

BID PROPOSAL INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals are potential bidding proposals. Each proposal contains all certifications and affidavits, a proposal signature sheet and a proposal bid bond.

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.

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.

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 124) 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.

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?

When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status"(BDE 124) 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 and the Chief Procurement Officer 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 to Bid or Not For Bid Report within a reasonable time of complete and correct original document submittal should contact the Department as to the status. 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 bidder'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 or revision will be included with the Electronic Plans and Proposals. 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 service emails are an added courtesy the Department provides. It is suggested that bidders check IDOT's website at <http://www.idot.illinois.gov/doing-business/procurements/construction-services/construction-bulletins/transportation-bulletin/index#TransportationBulletin> 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 DOT.D&Econtracts@illinois.gov

Technical questions about downloading these files may be directed to Tim Garman at (217)524-1642 or Timothy.Garman@illinois.gov.

STANDARD GUIDELINES FOR SUBMITTING BIDS

- All pages should be single sided.
- Use the Cover Page that is provided in the Bid Proposal (posted on the IDOT Web Site) as the first page of your submitted bid. It has the item number in large bold type in the upper left-hand corner and lines provided for your company name and address in the upper right-hand corner.
- Do not use report covers, presentation folders or special bindings and do not staple multiple times on left side like a book. Use only 1 staple in the upper left hand corner. Make sure all elements of your bid are stapled together including the bid bond or guaranty check (if required).
- Do not include any certificates of eligibility, your authorization to bid, Addendum Letters or affidavit of availability.
- Do not include the Subcontractor Documentation with your bid (pages i – iii and pages a – g). This documentation is required only if you are awarded the project.
- Use the envelope cover sheet (provided with the proposal) as the cover for the proposal envelope.
- Do not rely on overnight services to deliver your proposal prior to 10 AM on letting day. It will not be read if it is delivered after 10 AM.
- Do not submit your Substance Abuse Prevention Program (SAPP) with your bid. If you are awarded the contract this form is to be submitted to the district engineer at the pre-construction conference.

BID SUBMITTAL CHECKLIST

- Cover page** (the sheet that has the item number on it) – This should be the first page of your bid proposal, **followed by your bid (the Schedule of Prices/Pay Items)**. If you are using special software or CBID to generate your schedule of prices, do not include the blank pages of the schedule of prices that came with the proposal package.
- Page 4 (Item 9)** – Check “YES” if you will use a subcontractor(s) with an annual value over \$50,000. Include the subcontractor(s) name, address, general type of work to be performed and the dollar amount. If you will use subcontractor(s) but are uncertain who or the dollar amount; check “YES” but leave the lines blank.
- After page 4** – Insert the following documents: The **Illinois Office Affidavit** (Not applicable to federally funded projects) followed by Cost Adjustments for Steel, Bituminous and Fuel (if applicable) and the Contractor Letter of Assent (if applicable). The general rule should be, if you don’t know where it goes, put it after page 4.
- Page 10 (Paragraph J)** – Check “YES” or “NO” whether your company has any business in Iran.
- Page 10 (Paragraph K)** – (Not applicable to federally funded projects) List the name of the apprenticeship and training program sponsor holding the certificate of registration from the US Department of Labor. If no applicable program exists, please indicate the work/job category. Do not include certificates with your bid. Keep the certificates in your office in case they are requested by IDOT.
- Page 11 (Paragraph L)** – A copy of your State Board of Elections certificate of registration is no longer required with your bid.
- Page 11 (Paragraph M)** – Indicate if your company has hired a lobbyist in connection with the job for which you are submitting the bid proposal.
- Page 12 (Paragraph C)** – This is a work sheet to determine if a completed Form A is required. It is not part of the form and you do not need to make copies for each completed Form A.
- Pages 14-17 (Form A)** – One Form A (4 pages) is required for each applicable person in your company. Copies of the forms can be used and only need to be changed when the information changes. The certification signature and date must be original for each letting. **Do not staple the forms together.** If you answered “NO” to all of the questions in Paragraph C (page 12), complete the first section (page 14) with your company information and then sign and date the Not Applicable statement on page 17.
- Page 18 (Form B)** - If you check “YES” to having other current or pending contracts it is acceptable to use the phrase, “See Affidavit of Availability on file”. **Ownership Certification** (at the bottom of the page) - Check N/A if the Form A(s) you submitted accounts for 100 percent of the company ownership. Check YES if any percentage of ownership falls outside of the parameters that require reporting on the Form A. Checking NO indicates that the Form A(s) you submitted is not correct and you will be required to submit a revised Form A.
- Page 20 (Workforce Projection)** – Be sure to include the Duration of the Project. It is acceptable to use the phrase “Per Contract Specifications”.

Proposal Bid Bond – (Insert after the proposal signature page) Submit your proposal Proposal Bid Bond (if applicable) using the current Proposal Bid Bond form provided in the proposal package. The Power of Attorney page should be stapled to the Proposal Bid Bond. If you are using an electronic bond, include your bid bond number on the Proposal Bid Bond and attach the Proof of Insurance printed from the Surety’s Web Site.

Disadvantaged Business Utilization Plan and/or Good Faith Effort – The last items in your bid should be the DBE Utilization Plan (SBE 2026), followed by the DBE Participation Statement (SBE 2025) and supporting paperwork. If you have documentation of a Good Faith Effort, it is to follow the SBE Forms.

The Bid Letting is now available in streaming Audio/Video from the IDOT Web Site. A link to the stream will be placed on the main page of the current letting on the day of the Letting. The stream will not begin until 10 AM. The actual reading of the bids does not begin until approximately 10:30 AM.

Following the Letting, the As-Read Tabulation of Bids will be posted by the end of the day. You will find the link on the main Web page for the current letting.

QUESTIONS: pre-letting up to execution of the contract

Contractor pre-qualification	217-782-3413
Small Business, Disadvantaged Business Enterprise (DBE)	217-785-4611
Contracts, Bids, Letting process or Internet downloads	217-782-7806
Estimates Unit.....	217-785-3483
Aeronautics.....	217-785-8515
IDNR (Land Reclamation, Water Resources, Natural Resources).....	217-782-6302

QUESTIONS: following contract execution

Subcontractor documentation, payments	217-782-3413
Railroad Insurance	217-785-0275

54

RETURN WITH BID

Proposal Submitted By
Name
Address
City

Letting January 30, 2015

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.

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL

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



**Illinois Department
of Transportation**

Springfield, Illinois 62764

**Contract No. 63849
DUPAGE County
Section 11-00210-04-CH
Route FAP 363 (Fabyan Parkway)
Project CMM-4003(136)
District 1 Construction Funds**

PLEASE MARK THE APPROPRIATE BOX BELOW:

- A Bid Bond is included.
- A Cashier's Check or a Certified Check is included
- An Annual Bid Bond is included or is on file with IDOT.

Prepared by

Checked by

F

(Printed by authority of the State of Illinois)

Page intentionally left blank

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. 63849
DUPAGE County
Section 11-00210-04-CH
Project CMM-4003(136)
Route FAP 363 (Fabyan Parkway)
District 1 Construction Funds**

Reconstruct the intersection of Fabyan Parkway at Roosevelt Road; pavement widening, resurfacing traffic signal improvements, storm sewer, curb & gutter, sidewalks and landscaping. Project is located in the City of West Chicago.

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 will govern performance and payments.

RETURN WITH BID

3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned bidder further declares that he/she has carefully examined the proposal, plans, specifications, addenda form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this bid proposal he/she waives all right to plead any misunderstanding regarding the same.

4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned bidder further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, or as specified in the special provisions, guaranteeing the faithful performance of the work in accordance with the terms of the contract.

5. **PROPOSAL GUARANTY.** Accompanying this proposal is either a bid bond on the department form, executed by a corporate surety company satisfactory to the department, or a proposal guaranty check consisting of a bank cashier's check or a properly certified check for not less than 5 per cent of the amount bid or for the amount specified in the following schedule:

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

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

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

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

Attach Cashier's Check or Certified Check Here	
In the event that one proposal guaranty check is intended to cover two or more bid proposals, the amount must be equal to the sum of the proposal guaranties which would be required for each individual bid proposal. If the guaranty check is placed in another bid proposal, state below where it may be found.	
The proposal guaranty check will be found in the bid proposal for:	Item _____
	Section No. _____
	County _____

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

RETURN WITH BID

6. **COMBINATION BIDS.** The undersigned bidder 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 contract 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 will govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.
8. **AUTHORITY TO DO BUSINESS IN ILLINOIS.** Section 20-43 of the Illinois Procurement Code (the Code) (30 ILCS 500/20-43) provides that a person (other than an individual acting as a sole proprietor) must be a legal entity authorized to transact business or conduct affairs in the State of Illinois prior to submitting the bid.
9. **EXECUTION OF CONTRACT:** The Department of Transportation will, in accordance with the rules governing Department procurements, execute the contract and shall be the sole entity having the authority to accept performance and make payments under the contract. Execution of the contract by the Chief Procurement Officer (CPO) or the State Purchasing Officer (SPO) is for approval of the procurement process and execution of the contract by the Department. Neither the CPO nor the SPO shall be responsible for administration of the contract or determinations respecting performance or payment there under except as otherwise permitted in the Code.
10. **The services of a subcontractor will be used.**

Check box Yes
 Check box No

For known subcontractors with subcontracts with an annual value of more than \$50,000, the contract shall include their name, address, general type of work to be performed, and the dollar allocation for each subcontractor.
 (30 ILCS 500/20-120)

COUNTY NAME	CODE	DIST	SECTION NUMBER	PROJECT NUMBER	ROUTE
DUPAGE	043	01	11-00210-04-CH	CMM-4003/136/000	FAP 363

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
A2002916	T-CELTIS OCCID 2	EACH	2.000 X				
A2005016	T-GYMNOCOLA DIO 2	EACH	2.000 X				
A2006516	T-QUERCUS BICOL 2	EACH	3.000 X				
B2001616	T-CRAT CRU-I TF 2	EACH	10.000 X				
B2005016	T-MALUS SND TF 2	EACH	8.000 X				
C2005224	S-POTEN FRUT MW 2'	EACH	20.000 X				
K1005421	SEEDING SPL	ACRE	0.250 X				
X0324085	EM VEH P S LSC 20 3C	FOOT	1,187.000 X				
X0325405	FILL EX STORM SEWERS	CU YD	34.000 X				
X0326806	WASHOUT BASIN	L SUM	1.000 X				
X0327078	REM FIRE HYD/VALV ASS	EACH	4.000 X				
X0426200	DEWATERING	L SUM	1.000 X				
X2080250	TRENCH BACKFILL SPL	CU YD	290.000 X				
X2111000	TOPSOIL EXCAVATION	CU YD	12,765.000 X				
X2130010	EXPLOR TRENCH SPL	FOOT	2,500.000 X				

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
X2502019	SEEDING CL 4B SPL	ACRE	0.250 X				
X2800500	INLET PROTECTION SPL	EACH	84.000 X				
X4021000	TEMP ACCESS- PRIV ENT	EACH	3.000 X				
X4022000	TEMP ACCESS- COM ENT	EACH	5.000 X				
X4400220	CURB REM & REPLACMT	FOOT	2,588.000 X				
X5610004	D I WTR MN FITTINGS	POUND	4,580.000 X				
X5610651	ABAN EX WM FILL CLSM	FOOT	2,330.000 X				
X5610700	WATER MAIN REMOVAL	FOOT	600.000 X				
X5611106	DI WM CL52 POLY EN 6	FOOT	21.000 X				
X5611112	DI WM CL52 POLY EN 12	FOOT	1,682.000 X				
X6011705	PIPE DRAINS 6 SPL	FOOT	86.000 X				
X6020096	MH TA 6D W/2 T1FCL RP	EACH	2.000 X				
X6024875	TEMPORARY INLET	EACH	7.000 X				
X6026622	VV REMOVED	EACH	3.000 X				
X6026632	VALVE BOX REMOVED	EACH	2.000 X				

FAP 363
 11-00210-04-CH
 DUPAGE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT NUMBER - 63849

ECMS002 DTGECM03 ECMR003 PAGE 3
 RUN DATE - 12/04/14
 RUN TIME - 183121

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
X6028104	TEMP MAN TA 4D T1F OL	EACH	1.000 X	=		=	
X7010216	TRAF CONT & PROT SPL	L SUM	1.000 X	=		=	
X7810300	REC REF PVT MARKER	EACH	161.000 X	=		=	
X8570231	FAC T5 CAB SPL	EACH	1.000 X	=		=	
X8600105	MASTER CONTROLLER SPL	EACH	1.000 X	=		=	
X8620200	UNINTER POWER SUP SPL	EACH	1.000 X	=		=	
X8710024	FOCC62.5/125 MM12SM24	FOOT	2,819.000 X	=		=	
X8900008	TEMP TR SIG INSTAL SP	EACH	1.000 X	=		=	
Z0013797	STAB CONSTR ENTRANCE	SQ YD	800.000 X	=		=	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000 X	=		=	
Z0030850	TEMP INFO SIGNING	SQ FT	285.000 X	=		=	
Z0033046	RE-OPTIMIZE SIG SYS 2	EACH	1.000 X	=		=	
Z0050600	REM RESET ORN FENCE	FOOT	130.000 X	=		=	
Z0056648	SS 1 WAT MN 12	FOOT	50.000 X	=		=	
Z0056650	SS 1 WAT MN 15	FOOT	197.000 X	=		=	

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
Z0056658	SS 1 WAT MN 30	FOOT	351.000 X	=	=	=	=
Z0056668	SS 2 WAT MN 12	FOOT	485.000 X	=	=	=	=
Z0056670	SS 2 WAT MN 18	FOOT	50.000 X	=	=	=	=
Z0056675	SS 2 WAT MN 30	FOOT	150.000 X	=	=	=	=
Z0058000	SAN SEW SPL	FOOT	833.000 X	=	=	=	=
Z0062456	TEMP PAVEMENT	SQ YD	12,184.000 X	=	=	=	=
Z0067700	STEEL CASINGS 20	FOOT	89.000 X	=	=	=	=
Z0073510	TEMP TR SIGNAL TIMING	EACH	1.000 X	=	=	=	=
Z0076600	TRAINEES	hour	1,500.000 X	0.80	=	1,200.00	=
Z0076604	TRAINEES TPG	hour	1,500.000 X	15.00	=	22,500.00	=
20100110	TREE REMOV 6-15	UNIT	459.000 X	=	=	=	=
20100210	TREE REMOV OVER 15	UNIT	72.000 X	=	=	=	=
20100500	TREE REMOV ACRES	ACRE	0.500 X	=	=	=	=
20101000	TEMPORARY FENCE	FOOT	975.000 X	=	=	=	=
20101200	TREE ROOT PRUNING	EACH	15.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
20101400	NITROGEN FERT NUTR	POUND	40.000 X	=			
20101500	PHOSPHORUS FERT NUTR	POUND	40.000 X	=			
20101600	POTASSIUM FERT NUTR	POUND	40.000 X	=			
20101700	SUPPLE WATERING	UNIT	1.400 X	=			
20200100	EARTH EXCAVATION	CU YD	16,860.000 X	=			
20201200	REM & DISP UNS MATL	CU YD	2,725.000 X	=			
20400800	FURNISHED EXCAVATION	CU YD	505.000 X	=			
20800150	TRENCH BACKFILL	CU YD	1,361.000 X	=			
21001000	GEOTECH FAB F/GR STAB	SQ YD	5,591.000 X	=			
21101625	TOPSOIL F & P 6	SQ YD	44,837.000 X	=			
21101695	TOPSOIL F & P 30	SQ YD	742.000 X	=			
21301048	EXPLOR TRENCH 48	FOOT	200.000 X	=			
21301052	EXPLOR TRENCH 52	FOOT	200.000 X	=			
21301060	EXPLOR TRENCH 60	FOOT	200.000 X	=			
21301072	EXPLOR TRENCH 72	FOOT	200.000 X	=			

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
21301084	EXPLOR TRENCH 84	FOOT	200.000 X	=			
25000210	SEEDING CL 2A	ACRE	9.500 X	=			
25000400	NITROGEN FERT NUTR	POUND	860.000 X	=			
25000500	PHOSPHORUS FERT NUTR	POUND	860.000 X	=			
25000600	POTASSIUM FERT NUTR	POUND	860.000 X	=			
25100115	MULCH METHOD 2	ACRE	8.000 X	=			
25100630	EROSION CONTR BLANKET	SQ YD	45,627.000 X	=			
28000250	TEMP EROS CONTR SEED	POUND	810.000 X	=			
28000305	TEMP DITCH CHECKS	FOOT	450.000 X	=			
28000400	PERIMETER EROS BAR	FOOT	3,767.000 X	=			
28000500	INLET & PIPE PROTECT	EACH	11.000 X	=			
28200200	FILTER FABRIC	SQ YD	228.500 X	=			
28500400	ARTICUL BLOCK REV MAT	SQ YD	228.500 X	=			
30300001	AGG SUBGRADE IMPROVE	CU YD	2,725.000 X	=			
30300112	AGG SUBGRADE IMPR 12	SQ YD	22,160.000 X	=			

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
30300116	AGG SUBGRADE IMPR 16	SQ YD	11,125.000	X	=	=	=
31101200	SUB GRAN MAT B 4	SQ YD	1,072.000	X	=	=	=
35102000	AGG BASE CSE B 8	SQ YD	301.000	X	=	=	=
35501312	HMA BASE CSE 7	SQ YD	10,997.000	X	=	=	=
35501313	HMA BASE CSE 7 1/4	SQ YD	2,030.000	X	=	=	=
35501316	HMA BASE CSE 8	SQ YD	476.000	X	=	=	=
35600704	HMA BC WID 7	SQ YD	391.000	X	=	=	=
35600705	HMA BC WID 7 1/4	SQ YD	223.000	X	=	=	=
40600275	BIT MATLS PR CT	POUND	42,198.000	X	=	=	=
40600400	MIX CR JTS FLANGEWYS	TON	61.000	X	=	=	=
40600525	LEV BIND HM N50	TON	100.000	X	=	=	=
40600982	HMA SURF REM BUTT JT	SQ YD	62.000	X	=	=	=
40603090	HMA BC IL-19.0 N90	TON	6,541.000	X	=	=	=
40603240	P HMA BC IL19.0 N90	TON	3,852.000	X	=	=	=
40603335	HMA SC "D" N50	TON	89.000	X	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
40603595	P HMA SC "F" N90	TON	3,001.000 X				
40701906	HMA PAVT FD 11 1/4	SQ YD	5,983.000 X				
42000416	PCC PVT 9 3/4 JOINTD	SQ YD	532.000 X				
42000501	PCC PVT 10 JOINTED	SQ YD	6,505.000 X				
42001300	PROTECTIVE COAT	SQ YD	16,284.000 X				
42300400	PCC DRIVEWAY PAVT 8	SQ YD	473.000 X				
42400200	PC CONC SIDEWALK 5	SQ FT	1,233.500 X				
44000100	PAVEMENT REM	SQ YD	11,010.000 X				
44000165	HMA SURF REM 4	SQ YD	14,624.000 X				
44000200	DRIVE PAVEMENT REM	SQ YD	1,346.000 X				
44000500	COMB CURB GUTTER REM	FOOT	7,265.000 X				
44000600	SIDEWALK REM	SQ FT	1,233.000 X				
44003100	MEDIAN REMOVAL	SQ FT	28,330.000 X				
44004250	PAVED SHLD REMOVAL	SQ YD	2,285.000 X				
44201349	CL C PATCH T1 10	SQ YD	151.000 X				

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
44201353	CL C PATCH T2 10	SQ YD	185.000	X	=	=	=
44201357	CL C PATCH T3 10	SQ YD	210.000	X	=	=	=
44201359	CL C PATCH T4 10	SQ YD	195.000	X	=	=	=
44201811	CL D PATCH T1 14	SQ YD	33.000	X	=	=	=
44201815	CL D PATCH T2 14	SQ YD	33.000	X	=	=	=
44201819	CL D PATCH T3 14	SQ YD	50.000	X	=	=	=
44201821	CL D PATCH T4 14	SQ YD	72.000	X	=	=	=
44300200	STRIP REF CR CON TR	FOOT	7,510.000	X	=	=	=
48203035	HMA SHOULDERS 9 1/2	SQ YD	1,850.000	X	=	=	=
50104400	CONC HDWL REM	EACH	5.000	X	=	=	=
50105220	PIPE CULVERT REMOV	FOOT	135.000	X	=	=	=
54213657	PRC FLAR END SEC 12	EACH	10.000	X	=	=	=
54213660	PRC FLAR END SEC 15	EACH	3.000	X	=	=	=
54213663	PRC FLAR END SEC 18	EACH	2.000	X	=	=	=
54213669	PRC FLAR END SEC 24	EACH	1.000	X	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
54260311	TRAVERS PIPE GRATE	FOOT	1,498.000 X	=			
54261330	CONC ES 542001 30 1:3	EACH	2.000 X	=			
54263342	CONC ES 542011 42 1:3	EACH	1.000 X	=			
54263430	CONC ES 542011 30 1:4	EACH	2.000 X	=			
54264430	CONC ES 542016 30 1:4	EACH	4.000 X	=			
550A0050	STORM SEW CL A 1 12	FOOT	900.000 X	=			
550A0070	STORM SEW CL A 1 15	FOOT	772.000 X	=			
550A0090	STORM SEW CL A 1 18	FOOT	70.000 X	=			
550A0120	STORM SEW CL A 1 24	FOOT	27.000 X	=			
550A0140	STORM SEW CL A 1 30	FOOT	131.000 X	=			
550A0160	STORM SEW CL A 1 36	FOOT	85.000 X	=			
550A0340	STORM SEW CL A 2 12	FOOT	879.000 X	=			
550A0360	STORM SEW CL A 2 15	FOOT	146.000 X	=			
550A0380	STORM SEW CL A 2 18	FOOT	115.000 X	=			
550A0410	STORM SEW CL A 2 24	FOOT	131.000 X	=			

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
550A0430	STORM SEW CL A 2 30	FOOT	692.000	X	=		
550A0660	STORM SEW CL A 3 15	FOOT	1,094.000	X	=		
550A4300	SS CL A 1 EQRS 30	FOOT	187.000	X	=		
550A4700	SS CL A 1 EQRS 42	FOOT	417.000	X	=		
55100300	STORM SEWER REM 8	FOOT	97.000	X	=		
55100500	STORM SEWER REM 12	FOOT	743.000	X	=		
55101200	STORM SEWER REM 24	FOOT	138.000	X	=		
56108900	TAP VALVE & SLEEVE 8	EACH	1.000	X	=		
56109100	TAP VALVE & SLEEVE 12	EACH	1.000	X	=		
56109200	TAP VALVE & SLEEVE 16	EACH	1.000	X	=		
56200300	WATER SERV LINE 1	FOOT	5.000	X	=		
56200700	WATER SERV LINE 2	FOOT	5.000	X	=		
56400820	FIRE HYD W/AUX V & VB	EACH	5.000	X	=		
60108200	PIPE UNDERDRAIN 6 SP	FOOT	217.000	X	=		
60109520	P UNDR FAB LINE TR 6	FOOT	5,467.000	X	=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60201110	CB TA 4 DIA T11V F&G	EACH	3.000 X	=	=	=	=
60201330	CB TA 4 DIA T23F&G	EACH	9.000 X	=	=	=	=
60201340	CB TA 4 DIA T24F&G	EACH	10.000 X	=	=	=	=
60205030	CB TA 5 DIA T23F&G	EACH	2.000 X	=	=	=	=
60205040	CB TA 5 DIA T24F&G	EACH	3.000 X	=	=	=	=
60207915	CB TC T11V F&G	EACH	3.000 X	=	=	=	=
60208240	CB TC T24F&G	EACH	15.000 X	=	=	=	=
60218400	MAN TA 4 DIA T1F CL	EACH	21.000 X	=	=	=	=
60221100	MAN TA 5 DIA T1F CL	EACH	3.000 X	=	=	=	=
60223800	MAN TA 6 DIA T1F CL	EACH	1.000 X	=	=	=	=
60224459	MAN TA 8 DIA T1F CL	EACH	3.000 X	=	=	=	=
60224469	MAN TA 9 DIA T1F CL	EACH	1.000 X	=	=	=	=
60237460	INLETS TA T23F&G	EACH	15.000 X	=	=	=	=
60237470	INLETS TA T24F&G	EACH	1.000 X	=	=	=	=
60248900	VV TA 5 DIA T1F CL	EACH	6.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60250500	CB ADJ NEW T1F CL	EACH	1.000 X	=	-	=	-
60255500	MAN ADJUST	EACH	9.000 X	=	-	=	-
60257900	MAN RECONST	EACH	3.000 X	=	-	=	-
60260100	INLETS ADJUST	EACH	16.000 X	=	-	=	-
60500040	REMOV MANHOLES	EACH	3.000 X	=	-	=	-
60500050	REMOV CATCH BAS	EACH	4.000 X	=	-	=	-
60500060	REMOV INLETS	EACH	6.000 X	=	-	=	-
60600095	CLASS SI CONC OUTLET	CU YD	20.000 X	=	-	=	-
60603800	COMB CC&G TB6.12	FOOT	413.000 X	=	-	=	-
60604400	COMB CC&G TB6.18	FOOT	2,565.000 X	=	-	=	-
60605900	COMB CC&G TB9.12	FOOT	1,092.000 X	=	-	=	-
60608300	COMB CC&G TM2.12	FOOT	216.000 X	=	-	=	-
60608562	COMB CC&G TM4.12	FOOT	584.000 X	=	-	=	-
60608582	COMB CC&G TM4.24	FOOT	5,392.000 X	=	-	=	-
60608600	COMB CC&G TM6.06	FOOT	217.000 X	=	-	=	-

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60610400	COMB CC&G TM6.24	FOOT	368.000	X	=		
60611811	COMB CC&G TM MOD	FOOT	1,819.000	X	=		
60618320	CONC MEDIAN SURF 6	SQ FT	32,910.000	X	=		
60620800	CONC MED TSB9.12	SQ FT	1,880.000	X	=		
60622305	CONC MED TSM4.12	SQ FT	3,870.000	X	=		
66600105	FUR ERECT ROW MARKERS	EACH	75.000	X	=		
66900200	NON SPL WASTE DISPOS	CU YD	6,000.000	X	=		
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000	X	=		
66900530	SOIL DISPOSAL ANALY	EACH	6.000	X	=		
67000400	ENGR FIELD OFFICE A	CAL MO	18.000	X	=		
67100100	MOBILIZATION	L SUM	1.000	X	=		
70106800	CHANGEABLE MESSAGE SN	CAL MO	72.000	X	=		
70300100	SHORT TERM PAVT MKING	FOOT	18,000.000	X	=		
70300510	PAVT MARK TAPE T3 L&S	SQ FT	2,204.000	X	=		
70300520	PAVT MARK TAPE T3 4	FOOT	110,622.000	X	=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
70300540	PAVT MARK TAPE T3 6	FOOT	5,119.000 X	=			
70300550	PAVT MARK TAPE T3 8	FOOT	3,435.000 X	=			
70300560	PAVT MARK TAPE T3 12	FOOT	693.000 X	=			
70300570	PAVT MARK TAPE T3 24	FOOT	957.000 X	=			
70301000	WORK ZONE PAVT MK REM	SQ FT	52,533.000 X	=			
70400100	TEMP CONC BARRIER	FOOT	1,675.000 X	=			
70400200	REL TEMP CONC BARRIER	FOOT	2,150.000 X	=			
70600250	IMP ATTN TEMP NRD TL3	EACH	4.000 X	=			
70600255	IMP ATTN TEMP FRN TL2	EACH	4.000 X	=			
70600260	IMP ATTN TEMP FRN TL3	EACH	2.000 X	=			
70600322	IMP ATTN REL FRN TL2	EACH	1.000 X	=			
70600332	IMP ATTN REL FRN TL3	EACH	1.000 X	=			
72000100	SIGN PANEL T1	SQ FT	565.000 X	=			
72400100	REMOV SIN PAN ASSY TA	EACH	15.000 X	=			
72400200	REMOV SIN PAN ASSY TB	EACH	8.000 X	=			

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
72800100	TELES STL SIN SUPPORT	FOOT	481.000 X	=	=	=	=
73000100	WOOD SIN SUPPORT	FOOT	182.000 X	=	=	=	=
78000100	THPL PVT MK LTR & SYM	SQ FT	861.000 X	=	=	=	=
78000200	THPL PVT MK LINE 4	FOOT	32,762.000 X	=	=	=	=
78000400	THPL PVT MK LINE 6	FOOT	3,136.000 X	=	=	=	=
78000500	THPL PVT MK LINE 8	FOOT	1,698.000 X	=	=	=	=
78000600	THPL PVT MK LINE 12	FOOT	2,418.000 X	=	=	=	=
78000650	THPL PVT MK LINE 24	FOOT	202.000 X	=	=	=	=
78008200	POLYUREA PM T1 LTR-SY	SQ FT	302.000 X	=	=	=	=
78008210	POLYUREA PM T1 LN 4	FOOT	3,575.000 X	=	=	=	=
78008230	POLYUREA PM T1 LN 6	FOOT	473.000 X	=	=	=	=
78008240	POLYUREA PM T1 LN 8	FOOT	193.000 X	=	=	=	=
78008250	POLYUREA PM T1 LN 12	FOOT	233.000 X	=	=	=	=
78008270	POLYUREA PM T1 LN 24	FOOT	69.000 X	=	=	=	=
78100100	RAISED REFL PAVT MKR	EACH	152.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
78200530	BAR WALL MKR TYPE C	EACH	134.000 X	=			
78300100	PAVT MARKING REMOVAL	SQ FT	5,521.000 X	=			
80500020	SERV INSTALL POLE MT	EACH	1.000 X	=			
81028200	UNDRGRD C GALVS 2	FOOT	2,630.000 X	=			
81028210	UNDRGRD C GALVS 2 1/2	FOOT	152.000 X	=			
81028220	UNDRGRD C GALVS 3	FOOT	54.000 X	=			
81028240	UNDRGRD C GALVS 4	FOOT	751.000 X	=			
81400100	HANDHOLE	EACH	8.000 X	=			
81400200	HD HANDHOLE	EACH	4.000 X	=			
81400300	DBL HANDHOLE	EACH	3.000 X	=			
85000200	MAIN EX TR SIG INSTAL	EACH	1.000 X	=			
86400100	TRANSCEIVER - FIB OPT	EACH	1.000 X	=			
87300925	ELCBL C TRACER 14 1C	FOOT	2,793.000 X	=			
87301225	ELCBL C SIGNAL 14 3C	FOOT	1,513.000 X	=			
87301245	ELCBL C SIGNAL 14 5C	FOOT	3,448.000 X	=			

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
87301255	ELCBL C SIGNAL 14 7C	FOOT	2,897.000	X	=		
87301305	ELCBL C LEAD 14 1PR	FOOT	5,642.000	X	=		
87301805	ELCBL C SERV 6 2C	FOOT	88.000	X	=		
87301900	ELCBL C EGRDC 6 1C	FOOT	786.000	X	=		
87502460	TS POST GALVS 12	EACH	1.000	X	=		
87502480	TS POST GALVS 14	EACH	3.000	X	=		
87700270	S MAA & P 46	EACH	1.000	X	=		
87700280	S MAA & P 48	EACH	1.000	X	=		
87702204	S MAA & P DMA 18 & 48	EACH	1.000	X	=		
87702241	S MAA & P DMA 20 & 48	EACH	1.000	X	=		
87800100	CONC FDN TY A	FOOT	16.000	X	=		
87800150	CONC FDN TY C	FOOT	4.000	X	=		
87800415	CONC FDN TY E 36D	FOOT	30.000	X	=		
87800420	CONC FDN TY E 42D	FOOT	30.000	X	=		
87900200	DRILL EX HANDHOLE	EACH	1.000	X	=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
88030012	SH LED 1F 1S BM	EACH	1.000 X	=	=	=	=
88030020	SH LED 1F 3S MAM	EACH	9.000 X	=	=	=	=
88030050	SH LED 1F 3S BM	EACH	3.000 X	=	=	=	=
88030110	SH LED 1F 5S MAM	EACH	7.000 X	=	=	=	=
88030220	SH LED 2F 5S BM	EACH	1.000 X	=	=	=	=
88030250	SH LED 2F 1-4 1-5 BM	EACH	1.000 X	=	=	=	=
88200210	TS BACKPLATE LOU ALUM	EACH	16.000 X	=	=	=	=
88500100	INDUCTIVE LOOP DETECT	EACH	18.000 X	=	=	=	=
88600100	DET LOOP T1	FOOT	729.000 X	=	=	=	=
88600700	PREFORM DETECT LOOP	FOOT	219.000 X	=	=	=	=
88700200	LIGHT DETECTOR	EACH	4.000 X	=	=	=	=
88700300	LIGHT DETECTOR AMP	EACH	1.000 X	=	=	=	=
89502300	REM ELCBL FR CON	FOOT	5,612.000 X	=	=	=	=
89502375	REMOV EX TS EQUIP	EACH	1.000 X	=	=	=	=
89502380	REMOV EX HANDHOLE	EACH	13.000 X	=	=	=	=

FAP 363
 11-00210-04-CH
 DUPAGE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT NUMBER - 63849

ECMS002 DTGECM03 ECMR003 PAGE 20
 RUN DATE - 12/04/14
 RUN TIME - 183121

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

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

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for the CPO to void the contract, and may result in the suspension or debarment of the bidder or subcontractor. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

I acknowledge, understand and accept these terms and conditions.

II. ASSURANCES

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

A. Conflicts of Interest

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 State 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 State 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 calendar 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

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. Information concerning the exemption process is available from the Department upon request.

B. Negotiations

Section 50-15. Negotiations.

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.

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

C. Inducements

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 provide a submission to a vendor portal or 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, not making a submission to a vendor portal, or who withholds a bid or submission to a vendor portal in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

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

D. Revolving Door Prohibition

Section 50-30. Revolving door prohibition.

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

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

E. Reporting Anticompetitive Practices

Section 50-40. Reporting anticompetitive practices.

When, for any reason, any vendor, bidder, contractor, CPO, SPO, 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 CPO.

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 or submission to a vendor portal is submitted.

F. Confidentiality

Section 50-45. Confidentiality.

Any CPO, SPO, 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.

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

G. Insider Information

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.

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.

I acknowledge, understand and accept these terms and conditions for the above assurances.

III. CERTIFICATIONS

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

A. Bribery

Section 50-5. Bribery.

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

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

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

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

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

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

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

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

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50-5.

B. Felons

Section 50-10. Felons.

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

(b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code and every vendor's submission to a vendor portal shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

RETURN WITH BID

C. Debt Delinquency

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

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

D. Prohibited Bidders, Contractors and Subcontractors

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

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

E. Section 42 of the Environmental Protection Act

Section 50-14 Environmental Protection Act violations.

The bidder or contractor or subcontractor, respectively, certifies in accordance with Section 50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

F. Educational Loan

Section 3 of the Educational Loan Default Act, 5 ILCS 385/3.

Pursuant to the Educational Loan Default Act no State agency shall contract with an individual for goods or services if that individual is in default on an educational loan.

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

G. Bid-Rigging/Bid Rotating

Section 33E-11 of the Criminal Code of 2012, 720 ILCS 5/3BE-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.

(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.

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.

RETURN WITH BID

H. International Anti-Boycott

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

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

I. Drug Free Workplace

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.

The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace in compliance with the provisions of the Act.

J. Disclosure of Business Operations in Iran

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

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

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

Failure to make the disclosure required by the Code may cause the bid, offer or proposal to be considered not responsive. The disclosure will be considered when evaluating the bid 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 on the attached document.

RETURN WITH BID

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

In accordance with the provisions of Section 30-22 (6) of the 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.**

Additionally, Section 30-22 of the Code requires that the bidder certify that an Illinois office be maintained as the primary place of employment for persons employed for this contract.

NA-FEDERAL

The requirements of these certifications and disclosures are a material part of the contract, and the contractor shall require these certification provisions 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.

RETURN WITH BID

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

Sections 20-160 and 50-37 of the 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 or any other procurement opportunity 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 Code, and that it makes the following certification:

The undersigned bidder 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. If the business entity is required to register, the CPO shall verify that it is in compliance on the date the bid or proposal is due. The CPO shall not accept a bid or proposal if the business entity is not in compliance with the registration requirements.

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 Code. This provision does not apply to Federal-aid contracts.

M. Lobbyist Disclosure

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

- (i) Disclose all costs, fees, compensation, reimbursements, and other remunerations paid or to be paid to the lobbyist related to the contract,
- (ii) Not bill or otherwise cause the State of Illinois to pay for any of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration, and
- (iii) Sign a verification certifying that none of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration were billed to the State.

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

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

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

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

Or

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

Name and address of person: _____
All costs, fees, compensation, reimbursements and other remuneration paid to said person: _____

I acknowledge, understand and accept these terms and conditions for the above certifications.

RETURN 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 bidder further certifies that the Department has received the disclosure forms for each bid.

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

B. Financial Interests and Conflicts of Interest

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

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual 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 individual 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 individual making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

The current annual salary of the Governor is \$177,412.00.

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. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. **The forms must be included with each bid.**

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on Form A must be signed and dated by an individual 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 60% of the annual salary of the Governor? YES ___ NO ___
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the bidding entity's or parent entity's 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 60% of the annual salary of the Governor? YES ___ NO ___

(Note: Only one set of forms needs to be completed per individual 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 an individual that is authorized to execute contracts for your organization. The individual signing can be, but does not have to be, the individual for which the form is being completed. The bidder is responsible for the accuracy of any information provided.

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

RETURN WITH BID

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

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

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

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

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

RETURN WITH BID

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 Section 50-35 of the 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 \$50,000, 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.

The current annual salary of the Governor is \$177,412.00.

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 60% of the annual salary of the Governor. (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 State 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 60% of the annual salary of the Governor provide the name the State agency for which you are employed and your annual salary.

RETURN WITH BID

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, 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 100% of the annual 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 60% of the annual salary of the Governor, 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 two times the salary of the Governor? Yes ___ No ___

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

Yes ___ No ___

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

1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois State 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 60% of the annual salary of the Governor, 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 60% of the annual salary of the Governor, 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 100% of the annual 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 60% of the annual salary of the Governor, 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 two times the salary of the Governor? Yes ___ No ___

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years. Yes ___ No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United 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 ___

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

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government. Yes ___ No ___

RETURN WITH BID

(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 ___

3. Communication Disclosure.

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

Name and address of person(s): _____

RETURN WITH BID

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

Name of person(s): _____

Nature of disclosure: _____

APPLICABLE STATEMENT

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

Completed by: _____
Signature of Individual or Authorized Representative Date

NOT APPLICABLE STATEMENT

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

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

Signature of Authorized Representative Date

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

RETURN WITH BID

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Other Contracts & Financial 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 Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for all bids.

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 this page.

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature of Authorized Representative, Date

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership.

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

Yes No N/A (Form A disclosure(s) established 100% ownership)

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

The following requirements of the Illinois Department of Human Rights Act 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 Title 44, Illinois Administrative Code, Section 750.120. If it is determined that the contract awardee's projections reflect an underutilization of minority persons and/or women in any job classification, it shall be advised in writing of the manner in which it is underutilizing and such awardee shall be considered to be in breach of the contract unless, prior to commencement of work on the contract project, it submits revised satisfactory projections or an acceptable written affirmative action plan to correct such underutilization including a specific timetable geared to the completion stages of the contract.
- (c) The Department of Transportation shall provide to the Department of Human Rights a copy of the contract awardee's Employee Utilization Form, a copy of any required written affirmative action plan, and any written correspondence related thereto. The Department of Human Rights may review and revise any action taken by the Department of Transportation with respect to these requirements.



RETURN WITH BID

Contract No. 63849
DUPAGE County
Section 11-00210-04-CH
Project CMM-4003(136)
Route FAP 363 (Fabyan Parkway)
District 1 Construction Funds

PART I. IDENTIFICATION

Dept. of 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:

TOTAL Workforce Projection for Contract												TABLE B				
JOB CATEGORIES	TOTAL EMPLOYEES		MINORITY EMPLOYEES						TRAINEES				CURRENT EMPLOYEES TO BE ASSIGNED TO CONTRACT			
			BLACK		HISPANIC		*OTHER MINOR.		APPRENTICES		ON THE JOB TRAINEES		TOTAL EMPLOYEES		MINORITY EMPLOYEES	
	M	F	M	F	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																
TOTAL																

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

BC 1256 (Rev. 12/11/07)

Note: See instructions on page 2

RETURN WITH BID

**Contract No. 63849
DUPAGE County
Section 11-00210-04-CH
Project CMM-4003(136)
Route FAP 363 (Fabyan Parkway)
District 1 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 **Illinois 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. 63849
DUPAGE County
Section 11-00210-04-CH
Project CMM-4003(136)
Route FAP 363 (Fabyan Parkway)
District 1 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.



This Annual Proposal Bid Bond shall become effective at 12:01 AM (CDST) on _____ and shall be valid until _____ 11:59 PM (CDST).

KNOW ALL PERSONS BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

as SURETY, and 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 the bid proposal under "Proposal Guaranty" in effect on the date of the 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 may submit bid proposal(s) to the STATE OF ILLINOIS, acting through the Department of Transportation, for various improvements published in the Transportation Bulletin during the effective term indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal(s) of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents; 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 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 has caused this instrument to be signed by its officer _____ day of _____ A.D., _____

In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer _____ day of _____ A.D., _____

(Company Name)

(Company Name)

By _____
(Signature and Title)

By _____
(Signature of Attorney-in-Fact)

Notary for PRINCIPAL

Notary for SURETY

STATE OF _____
COUNTY OF _____

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)

Signed and attested before me on _____ (date)

by _____
(Name of Notary Public)

by _____
(Name of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Seal) _____
(Signature of Notary Public)

(Date Commission Expires)

(Date Commission Expires)

In lieu of completing the above section of the Annual Proposal Bid Bond form, the Principal may file an Electronic Bid Bond. By signing the proposal(s) 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
--------------------------	---------------------	---------------------

This bond may be terminated, at Surety's request, upon giving not less than thirty (30) days prior written notice of the cancellation/termination of the bond. Said written notice shall be issued to the Illinois Department of Transportation, Chief Contracts Official, 2300 South Dirksen Parkway, Springfield, Illinois, 62764, and shall be served in person, by receipted courier delivery or certified or registered mail, return receipt requested. Said notice period shall commence on the first calendar day following the Department's receipt of written cancellation/termination notice. Surety shall remain firmly bound to all obligations herein for proposals submitted prior to the cancellation/termination. Surety shall be released and discharged from any obligation(s) for proposals submitted for any letting or date after the effective date of cancellation/termination.



