OFFER

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

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

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

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than \$106,447.20 (60% of the Governor's salary as of 3/1/09). (Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)

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

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

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

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

- 1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois Toll Highway Authority? Yes \_\_\_ No \_\_\_
2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 3/1/09) provide the name the State agency for which you are employed and your annual salary.

**RETURN WITH BID/OFFER**

- 3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 3/1/09) 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 3/1/09) are you and your spouse or minor children entitled to receive (i) more than 15% in aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes \_\_\_ No \_\_\_

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(b) State employment of spouse, father, mother, son, or daughter, including contractual employment for services in the previous 2 years.

Yes \_\_\_ No \_\_\_

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

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois Toll Highway Authority? Yes \_\_\_ No \_\_\_
  
- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 3/1/09) provide the name of the spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. \_\_\_\_\_
  
- 3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$106,447.20.00, (60% of the salary of the Governor as of 3/1/09) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes \_\_\_ No \_\_\_
  
- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$106,447.20, (60% of the Governor's salary as of 3/1/09) are you and your spouse or any minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income from your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes \_\_\_ No \_\_\_

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(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 \_\_\_

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

Yes \_\_\_ No \_\_\_

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(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United State of America, or any unit of local government authorized by the Constitution of the State of Illinois or the 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 \_\_\_

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(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter.

Yes \_\_\_ No \_\_\_

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

Yes \_\_\_ No \_\_\_

**RETURN WITH BID/OFFER**

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

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

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

**APPLICABLE STATEMENT**

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

Completed by:  \_\_\_\_\_ Date \_\_\_\_\_  
Signature of Individual or Authorized Representative

**NOT APPLICABLE STATEMENT**

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

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

\_\_\_\_\_ Date \_\_\_\_\_  
Signature of Authorized Representative

RETURN WITH BID/OFFER

**ILLINOIS DEPARTMENT  
OF TRANSPORTATION**

**Form B  
Other Contracts &  
Procurement Related Information  
Disclosure**

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

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

**DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION**

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

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

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

**THE FOLLOWING STATEMENT MUST BE CHECKED**

<input type="checkbox"/>	_____	_____
	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. 91351**  
**MCLEAN County**  
**Section 93-00295-03-PV (Bloomington)**  
**Project ARA-M-5227(046)**  
**Route FAU 6371 (Hamilton Road)**  
**District 5 Construction Funds**

**PART I. IDENTIFICATION**

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

Name of Bidder: \_\_\_\_\_

**PART II. WORKFORCE PROJECTION**

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

TABLE A

TABLE B

TOTAL Workforce Projection for Contract													
JOB CATEGORIES	TOTAL EMPLOYEES		MINORITY EMPLOYEES						TRAINEES				
			BLACK		HISPANIC		*OTHER MINOR.		APPRENTICES		ON THE JOB TRAINEES		
	M	F	M	F	M	F	M	F	M	F	M	F	
OFFICIALS (MANAGERS)													
SUPERVISORS													
FOREMEN													
CLERICAL													
EQUIPMENT OPERATORS													
MECHANICS													
TRUCK DRIVERS													
IRONWORKERS													
CARPENTERS													
CEMENT MASONS													
ELECTRICIANS													
PIPEFITTERS, PLUMBERS													
PAINTERS													
LABORERS, SEMI-SKILLED													
LABORERS, UNSKILLED													
<b>TOTAL</b>													

CURRENT EMPLOYEES TO BE ASSIGNED TO CONTRACT			
TOTAL EMPLOYEES		MINORITY EMPLOYEES	
M	F	M	F

TABLE C

TOTAL Training Projection for Contract								
EMPLOYEES IN TRAINING	TOTAL EMPLOYEES		BLACK		HISPANIC		*OTHER MINOR.	
	M	F	M	F	M	F	M	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.

FOR DEPARTMENT USE ONLY

Note: See instructions on page 2

**RETURN WITH BID**

**Contract No. 91351  
MCLEAN County  
Section 93-00295-03-PV (Bloomington)  
Project ARA-M-5227(046)  
Route FAU 6371 (Hamilton Road)  
District 5 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 only if revisions are required.

Signature:  \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

- Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.
- Table A - Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.
  - Table B - Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.
  - Table C - Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

**RETURN WITH BID**

**ADDITIONAL FEDERAL REQUIREMENTS**

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

- A. By the execution of this proposal, the signing bidder certifies that the bidding entity has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This statement made by the undersigned bidder is true and correct under penalty of perjury under the laws of the United States.
- B. **CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY:**
1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause. YES \_\_\_\_\_ NO \_\_\_\_\_
  2. If answer to #1 is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? YES \_\_\_\_\_ NO \_\_\_\_\_

**RETURN WITH BID**

**Contract No. 91351  
MCLEAN County  
Section 93-00295-03-PV (Bloomington)  
Project ARA-M-5227(046)  
Route FAU 6371 (Hamilton Road)  
District 5 Construction Funds**

PROPOSAL SIGNATURE SHEET

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

(IF AN INDIVIDUAL)

Firm Name \_\_\_\_\_  
Signature of Owner \_\_\_\_\_  
Business Address \_\_\_\_\_  
\_\_\_\_\_

(IF A CO-PARTNERSHIP)

Firm Name \_\_\_\_\_  
By \_\_\_\_\_  
Business Address \_\_\_\_\_  
Name and Address of All Members of the Firm: \_\_\_\_\_  
\_\_\_\_\_

(IF A CORPORATION)

Corporate Name \_\_\_\_\_  
By \_\_\_\_\_  
Signature of Authorized Representative \_\_\_\_\_  
Typed or printed name and title of Authorized Representative \_\_\_\_\_

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

Attest \_\_\_\_\_  
Signature \_\_\_\_\_  
Business Address \_\_\_\_\_

(IF A JOINT VENTURE)

Corporate Name \_\_\_\_\_  
By \_\_\_\_\_  
Signature of Authorized Representative \_\_\_\_\_  
Typed or printed name and title of Authorized Representative \_\_\_\_\_

Attest \_\_\_\_\_  
Signature \_\_\_\_\_  
Business Address \_\_\_\_\_

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



Return with Bid

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

Item No. \_\_\_\_\_

Letting Date \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS, That We \_\_\_\_\_

as PRINCIPAL, and \_\_\_\_\_

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

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

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

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

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

their respective officers this \_\_\_\_\_ day of \_\_\_\_\_ A.D., \_\_\_\_\_ .

PRINCIPAL

SURETY

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Company Name)

By \_\_\_\_\_  
(Signature & Title)

By: \_\_\_\_\_  
(Signature of Attorney-in-Fact)

Notary Certification for Principal and Surety

STATE OF ILLINOIS,  
County of \_\_\_\_\_

I, \_\_\_\_\_, a Notary Public in and for said County, do hereby certify that

\_\_\_\_\_ and \_\_\_\_\_  
(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

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

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

My commission expires \_\_\_\_\_

Notary Public

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

Electronic Bid Bond ID# \_\_\_\_\_

Company / Bidder Name \_\_\_\_\_



Signature and Title \_\_\_\_\_

# PROPOSAL ENVELOPE



# PROPOSALS

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

Item No.	Item No.	Item No.

Submitted By:

Name:
Address:
Phone No.

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

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

## **NOTICE**

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

# CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

## NOTICE

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

**Contract No. 91351  
MCLEAN County  
Section 93-00295-03-PV (Bloomington)  
Project ARA-M-5227(046)  
Route FAU 6371 (Hamilton Road)  
District 5 Construction Funds**



**Illinois Department of Transportation**



## NOTICE TO BIDDERS

- 1. TIME AND PLACE OF OPENING BIDS.** Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., November 6, 2009. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- 2. DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. 91351  
MCLEAN County  
Section 93-00295-03-PV (Bloomington)  
Project ARA-M-5227(046)  
Route FAU 6371 (Hamilton Road)  
District 5 Construction Funds**

**Project consists of the construction of a new PCC pavement over stabilized subbase, storm sewers, curb and gutter, sidewalks, water main and sanitary sewer from 200 East of Timberlake Road to Main Street, widening and resurfacing of right turn lanes on Main Street at Hamilton road and new traffic signals at the intersection of Hamilton Road and Main Street, all located in the city of Bloomington.**

- 3. INSTRUCTIONS TO BIDDERS.** (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.  
  
(b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
- 4. AWARD CRITERIA AND REJECTION OF BIDS.** This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the  
Illinois Department of Transportation

Gary Hannig,  
Acting Secretary



INDEX  
FOR  
SUPPLEMENTAL SPECIFICATIONS  
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2009

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

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-07) (Revised 1-1-09)

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LR 102		<input type="checkbox"/> Protests on Local Lettings	Jan. 1, 2007	
LR 105	105	<input checked="" type="checkbox"/> Cooperation with Utilities	Jan. 1, 1999	Jan. 1, 2007
LR 107-2		<input type="checkbox"/> Railroad Protective Liability Insurance for Local Lettings	Mar. 1, 2005	Jan. 1, 2006
LR 107-3		<input type="checkbox"/> Disadvantaged Business Enterprise Participation	Jan. 1, 2007	Nov. 1, 2008
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LR 107-5		<input type="checkbox"/> Substance Abuse Prevention Program	Jan. 1, 2008	Jan. 8, 2008
LR 108		<input type="checkbox"/> Combination Bids	Jan. 1, 1994	Mar. 1, 2005
LR 212		<input type="checkbox"/> Shaping Roadway	Aug. 1, 1969	Jan. 1, 2002
LR 355-1		<input type="checkbox"/> Asphalt Stabilized Base Course, Road Mix or Traveling Plant Mix	Oct. 1, 1973	Jan. 1, 2007
LR 355-2		<input type="checkbox"/> Asphalt Stabilized Base Course, Plant Mix	Feb. 2, 1963	Jan. 1, 2007
LR 400-1		<input type="checkbox"/> Bituminous Treated Earth Surface	Jan. 1, 2008	
LR 400-2		<input type="checkbox"/> Bituminous Surface Mixture (Class B)	Jan. 1, 2008	
LR 400-3		<input type="checkbox"/> Pavement Rehabilitation by the Heat-Scarify-Overlay Method	Jan. 1, 2008	
LR 402		<input type="checkbox"/> Salt Stabilized Surface Course	Feb. 20, 1963	Jan. 1, 2007
LR 403-2		<input type="checkbox"/> Bituminous Hot Mix Sand Seal Coat	Aug. 1, 1969	Jan. 1, 2007
LR 406		<input type="checkbox"/> Filling HMA Core Holes with Non-shrink Grout	Jan. 1, 2008	
LR 420		<input type="checkbox"/> PCC Pavement (Special)	May 12, 1964	Jan. 2, 2007
LR 442		<input type="checkbox"/> Bituminous Patching Mixtures for Maintenance Use	Jan. 1, 2004	Jun. 1, 2007
LR 451		<input type="checkbox"/> Crack Filling Bituminous Pavement with Fiber-Asphalt	Oct. 1, 1991	Jan. 1, 2007
LR 503-1		<input type="checkbox"/> Furnishing Class SI Concrete	Oct. 1, 1973	Jan. 1, 2002
LR 503-2		<input type="checkbox"/> Furnishing Class SI Concrete (Short Load)	Jan. 1, 1989	Jan. 1, 2002
LR 542		<input type="checkbox"/> Pipe Culverts, Type _____ (Furnished)	Sep. 1, 1964	Jan. 1, 2007
LR 663		<input type="checkbox"/> Calcium Chloride Applied	Jun. 1, 1958	Jan. 1, 2007
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LR 1004		<input type="checkbox"/> Coarse Aggregate for Bituminous Surface Treatment	Jan. 1, 2002	Jan. 1, 2007
LR 1013		<input type="checkbox"/> Rock Salt (Sodium Chloride)	Aug. 1, 1969	Jan. 1, 2002
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LR 1032-2		<input type="checkbox"/> Multigrade Cold Mix Asphalt	Jan. 1, 2007	Feb. 1, 2007
LR 1102		<input type="checkbox"/> Road Mix or Traveling Plan Mix Equipment	Jan. 1, 2007	

BDE SPECIAL PROVISIONS  
For the November 6, 2009 Letting

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

<u>File Name</u>	<u>Pg#</u>		<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80240			Above Grade Inlet Protection	July 1, 2009	
80099			Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2007
80186	110	X	Alkali-Silica Reaction for Cast-in-Place Concrete	Aug. 1, 2007	Jan. 1, 2009
80213	113	X	Alkali-Silica Reaction for Precast and Precast Prestressed Concrete	Jan. 1, 2009	
80243	116	X	American Recovery and Reinvestment Act Provisions	April 1, 2009	
80236	117	X	American Recovery and Reinvestment Act Signing	April 1, 2009	April 15, 2009
80207	123	X	Approval of Proposed Borrow Areas, Use Areas, and/or Waste Areas Inside Illinois State Borders	Nov. 1, 2008	
80192			Automated Flagger Assistance Device	Jan. 1, 2008	
80173	124	X	Bituminous Materials Cost Adjustments	Nov. 2, 2006	April 1, 2009
80241			Bridge Demolition Debris	July 1, 2009	
50261			Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	Jan. 1, 2007
50481			Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	Jan. 1, 2007
50491			Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	Jan. 1, 2007
50531			Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	Jan. 1, 2007
80166	127	X	Cement	Jan. 1, 2007	April 1, 2009
80198			Completion Date (via calendar days)	April 1, 2008	
80199			Completion Date (via calendar days) Plus Working Days	April 1, 2008	
80094	130	X	Concrete Admixtures	Jan. 1, 2003	April 1, 2009
80193			Concrete Barrier	Jan. 1, 2008	
80214			Concrete Gutter, Type A	Jan. 1, 2009	
80215			Concrete Joint Sealer	Jan. 1, 2009	
80226			Concrete Mix Designs	April 1, 2009	
80237	134	X	Construction Air Quality – Diesel Vehicle Emissions Control	April 1, 2009	July 1, 2009
80239	136	X	Construction Air Quality – Idling Restrictions	April 1, 2009	
80227	138	X	Determination of Thickness	April 1, 2009	
80177			Digital Terrain Modeling for Earthwork Calculations	April 1, 2007	
80029	150	X	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Nov. 1, 2008
80178	158	X	Dowel Bars	April 1, 2007	Jan. 1, 2008
80179			Engineer's Field Office Type A	April 1, 2007	Aug. 1, 2008
80205			Engineer's Field Office Type B	Aug. 1, 2008	
80175	159	X	Epoxy Pavement Markings	Jan. 1, 2007	
80189	161	X	Equipment Rental Rates	Aug. 2, 2007	Jan. 2, 2008
* 80244			Filter Fabric	Nov. 1, 2009	
80228			Flagger at Side Roads and Entrances	April 1, 2009	
* 80229	163	X	Fuel Cost Adjustment	April 1, 2009	July 1, 2009
80169			High Tension Cable Median Barrier	Jan 1, 2007	April 1, 2009
80194			HMA – Hauling on Partially Completed Full-Depth Pavement	Jan. 1, 2008	
* 80245	167	X	Hot-Mix Asphalt – Anti-Stripping Additive	Nov. 1, 2009	
80181	168	X	Hot-Mix Asphalt – Field Voids in the Mineral Aggregate	April 1, 2007	April 1, 2008
80201	170	X	Hot-Mix Asphalt – Plant Test Frequency	April 1, 2008	
80202	172	X	Hot-Mix Asphalt – Transportation	April 1, 2008	
80136			Hot-Mix Asphalt Mixture IL-4.75	Nov. 1, 2004	Jan. 1, 2008
80195			Hot-Mix Asphalt Mixture IL-9.5L	Jan. 1, 2008	
80109			Impact Attenuators	Nov. 1, 2003	Nov. 1, 2008
80110			Impact Attenuators, Temporary	Nov. 1, 2003	Jan. 1, 2007
80230	173	X	Liquidated Damages	April 1, 2009	
80196	174	X	Mast Arm Assembly and Pole	Jan. 1, 2008	Jan. 1, 2009
80045			Material Transfer Device	June 15, 1999	Jan. 1, 2009
80203	176	X	Metal Hardware Cast into Concrete	April 1, 2008	April 1, 2009
80165			Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2007
80238	177	X	Monthly Employment Report	April 1, 2009	
80082			Multilane Pavement Patching	Nov. 1, 2002	

File Name	Pg#		Special Provision Title	Effective	Revised
* 80180	179	X	National Pollutant Discharge Elimination System/-Erosion and Sediment Control Deficiency Deduction (NOTE: This special provision was previously named "Erosion and Sediment Control Deficiency Deduction")	April 1, 2007	Nov. 1, 2009
80208			Nighttime Work Zone Lighting	Nov. 1, 2008	
80129			Notched Wedge Longitudinal Joint	July 1, 2004	Jan. 1, 2007
80182			Notification of Reduced Width	April 1, 2007	
80069			Organic Zinc-Rich Paint System	Nov. 1, 2001	Jan. 1, 2008
80216			Partial Exit Ramp Closure for Freeway/Expressway	Jan. 1, 2009	
80231	181	X	Pavement Marking Removal	April 1, 2009	
80022	182	X	Payments to Subcontractors	June 1, 2000	Jan. 1, 2006
80235	184	X	Payrolls and Payroll Records	March 1, 2009	July 1, 2009
80209	186	X	Personal Protective Equipment	Nov. 1, 2008	
80232			Pipe Culverts	April 1, 2009	
80134			Plastic Blockouts for Guardrail	Nov. 1, 2004	Jan. 1, 2007
80119			Polyurea Pavement Marking	April 1, 2004	Jan. 1, 2009
80210			Portland Cement Concrete Inlay or Overlay	Nov. 1, 2008	
80170	187	X	Portland Cement Concrete Plants	Jan. 1, 2007	
80217			Post Clips for Extruded Aluminum Signs	Jan. 1, 2009	
80171	189	X	Precast Handling Holes	Jan. 1, 2007	
80218			Preventive Maintenance – Bituminous Surface Treatment	Jan. 1, 2009	April 1, 2009
80219			Preventive Maintenance – Cape Seal	Jan. 1, 2009	April 1, 2009
80220			Preventive Maintenance – Micro-Surfacing	Jan. 1, 2009	
80221			Preventive Maintenance – Slurry Seal	Jan. 1, 2009	
80211			Prismatic Curb Reflectors	Nov. 1, 2008	
80015			Public Convenience and Safety	Jan. 1, 2000	
34261			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157			Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
* 80247			Raised Reflective Pavement Markers	Nov. 1, 2009	
80223			Ramp Closure for Freeway/Expressway	Jan. 1, 2009	
80172	191	X	Reclaimed Asphalt Pavement (RAP)	Jan. 1, 2007	April 1, 2009
80183	198	X	Reflective Sheeting on Channelizing Devices	April 1, 2007	Nov. 1, 2008
80151	199	X	Reinforcement Bars	Nov. 1, 2005	April 1, 2009
80206	201	X	Reinforcement Bars – Storage and Protection	Aug. 1, 2008	April 1, 2009
80224			Restoring Bridge Approach Pavements Using High-Density Foam	Jan. 1, 2009	
80184			Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs	April 1, 2007	
80131	202	X	Seeding	July 1, 2004	July 1, 2009
80152			Self-Consolidating Concrete for Cast-In-Place Construction	Nov. 1, 2005	Jan. 1, 2009
80132	205	X	Self-Consolidating Concrete for Precast Products	July 1, 2004	Jan. 1, 2007
80212	207	X	Sign Panels and Sign Panel Overlays	Nov. 1, 2008	
80197	208	X	Silt Filter Fence	Jan. 1, 2008	
80127	209	X	Steel Cost Adjustment	April 2, 2004	April 1, 2009
80153			Steel Plate Beam Guardrail	Nov. 1, 2005	Aug. 1, 2007
80191	213	X	Stone Gradation Testing	Nov. 1, 2007	
80234	214	X	Storm Sewers	April 1, 2009	
80143	221	X	Subcontractor Mobilization Payments	April 2, 2005	
80075			Surface Testing of Pavements	April 1, 2002	Jan. 1, 2007
* 80087	222	X	Temporary Erosion Control	Nov. 1, 2002	Nov. 1, 2009
80225			Temporary Raised Pavement Marker	Jan. 1, 2009	
80176	223	X	Thermoplastic Pavement Markings	Jan. 1, 2007	
20338			Training Special Provisions	Oct. 15, 1975	
80185			Type ZZ Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs	April 1, 2007	
80149	225	X	Variable Spaced Tining	Aug. 1, 2005	Jan. 1, 2007
80071	226	X	Working Days	Jan. 1, 2002	
80204			Woven Wire Fence	April 1, 2008	



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

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

The following special provisions require additional information from the designer. The Special Provisions are:

- Bridge Demolition Debris
- Building Removal-Case I
- Building Removal-Case II
- Building Removal-Case III
- Building Removal-Case IV
- Completion Date
- Completion Date Plus Working Days
- DBE Participation
- Material Transfer Device
- Railroad Protective Liability Insurance
- Training Special Provisions
- Working Days

## 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 "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", in effect on the date of invitation for bids, the "Manual of Test Procedures for Materials", in effect on the date of invitation for bids, the "Supplemental Specifications and Recurring Special Provisions" indicated on the Check Sheet included herein, the latest edition of the "Standard Specifications for Water and Sewer Main Construction in Illinois", City of Bloomington Design and Construction Standards for Water Distribution and Supply System, which apply to and govern the construction of Hamilton Road and Main Street, Section 93-00295-03-PV, in the City of Bloomington, McLean County, and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

### LOCATION AND DESCRIPTION OF WORK

The proposed street improvements are located along Hamilton Road from Timber Lake Lane to Main Street in the City of Bloomington, McLean County, Illinois.

The work under this contract shall consist of the construction of:

- construction of new a P.C. concrete pavement over stabilized sub-base and sub-base granular material for Hamilton Road;
- widening and resurfacing of right turn lanes for Main Street at the intersection of Hamilton Road;
- a traffic signal system at the intersection of Hamilton Road and Main Street;
- concrete curbs and gutters;
- storm sewers and associated storm drainage structures;
- water mains and sanitary sewers;
- Portland Cement concrete sidewalks and driveways;
- hot mix asphalt pedestrian trail;
- pavement markings and other work necessary to complete construction as shown in the plans and as required by the specifications.

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

### SEQUENCE OF CONSTRUCTION

See the "Stage Construction and Maintenance of Traffic" detail sheets in the plans for the suggested sequence of construction. Due to the magnitude of the project and the number of utility facilities to be adjusted or relocated it may be necessary for the Contractor to sequence the work

to allow the utility companies time to complete their work. The Contractor should plan the construction sequence so that no work will be started that could not be completed prior to any winter shut down period. Open holes, trenches or drop offs adjacent to traffic lanes, entrances or sidewalks will not be permitted while the work is suspended.

## TRAFFIC CONTROL AND PROTECTION

### Description

This work shall consist of providing the necessary traffic control personnel and devices and the installation, maintenance, relocation and removal of these devices during construction of the improvement.

The City of Bloomington will be responsible for notifying the public, the United States Postal Service and the emergency service agencies for road closures and changes in the traffic maintenance plans.

### Traffic Control Plan

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

Special attention is called to Articles 105.03(b), 107.09, 107.14, 107.15, 107.25, and Sections 701 and 703 of the Standard Specifications, and the following Highway Standards, listed Supplemental Specifications and Recurring Special Provisions, and Special Plan Details and Notations.

### Highway Standards

701301, 701501, 701601, 701606, 701701, 701801, 701901, BLR 21, BLR 22

### Special Provisions

LRS 3	Work Zone Traffic Control
LRS 4	Flaggers in Work Zones
LR 702	Construction and Maintenance Signs
BDE 80209	Personal Protective Equipment
BDE 80183	Reflective Sheeting on Channelizing Devices

### Plan Details

Stage Construction and Maintenance of Traffic Plan

Traffic Control Authorization Request Form

The following Traffic Control Authorization Request Form must be filled out by the Contractor and submitted to the Engineer at the pre-construction meeting.



# Traffic Control Authorization Request

PROJECT: Hamilton Road and U.S. Route 51 (Main Street)

LOCATION: Marked Routes FAU 6371 and FAP 730

INCLUSIVE DAYS OF WORK: \_\_\_\_\_ WORK HOURS: \_\_\_\_\_

WORK TYPE: Maintenance      Construction      Traffic      Other

Work Description \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CONTRACTOR OR AGENCY DOING WORK: \_\_\_\_\_

RESPONSIBLE CONTACT: (Construction Foreman, or Traffic Maintenance Person)

Name: \_\_\_\_\_ Phone: \_\_\_\_\_ (Office) \_\_\_\_\_ (Mobile)  
(If traffic control is to be employed between 5:00p.m. and 8:30a.m. or on Saturday, Sunday or holidays, give three additional contacts.)

Name: \_\_\_\_\_ Phone: \_\_\_\_\_ (Office) \_\_\_\_\_ (Mobile)

Name: \_\_\_\_\_ Phone: \_\_\_\_\_ (Office) \_\_\_\_\_ (Mobile)

Name: \_\_\_\_\_ Phone: \_\_\_\_\_ (Office) \_\_\_\_\_ (Home)

CONTROLS: (Describe specific controls to be used, including reference to appropriate Highway Standards or section of Manual, and set forth any special controls proposed.)

\_\_\_\_\_  
\_\_\_\_\_

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_

Distribution:  
Project File  
City of Bloomington Engineer  
City of Bloomington Police

Submitted by \_\_\_\_\_  
Approved by \_\_\_\_\_  
City Engineer

### Maintenance of Traffic

It is the Department's intention to keep Hamilton Road, Dickerson Drive, Rodgers Road and Main Street open to traffic at all times with a minimum of one through lane in each direction except as described in the Stage Construction and Maintenance of Traffic Plan. At times Hamilton Road shall be closed to traffic in segments as shown on the Stage Construction and Maintenance of Traffic Plan, but should be opened to traffic as soon as possible to allow access to residences. The conveyance of through and local traffic within and around the construction zone shall be provided for in accordance with the Plan Details noted above and the use of the above referenced Highway Standards as directed by the Engineer. Access shall be provided to the commercial properties at all times as shown on Stage Construction and Maintenance of Traffic Plan. Residential entrances may be closed to traffic within the street segments under construction, but parking shall be provided within a reasonable walking distance as described on the Stage Construction and Maintenance of Traffic Plan. At no time shall a private entrance be closed for more than 60 calendar days. An estimated quantity of Aggregate For Temporary Access has been included in the plans for use in the conveyance of local traffic and the provision of temporary access.

With the approval of the Engineer, the Contractor may modify the suggested construction sequence and attendant traffic control procedures as shown. The Contractor shall submit his proposed sequence of operations and any necessary revisions to attendant traffic control to the Engineer for approval before actual construction operations begin.

### Traffic Control Surveillance

Traffic control surveillance will be required, but will not be paid for separately on this project. Traffic control surveillance shall be performed for the duration of the project when traffic control devices are being used. The special provision check sheet LRS 3 "Work Zone Traffic Control" will apply for the inspection of traffic control devices on this project.

### Brooming Roadways and Adjacent Side Roads

All traffic lanes and side roads which are closed to local or through traffic during construction shall be broomed or swept free of all loose gravel or construction debris before the roads are reopened to traffic or at times as directed by the Engineer. The Engineer shall approve all roadway surface conditions before they are opened to traffic. The cost of complying with this Special Provision will not be paid for separately but shall be considered included in the various traffic control items and no additional compensation will be allowed.

### Traffic Control Standards

The following traffic control standards shall be utilized during construction of this project and shall be paid for in accordance with Articles 701.19 and 701.20 of the Standard Specifications.

TRAFFIC CONTROL AND PROTECTION, STANDARD 701301

This work shall consist of furnishing, installing, moving, maintaining and removing the traffic control devices as shown on Standards 701301 as specified herein and as directed by the Engineer. These standards shall be utilized for short term operations requiring the closure of one traffic lane, such as placement of pavement markings and sign installation.

Measurement and Payment

This work will not be paid for separately as described in Article 701.19 of the Standard Specifications.

TRAFFIC CONTROL AND PROTECTION (SPECIAL)

This work shall consist of furnishing, installing, moving, maintaining and removing the traffic control signs and devices for road closures and detours at locations as shown on the Stage Construction and Maintenance of Traffic Plan, as specified herein and as directed by the Engineer. Detours shall be utilized to direct traffic around the construction work zone and will be modified as required due to the various stages of construction activities. The work will include moving of the traffic control signs and devices for the various construction stages and all additional signs and barricades as shown on the plans.

Measurement and Payment

This work will be paid for at the contract unit price lump sum for TRAFFIC CONTROL AND PROTECTION (SPECIAL), which price shall include all materials, labor and maintenance as required for the duration of the contract.

TRAFFIC CONTROL AND PROTECTION STANDARD BLR 21 (SPECIAL)

This work shall consist of furnishing, installing, moving, maintaining and removing the traffic control devices including additional signs and barricades at locations as shown on the Stage Construction and Maintenance of Traffic Plan, as specified herein and as directed by the Engineer. Standard BLR 21 shall be utilized to completely close segments of Hamilton Road to all traffic.

The standard will be used for removals, storm sewer installation, earthwork, pavements, curb and gutters, pavement marking, and anytime workers or construction activities encroach on the pavement requiring the closing of the road as shown on the Stage Construction and Maintenance of Traffic Plan. The work will include moving of the traffic control devices for the various construction stages and all additional signs and barricades as shown on the plans.

Measurement and Payment

This work will be paid for at the contract unit price lump sum for TRAFFIC CONTROL AND PROTECTION STANDARD BLR 21 (SPECIAL), which price shall include all materials, labor and maintenance as required for the duration of the contract.

TRAFFIC CONTROL AND PROTECTION STANDARD BLR 22

This work shall consist of furnishing, installing, moving, maintaining and removing the traffic control devices including additional signs and barricades at locations as shown on the Stage Construction and Maintenance of Traffic Plan, as specified herein, and as directed by the Engineer. Standard BLR 22 shall be utilized to close segments of Hamilton Road to through traffic, but allow access for local traffic to properties or residences.

The standard will be used for removals and earthwork and anytime workers or construction activities encroach on the pavement requiring the closing of the road as shown on the Stage Construction and Maintenance of Traffic Plan. The work will include moving of the traffic control devices for the various construction stages and all additional signs and barricades as shown on the plans.

Measurement and Payment

This work will be paid for at the contract unit price lump sum for TRAFFIC CONTROL AND PROTECTION STANDARD BLR 22, which price shall include all materials, labor and maintenance as required for the duration of the contract.

TRAFFIC CONTROL AND PROTECTION, STANDARD 701501

This work shall consist of furnishing, installing, moving, maintaining and removing the traffic control devices including additional signs and barricades as shown on the Stage Construction and Maintenance of Traffic Plan, as specified herein and as directed by the Engineer.

Standard 701501 shall be utilized for removals, storm sewer installation, earthwork, curb and gutters, milling, hot mix asphalt paving, pavement marking, and anytime workers or construction activities encroach on the pavement requiring the closing of one traffic lane with two way traffic being maintained on a minimum of one lane. The work will include moving of the traffic control devices for the various construction stages and all additional signs and barricades as shown on the plans.

Measurement and Payment

This work will be paid for at the contract unit price lump sum for TRAFFIC CONTROL AND PROTECTION STANDARD 701501, which price shall include all materials, labor and maintenance as required for the duration of the contract.



TRAFFIC CONTROL AND PROTECTION, STANDARD 701601, SPECIAL

This work shall consist of furnishing, installing, moving, maintaining and removing the traffic control devices including additional signs and barricades as shown on the Stage Construction and Maintenance of Traffic Plan, as specified herein and as directed by the Engineer.

Standard 701601 Special shall be utilized for removals, storm sewer installation, earthwork, pavements, curb and gutters, traffic signals, pavement marking, water mains, sanitary sewers and anytime workers or construction activities encroach on the pavement requiring the closing of traffic lanes with two way traffic being maintained on two traffic lanes as shown on the Stage Construction and Maintenance of Traffic Plan. The work will include moving of the traffic control devices for the various construction stages and all additional signs and barricades as shown on the plans.

Measurement and Payment

This work will be paid for at the contract unit price lump sum for TRAFFIC CONTROL AND PROTECTION STANDARD 701601, SPECIAL, which price shall include all materials, labor and maintenance as required for the duration of the contract.

TRAFFIC CONTROL AND PROTECTION, STANDARD 701606, SPECIAL

This work shall consist of furnishing, installing, moving, maintaining and removing the traffic control devices including additional signs and barricades as shown on the Stage Construction and Maintenance of Traffic Plan, as specified herein and as directed by the Engineer.

Standard 701606 Special shall be utilized for removals, storm sewer installation, earthwork, pavements, curb and gutters, traffic signals, pavement marking, water mains, sanitary sewers and anytime workers or construction activities encroach on the pavement requiring the closing of traffic lanes with two way traffic being maintained on two traffic lanes as shown on the Stage Construction and Maintenance of Traffic Plan. The work will include moving of the traffic control devices for the various construction stages and all additional signs and barricades as shown on the plans.

Measurement and Payment

This work will be paid for at the contract unit price lump sum for TRAFFIC CONTROL AND PROTECTION STANDARD 701606, SPECIAL, which price shall include all materials, labor and maintenance as required for the duration of the contract.

TRAFFIC CONTROL AND PROTECTION, STANDARD 701701, SPECIAL

This work shall consist of furnishing, installing, moving, maintaining and removing the traffic control devices including additional signs and barricades at locations as shown on the Stage Construction and Maintenance of Traffic Plan, as specified herein and as directed by the Engineer.

Standard 701701 Special shall be utilized for removals, storm sewer installation, earthwork, pavements, curb and gutters, traffic signal, pavement marking, water mains, sanitary sewers and anytime workers or construction activities encroach on the pavement requiring the closing of traffic lanes with two way traffic being maintained as shown on the Stage Construction and Maintenance of Traffic Plan. The work will include moving of the traffic control devices for the various construction stages and all additional signs and barricades as shown on the plans.

Measurement and Payment

This work will be paid for at the contract unit price lump sum for TRAFFIC CONTROL AND PROTECTION STANDARD 701701, SPECIAL, which price shall include all materials, labor and maintenance as required for the duration of the contract.

TRAFFIC CONTROL AND PROTECTION, STANDARD 701801

This work shall consist of furnishing, installing, moving, maintaining and removing the traffic control devices including additional signs and barricades at locations as shown on the Stage Construction and Maintenance of Traffic Plan, as specified herein and as directed by the Engineer.

Standard 701801 shall be utilized anytime workers or construction activities encroach on the sidewalks or pedestrian trail requiring the pedestrian traffic to be rerouted. The work will include moving of the traffic control devices for the various construction stages.

Measurement and Payment

This work will be paid for at the contract unit price lump sum for TRAFFIC CONTROL AND PROTECTION STANDARD 701801, which price shall include all materials, labor and maintenance as required for the duration of the contract.

CHANGEABLE MESSAGE SIGN

Description

Portable changeable message signs shall be erected at locations shown on the Stage Construction and Maintenance of Traffic Plan seven (7) days prior to closing Hamilton Road to all traffic to forewarn motorists of the impending road closure. The work shall be performed in accordance with Section 701 of the Special Provisions except the reference to basis of payment shall be

deleted. The signs shall remain in place and operational until such time that the Engineer determines the signs can be removed. The sign message will be provided by the Engineer. The suggested message is "Westbound Hamilton Rd. Closed To Traffic Beginning (month and day)".

#### Measurement and Payment

The furnishing, placing, and maintaining of each portable message sign shall be paid for at the contract unit price per calendar day for CHANGEABLE MESSAGE SIGN. Any portion of one calendar day during which the sign is operated as directed by the Engineer shall be paid as one full calendar day".

#### NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

This work shall be done in accordance with the "National Pollutant Discharge Elimination System Permit" (NPDES) requirements. The Contractor will be required to comply with all terms of the permit. The City of Bloomington has acquired a NPDES, MS4 permit, which covers the construction of this project. The Contractor will be required to fill out the "Contractor Certification Statement" form included with BDE 2342 and submit it to the Engineer at the pre-construction conference. A copy of the form is attached.



Route Hamilton Road and Main Street  
Section 93-00295-03-PV  
County McLean

Marked Rte. NO  
Project No. M-5227 (046)  
Contract No. 91351

This plan has been prepared to comply with the provisions of the NPDES Permit Number ILR10, issued by the Illinois Environmental Protection Agency for storm water discharges from Construction Site Activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

*Russel Waller*

Print Name

City Engineer

Title

City of Bloomington

Agency

*Russel Waller*

Signature

June 17, 2009

Date

**I. Site Description:**

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

Hamilton Road from Timber Lake Lane to Main Street.