Return with Bid

Division of Highways
Proposal Bid Bond

Item No. _____

Letting Date _____

KNOW ALL PERSONS BY THESE PRESENTS, That We _____

as PRINCIPAL, and _____

as SURETY, and 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 the bid proposal under "Proposal Guaranty" in effect on the date of the 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; 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 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 has caused this instrument to be signed by its officer _____ day of _____ A.D., _____

In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer _____ day of _____ A.D., _____

(Company Name)

(Company Name)

By _____ (Signature and Title)

By _____ (Signature of Attorney-in-Fact)

Notary for PRINCIPAL

Notary for SURETY

STATE OF _____
COUNTY OF _____

STATE OF _____
COUNTY OF _____

Signed and attested before me on _____ (date)
by _____

Signed and attested before me on _____ (date)
by _____

(Name of Notary Public)

(Name of Notary Public)

(Seal) _____ (Signature of Notary Public)

(Seal) _____ (Signature of Notary Public)

(Date Commission Expires)

(Date Commission Expires)

In lieu of completing the above section of the Proposal Bid Bond form, the Principal may file an Electronic Bid Bond. By signing the proposal 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 _____

(1) Policy

It is public policy that disadvantageded businesses as defined in 49 CFR Part 26 and the Special Provision shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal or State funds. Consequently the requirements of 49 CFR Part 26 apply to this contract.

(2) Obligation

The contractor agrees to ensure that disadvantageded businesses as defined in 49 CFR Part 26 and the Special Provision have the maximum opportunity to participate in the performance of contracts or subcontracts financed in whole or in part with Federal or State funds. The contractor shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 and the Special Provision to ensure that said businesses have the maximum opportunity to compete for and perform under this contract. The contractor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of contracts.

(3) Project and Bid Identification

Complete the following information concerning the project and bid:

Route _____	Total Bid _____
Section _____	Contract DBE Goal _____ (Percent) _____ (Dollar Amount)
Project _____	
County _____	
Letting Date _____	
Contract No. _____	
Letting Item No. _____	

(4) Assurance

I, acting in my capacity as an officer of the undersigned bidder (or bidders if a joint venture), hereby assure the Department that on this project my company : (check one)

Meets or exceeds contract award goals and has provided documented participation as follows:
Disadvantaged Business Participation _____ percent

Attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

Failed to meet contract award goals and has included good faith effort documentation to meet the goals and that my company has provided participation as follows:

Disadvantaged Business Participation _____ percent

The contract goals should be accordingly modified or waived. Attached is all information required by the Special Provision in support of this request including good faith effort. Also attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

Company

By _____

Title _____

Date _____

The "as read" Low Bidder is required to comply with the Special Provision.

Submit only one utilization plan for each project. The utilization plan shall be submitted in accordance with the special provision.

Bureau of Small Business Enterprises **Local Let Projects**
2300 South Dirksen Parkway Submit forms to the
Springfield, Illinois 62764 Local Agency

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the purpose as outlined under State and Federal law. Disclosure of this information is **REQUIRED**. Failure to provide any information will result in the contract not being awarded. This form has been approved by the State Forms Manager Center.



Subcontractor Registration Number _____

Letting _____

Participation Statement

Item No. _____

(1) Instructions

Contract No. _____

This form must be completed for each disadvantaged business participating in the Utilization Plan. This form shall be submitted in accordance with the special provision and will be attached to the Utilization Plan form. If additional space is needed complete an additional form for the firm.

(2) Work:

Please indicate: J/V _____ Manufacturer _____ Supplier (60%) _____ Subcontractor _____ Trucking _____

Pay Item No.	Description	Quantity	Unit Price	Total
Total				

(3) Partial Payment Items (For any of the above items which are partial pay items)

Description must be sufficient to determine a Commercially Useful Function, specifically describe the work and subcontract dollar amount:

(4) Commitment

When a DBE is to be a second-tier subcontractor, or if the first-tier DBE subcontractor is going to be subcontracting a portion of its subcontract, it must be clearly indicated on the DBE Participation Statement, and the details of the transaction fully explained.

In the event a DBE subcontractor second-tiers a portion of its subcontract to one or more subcontractors during the work of a contract, the prime must submit a DBE Participation Statement, with the details of the transaction(s) fully explained.

The undersigned certify that the information included herein is true and correct, and that the DBE firm listed below has agreed to perform a commercially useful function in the work of the contract item(s) listed above and to execute a contract with the prime contractor or 1st Tier subcontractor. The undersigned further understand that no changes to this statement may be made without prior approval from the Department's Bureau of Small Business Enterprises and that complete and accurate information regarding actual work performed on this project and the payment therefore must be provided to the Department.

Signature for Contractor __ 1st Tier __ 2nd Tier

Signature for DBE Firm __ 1st Tier __ 2nd Tier

Title _____

Title _____

Date _____

Date _____

Contact Person _____

Contact Person _____

Phone _____

Phone _____

Firm Name _____

Firm Name _____

Address _____

Address _____

City/State/Zip _____

City/State/Zip _____

E _____

WC _____

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. 63849
DUPAGE County
Section 11-00210-04-CH
Project CMM-4003(136)
Route FAP 363 (Fabyan Parkway)
District 1 Construction Funds**



Illinois Department of Transportation

SUBCONTRACTOR DOCUMENTATION

Public Acts 96-0795, 96-0920, and 97-0895 enacted substantial changes to the provisions of the Code (30 ILCS 500). Among the changes are provisions affecting subcontractors. The Contractor awarded this contract will be required as a material condition of the contract to implement and enforce the contract requirements applicable to subcontractors that entered into a contractual agreement with a total value of \$50,000 or more with a person or entity who has a contract subject to the Code and approved in accordance with article 108.01 of the Standard Specifications for Road and Bridge Construction.

If the Contractor seeks approval of subcontractors to perform a portion of the work, and approval is granted by the Department, the Contractor shall provide a copy of the subcontract to the Illinois Department of Transportation's CPO upon request within 15 calendar days after execution of the subcontract.

Financial disclosures required pursuant to Sec. 50-35 of the Code must be submitted for all applicable subcontractors. The subcontract shall contain the certifications required to be made by subcontractors pursuant to Article 50 of the Code. This Notice to Bidders includes a document incorporating all required subcontractor certifications and disclosures for use by the Contractor in compliance with this mandate. The document is entitled State Required Ethical Standards Governing Subcontractors.

RETURN WITH SUBCONTRACT

STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

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

The certifications hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed should the Department approve the subcontractor. The CPO may terminate or void the contract approval if it is later determined that the bidder or subcontractor rendered a false or erroneous certification. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

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

A. Bribery

Section 50-5. Bribery.

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

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

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

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

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

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract to which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 2012.

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

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

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50-5.

B. Felons

Section 50-10. Felons.

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

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

RETURN WITH SUBCONTRACT

C. Debt Delinquency

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

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

D. Prohibited Bidders, Contractors and Subcontractors

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

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

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

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

_____ Name of Subcontracting Company		
_____ Authorized Officer	_____ Date	

RETURN WITH SUBCONTRACT
SUBCONTRACTOR DISCLOSURES

I. DISCLOSURES

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

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

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, shall be accompanied by disclosure of the financial interests of the subcontractor. This disclosed information for the subcontractor, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the Prime Contractor's contract. Furthermore, pursuant to this Section, the Procurement Policy Board may recommend to allow or void a contract or subcontract based on a potential conflict of interest.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the subcontracting entity or its parent entity, whichever is less, unless the subcontractor is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual 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 individual 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 individual making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

The current annual salary of the Governor is \$177,412.00.

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

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. **The forms must be included with each bid.**

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the subcontractor is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual or entity holding any ownership share that is in excess of 5%. If a subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the **NOT APPLICABLE STATEMENT** on the second page of Form A must be signed and dated by an individual that is authorized to execute contracts for the subcontracting company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES ___ NO ___
3. Does anyone in your organization receive more than 60% of the annual salary of the Governor of the subcontracting entity's or parent entity's distributive income? YES ___ NO ___

(Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.)

4. Does anyone in your organization receive greater than 5% of the subcontracting entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES ___ NO ___

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

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

If the answer to each of the above questions is "NO", then the **NOT APPLICABLE STATEMENT** on page 2 of Form A must be signed and dated by an individual that is authorized to execute contracts for your company.

RETURN WITH SUBCONTRACT

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

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

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

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

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

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

Disclosure of the information contained in this Form is required by Section 50-35 of the Code (30 ILCS 500). Subcontractors desiring to enter into a subcontract of a State of Illinois contract must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, 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.**

The current annual salary of the Governor is \$177,412.00.

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the SUBCONTRACTOR (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than 60% of the annual salary of the Governor. **(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 State 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 60% of the annual salary of the Governor, provide the name the State agency for which you are employed and your annual salary. _____

RETURN WITH SUBCONTRACT

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, 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 100% of the annual 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 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor?
Yes ___ No ___

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

Yes ___ No ___

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

1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois State 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 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____

3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, 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 100% of the annual 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 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor?
Yes ___ No ___

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years.
Yes ___ No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter.
Yes ___ No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years.
Yes ___ No ___

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

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government.
Yes ___ No ___

RETURN WITH SUBCONTRACT

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

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

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

3 Communication Disclosure.

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

Name and address of person(s): _____

RETURN WITH SUBCONTRACT

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

Name of person(s): _____

Nature of disclosure: _____

APPLICABLE STATEMENT

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

Completed by: _____ Date _____
Signature of Individual or Authorized Officer

NOT APPLICABLE STATEMENT

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

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

_____ Date _____
Signature of Authorized Officer

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B
Subcontractor: Other Contracts & Financial Related Information Disclosure

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

Disclosure of the information contained in this Form is required by Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file.

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature box with fields for Signature of Authorized Officer and Date

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

Yes No N/A (Form A disclosure(s) established 100% ownership)



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. Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). Paper-based bids are to be submitted to the Chief Procurement Officer for the Department of Transportation in care of the Chief Contracts Official at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 a.m. January 30, 2015. 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 10:00 a.m.
- 2. DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. 63849
DUPAGE County
Section 11-00210-04-CH
Project CMM-4003(136)
Route FAP 363 (Fabyan Parkway)
District 1 Construction Funds**

Reconstruct the intersection of Fabyan Parkway at Roosevelt Road; pavement widening, resurfacing traffic signal improvements, storm sewer, curb & gutter, sidewalks and landscaping. Project is located in the City of West Chicago.

- 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

Erica J. Borggren,
Acting Secretary

**INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS**

Adopted January 1, 2015

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS, frequently used RECURRING SPECIAL PROVISIONS, and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-12) (Revised 1-1-15)

SUPPLEMENTAL SPECIFICATIONS

<u>Std. Spec. Sec.</u>	<u>Page No.</u>
101 Definition of Terms	1
102 Advertisement, Bidding, Award, and Contract Execution	2
105 Control of Work	3
106 Control of Materials	5
107 Legal Regulations and Responsibility to Public	6
108 Prosecution and Progress	14
109 Measurement and Payment	15
202 Earth and Rock Excavation	17
211 Topsoil and Compost	19
250 Seeding	20
253 Planting Woody Plants	21
280 Temporary Erosion and Sediment Control	23
312 Stabilized Subbase	24
406 Hot-Mix Asphalt Binder and Surface Course	25
407 Hot-Mix Asphalt Pavement (Full-Depth)	28
420 Portland Cement Concrete Pavement	32
424 Portland Cement Concrete Sidewalk	34
440 Removal of Existing Pavement and Appurtenances	35
502 Excavation for Structures	36
503 Concrete Structures	37
504 Precast Concrete Structures	40
506 Cleaning and Painting New Steel Structures	41
512 Piling	42
516 Drilled Shafts	43
521 Bearings	44
540 Box Culverts	45
588 Bridge Relief Joint System	46
589 Elastic Joint Sealer	48
602 Catch Basin, Manhole, Inlet, Drainage Structure, and Valve Vault Construction, Adjustment, and Reconstruction	49
603 Adjusting Frames and Grates of Drainage and Utility Structures	50
606 Concrete Gutter, Curb, Median, and Paved Ditch	52
610 Shoulder Inlets with Curb	53
639 Precast Prestressed Concrete Sight Screen	54
642 Shoulder Rumble Strips	55
643 Impact Attenuators	56
644 High Tension Cable Median Barrier	58
669 Removal and Disposal of Regulated Substances	60
670 Engineer's Field Office and Laboratory	64

<u>Std. Spec. Sec.</u>	<u>Page No.</u>
701 Work Zone Traffic Control and Protection	65
706 Impact Attenuators, Temporary	68
707 Movable Traffic Barrier	71
708 Temporary Water Filled Barrier	73
730 Wood Sign Support	75
780 Pavement Striping	76
816 Unit Duct	81
836 Pole Foundation	82
860 Master Controller	83
1001 Cement	84
1003 Fine Aggregates	85
1004 Coarse Aggregates	87
1006 Metals	91
1011 Mineral Filler	93
1017 Packaged, Dry, Combined Materials for Mortar	94
1018 Packaged Rapid Hardening Mortar or Concrete	95
1019 Controlled Low-Strength Material (CLSM)	96
1020 Portland Cement Concrete	97
1024 Grout and Nonshrink Grout	136
1030 Hot-Mix Asphalt	137
1040 Drain Pipe, Tile, Drainage Mat, and Wall Drain	142
1042 Precast Concrete Products	143
1069 Pole and Tower	144
1070 Foundation and Breakaway Devices	145
1073 Controller	146
1081 Materials for Planting	147
1082 Preformed Bearing Pads	148
1083 Elastomeric Bearings	149
1088 Wireway and Conduit System	150
1095 Pavement Markings	152
1101 General Equipment	155
1102 Hot-Mix Asphalt Equipment	157
1103 Portland Cement Concrete Equipment	159
1105 Pavement Marking Equipment	160
1106 Work Zone Traffic Control Devices	161

RECURRING SPECIAL PROVISIONS

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

<u>CHECK SHEET #</u>	<u>PAGE NO.</u>
1 X Additional State Requirements for Federal-Aid Construction Contracts	163
2 X Subletting of Contracts (Federal-Aid Contracts)	166
3 X EEO	167
4 Specific EEO Responsibilities Non Federal-Aid Contracts	177
5 Required Provisions - State Contracts	182
6 Asbestos Bearing Pad Removal	188
7 Asbestos Waterproofing Membrane and Asbestos HMA Surface Removal	189
8 Temporary Stream Crossings and In-Stream Work Pads	190
9 Construction Layout Stakes Except for Bridges	191
10 X Construction Layout Stakes	194
11 Use of Geotextile Fabric for Railroad Crossing	197
12 Subsealing of Concrete Pavements	199
13 Hot-Mix Asphalt Surface Correction	203
14 X Pavement and Shoulder Resurfacing	205
15 Reserved	206
16 Patching with Hot-Mix Asphalt Overlay Removal	207
17 Polymer Concrete	208
18 PVC Pipeliner	210
19 X Pipe Underdrains	211
20 X Guardrail and Barrier Wall Delineation	212
21 Bicycle Racks	216
22 Reserved	218
23 Temporary Portable Bridge Traffic Signals	219
24 Work Zone Public Information Signs	221
25 Nighttime Inspection of Roadway Lighting	222
26 English Substitution of Metric Bolts	223
27 English Substitution of Metric Reinforcement Bars	224
28 Calcium Chloride Accelerator for Portland Cement Concrete	225
29 Reserved	226
30 Quality Control of Concrete Mixtures at the Plant	227
31 X Quality Control/Quality Assurance of Concrete Mixtures	235
32 Digital Terrain Modeling for Earthwork Calculations	251
33 Pavement Marking Removal	253
34 Preventive Maintenance – Bituminous Surface Treatment	254
35 Preventive Maintenance – Cape Seal	260
36 Preventive Maintenance – Micro-Surfacing	275
37 Preventive Maintenance – Slurry Seal	286
38 Temporary Raised Pavement Markers	296
39 Restoring Bridge Approach Pavements Using High-Density Foam	297

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

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

Table of Contents

<u>CHECK SHEET #</u>	<u>PAGE NO.</u>
LRS 1 Reserved	301
LRS 2 <input type="checkbox"/> Furnished Excavation	302
LRS 3 <input checked="" type="checkbox"/> Work Zone Traffic Control Surveillance	303
LRS 4 <input type="checkbox"/> Flaggers in Work Zones	304
LRS 5 <input type="checkbox"/> Contract Claims	305
LRS 6 <input type="checkbox"/> Bidding Requirements and Conditions for Contract Proposals	306
LRS 7 <input type="checkbox"/> Bidding Requirements and Conditions for Material Proposals	312
LRS 8 Reserved	318
LRS 9 <input type="checkbox"/> Bituminous Surface Treatments	319
LRS 10 Reserved	320
LRS 11 <input type="checkbox"/> Employment Practices	321
LRS 12 <input type="checkbox"/> Wages of Employees on Public Works	323
LRS 13 <input type="checkbox"/> Selection of Labor	325
LRS 14 <input type="checkbox"/> Paving Brick and Concrete Paver Pavements and Sidewalks	326
LRS 15 <input type="checkbox"/> Partial Payments	329
LRS 16 <input type="checkbox"/> Protests on Local Lettings	330
LRS 17 <input type="checkbox"/> Substance Abuse Prevention Program.....	331
LRS 18 <input type="checkbox"/> Multigrade Cold Mix Asphalt	332

TABLE OF CONTENTS

SPECIAL PROVISIONS	1
LOCATION OF PROJECT	1
DESCRIPTION OF PROJECT	1
MAINTENANCE OF ROADWAYS	2
STATUS OF UTILITIES TO BE ADJUSTED	3
PUBLIC CONVENIENCE AND SAFETY (DIST 1).....	7
COMPLETION DATE PLUS WORKING DAYS	8
PROTECTION OF EXISTING TREES.....	9
EROSION CONTROL BLANKET.....	13
TEMPORARY DITCH CHECKS	14
AGGREGATE SUBGRADE IMPROVEMENT (D-1)	15
TRAVERSABLE PIPE GRATE	18
CONCRETE END SECTION	19
COMBINATION CONCRETE CURB AND GUTTER, TYPE M (MODIFIED).....	20
PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE.....	21
SEEDING (SPECIAL)	22
FILL EXISTING STORM SEWERS.....	24
WASHOUT BASIN.....	25
DEWATERING.....	26
TOPSOIL EXCAVATION	28
EXPLORATION TRENCH, SPECIAL	29
SEEDING, CLASS 4B (SPECIAL)	30
INLET PROTECTION, SPECIAL	32
TEMPORARY ACCESS.....	33
PIPE DRAINS, 6" (SPECIAL).....	35
MANHOLES, TYPE A, 6'-DIAMETER, WITH 2 TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE.....	36
TEMPORARY INLETS AND MANHOLES.....	37
TRAFFIC CONTROL PLAN.....	38
TRAFFIC CONTROL AND PROTECTION (ARTERIALS).....	40
RECESSED REFLECTIVE PAVEMENT MARKERS.....	41
STABILIZED CONSTRUCTION ENTRANCE.....	42
TEMPORARY INFORMATION SIGNING	44
REMOVE AND RESET ORNAMENTAL FENCE.....	46
STORM SEWERS, WATER MAIN QUALITY PIPE	47
TEMPORARY PAVEMENT.....	48
ADJUSTMENTS AND RECONSTRUCTIONS.....	50
COARSE AGGREGATE FOR BACKFILL, TRENCH BACKFILL AND BEDDING (D-1).....	51
DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (DISTRICT 1)	52
HOT-MIX ASPHALT BINDER AND SURFACE COURSE	54
HMA MIXTURE DESIGN REQUIREMENTS (D-1)	55
GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D-1)	70
RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D-1).....	72
SLIPFORM PAVING (D-1)	83
EMBANKMENT II.....	84
TRAFFIC SIGNAL SPECIFICATIONS.....	85
REMOVE EXISTING HANDHOLE.....	144

EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C.....	145
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL.....	146
MASTER CONTROLLER (SPECIAL).....	147
TEMPORARY TRAFFIC SIGNAL INSTALLATION (SPECIAL).....	148
WATER MAIN AND SANITARY SEWER SPECIFICATIONS	153
DUCTILE IRON WATER MAIN.....	153
WATER MAIN FITTINGS.....	156
TRENCH BACKFILL, SPECIAL.....	157
STEEL CASINGS.....	158
TAPPING VALVES AND SLEEVES	160
VALVE VAULTS.....	162
FIRE HYDRANTS WITH AUXILIARY VALVE AND VALVE BOX.....	163
WATER SERVICE LINE	164
REMOVE FIRE HYDRANT AND VALVE ASSEMBLY	166
WATER MAIN REMOVAL.....	167
VALVE VAULTS TO BE REMOVED.....	168
VALVE BOX REMOVAL	169
ABANDON EXISTING WATER MAIN, FILL WITH CLSM	170
SANITARY SEWER, SPECIAL.....	171
<i>HMA- QUALITY CORRECTION (BMPR)</i>	173
PSI SPECIFICATIONS	174
IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING	179
SWPPP	181
CITY OF WEST CHICAGO PUBLIC IMPROVEMENT MATERIALS LIST	189
PSI FABYAN ANALYTIC REPORTS	196
PSI IL-38 ANALYTIC REPORTS	205
IEPA LPC-663 FORMS	244

INDEX LOCAL ROADS AND STREETS SPECIAL PROVISIONS

<u>LR #</u>	<u>Pg #</u>	<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
LR SD12		<input type="checkbox"/> Slab Movement Detection Device	Nov. 11, 1984	Jan. 1, 2007
LR SD13		<input type="checkbox"/> Required Cold Milled Surface Texture	Nov. 1, 1987	Jan. 1, 2007
LR SD406		<input type="checkbox"/> RESCINDED		
LR 102-2		<input type="checkbox"/> Bidding Requirements and Conditions for Contract Proposals	Jan. 1, 2001	Jan. 1, 2014
LR 105	254	<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 107-4	257	<input checked="" type="checkbox"/> Insurance	Feb. 1, 2007	Aug. 1, 2007
LR 107-7		<input type="checkbox"/> Wages of Employees on Public Works	Jan. 1, 1999	Jan. 1, 2014
LR 108		<input type="checkbox"/> Combination Bids	Jan. 1, 1994	Mar. 1, 2005
LR 109		<input type="checkbox"/> Equipment Rental Rates	Jan. 1, 2012	
LR 212		<input type="checkbox"/> Shaping Roadway	Aug. 1, 1969	Jan. 1, 2002
LR 355-1		<input type="checkbox"/> Bituminous Stabilized Base Course, Road Mix or Traveling Plant Mix	Oct. 1, 1973	Jan. 1, 2007
LR 355-2		<input type="checkbox"/> Bituminous Stabilized Base Course, Plant Mix	Feb. 20, 1963	Jan. 1, 2007
LR 400-1		<input type="checkbox"/> Bituminous Treated Earth Surface	Jan. 1, 2007	Apr. 1, 2012
LR 400-2		<input type="checkbox"/> Bituminous Surface Plant Mix (Class B)	Jan. 1, 2008	
LR 400-3		<input type="checkbox"/> Hot In-Place Recycling (HIR) – Surface Recycling	Jan. 1, 2012	
LR 400-4		<input type="checkbox"/> Full-Depth Reclamation (FDR) with Emulsified Asphalt	Apr. 1, 2012	Jun. 1, 2012
LR 400-5		<input type="checkbox"/> Cold In-Place Recycling (CIR) With Emulsified Asphalt	Apr. 1, 2012	Jun. 1, 2012
LR 400-6		<input type="checkbox"/> Cold In Place Recycling (CIR) with Foamed Asphalt	June 1, 2012	
LR 400-7		<input type="checkbox"/> Full-Depth Reclamation (FDR) with Foamed Asphalt	June 1, 2012	
LR 402		<input type="checkbox"/> Salt Stabilized Surface Course	Feb. 20, 1963	Jan. 1, 2007
LR 403-1		<input type="checkbox"/> Surface Profile Milling of Existing, Recycled or Reclaimed Flexible Pavement	Apr. 1, 2012	Jun. 1, 2012
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
LR 702		<input type="checkbox"/> Construction and Maintenance Signs	Jan. 1, 2004	Jun. 1, 2007
LR 1000-1		<input type="checkbox"/> Cold In-Place Recycling (CIR) and Full Depth Reclamation (FDR) with Emulsified Asphalt Mix Design Procedures	Apr. 1, 2012	Jun. 1, 2012
LR 1000-2		<input type="checkbox"/> Cold In-Place Recycling (CIR) and Full Depth Reclamation (FDR) with Foamed Asphalt Mix Design Procedures	June 1, 2012	
LR 1004		<input type="checkbox"/> Coarse Aggregate for Bituminous Surface Treatment	Jan. 1, 2002	Jan. 1, 2007
LR 1030		<input type="checkbox"/> Growth Curve	Mar. 1, 2008	Jan. 1, 2010
LR 1032-1		<input type="checkbox"/> Emulsified Asphalts	Jan. 1, 2007	Feb. 7, 2008
LR 1102		<input type="checkbox"/> Road Mix or Traveling Plan Mix Equipment	Jan. 1, 2007	

BDE SPECIAL PROVISIONS

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	Jan. 1, 2012
80099		Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2014
80274		Aggregate Subgrade Improvement	April 1, 2012	Jan. 1, 2013
80192		Automated Flagger Assistance Device	Jan. 1, 2008	
80173	258	X Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2013
80241		Bridge Demolition Debris	July 1, 2009	
50261		Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50481		Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50491		Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
50531		Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
* 80310		Coated Galvanized Steel Conduit	Jan. 1, 2013	Jan. 1, 2015
* 80341		Coilable Nonmetallic Conduit	Aug. 1, 2014	Jan. 1, 2015
80198		Completion Date (via calendar days)	April 1, 2008	
80199		Completion Date (via calendar days) Plus Working Days	April 1, 2008	
80293		Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	April 1, 2014
80294		Concrete Box Culverts with Skews ≤ 30 Degrees Regardless of Design Fill and Skews > 30 Degrees with Design Fills > 5 Feet	April 1, 2012	April 1, 2014
80311	261	X Concrete End Sections for Pipe Culverts	Jan. 1, 2013	
80334	263	X Concrete Gutter, Curb, Median, and Paved Ditch	April 1, 2014	Aug. 1, 2014
80277		Concrete Mix Design – Department Provided	Jan. 1, 2012	Jan. 1, 2014
80261	264	X Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
80335	267	X Contract Claims	April 1, 2014	
* 80029	268	X Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Jan. 2, 2015
80265		Friction Aggregate	Jan. 1, 2011	Nov. 1, 2014
80229		Fuel Cost Adjustment	April 1, 2009	July 1, 2009
80329		Glare Screen	Jan. 1, 2014	
80304		Grooving for Recessed Pavement Markings	Nov. 1, 2012	Aug. 1, 2014
80246	279	X Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	April 1, 2012
80322		Hot-Mix Asphalt – Mixture Design Composition and Volumetric Requirements	Nov. 1, 2013	Nov. 1, 2014
80323		Hot-Mix Asphalt – Mixture Design Verification and Production	Nov. 1, 2013	Nov. 1, 2014
80347		Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Nov. 1, 2014	
80348		Hot-Mix Asphalt – Prime Coat	Nov. 1, 2014	
80315		Insertion Lining of Culverts	Jan. 1, 2013	Nov. 1, 2013
* 80351		Light Tower	Jan. 1, 2015	
80336		Longitudinal Joint and Crack Patching	April 1, 2014	
80324	281	X LRFD Pipe Culvert Burial Tables	Nov. 1, 2013	Nov. 1, 2014
80325	301	X LRFD Storm Sewer Burial Tables	Nov. 1, 2013	Nov. 1, 2014
80045		Material Transfer Device	June 15, 1999	Aug. 1, 2014
* 80342	311	X Mechanical Side Tie Bar Inserter	Aug. 1, 2014	Jan. 1, 2015
80165		Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
80337	313	X Paved Shoulder Removal	April 1, 2014	
80349		Pavement Marking Blackout Tape	Nov. 1, 2014	
80298		Pavement Marking Tape Type IV	April 1, 2012	
80254	314	X Pavement Patching	Jan. 1, 2010	
* 80352	315	X Pavement Striping - Symbols	Jan. 1, 2015	
* 80353		Portland Cement Concrete Inlay or Overlay	Jan. 1, 2015	
80338		Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	April 1, 2014	

<u>File Name</u>	<u>Pg.</u>		<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80343	316	X	Precast Concrete Handhole	Aug. 1, 2014	
80300			Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	
80328	317	X	Progress Payments	Nov. 2, 2013	
3426I			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157			Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
* 80306			Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Jan. 2, 2015
80350	318	X	Retroreflective Sheeting for Highway Signs	Nov. 1, 2014	
80327	320	X	Reinforcement Bars	Nov. 1, 2013	
80344			Rigid Metal Conduit	Aug. 1, 2014	
* 80354	322	X	Sidewalk, Corner, or Crosswalk Closure	Jan. 1, 2015	
80340			Speed Display Trailer	April 2, 2014	
80127			Steel Cost Adjustment	April 2, 2004	April 1, 2009
80317			Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	
* 80355			Temporary Concrete Barrier	Jan. 1, 2015	
80301	323	X	Tracking the Use of Pesticides	Aug. 1, 2012	
* 80356			Traffic Barrier Terminals Type 6 or 6B	Jan. 1, 2015	
20338	324	X	Training Special Provisions	Oct. 15, 1975	
80318	327	X	Traversable Pipe Grate	Jan. 1, 2013	April 1, 2014
80345			Underpass Luminaire	Aug. 1, 2014	
* 80357			Urban Half Road Closure with Mountable Median	Jan. 1, 2015	
80346			Waterway Obstruction Warning Luminaire	Aug. 1, 2014	
80288	329	X	Warm Mix Asphalt	Jan. 1, 2012	Nov. 1, 2014
80302	331	X	Weekly DBE Trucking Reports	June 2, 2012	
80289			Wet Reflective Thermoplastic Pavement Marking	Jan. 1, 2012	
80071			Working Days	Jan. 1, 2002	

The following special provisions are in the 2015 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>
80292	Coarse Aggregate in Bridge Approach Slabs/Footings	Articles 1004.01(b) and 1004.02(f)	April 1, 2012	April 1, 2013
80303	Granular Materials	Articles 1003.04, 1003.04(c), and 1004.05(c)	Nov. 1, 2012	
80330	Pavement Marking for Bike Symbol	Article 780.14	Jan. 1, 2014	
80331	Payrolls and Payroll Records	Recurring CS #1 and #5	Jan. 1, 2014	
80332	Portland Cement Concrete – Curing of Abutments and Piers	Article 1020.13	Jan. 1, 2014	
80326	Portland Cement Concrete Equipment	Article 1103.03(a)(5)	Nov. 1, 2013	
80281	Quality Control/Quality Assurance of Concrete Mixtures	Recurring CS #31	Jan. 1, 2012	Jan. 1, 2014
80283	Removal and Disposal of Regulated Substances	Articles 669.01, 669.08, 669.09, 669.14, and 669.16	Jan. 1, 2012	Nov. 2, 2012
80319	Removal and Disposal of Surplus Materials	Article 202.03	Nov. 2, 2012	
80307	Seeding	Article 250.07	Nov. 1, 2012	
80339	Stabilized Subbase	Article 312.06	April 1, 2014	
80333	Traffic Control Setup and Removal Freeway/Expressway	Articles 701.18(l) and 701.19(a)	Jan. 1, 2014	

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

- 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

Fabyan Parkway at IL Route 38(Roosevelt Road)
Section 11-00210-04-CH
Project No. CMM-4003(136)
West Chicago, Illinois
Contract No. 63849

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2012, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids and the "Supplemental Specifications and Recurring Special Provisions" indicated on the Check Sheet included herein which apply to and govern the proposed improvement designated as Section 11-00210-04-CH, Project No. CMM-4003(136), Job No. C-91-145-13. In case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

Contract # 63849

LOCATION OF PROJECT

The project is located on Fabyan Parkway (FAP 363) at IL Route 38 (Roosevelt Road). The project limits are approximately 890 feet north of IL Route 38 to 1700 feet south of IL Route 38 and 1025 feet west of Fabyan Parkway to 1275 east of Fabyan Parkway in West Chicago, Winfield Township in DuPage County. Total length of project is 4890 feet = 0.926 miles. Latitude = 41° 52' 36.6" N; Longitude = -88° 14' 6.7" W.

DESCRIPTION OF PROJECT

The overall scope includes resurfacing, widening of the existing lanes with the addition of turn lanes on IL Route 38, resurfacing, widening and pavement reconstruction with the addition of through lanes on Fabyan Parkway/Washington Street, traffic signal improvements, signing, striping, landscaping, storm sewers, water main and sanitary sewers.

MAINTENANCE OF ROADWAYS

Effective: September 30, 1985

Revised: November 1, 1996

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

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

STATUS OF UTILITIES TO BE ADJUSTED

Effective: January 30, 1987

Revised: January 24, 2013

Utilities companies involved in this project have provided the following estimated durations:

Name of Utility	Type	Location	Estimated Duration of Time for the Completion of Relocation or Adjustments
AT&T Civic Project Engineering Janet Ahern 1000 Commerce Dr. Oak Brook, IL 60523 630-573-6414	Underground-Fiber Optic Underground-Telephone	IL-38 180+00 to 185+54 LT; 185+24 to 203+50 RT; and TBD	30 days
AT&T Distribution Chris Yavaraski 65 West Weber Street, Fourth Floor Joliet, IL 60432 630-573-5450, 630-573-5495	Underground-Fiber Optic Underground-Telephone	None	No conflicts anticipated
AT&T LNS Bobby Akhter 4513 Western Avenue Lisle, IL 60532 630-719-1483, 630-512-7813	Underground-Fiber Optic Aerial- Fiber Optic	IL-38 RT	30 days
AT&T Transmission Carl Donahue 866 Rock Creek Plano, IL 60545	Underground-Fiber Optic Underground-Telephone	None	No conflicts anticipated
City of West Chicago Robert Flatter 475 Main Street West Chicago, IL 60185 630-293-2255 x502	Underground-Water Main Underground-Sanitary Sewer	IL-38 LT, Washingt on Street LT/RT	Relocation included in this contract
Comcast Ted Wyman 688 Industrial Drive Elmhurst, IL 60126 630-600-6349	Aerial-Cable TV Underground-Cable TV	IL-38 180+00 to 204+00 RT; and	30 days

Martha Gieras 630-600-6352		TBD	
ComEd Joe Stacho 1N423 Swift Road Lombard, IL 60148 630-424-5704	Aerial- Electric Underground- Electric	IL-38 180+00 to 193+50 LT; 180+00 to 204+00 RT; Washingt on Street 134+50 to 137+50 LT; 141+00 to 145+00 LT; and TBD	60 days
Enbridge Energy Partners L.P. Barry Brannan 630-207-1722 Mike Price 219-922-3133 x27015	Underground- Oil Pipeline	None	No conflicts anticipated
Kinder Morgan Energy Partners Natural Gas Pipeline Co. Gregory E. Smith 370 Van Gordon Street Lakewood, CO 80228 303-914-7848	Underground- Natural Gas	None	No conflicts anticipated
Level 3 Nickey Worthington 1025 Eldorado Blvd. Broomfield, CO 80021 720-888-0336	Underground- Fiber Optic	IL-38 180+00 to 185+54 LT; and TBD	30 days
Nicor Connie Lane 1844 Ferry Road Naperville, IL 60563 630-388-3830, 630-388-2362	Underground- Gas	IL-38 180+75 to 203+75 RT; Washingt	35 days

		on Street 133+25 to 146+00 RT	
Oneok North System, L.L.C. Troy Scheurmann 2001 S Highway 81 Medford, OK 73759 580-395-2377	Underground- Pipeline	None	No conflicts anticipated
Redspeed Illinois Scott Hemmings 400 Eisenhower Lane North Lombard, IL 60148 Jose Chavez 630-317-5705	Red Light Camera	Washingt on Street LT	Conflict present, No relocation, facilities will be permanently removed by the owner
Sprint Nextel James Burton 5600 N River Road, Suite 500 Rosemont, IL 60018 847-737-1273	Underground- Fiber Optic	None	No conflicts anticipated
West Chicago Police Department 325 Spencer Street West Chicago, IL 60185 630-293-2222	Police Department	N/A	N/A
West Chicago Fire Department 200 Freemont Street West Chicago, IL 60185 630-231-2123	Fire Department	N/A	N/A
WINDSTREAM Paul Baumann 1815 S. Meyer Road, Suite 900 Oakbrook Terrace, IL 60181 630-925-4751	Underground- Fiber Optic	None	No conflicts anticipated
Winfield School District 34 0S150 Winfield Road Winfield, IL 60190 630-909-4900	School District	N/A	N/A
Winfield Township Road District John S. Dusza 30W575 Roosevelt Road West Chicago, IL 60185	Municipality	None	No conflicts anticipated
ZAYO Group	Underground-	None	No conflicts anticipated

Tim Payment 810 Jorie Boulevard, Suite 110 Oak Brook, IL 60523 630-203-8003	Fiber Optic		
--	-------------	--	--

The above represents the best information available to the Department and is included for the convenience of the bidder. The applicable portions of Articles 105.07 and 107.31 of the Standard Specifications shall apply.

In accordance with 605 ILCS 5/9-113 of the Illinois Compiled Statutes, utility companies have 90 days to complete the relocation of their facilities after receipt of written notice from the Department. The 90-day written notice will be sent to the utility companies after the following occurs:

- 1) Proposed right of way is clear for contract award.
- 2) Final plans have been sent to and received by the utility company.
- 3) Utility permit is received by the Department and the Department is ready to issue said permit.
- 4) If a permit has not been submitted, a 15 day letter is sent to the utility company notifying them they have 15 days to provide their permit application. After allowing 15 days for submission of the permit the 90 day notice is sent to the utility company.
- 5) Any time within the 90 day relocation period the utility company may request a waiver for additional time to complete their relocation. The Department has 10 days to review and respond to a waiver request.

PUBLIC CONVENIENCE AND SAFETY (DIST 1)

Effective: May 1, 2012

Revised: July 15, 2012

Add the following to the end of the fourth paragraph of Article 107.09:

“If the holiday is on a Saturday or Sunday, and is legally observed on a Friday or Monday, the length of Holiday Period for Monday or Friday shall apply.”

Add the following sentence after the Holiday Period table in the fourth paragraph of Article 107.09:

“The Length of Holiday Period for Thanksgiving shall be from 5:00 AM the Wednesday prior to 11:59 PM the Sunday After”

Delete the fifth paragraph of Article 107.09 of the Standard Specifications:

“On weekends, excluding holidays, roadways with Average Daily Traffic of 25,000 or greater, all lanes shall be open to traffic from 3:00 P.M. Friday to midnight Sunday except where structure construction or major rehabilitation makes it impractical.”

COMPLETION DATE PLUS WORKING DAYS

Revise Article 108.05 (b) of the Standard Specifications as follows:

“When a completion date plus working days is specified, the contractor shall complete all contract items and safely open all roadways to traffic by 11:59 PM on October 2, 2015, except as specified herein.

The Contractor will be allowed to complete all landscaping, clean-up work and punch list items within 15 working days after the completion date for opening the roadway to traffic. Under extenuating circumstances, the Engineer may direct that certain items of work, not affecting the safe opening of the roadway to traffic, may be completed within the working days allowed for landscaping, clean-up work and punch list items. Temporary lane closures for this work may be allowed at the discretion of the Engineer.

Article 108.09 or the Special Provision for "Failure to Complete the Work on Time", if included in this contract, shall apply to both the completion date and the number of working days.

PROTECTION OF EXISTING TREES

The Contractor shall be responsible for taking measures to minimize damage to the tree limbs, tree trunks, and tree roots at each work site. All such measures shall be included in the contract price for other work except that payment will be made for TEMPORARY FENCE, TREE ROOT PRUNING, and TREE PRUNING.

All work, materials and equipment shall conform to Section 201 and 1081 of the Standard Specifications except as modified herein.

A. Earth Saw Cut of Tree Roots (Root Pruning):

1. Whenever proposed excavation falls within a drip-line of a tree, the Contractor shall:
 - a. Root prune 6-inches behind and parallel to the proposed edge of trench a neat, clean vertical cut to a minimum depth directed by the Engineer through all affected tree roots.
 - b. Root prune to a maximum width of 4-inches using a "Vermeer" wheel, or other similar machine. Trenching machines will not be permitted.
 - c. Exercise care not to cut any existing utilities.
 - d. If during construction it becomes necessary to expose tree roots which have not been pre-cut, the Engineer shall be notified and the Contractor shall provide a clean, vertical cut at the proper root location, nearer the tree trunk, as necessary, by means of hand-digging and trimming with chain saw or hand saw. Ripping, shredding, shearing, chopping or tearing will not be permitted.
 - e. Top Pruning: When thirty percent (30%) or more of the root zone is pruned, an equivalent amount of the top vegetative growth or the plant material shall be pruned off within one (1) week following root pruning.
2. Whenever curb and gutter is removed for replacement, or excavation for removal of or construction of a structure is within the drip line/root zone of a tree, the Contractor shall:
 - a. Root prune 6-inches behind the curbing so as to neatly cut the tree roots.
 - b. Depth of cut shall be 12 inches for curb removal and replacement and 24 inches for structural work. Any roots encountered at a greater depth shall be neatly saw cut at no additional cost.

- c. Locations where earth saw cutting of tree roots is required will be marked in the field by the Engineer.
3. All root pruning work is to be performed through the services of a licensed arborist to be approved by the Engineer.

Root pruning will be paid for at the contract unit price each for TREE ROOT PRUNING, which price shall be payment for all labor, materials and equipment.

Tree limb pruning will be paid for at the contract unit price per each for TREE PRUNING (1 TO 10 INCH DIAMETER) and/or TREE PRUNING (OVER 10 INCH DIAMETER), which price shall included labor, materials, and equipment.

B. Temporary Fence:

1. The Contractor shall erect a temporary fence around all trees within the construction area to establish a "tree protection zone" before any work begins or any material is delivered to the jobsite. No work is to be performed (other than root pruning), materials stored or vehicles driven or parked within the "tree protection zone".
2. The exact location and establishment of the "tree protection zone" fence shall be approved by the Engineer prior to setting the fence.
3. The fence shall be erected on three sides of the tree at the drip-line of the tree or as determined by the Engineer.
4. All work within the "tree protection zone" shall have the Engineer's prior approval. All slopes and other areas not regarded should be avoided so that unnecessary damage is not done to the existing turf, tree root system ground cover.
5. The grade within the "tree protection zone" shall not be changed unless approved by the Engineer prior to making said changes or performing the work.

The fence shall be similar to wood lath snow fence (48 inches high), plastic poly-type or and other type of highly visible barrier approved by the Engineer. This fence shall be properly maintained and shall remain up until final restoration, unless the Engineer directs removal otherwise. Tree fence shall be supported using T-Post style fence posts. **Utilizing re-bar as a fence post will not be permitted.**

Temporary fence will be paid for at the contract unit price per foot for TEMPORARY FENCE, which price shall include furnishing, installing, maintaining, and removing.

C. Tree Limb Pruning:

1. The Contractor shall inspect the work site in advance and arrange with the Roadside Development Unit (847.705.4171) to have any tree limbs pruned that might be damaged by equipment operations at least one week prior to the start of construction. Any tree limbs that are broken by construction equipment after the initial pruning must be pruned correctly within 72 hours.
2. Top Pruning: When thirty percent (30%) or more of the root zone of a tree is pruned, an equivalent amount of the top vegetative growth or the plant material shall be pruned off within one (1) week following root pruning.

Tree limb pruning will be paid for at the contract unit price per each for TREE PRUNING (1 TO 10 INCH DIAMETER) and/or TREE PRUNING (OVER 10 INCH DIAMETER), which price shall include labor, materials, and equipment.

D. Removal of Driveway Pavement and Sidewalk:

1. In order to minimize the potential damage to the tree root system(s), the Contractor will not be allowed to operate any construction equipment or machinery within the "tree protection zone" located between the curb or edge of pavement and the right-of-way property line.
2. Sidewalk to be removed in the areas adjacent to the "tree protection zones" shall be removed with equipment operated from the street pavement. Removal equipment shall be Gradall (or similar method), or by hand or a combination of these methods. The method of removal shall be approved by the Engineer prior to commencing any work.
3. Any pavement or pavement related work that is removed shall be immediately disposed of from the area and shall not be stockpiled or stored within the parkway area under any circumstances.

E. Backfilling:

1. Prior to placing the topsoil and/or sod, in areas outside the protection zone, the existing ground shall be disked to a depth no greater than one (1"), unless otherwise directed by the Engineer. No grading will be allowed within the drip-line of any tree unless directed by the Engineer.

F. Damages:

1. In the event that a tree not scheduled for removal is injured such that potential irreparable damage may ensure, as determined by the Roadside Development Unit, the Contractor shall be required to remove the damage tree and replace it on a three to one (3:1) basis, at his own expense. The Roadside Development

Unit will select replacement trees from the pay items already established in the contract.

2. The Contractor shall place extreme importance upon the protection and care of trees and shrubs which are to remain during all times of this improvement. It is of paramount importance that the trees and shrubs which are to remain are adequately protected by the Contractor and made safe from harm and potential damage from the operations and construction of this improvement. If the Contractor is found to be in violation of storage or operations within the "tree protection zone" or construction activities not approved by the Engineer, a penalty shall be levied against the Contractor with the monies being deducted from the contract. The amount of the penalty shall be two hundred fifty dollars (\$250.00) per occurrence per day.

EROSION CONTROL BLANKET

This Special Provision revises Section 251 of the Standard Specifications for Road and Bridge Construction to eliminate the use of Excelsior Blanket for Erosion Control Blanket.

Delete Article 251.04(a) Excelsior Blanket.

TEMPORARY DITCH CHECKS

Description. This work shall be constructed in accordance with Section 208 of the Standard Specifications, the details in the plans, and as directed by the Engineer.

The TEMPORARY DITCH CHECKS will be furnished and installed according to the Illinois Urban Manual Standard Drawing No. IUM-514, Rolled Erosion Control Products.

When no longer required, the temporary ditch check shall be removed and properly disposed of at the cost of the contractor.

Method of Measurement. This work will be measured for payment in feet of TEMPORARY DITCH CHECKS installed in place and accepted.

Basis of Payment. This item will be paid for at the contract unit price per foot for TEMPORARY DITCH CHECKS which includes all requirements of standard drawings and plans. The price shall be payment in full for all labor and material necessary to complete the work described above.

AGGREGATE SUBGRADE IMPROVEMENT (D-1)

Effective: February 22, 2012
Revised: November 1, 2014

Add the following Section to the Standard Specifications:

“SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

303.01 Description. This work shall consist of constructing an aggregate subgrade improvement.

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004
(b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2 and 3)	1031

Note 1. Crushed RAP, from either full depth or single lift removal, may be mechanically blended with aggregate gradations CS 01 or CS 02 but shall not exceed 40 percent of the total product. The top size of the Coarse RAP shall be less than 4 in. (100 mm) and well graded.

Note 2. RAP having 100 percent passing the 1 1/2 in. (37.5 mm) sieve and being well graded, may be used as capping aggregate in the top 3 in. (75 mm) when aggregate gradations CS 01 or CS 02 are used in lower lifts. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders.

Note 3. The RAP used for aggregate subgrade improvement shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, “Reclaimed Asphalt Pavement (RAP) for Aggregate Applications”.

303.03 Equipment. The vibratory machine shall be according to Article 1101.01, or as approved by the Engineer.

303.04 Soil Preparation. The stability of the soil shall be according to the Department’s Subgrade Stability Manual for the aggregate thickness specified.

303.05 Placing Aggregate. The maximum nominal lift thickness of aggregate gradations CS 01 or CS 02 shall be 24 in. (600 mm).

303.06 Capping Aggregate. The top surface of the aggregate subgrade shall consist of a minimum 3 in. (75 mm) of aggregate gradations CA 06 or CA 10. When Reclaimed Asphalt Pavement (RAP) is used, it shall be crushed and screened where 100 percent is passing the 1 1/2 in. (37.5 mm) sieve and being well graded. RAP that has been fractionated to size will not be permitted for use in capping. Capping aggregate will not be required when the aggregate

subgrade improvement is used as a cubic yard pay item for undercut applications. When RAP is blended with any of the coarse aggregates, the blending shall be done with mechanically calibrated feeders.

303.07 Compaction. All aggregate lifts shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

303.08 Finishing and Maintenance of Aggregate Subgrade Improvement. The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

303.09 Method of Measurement. This work will be measured for payment according to Article 311.08.

303.10 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified.

Add the following to Section 1004 of the Standard Specifications:

"1004.06 Coarse Aggregate for Aggregate Subgrade Improvement. The aggregate shall be according to Article 1004.01 and the following.

- (a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete.
- (b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.

(c) Gradation.

- (1) The coarse aggregate gradation for total subgrade thicknesses of 12 in. (300 mm) or greater shall be CS 01 or CS 02.

COARSE AGGREGATE SUBGRADE GRADATIONS					
Grad No.	Sieve Size and Percent Passing				
	8"	6"	4"	2"	#4
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

COARSE AGGREGATE SUBGRADE GRADATIONS (Metric)					
Grad No.	Sieve Size and Percent Passing				
	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

- (2) The 3 in. (75 mm) capping aggregate shall be gradation CA 6 or CA 10.

TRAVERSABLE PIPE GRATE

Description. This work shall consist of placing traversable pipe grates at locations as shown on the plans. This work shall be completed in accordance with IDOT Standard 542311 and Article 542.07 of the Standard Specifications.

The Contractor shall submit detailed shop drawings for review prior to ordering material or starting construction.

Method of Measurement. This work will be measured for payment in place in feet measured along the centerline of each pipe grate that is constructed in accordance with these requirements.

Basis of Payment. This work will be paid for at the contract unit price per foot for TRAVERSABLE PIPE GRATE.

CONCRETE END SECTION

Description. This work shall consist of furnishing and constructing concrete end sections as located on the plans or as directed by the Engineer. This work shall be completed in accordance with IDOT Standards 542001, 542011, or 542016 and Section 542 of the Standard Specifications. All excavation and granular backfill material shall be in accordance with IDOT Section 502.

The Contractor shall submit detailed shop drawings for review prior to ordering material or starting construction.

Method of Measurement. This work will be measured for payment, complete and in place, per each concrete end section that is constructed in accordance with these requirements.

Basis of Payment. This work will be paid for at the contract unit price each for CONCRETE END SECTION. Standard, size, and slope are indicated on the plans. All labor and materials associated with excavation, granular backfill, removal of excess soil, granular subbase, concrete, reinforcement bars, temporary shoring and any miscellaneous items required for the end section shall not be paid for separately, but shall be included in the work.

COMBINATION CONCRETE CURB AND GUTTER, TYPE M (MODIFIED)

Description

This work shall be performed in accordance with Section 606 of the Standard Specifications. Refer to the plans for dimensions.

Method of Measurement

This work will be measured for payment in feet according to Article 606.14 of the Standard Specifications.

Basis of Payment

This work will be paid for at the contract unit price per foot for COMBINATION CONCRETE CURB AND GUTTER, TYPE M (MODIFIED) which includes all material, labor and equipment required.

PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE

Description. This work consists of providing a proposed connection with new pipe to manhole at the locations shown on the plans. The connection shall follow section 602.13 of the Standard Specifications or another connection detail as reviewed and approved by the Engineer. Any damaged pipe will be removed and replaced if required or as directed by the Engineer.

Method of Measurement. This work will not be measured for payment.

Basis of Payment. This work will be included in the contract unit price for the proposed storm sewer pipe. No additional compensation will be allowed.

SEEDING (SPECIAL)

Description. This work shall be completed in accordance with Section 250 of the Standard Specifications except the seed mix shall be revised as the following. The work shall include the installation of the native seed as detailed in this plan. Native seed shall be installed using an implement specifically designed and calibrated for the installation of native seed. The seed shall be installed immediately upon completion of topsoiling, slope grading, and seedbed preparation activities. Seed quality must meet the applicable standards set forth in Standard Specification 1081.04. No seed shall be sown until purity testing has been completed for the seeds to be used. The Contractor shall submit written verification that the seed mixtures meet the agreed upon mix and the noxious weed requirements. Written verification of seed testing shall come from the seed producer. Local seed provenance within a 150-mile radius of the project site is required. Substitutions must be approved by the Engineer in writing before installing. Equipment shall be operated in a manner to ensure complete coverage of the entire area to be seeded.

<u>Botanical Name</u>	<u>Common Name</u>	<u>PLS Ounces/Acre</u>
Permanent Grasses:		
<i>Andropogon gerardii</i>	Big Bluestem	13.00
<i>Bouteloua curtipendula</i>	Side Oats Grama	14.00
<i>Carex spp.</i>	Prairie Sedge Mix	2.00
<i>Elymus canadensis</i>	Canada Wild Rye	22.00
<i>Panicum virgatum</i>	Switch Grass	2.50
<i>Schizachyrium scoparium</i>	Little Bluestem	28.00
<i>Sorghastrum nutans</i>	Indian Grass	16.00
	Total	97.50
Temporary Cover:		
<i>Avena sativa</i>	Common Oat	460.00
	Total	460.00
Forbs:		

<i>Asclepias tuberosa</i>	Butterfly Weed	1.50
<i>Aster novae-angliae</i>	New England Aster	1.50
<i>Chamaecrista fasciculata</i>	Partridge Pea	10.75
<i>Coreopsis lanceolata</i>	Sand Coreopsis	5.00
<i>Coreopsis tripteris</i>	Tall Coreopsis	1.50
<i>Dalea purpurea</i>	Purple Prairie Clover	2.00
<i>Desmanthus illinoensis</i>	Illinois Sensitive Plant	1.50
<i>Echinacea purpurea</i>	Broad Purple Coneflower	8.00
<i>Eryngium yuccifolium</i>	Rattlesnake Master	1.00
<i>Heliopsis helianthoides</i>	False Sunflower	0.25
<i>Lespedeza capitata</i>	Round-Headed Bush Clover	1.00
<i>Liatris aspera</i>	Rough Blazing Star	1.00
<i>Lupinus perennis</i>	Wild Lupine	0.25
<i>Monarda fistulosa</i>	Wild Bergamot	1.00
<i>Potentilla arguta</i>	Prairie Cinquefoil	0.75
<i>Pycnanthemum virginianum</i>	Common Mountain Mint	0.50
<i>Ratibida pinnata</i>	Yellow Coneflower	4.50
<i>Rudbeckia hirta</i>	Black-Eyed Susan	6.00
<i>Silphium terebintheceum</i>	Prairie Dock	0.75
<i>Solidago nemoralis</i>	Old-Field Goldenrod	0.50
<i>Vernonia spp.</i>	Ironweed (Various Mix)	2.00
	Total	51.25

Upon completion of the site grading and seed bed preparation, the contractor will install the approved seed mixtures as shown below. The seed mix shall be supplied in pounds of Pure Live Seed. All native seed species will be of local genotype. The installed seed mixes shall be supplied with the appropriate inoculants but fertilizer is not required. Seeding equipment shall be operated in a manner to ensure complete coverage of the entire area to be seeded.

Upon completion of site seeding, the contractor shall blow hydromulch or straw onto the newly seeded area as necessary to reduce erosion, conserve moisture and assist in the establishment of the seed species.

Upon completion of the site grading, seed bed preparation, seeding and mulching, the applicant will implement the management and monitoring plan to verify completion of the required activities, document the establishment of the proposed seed mixtures, provide periodic management and maintenance of the BMP area and provide annual reports and project documentation.

Measurement and Payment. This work will be paid for at the contract unit price per Acre for SEEDING (SPECIAL).

FILL EXISTING STORM SEWERS

Description

The Contractor shall fill existing storm sewers/field tiles at locations as shown on the plans or as directed by the Engineer. The Contractor shall brick and mortar the ends of the existing pipe that is to be filled. The controlled low-strength material used to fill the storm sewers/field tiles and the filling operation shall be in accordance with Section 593 of the Standard Specifications.

Method of Measurement.

This work will be measured in place and the volume computed in cubic yards.

Basis of Payment

This work will be paid for at the contract unit price per cubic yard for FILL EXISTING STORM SEWERS.

WASHOUT BASIN

Description. This item shall consist of constructing and maintaining a washout basin for concrete trucks and other construction vehicles. The washout basin will be as detailed on the plans.

When no longer required, concrete shall be removed from the basin and the washout basin shall be filled and graded to the satisfaction of the engineer.

Method of Measurement. This work will be measured for payment on a lump sum basis.

Basis of Payment. This item will be paid for at the contract unit price per lump sum for WASHOUT BASIN. The price shall include general maintenance and removal of all construction debris and all material, labor, tools, equipment, disposal of surplus material, and incidentals necessary to complete this item of work.

DEWATERING

Description. This work consists of providing labor, tools, equipment, and materials necessary to dewater the related work areas of the Project to relatively dry conditions and maintain suitable working conditions so that the improvements may be constructed in the dry as shown in the plans and as directed by the Engineer.

Materials. Contractor shall be responsible for the choice of the product(s) and equipment as well as "means and methods" for the Site Dewatering Work to be performed subject to the review of the Engineer. All products and "means and methods" selected shall be adequate for the intended use/application. Engineer's review does not relieve the Contractor from compliance with the requirements of the Drawings and Specifications and the requirements of this special provision.

Submittals. Contractor shall submit to the Engineer for review a description of dewatering techniques and equipment to be used, together with detail drawings showing lengths of discharge piping and point(s) of discharge including erosion control procedures.

The Engineer's review of dewatering techniques and equipment shall in no way be construed as creating any obligation on the part of Engineer for same.

Responsibility. The Contractor shall be solely responsible for the choice of product(s) and equipment; for the design, installation, and operation; as well as "means and methods" of performing the Work; and subsequent removal of dewatering systems and their safety and conformity with local codes, regulations and these Specifications. All product(s), equipment and "means and methods" selected shall be adequate for the intended use/application. Review by Engineer does not relieve Contractor from compliance with the requirements specified herein.

General Requirements. The Contractor shall select the pumps he/she desires to use and the rate at which the pumps discharge. Adequate protection at the pump discharge shall be provided by the Contractor, subject to review by the Engineer. The Contractor shall ensure that downstream water quality shall not be impaired.

At all times during the excavation period and until completion and acceptance of the Work at Final Inspection, ample means and equipment shall be provided with which to remove promptly and dispose of properly all water entering any excavation or any other parts of the Work.

Water pumped or drained from the work required for this Contract shall be disposed of in a safe and suitable manner without damage to adjacent property or streets or to other work under construction. Water shall not be discharged onto streets without adequate protection of the surface at the point of discharge. No water shall be discharged into sanitary sewers. No water containing settleable solids shall be discharged into storm sewers. Any and all damages caused by dewatering the work shall be promptly repaired by the Contractor. The Contractor is responsible for providing any and all labor, materials and equipment needed for the Dewatering in order to meet the scheduled completion of the project.

Fabyan Parkway at IL Route 38(Roosevelt Road)
Section 11-00210-04-CH
Project No. CMM-4003(136)
West Chicago, Illinois
Contract No. 63849

Method Of Measurement. This work will be measured for payment on a lump sum basis.

Basis of Payment. This work will be paid for at the contract lump sum price for DEWATERING, which price shall include all material, equipment, labor, and disposal of material necessary to complete the work as specified herein.

TOPSOIL EXCAVATION

Description

This work shall consist of excavating, hauling and disposal of topsoil. This work shall be performed in accordance with the applicable portions of Section 202 of the Standard Specifications.

Locations and depth of excavation are described as follows:

The depth of removal is 8 inches from the existing ground surface elevation. The width of excavation ranges from the existing edge of paved/aggregate shoulder (whichever is furthest from the centerline of the roadway) or back of existing curb to the point where the proposed grading meets existing ground. The Contractor shall review excavation limits with the Engineer before work begins to confirm removal limits.

Method of Measurement

TOPSOIL EXCAVATION will be measured for payment in their original positions, and the volumes in cubic yards computed by the method of average end areas.

Basis of Payment

This work will be paid for at the contract unit price per cubic yard of TOPSOIL EXCAVATION which includes all material, labor and equipment required to remove and dispose of the material.

EXPLORATION TRENCH, SPECIAL

This work shall be done in accordance with the applicable portions of Section 213 of the Standard Specifications except as modified herein.

213.01 Description. Revise this Article to read:

“213.01 Description. This work shall consist of constructing a trench for the purpose of verifying clearances and locations of existing private and public utilities and storm sewers at locations determined by the Engineer.”

213.02 General. Revise this Article to read:

“213.02 General. The depth of the trench shall be variable, but shall be deep enough to locate all potential conflicts. The width of the trench shall be sufficient to allow proper investigation of the entire trench.

Coarse aggregate (crushed stone CA 7) trench backfill under any proposed pavement and fine aggregate (FA 6) trench backfill in the parkway is required after decision about the required existing or proposed utility adjustments, if any, was made by the utility owner and the Engineer. Compacted aggregate trench backfilling of all exploratory excavations in parkways shall extend up to eight (8) inches below the finished grade to allow for topsoil and sod. Compacted aggregate trench backfilling of all exploratory excavations under pavements shall be capped with twelve (12) inches of compacted coarse aggregate (CA 6) material.”

213.04 Basis of Payment. Revise this Article to read:

“213.04 Basis of Payment. This work will be paid for at the contract unit price per foot for EXPLORATION TRENCH, SPECIAL, regardless of depth, which price shall be payment in full for performing all work as specified herein, including labor, excavation, disposal of excess materials, and aggregate trench backfill material for complete utility exploration work.”

SEEDING, CLASS 4B (SPECIAL)

Description. This work shall be completed in accordance with Section 250 of the Standard Specifications except the seed mix shall be revised as the following. The work shall include the installation of the native seed as detailed in this plan. Native seed shall be installed using an implement specifically designed and calibrated for the installation of native seed. The seed shall be installed immediately upon completion of topsoiling, slope grading, and seedbed preparation activities. Seed quality must meet the applicable standards set forth in Standard Specification 1081.04. No seed shall be sown until purity testing has been completed for the seeds to be used. The Contractor shall submit written verification that the seed mixtures meet the agreed upon mix and the noxious weed requirements. Written verification of seed testing shall come from the seed producer. Local seed provenance within a 150-mile radius of the project site is required. Substitutions must be approved by the Engineer in writing before installing. Equipment shall be operated in a manner to ensure complete coverage of the entire area to be seeded.

Botanical Name	Common Name	PLS Ounces/Acre
Permanent		
Grasses/Sedges:		
<i>Carex comosa</i>	Bristly Sedge	1.00
<i>Carex cristatella</i>	Crested Oval Sedge	2.00
<i>Carex frankii</i>	Bristly Cattail Sedge	6.00
<i>Carex vulpinoidea</i>	Brown Fox Sedge	3.00
<i>Eleocharis palustris</i>	Great Spike Rush	0.50
<i>Elymus virginicus</i>	Virginia Wild Rye	12.00
<i>Glyceria striata</i>	Fowl Manna Grass	1.00
<i>Leersia oryzoides</i>	Rice Cut Grass	1.50
<i>Scirpus atrovirens</i>	Dark Green Rush	1.00
<i>Scirpus cypernus</i>	Wool Grass	0.75
<i>Scirpus pungens</i>	Chairmaker's rush	1.00
<i>Scirpus validus</i>	Great Bulrush	2.50
<i>Sparganium eurycarpum</i>	Common Bur Reed	4.00
	Total	36.25
Temporary Cover:		
<i>Avena sativa</i>	Common Oat	460.00
	Total	460.00
Forbs:		
<i>Acorus calamus</i>	Sweet Flag	0.50
<i>Alisma spp.</i>	Water Plantain	2.00
<i>Asclepias incarnata</i>	Swamp Milkweed	1.00
<i>Aster puniceus</i>	Bristly Aster	1.00

<i>Bidens spp.</i>	Bidens (Various Mix)	2.00
<i>Eupatorium perfoliatum</i>	Common Boneset	1.00
<i>Helenium autumnale</i>	Sneezeweed	2.00
<i>Iris virginica</i>	Blue Flag	2.50
<i>Lobelia siphilitica</i>	Great Blue Lobelia	1.00
<i>Lycopus americanus</i>	Water Horehound	0.25
<i>Mimulus ringens</i>	Monkey Flower	1.50
<i>Penthorum sedoides</i>	Ditch Stonecrop	0.50
<i>Polygonum spp.</i>	Pinkweed (Various mix)	0.50
<i>Rudbeckia laciniata</i>	Wild Golden Glow	0.75
<i>Sagittaria latifolia</i>	Common Arrowhead	2.00
<i>Senna hebecarpa</i>	Wild Senna	2.00
<i>Thalictrum dasycarpum</i>	Purple Meadow Rue	0.50
<i>Verbena hastata</i>	Blue Vervain	1.50
<i>Vernonia spp.</i>	Ironweed (Various mix)	2.00
	Total	24.50

Upon completion of the site grading and seed bed preparation, the contractor will install the approved seed mixtures as shown below. The seed mix shall be supplied in pounds of Pure Live Seed. All native seed species will be of local genotype. The installed seed mixes shall be supplied with the appropriate inoculants but fertilizer is not required. Seeding equipment shall be operated in a manner to ensure complete coverage of the entire area to be seeded.

Upon completion of site seeding, the contractor shall blow hydromulch or straw onto the newly seeded area as necessary to reduce erosion, conserve moisture and assist in the establishment of the seed species.

Upon completion of the site grading, seed bed preparation, seeding and mulching, the applicant will implement the management and monitoring plan to verify completion of the required activities, document the establishment of the proposed seed mixtures, provide periodic management and maintenance of the BMP area and provide annual reports and project documentation.

Measurement and Payment. This work will be paid for at the contract unit price per Acre for SEEDING CLASS 4B (SPECIAL).

INLET PROTECTION, SPECIAL

Description. This work shall consist of constructing, maintaining, removing, and disposing of inlet protection as part of the projects temporary erosion control system.

General. The work shall be performed according to Section 280 of the Standard Specifications, and the following:

The inlet protection shall consist of 12" Coir fiber log or approved equal placed around the perimeter of the inlet. The fiber log shall be supported by oak lath with a minimum of 4 lath per fiber log. The stakes shall be driven into the ground a minimum of 8".

The filter fabric shall be installed between the frame and grate. The rim elevation of the casting shall be temporarily set a minimum of 6" above the adjacent grade. This elevation may vary to avoid flooding conditions as determined by the Engineer.

Method of Measurement. This work will be measured for payment per each inlet being protected regardless of the size or type of inlet being protected.

Basis of Payment. This work will be paid for at the contract unit price per each for INLET PROTECTION, SPECIAL, which price shall be payment in full for all labor and material necessary to complete the work described above.

TEMPORARY ACCESS

Description

This work shall consist of furnishing, construction, maintenance, removal and disposal of aggregate surface course for temporary access to all private and commercial entrances within the project limits as directed by the Engineer. Work shall include earthwork/furnished excavation as necessary in order to construct the temporary access.

Requirements

The contractor shall construct and maintain aggregate surface course for temporary access to private entrances, commercial entrances and roads according to Article 402.07 and as directed by the Engineer.

The aggregate surface course shall be constructed to the dimensions and grades specified below, except as modified by the plans or as directed by the Engineer.

- (a) Private Entrance. The minimum width shall be 3.6 m (12 ft). The minimum compacted thickness shall be 150 mm (6 in.). The maximum grade shall be eight percent, except as required to match the existing grade.
- (b) Commercial Entrance. The minimum width shall be 7.2 m (24 ft). The minimum compacted thickness shall be 230 mm (9 in.). The maximum grade shall be six percent, except as required to match the existing grade.
- (c) Road. The minimum width shall be 7.2 m (24 ft). The minimum compacted thickness shall be 230 mm (9 in.). The grade and elevation shall be the same as the removed pavement, except as required to meet the grade of any new pavement constructed.

Maintaining the temporary access shall include relocating and/or regrading the aggregate surface course for any operation that may disturb or remove the temporary access. The same type and gradation of material used to construct the temporary access shall be used to maintain it.

When use of the temporary access is discontinued, the aggregate shall be removed and utilized in the permanent construction or disposed of according to Article 202.03.”

Method of Measurement

Aggregate surface course for temporary access will be measured for payment as each for every private entrance, commercial entrance or road constructed for the purpose of temporary access. If a residential drive, commercial entrance, or road is to be constructed under multiple stages, the aggregate needed to construct the second or subsequent stages will not be measured for payment but shall be included in the cost per each of the type specified.”

Basis of Payment

Aggregate surface course for temporary access will be paid for at the contract unit price per each for TEMPORARY ACCESS (PRIVATE ENTRANCE), TEMPORARY ACCESS (COMMERCIAL ENTRANCE) or TEMPORARY ACCESS (ROAD).

Partial payment of the each amount bid for TEMPORARY ACCESS, of the type specified, will be paid according to the following schedule:

- (a) Upon construction of the temporary access, sixty percent of the contract unit price per each, of the type constructed, will be paid.
- (b) Subject to the approval of the Engineer for the adequate maintenance and removal of the temporary access, the remaining forty percent of the pay item will be paid upon the permanent removal of the temporary access.

PIPE DRAINS, 6" (SPECIAL)

Description. This work shall consist of the furnishing of the equipment, labor and materials required to install pipe drains, 6" (special), as shown on the Plans and/or as directed by the Engineer. Also included shall be all of the work necessary to maintain the pipe drains as directed by the Engineer.

Materials. All materials shall conform to the applicable requirements of Materials, Division 1000 and specific references as follows:

Filter Fabric	Article 1080.03
Riprap, Gradation No. RR3.....	Article 1005.01(c)
Coarse Aggregate, CA-3.....	Article 1004.01(c)
Polyvinyl Chloride (PVC) Pipe	Article 1040.03

Materials for Concrete Headwalls for Pipe Drains shall conform to the applicable portions of Section 601.

Construction Requirements. The pipe drains, 6" (special) shall be constructed to the width and height as shown on the Plans. Geotextile fabric shall be placed below the riprap. Riprap, gradation No. RR3, shall be placed to the width of the ditch with a one-foot layer of CA-3 coarse aggregate placed against the upstream face.

Upon completion of the project, the pipe drain will remain in place.

The Contractor shall maintain the pipe drain until all work on the Contract has been completed and accepted.

Method of Measurement. This work will be measured for payment in place in feet measured along the centerline of each pipe drain, 6" (special) that is constructed in accordance with these requirements. No separate measurement will be made for filter fabric or concrete headwalls.

Basis of Payment. This work will be paid for at the contract unit price per foot for PIPE DRAINS, 6" (SPECIAL), which payment shall constitute full compensation for excavation as required, furnishing and placing of the riprap, PVC pipe, geotextiles and concrete headwalls.

MANHOLES, TYPE A, 6'-DIAMETER, WITH 2 TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE

Description

This work shall consist of constructing concrete manholes with frames and lids of the size specified in accordance with Section 602 of the Standard Specifications, the details on the plans and as specified herein.

Manholes shall be precast reinforced concrete in accordance with Article 602.07 of the Standard Specifications and Drainage Details in the plans.

Method of Measurement

This work will be measured for payment, in place, per each.

Basis of Payment

This work will be paid for at the Contract unit price per each for MANHOLES, TYPE A, 6'-DIAMETER, WITH 2 TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE.

TEMPORARY INLETS AND MANHOLES

Description. This work shall consist of constructing, maintaining and removing temporary manholes and inlets complete with frames and grates or lids in accordance with Section 602 of the Standard Specifications, the details and schedules shown on the Plans, and as specified herein.

Construction Requirements. Temporary drainage structures shall be precast reinforced concrete in accordance with Article 602.07 of the Standard Specifications.

The Contractor is responsible for determining the appropriate rim elevations of the temporary structures in order for them to properly drain the excavation during each Maintenance of Traffic stage in which the structures are in use. Concrete adjusting rings may be used to bring temporary structures to grade, with the approval of the Engineer.

The Contractor shall tie proposed partially-built storm sewers to the temporary manholes and inlets at the side of the completed pavement structure or at the appropriate local low point. The Contractor is responsible for supplying and installing temporary sewer pipe as required and/or functioning mission couplings as needed to provide a watertight connection between the storm sewer and the temporary drainage structure. Any storm sewers that are damaged during construction shall be replaced in kind by the Contractor at no cost to the contract.

Castings furnished by the Contractor for use with these items may be salvage and shall be in good repair and acceptable to the Engineer.

When the temporary drainage structure is no longer needed it shall be carefully removed and properly disposed of outside the project site.

Method of Measurement. This work will be measured for payment, in place, per each temporary drainage structure furnished, installed, maintained and removed in accordance with the requirements herein.

Basis of Payment. This work will be paid for at the contract unit price per each for TEMPORARY INLET with the grate specified in the Plan schedules or for TEMPORARY MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID, which price shall include all excavation, storm sewer connections, couplings, removal of the existing structure, and all labor, equipment, materials and incidentals required to complete the work as specified herein.

TRAFFIC CONTROL PLAN

Effective: September 30, 1985

Revised: January 1, 2007

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

Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

The Contractor shall contact the District One Bureau of Traffic at least 72 hours in advance of beginning work.

STANDARDS

701001-02	OFF-ROAD OPERATIONS, 2L 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L 2W, 15' TO 24' FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L 2W, DAY ONLY
701101-04	OFF-ROAD OPERATIONS, ML, 15' TO 24" FROM EDGE OF PAVEMENT
701106-02	OFF-ROAD OPERATIONS, ML, MORE THEN 15' AWAY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701206-03	LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-03	LANE CLOSURE, 2L , 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS >= 45 MPH
701311-03	LANE CLOSURE, 2L , 2W, MOVING OPERATIONS - DAY ONLY
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45 MPH
701421-06	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS >= 45 MPH TO 55 MPH
701422-06	LANE CLOSURE, MULTILANE, FOR SPEEDS >= 45 MPH TO 55 MPH
701423-07	LANE CLOSURE, MULTILANE, WITH BARRIER, FOR SPEEDS >= 45 MPH TO 55 MPH
701426-06	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS >= 45 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701606-09	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-03	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER

DETAILS

TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
TC-11	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-14	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
TC-16	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
TC-22	ARTERIAL ROAD INFORMATION SIGN
TC-26	DRIVEWAY ENTRANCE SIGNING

SPECIAL PROVISIONS

Maintenance of Roadways (D1)
Traffic Control and Protection (Arterials) (D1)
Public Convenience and Safety (D1)
Temporary Information Signing (D1)
Pavement Marking Removal (BDE)
Pavement Patching (BDE)

TRAFFIC CONTROL AND PROTECTION (ARTERIALS)

Effective: February 1, 1996
Revised: March 1, 2011

Specific traffic control plan details and Special Provisions have been prepared for this contract. This work shall include all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain and remove all traffic control devices required as indicated in the plans and as approved by the Engineer.

When traffic is to be directed over a detour route, the Contractor shall furnish, erect, maintain and remove all applicable traffic control devices along the detour route according to the details shown in the plans.

Method of Measurement: All traffic control (except Traffic Control and Protection (Expressways)) and temporary pavement markings) indicated on the traffic control plan details and specified in the Special Provisions will be measured for payment on a lump sum basis.

Basis of Payment: All traffic control and protection will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL).

Temporary pavement markings will be paid for separately unless shown on a Standard.

RECESSED REFLECTIVE PAVEMENT MARKERS

Description

This work shall consist of setting reflective pavement markers in a recessed groove in the pavement. The recessed pavement markers shall be used to supplement other pavement markings, similar to the use of Raised Reflective Pavement Markers.

Materials

The reflective pavement marker shall be listed on the Illinois Department of Transportation approved list of snowplowable raised pavement markers, or Engineer approved equivalent, and be compatible with the reflector holder. The reflector holder shall be a MarkerOne Series R100 reflector holder or Engineer approved equivalent. The epoxy used shall be as recommended by the pavement marker manufacturer.

Installation

Spacing and orientation of the pavement markers shall be as detailed in the plans or as directed by the Engineer.

A recessed groove shall be cut in the pavement 5.25" wide, 0.9" deep on a 15.5" diameter. An additional 3.5' long groove shall taper from 0" (normal pavement) to 0.3" depth (full-recessed). For 1-way markers heading uphill, uphill grind taper may be omitted.

The recessed area shall be cleaned free of all loose material, and dry before the placement of the pavement marker. All excess material resulting from the construction of the recessed area shall be completely removed from the surface of the roadway by means of vacuum sweeper truck. The pavement marker shall be cemented with epoxy in the center of the 0.9" deep recessed groove.

Inspection

A straight edge shall be placed across the recess to check that the top of the marker is below the pavement. Inspection and acceptance shall be according to Article 781.04 of the Standard Specifications.

Method of Measurement

This work will be measured for payment, in place, per each.

Basis of Payment

This work will be paid for at the contract unit price each for RECESSED REFLECTIVE PAVEMENT MARKER, which price shall be payment in full for all labor, equipment, and materials necessary to complete the work as specified.

STABILIZED CONSTRUCTION ENTRANCE

Description

This work shall consist of furnishing, installation, maintenance and removal of stabilized pad of aggregate underlain with filter fabric as shown on the plans or directed by the Engineer.

Materials

Materials shall conform to the following:

Aggregate size. IDOT Coarse Aggregate Graduation: CA-1, CA-2 CA-3, or CA-4.

Filter Fabric shall consist of synthetic polymers composed of at least 85 percent by weight polypropylene, polyesters, polyamides, polyethylene, polyolefins, or polyvinylidene-chlorides. The geotextile shall be free of any chemical treatment or coating that significantly reduces its porosity. Fibers shall contain stabilizers and/or inhibitors to enhance resistance to ultraviolet lights.

Construction Requirements

The course aggregate shall be a thickness of 6 inches or more. The stone entrance should not be filled until the area has been inspected and approved by the Engineer.

The rock shall be dumped and spread into place in approximately horizontal layers not more than 3 feet in thickness. It shall be placed in a manner to produce a reasonable homogeneous stable fill that contains no segregated pockets or larger or small fragments or large unfilled space caused by bridging of larger fragments. No compaction will be required beyond that resulting from the placing and spreading operations.

The minimum width and length shall be 14 and 70 feet, respectively.

All surface water flowing or diverted toward the construction entrance shall be piped across the entrance. Any pipe used for this will be considered incidental to the STABILIZED CONSTRUCTION ENTRANCE.

The entrance shall remain in place and be maintained until the disturbed area is stabilized. Any sediment spilled onto public right-of-ways must be removed immediately.

Method of Measurement

The work will be measured for payment in square yards in place. The area measured for payment will be limited to the dimensions agreed upon with the Engineer before construction.

Basis of Payment

Fabyan Parkway at IL Route 38(Roosevelt Road)
Section 11-00210-04-CH
Project No. CMM-4003(136)
West Chicago, Illinois
Contract No. 63849

The work shall be paid for at the contract unit price per square yard for STABILIZED CONSTRUCTION ENTRANCE, which price shall be payment in full for all material, labor and any other items required to complete the work.

TEMPORARY INFORMATION SIGNING

Effective: November 13, 1996

Revised: January 2, 2007

Description.

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

Materials.

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

	<u>Item</u>	<u>Article/Section</u>
a.)	Sign Base (Notes 1 & 2)	1090
b.)	Sign Face (Note 3)	1091
c.)	Sign Legends	1092
d.)	Sign Supports	1093
e.)	Overlay Panels (Note 4)	1090.02

Note 1. The Contractor may use 5/8 inch (16 mm) instead of 3/4 inch (19 mm) thick plywood.

Note 2. Type A sheeting can be used on the plywood base.

Note 3. All sign faces shall be Type A except all orange signs shall meet the requirements of Article 1106.01.

Note 4. The overlay panels shall be 0.08 inch (2 mm) thick.

GENERAL CONSTRUCTION REQUIREMENTS

Installation.

The sign sizes and legend sizes shall be verified by the Contractor prior to fabrication.

Signs which are placed along the roadway and/or within the construction zone shall be installed according to the requirements of Article 701.14 and Article 720.04. The signs shall be 7 ft (2.1 m) above the near edge of the pavement and shall be a minimum of 2 ft (600 mm) beyond the edge of the paved shoulder. A minimum of two (2) posts shall be used.

The attachment of temporary signs to existing sign structures or sign panels shall be approved by the Engineer. Any damage to the existing signs due to the Contractor's operations shall be repaired or signs replaced, as determined by the Engineer, at the Contractor's expense.

Signs which are placed on overhead bridge structures shall be fastened to the handrail with stainless steel bands. These signs shall rest on the concrete parapet where possible. The Contractor shall furnish mounting details for approval by the Engineer.

Method Of Measurement.

This work shall be measured for payment in square feet (square meters) edge to edge (horizontally and vertically).

All hardware, posts or skids, supports, bases for ground mounted signs, connections, which are required for mounting these signs will be included as part of this pay item.

Basis Of Payment.

This work shall be paid for at the contract unit price per square foot (square meter) for TEMPORARY INFORMATION SIGNING.

REMOVE AND RESET ORNAMENTAL FENCE

Description

This work consists of removing existing ornamental fence as shown on the plans or as directed by the Engineer. The existing fence shall be removed and shall be stored by the Contractor in a secure location. The existing fence will be reinstalled at a location as directed by the Engineer. The existing fence shall be reconditioned with paint matching the color of the existing fence and shall be installed on concrete foundations. The concrete foundations shall be 12 inches in diameter and installed to a depth of 4 feet below finished grade. The Contractor is responsible for ensuring the existing fence is not damaged during removal, transport or during installation. Damaged sections of fence will be replaced by the Contractor with no additional compensation as determined by the Engineer. Surplus fence will be disposed of by the Contractor.

As determined necessary by the Engineer, all holes left from the removal of supports shall be backfilled with suitable material approved by the Engineer. The surface of the filled hole shall be treated to match the surrounding area.

Method of Measurement

This work shall be measured for payment in feet, along the top of the fence from center to center of end posts. Measurement shall be made to the length of fence removed only.

Basis of Payment

This work will be paid for at the contract unit price per lineal foot of REMOVE AND RESET ORNAMENTAL FENCE, which includes disposal of surplus materials to a suitable off-site location as well as all labor, material, and equipment necessary to perform this work. One quarter of the measured length of removed fence shall be paid at the time of removal. The remaining amount shall be paid upon acceptance of reinstallation.

STORM SEWERS, WATER MAIN QUALITY PIPE

Description. This work shall consist of placing new storm sewer at locations shown on the plans or as directed by the Engineer.

Construction Requirements. The excavation, bedding, pipe laying, backfilling, testing and clean up shall be completed in accordance with the applicable portions of Divisions II and III of the "Standard Specifications for Water and Sewer Main Construction in Illinois". The bedding for the pipe shall be CA-11 or CA-13 coarse aggregate, and shall be placed from 6" below the pipe to 12" over the top of the pipe. The cost for the bedding shall be included in the work.

Storm sewer shall be polyvinyl chloride (PVC) pipe conforming to AWWA C900 DR 18 with push-on joints conforming to ASTM D-3139 with elastomeric seals conforming to ASTM F477.

Connections to existing sewer pipe shall be made with non-shear couplings. The couplings shall be equipped with stainless steel bands.

Measurement and Payment. This work will be paid for at the contract unit price per foot for STORM SEWERS, WATER MAIN QUALITY PIPE of the type and diameter specified.

Trench backfill will be paid for separately.

TEMPORARY PAVEMENT

Description

This work shall consist of construction, maintenance, removal and disposal of temporary pavement at the locations shown on the plans or as directed by the engineer. Work shall include earth excavation and furnished excavation as necessary in order to construct the temporary pavement.

The contractor shall use either Portland cement concrete according to Sections 353 and 354 of the Standard Specifications or HMA according to Sections 355, 356, 406 of the Standard Specifications, and other applicable HMA special provisions as contained herein. The HMA mixtures to be used shall be specified in the plans. The thickness of the Temporary Pavement shall be as described in the plans. The contractor shall have the option of constructing either material type if both Portland cement concrete and HMA are shown in the plans.

Subbase Granular Material Type B, 4" shall be installed directly under the temporary pavement.

Articles 355.08 and 406.11 of the Standard Specifications shall not apply.

The removal of the Temporary Pavement, if required, shall conform to Section 440 of the Standard Specification.

Temporary Wedge Construction And Removal

Temporary wedges are to be installed between the existing pavement edge and new pavement to eliminate drop-offs before the final surface is installed and before opening to traffic. Temporary wedge slope shall be no steeper than 4H:1V. Temporary wedge material will be comprised of HMA material specified in the TEMPORARY PAVEMENT pay item or approved alternative.

Method of Measurement

Temporary pavement will be measured in place and the area computed in square yards. Subbase Granular Material Type B, 4" will not be measured for payment.

Required maintenance, removal and disposal of the temporary pavement, Subbase Granular Material Type B and all other required fill materials will not be measured for payment.

EARTH EXCAVATION and FURNISHED EXCAVATION required for the placement of TEMPORARY PAVEMENT and associated grading for temporary drainage will be measured per Articles 202.07 and 204.07 of the Standard Specifications, respectively.