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

Reconstruction of Hamilton Road including new pavement, curb and gutters, sidewalks, bikeway, drainage system, traffic signals, sanitary sewer and water main. Widening and resurfacing of Main Street including new curb and gutters, drainage system and traffic signals.

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

Excavating and grading for pavement construction, installation of storm sewers, traffic signals, sanitary sewers, water mains, top soil placement and seeding.

D. The total area of the construction site is estimated to be 6.0 acres.

The total area of the site that is estimated will be disturbed by excavation, grading or other activities is 6.0 acres.

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

0.7 (Rational Method)

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

Information describing the soils at the site is contained in the Soils Report for the project, which is hereby incorporated by reference.

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

Some of the earth areas have potential for erosion and are being protected by seeding, sodding or riprap as shown on the plans.

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

Excavating and grading for storm sewers, pavement subgrade, sidewalks, traffic signals, top soil placement and seeding is being done continuously along all the roadways. Side slopes are 1:4 beyond the sidewalks and 2% in the parkways between the curb and gutters and sidewalks.

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

- J. The following is a list of receiving water(s) and the ultimate receiving water(s), and areal extent of wetland acreage at the site. The location of the receiving waters can be found on the erosion and sediment control plans:

Receiving water is Sugar Creek. No wetlands are present at the project site.

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

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Soil Sediment             | <input type="checkbox"/> Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids) |
| <input checked="" type="checkbox"/> Concrete                  | <input type="checkbox"/> Antifreeze / Coolants  |
| <input checked="" type="checkbox"/> Concrete Truck Waste      | <input type="checkbox"/> Waste water from cleaning construction equipment               |
| <input checked="" type="checkbox"/> Concrete Curing Compounds | <input type="checkbox"/> Other (specify)  |
| <input type="checkbox"/> Solid Waste Debris                   | <input type="checkbox"/> Other (specify)  |
| <input type="checkbox"/> Paints                               | <input type="checkbox"/> Other (specify)  |
| <input type="checkbox"/> Solvents                             | <input type="checkbox"/> Other (specify)  |
| <input checked="" type="checkbox"/> Fertilizers / Pesticides  | <input type="checkbox"/> Other (specify)  |

**II. Controls:**

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

**A. Erosion and Sediment Controls**

1. **Stabilized Practices:** Provided below is a description of interim and permanent stabilization practices, including site specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II(A)(1)(a) and II(A)(3), stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site

has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of 14 or more calendar days.

- a. Where the initiation of stabilization measures by the 7<sup>th</sup> day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

The following Stabilization Practices will be used for this project:

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Preservation of Mature Vegetation | <input checked="" type="checkbox"/> Erosion Control Blanket / Mulching |
| <input type="checkbox"/> Vegetated Buffer Strips                      | <input checked="" type="checkbox"/> Sodding                            |
| <input checked="" type="checkbox"/> Protection of Trees               | <input type="checkbox"/> Geotextiles                                   |
| <input checked="" type="checkbox"/> Temporary Erosion Control Seeding | <input type="checkbox"/> Other (specify)                               |
| <input type="checkbox"/> Temporary Turf (Seeding, Class 7)            | <input type="checkbox"/> Other (specify)                               |
| <input type="checkbox"/> Temporary Mulching                           | <input type="checkbox"/> Other (specify)                               |
| <input checked="" type="checkbox"/> Permanent Seeding                 | <input type="checkbox"/> Other (specify)                               |

Describe how the Stabilization Practices listed above will be utilized:

Permanent seeding of disturbed areas will be done as soon as possible. Inlet and pipe protection will be placed at inlets in earth areas to prevent silt from entering the drainage system. Inlet filters will be installed at all drainage structures within paved areas to prevent silt from entering the drainage system. Silt fences will be erected in fill areas to prevent sediment from discharging off the limits of the right of way. Permanent sodding, seeding and mulching will be done when the grading is complete.

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

The following Structural Practices will be used for this project:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Perimeter Erosion Barrier    | <input type="checkbox"/> Rock Outlet Protection     |
| <input checked="" type="checkbox"/> Temporary Ditch Check        | <input checked="" type="checkbox"/> Riprap          |
| <input checked="" type="checkbox"/> Storm Drain Inlet Protection | <input type="checkbox"/> Gabions                    |
| <input type="checkbox"/> Sediment Trap                           | <input type="checkbox"/> Slope Mattress             |
| <input type="checkbox"/> Temporary Pipe Slope Drain              | <input checked="" type="checkbox"/> Retaining Walls |
| <input type="checkbox"/> Temporary Sediment Basin                | <input type="checkbox"/> Slope Walls                |
| <input type="checkbox"/> Temporary Stream Crossing               | <input type="checkbox"/> Concrete Revetment Mats    |
| <input type="checkbox"/> Stabilized Construction Exits           | <input type="checkbox"/> Level Spreaders            |
| <input type="checkbox"/> Turf Reinforcement Mats                 | <input type="checkbox"/> Other (specify)            |
| <input type="checkbox"/> Permanent Check Dams                    | <input type="checkbox"/> Other (specify)            |
| <input type="checkbox"/> Permanent Sediment Basin                | <input type="checkbox"/> Other (specify)            |
| <input type="checkbox"/> Aggregate Ditch                         | <input type="checkbox"/> Other (specify)            |
| <input type="checkbox"/> Paved Ditch                             | <input type="checkbox"/> Other (specify)            |

Describe how the Structural Practices listed above will be utilized:

Permanent seeding of disturbed areas will be done as soon as possible. Inlet and pipe protection will be placed at inlets in earth areas to prevent silt from entering the drainage system. Inlet filters will be installed at all drainage structures within paved areas to prevent silt from entering the drainage system. Silt fences will be erected in fill areas to prevent sediment from discharging off the limits of the right of way. Permanent sodding, seeding and mulching will be done when the grading is complete. Riprap and sodding protection will be used in high volume and velocity areas.

3. **Storm Water Management:** Provided below is a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

- a. Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

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

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

#### Description of Storm Water Management Controls.

Storm water detention will not be provided on this project. Pollutants in storm water discharges will be filtered by vegetation. Earth surface areas that are disturbed will be seeded to prevent erosion and to filter pollutants. Inlet filters will be installed at all drainage structures within paved areas to prevent silt from entering the drainage system until the vegetation is established.

#### 4. Other Controls:

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

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

- b. Material Delivery, Storage, and Use – The following BMPs shall be implemented to help prevent discharges of construction materials during delivery, storage, and use:
  - All products delivered to the project site must be properly labeled.
  - Water tight shipping containers and/or semi trailers shall be used to store hand tools, small parts, and most construction materials that can be carried by hand, such as paint cans, solvents, and grease.
  - A storage/containment facility should be chosen for larger items such as drums and items shipped or stored on pallets. Such material is to be covered by a tin roof or large sheets of plastic to prevent precipitation from coming in contact with the products being stored.
  - Large items such as light stands, framing materials and lumber shall be stored in the open in a general storage area. Such material shall be elevated with wood blocks to minimize contact with storm water runoff.
  - Spill clean-up materials, material safety data sheets, an inventory of materials, and emergency contact numbers shall be maintained and stored in one designated area and each Contractor is to inform his/her employees and the resident engineer of this location.
- c. Stockpile Management – BMPs shall be implemented to reduce or eliminate pollution of storm water from stockpiles of soil and paving materials such as but not limited to portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, aggregate sub base, and pre-mixed aggregate. The following BMPs may be considered:
  - Perimeter Erosion Barrier
  - Temporary Seeding
  - Temporary Mulch
  - Plastic Covers
  - Soil Binders
  - Storm Drain Inlet Protection

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

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

#### **5. Approved State or Local Laws**

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

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

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

#### **III. Maintenance:**

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

The Contractor will be responsible for installing and maintaining the erosion control systems as directed by the Engineer. The maintenance of the temporary erosion control systems will not be paid for separately as described in Article 280.08 of the Standard Specifications and shall be included in the cost of the various erosion control pay items.

#### **IV. Inspections:**

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

- A. Disturbed areas, use areas (storage of materials, stockpiles, machine maintenance, fueling, etc.), borrow sites, and waste sites shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Discharge locations or points that are accessible, shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off site sediment tracking.
- B. Based on the results of the inspection, the description of potential pollutant sources identified in section I above and pollution prevention measures identified in section II above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within ½ hour to 1 week based on the urgency of the situation. The resident engineer will notify the contractor of the time required to implement such actions through the weekly inspection report.
- C. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this storm water,



pollution prevention plan, and actions taken in accordance with section IV(B) shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI. G of the general permit.

- D. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the resident engineer shall notify the appropriate IEPA Field Operations Section office by email at: [epa.swnoncomp@illinois.gov](mailto:epa.swnoncomp@illinois.gov), telephone or fax within 24 hours of the incident. The resident Engineer shall then complete and submit an "Incidence of Noncompliance" (ION) report for the identified violation within 5 days of the incident. The resident engineer shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit.

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

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

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

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

- A. Spill Prevention and Control – BMPs shall be implemented to contain and clean-up spills and prevent material discharges to the storm drain system. The contractor shall produce a written plan stating how his/her company will prevent, report, and clean up spills and provide a copy to all of his/her employees and the resident engineer. The contractor shall notify all of his/her employees on the proper protocol for reporting spills. The contractor shall notify the resident engineer of any spills immediately.
- B. Concrete Residuals and Washout Wastes – The following BMPs shall be implemented to control residual concrete, concrete sediments, and rinse water:
- Temporary Concrete Washout Facilities shall be constructed for rinsing out concrete trucks. Signs shall be installed directing concrete truck drivers where designated washout facilities are located.
  - The contractor shall have the location of temporary concrete washout facilities approved by the resident engineer.
  - All temporary concrete washout facilities are to be inspected by the contractor after each use and all spills must be reported to the resident engineer and cleaned up immediately.
  - Concrete waste solids/liquids shall be disposed of properly.
- C. Litter Management – A proper number of dumpsters shall be provided on site to handle debris and litter associated with the project. The Contractor is responsible for ensuring his/her employees place all litter including marking paint cans, soda cans, food wrappers, wood lathe, marking ribbon, construction string, and all other construction related litter in the proper dumpsters.
- D. Vehicle and Equipment Cleaning – Vehicles and equipment are to be cleaned in designated areas only, preferably off site.
- E. Vehicle and Equipment Fueling – A variety of BMPs can be implemented during fueling of vehicles and equipment to prevent pollution. The contractor shall inform the resident engineer as to which BMPs will be used on the project. The contractor shall inform the resident engineer how (s)he will be informing his/her employees of these BMPs (i.e. signs, training, etc.). Below are a few examples of these BMPs:
- Containment
  - Spill Prevention and Control

- Use of Drip Pans and Absorbents
- Automatic Shut-Off Nozzles
- Topping Off Restrictions
- Leak Inspection and Repair

F. Vehicle and Equipment Maintenance – On site maintenance must be performed in accordance with all environmental laws such as proper storage and no dumping of old engine oil or other fluids on site.

**VI. Failure to Comply:**

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



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

Route	<u>Hamilton Road and Main Street</u>	Marked Rt.	<u>NO</u>
Section	<u>93-00295-03-PV</u>	Project No.	<u>M-5227 (046)</u>
County	<u>McLean</u>	Contract No.	<u>91351</u>

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

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR 10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

In addition, I have read and understand all of the information and requirements stated in the Storm Water Pollution Prevention Plan for the above mentioned project; I have provided all documentation required to be in compliance with the ILR10 and Storm Water Pollution Prevention Plan and will provide timely updates to these documents as necessary.

- Contractor
- Sub-Contractor

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name of Firm

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Telephone

\_\_\_\_\_  
City/State/ZIP

### CONSTRUCTION ON PRIVATE PROPERTY

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

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

The cost of complying with this Special Provision will not be paid for separately but shall be considered as included in the cost of the EARTH EXCAVATION pay item and no additional compensation will be allowed.

### PRESERVING PROPERTY MARKERS

The Contractor shall locate the existing property corner markers along this section. Existing property corner markers that are within the construction limits and conflict with the construction operations may be removed by the Contractor and will be re-established by the Engineer after the completion of the project. Any property corner monuments beyond the construction limits unnecessarily destroyed by the Contractor's operations shall be replaced by a registered Illinois Land Surveyor at the Contractor's expense.

Any expense, inconvenience or delays caused to the Contractor in complying with this Special Provision will be considered as included in cost of the EARTH EXCAVATION pay item and no additional compensation will be allowed.

### EXISTING TREES AND SHRUBS

Existing trees and shrubs in the area of the project site shall be protected from damage unless indicated on the plans to be removed or pruned. Tree pruning and tree root pruning shall be done in accordance with Section 201 of the Standard Specifications. To avoid damage to tree root systems when trenching or excavating the Contractor shall use double trench boxes as directed by the engineer. The cost of providing the double trench boxes shall be considered included in the cost of the earth excavation and no additional compensation will be allowed.

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

### REMOVAL OF UNCLASSIFIED MATERIAL

Debris or unclassified materials shall be removed at the locations shown on the Plans or as designated by the Engineer. The material removed as required in this Special Provision shall be disposed of outside the limits of the right-of-way in accordance with Article 202.03 of the Standard Specifications and as directed by the Engineer. This work will not be paid for separately and should be included in the cost of the various removal items.

### SALVABLE MATERIALS

All materials deemed salvable by the Engineer shall remain the property of the City of Bloomington and shall be stored on the job site as directed by the Engineer. The Contractor shall dispose of any materials off site that the Engineer determines should not be salvaged. This work will not be paid for separately and should be included in the cost of the various removal items.

### STOCKPILE AREAS

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

Stockpiles of materials shall not be allowed outside the street right-of-way on private property unless permission is granted by owner in writing and shall not be allowed to block private driveways or sidewalks. Any grass area beyond the right-of-way, permanent easements or construction easements that is damaged by stockpiled material shall be repaired by sodding as directed by the Engineer. These areas shall not be measured for payment and the Contractor shall repair them at his/her own expense.

### HAND GRADING

Grading shall be done by hand around light poles, utility poles, sign posts, shrubs, trees or other natural or man-made objects where shallow fills or cuts are adjacent to the items. It is the intent that the limits of construction be such as to preserve in the original state as much area of temporary easements as possible. The decision as to items to remain in place shall be as directed by the Engineer. This work will not be paid for separately and should be included in the cost of the earthwork.

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

At locations where it is necessary to cut asphalt pavement surfaces, concrete pavement, concrete or asphalt driveway pavement, concrete sidewalk, or concrete curb and gutter, where it will abut the proposed new construction, a uniformly straight cut shall be obtained by the use of a diamond

concrete saw. The use of pneumatic tools to make these cuts will not be allowed. Expansion joints shall be placed at the junctures as directed by the Engineer. This work shall be considered included in the cost of the various pay items of the proposed construction involved and no additional compensation will be allowed.

#### CURB AND GUTTER TRANSITIONS AND THICKNESS

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

#### EXISTING SEWERS AND DRAINAGE STRUCTURES TO BE PLUGGED

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

#### CONNECTING INTO EXISTING MANHOLES AND STORM SEWERS

At locations indicated in the plans, proposed storm sewers are to be connected into existing manholes or existing storm sewers. These connections shall be made in a workmanlike manner and brick masonry constructed around them so as to prevent leakage. This work will not be paid for separately, but shall be considered as included in the contract unit prices for storm sewers of the size and type specified, and no additional compensation will be allowed.

#### MANHOLE STEPS

The manhole steps required for drainage structures and sanitary manholes shall be the plastic type as depicted on Highway Standard Drawing 602701. The cost of complying with this requirement will not be paid for separately, but shall be considered as included in the contract unit prices for various drainage structures and sanitary manholes and no additional compensation will be allowed.

#### TREE REMOVAL

##### Description

Trees shall be removed at locations shown on the plans and as directed by the Engineer. Tree removal shall be in accordance with Section 201 of the Standard Specifications except that all trees, stumps and roots shall be completely removed and disposed of unless directed otherwise by

the Engineer.

#### Measurement and Payment

The trees identified on the plans for removal as individual trees will be measured and paid for by the unit in accordance with Section 201 of the Standard Specifications, which shall include the complete removal of the trees and roots. The removal of bushes, brush and trees less than six inches in diameter will not be measured for payment.

### REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

#### Description

This work shall consist of undercutting, removing and disposing of unsuitable material below the proposed subgrade limits at locations determined by the Engineer and in accordance with Section 202 of the Standard Specifications. All unsuitable materials shall be disposed of off the site unless directed otherwise by the Engineer. The excavations below the subgrade limits shall be filled with Granular Backfill as directed by the Engineer. A quantity has been included in the plans for the purpose of establishing a unit bid price in case unsuitable materials are discovered. It is hereby understood that the City of Bloomington reserves the right to delete any or all of this pay item from the contract. Should the City delete any or all of this pay item from the contract, the Contractor will receive no remuneration for the deleted item.

#### Measurement and Payment

This work of undercutting and removing unsuitable earth material will be measured in accordance with Article 202.07(b) of the Standard Specifications and will be paid for at the contract unit price per cubic yard for REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL. Filling the excavated areas with Granular Backfill will be paid for separately as specified herein.

### GRANULAR BACKFILL

#### Description

This work shall consist of placing granular backfill in excavations under proposed paved areas created by the removal of unsuitable material, structures, or foundations. The locations for the placement of the granular backfill will be as directed by the Engineer. A quantity has been included in the plans for the purpose of establishing a unit bid price for the granular backfill. It is hereby understood that the City of Bloomington reserves the right to delete any or all of this pay item from the contract. Should the City delete any or all of this pay item from the contract, the Contractor will receive no remuneration for the deleted item.

The backfill shall consist of granular material placed in uniform layers not exceeding 8 inches

loose measure and compacted by a vibratory roller meeting the requirements of Article 1101.01 of the Standard Specifications or by ramming or tamping as directed by the Engineer. The granular material shall be crushed gravel, crushed stone or crushed concrete having a gradation of CA 1 or a gradation approved by the Engineer. The material shall meet the requirements of Article 1004.01 of the IDOT Standard Specifications.

#### Measurement and Payment

This work will be measured and paid for at the contract unit price per ton for GRANULAR BACKFILL, which price shall include furnishing, placing and compacting the material.

### GEOTECHNICAL FABRIC FOR GROUND STABILIZATION

#### Description

This work shall consist of placing geotechnical fabric under the granular backfill material in excavations under proposed paved areas created by the removal of unsuitable material, structures, or foundations. The locations for the placement of the geotechnical fabric will be as directed by the Engineer. A quantity has been included in the plans for the purpose of establishing a unit bid price for the geotechnical fabric. It is hereby understood that the City of Bloomington reserves the right to delete any or all of this pay item from the contract. Should the City delete any or all of this pay item from the contract, the Contractor will receive no remuneration for the deleted item.

The geotechnical fabric for ground stabilization shall be in accordance with Section 210 of the Standard Specifications.

#### Measurement and Payment

This work will be measured and paid for at the contract unit price per square yard for GEOTECHNICAL FABRIC FOR GROUND STABILIZATION.

### TOPSOIL EXCAVATION AND PLACEMENT TOPSOIL FURNISH AND PLACE, 4"

#### Description

This work shall consist of stripping, stockpiling, site preparation, and spreading topsoil in accordance with this special provision and Section 211 of the Standard Specifications. Strip topsoil to the limits shown on the plans in areas that will be disturbed by excavation, filling, compaction, road building or as otherwise directed by the Engineer. The depth of the stripping shall be 12 inches as shown on the plans, unless site conditions warrant a different thickness be stripped as directed by the Engineer. Generally, the upper part of the soil profile, which is richest in organic matter is most desirable for future placement; however, material excavated from



deeper layers may be acceptable for topsoil placement if it meets the criteria specified herein.

After the site has been cleared and grubbed the topsoil shall be removed from the designated areas and shall be stockpiled at locations approved by the Engineer. Objectionable materials encountered during excavation shall either be used in embankment areas if the material is suitable or shall be removed from the site. Topsoil shall be free of debris, trash, stumps, rocks, gravel, and weeds, and shall give evidence of being able to support healthy vegetation. Topsoil shall be reasonably free of grass, roots, weeds, sticks or other foreign materials. Topsoil shall contain no substance that is potentially toxic to plant growth. Topsoil shall be friable and loamy (loam, sandy loam, silt loam, sandy clay loam, or clay loam). Sand content shall generally be less than 70% by weight, and clay content shall generally be less than 35% by weight. Organic soil, such as peat or mulch, shall not be used as topsoil material. Organic matter content shall not be less than 1.5% by weight. pH shall be within the range 6.0 to 7.5. If pH is less than 6.0, lime shall be added in accordance with soil test results.

Topsoil shall be placed to a minimum thickness of 4 inches. Spreading shall not be done when the ground or topsoil is frozen, excessively wet or otherwise in a condition detrimental to the work. After placement is completed, the surface of the topsoil shall be finished to a reasonably smooth surface. Any excess topsoil excavated which is not used for topsoil placement or is placed in embankment areas shall be removed from the site and delivered to a site within the City limits as directed by the engineer. Excess topsoil material removed from the site will be paid for as earth excavation.

A quantity for Topsoil Furnish and Place, 4" has been included in the plans for the purpose of establishing a unit bid price in case there is not sufficient topsoil material on the site. It is hereby understood that the City of Bloomington reserves the right to delete any or all of this pay item from the contract. Should the City delete any or all of this pay item from the contract, the Contractor will receive no remuneration for the deleted item. This work shall be in accordance with Section 211 of the Standard Specifications.

#### Measurement and Payment

This work will be measured and paid for at the contract unit price per cubic yard of topsoil placed for TOPSOIL EXCAVATION AND PLACEMENT, or at the contract unit price per square yard of topsoil placed for TOPSOIL FURNISH AND PLACE 4", which price shall include all excavating, stockpiling, hauling, placing and fine grading. Lime will be paid for as extra work in accordance with Article 109.04 of the Standard Specifications. Excess excavated topsoil material beyond that which is required for the topsoil placement will be added to the earth excavation quantities for payment.

## SEEDING AND MULCHING

### Description

This work shall be in accordance with Sections 250 and 251 of the Standard Specifications except as modified herein. To prevent erosion and to satisfy the requirements of the NPDES permit seeding, fertilizing and mulching shall be completed in conjunction with each separate stage of the project. The Contractor will be responsible for the seeded areas until they are fully established which may require re-seeding and mulching of any bare areas until seed growth is established. The growth of weeds or other undesirable vegetation (any plants not listed in the seeding mixture specified) shall not be considered as an established seeding and shall be removed or controlled by spraying by the Contractor prior to acceptance. The Contractor shall maintain the seeded areas until such time as the requirements of the NPDES permit are satisfied and a minimum of 70% vegetative coverage (excluding weeds and undesirable vegetation) is achieved.

The seed planting times shall be from April 1 to June 1 and from August 1 to October 15.

### Measurement and Payment

This work will be measured and paid for in accordance with Sections 250 and 251 of the Standard Specifications. Any additional seeding, mulching, spraying and maintenance of bare areas after the initial seeding and mulching operation will not be paid for separately, but will be considered as included in the cost of the seeding and mulching pay items. The plan quantity for seeding and mulching includes the entire area within the construction limits. The Contractor is advised that payment for seeding and mulching will be made for only those areas which were necessarily disturbed by construction operations as determined by the Engineer. Turfed areas beyond the construction limits which are unnecessarily disturbed by construction operations shall be sodded as directed by the Engineer at the Contractor's expense.

## EROSION CONTROL BLANKET

### Description

This work shall be in accordance with Section 251 of the Standard Specifications except as modified herein. The locations for the placement of the erosion control blanket will be as directed by the Engineer. A quantity has been included in the plans for the purpose of establishing a unit bid price for the erosion control blanket. It is hereby understood that the City of Bloomington reserves the right to delete any or all of this pay item from the contract. Should the City delete any or all of this pay item from the contract, the Contractor will receive no remuneration for the deleted item.

Measurement and Payment

This work will be measured and paid for at the contract unit price per square yard for EROSION CONTROL BLANKET.

SALVAGING AND TRANSPLANTING TREES, SPECIAL

Description

This work shall consist of removing, storing, transporting and planting existing trees at locations shown on the plans. The work shall be in accordance with the applicable articles of Section 253 of the Standard Specifications and as directed by the Engineer. The planting times specified in Section 253 shall apply. The trees shall be removed with a tree spade type of machine capable of removing the tree with the entire root system intact. The trees shall then be planted, mulched, braced, wrapped, watered and maintained as required in Section 253. The Contractor shall notify the Engineer of any existing trees to be transplanted that are dead, diseased or damaged prior to removing the trees. The Engineer will determine if the trees will be transplanted or removed.

Measurement and Payment

This work will be measured for payment at the contract unit price per each for SALVAGING AND TRANSPLANTING TREES, SPECIAL. Trees that are determined to be removed will be paid for in accordance with Section 201 of the Standard Specifications.

TEMPORARY EROSION CONTROL SEEDING

Description

This work shall consist of placing temporary seeding on erodible surfaces in accordance with Section 280 of the Standard Specifications and as directed by the Engineer. The seed mixture and rates shall be as specified in Article 1081.15 (g).

Measurement and Payment

This work will be measured for payment at the contract unit price per acre for TEMPORARY EROSION CONTROL SEEDING.

INLET FILTERS

Description

This work shall consist of placing, maintaining and removing inlet filters at drainage structures at locations shown on the plans in accordance with Section 280 of the Standard Specifications. The Contractor will be responsible for cleaning and maintaining the inlet filters until such time that

the filters can be removed. At the direction of the Engineer the Contractor shall remove the inlet filters and they shall become the property of the Contractor and be disposed of off the site.

#### Measurement and Payment

This work will be measured for payment at the contract unit price per each for INLET FILTERS, which price shall include installing and maintaining the inlet filters and the removal and disposal of all material.

### AGGREGATE FOR TEMPORARY ACCESS

#### Description

This work shall consist of furnishing and placing aggregate surface course, type B material to provide temporary access to side streets and properties adjacent to the project. Open trenches or other excavations blocking access to side streets or properties shall be filled with aggregate as directed by the Engineer at the end of construction each day. The aggregate for the temporary access shall be salvaged and reused where possible and as directed by the Engineer. The Contractor will be responsible for maintaining the temporary aggregate surfaces until such time that the permanent pavements are constructed. The aggregate that is removed from side streets and entrances that is no longer required for reuse may be used in embankment areas or other fill areas as approved by the Engineer. Excess aggregate material not used on the site shall be disposed of by the Contractor off the site in accordance with Article 202.03. This work shall be in accordance with the applicable articles of Section 402 of the Standard Specifications except delete all reference to measurement and payment.

#### Measurement and Payment

This work will be measured for payment at the contract unit price per ton for AGGREGATE FOR TEMPORARY ACCESS which price shall include furnishing, transporting, placing, maintaining, reusing and the ultimate disposal of the aggregate. The aggregate material will only be paid for when delivered to the site. Salvaging, transporting and reusing the material within the project limits will not be paid for.

### TEMPORARY RAMP

#### Description

This work shall consist of constructing temporary hot mix asphalt ramps at locations shown on the plans in accordance with Section 406 of the Standard Specifications. The ramps will be of variable thicknesses with a maximum thickness of 6 inches. The Contractor will be responsible for maintaining the temporary ramps until such time that the ramps can be removed. At the direction of the Engineer the Contractor shall remove the asphalt ramps and dispose of the material off the site.

Measurement and Payment

This work will be measured for payment at the contract unit price per square yard for TEMPORARY RAMP, which price shall include constructing and maintaining the hot mix asphalt ramps, removal and disposal of all material.

PORTLAND CEMENT CONCRETE PAVEMENT 8" (JOINTED)

Description

This work shall consist of constructing a Portland cement concrete pavement in accordance with Section 420 of the Standard Specifications with the following requirements.

Pavement and Shoulders: Add the following to Articles 420.03, 421.03, and 483.03:

“The Contractor shall submit to the Engineer, for approval before paving, the proposed internal type vibrator spacing for the paver. The Contractor shall also provide the proposed vibrator operating frequencies for a paving speed greater than or equal to 3 ft. min. and a paving speed less than 3 ft/min.”

Add the following to Article 420.07:

“When the surface temperature, as measured on the surface with a device as approved by the Engineer, of the Stabilized Sub-base is 115°F or greater the Contractor shall spray the Stabilized Sub-base with a water mist with equipment and methods that meet the approval of the Engineer. The Stabilized Sub-base shall be cooled below 115°F prior to paving on top. The water spray shall not produce excessive water runoff or leave puddles on the Stabilized Sub-base at the time of paving. All cooling shall be completed a minimum of 10 minutes prior to paving. The surface temperature shall be monitored during the paving operation to determine if the Stabilized Sub-base requires re-spraying.

The water used shall meet the requirements of Section 1002.”

Portland Cement Concrete:” Revise Article 1020.02 (d) to read:

“(d) Coarse Aggregate (Note 1) .....1004.01 – 1004.02”

Add the following to Article 1020.02:

“Note 1. For pavement, median, curb, gutter, combination curb and gutter and concrete barrier, the freeze-thaw rating expansion limit for the coarse aggregate shall be a maximum of 0.040 percent according to Illinois Modified AASHTO T 161, Procedure B.”

Revise the curing table of Article 1020.13 as follows:

“The curing period for pavement, median, curb, gutter and combination curb and gutter shall be a minimum of 7 days. At least 7 days of curing are required before opening the pavement to any construction or regular traffic.”

Revise the first sentence of the second paragraph of Article 1020.13 (a) (4) to read:

“Membrane curing shall be completed within ten minutes after tining or as required by the Engineer.”

Revise the second paragraph of Article 1020.14 (a) to read:

“The temperature of concrete immediately before placement shall be a minimum of 50 °F (10 °C) and a maximum of 89 °F (31.7 °C). If the temperature exceeds 89 °F (31.7 °C), concrete production will cease until appropriate corrective is taken to the satisfaction of the Engineer.”

Revise the third paragraph of Article 420.05 (a) and the second paragraph of Article 420.05 (c) (1), to read:

“Sawing of the joint shall commence as soon as the concrete has hardened sufficiently to permit sawing without raveling, generally between 8 to 24 hours, and shall proceed at the same rate as the paving operation or as directed by the Engineer. The sawing operation shall cease if any raveling, chipping, or spalling are observed. The Engineer shall be the final judge of the sufficiency of the pavement curing to prevent raveling, chipping, or spalling. Sawing shall commence again upon the direction of the Engineer and continue in a workmanlike manner until all joints are complete or raveling again occurs. All joints shall be sawed to the depth shown on the plans before uncontrolled shrinkage cracking takes place. If determined necessary by the Engineer, the sawing operations shall be carried on both during the day and night, regardless of weather conditions.”

#### Expansion Joints

One (1) inch wide transverse expansion joints shall be constructed as shown on the detail in the plans and in accordance with the applicable details of Standard 420001. One (1) inch diameter, 18 inch long epoxy coated dowel bars spaced at 12 inch centers shall be centered across the joints. The dowel bars shall be provided with metal expansion caps, plastic caps will not be allowed. The Contractor shall provide shop drawings or samples of the dowel bar assemblies to the Engineer for approval prior to ordering the materials. The expansion joints shall be sealed as shown on Standard 420001.

### Measurement and Payment

This work will be measured and paid for in accordance with Articles 420.19 and 420.20 of the Standard Specifications at the contract unit price per square yard for PORTLAND CEMENT CONCRETE PAVEMENT 8" (JOINTED). The cost shall include the special expansion joint requirements and no additional compensation will be allowed.

### DETECTABLE WARNINGS

#### Description

This work shall consist of constructing detectable warnings in sidewalk and pedestrian trail ramps at locations shown on the plans in accordance with the details in the plans, Section 424 of the Standard Specifications. The detectable warnings shall be prefabricated and shall be cast in place in the ramps in accordance with the manufacture's installation procedures.

#### Materials

The detectable warnings shall be vitrified polymer composite tiles cast in place conforming to the Armor-Tile No. ADA- C- 2448 type manufactured by Engineered Plastics Inc. or approved equal. The color of the tiles will be provided by the Engineer. The Contractor shall submit shop drawings or manufacture's literature for approval prior to ordering the tiles.

### Measurement and Payment

This work will be measured for payment at the contract unit price per square foot of top surface area for DETECTABLE WARNINGS, which price shall include furnishing and installing the detectable warning tiles.

### REMOVE EXISTING CULVERTS

#### Description

This work shall consist of the removal and disposal of existing box culverts and pipe culverts including prefabricated end sections at the locations shown on the plans and as directed by the Engineer. The Contractor shall dispose of the culverts in accordance with Article 202.03 of the Standard Specifications. Excavations resulting from the removal of the culverts that are within two feet of paved surfaces shall be backfilled with trench backfill material in accordance with Section 208 and Article 550.07 of the Standard Specifications.

### Measurement and Payment

This work will be measured for payment at the contract unit price per foot for REMOVE EXISTING CULVERTS, which price shall be considered payment in full for all labor,

equipment, and materials required for the satisfactory removal and disposal of the existing culverts and backfilling with trench backfill material. The length of prefabricated end sections to be removed will also be included for payment.

### CONCRETE COLLAR

#### Description

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

#### Measurement and Payment

This work will be measured and paid for at the contract unit price each for CONCRETE COLLAR, which price shall include all labor, equipment and materials required.

### STORM SEWER REMOVAL

#### Description

This work shall consist of the removal and disposal of existing storm sewers including prefabricated end sections at the locations shown on the plans in accordance with Section 551 of the Standard Specifications and as directed by the Engineer. Storm sewer materials determined not to be salvageable by the Engineer shall be disposed of by the Contractor in accordance with Article 202.03 of the Standard Specifications. Excavations resulting from the removal of the storm sewers that are within two feet of paved surfaces shall be backfilled with trench backfill material in accordance with Section 208 and Article 550.07 of the Standard Specifications.

#### Measurement and Payment

This work will be measured for payment at the contract unit price per foot for STORM SEWER REMOVAL, of the diameter specified, which price shall be considered payment in full for all labor, equipment, and materials required for the satisfactory removal and disposal of the existing storm sewers. The length of prefabricated end sections to be removed will also be included for payment. Trench backfill material will be paid for in accordance with Section 208 of the Standard Specifications.



DUCTILE IRON WATER MAIN  
DUCTILE IRON WATER MAIN, RESTRAINED JOINT TYPE

Description

All work shall be performed in accordance with the latest edition of the Standard Specification for Water and Sewer Main Construction in Illinois, City of Bloomington Design and Construction Standards for Water Distribution and Supply System, and Sections 561, 562, 565 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, except as modified herein.

Protection of Water Mains:

Water mains shall be protected from sanitary sewers, storm sewers, combined sewers, house sewer service connections and drains as follows:

Horizontal Separation – Water Mains and Sewers:

- A. Water mains shall be laid at least ten feet horizontally from any existing or proposed drain, storm sewer, sanitary sewer, combined sewer or sewer service connection.
- B. Water mains may be laid closer than ten feet to a sewer line when:
1. Local conditions prevent a lateral separation of ten feet;
  2. The water main invert is at least 18 inches above the crown of the sewer; and
  3. The water main is either in a separate trench or in the same trench on an undisturbed earth shelf located to one side of the sewer.

When it is impossible to meet (A) or (B) above, the water main shall be constructed of slip-on or mechanical joint ductile iron pipe and the drain or sewer pipe shall be constructed of slip-on or mechanical joint ductile iron pipe or prestressed concrete pipe meeting the requirements of 35 Illinois Administrative Code (IAC) 653.111. The drain or sewer shall be pressure tested to the maximum expected surcharge head before backfilling.

Vertical Separation – Water Mains and Sewers:

A. A water main shall be laid so that its invert is 18 inches above the crown of the drain or sewer whenever water mains cross storm sewers, sanitary sewers or sewer service connections. The vertical separation shall be maintained for that portion of the water main located within ten feet horizontally of any sewer or drain crossed. A length of water main pipe shall be centered over the sewer to be crossed with joints equidistant from the sewer or drain.

When it is impossible to meet (A) above and conditions (1.) and (2.) below exist, the water main and drain or sewer shall be constructed with water main quality materials.

1. It is impossible to obtain the proper vertical separation as described in (A) above; or
2. The water main passes under a sewer or drain.

The water main shall be constructed of slip-on or mechanical joint ductile iron pipe and the drain or sewer pipe shall be constructed of slip-on or mechanical joint ductile iron pipe or prestressed concrete pipe meeting the requirements of 35 Illinois Administrative Code (IAC) 653.111. The drain or sewer shall be pressure tested to the maximum expected surcharge head before backfilling.

A vertical separation of 18 inches between the invert of the sewer or drain and the crown of the water main shall be maintained where a water main crosses under a sewer. Support the sewer or drain lines to prevent settling and breaking the water main.