Temporary wedge construction and removal will not be measured for payment

Basis of Payment

This work will be paid for at the contract unit price per square yard for TEMPORARY PAVEMENT.

EARTH EXCAVATION and FURNISHED EXCAVATION required for construction of the TEMPORARY PAVEMENT and for temporary drainage will be paid for per Articles 202.08 and 204.08 of the Standard Specifications, respectively.

Subbase Granular Material Type B, 4" will not be paid for separately but will be included in the contract unit price for TEMPORARY PAVEMENT and no additional compensation will be allowed.

Removal and disposal of temporary pavement, subbase granular material and all other required fill materials will not be paid for separately but will be included in the contract unit price for TEMPORARY PAVEMENT and no additional compensation will be allowed.

Temporary wedge construction and removal will not be paid for separately but will be included in the contract unit price for TEMPORARY PAVEMENT and no additional compensation will be allowed.

ADJUSTMENTS AND RECONSTRUCTIONS

Effective: March 15, 2011

Revise the first paragraph of Article 602.04 to read:

“602.04 Concrete. Cast-in-place concrete for structures shall be constructed of Class SI concrete according to the applicable portions of Section 503. Cast-in-place concrete for pavement patching around adjustments and reconstructions shall be constructed of Class PP-1 concrete, unless otherwise noted in the plans, according to the applicable portions of Section 1020.”

Revise the third, fourth and fifth sentences of the second paragraph of Article 602.11(c) to read:

“Castings shall be set to the finished pavement elevation so that no subsequent adjustment will be necessary, and the space around the casting shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b.”

Revise Article 603.05 to read:

“603.05 Replacement of Existing Flexible Pavement. After the castings have been adjusted, the surrounding space shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b.”

Revise Article 603.06 to read:

“603.06 Replacement of Existing Rigid Pavement. After the castings have been adjusted, the pavement and HMA that was removed, shall be replaced with Class PP-1 concrete, unless otherwise noted in the plans, not less than 9 in. (225 mm) thick. The pavement may be opened to traffic according to Article 701.17(e)(3)b.

The surface of the Class PP concrete shall be constructed flush with the adjacent surface.”

Revise the first sentence of Article 603.07 to read:

“603.07 Protection Under Traffic. After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.”

COARSE AGGREGATE FOR BACKFILL, TRENCH BACKFILL AND BEDDING (D-1)

Effective: November 1, 2011

Revised: November 1, 2013

This work shall be according to Section 1004.05 of the Standard Specifications except for the following:

Reclaimed Asphalt Pavement (RAP) maybe blended with gravel, crushed gravel, crushed stone crushed concrete, crushed slag, chats, crushed sand stone or wet bottom boiler slag. The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". The RAP shall be uniformly graded and shall pass the 1.0 in. (25 mm) screen. When RAP is blended with any of the coarse aggregate listed above, the blending shall be done mechanically with calibrated feeders. The feeders shall have an accuracy of + 2.0 percent of the actual quantity of material delivered. The final blended product shall not contain more than 40 percent by weight RAP.

The coarse aggregate listed above shall meet CA 6 and CA 10 gradations prior to being blended with the processed and uniformly graded RAP. Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

DRAINAGE AND INLET PROTECTION UNDER TRAFFIC (DISTRICT 1)

Effective: April 1, 2011

Revised: April 2, 2011

Add the following to Article 603.02 of the Standard Specifications:

- "(i) Temporary Hot-Mix Asphalt (HMA) Ramp (Note 1) 1030
- (j) Temporary Rubber Ramps (Note 2)

Note 1. The HMA shall have maximum aggregate size of 3/8 in. (95 mm).

Note 2. The rubber material shall be according to the following.

Property	Test Method	Requirement
Durometer Hardness, Shore A	ASTM D 2240	75 ±15
Tensile Strength, psi (kPa)	ASTM D 412	300 (2000) min
Elongation, percent	ASTM D 412	90 min
Specific Gravity	ASTM D 792	1.0 - 1.3
Brittleness, °F (°C)	ASTM D 746	-40 (-40)"

Revise Article 603.07 of the Standard Specifications to read:

"603.07 Protection Under Traffic. After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b.

When castings are under traffic before the final surfacing operation has been started, properly sized temporary ramps shall be placed around the drainage and/or utility castings according to the following methods.

- (a) Temporary Asphalt Ramps. Temporary hot-mix asphalt ramps shall be placed around the casting, flush with its surface and decreasing to a featheredge in a distance of 2 ft (600 mm) around the entire surface of the casting.
- (b) Temporary Rubber Ramps. Temporary rubber ramps shall only be used on roadways with permanent posted speeds of 40 mph or less and when the height of the casting to be protected meets the proper sizing requirements for the rubber ramps as shown below.

Dimension	Requirement
Inside Opening	Outside dimensions of casting + 1 in. (25 mm)

Thickness at inside edge	Height of casting \pm 1/4 in. (6 mm)
Thickness at outside edge	1/4 in. (6 mm) max.
Width, measured from inside opening to outside edge	8 1/2 in. (215 mm) min

Placement shall be according to the manufacturer's specifications.

Temporary ramps for castings shall remain in place until surfacing operations are undertaken within the immediate area of the structure. Prior to placing the surface course, the temporary ramp shall be removed. Excess material shall be disposed of according to Article 202.03."

HOT-MIX ASPHALT BINDER AND SURFACE COURSE

Article 406.05 Preparation, Priming and Leveling of Brick, Concrete, HMA or Aggregate Bases. The placement of bituminous materials for prime shall be in accordance with Section 406 of the Standard Specifications with the following revisions and additions:

1. No prime coat material shall be placed between 6:00 A.M. and 9:00 A.M. or between 2:00 P.M. and 6:00 P.M.
2. A maximum of one lane in each direction shall be primed at a time. Sufficient time shall be allowed for the prime to cure before the adjacent lane is primed.
3. Lanes closed for the placement of prime are to be closed using applicable standards for lane closures. The Engineer may allow cone spacing to be increased to a maximum of 150 foot (50 meter) center-to-center spacing to delineate the lane closure.
4. Prime shall not be placed more than 72 hours prior to the start of paving.
5. If traffic cannot be kept off fresh prime with the above procedures, the Engineer may require the prime be placed in conjunction with the paving operation.

HMA MIXTURE DESIGN REQUIREMENTS (D-1)

Effective: January 1, 2013
 Revised: November 1, 2014

1) Design Composition and Volumetric Requirements

Revise the last sentence of the first paragraph of Article 312.05 of the Standard Specifications to read:

“The minimum compacted thickness of each lift shall be according to Article 406.06(d).”

Delete the minimum compacted lift thickness table in Article 312.05 of the Standard Specifications.

Revise the second paragraph of Article 355.02 of the Standard Specifications to read:

“The mixture composition used shall be IL-19.0.”

Revise Article 355.05(a) of the Standard Specifications to read:

“(a) The top lift thickness shall be 2 1/4 in. (60 mm) for mixture composition IL-19.0.”

Revise the Leveling Binder table and second paragraph of Article 406.05(c) of the Standard Specifications to read:

"Leveling Binder	
Nominal, Compacted, Leveling Binder Thickness, in. (mm)	Mixture Composition
≤ 1 1/4 (32)	IL-4.75, IL-9.5, or IL-9.5L
> 1 1/4 to 2 (32 to 50)	IL-9.5 or IL-9.5L

The density requirements of Article 406.07(c) shall apply for leveling binder, machine method, when the nominal compacted thickness is: 3/4 in. (19 mm) or greater for IL-4.75 mixtures; and 1 1/4 in. (32 mm) or greater for IL-9.5 and IL-9.5L mixtures.”

Revise the table in Article 406.06(d) of the Standard Specifications to read:

"MINIMUM COMPACTED LIFT THICKNESS	
Mixture Composition	Thickness, in. (mm)
IL-4.75	3/4 (19)
SMA-9.5, IL-9.5, IL-9.5L	1 1/2 (38)
SMA-12.5	2 (50)
IL-19.0, IL-19.0L	2 1/4 (57)”

Revise the ninth paragraph of Article 406.14 of the Standard Specifications to read:

“Test strip mixture will be evaluated at the contract unit price according to the following.”

Revise Article 406.14(a) of the Standard Specifications to read:

“(a) If the HMA placed during the initial test strip is determined to be acceptable the mixture will be paid for at the contract unit price.”

Revise Article 406.14(b) of the Standard Specifications to read:

“(b) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was not produced within 2.0 to 6.0 percent air voids or within the individual control limits of the JMF according to the Department’s test results, the mixture will not be paid for and shall be removed at the Contractor’s expense. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF.”

Revise Article 406.14(c) of the Standard Specifications to read:

“(c) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF according to the Department’s test results, the mixture shall be removed. Removal will be paid according to Article 109.04. This initial mixture will be paid for at the contract unit price. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF.”

Delete Article 406.14(d) of the Standard Specifications.

Delete Article 406.14(e) of the Standard Specifications.

Delete the last sentence of Article 407.06(c) of the Standard Specifications.

Revise Note 2. of Article 442.02 of the Standard Specifications to read:

“Note 2. The mixture composition of the HMA used shall be IL-19.0 binder, designed with the same Ndesign as that specified for the mainline pavement.”

Delete the second paragraph of Article 482.02 of the Standard Specifications.

Revise the first sentence of the sixth paragraph of Article 482.05 of the Standard Specifications to read:

“When the mainline HMA binder and surface course mixture option is used on resurfacing projects, shoulder resurfacing widths of 6 ft (1.8 m) or less may be placed simultaneously with the adjacent traffic lane for both the binder and surface courses.”

Revise the second sentence of the fourth paragraph of Article 601.04 of the Standard Specifications to read:

“The top 5 in. (125 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density.”

Revise the second sentence of the fifth paragraph of Article 601.04 of the Standard Specifications to read:

“The top 8 in. (200 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density.”

Revise Article 1003.03(c) of the Standard Specifications to read:

“(c) Gradation. The fine aggregate gradation for all HMA shall be FA 1, FA 2, FA 20, FA 21, or FA 22. The fine aggregate gradation for SMA shall be FA/FM 20.

For mixture IL-4.75 and surface mixtures with an $N_{design} = 90$, at least 50 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, or steel slag meeting the FA 20 gradation.

For mixture IL-19.0, $N_{design} = 90$ the fine aggregate fraction shall consist of at least 67 percent manufactured sand meeting FA 20 or FA 22 gradation. For mixture IL-19.0, $N_{design} = 50$ or 70 the fine aggregate fraction shall consist of at least 50 percent manufactured sand meeting FA 20 or FA 22 gradation. The manufactured sand shall be stone sand, slag sand, steel slag sand, or combinations thereof.

Gradation FA 1, FA 2, or FA 3 shall be used when required for prime coat aggregate application for HMA.”

Delete the last sentence of the first paragraph of Article 1004.03(b) of the Standard Specifications.

Revise the table in Article 1004.03(c) of the Standard Specifications to read:

"Use	Size/Application	Gradation No.
Class A-1, 2, & 3	3/8 in. (10 mm) Seal	CA 16
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & 3	Cover	CA 14
HMA High ESAL	IL-19.0 IL-9.5	CA 11 ^{1/} CA 16, CA 13 ^{3/}
HMA Low ESAL	IL-19.0L IL-9.5L Stabilized Subbase or Shoulders	CA 11 ^{1/} CA 16
SMA ^{2/}	1/2 in. (12.5mm) Binder & Surface IL 9.5 Surface	CA13 ^{3/} , CA14 or CA16 CA16, CA 13 ^{3/}

1/ CA 16 or CA 13 may be blended with the gradations listed.

2/ The coarse aggregates used shall be capable of being combined with stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation and mineral filler to meet the approved mix design and the mix requirements noted herein.

3/ CA 13 shall be 100 percent passing the 1/2 in. (12.5mm) sieve.

Revise Article 1004.03(e) of the Supplemental Specifications to read:

"(e) Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.0 percent."

Revise the nomenclature table in Article 1030.01 of the Standard Specifications to read:

"High ESAL	IL-19.0 binder; IL-9.5 surface; IL-4.75; SMA-12.5, SMA-9.5
Low ESAL	IL-19.0L binder; IL-9.5L surface; Stabilized Subbase (HMA) ^{1/} ; HMA Shoulders ^{2/}

1/ Uses 19.0L binder mix.

2/ Uses 19.0L for lower lifts and 9.5L for surface lift."

Revise Article 1030.02 of the Standard Specifications and Supplemental Specifications to read:

"1030.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.03
(b) Fine Aggregate	1003.03
(c) RAP Material	1031
(d) Mineral Filler	1011
(e) Hydrated Lime	1012.01
(f) Slaked Quicklime (Note 1)	
(g) Performance Graded Asphalt Binder (Note 2)	1032
(h) Fibers (Note 3)	
(i) Warm Mix Asphalt (WMA) Technologies (Note 4)	

Note 1. Slaked quicklime shall be according to ASTM C 5.

Note 2. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be an Elvaloy or SBS PG 76-22 for IL-4.75, except where modified herein. The elastic recovery shall be a minimum of 80.

Note 3. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that produces either Type I or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

Note 4. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm Mix Asphalt Technologies".

Revise Article 1030.04(a)(1) of the Standard Specifications and the Supplemental Specifications to read:

“(1) High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

High ESAL, MIXTURE COMPOSITION (% PASSING) ^{1/}										
Sieve Size	IL-19.0 mm		SMA ^{4/} IL-12.5 mm		SMA ^{4/} IL-9.5 mm		IL-9.5 mm		IL-4.75 mm	
	min	max	min	max	min	max	min	max	min	max
1 1/2 in. (37.5 mm)										
1 in. (25 mm)		100								
3/4 in. (19 mm)	90	100		100						
1/2 in. (12.5 mm)	75	89	80	100		100		100		100
3/8 in. (9.5 mm)				65	90	100	90	100		100
#4 (4.75 mm)	40	60	20	30	36	50	34	69	90	100
#8 (2.36 mm)	20	42	16	24 ^{5/}	16	32 ^{5/}	34 ^{6/}	52 ^{2/}	70	90
#16 (1.18 mm)	15	30					10	32	50	65
#30 (600 μm)			12	16	12	18				
#50 (300 μm)	6	15					4	15	15	30
#100 (150 μm)	4	9					3	10	10	18
#200 (75 μm)	3	6	7.0	9.0 ^{3/}	7.5	9.5 ^{3/}	4	6	7	9 ^{3/}
Ratio Dust/Asphalt Binder		1.0		1.5		1.5		1.0		1.0

- 1/ Based on percent of total aggregate weight.
- 2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.
- 3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.
- 4/ The maximum percent passing the #635 (20 μm) sieve shall be ≤ 3 percent.
- 5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above the percentage stated on the table.

- 6/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.

Delete Article 1030.04(a)(3) of the Standard Specifications.

Delete Article 1030.04(a)(4) of the Standard Specifications.

Revise Article 1030.04(b)(1) of the Standard Specifications to read:

- “(1) High ESAL Mixtures. The target value for the air voids of the HMA shall be 4.0 percent and for IL-4.75 it shall be 3.5 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix, and shall conform to the following requirements.

VOLUMETRIC REQUIREMENTS High ESAL				
Ndesign	Voids in the Mineral Aggregate (VMA), % minimum			Voids Filled with Asphalt Binder (VFA), %
	IL-19.0	IL-9.5	IL-4.75 ^{1/}	
50	13.5	15.0	18.5	65 – 78 ^{2/}
70				
90				

1/ Maximum Draindown for IL-4.75 shall be 0.3 percent

2/ VFA for IL-4.75 shall be 72-85 percent”

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

“VOLUMETRIC REQUIREMENTS Low ESAL				
Mixture Composition	Design Compactive Effort	Design Air Voids Target %	VMA (Voids in the Mineral Aggregate), % min.	VFA (Voids Filled with Asphalt Binder), %
IL-9.5L	N _{DES} =30	4.0	15.0	65-78
IL-19.0L	N _{DES} =30	4.0	13.5	N/A”

Replace Article 1030.04(b)(3) of the Standard Specifications with the following:

“(3) SMA Mixtures.

Volumetric Requirements SMA ^{1/}			
Ndesign	Design Air Voids Target %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %
80 ^{4/}	3.5	17.0 ^{2/}	75 - 83
		16.0 ^{3/}	

- 1/ Maximum draindown shall be 0.3 percent. The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30 °F.
- 2/ Applies when specific gravity of coarse aggregate is ≥ 2.760 .
- 3/ Applies when specific gravity of coarse aggregate is < 2.760 .
- 4/ Blending of different types of aggregate will not be permitted. For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone.

Delete Article 1030.04(b)(4) of the Standard Specifications.

Delete Article 1030.04(b)(5) from the Supplemental Specifications.

Delete last sentence of the second paragraph of Article 1102.01(a) (13) a.

Add to second paragraph in Article 1102.01 (a) (13) a.:

“As an option, collected bag-house dust may be used in lieu of manufactured mineral filler, provided; 1) there is enough available for the production of the SMA mix for the entire project and 2) a mix design was prepared with collected bag-house dust.”

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

"Parameter	Frequency of Tests		Test Method See Manual of Test Procedures for Materials
	High ESAL Mixture	Low ESAL Mixture	
Aggregate Gradation % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 μm) No. 200 (75 μm)	1 washed ignition oven test on the mix per half day of production Note 3.		Illinois Procedure
Asphalt Binder Content by Ignition Oven Note 1.	1 per half day of production		Illinois-Modified AASHTO T 308
VMA Note 2.	Day's production ≥ 1200 tons: 1 per half day of production	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	Illinois-Modified AASHTO R 35
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		
Air Voids Bulk Specific Gravity of Gyratory Sample Note 4.	Day's production ≥ 1200 tons: 1 per half day of production	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	Illinois-Modified AASHTO T 312
	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)		
Maximum Specific Gravity of Mixture	Day's production ≥ 1200 tons: 1 per half day of production	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	Illinois-Modified AASHTO T 209
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		

- Note 1. The Engineer may waive the ignition oven requirement for asphalt binder content if the aggregates to be used are known to have ignition asphalt binder content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the asphalt binder content.
- Note 2. The G_{sb} used in the voids in the mineral aggregate (VMA) calculation shall be the same average G_{sb} value listed in the mix design.
- Note 3. The Engineer reserves the right to require additional hot bin gradations for batch plants if control problems are evident.
- Note 4. The WMA compaction temperature for mixture volumetric testing shall be 270 ± 5 °F (132 ± 3 °C) for quality control testing. The WMA compaction temperature for quality assurance testing will be 270 ± 5 °F (132 ± 3 °C) if the mixture is not allowed to cool to room temperature. If the mixture is allowed to cool to room temperature, it shall be reheated to standard HMA compaction temperatures."

Revise the table in Article 1030.05(d)(2)b. of the Standard Specifications to read:

"Parameter	High ESAL Mixture Low ESAL Mixture
Ratio Dust/Asphalt Binder	0.6 to 1.2
Moisture	0.3 %"

Revise the Article 1030.05(d)(4) of the Supplemental Specifications to read:

- "(4) Control Limits. Target values shall be determined by applying adjustment factors to the AJMF where applicable. The target values shall be plotted on the control charts within the following control limits.

"CONTROL LIMITS						
Parameter	High ESAL		SMA		IL-4.75	
	Individual Test	Moving Avg. of 4	Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4
% Passing: ^{1/}						
1/2 in. (12.5 mm)	± 6 %	± 4 %	± 6 %	± 4 %		
3/8 in. (9.5mm)			± 4 %	± 3 %		
No. 4 (4.75 mm)	± 5 %	± 4 %	± 5 %	± 4 %		
No. 8 (2.36 mm)	± 5 %	± 3 %	± 4 %	± 2 %		
No. 16 (1.18 mm)			± 4 %	± 2 %	± 4 %	± 3 %
No. 30 (600 μm)	± 4 %	± 2.5 %	± 4 %	± 2.5 %		
Total Dust Content No. 200 (75 μm)	± 1.5 %	± 1.0 %			± 1.5 %	± 1.0 %
Asphalt Binder Content	± 0.3 %	± 0.2 %	± 0.2 %	± 0.1 %	± 0.3 %	± 0.2 %
Voids	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %
VMA	-0.7 % ^{2/}	-0.5 % ^{2/}	-0.7 % ^{2/}	-0.5 % ^{2/}	-0.7 % ^{2/}	-0.5 % ^{2/}

1/ Based on washed ignition oven

2/ Allowable limit below minimum design VMA requirement

DENSITY CONTROL LIMITS		
Mixture Composition	Parameter	Individual Test
IL-4.75	N _{design} = 50	93.0 - 97.4 % ^{1/}
IL-9.5	N _{design} = 90	92.0 - 96.0 %
IL-9.5,IL-9.5L	N _{design} < 90	92.5 - 97.4 %
IL-19.0	N _{design} = 90	93.0 - 96.0 %
IL-19.0, IL-19.0L	N _{design} < 90	93.0 ^{2/} - 97.4 %
SMA	N _{design} = 80	93.5 - 97.4 %

1/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.

2/ 92.0 % when placed as first lift on an unimproved subgrade."

Revise the table in Article 1030.05(d)(5) of the Supplemental Specifications to read:

"CONTROL CHART REQUIREMENTS	High ESAL, Low ESAL, SMA & IL-4.75
Gradation ^{1/3/}	% Passing Sieves: 1/2 in. (12.5 mm) ^{2/} No. 4 (4.75 mm) No. 8 (2.36 mm) No. 30 (600 µm)
Total Dust Content ^{1/}	No. 200 (75 µm)
	Asphalt Binder Content
	Bulk Specific Gravity
	Maximum Specific Gravity of Mixture
	Voids
	Density
	VMA

- 1/ Based on washed ignition oven.
- 2/ Does not apply to IL-4.75.
- 3/ SMA also requires the 3/8 in. (9.5 mm) sieve."

Delete Article 1030.05(d)(6)a.1.(b.) of the Standard Specifications.

Delete Article 1030.06(b) of the Standard Specifications.

Delete Article 1102.01(e) of the Standard Specifications.

2) Design Verification and Production

Description. The following states the requirements for Hamburg Wheel and Tensile Strength testing for High ESAL, IL-4.75, and Stone Matrix Asphalt (SMA) hot-mix asphalt (HMA) mixes during mix design verification and production.

Mix Design Testing. Add the following below the referenced AASHTO standards in Article 1030.04 of the Standard Specifications:

- AASHTO T 324 Hamburg Wheel Test
- AASHTO T 283 Tensile Strength Test

Add the following to Article 1030.04 of the Standard Specifications:

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (IL mod AASHTO T-324) and the Tensile Strength Test (IL mod AASHTO T-283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make the necessary changes to the mix and resubmit compacted specimens to the Department for verification. If the mix fails again, the mix design will be rejected.

All new and renewal mix designs will be required to be tested, prior to submittal for Department verification and shall meet the following requirements:

(1)Hamburg Wheel Test criteria. The maximum allowable rut depth shall be 0.5 in. (12.5 mm). The minimum number of wheel passes at the 0.5 in. (12.5 mm) rut depth criteria shall be based on the high temperature binder grade of the mix as specified in the mix requirements table of the plans.

Illinois Modified AASHTO T 324 Requirements ^{1/}

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG 70 -XX (or higher)	20,000	12.5
PG 64 -XX (or lower)	10,000	12.5

1/ When produced at temperatures of 275 ± 5 °F (135 ± 3 °C) or less, loose Warm Mix Asphalt shall be oven aged at 270 ± 5 °F (132 ± 3 °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.

Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions.
 For IL 4.75mm Designs (N-50) the maximum rut depth is 9.0mm at 15,000 repetitions.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 60 psi (415 kPa) for non-polymer modified performance graded (PG) asphalt binder and 80 psi (550 kPa) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa)."

Production Testing. Revise Article 1030.06(a) of the Standard Specifications to read:

"(a) High ESAL, IL-4.75, WMA, and SMA Mixtures. For each contract, a 300 ton (275 metric tons) test strip, except for SMA mixtures it will be 400 ton (363 metric ton), will be required at the beginning of HMA production for each mixture with a quantity of 3000 tons (2750 metric tons) or more according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures".

Before start-up, target values shall be determined by applying gradation correction factors to the JMF when applicable. These correction factors shall be determined from previous experience. The target values, when approved by the Engineer, shall be used to control HMA production. Plant settings and control charts shall be set according to target values.

Before constructing the test strip, target values shall be determined by applying gradation correction factors to the JMF when applicable. After any JMF adjustment, the JMF shall become the Adjusted Job Mix Formula (AJMF). Upon completion of the first acceptable test strip, the JMF shall become the AJMF regardless of whether or not the JMF has been adjusted. If an adjustment/plant change is made, the Engineer may require a new test strip to be constructed. If the HMA placed during the initial test strip is determined to be unacceptable to remain in place by the Engineer, it shall be removed and replaced.

The limitations between the JMF and AJMF are as follows.

Parameter	Adjustment
1/2 in. (12.5 mm)	± 5.0 %
No. 4 (4.75 mm)	± 4.0 %
No. 8 (2.36 mm)	± 3.0 %
No. 30 (600 µm)	*
No. 200 (75 µm)	*
Asphalt Binder Content	± 0.3 %

* In no case shall the target for the amount passing be greater than the JMF.

Any adjustments outside the above limitations will require a new mix design.

Mixture sampled to represent the test strip shall include additional material sufficient for the Department to conduct Hamburg Wheel testing according to Illinois Modified AASHTO T324 (approximately 60 lb (27 kg) total).

The Contractor shall immediately cease production upon notification by the Engineer of failing Hamburg Wheel test. All prior produced material may be paved out provided all other mixture criteria is being met. No additional mixture shall be produced until the Engineer receives passing Hamburg Wheel tests.

The Department may conduct additional Hamburg Wheel tests on production material as determined by the Engineer.”

Revise the title of Article 1030.06(b) of the Standard Specifications to read:

“(b) Low ESAL Mixtures.”

Add the following to Article 1030.06 of the Standard Specifications:

“(c) Hamburg Wheel Test. All HMA mixtures shall be sampled within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day’s production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract. The Department may conduct additional Hamburg Wheel Tests on production material as determined by the Engineer. If the mixture fails to meet the Hamburg Wheel criteria, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria”

The Contractor shall immediately cease production upon notification by the Engineer of failing Hamburg Wheel test. All prior produced material may be paved out provided all other mixture criteria are being met. No additional mixture shall be produced until the Engineer receives passing Hamburg Wheel tests.

Method of Measurement:

Add the following after the fourth paragraph of Article 406.13 (b):

“The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design’s G_{mb} .”

Basis of Payment.

Replace the seventh paragraph of Article 406.14 of the Standard Specifications with the following:

“For all mixes designed and verified under the Hamburg Wheel criteria, the cost of furnishing and introducing anti-stripping additives in the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

No additional compensation will be awarded to the Contractor because of reduced production rates associated with the addition of the anti-stripping additive.”

GROUND TIRE RUBBER (GTR) MODIFIED ASPHALT BINDER (D-1)

Effective: June 26, 2006

Revised: January 1, 2013

Add the following to the end of article 1032.05 of the Standard Specifications:

“(c) Ground Tire Rubber (GTR) Modified Asphalt Binder. A quantity of 10.0 to 14.0 percent GTR (Note 1) shall be blended by dry unit weight with a PG 64-28 to make a GTR 70-28 or a PG 58-28 to make a GTR 64-28. The base PG 64-28 and PG 58-28 asphalt binders shall meet the requirements of Article 1032.05(a). Compatible polymers may be added during production. The GTR modified asphalt binder shall meet the requirements of the following table.

Test	Asphalt Grade GTR 70-28	Asphalt Grade GTR 64-28
Flash Point (C.O.C.), AASHTO T 48, °F (°C), min.	450 (232)	450 (232)
Rotational Viscosity, AASHTO T 316 @ 275 °F (135 °C), Poises, Pa·s, max.	30 (3)	30 (3)
Softening Point, AASHTO T 53, °F (°C), min.	135 (57)	130 (54)
Elastic Recovery, ASTM D 6084, Procedure A (sieve waived) @ 77 °F, (25 °C), aged, ss, 100 mm elongation, 5 cm/min., cut immediately, %, min.	65	65

Note 1. GTR shall be produced from processing automobile and/or light truck tires by the ambient grinding method. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall contain no free metal particles or other materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois modified AASHTO T 27, a 50 g sample of the GTR shall conform to the following gradation requirements:

Sieve Size	Percent Passing
No. 16 (1.18 mm)	100
No. 30 (600 μm)	95 ± 5
No. 50 (300 μm)	> 20

Add the following to the end of Note 1. of article 1030.03 of the Standard Specifications:

“A dedicated storage tank for the Ground Tire Rubber (GTR) modified asphalt binder shall be provided. This tank must be capable of providing continuous mechanical mixing throughout by continuous agitation and recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ± 0.40 percent.”

Revise 1030.02(c) of the Standard Specifications to read:

“(c) RAP Materials (Note 3)1031”

Add the following note to 1030.02 of the Standard Specifications:

Note 3. When using reclaimed asphalt pavement and/or reclaimed asphalt shingles, the maximum asphalt binder replacement percentage shall be according to the most recent special provision for recycled materials.

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D-1)

Effective: November 1, 2012

Revise: January 2, 2015

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

1031.01 Description. Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

- (a) Reclaimed Asphalt Pavement (RAP). RAP is the material resulting from cold milling or crushing an existing hot-mix asphalt (HMA) pavement. RAP will be considered processed FRAP after completion of both crushing and screening to size. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.
- (b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 90 percent passing the #4 (4.75 mm) sieve . RAS shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.
 - (1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.
 - (2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

- (a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. Additional processed RAP (FRAP) shall be stockpiled in a separate working pile, as designated in the QC Plan, and only added to the sealed stockpile when test results for the working pile are complete and are found to meet tolerances specified herein for the original sealed FRAP stockpile. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including

unprocessed RAP and FRAP) shall be identified by signs indicating the type as listed below (i.e. "Non- Quality, FRAP #4 or Type 2 RAS", etc...).

- (1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, Superpave HMA (High and Low ESAL) or equivalent mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be processed prior to testing and sized into fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP in the coarse fraction shall pass the maximum sieve size specified for the mix the FRAP will be used in.
- (2) Restricted FRAP (B quality) stockpiles shall consist of RAP from Class I, Superpave (High ESAL), or HMA (High ESAL). If approved by the Engineer, the aggregate from a maximum 3.0 inch single combined pass of surface/binder milling will be classified as B quality. All millings from this application will be processed into FRAP as described previously.
- (3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, Superpave HMA (High and Low 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 (FRAP) prior to testing. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (4) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from HMA shoulders, bituminous stabilized subbases or Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder mixture. 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.
- (5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

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

- (b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall be sufficiently separated to prevent intermingling at the base. Each stockpile shall be signed indicating what type of RAS is present.

However, a RAS source may submit a written request to the Department for approval to blend mechanically a specified ratio of type 1 RAS with type 2 RAS. The source will not be permitted to change the ratio of the blend without the Department prior written approval. The Engineer's written approval will be required, to mechanically blend RAS with any fine aggregate produced under the AGCS, up to an equal weight of RAS, to improve workability. The fine aggregate shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The fine aggregate shall be one that is approved for use in the HMA mixture and accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type and lot number shall be maintained by project contract number and kept for a minimum of three years.

1031.03 Testing. FRAP and RAS testing shall be according to the following.

(a) FRAP Testing. When used in HMA, the FRAP shall be sampled and tested either during processing or after stockpiling. It shall also be sampled during HMA production.

(1) During 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).

(2) Incoming Material. For testing as incoming material, washed extraction samples shall be run at a minimum frequency of one sample per 2000 tons (1800 metric tons) or once per week, whichever comes first.

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

Before extraction, each field sample of FRAP, 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.

(b) RAS Testing. RAS shall be sampled and tested during stockpiling according to Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources". The Contractor shall also sample as incoming material at the HMA plant.

- (1) During Stockpiling. Washed extraction and testing for unacceptable materials shall be run at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 1000 tons (900 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a ≤ 1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS shall be in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.
- (2) Incoming Material. For testing as incoming material at the HMA plant, washed extraction shall be run at the minimum frequency of one sample per 250 tons (227 metric tons). A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). The incoming material test results shall meet the tolerances specified herein.

The Contractor shall obtain and make available all test results from start of the initial stockpile sampled and tested at the shingle processing facility in accordance with the facility's QC Plan.

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 procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

1031.04 Evaluation of Tests. Evaluation of tests results shall be according to the following.

- (a) Evaluation of FRAP Test Results. All test results shall be compiled to include asphalt binder content, gradation and, when applicable (for slag), G_{mm} . A five test average of results from the original pile will be used in the mix designs. Individual extraction test results run thereafter, shall be compared to the average used for the mix design, and will be accepted if within the tolerances listed below.

Parameter	FRAP
No. 4 (4.75 mm)	$\pm 6 \%$
No. 8 (2.36 mm)	$\pm 5 \%$
No. 30 (600 μm)	$\pm 5 \%$
No. 200 (75 μm)	$\pm 2.0 \%$
Asphalt Binder	$\pm 0.3 \%$
G_{mm}	± 0.03 ^{1/}

- 1/ For stockpile with slag or steel slag present as determined in the current Manual of Test Procedures Appendix B 21, "Determination of Reclaimed Asphalt Pavement Aggregate Bulk Specific Gravity".

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the FRAP stockpile shall not be used in Hot-Mix Asphalt unless the FRAP representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

The Contractor shall maintain a representative moving average of five tests to be used for Hot-Mix Asphalt production.

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)" or Illinois Modified AASHTO T-164-11, Test Method A.

- (b) Evaluation of RAS Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. A five test average of results from the original pile will be used in the mix designs. Individual test results run thereafter, when compared to the average used for the mix design, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5 %
No. 16 (1.18 mm)	± 5 %
No. 30 (600 µm)	± 4 %
No. 200 (75 µm)	± 2.5 %
Asphalt Binder Content	± 2.0 %

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the RAS shall not be used in Hot-Mix Asphalt unless the RAS representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

- (c) Quality Assurance by the Engineer. The Engineer may witness the sampling and splitting conduct assurance tests on split samples taken by the Contractor for quality control testing a minimum of once a month.

The overall testing frequency will be performed over the entire range of Contractor samples for asphalt binder content and gradation. The Engineer may select any or all split samples for assurance testing. The test results will be made available to the Contractor as soon as they become available.

The Engineer will notify the Contractor of observed deficiencies.

Differences between the Contractor's and the Engineer's split sample test results will be considered acceptable if within the following limits.

Test Parameter	Acceptable Limits of Precision	
	FRAP	RAS
% Passing: ^{1/}		
1 / 2 in.	5.0%	
No. 4	5.0%	
No. 8	3.0%	4.0%
No. 30	2.0%	3.0%
No. 200	2.2%	2.5%
Asphalt Binder Content	0.3%	1.0%
G _{mm}	0.030	

1/ Based on washed extraction.

In the event comparisons are outside the above acceptable limits of precision, the Engineer will immediately investigate.

- (d) Acceptance by the Engineer. Acceptable of the material will be based on the validation of the Contractor's quality control by the assurance process.

1031.05 Quality Designation of Aggregate in RAP and FRAP.

- (a) RAP. The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

- (1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
- (2) RAP from Superpave/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
- (3) RAP from Class I, Superpave/HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
- (4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

- (b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Fractionated RAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications. The fine aggregate portion of the fractionated RAP shall not be used in any HMA mixtures that require a minimum of "B" quality aggregate or better, until the coarse aggregate fraction has been determined to be acceptable thru a MicroDeval Testing.

1031.06 Use of FRAP and/or RAS in HMA. The use of FRAP and/or RAS shall be a Contractor's option when constructing HMA in all contracts.

- (a) FRAP. The use of FRAP in HMA shall be as follows.

- (1) Coarse Aggregate Size (after extraction). The coarse aggregate in all FRAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.
- (2) Steel Slag Stockpiles. FRAP 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) mixtures regardless of lift or mix type.
- (3) Use in HMA Surface Mixtures (High and Low ESAL). FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall have coarse aggregate that is Class B quality or better. FRAP shall be considered equivalent to limestone for frictional considerations unless produced/screened to minus 3/8 inch.
- (4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP in which the coarse aggregate is Class C quality or better.
- (5) Use in Shoulders and Subbase. FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, Restricted FRAP, conglomerate, or conglomerate DQ.

- (b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.
- (c) FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.

When FRAP is used alone or FRAP is used in conjunction with RAS, the percent of virgin asphalt binder replacement (ABR) shall not exceed the amounts indicated in the table below for a given N Design.

Max Asphalt Binder Replacement for FRAP with RAS Combination

HMA Mixtures ^{1/2/}	Maximum % ABR		
	Binder/Leveling Binder	Surface	Polymer Modified ^{3/}
30L	50	40	10
50	40	35	10
70	40	30	10
90	40	30	10 ^{4/}
4.75 mm N-50			30
SMA N-80			20

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the percent asphalt binder replacement shall not exceed 50% of the total asphalt binder in the mixture.
- 2/ When the binder replacement exceeds 15 percent for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement using a virgin asphalt binder grade of PG64-22 will be reduced to a PG58-28). When constructing full depth HMA and the ABR is less than 15 percent, the required virgin asphalt binder grade shall be PG64-28.
- 3/ When the ABR for SMA or IL-4.75 is 15 percent or less, the required virgin asphalt binder shall be SBS PG76-22 and the elastic recovery shall be a minimum of 80. When the ABR for SMA or IL-4.75 exceeds 15%, the virgin asphalt binder grade shall be SBS PG70-28 and the elastic recovery shall be a minimum of 80.
- 4/ For polymerized surface mix used for overlays, with up to 10 percent ABR, an SBS PG70-22 will be required. However if used in full depth HMA, an SBS PG70-28 will be required.

1031.07 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the detailed requirements specified herein.

- (a) FRAP and/or RAS. FRAP and /or RAS mix designs shall be submitted for verification. If additional FRAP or RAS stockpiles are tested and found to be within tolerance, as defined under "Evaluation of Tests" herein, and meet all requirements herein, the additional FRAP or RAS stockpiles may be used in the original design at the percent previously verified.
- (b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.300 shall be used for mix design purposes.

1031.08 HMA Production. HMA production utilizing FRAP and/or RAS shall be as follows.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAS and FRAP 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 during mix production, corrective actions fail to maintain FRAP, RAS or QC/QA test results within control tolerances or the requirements listed herein the Contractor shall cease production of the mixture containing FRAP or RAS and conduct an investigation that may require a new mix design.

- (a) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.
- (b) HMA Plant Requirements. HMA plants utilizing FRAP and/or RAS shall be capable of automatically recording and printing the following information.

(1) Dryer Drum Plants.

- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.
- c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

- d. Accumulated dry weight of RAS and FRAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
- f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
- g. Residual asphalt binder in the RAS and FRAP material as a percent of the total mix to the nearest 0.1 percent.
- h. Aggregate RAS and FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAS and FRAP are printed in wet condition.)
- i. When producing mixtures with FRAP and/or RAS, a positive dust control system shall be utilized.
- j. Accumulated mixture tonnage.
- k. Dust Removed (accumulated to the nearest 0.1 ton)

(2) Batch Plants.

- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.
- c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
- d. Mineral filler weight to the nearest pound (kilogram).
- f. RAS and FRAP weight to the nearest pound (kilogram).
- g. Virgin asphalt binder weight to the nearest pound (kilogram).
- h. Residual asphalt binder in the RAS and FRAP material as a percent of the total mix to the nearest 0.1 percent.

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

1031.09 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of

RAP or FRAP in aggregate surface course and aggregate shoulders shall be as follows.

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply. RAP used to construct aggregate surface course and aggregate shoulders shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications"
- (b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded, FRAP, or single sized will not be accepted for use as Aggregate Surface Course and Aggregate Shoulders."

SLIPFORM PAVING (D-1)

Effective: November 1, 2014

Revise Article 1020.04 Table 1, Note (5) of Standard Specifications to read:

“The slump range for slipform construction shall be 1/2 to 1 1/2 in.”

Revise Article 1020.04 Table 1 (metric), Note (5) of Standard Specifications to read:

“The slump range for slipform construction shall be 13 to 40 mm.”

EMBANKMENT II

Effective: March 1, 2011

Description. This work shall be according to Section 205 of the Standard Specifications except for the following.

Material. Reclaimed asphalt shall not be used within the ground water table or as a fill if ground water is present.

CONSTRUCTION REQUIREMENTS

Samples. Embankment material shall be sampled and tested before use. The contractor shall identify embankment sources, and provide equipment as the Engineer requires, for the collection of samples from those sources. Samples will be furnished to the Geotechnical Engineer a minimum of three weeks prior to use in order that laboratory tests for compaction can be performed. Embankment material placement cannot begin until tests are completed.

Placing Material. In addition to Article 202.03, broken concrete, reclaimed asphalt with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities shall be placed in 6 inches (150 mm) lifts and disked with the underlying lift until a uniform homogenous material is formed. This process also applies to the overlaying lifts. The disk must have a minimum blade diameter of 24 inches (600 mm).

When embankments are to be constructed on hillsides or existing slopes that are steeper than 3H:1V, steps shall be keyed into the existing slope by stepping and benching as shown in the plans or as directed by the Engineer.

Compaction. Soils classification for moisture content control will be determined by the Soils Inspector using visual field examination techniques and the IDH Textural Classification Chart.

When tested for density in place each lift shall have a maximum moisture content as follows.

- a) A maximum of 110 percent of the optimum moisture for all forms of clay soils.
- b) A maximum of 105 percent of the optimum moisture for all forms of clay loam soils.

Stability. The requirement for embankment stability in article 205.04 will be measured with a Dynamic Cone Penetrometer (DCP) according to the test method in the IDOT Geotechnical Manual. The penetration rate must be equal or less than 1.5 inches (38 mm) per blow.

Basis of Payment. This work will not be paid separately but will be considered as included in the various items of excavation.

TRAFFIC SIGNAL SPECIFICATIONS

Effective: May 22, 2002

Revised: January 1, 2012

These Traffic Signal Special Provisions and the "District One Standard Traffic Signal Design Details" supplement the requirements of the State of Illinois "Standard Specifications for Road and Bridge Construction." The intent of these Special Provisions is to prescribe the materials and construction methods commonly used for traffic signal installations. All material furnished shall be new. The locations and the details of all installations shall be as indicated on the Plans or as directed by the Engineer. Traffic signal construction and maintenance work shall be performed by personnel holding IMSA Traffic Signal Technician Level II certification. The work to be done under this contract consists of furnishing and installing all traffic signal work as specified in the Plans and as specified herein in a manner acceptable and approved by the Engineer.