Construction shall extend on each side of the crossing until the normal distance from the water main to the sewer or drain line is at least ten feet.

All granular material shall be omitted from the water main bedding and cover and Select Excavated Material compacted to 95% of Standard Proctor Maximum Density utilized for 10 feet on either side of the sewer line. If Granular Backfill exists for the sewer line, remove within limits of existing sewer line trench and replace with Select Excavated Material and compact to 95% of Standard Proctor Maximum Density.

When it is impossible to meet the vertical separation stated above or the water main passes under a sewer or drain, the water main shall be sleeved with casing pipe (water tight at both ends) for a minimum distance of ten (10) feet on each side of the sewer. This is to be done in lieu of "spot" lowering or raising the water main when possible.

#### Conflicts:

Where it is impossible to obtain proper horizontal and vertical separation as stipulated above, both the potable water line and sewer line shall be constructed of water main pipe within 10 feet of the crossing, and both shall be pressure tested to assure water tightness before backfilling.

In making such crossings, it is preferable to center a minimum 20-foot length of the sewer line under the potable line to be crossed so that the joints will be equidistant from the potable line and as remote there from as possible. Where a sewer line must cross over a potable water line, a vertical separation of 18 inches between the bottom of the non-potable water line and the top of the potable water line shall be maintained along with means to support non-potable water lines to prevent their settlement.

#### Pipeline Trenching:

Provide suitable temporary drainage channels for any water that may flow along or across the work.

Provide barriers, warning lights and other protective devices at all excavations in accordance with Stage Construction and Maintenance of Traffic Plans.

Roads and pavements shall not be blocked or obstructed by excavated materials, except as authorized by the Engineer, in which case adequate temporary provisions must be made for satisfactory temporary passage of Engineer's operating personnel, pedestrians, and vehicles.

If underground utilities and/or structures not shown on the Drawings are encountered, notify the Engineer and do not proceed until instructions are obtained. Notify the Engineer if springs or running water are encountered.

Excavation of trenches shall not advance more than 50 feet ahead of completed pipe installation except as approved by the Engineer.

Excavation in close proximity to existing utilities shall be performed in a manner to prevent damage. Contact the Engineer and representatives of plant site utilities for assistance in locating buried lines.

All excavations shall be made by open cut unless otherwise indicated. Sides of trenches shall be kept as nearly vertical as possible from the trench bottom to a level of one foot above the top of the pipe. Trench bottoms shall be excavated true to line and shall be 18 inches wider than the outside diameter of the pipe for trench depths of less than 5 feet, or 36 inches wider than the outside diameter of the pipe for trench depths of 5 feet or larger. Minimum trench width for small diameter pipe shall be 24 inches. Grade of the trench bottom shall be consistent with the method of bedding specified.

#### Stabilization:

If portions of the bottom of trenches or excavations consist of material unstable to such a degree that, in the opinion of the Engineer, it cannot adequately support the pipe or structure, the bottom shall be over excavated and stabilized with approved coarse granular stabilization material. Depth of stabilization shall be as directed by the Engineer. The over excavating and placing coarse granular stabilization material shall be paid for in accordance the Article 109.04 of the Standard Specifications.

#### Trench or Excavation Bottom Stabilization Material:

Provide coarse angular granular stabilization material, at least 70% of which shall range in size from 1 inch to 3 inches.

#### Shoring and Bracing:

Engage and assign supervision of shoring and bracing work to a qualified foundation consultant.

Comply with local codes and ordinances of governing authorities having jurisdiction.

Before starting work, check and verify governing dimensions and elevations. Survey condition of adjoining properties, take photographs, recording existing settlement or cracking of structures, pavements, and other improvements. Prepare list of such damages, verified by dated photographs, and signed by Contractor and others conducting investigation.

Protect existing active utility services and structures from damage during shoring and bracing work. Repair or replace damages to satisfaction of utility owner.

Provide suitable shoring and bracing materials which will support loads imposed.

#### Shoring:

Protect site from caving and unacceptable soil movement. Where shoring is required, locate system to clear permanent construction and to permit forming and finishing of concrete surfaces. Provide shoring system adequately anchored and braced to resist earth and hydrostatic pressures.

Shoring systems retaining earth on which support or stability of existing structures is dependent must be left in place at completion of work. If wood is part of shoring system near existing structures, use pressure preservative treated materials or remove before placement of backfill.

#### Bracing:

Locate bracing to clear permanent work. If necessary to move a brace, install new bracing prior to removal of original brace.

Install internal bracing, if required, to prevent spreading or distortion to braced frames.

Maintain bracing until structural elements are rebraced by other bracing or until permanent construction is able to withstand lateral earth and hydrostatic pressures.

Remove sheeting, shoring, and bracing in stages to avoid disturbance to underlying soils and damage to structures, pavements, facilities, and utilities.

Repair or replace adjacent work damaged or displaced through installation or removal of shoring and bracing work.

#### Bedding, Haunching, and Final Backfill:

The trenches shall be bedded, haunched, and backfilled as shown on the detail in the plans. The

excavated areas that are beneath proposed pavement, driveways, and sidewalks shall conform to the requirements listed under the section titled "TRENCH BACKFILL, SPECIAL".

#### Testing and Cleanup:

Provide for testing and cleanup as soon as practicable, so these operations do not lag far behind pipe installation. Perform preliminary cleanup and grading operations immediately after backfilling. All surplus excavated material shall be disposed of off site by the Contractor.

#### Materials

All water main materials shall be manufactured in countries signatory to the North American Free Trade Agreement (NAFTA) and shall meet or exceed AWWA standards.

#### Piping and Fittings:

Submit the following:

1. Product data for gaskets.
2. Product data and details showing general dimensions, construction details and full descriptive literature, which includes materials of construction, material specification and grade for pipe, fittings and joints.
3. Piping specialties, installation details, and jointing details including restrained joints.
4. Manufacturer's information on installation procedures.

#### Product Delivery, Storage, and Handling:

Exercise care in transporting and handling pipe and fittings in order to avoid damage to materials or coatings. Lifting shall be by hoist or on skids when hand lifting is not feasible. Dropping shall not be permitted. Store pipe as recommended by the manufacturer. Damaged pipe and fittings shall be replaced.

#### Pipe Materials:

Ductile Iron Pipe shall be centrifugally cast in metal or sand-lined molds and shall conform to AWWA C151.

The minimum wall thickness for pipe having push-on or mechanical joints, restrained joints, plain ends, or cast flange ends shall be Special Class 52 with single gasket joints.

Joints: Mechanical and push-on joints for pipe and fittings shall conform to AWWA C111. All fittings shall be restrained. Restrained joints shall be American Ductile Iron Pipe "Lok-Ring Joint", U.S. Pipe "TR-FLEX", Clow "Super Lock (Tyton or Fastite)", Griffin Pipe "Snap-Lok" or "Bolt-Lok Joint", or approved equal. Restrained retainer glands shall be EBAA Iron Sales

Meg-a-lug for 14" or larger pipe, or approved equal. Restrained retainer glands for 12" and smaller pipes shall be standard retainer glands from approved manufacturers.

For approved manufacturers not listed, inquire of the City of Bloomington Superintendent of Water Resources at 309-434-2426.

Gaskets: Flanged joint gaskets shall be ring type and conform to ANSI B16.21.

Fittings: All fittings shall be either flanged, restrained retainer gland, or restrained joints as described above. Fittings for ductile iron pipe shall be ductile iron of the type shown and shall conform to ANSI/AWWA C110/A21.10 and ANSI/AWWA C111/A21.11, 1725 Kpa (250 psi) rated pressure. Joints shall be as specified above.

DIP/HDPE Adapter: Where ductile iron pipe is joined to HDPE pipe, an adapter shall be used. The adapter shall match the DR pressure rating of the HDPE pipe and shall be connected to the HDPE pipe by butt fusion. The adapter shall allow the connection of the ductile iron pipe by mechanical joint. The adapter shall conform to all applicable AWWA standards.

Grooved pipe type couplings shall be manufactured by Victaulic Company of America or equal. Coupling shall be flexible system conforming to ASTM A536.

Interior Lining: Interior lining for cast iron and ductile iron pipe and fittings shall be as follows:

1. Cement mortar lining and bituminous seal coat shall conform to AWWA C104. Bituminous lining shall be 1 mil thick.

Exterior Coating: Exterior coating for ductile iron pipe and fittings shall be as follows.

1. Buried pipe and fittings shall have a minimum 1 mil thick asphaltic coating per AWWA C151 and ANSI A21.6 or A21.8 bituminous coating.

Corrosion Protection:

Ductile iron pipe and fitting and valves shall be encased in polyethylene encasement sleeves which consist of linear low density polyethylene, 8 mil thickness, Class C (black) conformity to the requirements of AWWA C105/ANSI A21.5-99. Polyethylene wrap shall be secured with a polyethylene compatible adhesive tape. The use of duct tape will not be allowed. When lifting polyethylene wrapped pipe with a backhoe, a fabric sling or padded cable shall be used to protect the wrap from damage.

All fittings (including but not limited to bends, tees, reducers, and plugs) and valves shall be either restrained with retainer gland or manufactured restrained joints as described above. Fittings for ductile iron pipe shall be ductile iron of the type shown and shall conform to AWWA C110 or AWWA C153 and AWWA C111, 250 psi pressure rated. Joints shall be as specified

above.

The Contractor shall expose existing water main and restrain the joints of the existing water main using methods and materials approved by the Engineer, where indicated on the drawings or where directed by the Engineer. The Contractor, at no additional cost to the City of Bloomington, has the option to remove the existing water main and replace the main with restrained joint water main. This work is considered incidental to the contract.

#### Installation Requirements:

Pipe shall be installed in accordance with the manufacturer's specifications and recommendations.

All lengths of pipe shall be dimensioned accurately to measurements established at the site, and shall be worked into place without springing or forcing.

The Contractor shall cut all pipe that may be necessary. Cut sections of pipe shall be reamed or filed to remove all burrs. The pipe interior and joints shall be thoroughly cleaned before being installed and kept clean during construction.

All changes in direction shall be made with fittings or approved joint deflection. Bending of pipe is prohibited. The maximum deflection at any joint shall not exceed 3 degrees per joint or 80% of the pipe manufacturer's recommended maximum deflection, whichever is less.

Any transition from one pipe size to another shall be made with a reducing fitting. Reducing bushings are prohibited except where specifically indicated on the Drawings.

Water mains shall be constructed sufficiently deep so as to prevent freezing, with four feet minimum bury measured from finished grade to top of the pipe, unless otherwise indicated on the drawings or as directed by the Engineer.

Make adequate provision for expansion and contraction of piping.

Pipe embedment and backfilling shall closely follow the installation and jointing of pipe in the trench, to prevent floating of the pipe by water which may enter the trench, and to prevent longitudinal movement caused by thermal expansion or contraction of the pipe. Not more than 25 feet of pipe shall be exposed at any time ahead of the backfilling in any section of the trench.

When connecting to an existing water main, work must be coordinated with the Engineer at least 2 business days in advance. If the connection to an existing water main requires a shutdown of the existing main, the Contractor shall re-chlorinate that portion of the existing main before putting it back in service. The Contractor shall notify all users of the affected main a minimum of 48 hours ahead of the shutdown.

**Mechanical Joints:** Pipe with mechanical joints and restrained joints shall be laid according to the manufacturer's specifications. Socket and gasket shall be clean and gasket shall be properly centered before joint is made.

**Push-On Type Joints:** Any foreign matter in the gasket seat shall be removed, the rubber gasket wiped clean, flexed and placed in the socket. A thin film of lubricant shall be applied to the inside surface of the gasket which will come in contact with entering plain end pipe. Joint assembly shall then be completed by forcing the plain end of the entering pipe past the gasket until it makes contact with the bottom of the socket.

**Joining Gasket Joint Pipe:** The inside of the bell shall be thoroughly cleaned to remove all foreign matter from the joint. The gasket shall be inserted in the gasket seat provided. A thin film of gasket lubricant shall be applied to inside surface of the gasket. Gasket lubricant shall be a solution of vegetable soap or other solution supplied by the pipe manufacturer and approved by the Engineer. The spigot end of the pipe shall be cleaned and entered into the rubber gasket in the bell, using care to keep the joint from contacting the ground. The joint shall then be completed by forcing the plain end to the seat of the bell.

Care must be taken not to damage exterior coating or interior lining when joining the pipe.

Field cut pipe lengths shall be beveled to avoid damage to the gasket and facilitate making the joint.

All pipe shall be furnished with a depth mark to assure that the spigot end is inserted to the full depth of the joint.

A No. 12 THWN single strand electric cable suitable for direct burial shall be installed on all water mains. The cable shall be taped or attached to the pipe in a manner approved by the Engineer during installation and prior to backfilling. Two feet of slack shall be provided at all valve boxes and fire hydrants. The slack shall be wrapped around the valve box or fire hydrant at finished grade.

#### Plugs:

Installed piping systems shall be temporarily plugged at the end of each day's work, or other interruption to progress on a given line. Plugging shall be adequate to prevent entry of small animals or persons into the pipe or the entrance or insertion of deleterious materials.

Standard plugs shall be inserted into all dead-end pipes, tees, or crosses; spigot ends shall be capped. Flanged and mechanical joint ends shall have blind flanges of metal.

Plugs installed for pressure testing shall be blind flanges fully secured and blocked to withstand the test pressure.



Where plugging is required because of contract division or phasing for later connection, the ends of such lines shall be equipped with a permanent type plug or blind flange. Installation or removal of such plugging shall be considered incidental to the work.

#### Piping System Testing:

Provide all necessary equipment and instrumentation required for proper completion of testing. Water is available from the Engineer at no cost. The Engineer reserves the right to meter and charge for additional water used by the Contractor for additional testing, etc.

Test procedures and method of disposal of water shall be approved by the Engineer. All tests shall be made in the presence of the Engineer. Preliminary tests made by the Contractor without being observed by the Engineer will not be accepted. Notify the Engineer at least eight hours before any work is to be inspected or tested.

All defects in piping systems shall be repaired and/or replaced and retested until acceptable. Repairs shall be made to the standard of quality specified for the entire system.

Sections of the system may be tested separately, but any defect which may develop in a section previously tested and accepted shall be promptly corrected and retested. Pressure tests shall be made between valves to demonstrate ability of valves to sustain pressure.

All piping shall be tested in accordance with the following test methods, in addition to any test required by local and state codes or building authorities.

Prior to testing, flush all piping system with water at a minimum velocity of 3 fps to remove construction debris.

#### Pressure Piping Testing:

All water piping shall pass a hydrostatic pressure test and a leakage test before any pipe joints are backfilled, and a final test after backfill operations are complete.

The pressure and leakage test shall be made after all jointing operations are completed and any concrete reaction blocks and restraints have cured at least 7 days. Lines tested before backfill is in place shall be retested after compacted backfill is placed.

Sections of piping between valves and other short sections of line may be isolated for testing. If shorter sections are tested, test plugs or bulkheads required at the ends of the test section shall be furnished and installed by the Contractor, together with all anchors, braces, and other devices required to withstand the hydrostatic pressure without imposing any thrust on the pipe line. The Contractor shall be solely responsible for any damage, which may result from the failure of test plugs or supports.

Hydrostatic Pressure Test:

Hydrostatic pressure test shall be made in accordance with the latest edition of ANSI/AWWA C600 and C603.

Piping shall be slowly filled with water and all air expelled. Care shall be taken that all air valves are installed and open in the section being filled and that the rate of filling does not exceed the venting capacity of the air valves.

After the section of line to be tested has been filled with water, the specified test pressure shall be applied and maintained for a minimum period of 10 minutes and for such additional period necessary for the Engineer to complete the inspection of the line under test. Do not exceed pipe manufacturer's suggested time duration at the test pressure. If defects are noted, repairs shall be made and the test repeated until all parts of the line withstand the test pressure.

Hydrostatic test pressure shall be 100 psi for at least one two-hour duration and not vary more than 5 psi.

Leakage Test:

After the specified hydrostatic test has been completed, the line shall be subjected to a leakage test under a hydrostatic pressure of 100 psi. The pressure shall be maintained within a maximum variation of 5 percent during the entire leakage test. The duration of the leakage test shall be 1 hour minimum, and for such additional time necessary for the Engineer to complete inspection of the section of line under test. Leakage measurements shall not be started until a constant test pressure has been established. The line leakage shall be measured by means of a water meter installed on the supply side of the pressure pump.

No leakage is allowed in exposed piping, buried piping with flanged, threaded, or welded joints or buried non-potable piping in conflict with potable water lines.

Tested sections of buried piping with slip-type or mechanical joints will not be accepted if it has a leakage rate in excess of the rate determined by the formula:

$L = 0.00027 NDp$ , in which;

L = Maximum permissible leakage rate, in gallons per hour, throughout the entire length of line being tested.

N = Number of gasketed joints (two for each flexible coupling joint) in the line under test.

D = Nominal internal diameter (in inches) of the pipe.

$p =$  The square root of the actual pressure in psig on all joints in the tested portion of the line. This actual pressure shall be determined by finding the difference between the average elevation of all tested pipe joints and the elevation of the pressure gauge and adding the difference in elevation head to the authorized test pressure.

Where the leakage rate exceeds the permissible maximum, the Contractor shall locate and repair leaking joints to the extent required to reduce the total leakage to within the prescribed amount.

All apparent leaks discovered within one year from the date of final acceptance of the work by the Engineer shall be located and repaired by the Contractor, regardless of the total line leakage rate.

#### System Startup - Disinfection:

#### Applicable Codes:

All disinfection work shall be acceptable to the State Health Authority. If any requirements of this Section are in conflict with requirements of the Authority for disinfection, those of the Authority shall govern. Methods of disinfection shall conform to AWWA C650, Standard Procedure for Disinfecting Water Mains, Article 41-2.14 of the Standard Specifications for Water and Sewer Construction in Illinois, and City of Bloomington's Manual of Practice for Design of Public Improvements.

#### Qualifications:

All work performed for and in connection with disinfection shall be under the direction of an experienced supervisor.

All equipment used in disinfection work shall be in proper working condition, and shall be adequate for the specified work.

#### Submittals:

Prior to starting any disinfection work, furnish for the Engineer's review, a detailed outline of the proposed sequence of operation, manner of filling and flushing units, source and quality of water to be used, and disposal of wasted water. Admission of contaminated water into previously disinfected units must be prevented.

#### Chlorine Source:

Chlorine shall be applied either as liquid chlorine or as chlorine-bearing compounds in water.

#### Disinfection of Potable Water Piping Systems:

Chlorination shall be performed by the Contractor. The Contractor shall have a representative present during the disinfecting to render assistance and record any defects found during disinfection operations. The Contractor shall notify the Engineer 24 hours prior to disinfection operations.

Water for the initial flushing and chlorination of the water main shall be supplied by the City. Should additional flushing(s) or rechlorination(s) be required to obtain satisfactory bacterial test results, the City reserves the right to meter and charge for the additional water used by the Contractor.

Water used for testing, flushing and chlorination shall be discharged to the sanitary sewer. The Contractor shall provide and install any hose necessary to direct the water being flushed away from any area it might damage. The Contractor shall take whatever precautions necessary during flushing to prevent ecological damage to any receiving stream, lake, or other body of water.

At the extreme ends of the proposed new water main, every 1200 feet, and at additional locations directed by the Engineer, sampling and chlorinating taps shall be installed by the Contractor in accordance with the details as shown on the Drawings. After the chlorinating, sampling and testing is approved by the Engineer, the corporation stop shall be shut off and the piping removed from the corporation stop.

#### Cleaning and Swabbing:

The interior of the pipe shall be cleaned during installation by swabbing or after installation by inserting a foam pig, prior to testing. A 1% hypochlorite disinfecting solution shall be used during swabbing or use of the foam pig.

All taps required by the Contractor for chlorination or flushing purposes or for temporary or permanent release of air shall be provided by him as part of the construction of water mains. When completed, the copper tubing shall be removed and the corporation stop placed at the "off" position.

#### Form of Applied Chlorine:

Disinfection must be accomplished by either the continuous feed method or slug method. The tablet method is not acceptable and is not to be used except with the expressed written permission of the Engineer. A chlorine residual of at least 50 parts per million must be attained initially and 25 parts per million residual present after 24 hours when the preferred continuous feed method is used. If the slug method is used, 300 parts per million must be retained for a minimum of 3 hours, or 500 parts per million retained for 30 minutes. Attainment of initial and final chlorine residuals must be verified by the Engineer. Disinfecting chlorine doses shall not remain in the pipe for more than 24 hours.

In order to provide proper conditions for disinfection following construction, installation option

“A” or “B” must be followed.

A. A minimum of three low density foam swabs shall be introduced into the first unit of pipe being installed and shall remain until the job is completed whereupon the swabs shall be propelled a minimum of three times, or until water is clear, in the direction of the extreme ends of the construction project during the initial filling and flushing process. When a dead-end main is involved the Contractor may return the swabs to the point of origin by using another water source with sufficient volume and pressure to propel the swabs, or he may retrieve the swabs at the exit point and reintroduce the swabs at the origin repeating the process until exit water is clear. The process must be performed on every run of pipe from each branch of newly constructed water main. In cases where foam swabs are too large to be retrieved from a fire hydrant, an exit tee or wye and a means of directing the water away from the trench must be provided. All swabs that are used must be accounted for when cleaning is completed.

B. Each unit of pipe, fitting and valve shall be hand swabbed or otherwise mechanically cleaned with a prior approved method before installation, and a cap or plug inserted in the pipe and retained until just prior to joining with the next unit of pipe. Two caps or plugs must be utilized, one inserted in the last unit of pipe laid and one to be used in the unit of pipe being prepared for installation. The plug or cap in the last unit of pipe installed shall not be removed until the next pipe unit is lowered into the trench and is ready to be inserted. At the end of each working day a watertight plug or cap shall reside in the last unit of pipe or fitting installed, until construction resumes. During installation workman's hands, gloves, rags, tools, or any other foreign object must not be introduced into the open ends of any previously cleaned pipe. If dirt or mud is kicked into or falls into the open ends of the pipe during handling or joining, re-cleaning of the pipe or fitting affected must be performed. Cleaning water must be clear water containing a minimum of 10 ppm chlorine, and shall be changed whenever appropriate. Muddy or overly discolored cleaning solutions shall not be used at any time.

In the event a project is constructed where a flushing velocity of 2.5 feet per second cannot be attained the hand cleaning method must be employed. Where the hand cleaning method is employed, chlorine in the form of high test hypochlorite (HTH) may be introduced into each unit of pipe during construction to satisfy the disinfection requirements, providing a minimum of fifty parts per million (50 ppm) of chlorine is present in both ends of the new main following initial filling.

#### Point and Rate of Application:

Point of Application - The preferred point of application of the chlorinating agent is at the beginning of the pipeline extension or any valved section of it, and through a corporation stop inserted in the pipe. The water injector for delivering the chlorine-bearing water into the pipe should be supplied from a tap made on the pressure side of the gate valve controlling the flow into the pipe line extension. Alternate points of application may be used when approved or directed by the Engineer.

Rate of Application - Water from the existing distribution system, or other approved source of supply shall be controlled to flow very slowly into the newly laid pipeline during the application of the chlorine. The rate of chlorine mixture flow shall be in such proportion to the rate of water entering the newly laid pipe such that the dosage applied to the water will be at least fifty (50) parts per million.

Retention Period - Treated water shall be retained in the pipe at least twenty-four (24) hours. After this period, the chlorine residual at pipe extremities and at other representative points shall be at least twenty-five (25) parts per million.

Chlorinating Valves and Hydrants - In the process of chlorinating newly laid pipe, all valves or other appurtenances shall be operated while the pipeline is filled with the chlorinating agent and under normal operating pressure.

Preventing Reverse Flow - Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the line supplying the water. Check valves may be used on chlorine equipment piping if desired.

#### Final Flushing And Testing:

Following chlorination, all treated water shall be thoroughly flushed from the newly laid pipe at its extremity until the replacement water throughout its length shows a residual not in excess of that carried in the system. Before any flushing of water mains, the Contractor shall notify the Engineer of the flushing date and time. Notify the Engineer twenty-four (24) hours prior to filling the main.

After flushing, water samples the Contractor shall collect from the treated piping system and arrange for analysis. Bacteriological analysis must be performed by a laboratory approved by the Director of Illinois Department of Public Health and the Engineer. The samples shall show satisfactory bacteriological results on two (2) successive days.

Water mains that fail the initial bacterial test shall be flushed again before additional sampling is commenced. If the second sample also fails the bacterial test, then disinfection shall be repeated and flushing prior to additional sampling shall be required. If the third sample fails the bacterial test, then the next step shall be determined by the Engineer.

#### Swabbing:

Disinfection for pipe, fittings, or valves that must be placed in service immediately shall be accomplished by thoroughly flushing and swabbing with a strong (5 percent) solution of calcium hypochlorite immediately prior to assembly. Approval must be secured from the Engineer before this method of disinfection will be accepted.

### Measurement and Payment

This work will be paid for at the contract unit price per foot for DUCTILE IRON WATER MAIN or DUCTILE IRON WATER MAIN, RESTRAINED JOINT TYPE, of the diameter specified. Water mains will be measured in lineal feet along the centerline of the pipe. The work shall include all material, labor and equipment necessary to construct the water mains including all excavation, except rock excavation; clearing and grubbing; locating and connecting to existing water mains, including restraining the existing water main, furnishing and installing transition fittings for dissimilar pipe materials; furnishing and installing pipe, and fittings; polyethylene wrap; watertight plugs; No. 12 THWN single strand electric cable, bedding and backfill (except Trench Backfill, Special material, which will be paid as specified herein); testing; disinfection; protection, replacement or repair of utilities, drainage systems, structures, and miscellaneous property; removal of surplus excavated material; and clean-up.

### WATER VALVES

#### Description

This work shall consist of furnishing and installing water valves of various sizes at locations shown on the plans and as directed by the Engineer and as specified herein.

#### Submittals:

Submit shop drawings and product data for all valves, valve boxes, and valve operators showing general dimensions, linings and coatings, construction details and full descriptive literature, which includes materials of construction, material specification and grade for all valve parts. Shop drawings shall indicate valve operator locations.

Valve manufacturer shall furnish certification that each valve has been subjected to a hydrostatic water pressure twice the pressure class and that each valve is free of defects. Valves shall be tested in both the open and closed positions.

Furnish one set of all special tools necessary for installation, operation, normal maintenance, and adjustment.

#### Valves:

All valves shall be of standard manufacture and of highest quality materials and workmanship.

All valves of a particular type shall be the product of one manufacturer regularly engaged in the continuous production of that size and type of valve.

Valves shall be suitable for working pressure as required and as specified for the pipeline in which it is installed. Manufacturer's name, service, and pressure class shall be cast into the body.

Unless otherwise indicated or specified, valves shall be iron body, fully bronze or bronze mounted.

All valves shall be constructed for services up to 250 psi.

Where required for satisfactory operation of valves, provide valve operators, cast iron valve boxes, tee handle wrench, and other valve appurtenances.

Buried valves shall be epoxy coated.

Buried valves 6 inch diameter or larger shall be set on a foundation of solid concrete or stone not less than 8 inches thick nor less than one cubic foot in volume. Foundations shall be set on firmly compacted ground.

Cast iron valve boxes shall be slide type approximately 5-1/4 inches in diameter with a minimum thickness of 3/16 inch and shall be set to position during backfilling operations so they will be in a vertical alignment to and centered over the valve operating stem. The slide type valve box shall be adjustable by sliding the upper section over the lower section. The lower casting of the unit shall be installed first in such manner as to be cushioned and to not rest directly upon the body of the valve or upon the water main. The upper casting of the unit shall then be placed in proper alignment into such an elevation that its top will be at final grade. Extension sections shall be furnished, if necessary, to increase the length of the slide type valve box to ensure the top of the box will be at final grade. CA-6 granular material shall be utilized to backfill around the operating nut and valve box. Valve box shall be two piece, screw type, and covers shall be no-tilt drop cover marked "WATER", as manufactured by Tyler Pipe, Screw Type # 6850 Series, or Equal.

#### Installation:

All valves shall be inspected upon delivery in the field to insure proper working order before installation. Verify that the valve wrench will seat solidly on the valve operating nut. Valves shall be set and jointed to the pipe in the manner as set forth in the AWWA Standards for the type of connection ends furnished.

All valves shall be provided with a standard valve chamber so arranged that no shock will be transmitted to the valve and the box opening shall be centered over the operation nut, and the cast iron cover shall be set flush with the road surface or finished surface.

After installation, all valves shall be subjected to the field test for piping as outlined in these specifications. Should any defects in materials or workmanship appear during these tests, the Contractor shall correct such defects with the least possible delay and to the satisfaction of the Engineer. If adjustments fail to correct the operation of a valve, remove the valve from the



project site and replace it with a workable replacement that will meet the Specification requirements.

Open and close each valve observing full operation prior to installing successive lengths of pipe.

All valves shall be restrained with retainer glands or a manufactured pipe restraint approved by the Engineer.

Contractor shall not operate existing water valves. All existing valves shall be operated by the City of Bloomington Water Department.

Boxes shall rest on the valve and shall be adjusted so that the cover may be set flush with paving in areas without paving set the cover as directed by the Engineer. Boxes shall be set to allow equal movement above and below finish grade.

The base of the box shall be centered over the valve, and the top of the base section shall be approximately on line with the nut on top of the valve stem. The entire assembly shall be plumb.

#### Gate Valves:

Valves 12-inch diameter or less shall be resilient wedge gate valves with cast iron body, fully bronze mounted, non-rising stem with upper and lower thrust collars. Waterways shall be smooth. Gate valves shall be furnished with O-ring stem seals. Number, size and design shall conform to the AWWA Standard for R/W Valve O-Ring Stem Seals. All valves shall open by turning counterclockwise. Valves shall meet or exceed AWWA C-509.

Wrench nuts shall be made of cast iron and shall be one and fifteen-sixteenths (1-15/16) inches square at the top, two (2) inches square at the base and one and three-fourths (1-3/4) inches high.

Each gate valve shall be subjected to hydrostatic pressure test per AWWA C509-87.

Acceptable gate valve manufacturers are Clow F6100, Mueller or equal.

#### Water Service Valves:

New water service connections shall be installed with a corporation stop; curb stop and curb box as shown in the details of the Drawings. Corporation stops and curb valve shall meet or exceed AWWA C-800.

Acceptable corporation stop, curb stop, and curb box manufacturers:

<u>Service Size</u>	<u>Corporation Stop</u>	<u>Curb Stop/Water Service Valve</u>	<u>Curb Box</u>
¾"-1"	Mueller H-15000	Mueller H-15200 or AY McDonald 4713	Mueller H-10341 AY McDonald 5601
1 ¼"	Mueller H-15000	Mueller H-15200 or AY McDonald 6100	AY McDonald 5603
1 ½"-2"	Ball Valve: Ford, Mueller or AY McDonald	Ball Valve: Ford, Mueller or AY McDonald	AY McDonald 5603

Measurement and Payment

This work will be measured for payment at the contract unit price each for WATER VALVES, of the size specified. This work shall include all labor, equipment and material including gate valves and boxes, excavation, except rock excavation; all necessary fittings, concrete block supports; bedding and backfill; testing; disinfection; protection, replacement or repair of utilities, drainage systems, structures, and miscellaneous property; removal of surplus excavated material; and clean-up. The water service valves shall also include locating existing service connections, service taps and connections; furnishing and installing corporation stops, elbows, (transition to existing service diameter after the curb stop), curb box, curb stop, and b-box; all necessary fittings for a complete installation. Each gate valve pay item shall include a valve box. Each water service valve pay item shall include a corporation stop, a curb stop, and a curb box.

BUTTERFLY VALVES 14" AND LARGER

Description

This work shall consist of furnishing and installing butterfly valves of various sizes on the water main at locations shown on the plans and as directed by the Engineer and as specified herein.

All butterfly valves shall conform to the specifications outlined above in the general "Submittals", "Valves", and "Installation" sections of WATER VALVES.

Materials:

Valves 14-inch or larger in diameter shall be butterfly valves which are of the rubber-seated, tight-closing type. Butterfly valves and all accessories, including operators, shall meet the requirements of AWWA C504, Class 150-B, except as otherwise specified. Valve bodies shall be short or long-body flanged type, lug type with drilled and tapped bolt holes, or mechanical joint-end type, as shown and specified. Wafer body type valves without lugs are not acceptable.

An affidavit of compliance with AWWA C504 and certified drawings shall be submitted and approved before shipment of butterfly valves and operators.

Butterfly valve pressure class shall be not less than Class 150-B, shall exceed the pipeline test pressure in which the valve is installed, or shall be as specified, whichever is greater.

Valves shall be constructed of materials resistant to corrosion for the required service. Valve materials shall be as specified below or as required for the service:

Valve bodies:

Cast iron        ASTM A126, Class B  
                      ASTM A48, Class 40

Valve shafts:

Type 304, stainless steel or  
Carbon steel with Type 304 stainless steel journals

Valve discs:

Cast iron                ASTM A48, Class 40  
Alloy cast iron        ASTM A436, Type 1  
Ductile iron            ASTM A536, Grade 65-45-12

Mating seat surface:

Stainless steel        ASTM A296, Grade CF-8 or CF-8M  
(castings)  
Stainless steel        ASTM A276, Type 304  
Alloy cast iron        ASTM A436, Type 1

Seats:

Neoprene or Viton for Air Valves

If stub shafts are furnished, the shafts shall extend a minimum of 1-1/2 diameters into the discs and the clearance between the shaft and discs shall not exceed the following:

Shaft Diameter (Inches)	Maximum Radial Clearance (Inches)
1/2 to 1-1/2	.002
2 to 4	.0025
5	.003
6	.004

The operator shall be considered an integral part of the valve. Manual operators shall be of the traveling-nut or worm-gear type, as shown, specified, or required.

Traveling-nut type operators shall include a threaded steel screw and a bronze nut. A slotted-lever or link-lever system shall be provided to transfer the applied torque to the disc shaft. All rotating shafts, screws and links shall have separate bearings. Thrust bearings shall be provided.

Worm-gear type operators shall include a worm gear and matching drive worm. Bearings shall be provided for each rotating member.

The operator shall be designed to operate the valve with a maximum handwheel pull of 40 pounds. Stop-limiting devices shall be provided to prevent overtravel of the disc in either direction. The operator shall be designed to hold the disc in any position without flutter or wear on the valve or operator. The operator shall be housed in a watertight enclosure and shall be packed with grease or oil-filled.

All valves shall be restrained with restrainer glands or a manufactured pipe restraint system approved by the Director of Water Department.

Manufacturers: Butterfly valves shall be manufactured by Mueller, Clow, Pratt, or American.

#### Measurement and Payment

This work will be measured for payment at the contract unit price each for BUTTERFLY VALVES of the size specified. This work shall include all labor, equipment and material including excavation, except rock excavation; butterfly valves and valve box; all necessary fittings; bedding and backfill; testing; disinfection; protection, replacement or repair of utilities, drainage systems, structures, and miscellaneous property; removal of surplus excavated material; and clean-up.

#### TAPPING VALVES AND SLEEVES

##### Description

This work shall consist of furnishing and installing all side tapping material (side tap sleeve and valve with box) of the size specified to connect to existing water main at locations shown on the plans and as directed by the Engineer. The City of Bloomington Water Department will be responsible for making the tap and the Contractor shall give the Water Department a 72 hour notice in advance of making the tap. The fee normally assessed by the City for making water main taps will not be assessed for this project.

##### Submittals:

Submit shop drawings and product data for all valves and sleeves showing general dimensions, linings and coatings, construction details and full descriptive literature.

Valve manufacturer shall furnish certification that each valve has been subjected to a hydrostatic water pressure twice the pressure class and that each valve is free of defects. Valves shall be tested in both the open and closed positions.

#### Materials:

Tapping valves shall be Clow F6114 resilient wedge gate valves or approved equal. Retainer glands shall be: McWane (Clow) F-1058 or approved equal, and shall be installed at the joint between the valve and the proposed water main.

Tapping sleeves shall be stainless steel with stainless steel bolts as follows:

Taps onto existing 4", 6", and 8" mains: Cascade CST-SL, Ford Fast, or approved equal.

Taps onto existing 10" and larger mains: Cascade CST-EX or approved equal.

All valve boxes shall not have less than a 5 ¼ inch shaft. The extensions of the valve box and shaft necessary to reach the ground elevation shall be included. Valve boxes shall be by Tyler Pipe two piece, screw type, #6850 series with the word "water" cast on lid, or approved equal.