SECTION 720 SIGNING

MAST ARM SIGN PANELS

Add the following to Article 720.02 of the Standard Specifications:

Signs attached to poles or posts (such as mast arm signs) shall have mounting brackets and sign channels which are equal to and completely interchangeable with those used by the District Sign Shops. Signfix Aluminum Channel Framing System is currently recommended, but other brands of mounting hardware are acceptable based upon the Department's approval.

DIVISION 800 ELECTRICAL

SUBMITTALS.

Revise Article 801.05 of the Standard Specifications to read:

All material approval requests shall be submitted in accordance with the District's current Electrical Product Data and Documentation Submittal Guidelines.

General requirements include:

1. Material approval requests shall be made at the preconstruction meeting, including major traffic signal items listed in the table in Article 801.05. Material or equipment which is similar or identical shall be the product of the same manufacturer, unless necessary for system continuity. Traffic signal materials and equipment shall bear the U.L. label whenever such labeling is available.
2. Product data and shop drawings shall be assembled by pay item and separated from other pay item submittals. Only the top sheet of each pay item submittal will be stamped by the Department with the review status,

except shop drawings for mast arm pole assemblies and the like will be stamped with the review status on each sheet.

3. Partial or incomplete submittals will be returned without review.
4. Certain non-standard mast arm poles and structures will require additional review from IDOT's Central Office. Examples include ornamental/decorative and non-standard length mast arm pole assemblies. The Contractor shall account for the additional review time in his schedule.
5. The contract number or permit number, project location/limits and corresponding pay code number must be on each sheet of correspondence,, catalog cuts and mast arm poles and assemblies drawings.
6. Where certifications and/or warranties are specified, the information submitted for approval shall include certifications and warranties. Certifications involving inspections, and/or tests of material shall be complete with all test data, dates, and times.
7. After the Engineer reviews the submittals for conformance with the design concept of the project, the Engineer will stamp the drawings indicating their status as 'Approved', 'Approved-As-Noted', 'Disapproved', or 'Incomplete'. Since the Engineer's review is for conformance with the design concept only, it is the Contractor's responsibility to coordinate the various items into a working system as specified. The Contractor shall not be relieved from responsibility for errors or omissions in the shop, working, layout drawings, or other documents by the Department's approval thereof. The Contractor must still be in full compliance with contract and specification requirements.
8. All submitted items reviewed and marked 'APPROVED AS NOTED', 'DISAPPROVED', or 'INCOMPLETE' are to be resubmitted in their entirety, unless otherwise indicated within the submittal comments, with a disposition of previous comments to verify contract compliance at no additional cost to the contract.
9. Exceptions to and deviations from the requirements of the Contract Documents will not be allowed. It is the Contractor's responsibility to note any deviations from Contract requirements at the time of submittal and to make any requests for deviations in writing to the Engineer. In general, substitutions will not be acceptable. Requests for substitutions must demonstrate that the proposed substitution is superior to the material or equipment required by the Contract Documents. No exceptions, deviations or substitutions will be permitted without the approval of the Engineer.

INSPECTION OF ELECTRICAL SYSTEMS.

Add the following to Article 801.10 of the Standard Specifications:

- (c) All cabinets including temporary traffic signal cabinets shall be assembled by an approved equipment supplier in District One. The Department reserves the right to request any controller and cabinet to be tested at the equipment supplier facilities prior to field installation, at no extra cost to this contract.

MAINTENANCE AND RESPONSIBILITY.

Revise Article 801.11 of the Standard Specifications to read:

- a. Existing traffic signal installations and/or any electrical facilities at all or various locations may be altered or reconstructed totally or partially as part of the work on this Contract. The Contractor is hereby advised that all traffic control equipment, presently installed at these locations, may be the property of the State of Illinois, Department of Transportation, Division of Highways, County, Private Developer, or the Municipality in which they are located. Once the Contractor has begun any work on any portion of the project, all traffic signals within the limits of this contract or those which have the item "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," shall become the full responsibility of the Contractor. Automatic Traffic Enforcement equipment is not owned by the State and the Contractor shall not be responsible for maintaining it during construction. The Contractor shall supply the Engineer, Area Traffic Signal Maintenance and Operations Engineer, IDOT ComCenter and the Department's Electrical Maintenance Contractor with two 24-hour emergency contact names and telephone numbers.
- b. When the project has a pay item for "Maintenance of Existing Traffic Signal Installation," "Temporary Traffic Signal Installation(s)" and/or "Maintenance of Existing Flashing Beacon Installation," the Contractor must notify both the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 and the Department's Electrical Maintenance Contractor, of their intent to begin any physical construction work on the Contract or any portion thereof. This notification must be made a minimum of seven (7) working days prior to the start of construction to allow sufficient time for inspection of the existing traffic signal installation(s) and transfer of maintenance to the Contractor. If work is started prior to an inspection, maintenance of the traffic signal installation(s) will be transferred to the Contractor without an inspection. The Contractor will become responsible for repairing or replacing all equipment that is not operating properly or is damaged at no cost to the owner of the traffic signal. Final repairs or replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted.
- c. Contracts such as pavement grinding or patching which result in the destruction of traffic signal loops do not require maintenance transfer, but require a notification of intent to work and an inspection. A minimum of seven (7) working days prior to the loop removal, the Contractor shall notify the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 and the Department's Electrical Maintenance Contractor, at which time arrangements will be made to

adjust the traffic controller timing to compensate for the absence of detection. Damaged Automatic Traffic Enforcement equipment, including cameras, detectors, or other peripheral equipment, shall be replaced by others, per Permit agreement, at no cost to the contract. See additional requirements in these specifications under Inductive Loop Detector.

- d. The Contractor is advised that the existing and/or temporary traffic signal installation must remain in operation during all construction stages, except for the most essential down time. Any shutdown of the traffic signal installation, which exceeds fifteen (15) minutes, must have prior approval of the Engineer. Approval to shutdown the traffic signal installation will only be granted during the period extending from 10:00 a.m. to 3:00 p.m. on weekdays. Shutdowns shall not be allowed during inclement weather or holiday periods.
- e. The Contractor shall be fully responsible for the safe and efficient operation of the traffic signals. Any inquiry, complaint or request by the Department, the Department's Electrical Maintenance Contractor or the public, shall be investigated and repairs begun within one hour. Failure to provide this service will result in liquidated damages of \$500 per day per occurrence. In addition, the Department reserves the right to assign any work not completed within this timeframe to the Electrical Maintenance Contractor. All costs associated to repair this uncompleted work shall be the responsibility of the Contractor. Failure to pay these costs to the Electrical Maintenance Contractor within one month after the incident will result in additional liquidated damages of \$500 per month per occurrence. Unpaid bills will be deducted from the cost of the Contract. The District's Electrical Maintenance Contractor may inspect any signaling device on the Department's highway system at any time without notification.
- f. Any proposed activity in the vicinity of a highway-rail grade crossing must adhere to the guidelines set forth in the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) regarding work in temporary traffic control zones in the vicinity of highway-rail grade crossings which states that lane restrictions, flagging, or other operations shall not create conditions where vehicles can be queued across the railroad tracks. If the queuing of vehicles across the tracks cannot be avoided, a uniformed law enforcement officer or flagger shall be provided at the crossing to prevent vehicles from stopping on the tracks, even if automatic warning devices are in place.

DAMAGE TO TRAFFIC SIGNAL SYSTEM.

Add the following to Article 801.12(b) of the Standard Specifications to read:

Any traffic signal control equipment damaged or not operating properly from any cause whatsoever shall be replaced with new equipment meeting current District One traffic signal specifications and provided by the Contractor at no additional cost to the Contract and/or owner

of the traffic signal system, all as approved by the Engineer. Final replacement of damaged equipment must meet the approval of the Engineer prior to or at the time of final inspection otherwise the traffic signal installation will not be accepted. Cable splices outside the controller cabinet shall not be allowed.

Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, and peripheral equipment, damaged or not operating properly from any cause whatsoever, shall be the responsibility of the municipality or the Automatic Traffic Enforcement company per Permit agreement.

TRAFFIC SIGNAL INSPECTION (TURN-ON).

Revise Article 801.15(b) of the Standard Specifications to read:

It is the intent to have all electric work completed and equipment field tested by the vendor prior to the Department's "turn-on" field inspection. If in the event the Engineer determines work is not complete and the inspection will require more than two (2) hours to complete, the inspection shall be canceled and the Contractor will be required to reschedule at another date. The maintenance of the traffic signals will not be accepted until all punch list work is corrected and re-inspected.

When the road is open to traffic, except as otherwise provided in Section 850 of the Standard Specifications, the Contractor may request a turn-on and inspection of the completed traffic signal installation at each separate location. This request must be made to the Area Traffic Signal Maintenance and Operations Engineer at (847) 705-4424 a minimum of seven (7) working days prior to the time of the requested inspection. The Department will not grant a field inspection until notification is provided from the Contractor that the equipment has been field tested and the intersection is operating according to Contract requirements. The Department's facsimile number is (847) 705-4089. The Contractor must invite local fire department personnel to the turn-on when Emergency Vehicle Preemption (EVP) is included in the project. When the contract includes the item RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM, OPTIMIZE TRAFFIC SIGNAL SYSTEM, or TEMPORARY TRAFFIC SIGNAL TIMINGS, the Contractor must notify the SCAT Consultant of the turn-on/detour implementation schedule, as well as stage changes and phase changes during construction.

The Contractor must have all traffic signal work completed and the electrical service installation connected by the utility company prior to requesting an inspection and turn-on of the traffic signal installation. The Contractor shall be responsible to provide a police officer to direct traffic at the time of testing.

The Contractor shall provide a representative from the control equipment vendor's office to attend the traffic signal inspection for both permanent and temporary traffic signal turn-ons. Upon demonstration that the signals are operating and all work is completed in accordance with the Contract and to the satisfaction of the Engineer, the Engineer will then allow the signals to be placed in continuous operation. The Agency that is responsible for the maintenance of each

traffic signal installation will assume the maintenance upon successful completion of this inspection.

The District requires the following from the Contractor at traffic signal turn-ons.

1. One set of signal plans of record with field revisions marked in red ink.
2. Written notification from the Contractor and the equipment vendor of satisfactory field testing.
3. A knowledgeable representative of the controller equipment supplier shall be required at the traffic signal turn-on. The representative shall be knowledgeable of the cabinet design and controller functions.
4. A copy of the approved material letter.
5. One (1) copy of the operation and service manuals of the signal controller and associated control equipment.
6. Five (5) copies 11" x 17" (280 mm X 430 mm) of the cabinet wiring diagrams.
7. The controller manufacturer shall supply a printed form, not to exceed 11" x 17" (280 mm X 430 mm) for recording the traffic signal controller's timings; backup timings; coordination splits, offsets, and cycles; TBC Time of Day, Week and Year Programs; Traffic Responsive Program, Detector Phase Assignment, Type and Detector Switching; and any other functions programmable from the keyboard. The form shall include a location, date, manufacturer's name, controller model and software version. The form shall be approved by the Engineer and a minimum of three (3) copies must be furnished at each turn-on. The manufacturer must provide all programming information used within the controller at the time of turn-on.
8. All manufacturer and contractor warranties and guarantees required by Article 801.14.

Acceptance of the traffic signal equipment by the Department shall be based upon inspection results at the traffic signal "turn on." If approved, traffic signal acceptance shall be verbal at the "turn on" inspection followed by written correspondence from the Engineer. The Contractor shall be responsible for all traffic signal equipment and associated maintenance thereof until Departmental acceptance is granted.

All equipment and/or parts to keep the traffic signal installation operating shall be furnished by the Contractor. No spare traffic signal equipment is available from the Department.

All punch list work shall be completed within two (2) weeks after the final inspection. The Contractor shall notify the Electrical Maintenance Contractor to inspect all punch list work. Failure to meet these time constraints shall result in liquidated damage charges of \$500 per month per incident.

All cost of work and materials required to comply with the above requirements shall be included in the pay item bid prices, under which the subject materials and signal equipment are paid, and no additional compensation will be allowed. Materials and signal equipment not complying with the above requirements shall be subject to removal and disposal at the Contractor's expense.

RECORD DRAWINGS

The requirements listed for Electrical Installation shall apply for Traffic Signal Installations in Article 801.16. Revise the 2nd paragraph of Article 801.16 of the Standard Specifications to read:

- a. "When the work is complete, and seven days before the request for a final inspection, the full-size set of contract drawings. Stamped "RECORD DRAWINGS", shall be submitted to the Engineer for review and approval and shall be stamped with the date and the signature of the Contractor's supervising Engineer or electrician. The record drawings shall be submitted in PDF format on CDROM as well as hardcopy for review and approval.
- b. In addition to the record drawings, copies of the final catalog cuts which have been Approved or Approved as Noted shall be submitted in PDF format along with the record drawings. The PDF files shall clearly indicate the pay item either by filename or PDF Table of Contents referencing the respective pay item number for multi-item PDF files. Specific part or model numbers of items which have been selected shall be clearly visible."
- c. Additional requirements are listed in the District's Electrical Product Data and Documentation Guidelines.

Add the following to Article 801.16 of the Standard Specifications:

"In addition to the specified record drawings, the Contactor shall record GPS coordinates of the following traffic signal components being installed, modified or being affected in other ways by this contract:

- All Mast Arm Poles and Posts
- Handholes
- Conduit roadway crossings
- Controller Cabinets
- Communication Cabinets
- Electric Service Disconnect locations
- CCTV Camera installations
- Fiber Optic Splice Locations

Datum to be used shall be North American 1983.

Data shall be provided electronically and in print form. The electronic format shall be compatible with MS Excel. Latitude and Longitude shall be in decimal

degrees with a minimum of 6 decimal places. Each coordinate shall have the following information:

1. Description of item
2. Designation or approximate station if the item is undesignated
3. Latitude
4. Longitude

Examples:

Description	Designation	Latitude	Longitude
Mast Arm Pole Assembly (dual, combo, etc)	MP (SW, NW, SE or NE corner)	41.580493	87.793378
FO mainline splice handhole	HHL-ST31	41.558532	87.792571
Handhole	HH	41.765532	87.543571
Electric Service	Elec Srv	41.602248	87.794053
Conduit crossing	SB IL83 to EB I290 ramp SIDE A	41.584593	87.793378
PTZ Camera	PTZ	41.584600	87.793432
Signal Post	Post	41.558532	87.792571
Controller Cabinet	CC	41.651848	87.762053
Master Controller Cabinet	MCC	41.580493	87.793378
Communication Cabinet	ComC	41.558532	87.789771
Fiber splice connection	Toll Plaza34	41.606928	87.794053

Prior to the collection of data, the contractor shall provide a sample data collection of at least six data points of known locations to be reviewed and verified by the Engineer to be accurate within 100 feet. Upon verification, data collection can begin. Data collection can be made as construction progresses, or can be collected after all items are installed. If the data is unacceptable the contractor shall make corrections to the data collection equipment and or process and submit the data for review and approval as specified.

Accuracy. Data collected is to be mapping grade. A handheld mapping grade GPS device shall be used for the data collection. The receiver shall support

differential correction and data shall have a minimum 5 meter accuracy after post processing.

GPS receivers integrated into cellular communication devices, recreational and automotive GPS devices are not acceptable.

The GPS shall be the product of an established major GPS manufacturer having been in the business for a minimum of 6 years.”

Delete the last sentence of the 3rd paragraph of Article 801.16.

LOCATING UNDERGROUND FACILITIES.

Revise Section 803 to the Standard Specifications to read:

If this Contract requires the services of an Electrical Contractor, the Contractor shall be responsible at his/her own expense for locating existing IDOT electrical facilities prior to performing any work. If this Contract does not require the services of an Electrical Contractor, the Contractor may request one free locate for existing IDOT electrical facilities from the District One Electrical Maintenance Contractor prior to the start of any work. Additional requests may be at the expense of the Contractor. The location of underground traffic facilities does not relieve the Contractor of their responsibility to repair any facilities damaged during construction at their expense.

The exact location of all utilities shall be field verified by the Contractor before the installation of any components of the traffic signal system. For locations of utilities, locally owned equipment, and leased enforcement camera system facilities, the local Counties or Municipalities may need to be contacted: in the City of Chicago contact Digger at (312) 744-7000 and for all other locations contact J.U.L.I.E. at 1-800-892-0123 or 811.

RESTORATION OF WORK AREA.

Add the following article to Section 801 of the Standard Specifications:

801.17 Restoration of work area. Restoration of the traffic signal work area shall be included in the related pay items such as foundation, conduit, handhole, trench and backfill, underground raceways, etc. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded. All brick pavers disturbed in the work area shall be restored to their original configuration as directed by the Engineer. All damaged brick pavers shall be replaced with a comparable material approved by the Engineer. Restoration of the work area shall be included in the contract without any extra compensation allowed to the Contractor.

ELECTRIC SERVICE INSTALLATION.

Revise Section 805 of the Standard Specifications to read:

Description.

This work shall consist of all materials and labor required to install, modify, or extend the electric service installation. All installations shall meet the requirements of the details in the "District One Standard Traffic Signal Design Details" and applicable portions of the Specifications.

General.

The electric service installation shall be the electric service disconnecting means and it shall be identified as suitable for use as service equipment.

The electric utility contact information is noted on the plans and represents the current information at the time of contract preparation. The Contractor must request in writing for service and/or service modification within 10 days of contract award and must follow-up with the electric utility to assure all necessary documents and payment are received by the utility. The Contractor shall forward copies of all correspondence between the contractor and utility company to the Engineer and Area Traffic Signal Maintenance and Operations Engineer. The service agreement and sketch shall be submitted for signature to the IDOT's Traffic Operations Programs Engineer.

Materials.

- a. General. The completed control panel shall be constructed in accordance with UL Std. 508A, Industrial Control Panel, and carry the UL label. Wire terminations shall be UL listed.
- b. Enclosures.
 1. Pole Mounted Cabinet. The cabinet shall be UL 50, NEMA Type 4X, unfinished single door design, fabricated from minimum 0.080-inch (2.03 mm) thick Type 5052 H-32 aluminum. Seams shall be continuous welded and ground smooth. Stainless steel screws and clamps shall secure the cover and assure a watertight seal. The cover shall be removable by pulling the continuous stainless steel hinge pin. The cabinet shall have an oil-resistant gasket and a lock kit shall be provided with an internal O-ring in the locking mechanism assuring a watertight and dust-tight seal. The cabinet shall be sized to adequately house all required components with extra space for arrangement and termination of wiring. A minimum size of 14-inches (350 mm) high, 9-inches (225 mm) wide and 8-inches (200 mm) in depth is required. The cabinet shall be channel mounted to a wooden utility pole using assemblies recommended by the manufacturer.
 2. Ground Mounted Cabinet. The cabinet shall be UL 50, NEMA Type 3R unfinished single door design with back panel. The cabinet shall be fabricated from Type 5052 H-32 aluminum with the frame and door 0.125-inch (3.175 mm) thick, the top 0.250-inch (6.350 mm) thick and the bottom 0.500-inch (12.70 mm) thick. Seams shall be continuous welded and ground smooth. The door and door opening shall be double flanged. The door shall

be approximately 80% of the front surface, with a full length tamperproof stainless steel .075-inch (1.91 mm) thick hinge bolted to the cabinet with stainless steel carriage bolts and nylocks nuts. The locking mechanism shall be slam-latch type with a keyhole cover. The cabinet shall be sized to adequately house all required components with extra space for arrangement and termination of wiring. A minimum size of 40-inches (1000 mm) high, 16-inches (400 mm) wide and 15-inches (375 mm) in depth is required. The cabinet shall be mounted upon a square Type A concrete foundation as indicated on the plans. The foundation is paid for separately.

- c. Surge Protector. Overvoltage protection, with LED indicator, shall be provided for the 120 volt load circuit by the means MOV and thermal fusing technology. The response time shall be <math>< 5n</math> seconds and operate within a range of $-40C$ to $+85C$. The surge protector shall be UL 1449 Listed.
- d. Circuit Breakers. Circuit breakers shall be standard UL listed molded case, thermal-magnetic bolt-on type circuit breakers with trip free indicating handles. 120 volt circuit breakers shall have an interrupting rating of not less than 65,000 rms symmetrical amperes. Unless otherwise indicated, the main disconnect circuit breaker for the traffic signal controller shall be rated 60 amperes, 120 V and the auxiliary circuit breakers shall be rated 10 amperes, 120 V.
- e. Fuses, Fuseholders and Power Indicating Light. Fuses shall be small-dimensional cylindrical fuses of the dual element time-delay type. The fuses shall be rated for 600 V AC and shall have a UL listed interrupting rating of not less than 10,000 rms symmetrical amperes at rated voltage. The power indicating light shall be LED type with a green colored lens and shall be energized when electric utility power is present.
- f. Ground and Neutral Bus Bars. A single copper ground and neutral bus bar, mounted on the equipment panel shall be provided. Ground and neutral conductors shall be separated on the bus bar. Compression lugs, plus 2 spare lugs, shall be sized to accommodate the cables with the heads of the connector screws painted green for ground connections and white for neutral connections.
- g. Utility Services Connection. The Contractor shall notify the Utility Company marketing representative a minimum of 30 working days prior to the anticipated date of hook-up. This 30 day advance notification will begin only after the Utility Company marketing representative has received service charge payments from the Contractor. Prior to contacting the Utility Company marketing representative for service connection, the service installation controller cabinet and cable must be installed for inspection by the Utility Company.
- h. Ground Rod. Ground rods shall be copper-clad steel, a minimum of 10 feet (3.0m) in length, and 3/4 inch (20mm) in diameter. Ground rod resistance measurements to

ground shall be 25 ohms or less. If necessary additional rods shall be installed to meet resistance requirements at no additional cost to the contract.

Installation

- a. General. The Contractor shall confirm the orientation of the traffic service installation and its door side with the engineer, prior to installation. All conduit entrances into the service installation shall be sealed with a pliable waterproof material.
- b. Pole Mounted. Brackets designed for pole mounting shall be used. All mounting hardware shall be stainless steel. Mounting height shall be as noted on the plans or as directed by the Engineer.
- c. Ground Mounted. The service installation shall be mounted plumb and level on the foundation and fastened to the anchor bolts with hot-dipped galvanized or stainless steel nuts and washers. The space between the bottom of the enclosure and the top of the foundation shall be caulked at the base with silicone.

Basis of Payment.

The service installation shall be paid for at the contract unit price each for SERVICE INSTALLATION of the type specified which shall be payment in full for furnishing and installing the service installation complete. The CONCRETE FOUNDATION, TYPE A, which includes the ground rod, shall be paid for separately. SERVICE INSTALLATION, POLE MOUNTED shall include the 3/4 inch (20mm) grounding conduit, ground rod, and pole mount assembly. Any charges by the utility companies shall be approved by the engineer and paid for as an addition to the contract according to Article 109.05 of the Standard Specifications.

GROUNDING OF TRAFFIC SIGNAL SYSTEMS.

Revise Section 806 of the Standard Specifications to read:

General.

All traffic signal systems, equipment and appurtenances shall be properly grounded in strict conformance with the NEC. See IDOT District One Traffic Signal detail plan sheets for additional information.

The grounding electrode system shall include a ground rod installed with each traffic signal controller concrete foundation and all mast arm and post concrete foundations. An additional ground rod will be required at locations where measured resistance exceeds 25 ohms. Ground rods are included in the applicable concrete foundation or service installation pay item and will not be paid for separately.

Testing shall be according to Article 801.13 (a) (4) and (5).

- (a) The grounded conductor (neutral conductor) shall be white color coded. This conductor shall be bonded to the equipment grounding conductor only at the Electric Service Installation. All power cables shall include one neutral conductor of the same size.

- (b) The equipment grounding conductor shall be green color coded. The following is in addition to Article 801.04 of the Standard Specifications.
1. Equipment grounding conductors shall be bonded to the grounded conductor (neutral conductor) only at the Electric Service Installation. The equipment grounding conductor is paid for separately and shall be continuous. The Earth shall not be used as the equipment grounding conductor.
 2. Equipment grounding conductors shall be bonded, using a Listed grounding connector, to all traffic signal mast arm poles, traffic signal posts, pedestrian posts, pull boxes, handhole frames and covers, conduits, and other metallic enclosures throughout the traffic signal wiring system, except where noted herein. Bonding shall be made with a splice and pigtail connection, using a sized compression type copper sleeve, sealant tape, and heat-shrinkable cap. A Listed electrical joint compound shall be applied to all conductors' terminations, connector threads and contact points. Conduit grounding bushings shall be installed at all conduit terminations.
 3. All metallic and non-metallic raceways containing traffic signal circuit runs shall have a continuous equipment grounding conductor, except raceways containing only detector loop lead-in circuits, circuits under 50 volts and/or fiber optic cable will not be required to include an equipment grounding conductor.
 4. Individual conductor splices in handholes shall be soldered and sealed with heat shrink. When necessary to maintain effective equipment grounding, a full cable heat shrink shall be provided over individual conductor heat shrinks.
- (c) The grounding electrode conductor shall be similar to the equipment grounding conductor in color coding (green) and size. The grounding electrode conductor is used to connect the ground rod to the equipment grounding conductor and is bonded to ground rods via exothermic welding, listed pressure connectors, listed clamps or other approved listed means.

GROUNDING EXISTING HANDHOLE FRAME AND COVER.

Description.

This work shall consist of all materials and labor required to bond the equipment grounding conductor to the existing handhole frame and handhole cover. All installations shall meet the requirements of the details in the "District One Standard Traffic Signal Design Details," and applicable portions of the Standard Specifications and these specifications.

The equipment grounding conductor shall be bonded to the handhole frame and to the handhole cover. Two (2) ½-inch diameter x 1 ¼-inch long hex-head stainless steel bolts, spaced 1.75-inches apart center-to-center shall be fully welded to the frame and to the cover to accommodate a heavy duty Listed grounding compression terminal (Burndy type YGHA or approved equal). The grounding compression terminal shall be secured to the bolts with stainless steel split-lock washers and nylon-insert locknuts.

Welding preparation for the stainless steel bolt hex-head to the frame and to the cover shall include thoroughly cleaning the contact and weldment area of all rust, dirt and contaminates. The Contractor shall assure a solid strong weld. The welds shall be smooth and thoroughly cleaned of flux and spatter. The grounding installation shall not affect the proper seating of the cover when closed.

The grounding cable shall be paid for separately.

Method of Measurement.

Units measured for payment will be counted on a per handhole basis, regardless of the type of handhole and its location.

Basis of Payment.

This work shall be paid for at the contract unit price each for GROUNDING EXISTING HANDHOLE FRAME AND COVER which shall be payment in full for grounding the handhole complete.

COILABLE NON-METALLIC CONDUIT.

Description.

This work shall consist of furnishing and installing empty coilable non-metallic conduit (CNC) for detector loop raceways.

General.

The CNC installation shall be in accordance with Sections 810 and 811 of the Standard Specifications except for the following:

Add the following to Article 810.03 of the Standard Specifications:

CNC meeting the requirements of NEC Article 353 shall be used for detector loop raceways to the handholes.

Add the following to Article 811.03 of the Standard Specifications:

On temporary traffic signal installations with detector loops, CNC meeting the requirements of NEC Article 353 shall be used for detector loop raceways from the saw-cut to 10 feet (3m) up the wood pole, unless otherwise shown on the plans

Basis of Payment.

All installations of CNC for loop detection shall be included in the contract and not paid for separately.

HANDHOLES.

Add the following to Section 814 of the Standard Specifications:

All handholes shall be concrete, poured in place, with inside dimensions of 21-1/2 inches (549mm) minimum. Frames and lid openings shall match this dimension. The cover of the handhole frame shall be labeled "Traffic Signals" with legible raised letters.

For grounding purposes the handhole frame shall have provisions for a 7/16 inch (15.875mm) diameter stainless bolt cast into the frame. The covers shall have a stainless steel threaded stint extended from the eye hook assembly for the purpose of attaching the grounding conductor to the handhole cover.

The minimum wall thickness for heavy duty hand holes shall be 12 inches (300mm).

All conduits shall enter the handhole at a depth of 30 inches (760mm) except for the conduits for detector loops when the handhole is less than 5 feet (1.52 m) from the detector loop. All conduit ends should be sealed with a waterproof sealant to prevent the entrance of contaminants into the handhole.

Steel cable hooks shall be coated with hot-dipped galvanization in accordance with AASHTO Specification M111. Hooks shall be a minimum of 1/2 inch (12.7 mm) diameter with two 90 degree bends and extend into the handhole at least 6 inches (150 mm). Hooks shall be placed a minimum of 12 inches (300 mm) below the lid or lower if additional space is required.

GROUNDING CABLE.

The cable shall meet the requirements of Section 817 of the "Standard Specifications," except for the following:

Add the following to Article 817.02 (b) of the Standard Specifications:

Unless otherwise noted on the Plans, traffic signal grounding conductor shall be one conductor, #6 gauge copper, with a green color coded XLP jacket.

The traffic signal grounding conductor shall be bonded, using a Listed grounding connector (Burndy type KC/K2C, as applicable, or approved equal), to all proposed and existing traffic signal mast arm poles and traffic/pedestrian signal posts, including push button posts. The grounding conductor shall be bonded to all proposed and existing pull boxes, handhole frames and covers and other metallic enclosures throughout the traffic signal wiring system and noted herein and detailed on the plans. The grounding conductor shall be bonded to conduit terminations using rated grounding bushings. Bonding to existing handhole frames and covers shall be paid for separately.

Add the following to Article 817.05 of the Standard Specifications:

Basis of Payment.

Grounding cable, including all associated labor and material including grounding clamps, splicing, exothermic welds, grounding connectors, conduit grounding bushings, and other hardware shall not be measured for payment separately but shall be considered included in the cost of the traffic signal items being grounded.

RAILROAD INTERCONNECT CABLE.

The cable shall meet the requirements of Section 873 of the Standard Specifications, except for the following:

Add to Article 873.02 of the Standard Specifications:

The railroad interconnect cable shall be three conductor stranded #14 copper cable in a clear polyester binder, shielded with #36 AWG tinned copper braid with 85% coverage, and insulated with .016" polyethylene (black, blue, red). The jacket shall be black 0.045 PVC or polyethylene.

Add the following to Article 873.05 of the Standard Specifications:

Basis of Payment.

This work shall be paid for at the contract unit price per foot (meter) for ELECTRIC CABLE IN CONDUIT, RAILROAD, NO. 14 3C, which price shall be payment in full for furnishing, installing, and making all electrical connections in the traffic signal controller cabinet. Connections in the railroad controller cabinet shall be performed by railroad personnel.

FIBER OPTIC TRACER CABLE.

The cable shall meet the requirements of Section 817 of the "Standard Specifications," except for the following:

Add the following to Article 817.03 of the Standard Specifications:

In order to trace the fiber optic cable after installation, the tracer cable shall be installed in the same conduit as the fiber optic cable in locations shown on the plans. The tracer cable shall be continuous, extended into the controller cabinet and terminated on a barrier type terminal strip mounted on the side wall of the controller cabinet. The barrier type terminal strip and tracer cable shall be clearly marked and identified. All tracer cable splices shall be kept to a minimum and shall incorporate maximum lengths of cable supplied by the manufacturer. The tracer cable will be allowed to be spliced at handholes only. The tracer cable splice shall use a Western Union Splice soldered with resin core flux and shall be soldered using a soldering iron. Blow torches or other devices which oxidize copper cable shall not be allowed for soldering operations. All exposed surfaces of the solder shall be smooth. The splice shall be covered with a black shrink tube meeting UL 224 guidelines, Type V and rated 600v, minimum length 4

inches (100 mm) and with a minimum 1 inch (25 mm) coverage over the XLP insulation, underwater grade.

Add the following to Article 817.05 of the Standard Specifications:

Basis of Payment.

The tracer cable shall be paid for separately as ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C per foot (meter), which price shall include all associated labor and material for installation.

MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION.

Revise Articles 850.02 and 850.03 of the Standard Specifications to read:

Procedure.

The energy charges for the operation of the traffic signal installation shall be paid for by others. Full maintenance responsibility shall start as soon as the Contractor begins any physical work on the Contract or any portion thereof.

The Contractor shall have electricians with IMSA Level II certification on staff to provide signal maintenance.

This item shall include maintenance of all traffic signal equipment at the intersection, including emergency vehicle pre-emption equipment, master controllers, uninterruptible power supply (UPS and batteries), telephone service installations, communication cables, conduits to adjacent intersections, and other traffic signal equipment, but shall not include Automatic Traffic Enforcement equipment, such as Red Light Enforcement cameras, detectors, or peripheral equipment, not owned by the State.

Maintenance.

The maintenance shall be according to MAINTENANCE AND RESPONSIBILITY in Division 800 of these specifications and the following:.

The Contractor shall check all controllers every two (2) weeks, which will include visually inspecting all timing intervals, relays, detectors, and pre-emption equipment to ensure that they are functioning properly. This item includes, as routine maintenance, all portions of emergency vehicle pre-emption equipment. The Contractor shall maintain in stock at all times a sufficient amount of materials and equipment to provide effective temporary and permanent repairs.

The Contractor shall provide immediate corrective action when any part or parts of the system fail to function properly. Two far side heads facing each approach shall be considered the minimum acceptable signal operation pending permanent repairs. When repairs at a signalized intersection require that the controller be disconnected or otherwise removed from normal operation, and power is available, the Contractor shall place the traffic signal installation on flashing operation. The signals shall flash RED for all directions unless a different indication has

been specified by the Engineer. The Contractor shall be required to place stop signs (R1-1-36) at each approach of the intersection as a temporary means of regulating traffic. When the signals operate in flash, the Contractor shall furnish and equip all their vehicles assigned to the maintenance of traffic signal installations with a sufficient number of stop signs as specified herein. The Contractor shall maintain a sufficient number of spare stop signs in stock at all times to replace stop signs which may be damaged or stolen.

The Contractor shall provide the Engineer with a 24 hour telephone number for the maintenance of the traffic signal installation and for emergency calls by the Engineer.

Traffic signal equipment which is lost or not returned to the Department for any reason shall be replaced with new equipment meeting the requirements of the Standard Specifications and these special provisions.

The Contractor shall respond to all emergency calls from the Department or others within one hour after notification and provide immediate corrective action. When equipment has been damaged or becomes faulty beyond repair, the Contractor shall replace it with new and identical equipment. The cost of furnishing and installing the replaced equipment shall be borne by the Contractor at no additional charge to the contract. The Contractor may institute action to recover damages from a responsible third party. If at any time the Contractor fails to perform all work as specified herein to keep the traffic signal installation in proper operating condition or if the Engineer cannot contact the Contractor's designated personnel, the Engineer shall have the State's Electrical Maintenance Contractor perform the maintenance work required. The State's Electrical Maintenance Contractor shall bill the Contractor for the total cost of the work. The Contractor shall pay this bill within thirty (30) days of the date of receipt of the invoice or the cost of such work will be deducted from the amount due the Contractor. The Contractor shall allow the Electrical Maintenance Contractor to make reviews of the Existing Traffic Signal Installation that has been transferred to the Contractor for Maintenance.

TRAFFIC ACTUATED CONTROLLER.

Add the following to Article 857.02 of the Standard Specifications:

Controllers shall be NTCIP compliant NEMA TS2 Type 1, Econolite ASC/3S-1000 or Eagle/Siemens M50 unless specified otherwise on the plans or elsewhere on these specifications. Only controllers supplied by one of the District One approved closed loop equipment manufacturers will be allowed. The controller shall be the most recent model and software version supplied by the manufacturer at the time of the approval and include the standard data key. The traffic signal controller shall provide features to inhibit simultaneous display of a circular yellow ball and a yellow arrow display. Individual load switches shall be provided for each vehicle, pedestrian, and right turn over lap phase. The controller shall prevent phases from being skipped during program changes and after all preemption events.

Add the following to Article 857.03 of the Standard Specifications:

The Contractor shall arrange to install a standard voice-grade dial-up telephone line to the RAILROAD, FULL-ACTUATED CONTROLLER AND CABINET as called for on the traffic signal installation plans. If the traffic signal installation is part of a traffic signal system, a telephone line is usually not required, unless a telephone line is called for on the traffic signal plans. The Contractor shall follow the requirements for the telephone service installation as contained in the current District One Traffic Signal Special Provisions under Master Controller.

MASTER CONTROLLER.

Revise Articles 860.02 - Materials and 860.03 - Installation of the Standard Specifications to read:

Only controllers supplied by one of the District approved closed loop equipment manufacturers will be allowed. Only NEMA TS 2 Type 1 Eagle/Siemens and Econolite closed loop systems shall be supplied. The latest model and software version of master controller shall be supplied.

Functional requirements in addition to those in Section 863 of the Standard Specifications include:

The system commands shall consist of, as a minimum, six (6) cycle lengths, five (5) offsets, three (3) splits, and four (4) special functions. The system commands shall also include commands for free or coordinated operation.

Traffic Responsive operation shall consist of the real time acquisition of system detector data, data validation, and the scaling of acquired volumes and occupancies in a deterministic fashion so as to cause the selection and implementation of the most suitable traffic plan.

Upon request by the Engineer, each master shall be delivered with up to three (3) complete sets of the latest edition of registered remote monitoring software with full manufacture's support. Each set shall consist of software on CD, DVD, or other suitable media approved by the Engineer, and a bound set of manuals containing loading and operating instruction. One copy of the software and support data shall be delivered to the Agency in charge of system operation, if other than IDOT. One of these two sets will be provided to the Agency Signal Maintenance Contractor for use in monitoring the system.

The approved manufacturer of equipment shall loan the District one master controller and two intersection controllers of the most recent models and the newest software version to be used for instructional purposes in addition to the equipment to be supplied for the Contract.

The Contractor shall arrange to install a standard voice-grade dial-up telephone line to the master controller. This shall be accomplished through the following process utilizing District One staff. This telephone line may be coupled with a DSL line and a phone filter to isolate the dial-up line. An E911 address is required.

The cabinet shall be provided with an Outdoor Network Interface for termination of the telephone service. It shall be mounted to the inside of the cabinet in a location suitable to provide access for termination of the telephone service at a later date.

Full duplex communication between the master and its local controllers is recommended, but at this time not required. The data rate shall be 1200 baud minimum and shall be capable of speeds to 38,400 or above as technology allows. The controller, when installed in an Ethernet topology, may operate non-serial communications.

The cabinet shall be equipped with a 9600 baud, auto dial/auto answer modem. It shall be a US robotics 33.6K baud rate or equal.

As soon as practical or within one week after the contract has been awarded, the Contractor shall contact (via phone) the Administrative Support Manager in the District One Business Services Section at (847) 705-4011 to request a phone line installation.

A follow-up fax transmittal to the Administrative Support Manager (847-705-4712) with all required information pertaining to the phone installation is required from the Contractor as soon as possible or within one week after the initial request has been made. A copy of this fax transmittal must also be faxed by the Contractor to the Traffic Signal Systems Engineer at (847) 705-4089. The required information to be supplied on the fax shall include (but not limited to): A street address for the new traffic signal controller (or nearby address); a nearby existing telephone number; what type of telephone service is needed; the name and number of the Contractor's employee for the telephone company to contact regarding site work and questions.

The usual time frame for the activation of the phone line is 4-6 weeks after the Business Services Section has received the Contractor supplied fax. It is, therefore, imperative that the phone line conduit and pull-string be installed by the Contractor in anticipation of this time frame. On jobs which include roadway widening in which the conduit cannot be installed until this widening is completed, the Contractor will be allowed to delay the phone line installation request to the Business Services Section until a point in time that is 4-6 weeks prior to the anticipated completion of the traffic signal work. The contractor shall provide the Administrative Support Manager with an expected installation date considering the 4-6 week processing time.

The telephone line shall be installed and activated one month before the system final inspection.

All costs associated with the telephone line installation and activation (not including the Contract specified conduit installation between the point of telephone service and the traffic signal controller cabinet) shall be paid for by the District One Business Services Section (i.e., this will be an IDOT phone number not a Contractor phone number).

UNINTERRUPTIBLE POWER SUPPLY.

Add the following to Article 862.01 of the Standard Specifications:

The UPS shall have the power capacity to provide normal operation of a signalized intersection that utilizes all LED type signal head optics, for a minimum of six hours.

Add the following to Article 862.02 of the Standard Specifications:

Materials shall be according to Article 1074.04 as modified in UNINTERRUPTIBLE POWER SUPPLY in Division 1000 of these specifications.

Add the following to Article 862.03 of the Standard Specifications:

The UPS shall additionally include, but not be limited to, a battery cabinet. The UPS shall provide reliable emergency power to the traffic signals in the event of a power failure or interruption.

Revise Article 862.04 of the Standard Specifications to read:

Installation.

When a UPS is installed at an existing traffic signal cabinet, the UPS cabinet shall partially rest on the lip of the existing controller cabinet foundation and be secured to the existing controller cabinet by means of at least four (4) stainless steel bolts. The UPS cabinet shall be completely enclosed with the bottom and back constructed of the same material as the cabinet.

When a UPS is installed at a new signal cabinet and foundation, it shall be mounted as shown on the plans.

At locations where UPS is installed and Emergency Vehicle Priority System is in use, any existing incandescent confirmation beacons shall be replaced with LED lamps in accordance with the District One Emergency Vehicle Priority System specification at no additional cost to the contract. A concrete apron 67 in. x 50 in. x 5 in. (1702mm x 1270mm x 130mm) shall be provided on the side of the existing Type D Foundation, where the UPS cabinet is located. The concrete apron shall follow the District 1 Standard Traffic Signal Design Detail, Type D for Ground Mounted Controller Cabinet and UPS Battery Cabinet. The concrete apron shall follow Articles 424 and 202 of the Standard Specifications.

This item shall include any required modifications to an existing traffic signal controller as a result of the addition of the UPS.

Revise Article 862.05 of the Standard Specifications to read:

Basis of Payment.

This work will be paid for at the contract unit price per each for UNINTERRUPTIBLE POWER SUPPLY SPECIAL. Replacement of Emergency Vehicle Priority System confirmation beacons and any required modifications to the traffic signal controller shall be included in the cost of the UNINTERRUPTIBLE POWER SUPPLY SPECIAL item. The concrete apron and earth excavation required shall be included in the cost of the UNINTERRUPTIBLE POWER SUPPLY SPECIAL item.

FIBER OPTIC CABLE.

Add the following to Article 871.01 of the Standard Specifications:

The Fiber Optic cable shall be installed in conduit or as specified on the plans.

Add the following to Article 872.02 of the Standard Specifications:

The control cabinet distribution enclosure shall be CSC FTWO12KST-W/O 12 Port Fiber Wall Enclosure or an approved equivalent. The fiber optic cable shall provide six fibers per tube for the amount of fibers called for in the Fiber Optic Cable pay item in the Contract. Fiber Optic cable may be gel filled or have an approved water blocking tape.

Add the following to Article 871.04 of the Standard Specifications:

A minimum of six multimode fibers from each cable shall be terminated with approved mechanical connectors at the distribution enclosure. Fibers not being used shall be labeled "spare." Fibers not attached to the distribution enclosure shall be capped and sealed. A minimum of 13.0 feet (4m) of extra cable length shall be provided for controller cabinets. The controller cabinet extra cable length shall be stored as directed by the Engineer.

Add the following to Article 871.06 of the Standard Specifications:

The distribution enclosure and all connectors will be included in the cost of the fiber optic cable.

MAST ARM ASSEMBLY AND POLE.

Revise Article 877.01 of the Standard Specifications to read:

Description.

This work shall consist of furnishing and installing a steel mast arm assembly and pole and a galvanized steel or extruded aluminum shroud for protection of the base plate.

Revise Article 877.03 of the Standard Specifications:

Mast arm assembly and pole shall be as follows.

- (a) Steel Mast Arm Assembly and Pole and Steel Combination Mast Arm Assembly and Pole. The steel mast arm assembly and pole and steel combination mast arm assembly and pole shall consist of a traffic signal mast arm, a luminaire mast arm or davit (for combination pole only), a pole, and a base, together with anchor rods and other appurtenances. The configuration of the mast arm assembly, pole, and base shall be according to the details shown on the plans.

- (1) Loading. The mast arm assembly and pole, and combination mast arm assembly and pole shall be designed for the loading shown on the Highway Standards or elsewhere on the plans, whichever is greater. The design shall be according to AASHTO "Standard Specification for Structural Supports for Highway Signs, Luminaries and Traffic Signals" 1994 Edition for 80 mph (130 km/hr) wind velocity. However, the arm-to-pole connection for tapered signal and luminaire arms shall be according to the "ring plate" detail as shown in Figure 11-1(f) of the 2002 Interim, to the AASHTO "Standard Specification for Structural Supports for Highway Signs, Luminaries and Traffic Signals" 2001 4th Edition.
- (2) Structural Steel Grade. The mast arm and pole shall be fabricated according to ASTM A 595, Grade A or B, ASTM A 572 Grade 55, or ASTM A 1011 Grade 55 HSLAS Class 2. The base and flange plates shall be of structural steel according to AASHTO M 270 Grade 50 (M 270M Grade 345). Luminaire arms and trussed arms 15 ft (4.5 m) or less shall be fabricated from one steel pipe or tube size according to ASTM A 53 Grade B or ASTM A 500 Grade B or C. All mast arm assemblies, poles, and bases shall be galvanized according to AASHTO M 111.
- (3) Fabrication. The design and fabrication of the mast arm assembly, pole, and base shall be according to the requirements of the Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals published by AASHTO. The mast arm and pole may be of single length or sectional design. If section design is used, the overlap shall be at least 150 percent of the maximum diameter of the overlapping section and shall be assembled in the factory.

The manufacturer will be allowed to slot the base plate in which other bolt circles may fit, providing that these slots do not offset the integrity of the pole. Circumferential welds of tapered arms and poles to base plates shall be full penetration welds.

- (4) Shop Drawing Approval. The Contractor shall submit detailed drawings showing design materials, thickness of sections, weld sizes, and anchor rods to the Engineer for approval prior to fabrication. These drawings shall be at least 11 x 17 in. (275 x 425 mm) in size and of adequate quality for microfilming. All product data and shop drawings shall be submitted in electronic form on CD-ROM .
- (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 12 in. (300 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.
 - (c) The galvanized steel or extruded aluminum shroud shall have dimensions similar to those detailed in the "District One Standard Traffic Signal Design Details." The shroud shall be installed such that it allow air to circulate throughout the mast arm but not allow

infestation of insects or other animals, and such that it is not hazardous to probing fingers and feet.

Add the following to Article 877.04 of the Standard Specifications:

The shroud shall not be paid for separately but shall be included in the cost of the mast arm assembly and pole.

CONCRETE FOUNDATIONS.

Add the following to Article 878.03 of the Standard Specifications:

All anchor bolts shall be according to Article 1006.09, with all anchor bolts hot dipped galvanized a minimum of 12 in. (300 mm) from the threaded end.

Concrete Foundations, Type "A" for Traffic Signal Posts shall provide anchor bolts with the bolt pattern specified within the "District One Standard Traffic Signal Design Details." All Type "A" foundations shall be a minimum depth of 48 inches (1220 mm).

Concrete Foundations, Type "C" for Traffic Signal Cabinets with Uninterruptible Power Supply (UPS) cabinet installations shall be a minimum of 72 inches (1830 mm) long and 31 inches (790 mm) wide. All Type "C" foundations shall be a minimum depth of 48 inches (1220 mm). The concrete apron in front of the Type IV or V cabinet shall be 36 in. x 48 in. x 5 in. (915 mm X 1220 mm X 130 mm). The concrete apron in front of the UPS cabinet shall be 36 in. x 67 in. x 5 in. (915 mm X 1700 mm X 130 mm). Anchor bolts shall provide bolt spacing as required by the manufacturer.

Concrete Foundations, Type "D" for Traffic Signal Cabinets shall be a minimum of 48 inches (1220 mm) long and 31 inches (790 mm) wide. All Type "D" foundations shall be a minimum depth of 48 inches (1220 mm). The concrete apron shall be 36 in. x 48 in. x 5 in. (910 mm X 1220 mm X 130 mm). Anchor bolts shall provide bolt spacing as required by the manufacturer.

Concrete Foundations, Type "E" for Mast Arm and Combination Mast Arm Poles shall meet the current requirements listed in the Highway Standards.

Foundations used for Combination Mast Arm Poles shall provide an extra 2-1/2 inch (65 mm) raceway.

No foundation is to be poured until the Resident Engineer gives his/her approval as to the depth of the foundation.

LIGHT EMITTING DIODE (LED) SIGNAL HEAD AND OPTICALLY PROGRAMMED LED SIGNAL HEAD.

Add the following to the first paragraph of Article 880.04 of the Standard Specifications:

Basis of Payment.

The price shall include furnishing the equipment described above, all mounting hardware and installing them in satisfactory operating condition.

LIGHT EMITTING DIODE (LED), SIGNAL HEAD, RETROFIT

Description.

This work shall consist of retrofitting an existing polycarbonate traffic signal head with a traffic signal module, pedestrian signal module, and pedestrian countdown signal module, with light emitting diodes (LEDs) as specified in the plans.

Materials.

Materials shall be according to LIGHT EMITTING DIODE (LED) AND OPTICALLY PROGRAMMED LED SIGNAL HEAD, AND LIGHT EMITTING DIODE (LED) PEDESTRIAN SIGNAL HEAD in Divisions 880, 881 and 1000 of these specifications.

Add the following to Article 880.04 of the Standard Specifications:

Basis of Payment.

This item shall be paid for at the contract unit price each for SIGNAL HEAD, LED, RETROFIT, or PEDESTRIAN SIGNAL HEAD, LED, RETROFIT, for the type and number of polycarbonate signal heads, faces, and sections specified, which price shall be payment in full for furnishing the equipment described above including LED modules, all mounting hardware, and installing them in satisfactory operating condition. The type specified will indicate the number of faces and the method of mounting.

LIGHT EMITTING DIODE (LED) PEDESTRIAN SIGNAL HEAD

Add the following to the third paragraph of Article 881.03 of the Standard Specifications:

No mixing of different types of pedestrian traffic signals or displays will be permitted.

Add the following to Article 881.03 of the Standard Specifications:

(a) Pedestrian Countdown Signal Heads.

- (1) Pedestrian Countdown Signal Heads shall not be installed at signalized intersections where traffic signals and railroad warning devices are interconnected.

- (2) Pedestrian Countdown Signal Heads shall be 16 inch (406mm) x 18 inch (457mm), for single units with the housings glossy black polycarbonate. Connecting hardware and mounting brackets shall be polycarbonate (black). A corrosion resistant anti-seize lubricant shall be applied to all metallic mounting bracket joints, and shall be visible to the inspector at the signal turn-on.
- (3) Each pedestrian signal LED module shall be fully MUTCD compliant and shall consist of double overlay message combining full LED symbols of an Upraised Hand and a Walking Person. "Egg Crate" type sun shields are not permitted. Numerals shall measure 9 inches (229mm) in height and easily identified from a distance of 120 feet (36.6m).

Add the following to Article 881.04 of the Standard Specifications:

Basis of Payment.

The price shall include furnishing the equipment described above, all mounting hardware and installing them in satisfactory operating condition.

DETECTOR LOOP.

Revise Section 886 of the Standard Specifications to read:

Description.

This work shall consist of furnishing and installing a detector loop in the pavement.

Procedure.

A minimum of seven (7) working days prior to the Contractor cutting loops, the Contractor shall have the proposed loop locations marked and contact the Area Traffic Signal Maintenance and Operations Engineer (847) 705-4424 to inspect and approve the layout. When preformed detector loops are installed, the Contractor shall have them inspected and approved prior to the pouring of the Portland cement concrete surface, using the same notification process as above.

Installation.

Loop detectors shall be installed according to the requirements of the "District One Standard Traffic Signal Design Details." Saw-cuts (homeruns on preformed detector loops) from the loop to the edge of pavement shall be made perpendicular to the edge of pavement when possible in order to minimize the length of the saw-cut (homerun on preformed detector loops) unless directed otherwise by the Engineer or as shown on the plan.

The detector loop cable insulation shall be labeled with the cable specifications.

Each loop detector lead-in wire shall be labeled in the handhole using a Panduit PLFIM water proof tag, or an approved equal, secured to each wire with nylon ties.

Resistance to ground shall be a minimum of 100 mega-ohms under any conditions of weather or moisture. Inductance shall be more than 50 and less than 700 microhenries. Quality readings shall be more than 5.

- (a) Type I. All loops installed in new asphalt pavement shall be installed in the binder course and not in the surface course. The edge of pavement, curb and handhole shall be cut with a 1/4 inch (6.3 mm) deep x 4 inches (100 mm) saw cut to mark location of each loop lead-in.
- (b) Loop sealant shall be a two-component thixotropic chemically cured polyurethane either Chemque Q-Seal 295, Percol Elastic Cement AC Grade or an approved equal. The sealant shall be installed 1/8 inch (3 mm) below the pavement surface, if installed above the surface the overlap shall be removed immediately.
- (c) Detector loop measurements shall include the saw cut and the length of the loop lead-in to the edge of pavement. The lead-in wire, including all necessary connections for proper operations, from the edge of pavement to the handhole, shall be included in the price of the detector loop. Unit duct, trench and backfill, and drilling of pavement or handholes shall be included in detector loop quantities.
- (d) Preformed. This work shall consist of furnishing and installing a rubberized or crosslinked polyethylene heat resistant preformed traffic signal loop in accordance with the Standard Specifications, except for the following:
 - (e) Preformed detector loops shall be installed in new pavement constructed of Portland cement concrete using mounting chairs or tied to re-bar or the preformed detector loops may be placed in the sub-base. Loop lead-ins shall be extended to a temporary protective enclosure near the proposed handhole location. The protective enclosure shall provide sufficient protection from other construction activities and may be buried for additional protection.
 - (f) Handholes shall be placed next to the shoulder or back of curb when preformed detector loops enter the handhole. Non-metallic coilable duct, included in this pay item, shall be used to protect the preformed lead-ins from back of curb to the handhole.
 - (g) Preformed detector loops shall be factory assembled with ends capped and sealed against moisture and other contaminants. Homeruns and interconnects shall be pre-wired and shall be an integral part of the loop assembly. The loop configurations and homerun lengths shall be assembled for the specific application. The loop and homerun shall be constructed using 11/16 inch (17.2 mm) outside diameter (minimum), 3/8 inch (9.5 mm) inside diameter (minimum) Class A oil resistant synthetic cord reinforced hydraulic hose with 250 psi (1,720 kPa) internal pressure rating or a similarly sized XLPE cable jacket. Hose for the loop and homerun assembly shall be one continuous piece. No joints or splices shall be allowed in the hose except where necessary to connect homeruns or interconnects to the loops. This will provide maximum wire protection and loop system strength. Hose tee connections shall be heavy duty high temperature synthetic rubber. The tee shall be of proper size to attach directly to the hose, minimizing glue joints. The tee shall have the same flexible properties

as the hose to insure that the whole assembly can conform to pavement movement and shifting without cracking or breaking. For XLPE jacketed preformed loops, all splice connections shall be soldered, sealed, and tested before being sealed in a high impact glass impregnated plastic splice enclosure. The wire used shall be #16 THWN stranded copper. The number of turns in the loop shall be application specific. Homerun wire pairs shall be twisted a minimum of four turns per foot. No wire splices will be allowed in the preformed loop assembly. The loop and homeruns shall be filled and sealed with a flexible sealant to insure complete moisture blockage and further protect the wire. The preformed loops shall be constructed to allow a minimum of 6.5 feet of extra cable in the handhole.

Method of Measurement.

This work will be measured for payment in feet (meters) in place. Type I detector loop will be measured along the sawed slot in the pavement containing the loop and lead-in, rather than the actual length of the wire. Preformed detector loops will be measured along the detector loop and lead-in embedded in the pavement, rather than the actual length of the wire.

Basis of Payment.

This work shall be paid for at the contract unit price per foot (meter) for DETECTOR LOOP, TYPE I or PREFORMED DETECTOR LOOP as specified in the plans, which price shall be payment in full for furnishing and installing the detector loop and all related connections for proper operation.

EMERGENCY VEHICLE PRIORITY SYSTEM.

Revise Section 887 of the Standard Specifications to read:

It shall be the Contractor's responsibility to contact the municipality or fire district to verify the brand of emergency vehicle pre-emption equipment to be installed prior to the contract bidding. The equipment must be completely compatible with all components of the equipment currently in use by the Agency.

All new installations shall be equipped with Confirmation Beacons as shown on the "District One Standard Traffic Signal Design Details." The Confirmation Beacon shall consist of a 6 watt Par 38 LED flood lamp with a 30 degree light spread, maximum 6 watt energy consumption at 120V, and a 2,000 hour warranty for each direction of pre-emption. The lamp shall have an adjustable mount with a weatherproof enclosure for cable splicing. All hardware shall be cast aluminum or stainless steel. Holes drilled into signal poles, mast arms, or posts shall require rubber grommets. In order to maintain uniformity between communities, the confirmation beacons shall indicate when the control equipment receives the pre-emption signal. The pre-emption movement shall be signalized by a flashing indication at the rate specified by Section 4L.01 of the "Manual on Uniform Traffic Control Devices," and other applicable sections of future editions. The stopped pre-empted movements shall be signalized by a continuous indication.

All light operated systems shall include security and transit preemption software and operate at a uniform rate of 14.035 Hz \pm 0.002, or as otherwise required by the Engineer, and provide compatible operation with other light systems currently being operated in the District.

This item shall include any required modifications to an existing traffic signal controller as a result of the addition of the EMERGENCY VEHICLE PRIORITY SYSTEM.

Basis of Payment.

The work shall be paid for at the contract unit price each for furnishing and installing LIGHT DETECTOR and LIGHT DETECTOR AMPLIFIER. Furnishing and installing the confirmation beacon shall be included in the cost of the Light Detector. Any required modifications to the traffic signal controller shall be included in the cost of the LIGHT DETECTOR AMPLIFIER. The preemption detector amplifier shall be paid for on a basis of (1) one each per intersection controller and shall provide operation for all movements required in the pre-emption phase sequence.

TEMPORARY TRAFFIC SIGNAL INSTALLATION.

Revise Section 890 of the Standard Specifications to read:

Description.

This work shall consist of furnishing, installing, maintaining, and removing a temporary traffic signal installation as shown on the plans, including but not limited to temporary signal heads, emergency vehicle priority systems, interconnect, vehicle detectors, uninterruptible power supply, and signing. Temporary traffic signal controllers and cabinets interconnected to railroad traffic control devices shall be new. When temporary traffic signals will be operating within a county or local agency Traffic Management System, the equipment must be NTCIP compliant and compatible with the current operating requirements of the Traffic Management System.

General.

Only an approved equipment vendor will be allowed to assemble the temporary traffic signal cabinet. Also, an approved equipment vendor shall assemble and test a temporary railroad traffic signal cabinet. (Refer to the "Inspection of Controller and Cabinet" specification). A representative of the approved control equipment vendor shall be present at the temporary traffic signal turn-on inspection.

Construction Requirements.

(a) Controllers.

1. Only controllers supplied by one of the District approved closed loop equipment manufacturers will be approved for use at temporary signal locations. All controllers used for temporary traffic signals shall be fully actuated NEMA microprocessor based with RS232 data entry ports compatible with existing monitoring software approved by IDOT District 1, installed in NEMA TS2 cabinets with 8 phase back panels, capable of supplying 255 seconds of cycle length and

individual phase length settings up to 99 seconds. On projects with one lane open and two way traffic flow, such as bridge deck repairs, the temporary signal controller shall be capable of providing an adjustable all red clearance setting of up to 30 seconds in length. All controllers used for temporary traffic signals shall meet or exceed the requirements of Section 857 of the Standard Specifications with regards to internal time base coordination and preemption. All railroad interconnected temporary controllers and cabinets shall be new and shall satisfy the requirements of Article 857.02 of the Standard Specifications as modified herein.

2. Only control equipment, including controller cabinet and peripheral equipment, supplied by one of the District approved closed loop equipment manufacturers will be approved for use at temporary traffic signal locations. All control equipment for the temporary traffic signal(s) shall be furnished by the Contractor unless otherwise stated in the plans. On projects with multiple temporary traffic signal installations, all controllers shall be the same manufacturer brand and model number with current software installed.
- (b) Cabinets. All temporary traffic signal cabinets shall have a closed bottom made of aluminum alloy. The bottom shall be sealed along the entire perimeter of the cabinet base to ensure a water, dust and insect-proof seal. The bottom shall provide a minimum of two (2) 4 inch (100 mm) diameter holes to run the electric cables through. The 4 inch (100 mm) diameter holes shall have a bushing installed to protect the electric cables and shall be sealed after the electric cables are installed.
 - (c) Grounding. Grounding shall be provided for the temporary traffic signal cabinet meeting or exceeding the applicable portions of the National Electrical Code, Section 806 of the Standard Specifications and shall meet the requirements of the District 1 Traffic Signal Specifications for "Grounding of Traffic Signal Systems."
 - (d) Traffic Signal Heads. All traffic signal sections and pedestrian signal sections shall be 12 inches (300 mm). Traffic signal sections shall be LED with expandable view, unless otherwise approved by the Engineer. Pedestrian signal heads shall be Light Emitting Diode (LED) Pedestrian Countdown Signal Heads except when a temporary traffic signal is installed at an intersection interconnected with a railroad grade crossing. When a temporary traffic signal is installed at an intersection interconnected with a railroad grade crossing, Light Emitting Diode (LED) Pedestrian Signal Heads shall be furnished. The temporary traffic signal heads shall be placed as indicated on the temporary traffic signal plan or as directed by the Engineer. The Contractor shall furnish enough extra cable length to relocate heads to any position on the span wire or at locations illustrated on the plans for construction staging. The temporary traffic signal shall remain in operation during all signal head relocations. Each temporary traffic signal head shall have its own cable from the controller cabinet to the signal head.
 - (e) Interconnect.

1. Temporary traffic signal interconnect shall be provided using fiber optic cable or wireless interconnect technology as specified in the plans. The Contractor may request, in writing, to substitute the fiber optic temporary interconnect indicated in the contract documents with a wireless interconnect. The Contractor must provide assurances that the radio device will operate properly at all times and during all construction staging. If approved for use by the Engineer, the Contractor shall submit marked-up traffic signal plans indicating locations of radios and antennas and installation details. If wireless interconnect is used, and in the opinion of the engineer, it is not viable, or if it fails during testing or operations, the Contractor shall be responsible for installing all necessary poles, fiber optic cable, and other infrastructure for providing temporary fiber optic interconnect at no cost to the contract.
2. The existing system interconnect and phone lines are to be maintained as part of the Temporary Traffic Signal Installation specified for on the plan. The interconnect shall be installed into the temporary controller cabinet as per the notes or details on the plans. All labor and equipment required to install and maintain the existing interconnect as part of the Temporary Traffic Signal Installation shall be included in the item Temporary Traffic Signal Installation. When shown in the plans, temporary traffic signal interconnect equipment shall be furnished and installed. The temporary traffic signal interconnect shall maintain interconnect communications throughout the entire signal system for the duration of the project.
3. Temporary wireless interconnect, complete. The radio interconnect system shall be compatible with Eagle or Econolite controller closed loop systems. This item shall include all temporary wireless interconnect components, complete, at the adjacent existing traffic signal(s) to provide a completely operational closed loop system. This item shall include all materials, labor and testing to provide the completely operational closed loop system as shown on the plans. The radio interconnect system shall include the following components:
 - a. Rack or Shelf Mounted RS-232 Frequency Hopping Spread Spectrum (FHSS) Radio
 - b. Software for Radio Configuration (Configure Frequency and Hopping Patterns)
 - c. Antennas (Omni Directional or Yagi Directional)
 - d. Antenna Cables, LMR400, Low Loss. Max. 100-ft from controller cabinet to antenna
 - e. Brackets, Mounting Hardware, and Accessories Required for Installation
 - f. RS232 Data Cable for Connection from the radio to the local or master controller
 - g. All other components required for a fully functional radio interconnect system

All controller cabinet modifications and other modifications to existing equipment that are required for the installation of the radio interconnect system components shall be included in this item.

The radio interconnect system may operate at 900Mhz (902-928) or 2.4 Ghz depending on the results of a site survey. The telemetry shall have an acceptable rate of transmission errors, time outs, etc. comparable to that of a hardwire system.

The proposed master controller and telemetry module shall be configured for use with the radio interconnect at a minimum rate of 9600 baud.

The radio interconnect system shall include all other components required for a complete and fully functional telemetry system and shall be installed in accordance to the manufacturers recommendations.

The following radio equipment is currently approved for use in Region One/District One: Encom Model 5100 and Intuicom Communicator II.

- (f) Emergency Vehicle Pre-Emption. All emergency vehicle preemption equipment (light detectors, light detector amplifiers, confirmation beacons, etc.) as shown on the temporary traffic signal plans shall be provided by the Contractor. It shall be the Contractor's responsibility to contact the municipality or fire district to verify the brand of emergency vehicle preemption equipment to be installed prior to the contract bidding. The equipment must be completely compatible with all components of the equipment currently in use by the Agency. All light operated systems shall operate at a uniform rate of 14.035 hz \pm 0.002, or as otherwise required by the Engineer, and provide compatible operation with other light systems currently being operated in the District. All labor and material required to install and maintain the Emergency Vehicle Preemption installation shall be included in the item Temporary Traffic Signal Installation.
- (g) Vehicle Detection. All temporary traffic signal installations shall have vehicular detection installed as shown on the plans or as directed by the Engineer. Pedestrian push buttons shall be provided for all pedestrian signal heads/phases as shown on the plans or as directed by the Engineer. All approaches shall have vehicular detection provided by vehicle detection system as shown on the plans or as directed by the Engineer. Microwave vehicle sensors or video vehicle detection system shall be approved by IDOT prior to Contractor furnishing and installing. The Contractor shall install, wire, and adjust the alignment of the microwave vehicle sensor or video vehicle detection system in accordance to the manufacturer's recommendations and requirements. The Contractor shall be responsible for adjusting the alignment of the microwave vehicle sensor or video vehicle detection system for all construction staging changes and for maintaining proper alignment throughout the project. A representative of the approved control equipment vendor shall be present and assist the contractor in setting up and maintaining the microwave vehicle sensor or video

vehicle detection system. An in-cabinet video monitor shall be provided with all video vehicle detection systems and shall be included in the item Temporary Traffic Signal Installation.

- (h) Uninterruptible Power Supply. All temporary traffic signal installations shall have Uninterruptible Power Supply (UPS). The UPS cabinet shall be mounted to the temporary traffic signal cabinet and meet the requirements of Uninterruptible Power Supply in Divisions 800 and 1000 of these specifications.
- (i) Signs. All existing street name and intersection regulatory signs shall be removed from existing poles and relocated to the temporary signal span wire. If new mast arm assembly and pole(s) and posts are specified for the permanent signals, the signs shall be relocated to the new equipment at no extra cost. Any intersection regulatory signs that are required for the temporary traffic signal shall be provided as shown on the plans or as directed by the Engineer. Relocation, removing, bagging and installing the regulatory signs for the various construction stages shall be provided as shown on the plans or as directed by the Engineer.
- (j) Energy Charges. The electrical utility energy charges for the operation of the temporary traffic signal installation shall be paid for by others if the installation replaces an existing signal. Otherwise charges shall be paid for under 109.05 of the Standard Specifications.
- (k) Maintenance. Maintenance shall meet the requirements of the Standard Specifications and MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION in Division 800 of these specifications. Maintenance of temporary signals and of the existing signals shall be included in the cost of the TEMPORARY TRAFFIC SIGNAL INSTALLATION pay item. When temporary traffic signals are to be installed at locations where existing signals are presently operating, the Contractor shall be fully responsible for the maintenance of the existing signal installation as soon as he begins any physical work on the Contract or any portion thereof. In addition, a minimum of seven (7) days prior to assuming maintenance of the existing traffic signal installation(s) under this Contract, the Contractor shall request that the Resident Engineer contact the Bureau of Traffic Operations (847) 705-4424 for an inspection of the installation(s).
- (l) Temporary Traffic Signals for Bridge Projects. Temporary Traffic Signals for bridge projects shall follow the State Standards, Standard Specifications, District One Traffic Signal Specifications and any plans for Bridge Temporary Traffic Signals included in the plans. The installation shall meet the Standard Specifications and all other requirements in this TEMPORARY TRAFFIC SIGNAL INSTALLATION specification. In addition all electric cable shall be aurally suspended, at a minimum height of 18 feet (5.5m) on temporary wood poles (Class 5 or better) of 45 feet (13.7 m) minimum height. The signal heads shall be span wire mounted or bracket mounted to the wood pole or as directed by the Engineer. The Controller cabinet shall be mounted to the wood pole as shown in the plans, or as directed by the

Engineer. Microwave vehicle sensors or video vehicle detection system may be used in place of detector loops as approved by the Engineer.

(m) Temporary Portable Traffic Signal for Bridge Projects.

1. Unless otherwise directed by the Engineer, temporary portable traffic signals shall be restricted to use on roadways of less than 8000 ADT that have limited access to electric utility service, shall not be installed on projects where the estimated need exceeds ten (10) weeks, and shall not be in operation during the period of November through March. The Contractor shall replace the temporary portable traffic signals with temporary span wire traffic signals noted herein at no cost to the contract if the bridge project or Engineer requires temporary traffic signals to remain in operation into any part of period of November through March. If, in the opinion of the engineer, the reliability and safety of the temporary portable traffic signal is not similar to that of a temporary span wire traffic signal installation, the Contractor shall replace the temporary portable traffic signals with temporary span wire traffic signals noted herein at no cost to the contract.
2. The controller and LED signal displays shall meet the Standard Specifications and all other requirements in this TEMPORARY TRAFFIC SIGNAL INSTALLATION specification.
3. Work shall be according to Article 701.18(b) of the Standard Specifications except as noted herein.
4. General.
 - a. The temporary portable bridge traffic signals shall be trailer-mounted units. The trailer-mounted units shall be set up securely and level. Each unit shall be self-contained and consist of two signal heads. The left signal head shall be mounted on a mast arm capable of extending over the travel lane. Each unit shall contain a solar cell system to facilitate battery charging. There shall be a minimum of 12 days backup reserve battery supply and the units shall be capable of operating with a 120 V power supply from a generator or electrical service.
 - b. All signal heads located over the travel lane shall be mounted at a minimum height of 17 feet (5m) from the bottom of the signal back plate to the top of the road surface. All far right signal heads located outside the travel lane shall be mounted at a minimum height of 8 feet (2.5m) from the bottom of the signal back plate to the top of the adjacent travel lane surface.
 - c. The long all red intervals for the traffic signal controller shall be adjustable up to 250 seconds in one-second increments.

- d. As an alternative to detector loops, temporary portable bridge traffic signals may be equipped with microwave sensors or other approved methods of vehicle detection and traffic actuation.
- e. All portable traffic signal units shall be interconnected using hardwire communication cable. Radio communication equipment may be used only with the approval of the Engineer. If radio communication is used, a site analysis shall be completed to ensure that there is no interference present that would affect the traffic signal operation. The radio equipment shall meet all applicable FCC requirements.
- f. The temporary portable bridge traffic signal system shall meet the physical display and operational requirements of conventional traffic signals as specified in Part IV and other applicable portions of the currently adopted version of the Manual on Uniform Traffic Control Devices (MUTCD) and the Illinois MUTCD. The signal system shall be designed to continuously operate over an ambient temperature range between -30 °F (-34 °C) and 120 °F (48 °C). When not being utilized to inform and direct traffic, portable signals shall be treated as nonoperating equipment according to Article 701.11.
- g. Basis of Payment. This work will be paid for according to Article 701.20(c).

Basis of Payment.

This work shall be paid for at the contract unit price each for TEMPORARY TRAFFIC SIGNAL INSTALLATION, TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION, or TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNAL INSTALLATION, the price of which shall include all costs for the modifications required for traffic staging, changes in signal phasing as required in the Contract plans, microwave vehicle sensors, video vehicle detection system, any maintenance or adjustment to the microwave vehicle sensors/video vehicle detection system, the temporary wireless interconnect system complete, temporary fiber optic interconnect system complete, all material required, the installation and complete removal of the temporary traffic signal. Each intersection will be paid for separately.

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT.

Add the following to Article 895.05 of the Standard Specifications:

The traffic signal equipment which is to be removed and is to become the property of the Contractor shall be disposed of outside the right-of-way at the Contractor's expense.

All equipment to be returned to the State shall be delivered by the Contractor to the State's Traffic Signal Maintenance Contractor's main facility. The Contractor shall contact the State's

Electrical Maintenance Contractor to schedule an appointment to deliver the equipment. No equipment will be accepted without a prior appointment. All equipment shall be delivered within 30 days of removing it from the traffic signal installation. The Contractor shall provide 5 copies of a list of equipment that is to remain the property of the State, including model and serial numbers, where applicable. The Contractor shall also provide a copy of the Contract plan or special provision showing the quantities and type of equipment. Controllers and peripheral equipment from the same location shall be boxed together (equipment from different locations may not be mixed) and all boxes and controller cabinets shall be clearly marked or labeled with the location from which they were removed. If equipment is not returned with these requirements, it will be rejected by the State's Electrical Maintenance Contractor. The Contractor shall be responsible for the condition of the traffic signal equipment from the time Contractor takes maintenance of the signal installation until the acceptance of a receipt drawn by the State's Electrical Maintenance Contractor indicating the items have been returned in good condition.

The Contractor shall safely store and arrange for pick up or delivery of all equipment to be returned to agencies other than the State. The Contractor shall package the equipment and provide all necessary documentation as stated above.

Traffic signal equipment which is lost or not returned to the Department for any reason shall be replaced with new equipment meeting the requirements of these Specifications at no cost to the contract.

TRAFFIC SIGNAL PAINTING.

Description.

This work shall include surface preparation, powder type painted finish application and packaging of new galvanized steel traffic signal mast arm poles and posts assemblies. All work associated with applying the painted finish shall be performed at the manufacturing facility for the pole assembly or post or at a painting facility approved by the Engineer. Traffic signal mast arm shrouds and post bases shall also be painted the same color as the pole assemblies and posts.

Surface Preparation.

All weld flux and other contaminates shall be mechanically removed. The traffic mast arms and post assemblies 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 °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 °F.

The finish paint color shall be one of the manufacturer's standard colors and shall be as selected by the local agency responsible for paint costs. The Contractor shall confirm, in writing, the color selection with the local responsible agency and provide a copy of the approval to the Engineer and a copy of the approval shall be included in the material catalog submittal.

Painting of traffic signal heads, pedestrian signal heads and controller cabinets is not included in this pay item.

Any damage to the finish after leaving the manufacturer's facility shall be repaired to the satisfaction of the Engineer using a method recommended by the manufacturer and approved by the Engineer. If while at the manufacturer's facility the finish is damaged, the finish shall be re-applied at no cost to the contract.

Warranty.

The Contractor shall furnish in writing to the Engineer, the paint manufacturer's standard warranty and certification that the paint system has been properly applied.

Packaging.

Prior to shipping, the poles and posts shall be wrapped in ultraviolet-inhibiting plastic foam or rubberized foam.

Basis of Payment.

This work shall be paid for at the contract unit price each for PAINT NEW MAST ARM AND POLE, UNDER 40 FEET (12.19 METER), PAINT NEW MAST ARM AND POLE, 40 FEET (12.19 METER) AND OVER, PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FEET (12.19 METER), PAINT NEW COMBINATION MAST ARM AND POLE, 40 FEET (12.19 METER) AND OVER, or PAINT NEW TRAFFIC SIGNAL POST of the length specified, which shall be payment in full for painting and packaging the traffic signal mast arm poles and posts described above including all shrouds, bases and appurtenances.

ILLUMINATED STREET NAME SIGN

Description.

This work shall consist of furnishing and installing a LED internally illuminated street name sign.

Materials.

Materials shall be in accordance with ILLUMINATED STREET NAME SIGN in Division 1000 of these specifications.

Installation.

The sign can be mounted on most steel mast arm poles. Mounting on aluminum mast arm pole requires supporting structural calculations. Some older or special designed steel mast arm poles may require structural evaluation to assure that construction of the mast arm pole is adequate for the proposed additional loading. Structural calculations and other supporting

documentation as determined by the Engineer shall be provided by the contractor for review by the Department.

The sign shall be located on a steel traffic signal mast arm no further than 8-feet from the center of the pole to the center of the sign at a height of between 16 to 18-feet above traveled pavement. Mounting hardware shall be Pelco model SE-5015, or approved equal, utilizing stainless steel components.

Signs shall be installed such that they are not energized when traffic signals are powered by an alternate energy source such as a generator or uninterruptible power supply (UPS). The signs shall be connected to the generator or UPS bypass circuitry.

Basis of Payment.

This work will be paid for at the contract unit price each for ILLUMINATED STREET NAME SIGN, of the length specified which shall be payment in full for furnishing and installing the LED internally illuminated street sign, complete with circuitry and mounting hardware including photo cell, circuit breaker, fusing, relay, connections and cabling as shown on the plans for proper operation and installation.

RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM.

Description.

This work shall consist of re-optimizing a closed loop traffic signal system according to the following Levels of work.

LEVEL I applies when improvements are made to an existing signalized intersection within an existing closed loop traffic signal system. The purpose of this work is to integrate the improvements to the subject intersection into the signal system while minimizing the impacts to the existing system operation. This type of work would be commonly associated with the addition of signal phases, pedestrian phases, or improvements that do not affect the capacity at an intersection.

LEVEL II applies when improvements are made to an existing signalized intersection within an existing closed loop traffic signal system and detailed analysis of the intersection operation is desired by the engineer, or when a new signalized or existing signalized intersection is being added to an existing system, but optimization of the entire system is not required. The purpose of this work is to optimize the subject intersection, while integrating it into the existing signal system with limited impact to the system operations. This item also includes an evaluation of the overall system operation, including the traffic responsive program.

For the purposes of re-optimization work, an intersection shall include all traffic movements operated by the subject controller and cabinet.

After the signal improvements are completed, the signal shall be re-optimized as specified by an approved Consultant who has previous experience in optimizing Closed Loop Traffic Signal

Systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4424 for a listing of approved Consultants. Traffic signal system optimization work, including fine-tuning adjustments of the optimized system, shall follow the requirements stated in the most recent IDOT District 1 SCAT Guidelines, except as note herein.

A listing of existing signal equipment, interconnect information, phasing data, and timing patterns may be obtained from the Department, if available and as appropriate. The existing SCAT Report is available for review at the District One office and if the Consultant provides blank computer disks, copies of computer simulation files for the existing optimized system and a timing database that includes intersection displays will be made for the Consultant. The Consultant shall confer with the Traffic Signal Engineer prior to optimizing the system to determine if any extraordinary conditions exist that would affect traffic flows in the vicinity of the system, in which case, the Consultant may be instructed to wait until the conditions return to normal or to follow specific instructions regarding the optimization.

(a) LEVEL I Re-Optimization

1. The following tasks are associated with LEVEL I Re-Optimization.
 - a. Appropriate signal timings shall be developed for the subject intersection and existing timings shall be utilized for the rest of the intersections in the system.
 - b. Proposed signal timing plan for the new or modified intersection(s) shall be forwarded to IDOT for review prior to implementation.
 - c. Consultant shall conduct on-site implementation of the timings at the turn-on and make fine-tuning adjustments to the timings of the subject intersection in the field to alleviate observed adverse operating conditions and to enhance operations.
2. The following deliverables shall be provided for LEVEL I Re-Optimization.
 - a. Consultant shall furnish to IDOT a cover letter describing the extent of the re-optimization work performed.
 - b. Consultant shall furnish an updated intersection graphic display for the subject intersection to IDOT and to IDOT's Traffic Signal Maintenance Contractor.

(b) LEVEL II Re-Optimization

1. In addition to the requirements described in the LEVEL I Re-Optimization above, the following tasks are associated with LEVEL II Re-Optimization.
 - a. Traffic counts shall be taken at the subject intersection after the traffic signals are approved for operation by the Area Traffic Signal Operations Engineer. Manual turning movement counts shall be conducted from 6:30 a.m. to 9:30 a.m., 11:00 a.m. to 1:00 p.m., and 3:30 p.m. to 6:30 p.m. on a typical weekday from midday Monday to midday Friday. The turning movement counts shall identify cars, and single-unit, multi-unit heavy vehicles, and transit buses.
 - b. As necessary, the intersections shall be re-addressed and all system detectors reassigned in the master controller according to the current standard of District One.

- c. Traffic responsive program operation shall be evaluated to verify proper pattern selection and lack of oscillation and a report of the operation shall be provided to IDOT.
2. The following deliverables shall be provided for LEVEL II Re-Optimization.
 - a. Consultant shall furnish to IDOT one (1) copy of a technical memorandum for the optimized system. The technical memorandum shall include the following elements:
 - (1) Brief description of the project
 - (2) Printed copies of the analysis output from Synchro (or other appropriate, approved optimization software file)
 - (3) Printed copies of the traffic counts conducted at the subject intersection
 - b. Consultant shall furnish to IDOT two (2) CDs for the optimized system. The CDs shall include the following elements:
 - (1) Electronic copy of the technical memorandum in PDF format
 - (2) Revised Synchro files (or other appropriate, approved optimization software file) including the new signal and the rest of the signals in the closed loop system
 - (3) Traffic counts conducted at the subject intersection
 - (4) New or updated intersection graphic display file for the subject intersection
 - (5) The CD shall be labeled with the IDOT system number and master location, as well as the submittal date and the consultant logo. The CD case shall include a clearly readable label displaying the same information securely affixed to the side and front.

Basis of Payment.

This work shall be paid for at the contract unit price each for RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM – LEVEL I or RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM – LEVEL II, which price shall be payment in full for performing all work described herein per intersection. Following completion of the timings and submittal of specified deliverables, 100 percent of the bid price will be paid. Each intersection will be paid for separately.

OPTIMIZE TRAFFIC SIGNAL SYSTEM.

Description.

This work shall consist of optimizing a closed loop traffic signal system.

OPTIMIZE TRAFFIC SIGNAL SYSTEM applies when a new or existing closed loop traffic signal system is to be optimized and a formal Signal Coordination and Timing (SCAT) Report is to be prepared. The purpose of this work is to improve system performance by optimizing traffic signal timings, developing a time of day program and a traffic responsive program.

After the signal improvements are completed, the signal system shall be optimized as specified by an approved Consultant who has previous experience in optimizing Closed Loop Traffic Signal Systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4424 for a listing of approved Consultants.

Traffic signal system optimization work, including fine-tuning adjustments of the optimized system, shall follow the requirements stated in the most recent IDOT District 1 SCAT Guidelines, except as note herein.

A listing of existing signal equipment, interconnect information, phasing data, and timing patterns may be obtained from the Department, if available and as appropriate. The existing SCAT Report is available for review at the District One office and if the Consultant provides blank computer disks, copies of computer simulation files for the existing optimized system and a timing database that includes intersection displays will be made for the Consultant. The Consultant shall confer with the Traffic Signal Engineer prior to optimizing the system to determine if any extraordinary conditions exist that would affect traffic flows in the vicinity of the system, in which case, the Consultant may be instructed to wait until the conditions return to normal or to follow specific instructions regarding the optimization.

- (a) The following tasks are associated with OPTIMIZE TRAFFIC SIGNAL SYSTEM.
1. Appropriate signal timings and offsets shall be developed for each intersection and appropriate cycle lengths shall be developed for the closed loop signal system.
 2. Traffic counts shall be taken at all intersections after the permanent traffic signals are approved for operation by the Area Traffic Signal Operations Engineer. Manual turning movement counts shall be conducted from 6:30 a.m. to 9:30 a.m., 11:00 a.m. to 1:00 p.m., and 3:30 p.m. to 6:30 p.m. on a typical weekday from midday Monday to midday Friday. The turning movement counts shall identify cars, and single-unit and multi-unit heavy vehicles.
 3. As necessary, the intersections shall be re-addressed and all system detectors reassigned in the master controller according to the current standard of District One.
 4. A traffic responsive program shall be developed, which considers both volume and occupancy. A time-of-day program shall be developed for used as a back-up system.
 5. Proposed signal timing plan for the new or modified intersection shall be forwarded to IDOT for review prior to implementation.
 6. Consultant shall conduct on-site implementation of the timings and make fine-tuning adjustments to the timings in the field to alleviate observed adverse operating conditions and to enhance operations.
 7. Speed and delay studies shall be conducted during each of the count periods along the system corridor in the field before and after implementation of the proposed timing plans for comparative evaluations. These studies should utilize specialized electronic timing and measuring devices.
- (b) The following deliverables shall be provided for OPTIMIZE TRAFFIC SIGNAL SYSTEM.
1. Consultant shall furnish to IDOT one (1) copy of a SCAT Report for the optimized system. The SCAT Report shall include the following elements:

<p>Cover Page in color showing a System Map</p> <p>Figures</p> <ol style="list-style-type: none"> 1. System overview map – showing system number, system schematic map with numbered system detectors, oversaturated movements, master location, system phone number, cycle lengths, and date of completion. 2. General location map in color – showing signal system location in the metropolitan area. 3. Detail system location map in color – showing cross street names and local controller addresses. 4. Controller sequence – showing controller phase sequence diagrams.
<p>Table of Contents</p> <p>Tab 1: Final Report</p> <ol style="list-style-type: none"> 1. Project Overview 2. System and Location Description (Project specific) 3. Methodology 4. Data Collection 5. Data Analysis and Timing Plan Development 6. Implementation <ol style="list-style-type: none"> a. Traffic Responsive Programming (Table of TRP vs. TOD Operation) 7. Evaluation <ol style="list-style-type: none"> a. Speed and Delay runs
<p>Tab 2. Turning Movement Counts</p> <ol style="list-style-type: none"> 1. Turning Movement Counts (Showing turning movement counts in the intersection diagram for each period, including truck percentage)
<p>Tab 3. Synchro Analysis</p> <ol style="list-style-type: none"> 1. AM: Time-Space diagram in color, followed by intersection Synchro report (Timing report) summarizing the implemented timings. 2. Midday: same as AM 3. PM: same as AM
<p>Tab 4: Speed, Delay Studies</p> <ol style="list-style-type: none"> 1. Summary of before and after runs results in two (2) tables showing travel time and delay time. 2. Plot of the before and after runs diagram for each direction and time period.
<p>Tab 5: Environmental Report</p> <ol style="list-style-type: none"> 1. Environmental impact report including gas consumption, NO2, HCCO, improvements.
<p>Tab 6: Electronic Files</p> <ol style="list-style-type: none"> 1. Two (2) CDs for the optimized system. The CDs shall include the following elements: <ol style="list-style-type: none"> a. Electronic copy of the SCAT Report in PDF format b. Copies of the Synchro files for the optimized system c. Traffic counts for the optimized system d. New or updated intersection graphic display files for each of the system intersections and the system graphic display file including system detector locations and addresses.