#### Installation:

The contractor shall make the excavation required for side-tapping existing mains. The contractor shall provide a minimum of an 8 ft x 4 ft hole, oriented with the 4 foot dimension along the water main to be side-tapped, from one foot behind the tap location to 7 feet perpendicular to the existing main along the alignment of the future main. The depth of the excavation shall be one foot below the existing water main. The contractor shall ensure that the excavation is in compliance with Occupational Safety and Health Act (O.S.H.A.) regulations for safety.

#### Measurement and Payment

This work will be measured for payment at the contract unit price each for TAPPING VALVES AND SLEEVES of the size specified. This work shall include all labor, equipment and material including tapping valves and boxes, tapping sleeve, excavation, except rock excavation; all necessary fittings, concrete block supports; bedding and backfill; testing; disinfection; protection, replacement or repair of utilities, drainage systems, structures, and miscellaneous property; removal of surplus excavated material; and clean-up.

WATER SERVICE LINE  
WATER SERVICE DIRECTIONAL DRILLING 1" DIAMETER

Description

All work shall be performed in accordance with the latest edition of the Standard Specification for Water and Sewer Main Construction in Illinois, City of Bloomington Design and Construction Standards for Water Distribution and Supply System, and Sections 561, 562, 565 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, except as modified herein. The maximum down time associated with any new service line shall be limited to 4 hours.

Materials:

Service lines two inches or less in internal diameter shall be Type K copper tubing, soft temper, for underground service, conforming to ASTM B-88 and B-251. The pipe shall be marked with the manufacturer's name or trademark and a mark indicative of the pipe. Outside diameter and weight per foot shall not be less than that listed in ASTM B-251, Table II.

Horizontal Directional Drilled Service Lines:

If service lines are to be installed by horizontal directional drilling (as shown on Drawings), the drilling process shall meet all the requirements described under the section titled HDPE WATER MAIN DIRECTIONAL DRILLING. Service line materials shall be as specified above (not HDPE).

Water Service Markings:

The contractor shall place 50 mm x 100 mm wood studs (2x4's) extending from the bottom of the water service to 0.6 m (2 feet) above the ground at the location of the end of each service. A minimum of the upper one (1) foot of each wood stud (2x4) shall be painted blue. These markers shall be installed at the time the services are constructed.

Curb Marking of Water Services:

At the time the curb and gutter is poured, the contractor shall mark the top of the curb with a permanent "W" for water to mark location of the curb box.

Measurement and Payment

This work will be paid for at the contract unit price per foot for WATER SERVICE LINE or WATER SERVICE DIRECTIONAL DRILLING 1" DIAMETER, of the diameter specified. Water service lines will be measured in lineal feet along the centerline of the pipe. The work shall include all material, labor and equipment necessary to construct the water service lines

including all excavation, except rock excavation; locating existing service connections; copper service pipe, elbows, (transition to existing service diameter after the curb stop); all necessary fittings; bedding and backfill; testing; disinfection; protection, replacement or repair of utilities, drainage systems, structures, and miscellaneous property; removal of surplus excavated material; and clean-up.

FIRE HYDRANTS TO BE MOVED  
FIRE HYDRANT AND VALVE TO BE MOVED

Description

All work shall be performed in accordance with the latest edition of the Standard Specification for Water and Sewer Main Construction in Illinois, City of Bloomington Design and Construction Standards for Water Distribution and Supply System, and Section 564 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, except as modified herein.

Construction Requirements

Hydrants shall not be located closer than 10 feet from any light standard, tree, sign post, or other permanent structure that would impeded access to the hydrant or reduce its visibility. No hydrant shall be placed closer than 2-1/2 feet from back of curb or edge of pavement to the centerline of hydrant.

Hydrants shall be plumb and shall be set so that the center of the hydrant port is eighteen (18) to twenty (20) inches above the surrounding finished grade ensuring the breakaway flange is at proper ground height. Hydrants shall be set in accordance with the City of Bloomington's "five-foot bury". All hydrants shall be inspected in the field upon delivery to the job to insure proper operation before installation. A minimum of 2/3 cubic yard of washed coarse stone and polyethylene covering shall be placed at and around the base of the hydrant to insure proper drainage of the hydrant after use. The blocking of the hydrant shall consist of masonry blocks extending from the hydrant to undisturbed soil and shall be so placed to form a barrier adjacent to the hydrant base top to counteract the pressure of water exerted thereon. Poured-in-place concrete shall not be used. Care shall be taken to insure that weep holes are not covered. The hydrant shall be set on a concrete block to insure a firm bearing for the hydrant base. The hydrant auxiliary valve shall not be located directly adjacent to the hydrant. A minimum spool piece length of 2 feet (2') is required.

Measurement and Payment

This work will be measured for payment at the contract unit price each for FIRE HYDRANTS TO BE MOVED or FIRE HYDRANT AND VALVE TO BE MOVED. This work shall include all labor, equipment and material including, drainage system, excavation, except rock excavation, bedding and backfill; testing; disinfection; protection, replacement or repair of utilities, drainage

systems, structures, and miscellaneous property; removal of surplus excavated material; and clean-up.

### FIRE HYDRANTS TO BE REMOVED

#### Description

This work shall consist of the complete removal of the existing fire hydrants for water mains at the location shown on the plans and as directed by the Engineer. The hydrants that are salvageable shall become the property of the City of Bloomington. The fire hydrant at Sta. 259+84 Rt. is privately owned and shall become the property of Hucks. Hydrants determined not to be salvaged by the Engineer shall be disposed of by the Contractor in accordance with Article 202.03. The excavated areas that are within proposed paved areas shall be backfilled with trench backfill material. The other excavated areas not within paved areas shall be backfilled with select excavated material. The Contractor will also be responsible for exploring and determining the type, size, and depth of the hydrants.

When a water main is to remain in service and a fire hydrant will not be reinstalled on the tee, install a restrained plug onto the tee at the water main. If the hydrant is on a side tap, remove the tapping sleeve and replace with a solid sleeve or cut the water main at the tap and install a new section of water main.

#### Measurement and Payment

This work will be measured for payment at the contract unit price each for FIRE HYDRANTS TO BE REMOVED, which price shall include removal and disposing of the hydrants, plugging pipes, and backfilling.

### FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX

#### Description

All work shall be performed in accordance with the latest edition of the Standard Specification for Water and Sewer Main Construction in Illinois, City of Bloomington Design and Construction Standards for Water Distribution and Supply System, and Section 561 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, except as modified herein.

#### Submittals:

Submit shop drawings and product data showing general dimensions, linings and coatings, construction details and full descriptive literature, which includes materials of construction, material specification and grade for fire hydrants, hydrant parts, hydrant auxiliary valves and valve boxes.



## Materials

These specifications are to be used in conjunction with the AWWA Standard C502 for fire hydrants for ordinary water works service.

All materials used in the production of fire hydrants for ordinary service shall conform to the specifications designated for each material listed in AWWA Standard C502.

The hydrants shall be Waterous Pacer, Mueller Modern Centurion, Kennedy Guardian, or Clow F2500, of a pattern approved by the Engineer and each supplied with all optional features. The seat must be bronze. The name or mark of the manufacturer, size of the valve opening shall be plainly cast in raised letters and so placed on the hydrant barrel as to be visible after the hydrant has been installed. The specific type of hydrant shall be approved by the Engineer prior to installation.

All hydrants shall be steamer hydrants with two 2-1/2" hose nozzles with standard threads and one 4-1/2" pumper nozzle with Bloomington standard threads. All fittings and valves in connection with the fire hydrant shall be restrained.

As a minimum requirement, all hydrants shall be designed for a working pressure of 150 pounds per square inch. Workmanship, design and material shall conform to the AWWA Standard C502. The hydrant bodies shall be cast iron, fully mounted with approved non-corrodible metals. All wearing surfaces shall be either bronze or some other approved non-corrodible material and there shall be no moving bearing or contact surfaces of iron in contact with iron or steel. All contact surfaces shall be finished or machined in the best workmanlike manner and all wearing surfaces shall be easily renewable. All bolts below ground shall be stainless steel.

The design of the hydrant shall be such that all working parts may be removed through the top of the hydrant and shall have the required AWWA specified number of turns of the stem to open the R/W and are equal to the area of the valve opening. Any change in area of the water passage through the valve must have an easy curve, and all outlets must have round corners of good radius. Hydrant barrel shall be of such design that there is easy installation to top extensions and full rotation (360°) of the upper barrel without shutting off water to the hydrant.

Hydrants shall be provided with a sidewalk flange. Breaking devices shall be at the sidewalk flange, which will allow the hydrant barrel to separate at this point with a minimum breakage of hydrant parts in case of damage. There shall also be provided at this point, a safety stem coupling on the operating stem that will shear at the time of impact. All hydrants shall be equipped with O-Ring stem seals. The breakaway flange is to be 4" to 6" above the proposed ground level per manufacturer specifications.

Hydrants shall utilize standard nozzle caps.

Hydrants shall have one 4-1/2" pumper nozzle with Bloomington standard threads and two 2-1/2" hose nozzle NST.

The 5-1/4" internal hydrant valve shall be equipped with a 1-1/2" pentagon operating nut and a main operating rod travel stop capable of withstanding 200 foot pounds in the fully open or closed position and shall open by turning to the left (counterclockwise).

Before the hydrant is painted at the factory, it shall be subjected to an internal hydrostatic test of 300 pound per square inch with the hydrant valve in a closed position and again with the hydrant valve in an open position.

All iron parts of the hydrant, both inside and outside shall be thoroughly cleaned and thereafter painted with one coat of paint of a durable composition. The hydrants shall be painted with one additional coat of Tnemec-Gloss Safety Yellow per national fire code specifications and as approved by the Superintendent of Water Resources.

All fire hydrants, valves, and fittings shall be restrained.

#### Construction Requirements

Hydrants shall not be located closer than 10 feet from any light standard, tree, sign post, or other permanent structure that would impeded access to the hydrant or reduce its visibility. No hydrant shall be placed closer than 2-1/2 feet from back of curb or edge of pavement to the centerline of hydrant.

Hydrants shall be plumb and shall be set so that the center of the hydrant port is eighteen (18) to twenty (20) inches above the surrounding finished grade ensuring the breakaway flange is at proper ground height. Hydrants shall be set in accordance with the City of Bloomington's "five-foot bury". All hydrants shall be inspected in the field upon delivery to the job to insure proper operation before installation. A minimum of 2/3 cubic yard of washed coarse stone and polyethylene covering shall be placed at and around the base of the hydrant to insure proper drainage of the hydrant after use. The blocking of the hydrant shall consist of masonry blocks extending from the hydrant to undisturbed soil and shall be so placed to form a barrier adjacent to the hydrant base top to counteract the pressure of water exerted thereon. Poured-in-place concrete shall not be used. Care shall be taken to insure that weep holes are not covered. The hydrant shall be set on a concrete block to insure a firm bearing for the hydrant base. The hydrant auxiliary valve shall not be located directly adjacent to the hydrant. A minimum spool piece length of 2 feet (2') is required.

#### Measurement and Payment

This work will be measured for payment at the contract unit price each for FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX. This work shall include all labor, equipment and material including hydrant, auxiliary valve and valve box, piping, fittings, drainage system,

excavation, except rock excavation, bedding and backfill; testing; disinfection; protection, replacement or repair of utilities, structures, and miscellaneous property; removal of surplus excavated material; and clean-up.

## DOMESTIC METER VAULTS

### Description

This work shall consist of the construction of a domestic meter vault and drain pit for an irrigation system in accordance with the details shown on the plans, Section 602 of the Standard Specifications and the details of Highway Standard Drawings 602301 and 604001.

The drain pit shall be a Type A Inlet except that the concrete base shall be omitted and replaced with an aggregate base. The drain pit shall have a Type 1 Frame and Closed Lid. A 2" diameter water line with a drain valve shall be furnished and installed by the Contractor to the limits shown on the detail. A concrete pad and fiberglass enclosure shall be constructed by the Contractor for the meter, backflow preventer and control system as shown on the detail on the plans. The meter, backflow preventer and control system will be furnished and installed by the City.

### Submittals:

Submit shop drawings and product data for all valves and fiberglass enclosure showing general dimensions, construction details and full descriptive literature, which includes materials of construction, and material specifications.

### Materials

#### Valves:

All valves shall meet the requirements for water valves as specified herein.

#### Fiberglass Enclosure:

The fiberglass enclosure shall be the type manufactured by Watts Regulator Company or approved equal. The enclosure shall have minimum dimensions of 70" long, 26" wide and 45" height. The fiberglass enclosure shall be insulated and have lockable doors. The heating unit will not be required.

Measurement and Payment

This work will be measured for payment at the contract unit price each for DOMESTIC METER VAULTS. The price shall include the cost of all excavation and backfill, aggregate base, furnishing and installing the manhole, flat slab tops, frame and lid, piping, fittings, valves, concrete pad, backflow preventer and enclosure. The meter and strainer assembly will be provided by the City and installed by the Contractor.

RESTRICTED DEPTH MANHOLES AND INLETS

Description

This work shall consist of the construction of manholes and inlets in accordance with Section 602 of the Standard Specifications and the details of Highway Standard Drawings 602306 and 602401, except that these structures shall be constructed with precast concrete flat slab tops as detailed in Standard Drawing 602601. Any necessary lengths of 24-inch diameter risers required to achieve the top-of-frame elevations as shown in the plans shall also be included. All manholes shall be type A.

Measurement and Payment

This work will be measured for payment at the contract unit price each for RESTRICTED DEPTH MANHOLES or RESTRICTED DEPTH INLETS, of the specified type and diameter, with frame and grate or lid. The price shall include the cost of all excavation and backfill, furnishing and installing the inlets, manholes, flat slab tops, and any required risers, and furnishing and installing the specified frame and grate or lid.

DRAINAGE STRUCTURE FRAMES AND GRATES WITH OPEN FACE CURB BOXES

Description

The Type 3 frames and grates and the Neenah R-3067 frames and grates or approved equal for the Type H inlets shall be provided with open face curb boxes.

Measurement and Payment

These frame and grate substitutions will not be paid for separately, but shall be considered as included in the contract unit price for the specified pay items involved.

### DRAINAGE STRUCTURE GRATES TYPE 37M

#### Description

The Type 37M grates shall be Neenah R-4342 or approved equal.

#### Measurement and Payment

The grates will not be paid for separately, but shall be considered as included in the contract unit price for the specified pay items involved.

### MANHOLES, SANITARY

#### Description

This work shall consist of the furnishing and installing new sanitary manholes in accordance with the details shown in the plans and Section 32 of the Standard Specifications for Water and Sewer Main Construction in Illinois. The frames and lids shall be Neenah Foundry number R-1713 with type B lid and type NF-9204 pickholes or approved equal. Other manufacturers' frames and lids are acceptable if the dimensions match. Shop drawings must be submitted at the preconstruction conference if a change in frame and lid manufacturer is desired.

#### Measurement and Payment

This work will be paid for at the contract unit price each for MANHOLES, SANITARY, which price shall include all work as shown on the plans and specified herein. The cost of constructing the manholes to depths in excess of eight feet will not be paid for separately and the cost shall be included in the cost of the manholes.

### INLETS, SPECIAL, TYPE H

#### Description

This work shall consist of constructing special drainage inlets at locations shown on the plans. The inlets shall be constructed in accordance with the applicable articles of Section 602 of the Standard Specifications and the detail in the plans. Neenah Foundry No. R-3067 or No. R-3290-A frames and grates or approved equal shall be furnished and installed with the inlets.

#### Measurement and Payment

This work will be measured and paid for at the contract unit price each for INLETS, SPECIAL, TYPE H, which price shall include furnishing and installing the inlets, frames and grates and concrete fillets

MANHOLES TO BE ADJUSTED WITH FRAME AND GRATE (SPECIAL)

Description

This work shall consist of adjusting to grade an existing manhole with a new frame and closed lid at the location shown on the plans and as directed by the Engineer. The work shall be done in accordance with the applicable articles of Section 602 of the Standard Specifications. The manhole shall be adjusted by removing the existing frame and lid and installing a new frame with closed lid and any concrete adjusting rings that may be necessary to bring the frame and lid to the finished grade elevations shown on the plans. The frame and lid shall be Neenah Foundry number R-1689 with a non-rocking closed lid or approved equal.

Measurement and Payment

This work will be paid for at the contract unit price each for MANHOLES TO BE ADJUSTED WITH FRAME AND GRATE (SPECIAL), which price shall include removing the frame and lid and furnishing and installing concrete adjusting rings and the frame and lid.

CONCRETE CURB (SPECIAL)

Description

This work shall consist of constructing a concrete curb in accordance with the detail shown on the plans and at locations shown on the plans. The work shall be in accordance with the applicable parts of Section 606 of the Standard Specifications.

Measurement and Payment

The cost of constructing the concrete curb as shown on the plans will be paid for at the contract unit price per foot for CONCRETE CURB (SPECIAL) measured along the face of the curb. The price shall include all labor and materials including excavation, saw joints and backfilling.

COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (SPECIAL)  
CONCRETE MEDIAN, TYPE SM-6.12 (SPECIAL)

Description

This work shall consist of constructing combination concrete curb and gutters and concrete medians with thicknesses greater than 9 inches at locations shown on the plans. The work shall be in accordance with the applicable parts of Standards 606001 and 606301 and Section 606 of the Standard Specifications.

Measurement and Payment

The cost of constructing the combination concrete curb and gutters and concrete medians with increased thickness will be paid for at the contract unit price per foot for COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24 (SPECIAL), and per square foot for CONCRETE MEDIAN, TYPE SM-6.12 (SPECIAL).

#### CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED

##### Description

This work shall consist of the removal, storage and re-erection of the existing chain link fence at the locations shown on the plans. The existing fence shall be removed and stored so as prevent damage to the materials except for any concrete post footings, which will not be salvaged. The materials and methods for re-erecting the fence shall be in accordance with Standard 664001 and Section 664 of the Standard Specifications and meet the approval of the Engineer. The existing fence materials that are damaged or are not useable, including the concrete footings for posts shall be replaced by the Contractor at his/her expense.

##### Measurement and Payment

This work will be measured for payment at the contract unit price per foot for CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED. The measured length shall be along the top of the re-erected fence. The price shall be considered payment in full for all materials, labor and equipment to perform this work including constructing the concrete footings, furnishing and installing new material and backfilling.

#### PERMANENT SURVEY MARKERS (SPECIAL)

##### Description

This work shall consist of furnishing, erecting and marking permanent survey markers at locations shown on the plans. The marker shall be in accordance with the detail shown on the plans, Standard 667101 and the applicable articles of Sections 667 and 668 of the Standard Specifications. The existing marker shall be cross-tied prior to the start of construction operations. After the pavement resurfacing is complete the new marker shall be erected by core drilling the pavement and placing the new marker in a concrete encasement. The tablet shall be marked with the location and station of the P.T. of the horizontal curve. All work shall be done with the supervision and approval an Illinois Professional Land Surveyor.

##### Measurement and Payment

This work will be measured and paid for at the contract unit price each for PERMANENT SURVEY MARKERS (SPECIAL) which price shall include all cost of furnishing and installing the completed marker as specified herein, including the tablet, concrete and the services of an Illinois Professional Land Surveyor.

### LIGHT POLE FOUNDATION (SPECIAL)

#### Description

This work shall consist of constructing concrete light pole foundations of various sizes and shapes at locations shown on the plans and as directed by the Engineer. The work shall be in accordance with the applicable articles of Section 836 of the Standard Specifications and the details in the plans.

#### Measurement and Payment

This work will be paid for at the contract unit price per each for LIGHT POLE FOUNDATION (SPECIAL), which price shall be considered payment in full for all labor, equipment, and material necessary including excavating, concrete, reinforcement bars, anchor bolts, ground rods, conduits, painting and backfilling.

### RELOCATE EXISTING LIGHTING UNIT

#### Description

This work shall consist of the removal, storage and re-installation of the existing light units and appurtenances on new bases at the locations shown on the plans as directed by the Engineer. The Contractor will be responsible for storing the lighting units to prevent damage to the units. If the light units are damaged by the Contractor they shall be replaced with the same type of material at the Contractor's expense. The Contractor shall re-install the light units at the locations shown on the plans and extend new conduits to the lights to make the lights a complete working unit. New wiring shall be supplied to the lights from the nearest existing splice box and shall match the existing wire size and type.

#### Measurement and Payment

This work will be measured for payment at the contract unit price each for RELOCATE EXISTING LIGHTING UNIT, which price shall include all work as specified including additional conduits and new wiring. The new light pole foundations will be paid for separately as specified herein.

### STORM SEWERS, WATER MAIN QUALITY PIPE

#### Description

This item is intended to satisfy the EPA requirements for horizontal and vertical separation of sewer and water mains outlined in Section 41 of the "Standard Specifications for Water and Sewer Main Construction in Illinois." This work shall consist of constructing storm sewers of the



required inside diameter with the necessary fittings or joints in accordance with Section 550 of the Standard Specifications and the following additions or exceptions.

### Materials

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

### Measurement and Payment

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

## CONCRETE ENCASEMENTS

### Description

This work shall consist of constructing a concrete encasement around the sanitary sewer to protect the pipes from damage or collapsing at the location shown on the plans. The encasement shall be constructed as shown on the detail in the plans and as directed by the Engineer. The concrete for the encasement shall be class SI in accordance with Section 1020 of the Standard Specifications. The reinforcement bars shall be in accordance with Article 1006.10 of the Standard Specifications. The excavation shall be backfilled with trench backfill material.

### Measurement and Payment

This work will be measured and paid for at the contract unit price each for CONCRETE ENCASEMENTS, which price shall include all labor, equipment, concrete, reinforcement bars and excavating. Trench backfill material will be paid for in accordance with Section 208 of the Standard Specifications.

REMOVING EXISTING SEPTIC TANK  
SEPTIC TANK TO BE PUMPED

Description

This work shall consist of pumping and the complete removal and disposal of the existing septic tanks and associated leach fields at the locations shown on the plans and as directed by the Engineer. The work shall be done in accordance with the applicable sections of the "Private Sewage Disposal Licensing Act and Code" current edition, set forth by the Illinois Department of Public Health. The Contractor will be responsible for notifying the McLean County Health Department a minimum of 48 hours prior to starting the removal of septic tanks.

The tanks shall be pumped and the waste legally disposed of. The septic tank shall then be completely removed and disposed of. Only companies licensed by the McLean County Health Department will be allowed to pump the tanks. A list of the licensed companies can be obtained from the Health Department. Influent pipes from buildings and leach field piping that interfere with the construction operations shall be removed and disposed of and the trenches backfilled. The septic tanks shall not be removed until directed so by the Engineer. The area shall be backfilled with earth material and compacted in 8-inch lifts to match the surrounding ground surface. The excavated areas that are within proposed paved areas shall be backfilled with trench backfill or granular backfill material as directed by the Engineer. The Contractor will be responsible for inspecting the tanks to familiarize himself with the work to be done.

Measurement and Payment

This work will be measured for payment at the contract unit price each for SEPTIC TANK TO BE PUMPED, which price shall include the cost of locating the tanks, pumping and disposing of the waste. Payment will be made for each pumping and disposal operation.

This work will be measured for payment at the contract unit price each for REMOVING EXISTING SEPTIC TANK, which price shall include the cost of locating the tanks, pumping and disposing of the waste, removal and disposing of the tanks, piping, appurtenances, and backfilling with earth. Trench backfill material will be paid for in accordance with Section 208 of the Standard Specifications.

MODULAR BLOCK RETAINING WALL

Description

This work shall consist of constructing a modular block retaining wall as shown on the detail in the plans and as directed by the Engineer.

Materials

The modular block wall system shall be the "Classic 6" type as manufactured by Rockwood Retaining Walls, Inc., Rochester Minnesota, or approved equal. The blocks shall be interlocked and have a textured beveled split face with a width of 18 inches, a height of 6 inches, a depth of 12 inches, a setback of 3/4 inch and a minimum weight of 56 pounds. The blocks shall have a minimum compressive strength of 3000 PSI at 28 days. Color samples shall be submitted to the Engineer for approval prior to ordering the blocks. The geogrid material shall have a minimum ultimate tensile strength of 3600 lbs. per foot and a minimum junction strength of 3240 lbs. per foot and be approved by the Engineer. The coarse aggregate materials shall meet the requirements of Article 1004.04 of the Standard Specifications. The perforated corrugated polyethylene pipe shall meet the requirements of Article 1040.04 (a) of the Standard Specifications.

### Construction Requirements

The wall shall be constructed in accordance with the details on the plans and the manufacture's instructions. The aggregate base and modular blocks shall be placed level and aligned to provide straight lines and smooth curves with each course offset by one half of a block width. The perforated pipe shall be installed as shown on the detail and shall outlet to the nearest storm sewer manhole or inlet. The cavities of the blocks as well as the area behind the blocks shall be filled with coarse aggregate and compacted after each course. A single geogrid layer shall be installed horizontally on the compacted backfill and be connected to the modular blocks per the manufacture's recommendations. The geogrid shall be taut and staked to prevent slack. Horizontal layers of geogrid shall be continuous except if a joint is required an overlap of 18 inches shall be made and staked to prevent slack. Caps shall be installed to the top of the wall with construction adhesive the entire length of the wall as directed by the Engineer. Topsoil 8 inches thick shall be placed to backfill along the back of the wall.

### Measurement and Payment

This work will be measured and paid for at the contract unit price per square foot for MODULAR BLOCK RETAINING WALL, which price shall include labor, equipment and materials required including the excavation, aggregate base and backfill, pipes, blocks, caps, geogrid and backfill. The wall shall be measured along the vertical front face of the blocks from the top of the cap to the bottom of the bottom course of blocks.

### ABANDON EXISTING WATER MAIN

#### Description

This work shall consist of abandoning existing water mains and service lines at the locations shown on the plans and as directed by the Engineer. Abandoning of the water mains and service lines shall consist of leaving the existing pipes in place except where they conflict with the new construction in which case the water mains or service lines shall be removed and disposed of. Existing valves that do not conflict with the proposed work shall remain in place but the valve

boxes shall be removed. The material that is salvageable shall become the property of the City of Bloomington. Materials determined not to be salvaged by the Engineer shall be disposed of by the Contractor in accordance with Article 202.03. The remaining piping shall be abandoned in place and the pipe ends plugged with concrete. The excavated areas that are within proposed paved areas shall be backfilled with trench backfill material. The other excavated areas not within paved areas shall be backfilled with select earth material. The Contractor will also be responsible for exploring and determining the type, size, and depth of the water mains and service lines.

#### Measurement and Payment

This work will be measured for payment at the contract unit price each for ABANDON EXISTING WATER MAIN, which price shall include removal and disposing of piping, valve bonnets and boxes, dewatering the abandoned line, cutting and removing sections of pipe, plugging pipes, and backfilling with earth or trench backfill material, protection, replacement or repair of utilities, drainage systems, structures, and miscellaneous property; removal of surplus excavated material, and clean up. The removal of fire hydrants will be paid for separately as specified herein.

### CONSTRUCTION LAYOUT

#### Description

This work shall consist of furnishing and placing construction layout stakes in accordance with the recurring special provision check sheet number 9 for Construction Layout Stakes Except for Bridges with the following modification. The Contractor will also be required to furnish and place construction layout stakes to define the limits of all the temporary construction limits. The temporary construction limits should be staked prior to the start of any construction activities and shall be as directed by the Engineer.

The Contractor shall cooperate with the utility companies and when requested by the Engineer, stake right of ways, easements, back of curb, etc., for use by the utility companies in facilitating layout for relocation and construction of utilities. The Contractor shall also at the request of the Engineer, stake construction limits for sensitive areas (trees/landscaping, etc. to be protected) and if requested provide protective safety fencing to protect such areas from disturbance.

#### Measurement and Payment

This work will be measured and paid for at the contract lump sum price for CONSTRUCTION LAYOUT, which price shall include all labor, equipment, and stakes.

## FENCE REMOVAL

### Description

This work shall consist of the removal and disposal of the existing fences of various types at the locations shown on the plans. The existing fences shall be satisfactorily disposed of by the Contractor in accordance with Article 202.03. The resultant voids at the fence post locations shall be backfilled and compacted with trench backfill material. The Contractor will be responsible for constructing a suitable termination post and if necessary a concrete base for the part of the fence that is to remain in place. The end posts may be of salvaged materials from the fence removal or new materials. The materials and methods for constructing the fence terminations shall meet the approval of the Engineer.

### Measurement and Payment

This work will be measured for payment at the contract unit price per foot for FENCE REMOVAL which price shall be considered payment in full for all materials, labor and equipment to perform the work including constructing the termination posts, concrete bases and placing trench backfill in the holes.

## REMOVING AND RESETTING STREET SIGNS

### Description

This work shall consist of the removal, storage and re-erection of the existing street signs (traffic or information signs) or street name signs at the locations shown on the plans and as directed by the Engineer. The existing signs and posts shall be removed and stored so as to prevent damage to the materials except for the concrete footings, which will not be salvaged. Any signs or posts damaged by the Contractor shall be replaced at his/her expense. The resultant voids at the sign post locations shall be backfilled and compacted with trench backfill material. The signs shall be re-erected to a proper mounting height as directed by the Engineer. New concrete bases shall be constructed to support the posts and shall be a minimum of 12 inches in diameter and 24 inches deep.

All existing signs owned by the City of Bloomington (along Hamilton Road), which interfere with the work, shall be removed by the City. The Contractor shall give three working days notice to the maintaining authority of his/her desire to have the signs removed. Any Contractor or Private Party removing any sign without notice will be billed for the replacement cost associated with reinstalling the sign and may be charged with a violation of the Illinois Vehicle Code 11-311.

### Measurement and Payment

The work for removing and resetting street name signs will be measured for payment at the

contract unit price each for REMOVING AND RESETTING STREET SIGNS. The price shall be considered payment in full for all materials, labor and equipment to perform this work including constructing the concrete bases and placing trench backfill in the holes. The cost of removing and resetting the existing street signs (traffic or information signs) will not be paid for separately and shall be included in the unit bid prices of the contract and no additional compensation will be allowed.

## SANITARY SEWER

### Description

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

- a. Sanitary sewer installation shall be in accordance with Division II, Section 20-2 and Division III, Sections 31 and 34. The sewer trenches shall be shored by a method described in Section 20-2.09A and the use of double trench boxes will also be allowed.
- b. Sanitary sewer pipe materials shall meet the following requirements:
  - Polyvinyl Chloride (PVC) Pipe shall conform to ASTM D 2241, type PSM for sizes up to 12" diameter with elastomeric joints meeting the requirements of ASTM F 477. Minimum acceptable Standard Dimensional Ratio (SDR) for PVC Pipe shall be 21.
- c. Sanitary sewer pipe testing shall be in accordance with Division III, Section 31-1.11A except for the following:
  - Delete paragraphs 2, 3 and 4 and substitute the following:  
All sections of the sewer shall be tested, except for those designated portions of the sewer that are placed into service during the construction process.
- d. Horizontal and vertical separation between water mains and sanitary sewers shall be in accordance with Division IV, Section 41-2.01.

The bedding and haunching material for the pipes shall be CA 11 and be a minimum of Class B quality. The bedding and haunching material shall be placed as shown on the detail in the plans. Bedding, haunching, and initial backfill to 12" over the top of pipe will be required in accordance with the "Standard Specifications for Water and Sewer Main Construction in Illinois," except bedding and haunching shall be crushed stone meeting the requirements of IDOT Gradation CA 11. Initial backfill shall meet the material and compaction requirements of Section 20 of the

Standard Specifications for Water and Sewer Main Construction in Illinois. Bedding and haunching of pipe will be considered incidental to the unit cost bid for the various pipe items.

The trenches shall be backfilled as shown on the detail in the plans. The trenches shall be backfilled with earth material and compacted in 8-inch lifts to match the surrounding ground surface. The excavated areas that are within proposed paved areas shall be backfilled with trench backfill material in accordance with Section 208 of the IDOT Standard Specifications.

#### Measurement and Payment

This work will be measured for payment at the contract unit price per foot for SANITARY SEWER of the type and size indicated on the plans. The price shall include the cost of all trenching, bedding, haunching, laying the pipe, tees, fittings, plugs, testing and backfilling with earth. Trench backfill material will be paid for in accordance with Section 208 of the Standard Specifications. The pipe types shown on the plans refer to the fill heights over the pipe as indicated in Article 550.03 of the Standard Specifications.

#### SEALING EXISTING WATER WELLS

##### Description

This work shall consist of sealing the existing water wells at the locations shown on the plans and as directed by the Engineer. The work shall be done in accordance with Section 920.120 of the Illinois Water Well Construction Code of the Illinois Department of Public Health and the procedures for sealing drilled and dug wells set forth by the McLean County Health Department. The Contractor will be responsible for notifying the McLean County Health Department a minimum of 48 hours prior to starting the sealing of the wells. Only companies licensed by the McLean County Health Department will be allowed to seal the wells. A list of the licensed companies can be obtained from the Health Department. A water well sealing form (IL 482-0631) must be filled out and submitted to the McLean County Health Department at the completion of the work.

The wells shall be sealed by first removing pumps, water lines and appurtenances. The casing pipe and any other slabs, covers or appurtenances shall be removed to a minimum of 2 feet below the existing ground level or the proposed sub-grade level, which ever is lowest. The materials removed shall be satisfactorily disposed of by the Contractor in accordance with Article 202.03. The well shall be chlorinated by pouring in 2 gallons of household bleach and filling the wells with pea gravel or limestone chips to within 20 feet of the surface. The remainder of the well shall be filled with cement or bentonite. The area shall be backfilled with earth material and compacted in 8-inch lifts to match the surrounding ground surface. The excavated areas that are within proposed paved areas shall be backfilled with trench backfill or granular backfill material as directed by the Engineer. The Contractor will be responsible for inspecting the wells to familiarize himself with the work to be done.

### Measurement and Payment

This work will be measured for payment at the contract unit price each for **FILLING** EXISTING WELLS, which price shall include the cost of all work described herein and backfilling with earth. Trench backfill material will be paid for in accordance with Section 208 of the Standard Specifications. Granular backfill material if required will be paid for as specified herein.

### HDPE WATER MAIN DIRECTIONAL DRILL

#### Description

All work shall be performed in accordance with the latest edition of the Standard Specification for Water and Sewer Main Construction in Illinois, City of Bloomington Design and Construction Standards for Water Distribution and Supply System, and Sections 561, 562, 565 of the Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, except as modified herein.

#### Submittals:

Submit horizontal directional drilling experience meeting the requirements of this section.

Submit detailed construction scheduling plan prior to the preconstruction meeting.

Prior to construction, submit the type and capacity of the drilling rig to be used on the project, include manufacturer, pullback and push torque. Contractor to verify that allowable pipe stresses of the pipe will not be exceeded by the drilling rig. Submit information on the type of locating and tracking system. In addition, submit type and capacity of mud mixing system. Include proposed composition of drilling fluid, viscosity, and density.

Prior to construction, submit a drawing showing proposed crossing configuration, including entry and exit angles, radius of curvature, and entry and exit points. Drawings to include location and dimensions of the staging area at both entrance and exit pits. Also include information on the diameter of the pilot hole and size and number of prereamers used for development of the borehole.

Prior to construction, submit information on the method to address and mitigate obstruction problems during drilling, reaming, and potential problems of product pipe becoming stuck during pipe pull back, drilling through existing underground utilities, or other events that lead to work stoppage. Submit information on emergency procedures when drilling, reaming, etc. into existing utilities (gas, electric, water, etc.). Procedures must comply with all regulations.

Prior to construction, submit information on the method of slurry containment, method of recycling drilling fluids and spoils (if applicable), or method of containing drilling fluids or



spoils and transporting drilling fluids and spoils off-site (including anticipated volume), and identify method and disposal site for drilling fluids and spoils. All material must be disposed in accordance with local, state, and federal regulations.

Prior to construction, submit plan for cleanup and disposal of spills and fractouts (drilling fluids, hydraulic fluids, etc.) including measures to contain and clean the affected area. Include details for cleanup of surface seepage of drilling fluids and spoils. All material must be disposed in accordance with local, state, and federal regulations.

Prior to construction, submit information on the method to address and mitigate collapse or subsidence of surface roadways, adjacent utilities, etc., during drilling, reaming and installation of the pipe.

The Contractor shall maintain a logbook that includes driller notes and records for bores using steering and tracking system. Data will include pipe number, depth, pitch, steering commands, and notes. Log must also include rig performance parameters (thrust, pullback, torque, drilling fluid circulation, drilling fluid composition), ground conditions, obstructions encountered, time shift started and ended, footage during the shift, etc. Logbook will include information on drilling fluid (composition, viscosity, density). This logbook must be available for review throughout project and must be submitted to Engineer at completion of project.

At the completion of the horizontal directional drilling, the pipe log indicating the horizontal and vertical position at 10 or 15 foot intervals along the pipe to confirm conformance with the depth and line shown on the Drawings. This submittal shall include the type and manufacturer of tracking equipment used, date of most recent shop calibration record, and the method to ensure the data was captured. No payment for any footage of pipe will be made until its corresponding log is submitted to the Engineer.