Basis of Payment.

The work shall be paid for at the contract unit each for OPTIMIZE TRAFFIC SIGNAL SYSTEM, which price shall be payment in full for performing all work described herein for the entire traffic signal system. Following the completion of traffic counts, 25 percent of the bid price will be paid. Following the completion of the Synchro analysis, 25 percent of the bid price will be paid. Following the setup and fine tuning of the timings, the speed-delay study, and the TRP programming, 25 percent of the bid price will be paid. The remaining 25 percent will be paid when the system is working to the satisfaction of the engineer and the report and CD have been submitted.

TEMPORARY TRAFFIC SIGNAL TIMINGS

Description.

This work shall consist of developing and maintaining appropriate traffic signal timings for the specified intersection for the duration of the temporary signalized condition, as well as impact to existing traffic signal timings caused by detours or other temporary conditions.

All timings and adjustments necessary for this work shall be performed by an approved Consultant who has previous experience in optimizing Closed Loop Traffic signal Systems for District One of the Illinois Department of Transportation. The Contractor shall contact the Traffic Signal Engineer at (847) 705-4424 for a listing of approved Consultants.

The following tasks are associated with TEMPORARY TRAFFIC SIGNAL TIMINGS.

- (a) Consultant shall attend temporary traffic signal inspection (turn-on) and/or detour meeting and conduct on-site implementation of the traffic signal timings. Make fine-tuning adjustments to the timings in the field to alleviate observed adverse operating conditions and to enhance operations.
- (b) Consultant shall provide monthly observation of traffic signal operations in the field.
- (c) Consultant shall provide on-site consultation and adjust timings as necessary for construction stage changes, temporary traffic signal phase changes, and any other conditions affecting timing and phasing, including lane closures, detours, and other construction activities.
- (d) Consultant shall make timing adjustments and prepare comment responses as directed by the Area Traffic Signal Operations Engineer.

Basis of Payment.

The work shall be paid for at the contract unit price each for TEMPORARY TRAFFIC SIGNAL TIMINGS, which price shall be payment in full for performing all work described herein per intersection. When the temporary traffic signal installation is turned on and/or detour implemented, 50 percent of the bid price will be paid. The remaining 50 percent of the bid price will be paid following the removal of the temporary traffic signal installation and/or detour.

MODIFYING EXISTING CONTROLLER CABINET.

The work shall consist of modifying an existing controller cabinet as follows:

- (a) Uninterruptible Power Supply (UPS). The addition of uninterruptible power supply (UPS) to an existing controller cabinet could require the relocation of the existing controller cabinet items to allow for the installation of the uninterruptible power supply (UPS) components inside the existing controller cabinet as outlined under Sections 862 and 1074.04 of the Standard Specifications.
- (b) Light Emitting Diode (LED) Signal Heads, Light Emitting Diode (LED) Optically Programmed Signal Heads and Light Emitting Diode (LED) Pedestrian Signal Heads. The contractor shall verify that the existing load switches meet the requirements of Section 1074.03(5)(b)(2) of the Standard Specifications and the recommended load requirements of the light emitting diode (LED) signal heads that are being installed at the existing traffic signal. If any of the existing load switches do not meet these requirements, they shall be replaced, as directed by the Engineer.
- (c) Light Emitting Diode (LED), Signal Head, Retrofit. The contractor shall verify that the existing load switches meet the requirements of Section 1074.03(2) of the Standard Specifications and the recommended load requirements of light emitting diode (LED) traffic signal modules, pedestrian signal modules, and pedestrian countdown signal modules as specified in the plans. If any of the existing load switches do not meet these requirements, they shall be replaced, as directed by the Engineer.

Basis of Payment.

Modifying an existing controller cabinet will be paid for at the contract unit price per each for MODIFY EXISTING CONTROLLER CABINET. This shall include all material and labor required to complete the work as described above, the removal and disposal of all items removed from the controller cabinet, as directed by the Engineer. The equipment for the Uninterruptible Power Supply (UPS) and labor to install it in the existing controller cabinet shall be included in the pay item Uninterruptible Power Supply. Modifying an existing controller will be paid for at the contract unit price per each for MODIFY EXISTING CONTROLLER, per Sections 895.04 and 895.08 of the Standard Specifications.

DIVISION 1000 MATERIALS

PEDESTRIAN PUSH-BUTTON.

Revise Article 1074.02(a) of the Standard Specifications to read:

The pedestrian push-button housing shall be constructed of aluminum alloy according to ASTM B 308 6061-T6 and powder coated yellow, unless otherwise noted on the plans. The housing shall be furnished with suitable mounting hardware.

Revise Article 1074-02(e) of the Standard Specifications to read:

Stations shall be designed to be mounted directly to a post, mast arm pole or wood pole. The station shall be aluminum and shall accept a 3 inch (75mm) round push-button assembly and a regulatory pedestrian instruction sign according to MUTCD, sign series R10-3e 9 x 15 inch sign with arrow(s) for a count-down pedestrian signal. The pedestrian station size without count-down pedestrian signals shall accommodate a MUTCD sign series R10-3b or R10-3d 9 x 12 inch sign with arrow(s).

Add the following to Article 1074.02(a) of the Standard Specifications:

- (f) Location. Pedestrian push-buttons and stations shall be mounted directly to a post, mast arm pole or wood pole as shown on the plans and shall be fully accessible from a paved or concrete surface. See the District's Detail sheets for orientation and mounting details.

CONTROLLER CABINET AND PERIPHERAL EQUIPMENT.

Add the following to Article 1074.03 of the Standard Specifications:

- (a) (6) Cabinets shall be designed for NEMA TS2 Type 1 operation. All cabinets shall be pre-wired for a minimum of eight (8) phases of vehicular, four (4) phases of pedestrian and four (4) phases of overlap operation.
- (b) (5) Cabinets – Provide 1/8" (3.2 mm) thick unpainted aluminum alloy 5052-H32. The surface shall be smooth, free of marks and scratches. All external hardware shall be stainless steel.
- (b) (6) Controller Harness – Provide a TS2 Type 2 "A" wired harness in addition to the TS2 Type 1 harness.
- (b) (7) Surge Protection – Plug-in type EDCO SHA-1250 or Atlantic/Pacific approved equal.
- (b) (8) BIU – Containment screw required.
- (b) (9) Transfer Relays – Solid state or mechanical flash relays are acceptable.
- (b) (10) Switch Guards – All switches shall be guarded.

- (b) (11) Heating – One (1) 200 watt, thermostatically-controlled, Hoffman electric heater, or approved equivalent.
- (b) (12) Lighting – One (1) LED Panel shall be placed inside the cabinet top panel and one (1) LED Panel shall be placed on each side of the pull-out drawer/shelf assembly located beneath the controller support shelf. The LED Panels shall be controlled by a wall switch. Relume Traffic Control Box LED Panels and power supply or approved equivalent.
- (b) (13) The cabinet shall be equipped with a pull-out drawer/shelf assembly. A 1 ½ inch (38mm) deep drawer shall be provided in the cabinet, mounted directly beneath the controller support shelf. The drawer shall have a hinged top cover and shall be capable of accommodating one (1) complete set of cabinet prints and manuals. This drawer shall support 50 lbs. (23 kg) in weight when fully extended. The drawer shall open and close smoothly. Drawer dimensions shall make maximum use of available depth offered by the controller shelf and be a minimum of 24 inches (610mm) wide.
- (b) (14) Plan & Wiring Diagrams – 12" x 16" (3.05mm x 4.06mm) moisture sealed container attached to door.
- (b) (15) Detector Racks – Fully wired and labeled for four (4) channels of emergency vehicle pre-emption and sixteen channels (16) of vehicular operation.
- (b) (16) Field Wiring Labels – All field wiring shall be labeled.
- (b) (17) Field Wiring Termination – Approved channel lugs required.
- (b) (18) Power Panel – Provide a nonconductive shield.
- (b) (19) Circuit Breaker – The circuit breaker shall be sized for the proposed load but shall not be rated less than 30 amps.
- (b) (20) Police Door – Provide wiring and termination for plug in manual phase advance switch.
- (b) (21) Railroad Pre-Emption Test Switch – Eaton 8830K13 SHA 1250 or equivalent.

RAILROAD, FULL-ACTUATED CONTROLLER AND CABINET.

Controller shall comply with Article 1073.01 as amended in these Traffic Signal Special Provisions.

Controller Cabinet and Peripheral Equipment shall comply with Article 1074.03 as amended in these Traffic Signal Special Provisions.

Add the following to Articles 1073.01 (c) (2) and 1074.03 (a) (5) (e) of the Standard Specifications:

Controllers and cabinets shall be new and NEMA TS2 Type 1 design.

A method of monitoring and/or providing redundancy to the railroad preemptor input to the controller shall be included as a component of the Railroad, Full Actuated Controller and Cabinet installation and be verified by the traffic signal equipment supplier prior to installation.

Railroad interconnected controllers and cabinets shall be assembled only by an approved traffic signal equipment supplier. All railroad interconnected (including temporary railroad interconnect) controllers and cabinets shall be new, built, tested and approved by the controller equipment vendor, in the vendor's District One facility, prior to field installation. The vendor shall provide the technical equipment and assistance as required by the Engineer to fully test this equipment.

UNINTERRUPTIBLE POWER SUPPLY (UPS).

Revise Article 1074.04(a)(1) of the Standard Specifications to read:

The UPS shall be line interactive and provide voltage regulation and power conditioning when utilizing utility power. The UPS shall be sized appropriately for the intersection's normal traffic signal operating connected load, plus 20 percent (20%). The total connected traffic signal load shall not exceed the published ratings for the UPS. The UPS shall provide a minimum of six (6) hours of normal operation run-time for signalized intersections with LED type signal head optics at 77 °F (25 °C) (minimum 700 W/1000 VA active output capacity, with 90 percent minimum inverter efficiency).

Revise the first paragraph of Article 1074.04(a)(3) of the Standard Specifications to read:

The UPS shall have a minimum of four (4) sets of normally open (NO) and normally closed (NC) single-pole double-throw (SPDT) relay contact closures, available on a panel mounted terminal block or locking circular connectors, rated at a minimum 120 V/1 A, and labeled so as to identify each contact according to the plans.

Revise Article 1074.04(a)(10) of the Standard Specifications to read:

The UPS shall be compatible with the District's approved traffic controller assemblies utilizing NEMA TS 1 or NEMA TS 2 controllers and cabinet components for full time operation.

Revise Article 1074.04(a)(17) of the Standard Specifications to read:

When the intersection is in battery backup mode, the UPS shall bypass all internal cabinet lights, ventilation fans, cabinet heaters, service receptacles, any lighted street name signs, any automated enforcement equipment and any other devices directed by the Engineer.

Revise Article 1074.04(b)(2)b of the Standard Specifications to read:

Batteries, inverter/charger and power transfer relay shall be housed in a separate NEMA Type 3R cabinet. The cabinet shall be Aluminum alloy, 5052-H32, 0.125-inch thick and have a natural mill finish.

Revise Article 1074.04(b)(2)c of the Standard Specifications to read:

No more than three batteries shall be mounted on individual shelves for a cabinet housing six batteries and no more than four batteries per shelf for a cabinet housing eight batteries.

Revise Article 1074.04(b)(2)e of the Standard Specifications to read:

The battery cabinet housing shall have the following nominal outside dimensions: a width of 25 in. (785 mm), a depth of 16 in. (440 mm), and a height of 41 to 48 in. (1.1 to 1.3 m). Clearance between shelves shall be a minimum of 10 in. (250 mm).

UPS

End of paragraph 1074.04(b) (2)e

The door shall be equipped with a two position doorstop, one a 90° and one at 120°.

Revise Article 1074.04(b)(2)g of the Standard Specifications to read:

The door shall open to the entire cabinet, have a neoprene gasket, an Aluminum continuous piano hinge with stainless steel pin, and a three point locking system. The cabinet shall be provided with a main door lock which shall operate with a traffic industry conventional No. 2 key. Provisions for padlocking the door shall be provided.

Add the following to Article 1074.04(b)(2) of the Standard Specifications:

j. The battery cabinet shall have provisions for an external generator connection.

Add the following to Article 1074.04(c) of the Standard Specifications:

- (8) The UPS shall include a tip or kill switch installed in the battery cabinet, which shall completely disconnect power from the UPS when the switch is manually activated.
- (9) The UPS shall incorporate a flanged electric generator inlet for charging the batteries and operating the UPS. The generator connector shall be male type, twist-lock, rated as 15A, 125VAC with a NEMA L5-15P configuration and weatherproof lift cover plate (Hubbell model HBL4716C or approved equal). Access to the generator inlet shall be from a secured weatherproof lift cover plate or behind a locked battery cabinet police panel.

Battery System.

Revise Article 1074.04(d)(3) of the Standard Specifications to read:

All batteries supplied in the UPS shall be either gel cell or AGM type, deep cycle, completely sealed, prismatic leadcalcium based, silver alloy, valve regulated lead acid (VRLA) requiring no maintenance. All batteries in a UPS installation shall be the same type; mixing of gel cell and AGM types within a UPS installation is not permitted.

Revise Article 1074.04(d)(4) of the Standard Specifications to read:

Batteries shall be certified by the manufacturer to operate over a temperature range of -13 to 160 °F (-25 to + 71 °C) for gel cell batteries and -40 to 140 °F (-40 to + 60 °C) for AGM type batteries.

Add the following to Article 1074.04(d) of the Standard Specifications:

- (9) The UPS shall consist of an even number of batteries that are capable of maintaining normal operation of the signalized intersection for a minimum of six hours. Calculations shall be provided showing the number of batteries of the type supplied that are needed to satisfy this requirement. A minimum of four batteries shall be provided.

Add the following to the Article 1074.04 of the Standard Specifications:

- (e) Warranty_ The warranty for an uninterruptible power supply (UPS) shall cover a minimum of two years from date the equipment is placed in operation; however, the batteries of the UPS shall be warranted for full replacement for a minimum of five years from the date the traffic signal and UPS are placed into service.

ELECTRIC CABLE.

Delete "or stranded, and No. 12 or" from the last sentence of Article 1076.04 (a) of the Standard Specifications.

Add the following to the Article 1076.04(d) of the Standard Specifications:

Service cable may be single or multiple conductor cable.

TRAFFIC SIGNAL POST.

Add the following to Article 1077.01 (d) of the Standard Specifications:

All posts and bases shall be steel and hot dipped galvanized. If the Department approves painting, powder coating by the manufacturer will be required over the galvanization in accordance with TRAFFIC SIGNAL PAINTING in Division 800 of these specifications.

PEDESTRIAN PUSH-BUTTON POST.

Add the following to Article 1077.02(b) of the Standard Specifications:

All posts and bases shall be steel and hot-dipped galvanized. If the Department approves painting, powder coating by the manufacturer will be required over the galvanization in accordance with Traffic Signal Painting in Division 800 of these specifications.

MAST ARM ASSEMBLY AND POLE.

Add the following to Article 1077.03 (a) of the Standard Specifications:

Traffic signal mast arms shall be one piece construction, unless otherwise approved by the Engineer. All poles shall be galvanized. If the Department approves painting, powder coating by the manufacturer will be required over the galvanization in accordance with with TRAFFIC SIGNAL PAINTING in Division 800 of these specifications.

The shroud shall be of sufficient strength to deter pedestrian and vehicular damage. The shroud shall be constructed and designed to allow air to circulate throughout the mast arm but not allow infestation of insects or other animals, and such that it is not hazardous to probing fingers and feet. All mounting hardware shall be stainless steel.

LIGHT EMITTING DIODE (LED) TRAFFIC SIGNAL HEAD.

Add the following to Section 1078 of the Standard Specifications:

General.

All signal and pedestrian heads shall provide 12" (300 mm) displays with glossy yellow or black polycarbonate housings. All head housings shall be the same color (yellow or black) at the intersection. For new signalized intersections and existing signalized intersections where all signal and/or pedestrian heads are being replaced, the proposed head housings shall be black. Where only selected heads are being replaced, the proposed head housing color (yellow or black) shall match existing head housings. Connecting hardware and mounting brackets shall be polycarbonate (black). A corrosion resistant anti-seize lubricant shall be applied to all metallic mounting bracket joints, and shall be visible to the inspector at the signal turn-on. Post top mounting collars are required on all posts, and shall be constructed of the same material as the brackets.

Pedestrian signal heads shall be furnished with the international symbolic "Walking Person" and "Upraised Palm" displays. Egg crate sun shields are not permitted.

Signal heads shall be positioned according to the "District One Standard Traffic Signal Design Details."

LED signal heads (All Face and Section Quantities), (All Mounting Types) shall conform fully to the requirements of Articles 1078.01 and 1078.02 of the Standard Specifications amended herein.

1. The LED signal modules shall be replaced or repaired if an LED signal module fails to function as intended due to workmanship or material defects within the first 60 months from the date of delivery. LED signal modules which exhibit luminous intensities less than the minimum values specified in Table 1 of the ITE Vehicle Traffic Control Signal Heads: Light Emitting Diode (LED) Circular Signal Supplement (June 27, 2005) [VTSCH], or applicable successor ITE specifications, or show signs of entrance of moisture or contaminants within the first 60 months of the date of delivery shall be replaced or repaired. The manufacturer's written warranty for the LED signal modules shall be dated, signed by an Officer of the company and included in the product submittal to the State.

(a) Physical and Mechanical Requirements

1. Modules can be manufactured under this specification for the following faces:
 - a. 12 inch (300 mm) circular, multi-section
 - b. 12 inch (300 mm) arrow, multi-section
 - c. 12 inch (300 mm) pedestrian, 2 sections
2. The maximum weight of a module shall be 4 lbs. (1.8 kg).
3. Each module shall be a sealed unit to include all parts necessary for operation (a printed circuit board, power supply, a lens and gasket, etc.), and shall be weather proof after installation and connection.
4. Material used for the lens and signal module construction shall conform to ASTM specifications for the materials.
5. The lens of the module shall be tinted with a wavelength-matched color to reduce sun phantom effect and enhance on/off contrast. The tinting shall be uniform across the lens face. Polymeric lens shall provide a surface coating or chemical surface treatment applied to provide abrasion resistance. The lens of the module shall be integral to the unit, convex with a smooth outer surface and made of plastic. The lens shall have a textured surface to reduce glare.
6. The use of tinting or other materials to enhance ON/OFF contrasts shall not affect chromaticity and shall be uniform across the face of the lens.
7. Each module shall have a symbol of the type of module (i.e. circle, arrow, etc.) in the color of the module. The symbol shall be 1 inch (25.4 mm) in diameter. Additionally, the color shall be written out in 1/2 inch (12.7mm) letters next to the symbol.

(b) Photometric Requirements

1. The minimum initial luminous intensity values for the modules shall conform to the values in Table 1 of the VTCSH (2005) for circular signal indications, and as stated in Table 3 of these specifications for arrow and pedestrian indications at 25 °C.
2. The modules shall meet or exceed the illumination values stated in Articles 1078.01 and 1078.02 the Standard Specifications for circular signal indications, and Table 3 of these specifications for arrow and pedestrian indications, throughout the useful life based on normal use in a traffic signal operation over the operating temperature range.
3. The measured chromaticity coordinates of the modules shall conform to the chromaticity requirements of Section 4.2 of the VTCSH (2005) or applicable successor ITE specifications.
4. The LEDs utilized in the modules shall be AlInGaP technology for red, yellow, Portland orange (pedestrian) and white (pedestrian) indications, and GaN for green indications, and shall be the ultra bright type rated for 100,000 hours of continuous operation from -40 °C to +74 °C.

(c) Electrical

1. Maximum power consumption for LED modules is per Table 2.
2. Operating voltage of the modules shall be 120 VAC. All parameters shall be measured at this voltage.
3. The modules shall be operationally compatible with currently used controller assemblies (solid state load switches, flashers, and conflict monitors).
4. When a current of 20 mA AC (or less) is applied to the unit, the voltage read across the two leads shall be 15 VAC or less.
5. The LED modules shall provide constant light output under power. Modules with dimming capabilities shall have the option disabled or set on a non-dimming operation.
6. The individual LEDs shall be wired such that a catastrophic loss or the failure of one or more LED will not result in the loss of the entire module.

(d) Retrofit Traffic Signal Module

1. The following specification requirements apply to the Retrofit module only. All general specifications apply unless specifically superseded in this section.
2. Retrofit modules can be manufactured under this specification for the following faces:
 - a. 12 inch (300 mm) circular, multi-section
 - b. 12 inch (300 mm) arrow, multi-section

- c. 12 inch (300 mm) pedestrian, 2 sections
 - 3. Each Retrofit module shall be designed to be installed in the doorframe of a standard traffic signal housing. The Retrofit module shall be sealed in the doorframe with a one-piece EPDM (ethylene propylene rubber) gasket.
 - 4. The maximum weight of a Retrofit module shall be 4 lbs. (1.8 kg).
 - 5. Each Retrofit module shall be a sealed unit to include all parts necessary for operation (a printed circuit board, power supply, a lens and gasket, etc.), and shall be weather proof after installation and connection.
 - 6. Electrical conductors for modules, including Retrofit modules, shall be 39.4 inches (1m) in length, with quick disconnect terminals attached.
 - 7. The lens of the Retrofit module shall be integral to the unit, shall be convex with a smooth outer surface and made of plastic or of glass.
- (e) The following specification requirements apply to the 12 inch (300 mm) arrow module only. All general specifications apply unless specifically superseded in this section.
- 1. The arrow module shall meet specifications stated in Section 9.01 of the Equipment and Material Standards of the Institute of Transportation Engineers (November 1998) [ITE Standards], Chapter 2 (Vehicle Traffic Control Signal Heads) or applicable successor ITE specifications for arrow indications.
 - 2. The LEDs arrow indication shall be a solid display with a minimum of three (3) outlining rows of LEDs and at least one (1) fill row of LEDs.
- (f) The following specification requirement applies to the 12 inch (300 mm) programmed visibility (PV) module only. All general specifications apply unless specifically superseded in this section.
- 1. The LED module shall be a module designed and constructed to be installed in a programmed visibility (PV) signal housing without modification to the housing.
- (g) The following specification requirements apply to the 12 inch (300 mm) Pedestrian module only. All general specifications apply unless specifically superseded in this section.
- 1. Each pedestrian signal LED module shall provide the ability to actuate the solid upraised hand and the solid walking person on one 12 inch (300mm) section.
 - 2. Two (2) pedestrian sections shall be installed. The top section shall be wired to illuminate only the upraised hand and the bottom section shall be the walking man.
 - 3. "Egg Crate" type sun shields are not permitted. All figures must be a minimum of 9 inches (225mm) in height and easily identified from a distance of 120-feet (36.6m).

LIGHT EMITTING DIODE (LED) PEDESTRIAN COUNTDOWN SIGNAL HEAD.

Add the following to Article 1078.02 of the Standard Specifications:

General.

1. The module shall operate in one mode: Clearance Cycle Countdown Mode Only. The countdown module shall display actual controller programmed clearance cycle and shall start counting when the flashing clearance signal turns on and shall countdown to "0" and turn off when the steady Upraised Hand (symbolizing Don't Walk) signal turns on. Module shall not have user accessible switches or controls for modification of cycle.
2. At power on, the module shall enter a single automatic learning cycle. During the automatic learning cycle, the countdown display shall remain dark.
3. The module shall re-program itself if it detects any increase or decrease of Pedestrian Timing. The counting unit will go blank once a change is detected and then take one complete pedestrian cycle (with no counter during this cycle) to adjust its buffer timer.
4. The module shall allow for consecutive cycles without displaying the steady Upraised Hand.
5. The module shall recognize preemption events and temporarily modify the crossing cycle accordingly.
6. If the controller preempts during the Walking Person (symbolizing Walk), the countdown will follow the controller's directions and will adjust from Walking Person to flashing Upraised Hand. It will start to count down during the flashing Upraised Hand.
7. If the controller preempts during the flashing Upraised Hand, the countdown will continue to count down without interruption.
8. The next cycle, following the preemption event, shall use the correct, initially programmed values.
9. If the controller output displays Upraised Hand steady condition and the unit has not arrived to zero or if both the Upraised Hand and Walking Person are dark for some reason, the unit suspends any timing and the digits will go dark.
10. The digits will go dark for one pedestrian cycle after loss of power of more than 1.5 seconds.

11. The countdown numerals shall be two (2) "7 segment" digits forming the time display utilizing two rows of LEDs.
12. The LED module shall meet the requirements of the Institute of Transportation Engineers (ITE) LED purchase specification, "Pedestrian Traffic Control Signal Indications - Part 2: LED Pedestrian Traffic Signal Modules," or applicable successor ITE specifications, except as modified herein.
13. The LED modules shall provide constant light output under power. Modules with dimming capabilities shall have the option disabled or set on a non-dimming operation.
14. In the event of a power outage, light output from the LED modules shall cease instantaneously.
15. The LEDs utilized in the modules shall be AlInGaP technology for Portland Orange (Countdown Numerals and Upraised Hand) and GaN technology for Lunar White (Walking Person) indications.
16. The individual LEDs shall be wired such that a catastrophic loss or the failure of one or more LED will not result in the loss of the entire module.

Electrical.

1. Maximum power consumption for LED modules is 29 watts.
2. The measured chromaticity shall remain unchanged over the input line voltage range listed of 80 VAC to 135 VAC.

TRAFFIC SIGNAL BACKPLATE.

Delete 1st sentence of Article 1078.03 of the Standard Specifications and add "All backplates shall be aluminum and louvered".

Add the following to the third paragraph of Article 1078.03 of the Standard Specifications. The reflective backplate shall not contain louvers.

Delete second sentence of the fourth paragraph of Article 1078.03 of the Standard Specifications.

Add the following to the fourth paragraph of Article 1078.03 of the Standard Specifications:

When retro reflective sheeting is specified, it shall be Type ZZ sheeting according to Article 1091.03 and applied in preferred orientation for the maximum angularity according to the manufacturer's recommendations. The retro reflective sheeting shall be installed under a controlled environment at the manufacturer/supplier before shipment to the contractor. The

aluminum backplate shall be prepared and cleaned, following recommendations of the retro reflective sheeting manufacturer.

INDUCTIVE LOOP DETECTOR.

Add the following to Article 1079.01 of the Standard Specifications:

Contracts requiring new cabinets shall provide for rack mounted detector amplifier cards. Detector amplifiers shall provide LCD displays with loop frequency, inductance, and change of inductance readings.

ILLUMINATED SIGN, LIGHT EMITTING DIODE.

Delete last sentence of Article 1084.01(a) and add "Mounting hardware shall be black polycarbonate or galvanized steel and similar to mounting Signal Head hardware and bracket specified herein and shall provide tool free access to the interior."

Revise the second paragraph of Article 1084.01(a) to read:

The exterior surface of the housing shall be acid-etched and shop painted with one coat of zinc-chromate primer and two coats of exterior enamel. The housing shall be the same color (yellow or black) to match the existing or proposed signal heads. The painting shall be according to Section 851.

Add the following to Article 1084.01 (b) of the Standard Specifications:

The message shall be formed by rows of LEDs. The sign face shall be 24 inches (600 mm) by 24 inches (600 mm).

Add the following to Article 1084.01 of the Standard Specifications:

- (e) The light emitting diode (LED) blank out signs shall be manufactured by National Sign & Signal Company, or an approved equal and consist of a weatherproof housing and door, LEDs and transformers.

ILLUMINATED STREET NAME SIGN

The illuminate street name sign shall be as follows.

(a) Description.

The LEDs shall be white in color and utilize InGaN or UV thermally efficient technology. The LED Light Engines shall be designed to fit inside a standard fluorescent illuminated street sign housing in lieu of fluorescent lamps and ballasts or a slim line type housing. The LED internally-illuminated street name sign shall display the designated street name clearly and legibly in the daylight hours without being energized and at night when energized. The sign

assembly shall consist of a four-, six-, or eight-foot aluminum housing. White translucent 3M DG³ reflective sheeting sign faces with the street name applied in 3M/Scotchlite Series 1177 or current 3M equivalent transparent green shall be installed in hinged doors on the side of the sign for easy access to perform general cleaning and maintenance operations. Illumination shall occur with LED Light Engine as specified.

(b) Environmental Requirements.

The LED lamp shall be rated for use in the ambient operating temperature range of -40 to +50°C (-40 to +122°F) for storage in the ambient temperature range of -40 to +75°C (-40 to +167°F).

(c) General Construction.

1. The LED Light Engine shall be a single, self-contained device, for installation in an existing street sign housing. The power supply must be designed to fit and mounted on the inside wall at one end of the street sign housing. The LED Light Engine shall be mounted within the inner top portion of the housing and no components of the light source shall sit between the sign faces.
2. The assembly and manufacturing processes of the LED Light Engine shall be designed to ensure that all LED and electronic components are adequately supported to withstand mechanical shocks and vibrations in compliance with the specifications of the ANSI, C136.31-2001 standards.

(d) Mechanical Construction.

1. The sign shall be constructed using a weatherproof, aluminum housing consisting of an extruded aluminum top with a minimum thickness of .140" x 10 3/4" deep (including the drip edge). The extruded aluminum bottom is .094" thick x 5 7/8" deep. The ends of the housing shall be cast aluminum with a minimum thickness of .250". A six-foot sign shall be 72 5/8" long and 22 5/16" tall and not weigh more than 77 pounds. An eight-foot sign shall be 96 5/8" long and 22 5/16" tall and not weigh more than 92 pounds. All corners are continuous TIG (Tungsten Inert Gas) welded to provide a weatherproof seal around the entire housing.
2. The door shall be constructed of extruded aluminum. Two corners are continuous TIG welded with the other two screwed together to make one side of the door removable for installation of the sign face. The door is fastened to the housing on the bottom by a full length, .040" x 1 1/8" open stainless steel hinge. The door shall be held secure onto a 1" wide by 5/32" thick neoprene gasket by three (six total for two-way sign) quarter-turn fasteners to form a watertight seal between the door and the housing.
3. The sign face shall be constructed of .125" white translucent polycarbonate. The letters shall be 8" upper case and 6" lower case. The sign face legend background shall consist of 3M/Scotchlite Series 4090T or current equivalent 3M translucent DG³ white VIP (Visual Impact Performance) diamond grade sheeting (ATSM Type 9) and 3M/Scotchlite Series 1177 or current 3M equivalent transparent green acrylic EC (electronic cut-able) film applied to the front of the sign face. The legend shall be framed

by a white polycarbonate border. A logo symbol and/or name of the community may be included with approval of the Engineer.

4. All surfaces of the sign shall be etched and primed in accordance to industry standards before receiving appropriate color coats of industrial enamel.
5. All fasteners and hardware shall be corrosion resistant stainless steel. No tools are required for routine maintenance.
6. All wiring shall be secured by insulated wire compression nuts.
7. A wire entrance junction box shall be supplied with the sign assembly. The box may be supplied mounted to the exterior or interior of the sign and provide a weather tight seal.
8. A photoelectric switch shall be mounted in the control cabinet to control lighting functions for day and night display. Each sign shall be individually fused.
9. Brackets and Mounting: LED internally-illuminated street name signs will be factory drilled to accommodate mast arm two-point support assembly mounting brackets.

(e) Electrical.

1. Photocell shall be rated 105-305V, turn on at 1.5 fcs. with a 3-5 second delay. A manufacturer's warranty of six (6) years shall be provided. Power consumption shall be no greater than 1 watt at 120V.
2. The LED Light Engine shall operate from a 60 +/- 3 cycle AC line power over a voltage range of 80 to 135 Vac rms. Fluctuations in line voltage over the range of 80 to 135 Vac shall not affect luminous intensity by more than +/- 10%.
3. Total harmonic distortion induced into the AC power line by the LED Light Engine, operated at a nominal operating voltage, and at a temperature of +25°C (+77°F), shall not exceed 20%.
4. The LED Light Engine shall cycled ON and OFF with a photocell as shown on the detail sheet and shall not exceed the following maximum power values:

4-Foot Sign	60 W
6-Foot Sign	90 W
8-Foot Sign	120 W

The signs shall not be energized when traffic signals are powered by an alternate energy source such as a generator or uninterruptable power source (UPS). The signs shall be connected to the generator or UPS bypass circuitry.

(f) Photometric Requirements.

1. The entire surface of the sign panel shall be evenly illuminated. The average maintained luminous intensity measured across the letters, operating under the conditions defined in Environmental Requirements and Wattage Sections shall be of a minimum value of 100 cd/m².
2. The manufacturer shall make available independent laboratory test results to verify compliance to Voltage Range and Luminous Intensity Distribution Sections.
3. Twelve (12) 1.25 watt LED units shall be mounted on 1-inch x 22-inch metal cone printed circuit boards (MCPCB). The viewing angle shall be 120 degrees. LED shall have a color temperature of 5200k nominal, CRI of 80 with a life expectancy of 75,000 hrs.

(g) Quality Assurance.

The LED Light Engine shall be manufactured in accordance with a vendor quality assurance (QA) program. The production QA shall include statistically controlled routine tests to ensure minimum performance levels of the LED Light Engine build to meet this specification. QA process and test result documentations shall be kept on file for a minimum period of seven (7) years. The LED Light Engine that does not satisfy the production QA testing performance requirements shall not be labeled, advertised, or sold as conforming to these specifications. Each LED Light Engine shall be identified by a manufacturer's serial number for warranty purposes. LED Light Engines shall be replaced or repaired if they fail to function as intended due to workmanship or material defects within the first sixty (60) months from the date of acceptance. LED Light Engines that exhibit luminous intensities less than the minimum value specified in Photometric Section within the first thirty-six (36) months from the date of acceptance shall be replaced or repaired.

REMOVE EXISTING HANDHOLE

Description: This work shall consist of the removal of existing handholes at locations shown on the plans or as directed by the Engineer.

General: The frame and cover of an existing handhole shall be broken off of the top section of the handhole wall to a minimum depth of 3 ft below the surrounding grade, or as specified, backfilled with approved material, and the surface reconstructed to match the adjoining area. The concrete debris shall be disposed of outside the right-of-way, and the frame and cover disposed of as directed by the Engineer. If the handhole is located in the sidewalk area, the entire sidewalk square or squares where the handhole is located shall be replaced with new sidewalk.

Method of Measurement and Basis of Payment: This work shall be paid for at the contract unit price EACH for REMOVE EXISTING HANDHOLE, which price shall be payment in full for furnishing all necessary parts, equipment, and labor to remove the existing handhole to the satisfaction of the Engineer.

EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

This work shall consist of furnishing and installing lead-in cable for light detectors installed at existing and/or proposed traffic signal installations as part of an emergency vehicle priority system. The work includes installation of the lead-in cables in existing and/or new conduit. The electric cable shall be shielded and have (3) stranded conductors colored blue, orange, and yellow with a stranded tinned copper drain wire. The cable shall meet the requirements of the manufacturer of the Emergency Vehicle Priority System Equipment.

Basis of Payment. This work will be paid for at the contract unit price per foot for EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C, which price shall be payment in full for furnishing, installing and making all electrical connections necessary for proper operations.

FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL

Effective: January 1, 2002

Revised: January 1, 2007

Description: This work shall consist of furnishing and installing a(n) "Eagle" brand traffic-actuated solid state digital controller in a new Super-R, Type V controller cabinet with peripheral equipment, meeting the requirements of the current District One Traffic Signal Special Provisions including conflict monitor, load switches and flasher relays, with all necessary connections for proper operation.

Basis of Payment: This work will be paid for at the contract unit price each for FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL.

MASTER CONTROLLER (SPECIAL)

Effective: January 1, 2002

Revised: January 1, 2007

This work shall consist of furnishing and installing a(n) "Eagle" brand master controller, meeting the requirements of the current District One Traffic Signal Special Provisions including all necessary connections for proper operation.

Basis of Payment. This work will be paid for at the contract unit price each for MASTER CONTROLLER (SPECIAL).

TEMPORARY TRAFFIC SIGNAL INSTALLATION (SPECIAL)

The Temporary Traffic Signal Installation shall meet the requirements of Section 890 of the IDOT Standard Specifications for Road and Bridge Construction. It should be noted that the Temporary Traffic Signal Installation as shown on the plans requires additional temporary poles, span wire set-ups, and temporary signal head relocations. All costs incurred from installing the temporary traffic signal installation and modifying the installation for each Maintenance of Traffic Stage, as shown on the plans or as directed by the Engineer, shall be included in this pay item.

Revise Section 890 of the Standard Specifications to read:

Description.

This work shall consist of furnishing, installing, maintaining, modifying, and removing a temporary traffic signal installation as shown on the plans, including but not limited to, temporary signal heads, emergency vehicle priority systems, interconnect, vehicle detectors, uninterruptible power supply, signing, and revising the temporary traffic signal installation as noted on the plans. When temporary traffic signals will be operating within a county or local agency Traffic Management System, the equipment must be NTCIP compliant and compatible with the current operating requirements of the Traffic Management System.

General.

Only an approved equipment vendor will be allowed to assemble the temporary traffic signal cabinet. A representative of the approved control equipment vendor shall be present at the temporary traffic signal turn-on inspection.

Construction Requirements.

(a) Controllers.

1. Only controllers supplied by one of the District approved closed loop equipment manufacturers will be approved for use at temporary signal locations. All controllers used for temporary traffic signals shall be fully actuated NEMA microprocessor based with RS232 data entry ports compatible with existing monitoring software approved by IDOT District 1, installed in NEMA TS2 cabinets with 8 phase back panels, capable of supplying 255 seconds of cycle length and individual phase length settings up to 99 seconds. On projects with one lane open and two way traffic flow, such as bridge deck repairs, the temporary signal controller shall be capable of providing an adjustable all red clearance setting of up to 30 seconds in length. All controllers used for temporary traffic signals shall meet or exceed the requirements of Section 857 of the Standard Specifications with regards to internal time base coordination and preemption.
2. Only control equipment, including controller cabinet and peripheral equipment, supplied by one of the District approved closed loop equipment manufacturers will be approved for use at temporary traffic signal locations. All control equipment for the temporary traffic signal(s) shall be furnished by the Contractor unless otherwise stated in the plans.

- (b) Cabinets. All temporary traffic signal cabinets shall have a closed bottom made of aluminum alloy. The bottom shall be sealed along the entire perimeter of the cabinet base to ensure a water, dust and insect-proof seal. The bottom shall provide a minimum of two (2) 4 inch (100 mm) diameter holes to run the electric cables through. The 4 inch (100 mm) diameter holes shall have a bushing installed to protect the electric cables and shall be sealed after the electric cables are installed.
- (c) Grounding. Grounding shall be provided for the temporary traffic signal cabinet meeting or exceeding the applicable portions of the National Electrical Code, Section 806 of the Standard Specifications and shall meet the requirements of the District 1 Traffic Signal Specifications for "Grounding of Traffic Signal Systems."
- (d) Traffic Signal Heads. All traffic signal sections and pedestrian signal sections shall be 12 inches (300 mm). Traffic signal sections shall be LED with expandable view, unless otherwise approved by the Engineer. The temporary traffic signal heads shall be placed as indicated on the temporary traffic signal plan or as directed by the Engineer. The Contractor shall furnish enough extra cable length to relocate heads to any position on the span wire or at locations illustrated on the plans for construction staging. The temporary traffic signal shall remain in operation during all signal head relocations. Each temporary traffic signal head shall have its own cable from the controller cabinet to the signal head.
- (e) Interconnect.
 - 1. Temporary traffic signal interconnect shall be provided using fiber optic cable or wireless interconnect technology as specified in the plans. The Contractor may request, in writing, to substitute the fiber optic temporary interconnect indicated in the contract documents with a wireless interconnect. The Contractor must provide assurances that the radio device will operate properly at all times and during all construction staging. If approved for use by the Engineer, the Contractor shall submit marked-up traffic signal plans indicating locations of radios and antennas and installation details. If wireless interconnect is used, and in the opinion of the engineer, it is not viable, or if it fails during testing or operations, the Contractor shall be responsible for installing all necessary poles, fiber optic cable, and other infrastructure for providing temporary fiber optic interconnect at no cost to the contract.
 - 2. The existing system interconnect and phone lines are to be maintained as part of the Temporary Traffic Signal Installation specified for on the plan. The interconnect shall be installed into the temporary controller cabinet as per the notes or details on the plans. All labor and equipment required to install and maintain the existing interconnect as part of the Temporary Traffic Signal Installation shall be included in the item Temporary Traffic Signal Installation. When shown in the plans, temporary traffic signal interconnect equipment shall be furnished and installed. The temporary traffic signal interconnect

shall maintain interconnect communications throughout the entire signal system for the duration of the project.