#### Quality Assurance:

The horizontal directional drilling shall be performed by a drilling company who is experienced in the installation of water and sewer pipelines utilizing the horizontal directional drilling method.

The Contractor shall submit data on the horizontal directional drilling company's experience. The drilling company shall have at least three previous successful projects of 14-inch diameter or larger of restrained joint ductile iron pipe or HDPE pipe utilizing the horizontal directional drilling method. The drilling company shall provide an installation list including the following information: City or District, project name and location, contact person and phone number, contract amount, project environment (river crossing, urban area, etc.), date of installation, pipe diameter, pipe material, maximum length of each bore, and total length of directional drilling.

#### HDPE Materials:

High Density Polyethylene (HDPE) pipe and fittings shall be DR 11 and must meet or exceed the following ASTM standards:

1. ASTM D 3350 – Standard Specification for Polyethylene Plastics Pipe and Fittings Materials.
2. ASTM F 714 – Standard Specification for Polyethylene Pipe (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter.
3. ASTM F 1055 – Standard Specification for Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene Pipe and Tubing.

Butt heat fusion joints must meet or exceed the following ASTM standard:

1. ASTM D 3261 – Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing.

High density polyethylene water pipe shall be joined by means of zero leak-rate heat-fusion, or electrofusion, and approved mechanical joints, meeting the specifications and requirements of American Water Works Association Standard C906.

The polyethylene pipe and fittings shall be made from resins exhibiting a cell classification of PE 345444C as defined in ASTM D3350 with an established hydrostatic-design-basis of 1600 psi for water at 73°F. The resin shall be listed by the PPI (Plastic Pipe Institute) in its pipe-grade registry Technical Report (TR) 4, "Listing of Plastic Pipe Compounds".

Pipe OD Sizes shall be available ductile iron pipe sizes (DIPS). All pipes shall be suitable for use as a fluid pressure conduit. Peak flow water velocity of 5 ft/sec shall be used in the hydraulics engineering design. Pipe shall be HDPE DR 11 rated for not less than 160 psi at 73.4 degrees F. The wall thickness shall follow the Dimension Ration (DR) system prescribed in AWWA C906. Laying lengths are 40 ft. or 50 ft. standard. The pipe is to be joined by heat fusion, flanges or other mechanical joint systems proven for HDPE pipes. All joints shall be welded except for transitions to other materials. Mechanical joints shall have a stainless steel internal stiffener and joint restraint. Flanges shall be follower type of ductile iron or stainless steel, 150 psi pressure rated. Fittings shall be molded or fabricated. Both pipe and fittings must be NSF listed by the manufacturer with the pipe bearing the NSF 61 logo or mark and pressure rating.

Pipe and fittings must be marked as prescribed by NSF. Pipe markings shall include nominal size, OD base (i.e.: 14" ductile iron pipe sizing, DIPS), dimension ratio, pressure class, manufacturers name, manufacturer's production code including day, month, year extruded, and manufacturer's plant and extrusion line; and optional NSF logo.

Provide blue coated No. 12 copper tracer wire directly above all HDPE Pipe.

Acceptable Manufacturers and Products:

1. ISCO -Phillips Driscopipe®.
2. KWH Pipe Solairpipe.
3. Or approved manufacturers.

All HDPE pipe and fittings shall be supplied by the same manufacturer.

#### Directional Boring System:

Contractor to provide a pneumatically or hydraulically operated, fluid assisted remote guided boring system capable of installing the pipe by trenchless methods per the Drawings without damage. The equipment shall be designed to provide accurate control of both the line and the grade of the boring head.

Contractor to provide pumps, compressors, tools and all equipment certified as suitable by the system manufacturer to install the new pipe without stressing or damaging the pipe.

Contractor to provide a circulatory and recovery system that will recover the bentonite or other drilling fluids without releasing the slurry onto the ground or water surfaces.

Contractor to coordinate supply of water for mixing drilling fluid from the Engineer.

#### Protection:

The Contractor shall field verify the location and depth of all existing utilities, including service connections, to be paralleled or crossed prior to the start of directional drilling operations. The Contractor shall modify alignment, depth or grade as necessary to avoid utilities and minimize the number of peaks and valleys along the alignment.

The Contractor shall expose all utilities that they will be crossing with horizontal directional drilling. All major utilities (high pressure gas, fiber optic, high voltage electric, major pipe lines, water and sewer lines, etc.) should be exposed every 100 feet, if parallel within 5 feet of excavation area to verify depth and location of the utility. If the location is not accurate, the utility owner should be contacted immediately.

#### General Pipe Installation:

Install pipe by the directional drilling methods unless conditions require open trench installation. Obtain Engineer approval prior to open trench construction.

Tightly wrap and tape the dual wrap polyethylene encasement to the pipe per the pipe manufacturer's recommendations to assure no damage to the encasement during installation. Contractor shall use a nylon sling when moving polyethylene encased pipe. Any damage to the polyethylene encasement shall be repaired prior to installation. Polyethylene encasement shall be

overlapped across the joints in an alternating method and tightly taped across the joint. Install pipe by continuously pulling the pipe into place from insertion point to exit point without causing damage to the pipe being inserted. Provide lubricants as required by the pipe manufacturer to avoid stressing the pipe past its elastic limit.

Provide installation and receiving pits as necessary for complete installation of the pipe. The excavation of the installation and receiving pits shall be incidental to the work.

The Contractor shall not start the pullback unless it can be completed without interruptions. Contractor shall coordinate scheduling with the Engineer.

The Contractor shall provide sediment and erosion control measures to prevent drilling fluid or borehole cuttings from entering the adjacent parcels to the construction limits.

The pilot hole shall establish the horizontal plane of the pipeline. A plot of length versus elevation versus left/right variance will dictate the actual as-built plan and profile of the pipeline. Data feedback and electronic guidance systems and supplemental surface tracking systems shall be used to provide confirmation of position.

Reaming shall consist of using an appropriate tool to open the pilot hole to a slightly larger diameter than the carrier pipeline. The percentage oversize shall depend on soil types, soil stability, depth, drilling fluid hydrostatic pressures, etc. Normal oversizing shall be from 120 to 150 percent of the product pipe diameter. Drilling fluid shall be forced down the hole to stabilize the hole and to remove soil cuttings. The Contractor shall carefully monitor the reaming operations to prevent damage to adjacent utilities.

The Contractor shall maintain accurate alignment and grade control and shall determine the pipe elevation (above mean sea level) at intervals not exceeding 15 feet.

The pipe shall be installed by continuously pulling the pipe into place through the drilling fluid along the reamed hole pathway from insertion point to exit point without causing damage to the pipe and pipe joints being inserted. The pull-back speed shall be within the pipe manufacturer's recommendations. Drilling fluid/lubricants shall be provided as required by the pipe manufacturer's recommendations and specifications to avoid stressing the pipe and joints past the materials elastic limits. Proper pipe handling, cradling, bending minimization, surface heave readings, consistent insertion velocity, drilling fluid flow circulation/exit rate, and footage length installed shall be recorded.

Any bits, drills, reamers, or other tools lost or stuck in the hole shall be removed at the Contractor's expense. If tools cannot readily be removed, Contractor may at Contractor's option abandon the hole. The Contractor will seal the borehole and redrill the crossing. No payment shall be made for any lost equipment, material, or work on abandoned holes.

Drilling fluid to be used to facilitate the installation of the pipe shall be adjusted within acceptable limits such that ground heaving and subsurface cavity formation through erosion are prevented.

A variation greater than  $\pm 3\%$  from the horizontal and  $\pm 5\%$  from the vertical plan or designated grade may be sufficient reason for the rejection of the pipe, and the pipe shall be re-bored to proper grade if so directed by the Engineer at no cost to the Engineer.

The Contractor shall drill and/or excavate relief holes to prevent the pressure of the drilling fluid from heaving or in any other way damaging any surface features. Damage due to ground heaving caused by the drilling fluid shall be repaired at the Contractor's expense. Relief holes shall be incidental to the work.

The alignment shown on the Drawings shall be adhered to unless existing physical obstructions prevent otherwise. The number of setups and the length of pipe installation per set up as shown on the Drawings is merely a suggested layout to achieve the alignment shown on the Drawings. The Contractor shall be ultimately responsible for determining the number of set ups required to install the pipe to the alignment shown on the Drawings. The number of setups shall be incidental to the work.

The Contractor shall verify that the pipe diameter as installed is within the tolerances shown in the specifications using a mandrel or other approved non-destructive methods. Contractor shall fill deficient segments with approved material and install new parallel segments at no additional cost.

The Contractor shall supply portable mud tanks or construct temporary mud pits to contain excess drill fluids during construction. Spent drilling fluids and cuttings shall be confined to the entrance and exit pits. The Contractor shall take all necessary precautions to minimize the damage to the adjacent properties. Any drilling fluid that enters the pipe shall be removed by flushing or other suitable methods. Upon completion of the crossing, Contractor will dispose of any drill cuttings and excess drill fluids in a manner consistent with the local and state regulations. If working in an area of contaminated soil, the slurry shall be tested for contamination and disposed in accordance with local and state regulations. The disposal of the drilling fluids and any necessary flushing of the pipe shall be incidental to the work.

The Contractor shall be responsible for cleanup and restoration, due to hydrofracturers from excessive pressure in the drilling fluid. Contractor shall prevent drilling fluids from entering streams or other water bodies and municipal storm or sanitary sewer lines (unless prior approval is obtained from the Engineer). No additional payment shall be made for cleanup costs required by Engineer, or regulatory agencies due to loss of drilling fluid.

Pits excavated to permit connection of bored pipe shall be backfilled, and disturbed areas shall be restored to their original state or better. Sections of sidewalks, curbs, and gutters or other permanent improvements damaged during horizontal directional drilling operations shall be

repaired or replaces at the Contractor's expense. The backfilling of the boring and receiving pits shall be incidental to the work.

Provide mufflers, silencers and other devices to reduce noise from compressors and other equipment to meet the Engineer's local ordinances.

#### HDPE Installation:

To prevent scratching or gouging of the pipe, store on clean level ground. The pipe shall not be dragged over sharp objects or handled by chains or chokers. Nylon slings and spreader bars shall be used to lift HDPE pipe.

Pipe segments with cuts or gouges exceeding 10% of the wall thickness shall be cut out and removed.

All joints of HDPE pipe shall be joined in continuous lengths above ground at the job site utilizing the butt fusion method and performed in strict accordance with the manufacturer's instructions. The butt fusion equipment used to join the HDPE pipe segments shall be capable of meeting all conditions recommended by the pipe manufacturer, including, but not limited to, alignment, surface temperature at heating plate, pressure of pipe to heating plate, soak time, fusion pressure, fusion cooling time, allowable bead height and width, and removal of weld beads after cooling.

Improper fused joints shall be repaired to the satisfaction of the Engineer and at the expense of the Contractor. Unacceptable fused joints shall be removed and refused. Threaded joints or repair clamps will not be permitted. Joining the pipe using solvents or epoxies is prohibited. Hot gas fusion welding is prohibited.

Fusion joints shall be data logged to ensure proper fusion procedures were followed.

All service connections shall utilize electrofusion corporation saddles with brass outlet, rated to 160 psi, by Central Plastics, or equal.

#### Measurement and Payment

This work will be measured for payment at the contract unit price per foot for HDPE WATER MAIN DIRECTIONAL DRILL per the diameter specified. Water mains will be measured in lineal feet along the centerline of the pipe. The work shall include all material, labor and equipment necessary to construct the water mains including all excavation, except rock excavation; clearing and grubbing; locating and connecting to existing water mains, furnishing and installing pipe and fittings; watertight plugs; bedding and backfill (except trench backfill material, which will be paid in accordance with IDOT Section 208); all equipment required for directional drilling, including drilling fluids and excess fluid containment; testing; disinfection; protection, replacement or repair of utilities, drainage systems, structures, and miscellaneous

property; removal of surplus excavated material; and clean-up.

## CASING PIPES

### Description

This work shall consist of constructing casing pipes of various diameters for the water mains at locations shown on the plans and as directed by the Engineer. Unless otherwise indicated on the Drawings or directed by the Engineer, casing pipes may be either steel or PVC.

#### Steel Casing:

Steel casing pipe shall conform to AWWA C200 and C206 (60,000 PSI tensile strength) and shall be of the diameter indicated on the Drawings. Wall thickness shall be ½-inch minimum.

Interior lining of pipe shall be a coal tar lining conforming to AWWA C203.

Exterior coating of pipe shall be multiple coats of heavy duty coal-tar base coating built up to 30 mils total dry thickness, and applied in accordance with the coating manufacturer's recommendations.

Joints in steel casing pipe shall be welded in accordance with AWWA C206.

Stainless steel casing spacers shall be used to support the pipe. The spacers shall be Model CCS as manufactured by Cascade Waterworks Manufacturing Company in Yorkville, Illinois.

Rubber end seals shall be wrapped around the end of casing and the carrier pipe after installation to provide a barrier to the backfill material. The end seals shall be secured with stainless steel straps. The end seals shall be Cascade Waterworks Manufacturing Company Model CCES.

#### PVC Casing:

SDR-PR PVC pipe shall be manufactured from PVC 1120 and shall conform to ASTM D2241. Nominal size shall be as indicated on the Drawings and SDR shall be 26. Pipe and fittings shall be NSF approved for the usage to which they will be applied.

Joints in SDR-PR PVC pipe shall be bell and spigot type with rubber gaskets, ASTM D-3139.

Rubber end seals shall be wrapped around the end of casing and the carrier pipe after installation to provide a barrier to the backfill material. The end seals shall be secured with stainless steel straps. The end seals shall be Cascade Waterworks Manufacturing Company Model CCES.

### Construction Requirements

The water main pipe may be pushed or pulled (depending upon piping material, joint type, and method of pipe support) into the casing as assembled. The proposed method of installation shall be approved by the Engineer prior to starting the crossing.

#### Measurement and Payment

This work will be measured for payment at the contract unit price per foot for CASING PIPES per the diameter specified. The casing pipes will be measured in lineal feet along the centerline of the pipe. The casing pipes include installation by open cut method including all excavation, except rock excavation; clearing and grubbing, casing pipe, casing spacers for carrier piping; bedding and backfill (except trench backfill material which will be paid in accordance with IDOT Section 208); testing; protection, replacement or repair of utilities, drainage systems, structures, and miscellaneous property; removal of surplus excavated material; finish grading and clean-up.

#### COMMITMENTS

There are no commitments for this project.



## TRAFFIC SIGNALS

Traffic Signals shall be constructed in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways" latest edition; the latest edition of the Illinois Supplement to the Manual on Uniform Traffic Control Devices; the "Standard Specifications for Road and Bridge Construction" adopted January 1, 2007, herein referred to as the Standard Specifications; the "National Electrical Code", herein referred to as NEC; the "National Electrical Manufacturers Association", herein referred to as NEMA; Standards Publication No. TS 1-1976 "Traffic Control Systems"; and the Institute of Traffic Engineers, herein referred to as ITE, Technical Report No. 1 "A Standard for Adjustable Face Vehicular Traffic Control Heads".

The following Special Provisions supplement the above specifications, manuals, and codes. In case of conflict between any part or parts of said documents, the Special Provisions shall take precedence and shall govern.

### TRAFFIC SIGNAL INSTALLATION

The Contractor may install posts, poles, heads, and controller cabinets prior to all of the traffic signal control equipment being located on the Contractor's material storing facility.

### SERVICE INSTALLATION (SPECIAL)

#### Description

This work shall consist of furnishing and installing two Type A service installations according to Section 805 of the Standard Specifications, the details of Highway Standard 805001, the details in the plans, and the following additions or exceptions.

Two sets of the equipment required for a Type A service installation shall be furnished and installed, except for the weather-head. The service installation will have one service drop, so only one weather-head shall be furnished and installed. The service installation shall have a meter and disconnect for the traffic signals and a meter and disconnect for the combination mast arm lighting mounted on a plywood panel as shown on the plans or as otherwise directed by the Engineer. The service installation shall be mounted to the existing power pole at the location shown on the plans. All above ground conduits shall be galvanized steel according to Article 1088.01(a) of the Standard Specifications. All vertical conduits and service cables required for the service installation shall be included in the cost of the service installation.

The proposed service shall be a 120/240 volt, single phase, three wire service and shall be in accordance with the requirements of the utility company. The combination mast arm lighting shall be energized from the opposite transformer phase of the traffic signals. The circuit breaker for the traffic signals shall be single pole and rated 50A. The circuit breaker for the combination mast arm lighting shall be single pole and rated 30A. The weatherproof enclosures for the traffic signals and combination mast arm lighting shall be clearly labeled as directed by the Engineer.

In addition to the requirements of Section 805, the Contractor shall notify the utility company prior to beginning work to determine the utility company regulations relating to electrical service.

The Contractor shall provide the utility company with an estimated date that the service connection will be required and the agency that will be responsible for monthly service charges. The responsible agency is the City of Bloomington. The customer service agreement with the utility company shall be executed by the responsible agency.

The Contractor shall be required to pay for all service connection charges by the utility, with the Contractor being reimbursed under this contract according to Article 109.05 of the Standard Specifications. References to the Department in Article 109.05 shall mean the City of Bloomington.

During the interim between the service activation date and the signal turn on day, all energy charges for the intersection shall be paid by the Contractor and reimbursed under this contract according to Article 109.05 of the Standard Specifications. References to the Department in Article 109.05 shall mean the City of Bloomington.

Beginning with the day of the traffic signal turn on, all energy charges for the intersection shall be paid by the responsible agency. The Contractor shall make arrangements with the responsible agency to transfer billing to the responsible agency.

All information furnished to the utility company shall be in writing, with a copy provided to the Engineer.

#### Basis of Payment

This work will be paid for at the contract unit price each for SERVICE INSTALLATION (SPECIAL), which price shall be payment in full for all labor, material, and equipment necessary to perform the work as specified, including the plywood panel and all mounting hardware. The photocell controller for the combination mast arm lighting that will be mounted on the same existing power pole as the service installation will be paid for separately.

#### CONDUIT

##### Description

This work shall consist of furnishing and installing conduit according to Section 810 of the Standard Specifications. All conduits shall be schedule 80 high density polyethylene (HDPE) and coilable according to Article 1088.01(c) of the Standard Specifications, except for conduit in trench containing traffic signal service cables and lighting service cables, which shall be schedule 80 polyvinyl chloride (PVC) according to Article 1088.01(b) of the Standard Specifications.

If the Contractor chooses to install conduit runs designated as trenched in the plans by the bored and pulled method, payment shall be made at the contract unit prices for Conduit in Trench and the applicable Trench and Backfill pay item.

The Contractor shall furnish and install a 10 gauge stranded THHN wire in all conduits between handholes and foundations with 6 feet of slack at each handhole.

Method of Measurement

This work will be measured for payment according to Article 810.04 of the Standard Specifications. The 10 gauge stranded THHN wire will not be measured for payment.

Basis of Payment

This work will be paid for at the contract unit price per foot for CONDUIT IN TRENCH or CONDUIT, BORED AND PULLED, of the type and size specified, which price shall be payment in full for all labor, material, and equipment necessary to perform the work as specified. Furnishing and installing the 10 gauge stranded THHN wire shall be included in the cost of the respective conduit pay item.

REMOVE EXISTING JUNCTION BOX

Description

This work shall consist of the removal and disposal of existing junction boxes including conduits and wiring at the locations shown on the plans and as directed by the Engineer. The work shall be in accordance with the applicable portions of Article 895.05 of the Standard Specifications.

The junction box shall be removed in its entirety and disposed of in accordance with Article 202.03 of the Standard Specifications and as directed by the Engineer. All excavation resulting from the junction box removal that falls within two feet of pavement or sidewalk shall be backfilled with trench backfill in accordance with Section 208 of the Standard Specifications.

Basis of Payment

This work will be paid for at the contract unit price each for REMOVE EXISTING JUNCTION BOX, which price shall be considered payment in full for all labor, material, and equipment required for the satisfactory removal and disposal of the existing junction boxes, including all excavation and backfill.

HANDHOLE

Description

This work shall consist of furnishing the materials and constructing a concrete handhole or a concrete double handhole according to Section 814 of the Standard Specifications. Precast handholes are not allowed.

The lift ring for the handhole cover shall consist of a solid closed ring of stainless steel at least  $\frac{3}{8}$  inch in diameter. The lift ring shall be attached to the handhole cover by a loop of stainless steel at least  $\frac{3}{8}$  inch in diameter. The lift ring and loop shall be recessed in the handhole cover.

Basis of Payment

This work will be paid for at the contract unit price each for HANDHOLE, PORTLAND CEMENT CONCRETE or DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE, which price shall be payment in full for all excavating, backfilling, disposal of unsuitable materials, and furnishing of materials necessary to perform the work as specified.

ELECTRIC CABLE IN CONDUIT

Description

This work shall be performed according to Sections 817 and 873 of the Standard Specifications and the following additions or exceptions.

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

Basis of Payment

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

LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT

Description

This work shall consist of furnishing and installing a luminaire according to Section 821 of the Standard Specifications and the following additions or exceptions.

The full cutoff luminaire shall be horizontal mount and shall have a 400 watt high pressure sodium vapor lamp and a 120 volt ballast. The luminaire shall have a type M-C-III lighting distribution. It shall not have an individual photocell.

The luminaire shall have a black finish.

The luminaire shall be the M-400A Powr/Door luminaire with cutoff optics manufactured by GE Lighting Systems, catalog number MDCA-40-S-1-A-1-2-F-MC3-1, or approved equivalent.

Basis of Payment

This work will be paid for at the contract unit price each for LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT, which price shall be considered payment in full for all labor, equipment, and material necessary to perform the work as specified.

## FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL

### Description

This work shall consist of furnishing and installing a traffic actuated solid state digital controller in a Type V Cabinet with peripheral equipment according to Section 857 of the Standard Specifications, the details in the plans, and the following additions or exceptions.

### Materials

Add the following to Article 1073.01(b)(1) of the Standard Specifications: "The screen shall be readable under any natural light condition, including darkness."

Add the following to Article 1073.01(c)(2) of the Standard Specifications: "Internal preemption sequences shall be capable of use for fire lane and/or railroad preemption and shall be provided with delay and internally timed maximum dwell."

Revise the fourth paragraph of Article 1074.03(b)(3) of the Standard Specifications to read: "One circuit breaker rated 10 A shall be provided for the control equipment and another circuit breaker rated 30 A shall be provided for the signal load."

### Traffic Signal Controller and Cabinet

The controller shall be capable of telemetry for controller to controller, to computer, and to system data transfer. Through telemetry the intersection shall be capable of being monitored on a personal computer. Typically the controller shall be completely uploaded or downloaded through telemetry. The latest computer software shall be provided so data, including all timing parameters, can be transferred. The supplying of software will be waived if identical to that already owned by the City of Bloomington. The controller shall use non-volatile EPROM memory and have selectable shortway and maximum dwell smoothing. One possible start up mode shall be an all red display with a minimum eight-second period. All harnesses shall be furnished for controller to controller, controller to computer, and computer to modem communication. The "D" connector shall be provided and completely terminated in the cabinet, even if not required in this application.

Normal operation of the signals at the intersection shall not be possible with the monitor removed. The monitor shall prevent any display not allowed in the Manual on Uniform Traffic Control Devices. Also, the flash transfer relays shall not be energized during flash operation (conflict or manual).

An Innovative Technologies model HS-P-SP-120A-30A-RJ suppressor or approved equal with a 3 position terminal block shall be mounted on an aluminum plate below the cabinet power distribution panel. Incoming power shall connect to the terminal block which shall feed the IT suppressor through 10 gauge solid copper wire (AC+, AC-, Gnd.) with approximately ten 1.5 to 2 inch coils in the AC+ and AC- lines.

The traffic signal controller shall be the EPAC3808M42 as manufactured by Eagle Signal Controls, Austin, Texas, or an approved equal.

The proposed traffic signal controller cabinet shall be furnished with a door switch, conflict flash, and manual flash inputs wired to the appropriate controller 'D' connector inputs. The cabinet shall also be furnished with a manual control switch and manual cord within the police compartment door.

The project phase designation diagram (with north arrow) shall be permanently affixed to the door of the cabinet for easy reference by the maintenance technician. The diagram shall be permanent in nature and weatherproof. The diagram shall be placed so that when the cabinet door is opened it is aligned with the intersection as viewed from the cabinet.

The cabinet for the controller shall be a ground mount, Type V, NEMA TS-1, with a TS-1 detector rack with power supply, according to Article 1074.03 of the Standard Specifications. The controller cabinet door shall normally be placed on the side of the controller cabinet furthest from the center of the intersection. The police door compartment shall contain a manual control cord from which the signals may be operated manually.

The Contractor shall supply and install on the inside of the cabinet door one three-position switch for each phase. The switch positions shall be off, on, and test. The test position shall be a momentary closure position which returns to the on position upon release. The test position shall allow a call to be manually placed to the controller for that phase.

The Contractor shall supply and install a wiring harness for the count output of the loop detector amplifiers. The harness shall be compatible with the Traffic Logging System used by the City of Bloomington as manufactured by Detector Systems Inc., Stanton, California, 800-828-7775. The wiring harness shall have pin assignments as shown on the 'Traffic Logging System Detector Input Numbering Scheme' detail in the plans.

A factory representative capable of ensuring that the controller and cabinet are operating to the satisfaction of the Engineer shall be present at the turn on of the controller and shall remain until the intersection is operating to the satisfaction of the Engineer. Should a defect appear in the controller or cabinet operation, the factory representative shall return as often as necessary until all defects are repaired. The City reserves the right to cancel any turn on if the City deems the situation unsafe for reasons such as bad weather, peak hour traffic conditions, or road conditions.

At the preconstruction meeting, the Contractor shall provide the names and phone numbers of two technicians who would be able to respond to controller malfunctions that occur within the thirty-day acceptance period after the controller is turned on. If neither person can be reached at the time of the malfunction or if neither person can be at the location within two hours of receiving the call, any available electrician capable of evaluating and correcting the malfunction may be called at the Engineer's discretion. Any and all bills resulting from defective operation of the controller or cabinet during the thirty-day acceptance period shall be the responsibility of the Contractor.

The Contractor shall furnish, immediately upon placing the signal in operation, four keys to the controller cabinet to the Director of Engineering and Water. All control equipment shall have the model and serial number permanently affixed to the front of the housing. These numbers shall be visible without lifting or tilting the control equipment out of position.

The traffic signal controller and the cabinet assembly shall be fully tested by the equipment supplier. The Contractor shall provide five copies of the complete cabinet wiring showing all connections.

The Contractor shall provide five copies of a schematic diagram showing plug and terminal strip wiring for the traffic control installation. The diagram shall be clearly marked, indicating the intersection for which the diagram applies. The Director of Engineering and Water shall be the sole judge of the acceptability of the diagrams. The wiring diagrams shall not show any circuits or information which is not present in the installed system.

The furnishing of all diagrams required by this Special Provision shall be included in the cost of the traffic signal controller pay item and no additional compensation will be allowed.

The Contractor shall be responsible for programming and installing a fully functional controller with the timings supplied by the City of Bloomington. All programming changes needed during the burn-in period shall be performed by the Contractor as directed by the Engineer.

#### Anti-Backup Feature

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

Any costs incurred by compliance with this requirement shall be included in the cost of the traffic signal controller pay item and no additional compensation will be allowed.

#### Basis of Payment

This work will be paid for at the contract unit price each for FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL, which price shall include all labor, components, equipment, parts, connectors, wiring, and testing required for a complete working traffic signal controller.

#### UNINTERRUPTABLE POWER SUPPLY, STANDARD

##### Description

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

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

The UPS shall be furnished with a separate NEMA Standard TS-2 rated Type II cabinet for the batteries. The battery cabinet shall be constructed of the same material as the traffic signal controller cabinet. The battery cabinet shall have its own locked door with the same key access as the traffic signal controller cabinet. The battery cabinet shall be mounted as shown on the plans and as specified herein unless otherwise directed by the Engineer. The 4" gap shown on Standard 878001 between the battery cabinet base and the controller cabinet base shall be deleted. The battery cabinet shall have a solid bottom. The battery cabinet shall be ground-mounted and bolted directly to the right side of the controller cabinet (when looking into the controller cabinet) with at least four bolts. The cables shall be routed through the sides of the cabinets, with the holes in the cabinets protected with grommets. Only the batteries shall be housed in the battery cabinet; all other UPS equipment shall be housed in the controller cabinet.

#### Basis of Payment

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

#### STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 54 FT. (SPECIAL)

#### Description

This work shall consist of furnishing and installing a steel combination mast arm assembly and pole according to Section 877 of the Standard Specifications and the following additions or exceptions.

The luminaire arm shall measure 8 feet in length. The luminaire mounting height as measured from the pole base shall be 40 feet. The pole, base, pole cap, signal arm, and luminaire arm shall have a powder coated black paint finish over the galvanized steel. The stainless steel mesh and band at the pole base shall be painted black.

#### Powder Coat Finish

General: This work shall include surface preparation, powder type painted finish application, and packaging of the steel combination mast arm assembly and pole.

Surface Preparation: All weld flux and other contaminants shall be mechanically removed. The steel combination mast arm assembly and pole shall be degreased, cleaned, and air dried to assure all moisture is removed.



Painted Finish: All galvanized exterior surfaces shall be coated with a urethane or triglycidyl isocyanurate (TGIC) polyester powder to a dry film thickness of 2.0 mils. Prior to application, the surface shall be mechanically etched by brush blasting (Ref. SSPC-SP7) and the zinc coated substrate preheated to 450 degrees F for a minimum one (1) hour. The coating shall be electrostatically applied and cured by elevating the zinc-coated substrate temperature to a minimum of 400 degrees F.

The finish paint color shall be the manufacturer's standard black color. The Contractor shall confirm, in writing, the color selection with the local responsible agency and provide a copy of the approval to the Engineer. The Contractor shall include a copy of the approval in the material catalog submittal.

Any damage to the finish after leaving the manufacturer's facility shall be repaired to the satisfaction of the Engineer using a method approvable by the Engineer and manufacturer. If while at the manufacturer's facility the finish is damaged, the finish shall be re-applied.

Packaging: Prior to shipping, the steel combination mast arm assembly and pole shall be wrapped in ultraviolet-inhibiting plastic foam or rubberized foam.

#### Mast Arm Dampening Device

A 72" x 36" dampening device shall be furnished and installed with each signal mast arm in accordance with the details on the plans. The dampening device shall be installed equidistant between the two outermost signal heads. Mast arm dampening devices shall be installed on all mast arms that are 40 feet in length or more.

The dampening device shall consist of a 72" x 36" Type 1 unpainted aluminum sign stock mounted horizontally on top of the mast arm with the 36" length perpendicular to the arm.

Furnishing and installing the mast arm dampening device shall be included in the cost of the respective mast arm pay item and no additional compensation will be allowed.

#### Basis of Payment

This work will be paid for at the contract unit price each for STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 54-FT. (SPECIAL), which price shall be payment in full for all labor, material, and equipment necessary to perform the work as specified, including the powder coat finish.

#### TRAFFIC SIGNAL CONCRETE FOUNDATION

##### Description

This work shall consist of constructing a concrete foundation for a controller cabinet base or mast arm pole according to Section 878 of the Standard Specifications, the details shown on Highway Standard 878001, the details shown on the plans, and the following additions or exceptions.

### Concrete Foundation, Type C

The foundation shall be constructed according to the details shown on Standard 878001, the details shown on the plans, and the following modifications. The 4" gap shown on Standard 878001 between the battery cabinet base and the controller cabinet base shall be deleted. The battery cabinet shall be ground-mounted and bolted directly to the right side of the controller cabinet. The conduit shown on Standard 878001 between the battery cabinet and the controller cabinet shall be deleted. The ground rod shown on Standard 878001 for the controller cabinet foundation shall be located in the double handhole rather than in the foundation. The No. 6 bare copper wire shown on Standard 878001 that is connected to the ground rod shall be replaced with an insulated No. 6 XLP green copper conductor meeting the requirements of the Special Provision for Electric Cable in Conduit, Grounding.

### Concrete Foundation, Type E

The foundation shall be constructed according to the details shown on Standard 878001 and the details shown on the plans. The foundation diameter shall be 36 inches and the foundation depth shall be 15 feet.

### Basis of Payment

This work will be paid for at the contract unit price per foot for CONCRETE FOUNDATION, of the type specified, which price shall be payment in full for all labor, material, and equipment necessary to perform the work as specified.

### SIGNAL HEAD, POLYCARBONATE, LED

#### Description

This work shall consist of furnishing and installing a light emitting diode (LED) signal head according to Section 880 of the Standard Specifications and the following modifications.

Bracket mounted signal heads shall be mounted with polycarbonate brackets. Each signal head shall be mounted to a pole or post with a separate set of brackets. Compliance with this requirement shall be included in the cost of the respective signal head pay item and no additional compensation will be allowed.

The polycarbonate signal head and polycarbonate brackets shall be black in color.

#### Basis of Payment

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

## DETECTOR LOOP, TYPE I

### Description

This work shall consist of furnishing and installing a detector loop in the pavement according to Section 886 of the Standard Specifications and the following modifications.

The detector loop shall be tested according to Article 801.13(b)(2) of the Standard Specifications. The second sentence of Article 801.13(b)(2) of the Standard Specifications shall be revised to read: "The loop and lead-in circuit shall have an inductance between 200 and 700 microhenries."

### Method of Measurement

This work will be measured for payment in feet in place according to Article 886.05 of the Standard Specifications.

### Basis of Payment

This work will be paid for at the contract unit price per foot for DETECTOR LOOP, TYPE I, which price shall be payment in full for all labor, material, and equipment necessary to perform the work as specified.

## LIGHT DETECTOR

### Description

This work shall consist of furnishing and installing a light detector according to Section 887 of the Standard Specifications, except that a confirmation beacon shall not be furnished and installed. The detector cable shall be a continuous unbroken run from the light detector to the light detector amplifier. Splices in the detector cable are not allowed.

### Basis of Payment

This work will be paid for at the contract unit price each for LIGHT DETECTOR, which price shall be payment in full for all labor, material, and equipment necessary to perform the work as specified. All required electric cable from the light detector to the light detector amplifier shall be included in the cost of the light detector.

Furnishing and installing a confirmation beacon shall not be included in the cost of the light detector.

## PEDESTRIAN PUSH-BUTTON

### Description

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

The pedestrian push-button shall be the BDLM2-B push-button with momentary LED manufactured by Polara Engineering or approved equivalent. The push-button shall be furnished with the BDPM-B pole mount manufactured by Polara Engineering or approved equivalent.

The push-button body material and pole mount shall be black in color.

### Basis of Payment

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

## REMOVE EXISTING HANDHOLE

### Description

This work shall consist of the removal of handholes in accordance with Article 895.05(b) of the Standard Specifications and the following additions or exceptions.

The handhole shall be removed in its entirety and disposed of in accordance with Article 202.03 of the Standard Specifications and as directed by the Engineer. All excavation resulting from the handhole removal that falls within two feet of pavement or sidewalk shall be backfilled with trench backfill in accordance with Section 208 of the Standard Specifications. Existing conduit to be reused shall be protected from damage during handhole removal.

Basis of Payment

This work will be paid for at the contract unit price each for REMOVE EXISTING HANDHOLE, which price shall be considered payment in full for all labor, material, and equipment required for the satisfactory removal and disposal of the existing handholes, including all excavation and backfill.

REMOVE EXISTING CONCRETE FOUNDATION

Description

This work shall consist of the removal of concrete foundations in accordance with Article 895.05(c) of the Standard Specifications and the following additions or exceptions.

The concrete foundation shall be disposed of in accordance with Article 202.03 of the Standard Specifications and as directed by the Engineer. All excavation resulting from the concrete foundation removal that falls within two feet of pavement or sidewalk shall be backfilled with trench backfill in accordance with Section 208 of the Standard Specifications.

Basis of Payment

This work will be paid for at the contract unit price each for REMOVE EXISTING CONCRETE FOUNDATION, which price shall be considered payment in full for all labor, material, and equipment required for the satisfactory removal and disposal of the existing concrete foundations, including all excavation and backfill.

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

Description

This work shall consist of the removal of existing signal items and appurtenances according to Section 895 of the Standard Specifications. The existing traffic signal equipment shall be removed and delivered to the City of Bloomington as listed on the plans and as directed by the Engineer.

Method of Measurement

Removal of individual signal items will not be measured for payment separately.

Basis of Payment

This work will be paid for at the contract lump sum price for REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT, which price shall be payment in full for all labor, material, and equipment necessary to perform the work as specified.

ELECTRIC CABLE IN CONDUIT, GROUNDING

Description

This work shall be performed in accordance with the applicable Articles of Sections 806, 817, 873 and 1066 of the Standard Specifications with the following modifications.

This work shall consist of furnishing and installing a grounding wire to connect all traffic signal posts, poles, handholes, cabinets, and exposed metallic conduits. The proposed ground wire shall be an insulated No. 6 XLP green copper conductor. This wire shall be bonded to all items and their associated ground rods utilizing mechanical lugs and bolts. This wire may be made continuous by splicing in the adjacent handholes with compression lugs. Split bolts shall not be allowed.

The controller foundation ground rod shall be located in the double handhole rather than in the foundation. All other foundations shall retain their ground rods as shown on the Highway Standards.

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

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

Basis of Payment

This work will be paid for at the contract unit price per foot for ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C, which price shall be payment in full for all labor, materials, including clamps, hardware, and all equipment required to provide the grounding system described above.

INDUCTIVE LOOP DETECTOR, RACK MOUNTED

Description

This work shall consist of furnishing and installing an inductive loop detector according to Section 885 of the Standard Specifications and the following modifications.

Each inductive loop detector channel shall have the three usual modes of operation: delay, extension, and normal. The detection output shall allow either presence or pulse operation which may be selected from a front panel switch. The pulse output shall meet the requirements of the controller manufacturer's specifications.

Should the power to any detector fail, the detector shall exhibit a continuous call to the controller.

The inductive loop detectors shall be two-channel, rack-mounted units. Each channel of the inductive loop detector shall be clearly and permanently labeled above or below the detector with the abbreviations shown on the wiring diagram as to which loop is served by that detector. The labels shall not be placed on the detector but may be placed on the rack.

#### Method of Measurement

In measuring this item for payment, each complete detection channel will be considered as a detector.

#### Basis of Payment

This work will be paid for at the contract unit price each for INDUCTIVE LOOP DETECTOR, RACK MOUNTED, which price shall be payment in full for all labor, material, and equipment necessary to provide a detector as specified complete and wired in place ready for use.

#### INDUCTIVE LOOP DETECTOR, RACK MOUNT WITH SYSTEM OUTPUT

##### Description

This work shall consist of furnishing and installing an inductive loop detector according to Section 885 of the Standard Specifications and the following modifications.

Each inductive loop detector channel shall have the three usual modes of operation: delay, extension, and normal, and in addition shall be capable of providing a simultaneous system output for traffic counting. The system output shall not be affected by delay or extension timings. The detection output shall allow either presence or pulse operation which may be selected from a front panel switch. The pulse output shall meet the requirements of the controller manufacturer's specifications.

Should the power to any detector fail, the detector shall exhibit a continuous call to the controller.

The inductive loop detectors shall be two-channel, rack-mounted units. Each channel of the inductive loop detector shall be clearly and permanently labeled above or below the detector with the abbreviations shown on the wiring diagram as to which loop is served by that detector. The labels shall not be placed on the detector but may be placed on the rack.

The detector shall have the count output connected to a wiring harness, to be furnished with the controller cabinet, that is compatible with the Traffic Logging System used by the City of Bloomington as manufactured by Detector Systems Inc., Stanton, California, 800-828-7775. The wiring harness shall be wired as shown on the wiring diagram.

After turn-on, the City will check with its Traffic Logging System unit to make sure that the system is counting correctly. Any problems with the system shall be corrected by the Contractor at his/her own expense.

#### Method of Measurement

In measuring this item for payment, each complete detection channel will be considered as a detector.

#### Basis of Payment

This work will be paid for at the contract unit price each for INDUCTIVE LOOP DETECTOR, RACK MOUNT WITH SYSTEM OUTPUT, which price shall be payment in full for all labor, material, and equipment necessary to provide a detector as specified complete and wired in place ready for use.

#### TRAFFIC SIGNAL POST, 16 FOOT (SPECIAL)

##### Description

This work shall consist of furnishing and installing a traffic signal post according to Section 875 of the Standard Specifications and the following additions or exceptions.

The post and post cap shall be galvanized steel. The base shall be galvanized cast iron. The base shall be furnished with a grounding lug suitable for connecting a copper grounding conductor. The post, base, and post cap shall have a powder coated black paint finish over the galvanized steel or galvanized cast iron.

##### Powder Coat Finish

General: This work shall include surface preparation, powder type painted finish application, and packaging of the traffic signal post assembly.

Surface Preparation: All weld flux and other contaminates shall be mechanically removed. The traffic signal post assembly shall be degreased, cleaned, and air dried to assure all moisture is removed.

Painted Finish: All galvanized exterior surfaces shall be coated with a urethane or triglycidyl isocyanurate (TGIC) polyester powder to a dry film thickness of 2.0 mils. Prior to application,



the surface shall be mechanically etched by brush blasting (Ref. SSPC-SP7) and the zinc coated substrate preheated to 450 degrees F for a minimum one (1) hour. The coating shall be electrostatically applied and cured by elevating the zinc-coated substrate temperature to a minimum of 400 degrees F.

The finish paint color shall be the manufacturer's standard black color. The Contractor shall confirm, in writing, the color selection with the local responsible agency and provide a copy of the approval to the Engineer. The Contractor shall include a copy of the approval in the material catalog submittal.

Any damage to the finish after leaving the manufacturer's facility shall be repaired to the satisfaction of the Engineer using a method approvable by the Engineer and manufacturer. If while at the manufacturer's facility the finish is damaged, the finish shall be re-applied.

Packaging: Prior to shipping, the traffic signal post assembly shall be wrapped in ultraviolet-inhibiting plastic foam or rubberized foam.

#### Installation

In addition to a fabric post tightener, a pipe wrench shall also be an acceptable method of screwing the post to the base. The Contractor shall protect the finish of the post by placing wood blocks in the jaws of the pipe wrench or by other means acceptable to the Engineer. Any damage to the finish shall be immediately repaired by the Contractor, and no additional compensation will be allowed. Post shall be field tightened to the base.

#### Basis of Payment

This work will be paid for at the contract unit price each for TRAFFIC SIGNAL POST, 16 FOOT (SPECIAL), which price shall be payment in full for all labor, material, and equipment necessary to perform the work as specified, including the powder coat finish.

#### REMOVE ELECTRIC CABLE FROM CONDUIT (SPECIAL)

##### Description

This work shall consist of removing electric cable from conduit according to Section 895 of the Standard Specifications. The existing electric cable shall be removed from the existing signal items to the existing traffic signal controller cabinet unless otherwise directed by the Engineer. The electric cable that is removed shall be delivered to the City of Bloomington as noted on the plans and as directed by the Engineer. The electric cable that is removed shall not be reused.

##### Method of Measurement

Removal of individual electric cables will not be measured for payment separately.

Basis of Payment

This work will be paid for at the contract lump sum price for REMOVE ELECTRIC CABLE FROM CONDUIT (SPECIAL), which price shall be payment in full for all labor, material, and equipment necessary to perform the work as specified.

PHOTOCELL CONTROLLER

Description

This work shall consist of furnishing and installing a photocell controller with enclosure, photocell, equipment, and wiring for control of the proposed combination mast arm lighting. The construction and installation of the photocell controller shall be according to the NEC.

The photocell controller shall be the CC Series Lighting Contactor Control manufactured by Ripley Photocontrols, part number CC-30-2-NO-E-K-S-T-120V or an approved equal. The controller shall include a matching twist lock photocell with integral surge arrestors and time delay relay to prevent nuisance switching.

The photocell controller shall be mounted on the same existing power pole as the Service Installation (Special). The actual mounting height and orientation of the photocell controller shall be determined in the field or as otherwise directed by the Engineer.

Basis of Payment

This work will be paid for at the contract unit price each for PHOTOCELL CONTROL *SYSTEM*, which price shall include all labor, components, equipment, parts, connectors, wiring, and testing required for a complete working photocell controller.

PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED

Description

This work shall consist of furnishing and installing a light emitting diode (LED) pedestrian signal head according to Section 881 of the Standard Specifications and the following modifications.

Pedestrian signal heads shall be mounted with polycarbonate brackets. Each pedestrian signal head shall be mounted to a pole or post with a separate set of brackets. Compliance with this requirement shall be included in the cost of the respective pedestrian signal head pay item and no additional compensation will be allowed.

The polycarbonate pedestrian signal head and polycarbonate brackets shall be black in color.

Pedestrian signal heads shall have combination LED international symbols for DON'T WALK (orange upraised hand) and WALK (white walking person) located in the top section and an LED countdown timer located in the bottom section. The text "DON'T WALK" and "WALK" shall not be allowed for pedestrian indications.

#### Basis of Payment

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

#### PEDESTRIAN PUSH-BUTTON POST (SPECIAL)

##### Description

This work shall consist of constructing a concrete foundation and furnishing and installing a Type II pedestrian push-button post according to Section 876 of the Standard Specifications and the following additions or exceptions.

The post, post cap, and flange plates shall be galvanized steel. The concrete foundation shall be according to Standard 876001. The post, post cap, and flange plates shall have a powder coated black paint finish over the galvanized steel.

##### Powder Coat Finish

General: This work shall include surface preparation, powder type painted finish application, and packaging of the pedestrian push-button post assembly.

Surface Preparation: All weld flux and other contaminates shall be mechanically removed. The pedestrian push-button post assembly shall be degreased, cleaned, and air dried to assure all moisture is removed.

Painted Finish: All galvanized exterior surfaces shall be coated with a urethane or triglycidyl isocyanurate (TGIC) polyester powder to a dry film thickness of 2.0 mils. Prior to application, the surface shall be mechanically etched by brush blasting (Ref. SSPC-SP7) and the zinc coated substrate preheated to 450 degrees F for a minimum one (1) hour. The coating shall be electrostatically applied and cured by elevating the zinc-coated substrate temperature to a minimum of 400 degrees F.

The finish paint color shall be the manufacturer's standard black color. The Contractor shall confirm, in writing, the color selection with the local responsible agency and provide a copy of the approval to the Engineer. The Contractor shall include a copy of the approval in the material catalog submittal.

Any damage to the finish after leaving the manufacturer's facility shall be repaired to the satisfaction of the Engineer using a method approvable by the Engineer and manufacturer. If while at the manufacturer's facility the finish is damaged, the finish shall be re-applied.

Packaging: Prior to shipping, the pedestrian push-button post assembly shall be wrapped in ultraviolet-inhibiting plastic foam or rubberized foam.

Basis of Payment

This work will be paid for at the contract unit price each for PEDESTRIAN PUSH-BUTTON POST (SPECIAL), which price shall be payment in full for all labor, material, and equipment necessary to perform the work as specified, including the powder coat finish. The concrete foundation shall be included in the cost of the pedestrian push-button post.

STATUS OF UTILITIES TO BE ADJUSTED

The intent is for adjustments to be made prior to the start of construction. It may be necessary for some of the utility relocations to be done during construction and the Contractor will be required to cooperate with the Utility Companies while they perform their work. See the section "Sequence of Construction" within these special provisions. Utility Companies have been provided the following information. All work associated with water mains will be done by the Contractor.

Status

A – Indicates item to be adjusted

R – Indicates item to be relocated or removed

NW – Indicates no work required

\* - Indicates possibility of a conflict with the proposed improvements requiring further field investigation by the Contractor and utility owner.

<u>Name &amp; Address of Utility Co.</u>	<u>Type</u>	<u>Location</u>	<u>Status</u>
Ameren IP 501 East Lafayette Street Bloomington, IL. 61701	Power Poles	Hamilton Road	
		242+47, 41' Rt.	R
		243+81, 2' Rt.	R
		243+91, 51' Rt.	NW
		246+81, 4' Rt.	R
		254+32, 36' Rt.	R
		255+65, 33' Rt.	R
		256+56, 9' Lt.	R
		256+91, 28' Rt.	R
		257+72, 26' Rt.	R
		257+75, 26' Rt.	R
		257+99, 52' Rt.	NW
		258+51, 51' Rt.	NW
		260+12, 53' Rt.	NW
		261+70, 54' Rt.	NW
		500+93, 34' Rt.	R
		Main Street	
		294+26, 56' Lt.	NW
		296+04, 52' Lt.	NW
		297+81, 55' Lt.	NW
		297+92, 41' Rt.	R
299+58, 55' Lt.	R		
299+60, 56' Lt.	R		
302+48, 51' Lt.	NW		
302+66, 54' Lt.	NW		
303+74, 54' Lt.	NW		
304+33, 40' Rt.	NW		

<u>Name &amp; Address of Utility Co.</u>	<u>Type</u>	<u>Location</u>	<u>Status</u>			
Ameren IP	Light Pole	Main Street				
		294+77, 41' Rt.	R			
		296+32, 41' Lt.	NW			
		299+42, 47' Lt.	R			
		301+32, 45' Rt.	NW			
		302+54, 40' Lt.	R			
	Guy Anchor	Hamilton Road	242+42, 40' Rt.	R		
			247+13, 3' Rt.	R		
			254+11, 36' Rt.	R		
			256+43, 9' Lt.	R		
			256+54, 13' Lt.	R		
			256+73, 32' Rt.	R		
			256+94, 32' Rt.	R		
			257+97, 52' Rt.	R		
			258+19, 53' Rt.	NW		
			260+12, 63' Rt.	NW		
			500+73, 34' Rt.	R		
			Underground Electric Line	Main Street	296+03, 46' Lt.	NW
					299+62, 86' Lt.	R
					302+51, 54' Lt.	NW
					302+61, 68' Lt.	NW
	Hamilton Road	246+62, 27' Lt. to			R	
		246+80, 4' Rt.				
		254+31, 37' Rt.	R			
	Overhead Electric Line (For clearance to span wire traffic signals)	Main Street	256+56, 11' Lt.	R		
			257+74, 29' Rt.	R		
			299+49, 52' Lt. to	R		
299+58, 54' Lt.						
261+70, 54' Rt. to			R			
Underground Electric Pedestal	Hamilton Road	299+58, 55' Lt.				
		297+92, 41' Rt. to	R			
		297+81, 55' Lt.				
		297+81, 55' Lt to	R			
		299+58, 55' Lt.				
		246+61, 28' Lt.	R			

<u>Name &amp; Address of Utility Co.</u>	<u>Type</u>	<u>Location</u>	<u>Status</u>
NICOR Gas 3000 East Cass Street Joliet, IL. 60432	Gas Line	Hamilton Road	
		240+90, 21' Rt. to	R
		262+34, 45' Rt.	
		242+40, 28' Rt. to	A
		242+40, 41' Rt.	
		242+88, 30' Rt. to	A
		242+88, 45' Rt.	
		244+20, 30' Rt. to	A
		244+20, 44' Rt.	
		245+86, 32' Rt. to	A
		245+91, 48' Rt.	
		247+94, 32' Rt. to	A
		247+95, 48' Rt.	
		250+63, 31' Rt. to	A
		250+63, 46' Rt.	
		251+31, 30' Rt. to	A
		251+31, 44' Rt.	
		253+49, 25' Rt. to	A
		253+49, 43' Rt.	
		254+32, 22' Rt. to	A
		254+47, 66' Rt.	
		256+77, 13' Rt. to	A
		256+75, 64' Lt.	
		257+70, 10' Rt. to	A
		257+64, 45' Rt.	
		262+34, 45' Rt. to	A
		262+34, 58' Rt.	
262+36, 45' Rt. to	A		
262+36, 62' Rt.			
262+34, 45' Rt. to	A		
262+69, 54' Rt.			
		Main Street	
		296+55, 50' Rt. to	A
		299+73, 54' Rt.	
		299+59, 35' Lt. to	A
		299+70, 74' Lt.	
		301+60, 35' Lt. to	A
		301+64, 54' Lt.	
	Gas Valve	Hamilton Road	
		262+34, 58' Rt.	A
		262+36, 62' Rt.	A

<u>Name &amp; Address of Utility Co.</u>	<u>Type</u>	<u>Location</u>	<u>Status</u>	
NICOR Gas	Gas Valve	Main Street		
		299+98, 55' Rt.	NW	
	Gas Regulator	Hamilton Road		
		242+39, 45' Rt.	NW	
		244+19, 53' Rt.	NW	
		245+92, 50' Rt.	NW	
		247+95, 49' Rt.	NW	
		250+63, 49' Rt.	NW	
		251+31, 44' Rt.	NW	
		253+49, 38' Rt.	R	
		256+76, 11' Lt.	R	
		257+69, 27' Rt.	R	
	Gas Regulator Station	Main Street		
	299+75, 65' Rt.	NW		
Comcast 1202 West Division Street Normal, IL. 61761	CATV Cable	At all locations where power poles are being relocated.	R	
	CATV Pedestal	Hamilton Road 257+70, 28' Rt.	R	
Verizon 2319 West Market Street Bloomington, IL. 61701	Telephone Manhole	Main Street		
		295+74, 49' Rt.	A	
		299+94, 41' Rt.	A	
			304+80, 41' Rt.	NW
	Pressure Release Valve	Main Street		
		299+67, 55' Lt.	R	
			300+04, 57' Rt.	NW
	Telephone Pedestal	Hamilton Road		
		242+44, 40' Rt.	R	
		243+93, 47' Rt.	R	
		247+67, 46' Rt.	R	
		250+71, 70' Rt.	NW	
		250+99, 45' Rt.	R	
254+30, 34' Rt.		R		
256+54, 63' Lt.		NW		
256+91, 27' Rt.		R		
258+15, 23' Rt.		R		
		Main Street		
		299+62, 55' Lt.	R	
	300+02, 58' Rt.	NW		



<u>Name &amp; Address of Utility Co.</u>	<u>Type</u>	<u>Location</u>	<u>Status</u>	
Verizon	Telephone Pedestal	Main Street		
		300+10, 58' Rt.	NW	
			301+58, 56' Rt.	NW
	Telephone Cable		Hamilton Road	
			242+44, 40' Rt. to	R
			262+49, 118' Rt.	
			256+54, 63' Lt. to	R
			256+91, 27' Rt.	
			500+54, 72' Rt. to	R
			501+25, 43' Rt.	
			500+54, 72' Rt. to	R
	500+57, 28' Rt.			
	Main Street			
	297+92, 42' Rt.	*A		
	299+87, 41' Rt.	*A		

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

SPECIAL PROVISION  
FOR  
COOPERATION WITH UTILITIES

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

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

Replace Article 105.07 of the Standard Specifications with the following:

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

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

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

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

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

(a) Limits of Proposed Construction for Utilities Paralleling the Roadway. For the purpose of this Article, limits of proposed construction for utilities extending in the same longitudinal direction as the roadway, shall be defined as follows:

(1) The horizontal limits shall be a vertical plane, outside of, parallel to, and 600 mm (2 ft) distant at right angles from the plan or revised slope limits.

In cases where the limits of excavation for structures are not shown on the plans, the horizontal limits shall be a vertical plane 1.2 m (4 ft) outside the edges of structure footings or the structure where no footings are required.

(2) The upper vertical limits shall be the regulations governing the roadbed clearance for the specific utility involved.

(3) The lower vertical limits shall be the top of the utility at the depth below the proposed grade as prescribed by the governing agency or the limits of excavation, whichever is less.

(b) Limits of Proposed Construction for Utilities Crossing the Roadway. For the purpose of this Article, limits of proposed construction for utilities crossing the roadway in a generally transverse direction shall be defined as follows:

(1) Utilities crossing excavations for structures that are normally made by trenching such as sewers, underdrains, etc. and all minor structures such as manholes, inlets, foundations for signs, foundations for traffic signals, etc., the limits shall be the space to be occupied by the proposed permanent construction unless otherwise required by the regulations governing the specific utility involved.

(2) For utilities crossing the proposed site of major structures such as bridges, sign trusses, etc., the limits shall be as defined above for utilities extending in the same general direction as the roadway.

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

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

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

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

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

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

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

SPECIAL PROVISION  
FOR  
INSURANCE

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

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

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

City of Bloomington, Illinois

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Clark Dietz, Inc., Champaign, Illinois

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

State of Illinois  
Department of Transportation  
Bureau of Local Roads and Streets  
SPECIAL PROVISION  
FOR  
CONSTRUCTION AND MAINTENANCE SIGNS

Effective: January 1, 2004  
Revised: June 1, 2007

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

701.14. Signs. Add the following paragraph to Article 701.14:

All warning signs shall have minimum dimensions of 1200 mm x 1200 mm (48" x 48") and have a black legend on a fluorescent orange reflectorized background, meeting, as a minimum, Type AP reflectivity requirements of Table 1091-2 in Article 1091.02.

## ALKALI-SILICA REACTION FOR CAST-IN-PLACE CONCRETE (BDE)

Effective: August 1, 2007

Revised: January 1, 2009

**Description.** 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.

**Aggregate Expansion Values.** Each coarse and fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II cement having a total equivalent alkali content ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates and 0.03 percent to limestone or dolomite fine aggregates (manufactured stone sand); however the Department reserves the right to perform the ASTM C 1260 test.

**Aggregate Groups.** 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 Coarse Aggregate Blend  ASTM C 1260 Expansion	Fine Aggregate or Fine Aggregate Blend  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

**Mixture Options.** 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:

$$\text{Weighted Expansion Value} = (a/100 \times A) + (b/100 \times B) + (c/100 \times C) + \dots$$

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 ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ) of 0.60 percent. When aggregate in Group II is involved, any finely divided mineral may be used with a portland cement.
- d) Mixture Option 4. The cement used shall have a maximum total equivalent alkali content ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ) 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  $\leq 0.16$  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 ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ), a new ASTM C 1567 test will not be required.

Testing. 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 ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container or wick of absorbent material, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly.

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

The laboratory performing the ASTM C 1567 test shall either be accredited by the AASHTO Materials Reference Laboratory (AMRL) for ASTM C 227 under Portland Cement 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

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

Aggregate Expansion Values. Each coarse and fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II cement having a total equivalent alkali content ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates and 0.03 percent to limestone or dolomite fine aggregates (manufactured stone sand); however the Department reserves the right to perform the ASTM C 1260 test.

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

Mixture Options. 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:

$$\text{Weighted Expansion Value} = (a/100 \times A) + (b/100 \times B) + (c/100 \times C) + \dots$$

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.
  - 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 ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ) of 0.60 percent. When aggregate in Group II is involved, any finely divided mineral may be used with a portland cement.
- d) Mixture Option 4. The cement used shall have a maximum total equivalent alkali content ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ) 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  $\leq 0.16$  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 ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ), a new ASTM C 1567 test will not be required.

Testing. 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 ( $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$ ) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container or wick of absorbent material, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly.

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

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

80213

## **AMERICAN RECOVERY AND REINVESTMENT ACT PROVISIONS (BDE)**

Effective: April 1, 2009

### Required Contract Provision to Implement ARRA Section 902:

Section 902 of the American Recovery and Reinvestment Act (ARRA) of 2009 requires that each contract awarded using ARRA funds allow the U.S. Comptroller General and his representatives with the authority to:

- “(1) to examine any records of the Contractor or any of its subcontractors, or any State or local agency administering such contract, that directly pertain to, and involve transactions relating to, the contract or subcontract; and
- (2) to interview any officer or employee of the Contractor or any of its subcontractors, or of any State or local government agency administering the contract, regarding such transactions.”

Accordingly, the Comptroller General and his representatives shall have the authority and rights as provided under Section 902 of the ARRA with respect to this contract, which is funded with funds made available under the ARRA. Section 902 further states that nothing in this section shall be interpreted to limit or restrict in any way any existing authority of the Comptroller General.

### Notification of the Authority of the Inspector General:

Section 1515(a) of the ARRA provides authority for any representatives of the Inspector General to examine any records or interview any employee or officers working on this contract. The Contractor is advised that representatives of the inspector general have the authority to examine any record and interview any employee or officer of the Contractor, its subcontractors or other firms working on this contract. Section 1515(b) further provides that nothing in this section shall be interpreted to limit or restrict in any way any existing authority of an inspector general.

80243

## **AMERICAN RECOVERY AND REINVESTMENT ACT SIGNING (BDE)**

Effective: April 1, 2009

Revised: April 15, 2009

Description. This work shall consist of furnishing, fabricating and installing sign panels, complete with sign faces, legend, and supplemental panels according to Section 720 of the Standard Specifications and as specified herein.

Materials. The "Putting America to Work" sign shall be fabricated using Type AA or AZ fluorescent orange sheeting for the background material with black vinyl or black opaque ink legend, symbol and borders. The "American Recovery and Reinvestment Act" sign shall be fabricated using Type AP green sheeting for the background with Type AP white sheeting for the legend and border. A green translucent overlay film may also be used over white Type AP sheeting to fabricate the "American Recovery and Reinvestment Act" sign.

Sign Layout. See following attachment. The "Putting America to Work" sign shall be 84 in. x 18 in. The "American Recovery and Reinvestment Act" sign shall be 84 in x 60 in.

General. The signs shall be erected to applicable portions of Article 701.14 of the Standard Specifications. These signs shall be erected midway between the first and second warning signs as required by the traffic control plan and standards utilized for this project. If the second warning sign is defining a moving or intermittent operation, the sign may be maintained at a distance of 500 ft (150 m) beyond the first post mounted ROAD CONSTRUCTION AHEAD sign. The signs shall remain in place for the duration of the project. Upon completion of the project, the signs and posts shall be removed and shall remain the property of the Contractor.

Basis of Payment. This work will not be paid for separately but shall be included in the cost of Traffic Control items as shown on the plans.

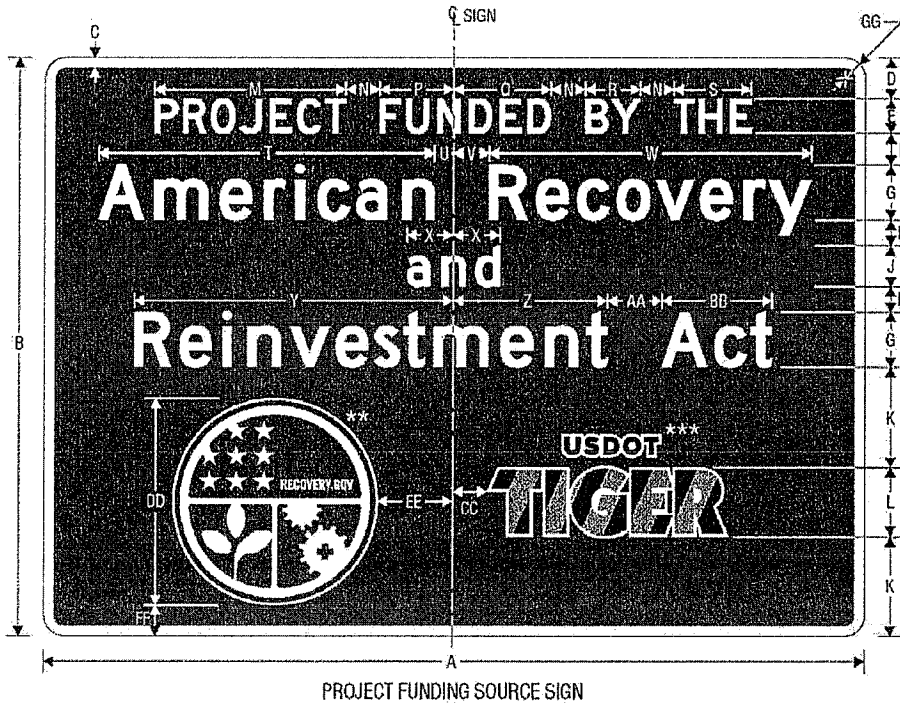
80236

**PROJECT FUNDING SOURCE SIGN ASSEMBLY  
AMERICAN RECOVERY AND REINVESTMENT ACT  
SIGN LAYOUT DETAILS**



PROJECT FUNDING SOURCE  
SIGN ASSEMBLY

**PROJECT FUNDING SOURCE SIGN ASSEMBLY  
AMERICAN RECOVERY AND REINVESTMENT ACT  
SIGN LAYOUT DETAILS**



PROJECT FUNDING SOURCE SIGN

NOTE: SIGN SHALL NOT BE INSTALLED WITHOUT PROJECT FUNDING SOURCE PLAQUE

Dimensions in inches:

A	B	C	D	E	F	G	H	J	K	L	M	N	P
120	84	1.5	6	5 D	4.5	8 D*	3.75	6 D* (45 LC)	14.5	10	27.917	5	10.831
84	60	1	5	4 C	3.5	6 C*	3	4 D* (3 L)	9.25	7	19.047	4	7.362

Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD
14.087	8.106	11.556	49.42	2.742	5.258	46.904	6.812	46.76	22.472	8	16.288	5	30
9.484	5.162	7.763	31.722	2.415	3.585	30.552	4.542	30.911	14.737	6	10.175	4	21

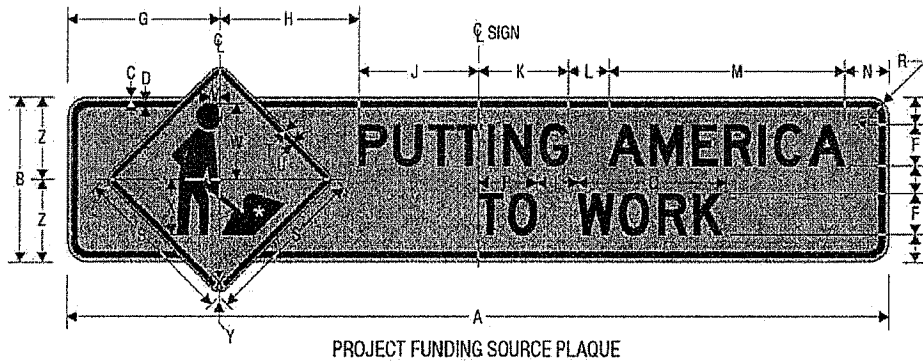
EE	FF	GG
11	4.5	3
7.5	2.25	2.25

\* Increase character spacing 50%  
\*\* See Pictograph  
\*\*\* See Pictograph

COLORS: LEGEND, BORDER — WHITE (RETROREFLECTIVE)  
BACKGROUND — GREEN (RETROREFLECTIVE)



**PROJECT FUNDING SOURCE SIGN ASSEMBLY  
AMERICAN RECOVERY AND REINVESTMENT ACT  
SIGN LAYOUT DETAILS**



NOTE: PLAQUE SHALL NOT BE INSTALLED  
WITHOUT SIGN

\* See *Standard Highway Signs*  
Page 6-59 for symbol design.

Dimensions in inches

A	B	C	D	E	F	G	H	J	K	L	M	N	P
120	24	0.625	0.875	4	6 D	22.349	20.370	17.281	13.28	6	34.22	6.5	8.765
84	18	0.375	0.625	3.5	4 D	16.607	15.686	9.707	10.867	4	22.813	5	5.843

Q	R	S	T	U	V	W	X	Y	Z
21.013	3	24	0.375	0.625	1.5	11	8	1.5	12
14.009	2.25	18	0.375	0.625	1	7	6	1.5	9

COLORS: LEGEND, BORDER — BLACK  
BACKGROUND — ORANGE (RETROREFLECTIVE)

**PROJECT FUNDING SOURCE SIGN ASSEMBLY  
AMERICAN RECOVERY AND REINVESTMENT ACT  
SIGN LAYOUT DETAILS**



RECOVERY  
Vector-Based, Vinyl-Ready Pictograph

COLORS: LEGEND, OUTLINE	— WHITE (RETROREFLECTIVE)
BORDER	— BLUE (RETROREFLECTIVE)
BACKGROUND (UPPER)	— BLUE (RETROREFLECTIVE)
BACKGROUND (LOWER RIGHT)	— RED (RETROREFLECTIVE)
BACKGROUND (LOWER LEFT)	— GREEN (RETROREFLECTIVE)

**PROJECT FUNDING SOURCE SIGN ASSEMBLY  
AMERICAN RECOVERY AND REINVESTMENT ACT  
SIGN LAYOUT DETAILS**



USDOT TIGER  
Vector-Based, Vinyl-Ready Pictograph

COLORS: OUTLINE — WHITE (RETROREFLECTIVE)  
USDOT LEGEND — BLACK  
TIGER DIAGONALS — BLACK,  
ORANGE (RETROREFLECTIVE)

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

Effective: November 1, 2008

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

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

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

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

80207

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

Effective: November 2, 2006

Revised: April 1, 2009

Description. 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<sub>P</sub> = Bituminous Price Index, as published by the Department for the month the work is performed, \$/ton (\$/metric ton).
- BPI<sub>L</sub> = Bituminous Price Index, as published by the Department for the month prior to the letting, \$/ton (\$/metric ton).
- %AC<sub>V</sub> = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC<sub>V</sub> will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC<sub>V</sub> and undiluted emulsified asphalt will be considered to be 65% AC<sub>V</sub>.
- Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards:  $Q, \text{ tons} = A \times D \times (G_{mb} \times 46.8) / 2000$ . For HMA mixtures measured in square meters:  $Q, \text{ metric tons} = A \times D \times (G_{mb} \times 24.99) / 1000$ . 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<sub>V</sub>.

For bituminous materials measured in gallons:  $Q, \text{ tons} = V \times 8.33 \text{ lb/gal} \times SG / 2000$   
For bituminous materials measured in liters:  $Q, \text{ metric tons} = V \times 1.0 \text{ kg/L} \times SG / 1000$

- Where: A = Area of the HMA mixture, sq yd (sq m).  
D = Depth of the HMA mixture, in. (mm).  
 $G_{mb}$  = Average bulk specific gravity of the mixture, from the approved mix design.  
V = Volume of the bituminous material, gal (L).  
SG = Specific Gravity of bituminous material as shown on the bill of lading.

Basis of Payment. 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:

$$\text{Percent Difference} = \{(BPI_L - BPI_P) \div BPI_L\} \times 100$$

Bituminous materials cost adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the work placed during the month are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Return With Bid

**ILLINOIS DEPARTMENT  
OF TRANSPORTATION**

**OPTION FOR  
BITUMINOUS MATERIALS COST ADJUSTMENTS**

The bidder shall submit this completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments. After award, this form, when submitted, shall become part of the contract.

**Contract No.:** \_\_\_\_\_

**Company Name:** \_\_\_\_\_

**Contractor's Option:**

Is your company opting to include this special provision as part of the contract?

Yes  No

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

80173

## **CEMENT (BDE)**

Effective: January 1, 2007

Revised: April 1, 2009

Revise Section 1001 of the Standard Specifications to read:

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

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

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

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

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

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

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

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



reducing or high range water-reducing admixture which is permitted according to Article 1020.05(b).

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids as defined in (a) above. Inorganic processing additions shall be limited to cement kiln dust at a maximum of 1.0 percent.

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

Portland blast-furnace slag cement shall be according to ASTM C 595 and shall meet the standard physical and chemical requirements. Type IS portland blast-furnace slag cement may be used for cast-in-place, precast, and precast prestressed concrete, except when Class PP concrete is used. The blast-furnace slag constituent for Type IS shall be a maximum of 25 percent of the weight (mass) of the portland blast-furnace slag cement.

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

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids as defined in (a) above. Inorganic processing additions shall be limited to cement kiln dust at a maximum of 1.0 percent.

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

- (1) The cement shall have a maximum final set of 25 minutes, according to Illinois Modified ASTM C 191.
- (2) The cement shall have a minimum compressive strength of 2000 psi (13,800 kPa) at 3.0 hours, 3200 psi (22,100 kPa) at 6.0 hours; and 4000 psi (27,600 kPa) at 24.0 hours, according to Illinois Modified ASTM C 109.
- (3) The cement shall have a maximum drying shrinkage of 0.050 percent at seven days, according to Illinois Modified ASTM C 596.

(4) The cement shall have a maximum expansion of 0.020 percent at 14 days, according to Illinois Modified ASTM C 1038.

(5) The cement shall have a minimum 80 percent relative dynamic modulus of elasticity; and shall not have a weight (mass) gain in excess of 0.15 percent or a weight (mass) loss in excess of 1.0 percent, after 100 cycles, according to AASHTO T 161, Procedure B.

(e) Calcium Aluminate Cement. Calcium aluminate cement shall be used only where specified by the Engineer. The cement shall meet the standard physical requirements for Type I cement according to ASTM C 150, except the time of setting shall not apply. The chemical requirements shall be determined according to ASTM C 114 and shall be as follows: minimum 38 percent aluminum oxide ( $Al_2O_3$ ), maximum 42 percent calcium oxide (CaO), maximum 1 percent magnesium oxide (MgO), maximum 0.4 percent sulfur trioxide ( $SO_3$ ), 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."

80166

## 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 overlayer 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 an independent lab. All other information in ASTM C 1582 shall be from an 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.

**1021.02 Air-Entraining Admixtures.** Air-entraining admixtures shall be according to AASHTO M 154.

**1021.03 Retarding 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).

**1021.04 Accelerating Admixtures.** The admixture shall be according to AASHTO M 194, Type C (accelerating) or Type E (water reducing and accelerating).

**1021.05 Self-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).

**1021.06 Rheology-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).

**1021.07 Corrosion 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.”

80094

## CONSTRUCTION AIR QUALITY - DIESEL VEHICLE EMISSIONS CONTROL (BDE)

Effective: April 1, 2009

Revised: July 1, 2009

Diesel Vehicle Emissions Control. 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.

Environmental Deficiency Deduction. 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.

80237



## CONSTRUCTION AIR QUALITY - IDLING RESTRICTIONS (BDE)

Effective: April 1, 2009

Idling Restrictions. 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.

Environmental Deficiency Deduction. 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.

80239

## 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 subplot 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 subplot. 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 subplot is deficient by more than ten percent of plan thickness, the Contractor may take three additional cores within that subplot at locations selected at random by the Engineer. If the Contractor chooses not to take additional cores, the pavement in that subplot 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 subplot to be deficient by ten percent or less, no additional action is necessary. If the average shows the subplot to be deficient by more than ten percent, the pavement in that subplot 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 subplot is removed and replaced, or additional lifts are placed, the corrected subplot shall be retested for thickness. The length of the new core taken in the subplot will be used in determining the PWL for the lot.

When a deficient subplot is left in place, and no additional lift(s) are placed, no payment will be made for the deficient subplot. The length of the original core taken in the subplot 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 subplot. 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:

- $x_i$  = Individual values (core lengths) under consideration  
 $n$  = Number of individual values under consideration (10 per lot)  
 $\bar{x}$  = Average of the values under consideration  
 $LSL$  = Lower Specification Limit (98% of plan thickness)  
 $Q_L$  = Lower Quality Index  
 $s$  = Sample Standard Deviation  
 $PWL$  = Percent Within Limits

Determine  $\bar{x}$  for the lot to the nearest two decimal places.

Determine  $s$  for the lot to the nearest three decimal places using:

$$s = \sqrt{\frac{\sum (x_i - \bar{x})^2}{n-1}} \quad \text{where} \quad \sum (x_i - \bar{x})^2 = (x_1 - \bar{x})^2 + (x_2 - \bar{x})^2 + \dots + (x_{10} - \bar{x})^2$$

Determine  $Q_L$  for the lot to the nearest two decimal places using:

$$Q_L = \frac{(x_i - LSL)}{s}$$

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:

$$PF \text{ (in percent)} = 55 + 0.5 (PWL)$$

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:

$$\text{Payment} = (((TPF/100)-1) \times CUP) \times (TOTPAVT - DEFP AVT)$$

TPF = Total Pay Factor

CUP = Contract Unit Price  
TOTPAVT = Area of Pavement Subject to Coring  
DEFFPAVT = 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 (DEFFPAVT) is defined as an area of pavement represented by a subplot deficient by more than ten percent which is left in place with no additional thickness added.

Area of Pavement Subject to Coring (TOTPAVT) is defined as those pavement areas included in lots for pavement thickness determination.



PERCENT WITHIN LIMITS							
Quality Index (Q <sub>L</sub> )*	Percent Within Limits (PWL)	Quality Index (Q <sub>L</sub> )*	Percent Within Limits (PWL)	Quality Index (Q <sub>L</sub> )*	Percent Within Limits (PWL)	Quality Index (Q <sub>L</sub> )*	Percent Within Limits (PWL)
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<sub>L</sub> values less than zero, subtract the table value from 100 to obtain PWL

PERCENT WITHIN LIMITS (continued)					
Quality Index (Q <sub>L</sub> )*	Percent Within Limits (PWL)	Quality Index (Q <sub>L</sub> )*	Percent Within Limits (PWL)	Quality Index (Q <sub>L</sub> )*	Percent Within Limits (PWL)
1.60	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	97.91	2.25	99.68	≥ 2.65	100.00
1.86	97.98	2.26	99.70		
1.87	98.05	2.27	99.72		
1.88	98.11	2.28	99.73		
1.89	98.18	2.29	99.75		
1.90	98.25	2.30	99.77		
1.91	98.31	2.31	99.78		
1.92	98.37	2.32	99.80		
1.93	98.44	2.33	99.81		
1.94	98.50	2.34	99.83		
1.95	98.56	2.35	99.84		
1.96	98.61	2.36	99.85		
1.97	98.67	2.37	99.86		
1.98	98.72	2.38	99.87		
1.99	98.78	2.39	99.88		

\*For Q<sub>L</sub> values less than zero, subtract the table value from 100 to obtain PWL

(b) Minimum Thickness. The minimum thickness method shall be as follows.

- (1) Length of Units. The length of a unit will be a continuous strip of pavement 500 ft (150 m) in length.
- (2) Width of Units. The width of a unit will be the width from the pavement edge to the adjacent lane line, from one lane line to the next, or between pavement edges for single-lane pavements.
- (3) Thickness Measurements. Pavement thickness will be based on 2 in. (50 mm) diameter cores.

Cores shall be taken from the pavement by the Contractor at locations selected by the Engineer. When determining the thickness of a unit, one core shall be taken in each unit.

The Contractor and the Engineer shall witness the coring operations, as well as the measuring and recording of the cores. Core measurements will be determined immediately upon removal from the core bit and prior to moving to the next core location. Upon concurrence of the length, the core samples may be disposed of according to Article 202.03.

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

- (4) Unit Deficient in Thickness. In considering any portion of the pavement that is deficient, the entire limits of the unit will be used in computing the deficiency or determining the remedial action required.
- (5) Thickness Equals or Exceeds Specified Thickness. When the thickness of a unit equals or exceeds the specified plan thickness, payment will be made at the contract unit price per square yard (square meter) for the specified thickness.
- (6) Thickness Deficient by Ten Percent or Less. When the thickness of a unit is less than the specified plan thickness by ten percent or less, a deficiency deduction will be assessed against payment for the item involved. The deficiency will be a percentage of the contract unit price as given in the following table.

Percent Deficiency (of Plan Thickness)	Percent Deduction (of Contract Unit Price)
0.0 to 2.0	0
2.1 to 3.0	20
3.1 to 4.0	28
4.1 to 5.0	32
5.1 to 7.5	43
7.6 to 10.0	50

- (7) Thickness Deficient by More than Ten Percent. When a core shows the pavement to be deficient by more than ten percent of plan thickness, additional cores shall be taken on each side of the deficient core, at stations selected by the Contractor and offsets selected by the Engineer, to determine the limits of the deficient pavement. No core shall be located within 5 ft (1.5 m) of a previous core obtained for thickness determination. The first acceptable core obtained on each side of a deficient core will be used to determine the length of the deficient pavement. An acceptable core is a core with a thickness of at least 90 percent of plan thickness. The area of deficient pavement will be defined using the length between two acceptable cores and the full width of the unit. The area of deficient pavement shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such areas of deficient pavement to remain in place. For deficient areas allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When an area of deficient pavement is removed and replaced, or additional lifts are placed, the corrected pavement shall be retested for thickness. The thickness of the new core will be used to determine the pay factor for the corrected area.

When an area of deficient pavement is left in place, and no additional lift(s) are placed, no payment will be made for the deficient pavement. In addition, an amount equal to two times the contract cost of the deficient pavement will be deducted from the compensation due the Contractor.

The thickness of the first acceptable core on each side of the core more than ten percent deficient will be used to determine any needed pay adjustments for the remaining areas on each side of the area deficient by more than ten percent. The pay adjustment will be determined according to Article 407.10(b)(6).

- (8) Right of Discovery. When the Engineer has reason to believe any core location does not accurately represent the true conditions of the work, he/she may order additional cores. These additional cores shall be taken at specific locations determined by the

Engineer. The Engineer will provide notice to the Contractor containing an explanation of the reasons for his/her action.

When the additional cores show the pavement to be deficient by more than ten percent of plan thickness, the procedures outlined in Article 407.10(b)(7) shall be followed, except the Engineer will determine the additional core locations.

When the additional cores, ordered by the Engineer, show the pavement to be at least 90 percent of plan thickness, the additional cores will be paid for according to Article 109.04.

- (9) Profile Index Adjustment. After any area of pavement is removed and replaced or any additional lifts are added, the corrected areas shall be retested for pavement smoothness and any necessary profile index adjustments and/or corrections will be made based on these final profile readings prior to retesting for thickness.”

Revise Article 482.06 of the Standard Specifications to read:

**“482.06 Tolerance in Thickness.** The shoulder shall be constructed to the thickness shown on the plans. When the contract includes square yards (square meters) as the unit of measurement for HMA shoulder, thickness determinations shall be made according to Article 407.10(b)(3) and the following.

- (a) Length of the Units. The length of a unit shall be a continuous strip of shoulder 2500 ft (750 m) long.
- (b) Width of the Units. The width of the unit shall be the full width of the shoulder.
- (c) Thickness Deficient by More than Ten Percent. When a core shows the shoulder to be deficient by more than ten percent of plan thickness, additional cores shall be taken on each side of the deficient core, at stations selected by the Contractor and offsets selected by the Engineer, to determine the limits of the deficient shoulder. No core shall be located within 5 ft (1.5 m) of a previous core obtained for thickness determination. The first acceptable core obtained on each side of a deficient core will be used to determine the length of the deficient shoulder. An acceptable core is a core with a thickness of at least 90 percent of plan thickness. The area of deficient shoulder will be defined using the length between two acceptable cores and the full width of the unit. The area of deficient shoulder shall be brought to specified thickness by the addition of the applicable mixture, at no additional cost to the Department and subject to the lift thickness requirements of Article 312.05, or by removal and replacement with a new mixture. However, the surface elevation of the completed shoulder shall not exceed by more than 1/8 in. (3 mm) the surface elevation of the adjacent pavement. 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."

80227

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

Effective: September 1, 2000

Revised: November 1, 2008

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

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

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

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

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

**CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR.** This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is

based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 3% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

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

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

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

- (a) In order to assure the timely award of the contract, the as-read low bidder shall submit a Disadvantaged Business Utilization Plan on Department form SBE 2026 within seven working days after the date of letting. To meet the seven day requirement, the bidder may send the Plan by certified mail or delivery service within the seven working day period. If a question arises concerning the mailing date of a Plan, the mailing date will be established by the U.S. Postal Service postmark on the original certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service. It is the responsibility of the bidder to ensure that the postmark or receipt date is affixed within the seven working days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Plan is to be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). It is the responsibility of the bidder to obtain confirmation of telefax delivery. The Department will not accept a Utilization Plan if it does not meet the seven day submittal requirement and the bid will be declared not responsive. In the event the bid is declared not responsive due to a failure to submit a Plan or failure to comply with the bidding procedures set forth herein, the Department may elect to cause the forfeiture of the



penal sum of the bidder's proposal guaranty, and may deny authorization to bid the project if re-advertised for bids. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration or to extend the time for award.

- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. The signatures on these forms must be original signatures. All elements of information indicated on the said form shall be provided, including but not limited to the following:
  - (1) The name and address of each DBE to be used;
  - (2) A description, including pay item numbers, of the commercially useful work to be done by each DBE;
  - (3) The price to be paid to each DBE for the identified work specifically stating the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
  - (4) A commitment statement signed by the bidder and each DBE evidencing availability and intent to perform commercially useful work on the project; and
  - (5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s).
- (d) The contract will not be awarded until the Utilization Plan submitted by the bidder is approved. The Utilization Plan will be approved by the Department if the Plan commits sufficient commercially useful DBE work performance to meet the contract goal. The Utilization Plan will not be approved by the Department if the Plan does not commit sufficient DBE performance to meet the contract goal unless the bidder documents that it made a good faith effort to meet the goal. The good faith procedures of Section VIII of this special provision apply. If the Utilization Plan is not approved because it is deficient in a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no less than a five working day period in order to cure the deficiency.

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

- (a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the full value of all such DBE trucks operated using DBE employed drivers. Goal credit will be limited to the value of the reasonable fee or commission received by the DBE if trucks are leased from a non-DBE company.
- (e) DBE as a material supplier:
  - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
  - (2) 100 percent goal credit for the cost of materials or supplies obtained from a DBE manufacturer.
  - (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

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

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.
  - (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.
  - (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.
  - (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
  - (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.
    - b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and

using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.

- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
  - (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
  - (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
  - (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that a good faith effort has not been made, the Department will notify the bidder of that preliminary determination by contacting the responsible company official designated in the Utilization Plan. The preliminary determination shall include a statement of reasons why good faith efforts have not been found, and may include additional good faith efforts that the bidder could take. The notification will designate a five working day period during which the bidder shall take additional efforts. The bidder is not limited by a statement of additional efforts, but may take other action beyond any stated additional efforts in order to obtain additional DBE commitments. The bidder shall submit an amended Utilization Plan if additional DBE commitments to meet the contract goal are secured. If additional DBE commitments sufficient to meet the contract goal are not secured, the bidder shall report the final good faith efforts made in the time allotted. All additional efforts taken by the bidder will be considered as part of the bidder's good faith efforts. If the bidder is not able to meet the goal after taking additional efforts, the Department will make a pre-final determination of the good faith efforts of the bidder and will notify the designated responsible company official of the reasons for an adverse determination.
- (c) The bidder may request administrative reconsideration of a pre-final determination adverse to the bidder within the five working days after the notification date of the

determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The pre-final determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issue of whether an adequate good faith effort was made to meet the contract goal. In addition, the request shall be considered a consent by the bidder to extend the time for award. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

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

- (a) No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the Bureau of Small Business Enterprises to amend the Utilization Plan. If a DBE listed in the Utilization Plan is terminated for reasons other than convenience, or fails to complete its work on the contract for any reason, the Contractor shall make good faith efforts to

find another DBE to substitute for the terminated DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, but only to the extent needed to meet the contract goal or the amended contract goal. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor shall contact the Bureau of Small Business Enterprises and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau of Small Business Enterprises will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.

- (c) The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefor to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Plan, the Department will deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.
- (d) The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (e) Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

**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."

80178

## EPOXY PAVEMENT MARKINGS (BDE)

Effective: January 1, 2007

Revise Article 1095.04(a) of the Standard Specifications to read:

“(a) The epoxy marking material shall consist of a 100 percent solid two part system formulated and designed to provide a simple volumetric mixing ratio of two components (must be two volumes of Part A and one volume of Part B). No volatile solvents or fillers will be allowed. Total solids shall not be less than 99 percent when determined, on the mixed material, according to ASTM D 2369, excluding the solvent dispersion.”

Revise Article 1095.04(d) of the Standard Specifications to read:

“(d) Composition by Weight of Component A as Determined by Low Temperature Ashing. A 0.5 gram sample of component A shall be dispersed with a paperclip on the bottom of an aluminum dish, weighed and then heated in a muffle furnace at 1000 °F (538 °C) for one hour and weighed again. No solvents shall be used for dispersion. The difference in the weights shall be calculated and meet the following.

Pigment*	White	Yellow
Titanium Dioxide ASTM D 476 Type II	21-24%	
Organic Yellow, Titanium Dioxide, Other		± 2%**
Epoxy Resin	76-79%	± 2%**

\* No extender pigments are permitted.

\*\* From the pigment and epoxy resin content determined on qualification samples.”

Revise Article 1095.04(f) of the Standard Specifications to read:

“(f) The daylight directional reflectance of the paint (without glass spheres) applied at 14 to 16 mils (0.35 to 0.41 mm) shall meet the following requirements when tested, using a color spectrophotometer with 45 degree circumferential/zero degree geometry, illuminant C, and two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

White: Daylight Reflectance 80 % min.  
Yellow:\* Daylight Reflectance 50 % min.

\*Shall meet the coordinates of the following color tolerance chart.

x	0.490	0.475	0.485	0.530
y	0.470	0.438	0.425	0.456”

Revise Article 1095.04(h) of the Standard Specifications to read:



“(h) The epoxy pavement marking material, when mixed in the proper mix ratio and tested according to ASTM D 7234 shall have a degree of adhesion which results in a 100 percent concrete failure in the performance of this test.”

Revise Article 1095.04(n) of the Standard Specifications to read:

“(n) The epoxy paint shall be applied to an aluminum alloy panel (Federal Test Std. No. 141, Method 2013) at a film thickness of 14 to 16 mils (0.35 to 0.41 mm) and allowed to cure for 72 hours at room temperature. Subject the coated panel for 75 hours to accelerated weathering using the light and water exposure apparatus (fluorescent UV - condensation type) as specified in 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 show no more than 10 Hunter Lab Delta E units or substantial change in gloss from the original, non-exposed paint.”

80175

## EQUIPMENT RENTAL RATES (BDE)

Effective: August 2, 2007

Revised: January 2, 2008

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

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

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

“(4) Equipment. Equipment used for extra work shall be authorized by the Engineer. The equipment shall be specifically described, be of suitable size and capacity for the work to be performed, and be in good operating condition. For such equipment, the Contractor will be paid as follows.

- a. Contractor Owned Equipment. Contractor owned equipment will be paid for by the hour using the applicable FHWA hourly rate from the “Equipment Watch Rental Rate Blue Book” (Blue Book) in effect when the force account work begins. The FHWA hourly rate is calculated as follows.

$$\text{FHWA hourly rate} = (\text{monthly rate}/176) \times (\text{model year adj.}) \times (\text{Illinois adj.}) + \text{EOC}$$

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:  $0.5 \times (\text{FHWA hourly rate} - \text{EOC})$ .

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."

80189

## FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 1, 2009

Revised: July 1, 2009

Description. 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.

General. 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	Factor	Units
A - Earthwork	1.68	liters / cu m
B - Subbase and Aggregate Base courses	2.58	liters / metric ton
C - HMA Bases, Pavements and Shoulders	4.37	liters / metric ton
D - PCC Bases, Pavements and Shoulders	12.52	liters / cu m
E - Structures	30.28	liters / \$1000

(c) Quantity Conversion Factors.

Category	Conversion	Factor
B	sq yd to ton	0.057 ton / sq yd / in depth
	sq m to metric ton	0.00243 metric ton / sq m / mm depth
C	sq yd to ton	0.056 ton / sq yd / in depth
	sq m to metric ton	0.00239 m ton / sq m / mm depth
D	sq yd to cu yd	0.028 cu yd / sq yd / in depth
	sq m to cu m	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<sub>P</sub> = Fuel Price Index, as published by the Department for the month the work is performed, \$/gal (\$/liter)  
FPI<sub>L</sub> = 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<sub>P</sub> 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.

Basis of Payment. Fuel cost adjustments may be positive or negative but will only be made when there is a difference between the FPI<sub>L</sub> and FPI<sub>P</sub> in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(FPI_L - FPI_P) \div FPI_L\} \times 100$$

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?

- |  |     |                          |
|--|-----|--------------------------|
| Category A Earthwork.                          | Yes | <input type="checkbox"/> |
| Category B Subbases and Aggregate Base Courses | Yes | <input type="checkbox"/> |
| Category C HMA Bases, Pavements and Shoulders  | Yes | <input type="checkbox"/> |
| Category D PCC Bases, Pavements and Shoulders  | Yes | <input type="checkbox"/> |
| Category E Structures                          | Yes | <input type="checkbox"/> |

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

80229

## **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.”

80245



**HOT-MIX ASPHALT - FIELD VOIDS IN THE MINERAL AGGREGATE (BDE)**

Effective: April 1, 2007

Revised: April 1, 2008

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

"Parameter	Frequency of Tests	Frequency of Tests	Test Method See Manual of Test Procedures for Materials
	High ESAL Mixture Low ESAL Mixture	All Other Mixtures	
VMA  Note 5.	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)		

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

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

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

<sup>2/</sup> Allowable limit below minimum design VMA requirement"

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

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

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

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

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

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

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

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

<sup>1/</sup> Based on washed ignition."

80181

**HOT-MIX ASPHALT – PLANT TEST FREQUENCY (BDE)**

Effective: April 1, 2008

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

"Parameter	Frequency of Tests	Frequency of Tests All Other Mixtures	Test Method See Manual of Test Procedures for Materials
	High ESAL Mixture Low ESAL Mixture		
<p>Aggregate Gradation</p> <p>Hot bins for batch and continuous plants.</p> <p>Individual cold-feed or combined belt-feed for drier drum plants.</p> <p>% 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)</p> <p>Note 1.</p>	<p>1 dry gradation per day of production (either morning or afternoon sample).</p> <p>and</p> <p>1 washed ignition oven test on the mix per day of production (conduct in the afternoon if dry gradation is conducted in the morning or vice versa).</p> <p>Note 3.</p> <p>Note 4.</p>	<p>1 gradation per day of production.</p> <p>The first day of production shall be a washed ignition oven test on the mix. Thereafter, the testing shall alternate between dry gradation and washed ignition oven test on the mix.</p> <p>Note 4.</p>	<p>Illinois Procedure</p>
<p>Asphalt Binder Content by Ignition Oven</p> <p>Note 2.</p>	<p>1 per half day of production</p>	<p>1 per day</p>	<p>Illinois-Modified AASHTO T 308</p>
<p>Air Voids</p> <p>Bulk Specific Gravity of Gyratory Sample</p>	<p>Day's production ≥ 1200 tons:</p> <p>1 per half day of production</p> <hr/> <p>Day's production &lt; 1200 tons:</p> <p>1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)</p>	<p>1 per day</p>	<p>Illinois-Modified AASHTO T 312</p>

"Parameter"	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Frequency of Tests All Other Mixtures	Test Method See Manual of Test Procedures for Materials
Maximum Specific Gravity of Mixture	Day's production $\geq$ 1200 tons:  1 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)		

80201

## HOT-MIX ASPHALT – TRANSPORTATION (BDE)

Effective: April 1, 2008

Revise Article 1030.08 of the Standard Specifications to read:

**“1030.08 Transportation.** Vehicles used in transporting HMA shall have clean and tight beds. The beds shall be sprayed with asphalt release agents from the Department’s approved list. In lieu of a release agent, the Contractor may use a light spray of water with a light scatter of manufactured sand (FA 20 or FA 21) evenly distributed over the bed of the vehicle. After spraying, the bed of the vehicle shall be in a completely raised position and it shall remain in this position until all excess asphalt release agent or water has been drained.

When the air temperature is below 60 °F (15 °C), the bed, including the end, endgate, sides and bottom shall be insulated with fiberboard, plywood or other approved insulating material and shall have a thickness of not less than 3/4 in (20 mm). When the insulation is placed inside the bed, the insulation shall be covered with sheet steel approved by the Engineer. Each vehicle shall be equipped with a cover of canvas or other suitable material meeting the approval of the Engineer which shall be used if any one of the following conditions is present.

- (a) Ambient air temperature is below 60 °F (15 °C).
- (b) The weather is inclement.
- (c) The temperature of the HMA immediately behind the paver screed is below 250 °F (120 °C).

The cover shall extend down over the sides and ends of the bed for a distance of approximately 12 in. (300 mm) and shall be fastened securely. The covering shall be rolled back before the load is dumped into the finishing machine.”

80202

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

80230

## **MAST ARM ASSEMBLY AND POLE (BDE)**

Effective: January 1, 2008

Revised: January 1, 2009

Revise Article 1077.03 of the Standard Specifications to read:

**"1077.03 Mast Arm Assembly and Pole.** Mast arm assembly and pole shall be as follows.

(a) Steel Mast Arm Assembly and Pole and Steel Combination Mast Arm Assembly and Pole. The steel mast arm assembly and pole and steel combination mast arm assembly and pole shall consist of a traffic signal mast arm, a luminaire mast arm or davit (for combination pole only), a pole, and a base, together with anchor rods and other appurtenances. The configuration of the mast arm assembly, pole, and base shall be according to the details shown on the plans.

(1) Loading. The mast arm assembly and pole, and combination mast arm assembly and pole shall be designed for the loading shown on the Highway Standards or elsewhere on the plans, whichever is greater. The design shall be according to AASHTO "Standard Specification for Structural Supports for Highway Signs, Luminaries and Traffic Signals" 1994 Edition for 80 mph (130 km/hr) wind velocity. However, the arm-to-pole connection for tapered signal and luminaire arms shall be according to the "ring plate" detail as shown in Figure 11-1(f) of the 2002 Interim, to the AASHTO "Standard Specification for Structural Supports for Highway Signs, Luminaries and Traffic Signals" 2001 4<sup>th</sup> Edition.

(2) Structural Steel Grade. The mast arm and pole shall be fabricated according to ASTM A 595, Grade A or B, ASTM A 572 Grade 55, or ASTM A 1011 Grade 55 HSLAS Class 2. The base and flange plates shall be of structural steel according to AASHTO M 270 Grade 50 (M 270M Grade 345). Luminaire arms and trussed arms 15 ft (4.5 m) or less shall be fabricated from one steel pipe or tube size according to ASTM A 53 Grade B or ASTM A 500 Grade B or C. All mast arm assemblies, poles, and bases shall be galvanized according to AASHTO M 111.

(3) Fabrication. The design and fabrication of the mast arm assembly, pole, and base shall be according to the requirements of the Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals published by AASHTO. The mast arm and pole may be of single length or sectional design. If section design is used, the overlap shall be at least 150 percent of the maximum diameter of the overlapping section and shall be assembled in the factory.

The manufacturer will be allowed to slot the base plate in which other bolt circles may fit, providing that these slots do not offset the integrity of the pole. Circumferential welds of tapered arms and poles to base plates shall be full penetration welds.

(4) Shop Drawing Approval. The Contractor shall submit detailed drawings showing design materials, thickness of sections, weld sizes, and anchor rods to the Engineer for approval prior to fabrication. These drawings shall be at least 11 x 17 in. (275 x 425 mm) in size and of adequate quality for microfilming.

(b) Anchor Rods. The anchor rods shall be ASTM F 1554 Grade 105, coated by the hot-dip galvanizing process according to AASHTO M 232, and shall be threaded a minimum of 7 1/2 in. (185 mm) at one end and have a bend at the other end. The first 10 in. (250 mm) at the threaded end shall be galvanized. Two nuts, one lock washer, and one flat washer shall be furnished with each anchor rod. All nuts and washers shall be galvanized."

80196



**METAL HARDWARE CAST INTO CONCRETE (BDE)**

Effective: April 1, 2008

Revised: April 1, 2009

Add the following to Article 503.02 of the Standard Specifications:

“(g) Metal Hardware Cast into Concrete.....1006.13”

Add the following to Article 504.02 of the Standard Specifications:

“(j) Metal Hardware Cast into Concrete.....1006.13”

Revise Article 1006.13 of the Standard Specifications to read:

“**1006.13 Metal Hardware Cast into Concrete.** Unless otherwise noted, all steel hardware cast into concrete, such as inserts, brackets, cable clamps, metal casings for formed holes, and other miscellaneous items, shall be galvanized according to AASHTO M 232 or AASHTO M 111. Aluminum inserts will not be allowed. Zinc alloy inserts shall be according to ASTM B 86, Alloys 3, 5, or 7.

The inserts shall be UNC threaded type anchorages having the following minimum certified proof load.

Insert Diameter	Proof Load
5/8 in. (16 mm)	6600 lb (29.4 kN)
3/4 in. (19 mm)	6600 lb (29.4 kN)
1 in. (25 mm)	9240 lb (41.1 kN)”

80203

## **MONTHLY EMPLOYMENT REPORT (BDE)**

Effective: April 1, 2009

In addition to any other reporting required by the contract, the Contractor shall provide to the Engineer an employment summary for all employees working on the contract from the contract execution date to the last full pay period each month for the duration of the contract. The report may include but is not limited to:

- a) A listing of the total number of employees.
- b) The employee job classification.
- c) The total hours worked and payroll for each employee.

The report shall be completed by the Contractor and each subcontractor. Employee hours worked from home office or other off-site office hours worked related directly to this contract shall be included. Engineering consulting firms performing construction layout and material testing for the Contractor shall also be included.

Hours worked for material suppliers, services provided by purchase orders, Department employees or consulting firms performing inspection or testing for the Department shall not be included in the report.

The report shall contain all hours worked under the contract from the start of the month to the last full pay period each month and shall be submitted no later than 10 business days after the end of each month.

The report shall be submitted electronically in a format determined by the Engineer. See attachment for potential reporting format.

Any costs associated with complying with this provision 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.

80238

## Attachment

<b>MONTHLY PRIME AND SUBCONTRACTOR EMPLOYMENT REPORT AMERICAN RECOVERY AND REINVESTMENT ACT</b>			
1. First day of reporting period (mm/dd/yyyy):	2. Last day of reporting period (mm/dd/yyyy):	3. Notice to Proceed Date (mm/dd/yyyy)	
4. NAME AND ADDRESS OF FIRM		5. FEDERAL-AID PROJECT NUMBER	
		6. State Project Number or ID	
7. CONTRACTING AGENCY		8. STATE (or Federal Lands Region)	
<b>Employment Data</b>			
Direct, On-Project Jobs	TOTAL EMPLOYEES	TOTAL HOURS	TOTAL PAYROLL
<b>CONSTRUCTION</b>	NEW HIRES		
	EXISTING EMPLOYEES		
<b>NON-CONSTRUCTION</b>	NEW HIRES		
	EXISTING EMPLOYEES		
<b>TOTAL</b>			
10. PREPARED BY: <i>(Signature and Title)</i>			DATE
11. REVIEWED BY: <i>(Signature and Title of State Highway Official)</i>			DATE

This form is issued in association with the American Recovery and Reinvestment Act of 2009

**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 Gravity Adjustment Factors				
Types of Violations	Soil Disturbed and Not Permanently Stabilized At Time of Violation			
	< 5 Acres	5 - 10 Acres	>10 - 25 Acres	> 25 Acres
Failure to Install or Properly Maintain BMP	0.1 - 0.5	0.2 - 1.0	0.5 - 2.5	1.0 - 5
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 Chemicals, Concrete Washouts or Residuals, Litter or other Wastes	0.2 - 1	0.2 - 1	0.5 - 2.5	1.0 - 5
Improper Vehicle and Equipment Maintenance, Fueling or Cleaning	0.1 - 0.5	0.2 - 1	0.2 - 1	0.5 - 2.5
Failure to Provide or Update Written or Graphic Plans Required by SWPPP	0.2 - 1	0.5 - 2.5	1.0 - 5	1.0 - 5
Failure to comply with Other Provisions of the NPDES Permit	0.1 - 0.5	0.2 - 1	0.2 - 1	0.5 - 2.5"

80180

**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.”**

80231

## **PAYMENTS TO SUBCONTRACTORS (BDE)**

Effective: June 1, 2000

Revised: January 1, 2006

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

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

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

When progress payments are made to the Contractor according to Article 109.07 of the Standard Specifications, the Contractor shall make a corresponding payment to each subcontractor and material supplier in proportion to the work satisfactorily completed by each subcontractor and for the material supplied to perform any work of the contract. The proportionate amount of partial payment due to each subcontractor and material supplier throughout the contracting chain shall be determined by the quantities measured or otherwise determined as eligible for payment by the Department and included in the progress payment to the Contractor. Subcontractors and material suppliers shall be paid by the Contractor within 15 calendar days after the receipt of payment from the Department. The Contractor shall not hold retainage from the subcontractors. These obligations shall also apply to any payments made by subcontractors and material suppliers to their subcontractors and material suppliers; and to all payments made to lower tier subcontractors and material suppliers throughout the contracting chain. Any payment or portion of a payment subject to this provision may only be withheld from the subcontractor or material supplier to whom it is due for reasonable cause.

This Special Provision does not create any rights in favor of any subcontractor or material supplier against the State or authorize any cause of action against the State on account of any payment, nonpayment, delayed payment, or interest claimed by application of the State Prompt Payment Act. The Department will not approve any delay or postponement of the 15 day requirement except for reasonable cause shown after notice and hearing pursuant to Section

| 7(b) of the State Prompt Payment Act. State law creates other and additional remedies available to any subcontractor or material supplier, regardless of tier, who has not been paid for work properly performed or material furnished. These remedies are a lien against public funds set forth in Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c), and a recovery on the Contractor's payment bond according to the Public Construction Bond Act, 30 ILCS 550.

80022



## PAYROLLS AND PAYROLL RECORDS (BDE)

Effective: March 1, 2009

Revised: July 1, 2009

FEDERAL AID CONTRACTS. Revise the following section of Check Sheet #1 of the Recurring Special Provisions to read:

### "STATEMENTS AND PAYROLLS

The payroll records shall include each worker's name, address, telephone number, social security number, classification, rate of pay, number of hours worked each day, starting and ending times of work each day, total hours worked each week, itemized deductions made, and actual wages paid.

The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number.). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form."

STATE CONTRACTS. Revise Section IV of Check Sheet #5 of the Recurring Special Provisions to read:

### "IV.COMPLIANCE WITH THE PREVAILING WAGE ACT

1. Prevailing Wages. All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. If the Department of Labor revises the wage rates, the Contractor will not be allowed additional compensation on account of said revisions.
2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of three years from the date of completion of this contract, records of the wages paid to his/her workers. The payroll records shall include each worker's name, address, telephone number, social security number, classification, rate of pay, number of hours worked each day, starting and ending times of work each day, total hours worked each week, itemized deductions made, and actual wages paid. Upon two business days' notice, these records shall be available, at all reasonable hours at a location within the State, for inspection by the Department or the Department of Labor.

3. Submission of Payroll Records. The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form.

Each submittal shall be accompanied by a statement signed by the Contractor or subcontractor which avers that: (i) such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by the Act; and (iii) the Contractor or subcontractor is aware that filing a payroll record that he/she knows to be false is a Class B misdemeanor.

4. Employee Interviews. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor."

80235

**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.”

80209

## PORTLAND CEMENT CONCRETE PLANTS (BDE)

Effective: January 1, 2007

Add the following to Article 1020.11(a) of the Standard Specifications.

- “(9) Use of Multiple Plants in the Same Construction Item. The Contractor may simultaneously use central-mixed, truck-mixed, and shrink-mixed concrete from more than one plant, for the same construction item, on the same day, and in the same pour. However, the following criteria shall be met.
- a. Each plant shall use the same cement, finely divided minerals, aggregates, admixtures, and fibers.
  - b. Each plant shall use the same mix design. However, material proportions may be altered slightly in the field to meet slump and air content criteria. Field water adjustments shall not result in a difference that exceeds 0.02 between plants for water/cement ratio. The required cement factor for central-mixed concrete shall be increased to match truck-mixed or shrink-mixed concrete, if the latter two types of mixed concrete are used in the same pour.
  - c. The maximum slump difference between deliveries of concrete shall be 3/4 in. (19 mm) when tested at the jobsite. If the difference is exceeded, but test results are within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and shall test subsequent deliveries of concrete until the slump difference is corrected. For each day, the first three truck loads of delivered concrete from each plant shall be tested for slump by the Contractor. Thereafter, when a specified test frequency for slump is to be performed, it shall be conducted for each plant at the same time.
  - d. The maximum air content difference between deliveries of concrete shall be 1.5 percent when tested at the jobsite. If the difference is exceeded, but test results are within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and shall test subsequent deliveries of concrete until the air content difference is corrected. For each day, the first three truck loads of delivered concrete from each plant shall be tested for air content by the Contractor. Thereafter, when a specified test frequency for air content is to be performed, it shall be conducted for each plant at the same time.
  - e. Strength tests shall be performed and taken at the jobsite for each plant. When a specified strength test is to be performed, it shall be conducted for each plant at the same time. The difference between plants for their mean strength shall not exceed 450 psi (3100 kPa) compressive and 80 psi (550 kPa) flexural. The strength standard deviation for each plant shall not exceed 650 psi (4480 kPa) compressive and 110 psi (760 kPa) flexural. The mean and standard deviation requirements shall apply to the test of record. If the strength difference requirements are exceeded, the Contractor shall take corrective action.

- f. The maximum haul time difference between deliveries of concrete shall be 15 minutes. If the difference is exceeded, but haul time is within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and check subsequent deliveries of concrete until the haul time difference is corrected."

80170

**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 snugly 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)

80171

## RECLAIMED ASPHALT PAVEMENT (RAP) (BDE)

Effective: January 1, 2007

Revised: April 1, 2009

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

Revise Section 1031 of the Standard Specifications to read:

### "SECTION 1031. RECLAIMED ASPHALT PAVEMENT

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

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

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

- (a) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.
- (b) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (c) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, Superpave (High or Low ESAL), HMA (High or Low ESAL), or equivalent mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder



content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(d) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

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

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

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

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

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

**Evaluation of Test Results.** All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable  $G_{mm}$ . Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

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

1/ The tolerance for fractionated reclaimed asphalt pavement (FRAP) shall be  $\pm 0.3\%$ .

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

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

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

- (a) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) surface mixtures are designated as containing Class B quality coarse aggregate.
- (b) RAP from Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder and IL-9.5L surface mixtures are designated as Class D quality coarse aggregate.
- (c) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
- (d) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

**1031.05 Use of RAP in HMA.** The use of RAP shall be a Contractor's option when constructing HMA in all contracts. The use of RAP in HMA shall be as follows.

- (a) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.
- (b) Steel Slag Stockpiles. RAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) surface mixtures only.
- (c) Use in HMA Surface Mixtures (High and Low ESAL). RAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be homogeneous in which the coarse aggregate is Class B quality or better.
- (d) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.

- (e) Use in Shoulders and Subbase. RAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be homogeneous, conglomerate, or conglomerate DQ.
- (f) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in the table below for a given N Design.

Max RAP Percentage

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

- 1/ For HMA shoulder and stabilized subbase (HMA) N-30, the amount of RAP shall not exceed 50% of the mixture.
- 2/ Value of Max % RAP if homogeneous RAP stockpile of IL-9.5 RAP is utilized.
- 3/ When RAP exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275°F (135 °C) the grades shall be reduced as follows:

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.

Max FRAP Percentage<sup>1/</sup>

HMA Mixtures <sup>2/, 3/</sup>	Maximum % FRAP		
	Ndesign	Binder/Leveling Binder	Surface
30	35	35	10
50	30	25	10
70	25	20	10
90	20	15	10
105	10	10	10

- 1/ Minimum of two fractions for surface and binder applications.
- 2/ For HMA shoulder and stabilized subbase (HMA) N30, the amount of RAP shall not exceed 50 percent of the mixture.
- 3/ When FRAP exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275°F (135 °C) the grades shall be reduced as follows:

Overlays:

When WMA contains between 20 and 30 percent FRAP the high temperature shall be reduced by one grade (i.e. 25 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-22). When WMA contains 30 percent or more FRAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

Full Depth:

When WMA contains between 20 and 30 percent FRAP, the low temperature shall be reduced by one grade (i.e. 25 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG64-28). When the WMA contains 30 percent or more FRAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

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

RAP designs shall be submitted for volumetric verification. If additional RAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein,

are outside of the control tolerances set for the original RAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP stockpiles may be used in the original mix design at the percent previously verified.

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

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

If the RAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP and either switch to the virgin aggregate design or submit a new RAP design.

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

(a) Dryer Drum Plants.

- (1) Date, month, year, and time to the nearest minute for each print.
- (2) HMA mix number assigned by the Department.
- (3) Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- (4) Accumulated dry weight of RAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- (5) Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
- (6) Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
- (7) Residual asphalt binder in the RAP material as a percent of the total mix to the nearest 0.1 percent.
- (8) Aggregate and RAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP are printed in wet condition.)

(b) Batch Plants.

- (1) Date, month, year, and time to the nearest minute for each print.
- (2) HMA mix number assigned by the Department.
- (3) Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
- (4) Mineral filler weight to the nearest pound (kilogram).
- (5) RAP weight to the nearest pound (kilogram).
- (6) Virgin asphalt binder weight to the nearest pound (kilogram).
- (7) Residual asphalt binder in the RAP material as a percent of the total mix to the nearest 0.1 percent.

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

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

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

80172

**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 Angle (deg.)	Entrance Angle (deg.)	White	Orange	Fluorescent 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.”

80183

## REINFORCEMENT BARS (BDE)

Effective: November 1, 2005

Revised: April 1, 2009

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

“(a) Reinforcement Bars. Reinforcement bars will be accepted according to the current Bureau of Materials and Physical Research Policy Memorandum, “Reinforcement Bar and/or Dowel Bar Plant Certification Procedure”. The Department will maintain an approved list of producers.

(1) Reinforcement Bars (Non-Coated). Reinforcement bars shall be according to ASTM A 706 (A 706M), Grade 60 (420) for deformed bars and the following.

- a. For straight bars furnished in cut lengths and with a well-defined yield point, the yield point shall be determined as the elastic peak load, identified by a halt or arrest of the load indicator before plastic flow is sustained by the bar and dividing it by the nominal cross-sectional area of the bar.
- b. Tensile strength shall be a minimum of 1.20 times the yield strength.
- c. For bars straightened from coils or bars bent from fabrication, there shall be no upper limit on yield strength; and for bar designation Nos. 3 - 6 (10 - 19), the elongation after rupture shall be at least 9%.
- d. Heat Numbers. Bundles or bars at the construction site shall be marked or tagged with heat identification numbers of the bar producer.
- e. Guided Bend Test. Bars may be subject to a guided bend test across two pins which are free to rotate, where the bending force shall be centrally applied with a fixed or rotating pin of a certain diameter as specified in Table 3 of ASTM A 706 (A 706M). The dimensions and clearances of this guided bend test shall be according to ASTM E 190.
- f. Spiral Reinforcement. Spiral reinforcement shall be deformed or plain bars conforming to the above requirements or cold-drawn steel wire conforming to AASHTO M 32.

(2) Epoxy Coated Reinforcement Bars. Epoxy coated reinforcement bars shall be according to Article 1006.10(a)(1) and shall be epoxy coated according to AASHTO M 284 (M 284M) and the following.

- a. Certification. The epoxy coating applicator shall be certified according to the current Bureau of Materials and Physical Research Policy Memorandum, “Epoxy



Coating Plant Certification Procedure". The Department will maintain an approved list.

- b. Coating Thickness. When spiral reinforcement is coated after fabrication, the thickness of the epoxy coating shall be 7 to 20 mils (0.18 to 0.50 mm).
- c. Cutting Reinforcement. Reinforcement bars may be sheared or sawn to length after coating, providing the end damage to the coating does not extend more than 0.5 in. (13 mm) back and the cut is patched before any visible rusting appears. Flame cutting will not be permitted."

80151

## 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.”

80206

**SEEDING (BDE)**

Effective: July 1, 2004

Revised: July 1, 2009

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

"Table 1 - SEEDING MIXTURES		
Class – Type	Seeds	lb/acre (kg/hectare)
1A Salt Tolerant Lawn Mixture 7/	Bluegrass Perennial Ryegrass Red Fescue (Audubon, Sea Link, or Epic) Hard Fescue (Rescue 911, Spartan II, or Reliant IV) Fults Salt Grass 1/ or Salty Alkaligrass	60 (70) 20 (20) 20 (20) 20 (20) 60 (70)
2 Roadside Mixture 7/	Tall Fescue (Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV) Perennial Ryegrass Creeping Red Fescue Red Top	100 (110) 50 (55) 40 (50) 10 (10)
2A Salt Tolerant Roadside Mixture 7/	Tall Fescue (Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV) Perennial Ryegrass Red Fescue (Audubon, Sea Link, or Epic) Hard Fescue (Rescue 911, Spartan II, or Reliant IV) Fults Salt Grass 1/ or Salty Alkaligrass	60 (70) 20 (20) 30 (20) 30 (20) 60 (70)
3 Northern Illinois Slope Mixture 7/	Elymus Canadensis (Canada Wild Rye) Perennial Ryegrass Alsike Cover 2/ Desmanthus Illinoensis (Illinois Bundleflower) 2/, 5/ Andropogon Scoparius (Little Bluestem) 5/ Bouteloua Curtipendula (Side-Oats Grama) Fults Salt Grass 1/ or Salty Alkaligrass Oats, Spring Slender Wheat Grass 5/ Buffalo Grass (Cody or Bowie) 4/, 5/, 9/	5 (5) 20 (20) 5 (5) 2 (2) 12 (12) 10 (10) 30 (35) 50 (55) 15 (15) 5 (5)

"Table 1 - SEEDING MIXTURES			
6A	Salt Tolerant Conservation Mixture	Andropogon Scoparius (Little Bluestem) 5/	5 (5)
		Elymus Canadensis (Canada Wild Rye) 5/	2 (2)
		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."

Delete the last sentence of the first paragraph of Article 1081.04(c)(2) of the Standard Specifications.

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

TABLE II						
Variety of Seeds	Hard Seed	Purity	Pure Live	Weed	Secondary *	Notes
	%	%	Seed %	%	Noxious Weeds	
	Max.	Min.	Min.	Max.	Max. Permitted	
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)	-

TABLE II						
Variety of Seeds	Hard Seed %	Purity %	Pure Live Seed %	Weed %	Secondary * Noxious Weeds No. per oz (kg)	Notes
	Max.	Min.	Min.	Max.	Max. Permitted	
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 the first sentence of the first paragraph of Article 1081.04(c)(7) of the Standard Specifications to read:

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

80131

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

Effective: July 1, 2004

Revised: January 1, 2007

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

Usage. Self-consolidating concrete may be used for precast concrete products.

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

Mix Design Criteria. The mix design criteria shall be as follows:

- (a) The minimum cement factor shall be according to Article 1020.04 of the Standard Specifications. If the maximum cement factor is not specified, it shall not exceed 7.05 cwt/cu yd (418 kg/cu m).
- (b) The maximum allowable water/cement ratio shall be according to Article 1020.04 of the Standard Specifications or 0.44, whichever is lower.
- (c) The slump requirements of Article 1020.04 of the Standard Specifications shall not apply.
- (d) The coarse aggregate gradations shall be CA 13, CA 14, CA 16, or a blend of these gradations. CA 11 may be used when the Contractor provides satisfactory evidence to the Engineer that the mix will not segregate. The fine aggregate proportion shall be a maximum 50 percent by weight (mass) of the total aggregate used.
- (e) The slump flow range shall be  $\pm 2$  in. ( $\pm 50$  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.

Placing and Consolidating. 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.

Mix Design Approval. The Contractor shall obtain mix design approval according to the Department's Policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products".

80132

## **SIGN PANELS AND SIGN PANEL OVERLAYS (BDE)**

Effective: November 1, 2008

Description. This work shall consist of furnishing, fabricating, and installing sign panels and/or sign panel overlays. Work shall be according to Sections 720 and 721 of the Standard Specifications, except as modified herein.

Materials. Type AP and AZ sheeting shall meet the requirements of the special provision, "Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs". Type ZZ sheeting shall meet the requirements of the special provision, "Type ZZ Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs".

The sheeting for the background, legend, border, shields, and symbols shall be provided by the same manufacturer.

### CONSTRUCTION REQUIREMENTS

Fabrication. Signs shall be fabricated according to the current Bureau of Operations Policy Memorandum, "Fabrication of Highway Signs", the MUTCD, the FHWA Standard Highway Signs manual, the Illinois standard highway signs, and as shown on the plans.

Signs shall be fabricated such that the material for the background, legend, border, shields, and symbols is applied in the preferred orientation for the maximum retroreflectivity per the manufacturer's recommendation. The nesting of legend, border, shields, or symbols will not be permitted.

80212



**SILT FILTER FENCE (BDE)**

Effective: January 1, 2008

For silt filter fence fabric only, revise Article 1080.02 of the Standard Specifications to read:

**"1080.02 Geotextile Fabric.** The fabric for silt filter fence shall be a woven fabric meeting the requirements of AASHTO M 288 for unsupported silt fence with less than 50 percent geotextile elongation."

Replace the last sentence of Article 1081.15(b) of the Standard Specifications with the following:

"Silt filter fence stakes shall be a minimum of 4 ft (1.2 m) long and made of either wood or metal. Wood stakes shall be 2 in. x 2 in. (50 mm x 50 mm). Metal stakes shall be a standard T or U shape having a minimum weight (mass) of 1.32 lb/ft (600 g/300 mm)."

80197

## STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 2, 2004

Revised: April 1, 2009

Description. 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.

Types of Steel Products. 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.

Documentation. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

$$SCA = Q \times D$$

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.

Basis of Payment. 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:

$$\text{Percent Difference} = \{(MPI_L - MPI_M) \div MPI_L\} \times 100$$

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

**Attachment**

Item	Unit Mass (Weight)
Metal Piling (excluding temporary sheet piling)	
Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness)	23 lb/ft (34 kg/m)
Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness)	32 lb/ft (48 kg/m)
Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness)	37 lb/ft (55 kg/m)
Other piling	See plans
Structural Steel	See plans for weights (masses)
Reinforcing Steel	See plans for weights (masses)
Dowel Bars and Tie Bars	6 lb (3 kg) each
Mesh Reinforcement	63 lb/100 sq ft (310 kg/sq m)
Guardrail	
Steel Plate Beam Guardrail, Type A w/steel posts	20 lb/ft (30 kg/m)
Steel Plate Beam Guardrail, Type B w/steel posts	30 lb/ft (45 kg/m)
Steel Plate Beam Guardrail, Types A and B w/wood posts	8 lb/ft (12 kg/m)
Steel Plate Beam Guardrail, Type 2	305 lb (140 kg) each
Steel Plate Beam Guardrail, Type 6	1260 lb (570 kg) each
Traffic Barrier Terminal, Type 1 Special (Tangent)	730 lb (330 kg) each
Traffic Barrier Terminal, Type 1 Special (Flared)	410 lb (185 kg) each
Steel Traffic Signal and Light Poles, Towers and Mast Arms	
Traffic Signal Post	11 lb/ft (16 kg/m)
Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 - 12 m)	14 lb/ft (21 kg/m)
Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 - 16.5 m)	21 lb/ft (31 kg/m)
Light Pole w/Mast Arm, 30 - 50 ft (9 - 15.2 m)	13 lb/ft (19 kg/m)
Light Pole w/Mast Arm, 55 - 60 ft (16.5 - 18 m)	19 lb/ft (28 kg/m)
Light Tower w/Luminaire Mount, 80 - 110 ft (24 - 33.5 m)	31 lb/ft (46 kg/m)
Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 - 42.5 m)	65 lb/ft (97 kg/m)
Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 - 48.5 m)	80 lb/ft (119 kg/m)
Metal Railings (excluding wire fence)	
Steel Railing, Type SM	64 lb/ft (95 kg/m)
Steel Railing, Type S-1	39 lb/ft (58 kg/m)
Steel Railing, Type T-1	53 lb/ft (79 kg/m)
Steel Bridge Rail	52 lb/ft (77 kg/m)
Frames and Grates	
Frame	250 lb (115 kg)
Lids and Grates	150 lb (70 kg)

Return With Bid

**ILLINOIS DEPARTMENT  
OF TRANSPORTATION**

**OPTION FOR  
STEEL COST ADJUSTMENT**

The bidder shall submit this completed form with his/her bid. Failure to submit the form or properly complete contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment. After award, this form, when submitted shall become part of the contract.

**Contract No.:** \_\_\_\_\_

**Company Name:** \_\_\_\_\_

**Contractor's Option:**

Is your company opting to include this special provision as part of the contract plans for the following items of work?

- |  |     |                          |
|--|-----|--------------------------|
| Metal Piling   | Yes | <input type="checkbox"/> |
| Structural Steel   | Yes | <input type="checkbox"/> |
| Reinforcing Steel  | Yes | <input type="checkbox"/> |
| Dowel Bars, Tie Bars and Mesh Reinforcement                | Yes | <input type="checkbox"/> |
| Guardrail  | Yes | <input type="checkbox"/> |
| Steel Traffic Signal and Light Poles, Towers and Mast Arms | Yes | <input type="checkbox"/> |
| Metal Railings (excluding wire fence)                      | Yes | <input type="checkbox"/> |
| Frames and Grates  | Yes | <input type="checkbox"/> |

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

80127

**STONE GRADATION TESTING (BDE)**

Effective: November 1, 2007

Revise the first sentence of note 1/ of the Erosion Protection and Sediment Control Gradations table of Article 1005.01(c)(1) of the Standard Specifications to read:

“A maximum of 15 percent of the total test sample by weight may be oversize material.”

80191

**STORM SEWERS (BDE)**

Effective: April 1, 2009

Add the following to Article 550.02 of the Standard Specifications:

- “(p) Polyvinyl Chloride (PVC) Profile Wall Pipe-304 ..... 1040.03
- “(q) Polyethylene (PE) Pipe with a Smooth Interior ..... 1040.04
- “(r) Corrugated Polyethylene (PE) Pipe with a Smooth Interior ..... 1040.04
- “(s) Polyethylene (PE) Profile Wall Pipe ..... 1040.04”

Add the following to the list of flexible pipes under Class B storm sewers in the first table of Article 550.03 of the Standard Specifications:

- “Polyvinyl Chloride (PVC) Profile Wall Pipe-304
- Polyethylene (PE) Pipe with a Smooth Interior
- Corrugated Polyethylene (PE) Pipe with a Smooth Interior
- Polyethylene (PE) Profile Wall Pipe”

Revise the 2<sup>nd</sup> - 7<sup>th</sup> tables of Article 550.03 of the Standard Specifications to read:

*STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE																				
Nom. Dia. in.	Type 1 Fill Height: 3' and less with 1' minimum cover										Type 2 Fill Height: Greater than 3', not exceeding 10'									
	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	CPE	PEPW	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	CPE	PEPW
10	NA	3	X	X	NA	NA	NA	X	NA	NA	NA	1	*X	X	**	NA	NA	X	NA	NA
12	IV	NA	NA	X	X	X	X	X	X	NA	III	1	*X	X	X	X	X	X	X	NA
15	IV	NA	NA	X	X	X	X	NA	X	NA	III	2	X	X	X	X	X	NA	X	NA
18	IV	NA	NA	X	X	X	X	X	X	X	III	2	X	X	X	X	X	X	X	X
21	IV	NA	NA	X	X	X	X	NA	NA	X	III	2	X	X	X	X	X	NA	NA	X
24	IV	NA	NA	X	X	X	X	X	X	X	III	2	X	X	X	X	X	X	X	X
27	IV	NA	NA	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
30	III	NA	X	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
33	III	NA	X	X	NA	X	X	X	X	X	III	NA	X	X	NA	X	X	X	X	X
36	III	NA	X	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
42	II	NA	NA	NA	NA	X	X	X	X	X	III	NA	NA	NA	NA	X	X	X	X	X
48	II	NA	NA	NA	NA	X	X	X	X	X	III	NA	NA	NA	NA	X	X	X	X	X
54	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA	NA	NA
60	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
66	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
72	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
78	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
84	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
90	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
96	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
102	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
108	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- CSP Concrete Sewer, Storm Drain, and Culvert Pipe
- ESCP Extra Strength Clay Pipe
- PVC Polyvinyl Chloride (PVC) Pipe
- CPVC Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
- PVCPW-794 Polyvinyl Chloride (PVC) Profile Wall Pipe-794
- PVCPW-304 Polyvinyl Chloride (PVC) Profile Wall Pipe-304

- PE Polyethylene (PE) Pipe with a Smooth Interior
- CPE Corrugated Polyethylene (PE) Pipe with a Smooth Interior
- PEPW Polyethylene (PE) Profile Wall Pipe
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- \* May also use standard strength Clay Sewer Pipe
- \*\* May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.

STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE														
Nom. Dia.  in.	Type 3 Fill Height: Greater than 10', not exceeding 15'									Type 4 Fill Height: Greater than 15', not exceeding 20'				
	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	PEPW	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304
10	NA	3	X	X	**	NA	NA	X	NA	NA	X	**	NA	NA
12	IV	NA	X	X	X	X	X	X	NA	V	X	X	X	X
15	IV	NA	NA	X	X	X	X	NA	NA	V	X	X	X	X
18	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
21	IV	NA	NA	X	X	X	X	NA	X	V	X	X	X	X
24	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
27	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
30	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
33	IV	NA	NA	X	NA	X	X	X	X	IV	X	NA	X	X
36	IV	NA	NA	X	X	X	X	X	X	IV	X	X	X	X
42	IV	NA	NA	NA	NA	X	X	X	X	IV	NA	NA	X	X
48	IV	NA	NA	NA	NA	X	X	X	X	IV	NA	NA	X	X
54	IV	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
60	IV	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
66	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
72	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
78	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
84	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
90	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
96	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
102	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
108	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- CSP Concrete Sewer, Storm Drain, and Culvert Pipe
- ESCP Extra Strength Clay Pipe
- PVC Polyvinyl Chloride (PVC) Pipe
- CPVC Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
- PVCPW-794 Polyvinyl Chloride (PVC) Profile Wall Pipe-794
- PVCPW-304 Polyvinyl Chloride (PVC) Profile Wall Pipe-304
- PE Polyethylene (PE) Pipe with a Smooth Interior
- PEPW Polyethylene (PE) Profile Wall Pipe
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- \*\* May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.

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STORM SEWERS KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE												
Nom. Dia. in.	Type 5 Fill Height: Greater than 20', not exceeding 25'					Type 6 Fill Height: Greater than 25', not exceeding 30'					Type 7 Fill Height: Greater than 30', not exceeding 35'	
	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304	RCCP Class	PVC
10	NA	X	**	NA	NA	NA	X	**	NA	NA	NA	X
12	V-3160D	X	X	X	X	V-3790D	X	X	X	X	V-4000D	X
15	V-3080D	X	X	X	X	V-3390D	X	NA	NA	NA	V-3575D	X
18	V	X	X	X	X	V-3115D	X	NA	NA	NA	V-3300D	X
21	V	X	X	X	X	V	X	NA	NA	NA	V-3110D	X
24	V	X	X	X	X	V	X	NA	NA	NA	V	X
27	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
30	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
33	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
36	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
42	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
48	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
54	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
60	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
66	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
72	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
78	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
84	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
90	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
96	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
102	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
108	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe  
PVC Polyvinyl Chloride (PVC) Pipe  
CPVC Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior  
PVCPW-794 Polyvinyl Chloride (PVC) Profile Wall Pipe-794  
PVCPW-304 Polyvinyl Chloride (PVC) Profile Wall Pipe-304  
X This material may be used for the given pipe diameter and fill height.  
NA This material is Not Acceptable for the given pipe diameter and fill height.  
\*\* May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.  
Note RCCP Class V - 3160D, etc. shall be furnished according to AASHTO M 170 Section 6.  
These loads are D loads to produce a 0.01 in. crack.

**STORM SEWERS (metric)**  
**KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED**  
**FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE**

Nom. Dia. mm	Type 1 Fill Height: 1 m and less with 0.3 m minimum cover										Type 2 Fill Height: Greater than 1 m, not exceeding 3 m									
	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	CPE	PEPW	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	CPE	PEPW
250	NA	3	X	X	NA	NA	NA	X	NA	NA	NA	1	*X	X	**	NA	NA	X	NA	NA
300	IV	NA	NA	X	X	X	X	X	X	NA	III	1	*X	X	X	X	X	X	X	NA
375	IV	NA	NA	X	X	X	X	NA	X	NA	III	2	X	X	X	X	X	NA	X	NA
450	IV	NA	NA	X	X	X	X	X	X	X	III	2	X	X	X	X	X	X	X	X
525	IV	NA	NA	X	X	X	X	NA	NA	X	III	2	X	X	X	X	X	NA	NA	X
600	IV	NA	NA	X	X	X	X	X	X	X	III	2	X	X	X	X	X	X	X	X
675	IV	NA	NA	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
750	III	NA	X	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
825	III	NA	X	X	NA	X	X	X	X	X	III	NA	X	X	NA	X	X	X	X	X
900	III	NA	X	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
1050	II	NA	NA	NA	NA	X	X	X	X	X	III	NA	NA	NA	NA	X	X	X	X	X
1200	II	NA	NA	NA	NA	X	X	X	X	X	III	NA	NA	NA	NA	X	X	X	X	X
1350	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA	NA	NA
1500	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
1650	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
1800	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
1950	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2100	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2250	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2400	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2550	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2700	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
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- PVCPW-794 Polyvinyl Chloride (PVC) Profile Wall Pipe-794
- PVCPW-304 Polyvinyl Chloride (PVC) Profile Wall Pipe-304
- PE Polyethylene (PE) Pipe with a Smooth Interior
- CPE Corrugated Polyethylene (PE) Pipe with a Smooth Interior
- PEPW Polyethylene (PE) Profile Wall Pipe
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- \* May also use standard strength Clay Sewer Pipe
- \*\* May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.

**STORM SEWERS (metric)**  
**KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED**  
**FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE**

Nom. Dia. mm	Type 3 Fill Height: Greater than 3 m, not exceeding 4.5 m									Type 4 Fill Height: Greater than 4.5 m, not exceeding 6 m				
	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	PEPW	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304
250	NA	3	X	X	**	NA	NA	X	NA	NA	X	**	NA	NA
300	IV	NA	X	X	X	X	X	X	NA	V	X	X	X	X
375	IV	NA	NA	X	X	X	X	NA	NA	V	X	X	X	X
450	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
525	IV	NA	NA	X	X	X	X	NA	X	V	X	X	X	X
600	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
675	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
750	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
825	IV	NA	NA	X	NA	X	X	X	X	IV	X	NA	X	X
900	IV	NA	NA	X	X	X	X	X	X	IV	X	X	X	X
1050	IV	NA	NA	NA	NA	X	X	X	X	IV	NA	NA	X	X
1200	IV	NA	NA	NA	NA	X	X	X	X	IV	NA	NA	X	X
1350	IV	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
1500	IV	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
1650	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
1800	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
1950	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2100	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2250	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2400	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2550	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2700	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA

- RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
- CSP Concrete Sewer, Storm Drain, and Culvert Pipe
- ESCP Extra Strength Clay Pipe
- PVC Polyvinyl Chloride (PVC) Pipe
- CPVC Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
- PVCPW-794 Polyvinyl Chloride (PVC) Profile Wall Pipe-794
- PVCPW-304 Polyvinyl Chloride (PVC) Profile Wall Pipe-304
- PE Polyethylene (PE) Pipe with a Smooth Interior
- PEPW Polyethylene (PE) Profile Wall Pipe
- X This material may be used for the given pipe diameter and fill height.
- NA This material is Not Acceptable for the given pipe diameter and fill height.
- \*\* May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.

STORM SEWERS (metric) KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE												
Nom. Dia. mm	Type 5 Fill Height: Greater than 6 m, not exceeding 7.5 m					Type 6 Fill Height: Greater than 7.5 m, not exceeding 9 m					Type 7 Fill Height: Greater than 9 m, not exceeding 10.5 m	
	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304	RCCP Class	PVC
250	NA	X	**	NA	NA	NA	X	**	NA	NA	NA	X
300	V-150D	X	X	X	X	V-180D	X	X	X	X	V-190D	X
375	V-145D	X	X	X	X	V-160D	X	NA	NA	NA	V-170D	X
450	V	X	X	X	X	V-150D	X	NA	NA	NA	V-160D	X
525	V	X	X	X	X	V	X	NA	NA	NA	V-150D	X
600	V	X	X	X	X	V	X	NA	NA	NA	V	X
675	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
750	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
825	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
900	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
1050	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1200	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1350	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1500	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1650	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1800	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1950	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2100	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2250	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2400	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2550	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2700	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe  
PVC Polyvinyl Chloride (PVC) Pipe  
CPVC Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior  
PVCPW-794 Polyvinyl Chloride (PVC) Profile Wall Pipe-794  
PVCPW-304 Polyvinyl Chloride (PVC) Profile Wall Pipe-304  
X This material may be used for the given pipe diameter and fill height.  
NA This material is Not Acceptable for the given pipe diameter and fill height.  
\*\* May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.  
Note RCCP Class V - 150D, etc. shall be furnished according to AASHTO M 170M Section 6.  
These loads are D loads to produce a 0.3 mm crack."

Revise the last paragraph of Article 550.06 of the Standard Specifications to read:

"PVC and PE pipes shall be joined according to the manufacturer's specifications."

Revise the second paragraph of Article 550.07 of the Standard Specifications to read:

"When using flexible pipe, as listed in the first table of Article 550.03, the aggregate shall be continued to a height of at least 1 ft (300 mm) above the top of the pipe and compacted to a minimum of 95 percent of standard lab density by mechanical means."

Revise Article 550.08 of the Standard Specifications to read:

**"550.08 Deflection Testing for Storm Sewers.** All PVC and PE storm sewers shall be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted. The testing shall be performed in the presence of the Engineer.

For PVC and PE storm sewers with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC and PE storm sewers with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel drag shall be used.

Where the mandrel is used, the mandrel shall be furnished by the Contractor and pulled by hand through the pipeline with a suitable rope or cable connected to each end. Winching or other means of forcing the deflection gauge through the pipeline will not be allowed.

The mandrel shall be of a shape similar to that of a true circle enabling the gauge to pass through a satisfactory pipeline with little or no resistance. The mandrel shall be of a design to prevent it from tipping from side to side and to prevent debris build-up from occurring between the channels of the adjacent fins or legs during operation. Each end of the core of the mandrel shall have fasteners to which the pulling cables can be attached. The mandrel shall have nine, various sized fins or legs of appropriate dimension for various diameter pipes. Each fin or leg shall have a permanent marking that states its designated pipe size and percent of deflection allowable.

The outside diameter of the mandrel shall be 95 percent of the base inside diameter. For all PVC pipe and PE Profile Wall pipe, the base inside diameter shall be defined using ASTM D 3034 methodology. For all other PE pipe, the base inside diameter shall be defined as the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications.

If the pipe is found to have a deflection greater than that specified, that pipe section shall be removed, replaced, and retested.”

Revise Article 1040.04(b) of the Standard Specifications to read:

“(b) Corrugated PE Pipe with a Smooth Interior. The pipe shall be according to AASHTO M 294 (nominal size – 12 to 48 in. (300 to 1200 mm)). The pipe shall be Type S or D.”

Revised the first and second paragraphs of Article 1040.04(c) to read:

“(c) PE Profile Wall Pipe. The pipe shall be according to ASTM F 894 and shall have a minimum ring stiffness constant of 160. The pipe shall also have a minimum cell classification of PE 334433C as defined in ASTM D 3350.

(1) Pipe Culverts and Storm Sewers. When used for pipe culverts and storm sewers, the section properties shall be according to AASHTO's Section 17. The manufacturer shall submit written certification that the material meets AASHTO's Section 17 properties.”

## **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.

80143

## TEMPORARY EROSION CONTROL (BDE)

Effective: November 1, 2002

Revised: November 1, 2009

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 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(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(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.

80087

## THERMOPLASTIC PAVEMENT MARKINGS (BDE)

Effective: January 1, 2007

Revise Article 1095.01(a)(2) of the Standard Specifications to read:

"(2) Pigment. The pigment used for the white thermoplastic compound shall be a high-grade pure (minimum 93 percent) titanium dioxide ( $TiO_2$ ). 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  $\pm$  five minutes at  $425 \pm 3$  °F ( $218.3 \pm 2$  °C) and cooled at 77 °F (25 °C) shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degree circumferential/zero degree geometry, illuminant C, and two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

White: Daylight Reflectance .....75 percent min.

\*Yellow: Daylight Reflectance .....45 percent min.

\*Shall meet the coordinates of the following color tolerance chart.

x	0.490	0.475	0.485	0.530
y	0.470	0.438	0.425	0.456"

Revise Article 1095.01(b)(1)k. of the Standard Specifications to read:

"k. Accelerated Weathering. After heating the thermoplastic for four hours  $\pm$  five minutes at  $425 \pm 3$  °F ( $218.3 \pm 2$  °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."

80176

**VARIABLY SPACED TINING (BDE)**

Effective: August 1, 2005

Revised: January 1, 2007

Revise the first sentence of the third paragraph of Article 420.09(e)(1) of the Standard Specifications to read:

“The metal comb shall consist of a single line of tempered spring steel tines variably spaced as shown in the table below and securely mounted in a suitable head.”

Revise the fifth sentence of the third paragraph of Article 420.09(e)(1) of the Standard Specifications to read:

“The tining device shall be operated so as to produce a pattern of grooves, 1/8 to 3/16 in. (3 to 5 mm) deep and 1/10 to 1/8 in. (2.5 to 3.2 mm) wide across the pavement. The tining device shall be operated at a 1:6 skew across the pavement for facilities with a posted speed limit of 55 mph or greater. The tining pattern shall not overlap or leave gaps between successive passes.”

Add the following table after the third paragraph of Article 420.09(e)(1) of the Standard Specifications:

"Center to Center Spacings of Metal Comb Tines in. (mm) (read spacings left to right)				
1 5/16 (34)	1 7/16 (36)	1 7/8 (47)	2 1/8 (54)	1 7/8 (48)
1 11/16 (43)	1 1/4 (32)	1 1/4 (31)	1 1/16 (27)	1 7/16 (36)
1 1/8 (29)	1 13/16 (46)	13/16 (21)	1 11/16 (43)	7/8 (23)
1 5/8 (42)	2 1/16 (52)	15/16 (24)	11/16 (18)	1 1/8 (28)
1 9/16 (40)	1 5/16 (34)	1 1/16 (27)	1 (26)	1 (25)
1 1/16 (27)	13/16 (20)	1 7/16 (37)	1 1/2 (38)	2 1/16 (52)
2 (51)	1 3/4 (45)	1 7/16 (37)	1 11/16 (43)	2 1/16 (53)
1 1/16 (27)	1 7/16 (37)	1 5/8 (42)	1 5/8 (41)	1 1/8 (29)
1 11/16 (43)	1 3/4 (45)	1 3/4 (44)	1 3/16 (30)	1 7/16 (37)
1 5/16 (33)	1 9/16 (40)	1 1/8 (28)	1 1/4 (31)	1 15/16 (50)
1 5/16 (34)	1 3/4 (45)	13/16 (20)	1 3/4 (45)	1 15/16 (50)
2 1/16 (53)	2 (51)	1 1/8 (29)	1 (25)	11/16 (18)
2 1/16 (53)	11/16 (18)	1 1/2 (38)	2 (51)	1 9/16 (40)
11/16 (17)	1 15/16 (49)	1 15/16 (50)	1 9/16 (39)	2 (51)
1 7/16 (36)	1 7/16 (36)	1 1/2 (38)	1 13/16 (46)	1 1/8 (29)
1 1/2 (38)	1 15/16 (50)	15/16 (24)	1 5/16 (33)"	

**WORKING DAYS (BDE)**

Effective: January 1, 2002

The Contractor shall complete the work within **140** working days.

80071

**REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS**

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**ATTACHMENTS**

**A. Employment Preference for Appalachian Contracts  
(included in Appalachian contracts only)**

**I. GENERAL**

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.
2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.
3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.
4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;  
Section IV, paragraphs 1, 2, 3, 4 and 7;  
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6 and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. Selection of Labor: During the performance of this contract, the contractor shall not:

- a. Discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

- b. Employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

**II. NONDISCRIMINATION**

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60 (and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

- a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.
- b. The contractor will accept as his operating policy the following statement: "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job-training."

**2. EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

- a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.
- b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
- c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.
- d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees,

applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employees referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish which such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

#### **6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be

in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

**8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from

and to utilize DBE subcontractors or subcontractors with meaningful

minority group and female representation among their employees.

Contractors shall obtain lists of DBE construction firms from SHA

personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

**9. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of

DBE subcontractors or subcontractors with meaningful minority and

female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

### III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

### IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located

on roadways classified as local roads or rural minor collectors, which are exempt.)

#### 1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

#### 2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

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

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

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

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the

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

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

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

### 3. Payment of Fringe Benefits:

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

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any cost reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

### 4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

#### a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any

employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid

the full amount of fringe benefits listed on the wage determination

for the applicable classification. If the Administrator for the Wage

and Hour Division determines that a different practice prevails for

the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

#### b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which cases such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration

withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

**c. Helpers:**

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV. 2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

**5. Apprentices and Trainees (Programs of the U.S. DOT):**

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**6. Withholding:**

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainee's and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

**7. Overtime Requirements:**

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

**8. Violation:**

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or

permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

**9. Withholding for Unpaid Wages and Liquidated Damages:**

The SHA shall; upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

**V. STATEMENTS AND PAYROLLS**

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

**1. Compliance with Copeland Regulations (29 CFR 3):**

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

**2. Payrolls and Payroll Records:**

- a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.
- b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.
- c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely



all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for submitting payroll copies of all subcontractors.

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

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

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S. C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

## VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all federal-aid contracts on the national highway system, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

- a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.
- b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.
- c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data

required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

## VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractors' own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

## VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in

surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

#### **IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

##### **NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS**

18 U.S.C. 1020 reads as follows:

*“Whoever, being an officer, agent or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or*

*Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or*

*Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;*

*Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both.”*

#### **X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more).

By submission of this bid or the execution of this contract, or

subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 *et seq.*, as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 *et seq.*, as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

#### **XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
- d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal

is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification in all lower tier covered transactions

and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded from Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

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

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

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#### **Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Primary Covered Transactions**

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

- a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and
- d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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#### **2. Instructions for Certification - Lower Tier Covered Transactions:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealing.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

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2. Where the prospective primary participant is unable to certify

**Certification Regarding Debarment, Suspension, Ineligibility And  
Voluntary Exclusion-Lower Tier Covered Transactions:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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**XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR  
LOBBYING**

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

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

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

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

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

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

**NOTICE**

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

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

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates.

The instructions for subscribing are at <http://www.dot.state.il.us/desenv/subsc.html>.

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