3. Temporary wireless interconnect, complete. The radio interconnect system shall be compatible with Eagle or Econolite controller closed loop systems. This item shall include all temporary wireless interconnect components, complete, at the adjacent existing traffic signal(s) to provide a completely operational closed loop system. This item shall include all materials, labor and testing to provide the completely operational closed loop system as shown on the plans. The radio interconnect system shall include the following components:
 - a. Rack or Shelf Mounted RS-232 Frequency Hopping Spread Spectrum (FHSS) Radio
 - b. Software for Radio Configuration (Configure Frequency and Hopping Patterns)
 - c. Antennas (Omni Directional or Yagi Directional)
 - d. Antenna Cables, LMR400, Low Loss. Max. 100-ft from controller cabinet to antenna
 - e. Brackets, Mounting Hardware, and Accessories Required for Installation
 - f. RS232 Data Cable for Connection from the radio to the local or master controller
 - g. All other components required for a fully functional radio interconnect system

All controller cabinet modifications and other modifications to existing equipment that are required for the installation of the radio interconnect system components shall be included in this item.

The radio interconnect system may operate at 900Mhz (902-928) or 2.4 Ghz depending on the results of a site survey. The telemetry shall have an acceptable rate of transmission errors, time outs, etc. comparable to that of a hardwire system.

The proposed master controller and telemetry module shall be configured for use with the radio interconnect at a minimum rate of 9600 baud.

The radio interconnect system shall include all other components required for a complete and fully functional telemetry system and shall be installed in accordance to the manufacturers recommendations.

The following radio equipment is currently approved for use in Region One/District One: Encom Model 5100 and Intuicom Communicator II.

- (f) Emergency Vehicle Pre-Emption. All emergency vehicle preemption equipment (light detectors, light detector amplifiers, confirmation beacons, etc.) as shown on the

temporary traffic signal plans shall be provided by the Contractor. It shall be the Contractor's responsibility to contact the municipality or fire district to verify the brand of emergency vehicle preemption equipment to be installed prior to the contract bidding. The equipment must be completely compatible with all components of the equipment currently in use by the Agency. All light operated systems shall operate at a uniform rate of 14.035 hz \pm 0.002, or as otherwise required by the Engineer, and provide compatible operation with other light systems currently being operated in the District. All labor and material required to install and maintain the Emergency Vehicle Preemption installation shall be included in the item Temporary Traffic Signal Installation.

- (g) Vehicle Detection. All temporary traffic signal installations shall have vehicular detection installed as shown on the plans or as directed by the Engineer. All approaches shall have vehicular detection provided by vehicle detection system as shown on the plans or as directed by the Engineer. Microwave vehicle sensors or video vehicle detection system shall be approved by IDOT prior to Contractor furnishing and installing. The Contractor shall install, wire, and adjust the alignment of the microwave vehicle sensor or video vehicle detection system in accordance to the manufacturer's recommendations and requirements. The Contractor shall be responsible for adjusting the alignment of the microwave vehicle sensor or video vehicle detection system for all construction staging changes and for maintaining proper alignment throughout the project. A representative of the approved control equipment vendor shall be present and assist the contractor in setting up and maintaining the microwave vehicle sensor or video vehicle detection system. An in-cabinet video monitor shall be provided with all video vehicle detection systems and shall be included in the item Temporary Traffic Signal Installation.
- (h) Uninterruptible Power Supply. All temporary traffic signal installations shall have Uninterruptible Power Supply (UPS). The UPS cabinet shall be mounted to the temporary traffic signal cabinet and meet the requirements of Uninterruptible Power Supply in Divisions 800 and 1000 of these specifications.
- (i) Signs. All existing street name and intersection regulatory signs shall be removed from existing poles and relocated to the temporary signal span wire. If new mast arm assembly and pole(s) and posts are specified for the permanent signals, the signs shall be relocated to the new equipment at no extra cost. Any intersection regulatory signs that are required for the temporary traffic signal shall be provided as shown on the plans or as directed by the Engineer. Relocation, removing, bagging and installing the regulatory signs for the various construction stages shall be provided as shown on the plans or as directed by the Engineer.
- (j) Energy Charges. The electrical utility energy charges for the operation of the temporary traffic signal installation shall be paid for by others if the installation replaces an existing signal. Otherwise charges shall be paid for under 109.05 of the Standard Specifications.

- (k) Maintenance. Maintenance shall meet the requirements of the Standard Specifications and MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION in Division 800 of these specifications. Maintenance of temporary signals and of the existing signals shall be included in the cost of the TEMPORARY TRAFFIC SIGNAL INSTALLATION pay item. When temporary traffic signals are to be installed at locations where existing signals are presently operating, the Contractor shall be fully responsible for the maintenance of the existing signal installation as soon as he begins any physical work on the Contract or any portion thereof. In addition, a minimum of seven (7) days prior to assuming maintenance of the existing traffic signal installation(s) under this Contract, the Contractor shall request that the Resident Engineer contact the Bureau of Traffic Operations (847) 705-4424 for an inspection of the installation(s).

Basis of Payment.

This work shall be paid for at the contract unit price each for TEMPORARY TRAFFIC SIGNAL INSTALLATION (SPECIAL), the price of which shall include all costs for the modifications required for traffic staging, changes in signal phasing as required in the Contract plans, microwave vehicle sensors, video vehicle detection system, any maintenance or adjustment to the microwave vehicle sensors/video vehicle detection system, the temporary wireless interconnect system complete, temporary fiber optic interconnect system complete, all material required, the installation and complete removal of the temporary traffic signal. Each intersection will be paid for separately.

WATER MAIN AND SANITARY SEWER SPECIFICATIONS

DUCTILE IRON WATER MAIN

Description

This work shall be constructed in accordance with Section 561 of the Standard Specifications, Division IV of the "Standard Specifications for Water and Sewer Construction in Illinois" and as specified herein.

Materials

Water main shall be ductile iron, cement-lined, Class 52 with push-on joints of the size designated on the Plans, and shall conform to the latest ANSI A21.51/AWWA C151 standard. All water main and fittings shall be polyethylene encased with taped joints. Provide labor, materials, tools, chemicals and equipment required to perform pressure testing, flushing, and disinfection. Joints in piping shall not be deflected any greater than 5-degrees or the manufacturer's recommended maximum joint deflection, whichever is less.

Fittings and caps shall be mechanical joint as provided by American Ductile Iron, C153; US Pipe, Class 350; Tyler; or approved equal. Mechanical joint fittings shall meet ANSI A21.10 or A21.53 and shall have cement lining conforming to ANSI A-21.4. Fittings and caps shall be restrained with EBAA Megalug 1100 retainer glands and thrust blocking as detailed on the Plans.

Fittings where the vertical alignment of the piping is changed, push-on joints shall be US Pipe, Field LOK 350 gaskets, or equal and shall extend a minimum of 60 feet in each direction from the fitting. Field LOK gaskets shall also be used on water main pipe within steel casing pipe.

Valves shall be resilient-wedge gate valves with mechanical joints suitable for buried potable water distribution service. Gate valves shall conform to the latest AWWA C509 and AWWA C515 standards and be rated for 250 psi working pressure. Valves shall be provided by American Flow Control, Clow, East Jordan, or Mueller.

Disc wedge shall be of fully-supported wedge type fully encapsulated in styrene butadiene rubber. Solid guide lugs shall travel within the body of the valve and shall be encapsulated in styrene butadiene rubber. Guide caps shall be an acetal copolymer intended to protect the guide lugs from abrasion. All wear surfaces should be bronze or other approved non-corrosive material and no bearings or contact surfaces of iron shall contact other surfaces of iron. Contact surfaces shall be replaceable. Internal and external surfaces shall be factory-coated with a fusion-bonded 10 mil epoxy coating conforming to AWWA C550 and NSF 61 certified. External fasteners and hardware shall be 304 stainless steel.

Polyethylene encasement shall meet ASTM 1248 and shall conform to AWWA C105/A21.5. Encasement film shall be 8 mil linear low-density polyethylene (LLDPE) or 4 mil high-density cross laminated polyethylene (HDCLPE). Method A (Section 4.4.2.1) is the approved installation

method, which requires one continuous length of polyethylene encasement wrap per length of pipe, overlapped at the joints and taped. Method B or C shall only be used with the approval of the Engineer. Where services are installed, the wrapping removed for the service tap shall be re-wrapped and sealed to the service line.

Disinfection shall be performed per with an initial concentration of 50 ppm with a required minimum residual chlorine concentration of 25 ppm after 24 hours. Dechlorination of the water used for disinfection shall be performed in accordance with ANSI/AWWA C655-09 and shall include discharge site preparation, sampling and testing of discharge water, and dechlorination chemicals.

Wherever water is encountered in the trench, it shall be removed during pipe laying and jointing operations. Provisions shall be made to prevent floating of the pipe. Any dewatering of the trench shall be considered incidental and paid for at the Contractor's expense. At no time shall water be permitted to enter the water main piping.

Soil or other foreign material shall be prevented from entering the pipe or pipe joint surface during handling or installation. Any pipe or fitting that has been installed with soil or foreign material shall be disassembled, cleaned, and re-installed. When piping is not being installed, open ends shall be closed by a watertight plug or by other means subject to review by the Engineer.

Any cutting of existing water main pipe for the insertion of fittings shall be performed without damage to the pipe or pipe lining and shall leave a smooth cut at an angle square to the longitudinal axis of the pipe. No bell repair clamps shall be allowed.

All types of pipe shall be handled in such a manner as to prevent damage to the pipe or coating. Damage to the pipe or coating shall be repaired to the satisfaction of the Engineer at the Contractor's expense or shall be removed from the project site.

The bedding, haunching, and backfilling for pipe installation shall be as shown on the Plans and as specified in Division II of the latest edition of the Standard Specifications for Water and Sewer Construction in Illinois except as modified herein.

Bedding, haunching, and initial backfill shall consist of CA-7 course aggregate gradation. Bedding shall consist of 6 inches of compacted granular material beneath the pipe. Haunching shall consist of the backfill from the bottom of pipe to the springline of the pipe. Initial backfill shall consist of the backfill from the top of pipe to 12 inches above the pipe. Bedding, haunching, and initial backfill shall be placed in 6-inch lifts and compacted by mechanical means.

Surplus material not used for backfilling shall be hauled off site and disposed of on a daily basis in disposal sites obtained by the Contractor.

All water main, fittings, valves, and fire hydrants shall be subjected to a hydrostatic pressure and leakage test of 150 psi after installation. Each section of water main to be pressure tested

shall be filled with water to expel all entrapped air, and the test pressure applied by use of a pump connected to a tap in the pipe. Copper whip shall be used for flushing, pressure testing, and disinfection. Duration of each pressure test shall be for a period of no less than two (2) hours' maximum loss (leakage, per "State Standards"). All testing procedures shall follow City of West Chicago procedures and requirements in addition to those already listed. The taps, corporation stops, and copper whips shall be 1-inch diameter.

Shop Drawings

Shop drawings of all items related to the water main and its appurtenances shall be submitted to and reviewed by the City of West Chicago and Engineer. Contractor shall gain City of West Chicago and Engineer approval of all shop drawings prior to delivery to the job site.

Method of Measurement

This work shall be measured for payment in feet in place and accepted. The length measured shall include stops, fittings, and valves

Trench Backfill shall be measured for payment separately per the TRENCH BACKFILL, SPECIAL pay item.

Basis of Payment

This work will be paid for at the contract unit price per foot for DUCTILE IRON WATER MAIN of the type and diameter shown on the Plans which price shall include excavation, backfill, temporary shoring, disposal of surplus material, bedding, haunching, initial backfill, polyethylene encasement, fittings, valves, mechanical joints/gaskets, mechanical joint restraints, Field LOK gaskets, thrust blocks, copper whips, corporation stops, taps, temporary blind flanges, pressure testing, leakage testing, disinfection, dechlorination, laboratory test costs capping and disconnection from existing mains of the type and diameter shown on the Plans.

The shutdown, cutting, capping, and thrust blocking of the existing water main in order to disconnect the distribution system from the existing piping as detailed on the Plans shall be included in the contract unit price for DUCTILE IRON WATER MAIN.

WATER MAIN FITTINGS

Description

This work shall consist of furnishing and installing fittings as directed by the Engineer.

A quantity for this item has been included in the bid item table for additional fittings that are needed to avoid conflicts with utilities and drainage facilities to complete the installation of the water main and sanitary sewer force main.

Materials

Fitting installation shall match the fitting and water main requirements described in the DUCTILE IRON WATER MAIN Special Provision and shall be of the same diameter of the water main or sanitary sewer force main piping being adjusted. Fittings used for sanitary sewer shall have an interior epoxy coating in lieu of interior cement lining.

Method of Measurement

The work shall be measured for payment in pounds in place and accepted.

Basis of Payment

This work will be paid for at the contract unit price per pound for WATER MAIN FITTINGS installed of the diameter shown on the Plans which price shall include installation, labor, equipment, mechanical joints, fasteners, and materials necessary to complete the work.

TRENCH BACKFILL, SPECIAL

Description

This work shall be constructed in accordance with Section 208 and Section 561 of the Standard Specifications, as detailed on the Plans, and as specified herein.

TRENCH BACKFILL, SPECIAL shall be compacted only by Method 1 as defined in Article 550.07 of the Standard Specifications. The maximum density of compaction shall be determined for all backfill materials based on the ASTM 01557 standard, and all backfill test densities shall be expressed as a percentage of the maximum density obtained in the laboratory. TRENCH BACKFILL, SPECIAL shall be placed in 6-inch maximum lifts and shall be compacted by mechanical means to a minimum of 95 percent of the maximum dry density.

Native backfill material excavated from the site or trench shall be placed in the trench 2-foot beyond the limits of any proposed curb and gutter, driveway, roadway, or sidewalk. Only select material free from organics, rocks, and other debris shall be placed back into the trench and only as approved by the Engineer. Common backfill material shall be placed in 12-inch maximum lifts and compacted by mechanical means to a minimum of 90 percent of the maximum dry density. Common backfill material will not be paid for separately, but shall be included in the cost of the associated pipe or casing pipe.

Refer to details on the Plans for bedding, haunching, and initial backfill requirements.

Materials

Trench backfill materials shall meet Section 1004 of the Standard Specifications with the exception that recycled materials are not permitted. Trench backfill materials shall meet the CA-7 gradation specification and be derived from crushed stone or crushed gravel.

Method of Measurement

This work shall be measured for payment in cubic yards from the top of the initial backfill to the bottom of the subgrade per the Trench Backfill Detail included in the Plans.

Bedding, haunching, and initial backfill material will not be measured for payment but will be included in DUCTILE IRON WATER MAIN for the associated pipe and in STEEL CASING PIPES for the associated casing pipe.

Basis of Payment

This work will be paid for at the contract unit price per cubic yard for TRENCH BACKFILL, SPECIAL placed as detailed in the Plans and Specifications and shall include labor, equipment, and tools required to meet compaction requirements.

STEEL CASINGS

Description

This work shall consist of installing a steel casing pipe in an open cut trench at the location shown on the Plans, as directed by the Engineer, per Articles 550.04, 550.06, and 550.07 of the Standard Specifications, and shall be constructed as shown on the Plans and specified herein.

Steel casing pipe shall be set into place and shall include excavation, bedding, haunching, initial backfill, compacting, shoring/bracing, dewatering, pumping, welding, and all other work required for a complete casing pipe installation. Segments of casing pipe shall be welded together to create a single, continuous casing pipe of the diameter and length shown on the Plans.

Bedding, haunching, and initial backfill shall be CA-7 coarse aggregate gradation as detailed on the Plans. Bedding shall consist of 6 inches of compacted granular material beneath the pipe. Haunching shall consist of the backfill from the bottom of pipe to the springline of the pipe. Initial backfill shall consist of the backfill from the top of pipe to 12 inches above the pipe. Bedding, haunching, and initial backfill shall be placed in 6-inch lifts and compacted by mechanical means.

The placement and compaction of TRENCH BACKFILL, SPECIAL shall be as specified in these Special Provisions

Shop Drawings

Shop drawings of all items related to the manufacture, fabrication, and installation of the steel casing pipe, carrier pipe supports, and end seals shall be submitted to the City of West Chicago and Engineer for review. Contractor shall gain City of West Chicago and Engineer approval of all shop drawings prior to delivery to the job site.

Materials

All casing pipe shall be manufactured of new, cylindrical, rolled and welded carbon steel with smooth bituminous coating on interior and exterior surfaces. Casing pipe shall conform to ASTM A53 Grade B, ASTM A139 Grade B, or shall be pipe fabricated in accordance with AWWA C200 using ASTM A36 steel. Casing pipe material shall have a minimum yield strength of 35,000 psi.

The casing pipe minimum wall thickness shall be as required by permit requirements of the agency having local jurisdiction or by Contractor's method of construction, whichever is greater. In no case shall the casing pipe wall thickness be less than detailed on the Plans. The casing pipe shall be a continuous length created by field welded joints of pipe segments in accordance with AWWA C206.

Steel casing pipe length, diameter, and wall thickness shall be as shown on the Plans. The depth of the casing shall be such that the water main centerline is centered within the casing

pipe as shown on the Plans. Once the carrier pipe is installed inside the casing pipe, the annular space shall be filled with blown sand or pea gravel as detailed on the Plans.

Casing spacers shall be of two-piece construction with minimum 14 gauge 304 stainless steel shell lined with a PVC retaining layer to prevent slippage of the spacer along the carrier pipe (water main). Casing spacer runners shall be of ultra high molecular weight polyethylene (UHMW) that are bolted to 10 gauge stainless steel risers on the shell. The runners shall be of appropriate height to center the carrier pipe in the casing pipe. Casing spacers shall be as manufactured by Cascade Waterworks Manufacturing, Model CCS, or equal and shall be sized and spaced as detailed on the Plans.

Each end of the casing shall be sealed with a casing end seal of the pull-over type for securing the ends of the casing pipe to the carrier pipe. End seals shall be neoprene with 304 stainless steel worm gear clamps for securing the ends of the seal to the casing and carrier pipes. Casing end Seals shall be as manufactured by Cascade Waterworks Manufacturing, Model CCES, or equal shall be sized as detailed on the Plans.

Method of Measurement

The work shall be measured for payment per foot in place and accepted.

Trench Backfill shall be measured for payment separately per the TRENCH BACKFILL, SPECIAL pay item.

Water main and mechanical joints within the casing pipe shall be measured for payment separately per the DUCTILE IRON WATER MAIN pay item.

Basis of Payment

This work will be paid for at the contract unit price per foot for STEEL CASINGS of the diameter shown on the Plans which price shall include the excavation, bedding, haunching, initial backfill, temporary shoring/bracing, steel casing pipe, carrier pipe supports, annular fill, casing end seals, and all labor, welding, equipment, materials associated with completing the installation.

TAPPING VALVES AND SLEEVES

Description

This work shall be constructed in accordance with Section 561 of the Standard Specifications, Division IV of the "Standard Specifications for Water and Sewer Construction in Illinois" and as specified herein.

Pressure connections to the existing water mains shall be made without shutting down the existing water main. The shutdown of existing water mains is only permitted to cut and cap the existing water mains after the pressure connections have been made. The Contractor shall provide the City of West Chicago 48 hours notice before any interruption of service.

Materials

Tapping sleeves shall be of the split-tee, O-ring type with end joint accessories as manufactured by Mueller Cast Iron H-615, American Flow Control Ductile Iron Series 2800, Tyler/Union Ductile Iron, US Pipe Ductile Iron T-9, or approved equal. Tapping sleeve size shall match the existing water main diameter as shown on the Plans.

The tapping sleeve shall have one flanged branch outlet complying with ANSI B16.1 and MSS SP-60 to connect to the flanged end of the tapping valve. Tapping sleeves shall be ANSI/NSF 61 certified and rated for a minimum working pressure of 150 psi. The neck and body shall be ductile iron meeting ASTM A536 standards. The gasket material shall be Buna-N or SBR rubber. The tapping sleeve shall be firmly and securely attached to the existing water main in the location shown on the Plans and disinfected prior to installing the tapping valve. Engineer shall witness cleaning and disinfection process.

Tapping valves shall be resilient wedge gate valves as specified under the Special Provision for DUCTILE IRON WATER MAIN with the exception of the end connections and oversized seat rings to accommodate a drilling machine. Each tapping valve shall have one flanged connection to attach to the tapping sleeve and one mechanical joint connection to connect to the drilling machine and piping.

Each tapping sleeve and valve assembly shall be provided and installed complete with gaskets and 304 stainless steel fasteners as required for a complete and water-tight connection. All components of the tapping valve shall be disinfected prior to mounting the drilling machine. Engineer shall witness cleaning and disinfection process. Tapping valves shall be included in the cost of TAPPING VALVES AND SLEEVES, of the diameter specified.

Hot tap of the existing water main shall be made through the open tapping valve with the "coupon" cutout being removed after the tap is made. The installation shall be pressure tested in accordance with Section 46-6 of the latest version of the Standard Specifications for Water and Sewer Construction in Illinois.

Shop Drawings

Shop drawings of all items related to the supply and installation of the tapping valves and sleeves shall be submitted to the City of West Chicago and Engineer for review. Contractor shall gain City of West Chicago and Engineer approval of all shop drawings prior to delivery to the job site.

Method of Measurement

This work shall be measured for payment in units of each.

Basis of Payment

This work will be paid for at the contract unit price per each for TAPPING VALVES AND SLEEVES of the diameter shown on the Plans which price shall include tapping sleeves, tapping valves, labor, equipment, tools, and materials necessary to perform the successful pressure connections as shown on the Plans.

VALVE VAULTS

Description

This work shall consist of installing precast concrete manholes with cast iron frames and lids of the size specified in accordance with Section 602.02, 602.04, and 602.07 of the Standard Specifications, Division III of the "Standard Specifications for Water and Sewer Construction in Illinois", the details on the Plans, and as specified herein.

Materials

Valve vaults for water main pressure connections and water distribution system isolation valves shall consist of a cast-in-place, reinforced, concrete base, atop 6-inches of CA-7 bedding as detailed on the Plans. Precast reinforced, concrete manhole barrels, top cone section, riser rings, chimney seal, frame and lid shall compose the remainder of each valve vault structure as located and detailed on the Plans. Adjusting rings shall be concrete with rubber mastic installed between each joint. Risers shall not exceed 3 rings or a total height of 12-inches. Valve vaults shall not have steps.

Slotted sections of manhole barrel shall be provided to provide installation over top of the existing piping water main disrupting service. Piping penetrations over existing water main piping shall be sealed with non-shrink grout prior to backfilling. New piping penetrations shall be sealed with Link-Seal, or equal modular seals.

All manhole barrel joints shall be sealed with EZ-Stick gasket material.

Frame and lid casting shall be Neenah R 1772 Type "B" Lid or EJIW 1022-1 HD. Each lid shall be solid and have "WATER" and "CITY OF WEST CHICAGO" cast into it.

Shop Drawings

Shop drawings of all items related to the supply and installation of the valve vaults shall be submitted to the City of West Chicago and Engineer for review. Contractor shall gain City of West Chicago and Engineer approval of all shop drawings prior to delivery to the job site.

Method of Measurement

This work will be measured for payment per each in place and accepted.

Basis of Payment

This work will be paid for at the contract unit price per each for VALVE VAULTS of the type and size specified and shown on the Plans which price shall include excavation, bedding, backfill, temporary shoring/bracing, non-shrink grout, modular seals, precast structures, riser rings, castings, lids, sealant, labor, equipment, and tools required to complete valve vault installations.

FIRE HYDRANTS WITH AUXILIARY VALVE AND VALVE BOX

Description

This work shall be constructed in accordance with Section 561 and Section 564 of the Standard Specifications, Division IV of the "Standard Specifications for Water and Sewer Construction in Illinois", with AWWA C502 standard, and as specified herein.

Materials

Fire hydrant assemblies shall be Waterous Pacer 250 or East Jordan 5-BR with breakaway traffic flange, 304 stainless steel trim, and attached auxiliary valve. Hydrant base connection may be flanged or plain end with integral gland to accommodate the auxiliary valve installation. All mechanical joint fittings from the watermain to the hydrant shall be restrained with EBAA Megalug Series 1100 joints. All hydrants served by 12-inch water mains shall be installed on locking hydrant tees where available. Hydrant assemblies shall be thrust blocked as detailed on the Plans.

Hydrants shall be factory coated in chrome-yellow primer. The Contractor shall coat each hydrant after installation with Sherwin-Williams industrial alkyd enamel, Series B54-150 in Safety Yellow.

Auxiliary valves shall be resilient wedge gate valves as specified under the Special Provision for WATER MAIN with the exception of the end connections as required to facilitate the connection of the hydrant base to the water main.

Auxiliary valve boxes shall be provided as located on the Plans. Valve boxes shall be adjustable, cast iron meeting ASTM A48, and manufactured by East Jordan Series 8550 or Tyler Series 6850 with "WATER" cast into the lid. Each valve box shall be provided with stabilizers as manufactured by East Jordan No. 98725 or Adapter Inc. rubber grommets.

All fire hydrant installations shall be reviewed by the City of West Chicago prior to any backfilling.

Method of Measurement

This work shall be measured for payment in units of each in place and accepted.

Basis of Payment

This work will be paid for at the contract unit price per each for FIRE HYDRANTS WITH AUXILIARY VALVE AND VALVE BOX which price shall include excavation, bedding, backfill, temporary shoring/bracing, hydrant assembly, auxiliary valve, valve box and lid, mechanical restrained joints and gaskets on auxiliary valve, thrust blocking, labor, equipment, and materials necessary to perform the successful installation of each as shown on the Plans.

WATER SERVICE LINE

Description

This work shall be constructed in accordance with Section 562 of the Standard Specifications, Division IV of the "Standard Specifications for Water and Sewer Construction in Illinois", and as specified herein.

Contractor shall cut and remove existing service line segments that are no longer in active service and connect new curb stop, corporation stop and any new tubing to the existing water service line. The existing service shall be cut, cleaned, receive a new female flared compression fitting, be flared and connected to the new curb stop in the locations shown on the Plans.

Services shall be relocated after the new water main has been placed in service. Water service to customers shall not be interrupted for greater than 3 hours at a time per 24-hour period or work shall be performed at night. Contractor shall coordinate this work including shutdowns with the City of West Chicago and provide 48 hours of notice before beginning this work.

Materials

Corporation stops at the water main shall be installed after the main has been pressure tested and disinfected. Corporation stops 1-inch in diameter shall be Ford F-600 Series or Mueller H 15000 with flared copper outlet and AWWA/CC threaded inlet. Corporation stops 2-inch in diameter shall be Ford FB-600 Series or Mueller 300 Series with AWWA/CC threaded inlet and a flared or compression style outlet.

Service connections at the water main of 2-inch diameter shall be installed using a service saddle of the diameter matching the water main and a service tap matching the service line diameter. The saddle shall be of 304 stainless steel 18-8 gauge construction with 304 stainless steel fasteners and Buna-N gasket material as manufactured by Smith Blair #372, Cascade #CSC2, Ford FS313, or equal. Service connections of less than 1-inch diameter shall be direct tapped at the corporation stop.

Curb stops 1-inch in diameter and less shall be Ford B-22 Series or Mueller H-15204. Curb stops 2-inch in diameter shall be Ford "B" Series or Mueller 300 Series with flared or compression style ends.

New service line tubing shall be copper Type K meeting ASTM B88 standard of the diameter shown on the Plans and shall be one continuous piece between valves.

Method of Measurement

This work shall be measured for payment per foot in place and accepted.

Fabyan Parkway at IL Route 38(Roosevelt Road)
Section 11-00210-04-CH
Project No. CMM-4003(136)
West Chicago, Illinois
Contract No. 63849

Basis of Payment

This work will be paid for at the contract unit price per foot for WATER SERVICE LINE which price shall include corporation stops, service saddles, curb stops, buffalo boxes, service tubing, couplers, and removal of existing service and valves.

REMOVE FIRE HYDRANT AND VALVE ASSEMBLY

Description

This work consists of furnishing equipment, labor, tools, and materials required for the removal and satisfactory disposal of existing fire hydrants and auxiliary valve boxes as shown on the Plans and in accordance with Section 564 of the Standard Specifications, Division IV of the "Standard Specifications for Water and Sewer Construction in Illinois", and as specified herein.

Contractor shall remove auxiliary valve and provide a permanent, restrained joint cap or plug on the water main tee fitting.

Method of Measurement

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

Basis of Payment

This work will be paid for at the contract unit price per each for REMOVE FIRE HYDRANTS AND VALVE ASSEMBLY, which price shall include all excavation, backfill, labor, tools, materials and equipment required to remove the fire hydrant and auxiliary valve box and dispose of the materials or salvage them to the City of West Chicago as directed by the City of West Chicago or Engineer.

WATER MAIN REMOVAL

Description

This work shall consist of the removal and disposal of existing water mains and sanitary force mains as shown on the Plans or as directed by the Engineer in accordance with Section 501 of the Standard Specifications and as specified herein. The Contractor shall furnish the mechanical joint caps, equipment, labor, tools, and materials required to complete the work. The existing water mains to remain in service shall first be cut and capped according to the Plans or as directed by the Engineer. Water and sanitary force main, fittings, and appurtenances shall be removed and disposed of.

This item has been included in the bid item table for any water main removal that may be required to facilitate the installation of the proposed utilities as shown on the Plans. Contractor shall obtain approval from Engineer and City of West Chicago prior to initiating this work.

Method of Measurement

This work shall be measured for payment per foot of water main or sanitary sewer removed.

Basis of Payment

This work will be paid for at the contract unit price per foot for WATER MAIN REMOVAL, which price shall include excavation, cutting of existing piping, mechanical joint caps of the size of existing piping removed, thrust block removal, backfill, disposal, equipment, labor, and materials as required to complete the work.

VALVE VAULTS TO BE REMOVED

Description

This work shall include the removal and disposal of existing valve vaults located in conflict with proposed utilities as shown on the Plans or as directed by the Engineer. Valve vaults shall only be removed after the new water main has been placed in service and the existing water main piping has been shut down. Work shall also include removal of the valve inside the valve vault in a manner such that the valve body is not damaged. The open ends of the existing water main shall be plugged to facilitate the filling of the existing water main with flowable fill (CLSM) meeting the requirements of Section 1019 of the Standard Specifications.

Gate valve, lid, and casting shall be salvaged from each vault and delivered to the City of West Chicago.

Methods of Measurement

This work shall be measured for payment per valve vault removed.

Basis of Payment

This work will be paid for at the contract unit price per each for VALVE VAULTS TO BE REMOVED, which price shall include the cost of all excavation, backfill, temporary shoring/bracing, cutting of pipe, furnishing and installation of CLSM plugs, labor, tools, materials, and equipment required to remove and dispose of each structure at sites obtained by the Contractor.

VALVE BOX REMOVAL

Description

This work consists of furnishing equipment, labor, tools, and materials required for the removal and satisfactory disposal of existing water main and water service valve boxes as shown on the Plans or as directed by the Engineer.

Contractor shall leave water main valves in place and in the open position to facilitate the filling of abandoned mains with flowable fill. Contractor shall close water service corporation stops, and cut and crimp copper service lines at the corporation stop. Valve boxes and stems for water main valves and water service valves shall be removed by the Contractor and disposed of or returned to the City of West Chicago as directed by the City of West Chicago or Engineer.

Method of Measurement

This work shall be measured for payment per valve box removed.

Basis of Payment

This work will be paid for at the contract unit price per each for VALVE BOX REMOVAL, which price shall include the cost of all excavation, backfill, labor, tools, materials and equipment required to remove each valve box and stem and dispose of the materials or salvage them to the City of West Chicago as directed by the City of West Chicago or Engineer.

ABANDON EXISTING WATER MAIN, FILL WITH CLSM

Description

This work shall consist of placing controlled low-strength material (CLSM), also known as flowable fill, into abandoned buried piping where shown on the Plans or as directed by the Engineer in accordance with Section 593 and Section 1019 of the Standard Specifications, Division IV of the "Standard Specifications for Water and Sewer Construction in Illinois", and as specified herein. This work shall be used for filling both existing water main and sanitary force main as noted on the Plans.

Materials

Materials used for CLSM shall be submitted for review by the City of West Chicago a minimum of 48 hours prior to beginning CLSM work. Changes to mix design shall not be made without prior approval by the Engineer.

CLSM shall be contained in pipe sections using bulkheads or fill materials and precautions shall be taken to prevent pipe displacement or floatation. CLSM shall be placed by means of pumping or other means acceptable to the Engineer. CLSM shall be consolidated to prevent voids and air pockets from forming in the piping. Piping shall be filled completely and the Contractor is responsible for confirming that the CLSM reaches the furthest extents of the pipe segments being filled. CLSM shall be placed within a time period no greater than 1 hour between lifts.

Method of Measurement

This work shall be measured for payment per foot of abandoned water main or sanitary sewer pipe in place.

Basis of Payment

This work will be paid for at the contract unit price per foot for ABANDON EXISTING WATER MAIN, FILL WITH CLSM, the price for which shall include all labor, equipment, pumping, and materials required to perform the work as specified.

SANITARY SEWER, SPECIAL

Description

This work shall include the installation of 16-inch PVC sanitary sewer force main as shown in the plans or as directed by the Engineer. The force main shall be constructed in accordance with Division III of the "Standard Specifications for Water and Sewer Construction in Illinois", as shown on the plans, and as specified herein.

This work shall also include the shut down, cutting and capping of existing sanitary sewer force main of the diameter and length shown on the Plans.

Removal of existing thrust blocking shall be performed as directed by the Engineer in order to install new sanitary sewer piping.

Materials

Sanitary force main shall be PVC DR18 meeting AWWA C900/C905 standards with push-on joints meeting ASTM D3139 and the gasket meeting ASTM F477 of the size designated on the Plans. Provide labor, materials, tools, and equipment required to perform pressure testing.

Fittings shall be mechanical joint ductile iron as specified in the Special Provision for DUCTILE IRON WATER MAIN in this Specification but with an interior epoxy-lining in lieu of cement lining. The fittings shall be restrained to the piping with EBAA Megalug 2000PV mechanical joint restraints, or equal. Mechanical joint restraints shall be provided with 304 stainless steel fasteners and hardware. Thrust blocking shall be provided at all bends as detailed on the Plans.

Bedding, haunching, and initial backfill shall be CA-7 coarse aggregate gradation as detailed on the Plans. Bedding shall consist of 6 inches of compacted granular material beneath the pipe. Haunching shall consist of the backfill from the bottom of pipe to the springline of the pipe. Initial backfill shall consist of the backfill from the top of pipe to 12 inches above the pipe. Bedding, haunching, and initial backfill shall be placed in 6-inch lifts and compacted by mechanical means.

The placement and compaction of TRENCH BACKFILL, SPECIAL shall be as specified in these Special Provisions

Locating wire shall be provided along the entire length of the sanitary force main and shall consist of 12 AWG solid wire as manufactured by Pro-Trace, Model HF-CCS PE45, or equal. The conductor shall be soft-drawn, 21% IACS, copper clad steel, utilizing AISI 1006 low-carbon steel core with break load of 282 lbs. Conductor shall be extruded with a 45 mil, HDPE insulating sheathing and shall meet the APWA color code of the buried utility pipe. Locating wire shall be rated for direct burial use at 30V and shall be RoHS compliant. Locating wire shall be taped to the top of the main at 10 foot intervals with each end of the wire terminating at the

end connections of the new main four feet above finished grade. Connector shall be provided at each end of the locating wire as manufactured by Pro-Trace, Model TW.

At each end of the locating wire, a locating post shall be driven into the ground to provide an anchor point for the locating wire as located and detailed on the Plans. The locating post shall be an ultraviolet resistant fiberglass reinforced composite material, triangular in cross-section, green in color, and 3-inches wide and 120 inches in length. Post shall be as manufactured by Rhino Marking & Protection Systems, Model Triview, or equal. Locating post cap shall be fused or stapled to the top of the post and shall be lockable. The locating post shall include three decals, one per side which read "WARNING SEWER PIPELINE". Decals shall contain operator name and 24 hour emergency phone number as detailed on the Plans. Locating post shall bear on the crown of the sanitary sewer force main with a 7-inch diameter post base. Post base shall be attached to the locating post with stainless steel self-tapping screws. Tracer wires shall be extended up through the interior of the locating post and shall attach to the terminal board on separate terminals.

All fittings removed shall be salvaged and returned to the City of West Chicago as directed by the Engineer.

Method of Measurement

The work shall be measured for payment in feet in place and accepted. The length measured shall include fittings.

The removal and disposal of the existing sanitary sewer shall be measured for payment separately per the WATER MAIN REMOVAL pay item .

Basis of Payment

This work will be paid for at the contract unit price per foot for SANITARY SEWER, SPECIAL of the type and diameter shown on the Plans, which price shall include excavation, bedding, haunching, initial backfill, temporary shoring/bracing, PVC pipe, gaskets, mechanical joint fittings, mechanical joint restraints, thrust blocking, mechanical couplings, pressure testing, connections to existing sanitary force main piping, locating posts, tracer wire, removal of existing thrust blocking, and all labor, equipment, and materials associated with completing the installation.

HOT MIX ASPHALT - QUANTITY CORRECTION (BMPR)

Effective: October 1, 2014
Revised: October 2, 2014

Revise the fifth paragraph of Article 406.13(b) of the Standard Specifications to read as follows:

"HMA and Stone Matrix Asphalt (SMA) mixture in excess of 103 percent of the quantity shown on the plans or the plan quantity as specified by the Engineer will not be measured for payment. The "adjusted quantity to be placed" and the "adjusted pay quantity" for HMA and SMA mixtures will be calculated as follows.

Adjusted Quantity To Be Placed = C x quantity shown on the plans or the plan quantity as specified by the Engineer

where: C = English: $C = \frac{G_{mb} \times 46.8}{U}$ Metric: $C = \frac{G_{mb} \times 24.99}{U}$

and where: G_{mb} = average bulk specific gravity from approved mix design
U = unit weight of HMA shown on the plans in lb/sq yd/in.
(kg/sq m/25 mm), used to estimate plan quantity
46.8 = English constant
24.99 = metric constant

Adjusted Pay Quantity (not to exceed 103 percent of the quantity shown on the plans or the plan quantity as specified by the Engineer) = B x HMA tons actually placed

where: $B = \frac{1}{C}$

If project circumstances warrant a new mix design, the above equations shall be used to calculate the adjusted plan quantity and adjusted pay quantity for each mix design using its respective average bulk specific gravity."

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

Revise Article 669.01 of the Standard Specifications to read:

“669.01 Description. This work shall consist of the transportation and proper disposal of contaminated soil and water. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their content and associated underground piping to the point where the piping is above the ground, including determining the content types and estimated quantities.”

Revise Article 669.08 of the Standard Specifications to read:

“669.08 Contaminated Soil and/or Groundwater Monitoring. The Contractor shall hire a qualified environmental firm to monitor the area containing the regulated substances. The affected area shall be monitored with a photoionization detector (PID) utilizing a lamp of 10.6eV or greater or a flame ionization detector (FID). Any field screen reading on the PID or FID in excess of background levels indicates the potential presence of contaminated material requiring handling as a non-special waste, special waste, or hazardous waste. No excavated soils can be taken to a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation with detectable PID or FID meter readings that are above background. The PID or FID meter shall be calibrated on-site and background level readings taken and recorded daily. All testing shall be done by a qualified engineer/technician. Such testing and monitoring shall be included in the work. The Contractor shall identify the exact limits of removal of non-special waste, special waste, or hazardous waste. All limits shall be approved by the Engineer prior to excavation. The Contractor shall take all necessary precautions.

Based upon the land use history of the subject property and/or PID or FID readings indicating contamination, a soil or groundwater sample shall be taken from the same location and submitted to an approved laboratory. Soil or groundwater samples shall be analyzed for the contaminants of concern, including pH, based on the property's land use history or the parameters listed in the maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605. The analytical results shall serve to document the level of soil contamination. Soil and groundwater samples may be required at the discretion of the Engineer to verify the level of soil and groundwater contamination.

Samples shall be grab samples (not combined with other locations). The samples shall be taken with decontaminated or disposable instruments. The samples shall be placed in sealed containers and transported in an insulated container to the laboratory. The container shall maintain a temperature of 39 °F (4 °C). All samples shall be clearly labeled. The labels shall indicate the sample number, date sampled, location and elevation, and any other observations.

The laboratory shall use analytical methods which are able to meet the lowest appropriate practical quantitation limits (PQL) or estimated quantitation limit (EQL) specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", EPA Publication No. SW-846 and "Methods for the Determination of Organic Compounds in Drinking Water", EPA, EMSL, EPA-600/4-88/039. For parameters where the specified cleanup objective is below the acceptable detection limit (ADL), the ADL shall serve as the cleanup objective. For other parameters the ADL shall be equal to or below the specified cleanup objective.”

Replace the first two paragraphs of Article 669.09 of the Standard Specifications with the following:

"669.09 Contaminated Soil and/or Groundwater Management and Disposal. The management and disposal of contaminated soil and/or groundwater shall be according to the following:

- (a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605, the soil shall be managed as follows:
 - (1) When analytical results indicate chemical constituents exceed the most stringent MAC but they are still considered within area background levels by the Engineer, the excavated soil can be utilized within the construction limits as fill, when suitable. Such soil excavated for storm sewers can be placed back into the excavated trench as backfill, when suitable, unless trench backfill is specified. If the soils cannot be utilized within the construction limits, they shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.
 - (2) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (5) When the Engineer determines soil cannot be managed according to Articles 669.09(a)(1) through (a)(4) above, the soil shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.
- (b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC but the pH of the soil is less than 6.25 or greater than 9.0, the excavated soil can be utilized within the construction limits or managed and disposed of off-site as "uncontaminated soil" according to Article 202.03. However the excavated soil cannot be taken to a CCDD facility or an uncontaminated soil fill operation.

- (c) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Illinois Administrative Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste.

All groundwater encountered within lateral trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench it must be removed as a special or hazardous waste. The Contractor is prohibited from managing groundwater within the trench by discharging it through any existing or new storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than 10^{-7} cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer.”

Revise Article 669.14 of the Standard Specifications to read:

“669.14 Final Environmental Construction Report. At the end of the project, the Contractor will prepare and submit three copies of the Environmental Construction Report on the activities conducted during the life of the project, one copy shall be submitted to the Resident Engineer, one copy shall be submitted to the District's Environmental Studies Unit, and one copy shall be submitted with an electronic copy in Adode.pdf format to the Geologic and Waste Assessment Unit, Bureau of Design and Environment, IDOT, 2300 South Dirksen Parkway, Springfield, Illinois 62764. The technical report shall include all pertinent information regarding the project including, but not limited to:

- (a) Measures taken to identify, monitor, handle, and dispose of soil or groundwater containing regulated substances, to prevent further migration of regulated substances, and to protect workers,
- (b) Cost of identifying, monitoring, handling, and disposing of soil or groundwater containing regulated substances, the cost of preventing further migration of regulated substances, and the cost for worker protection from the regulated substances. All cost should be in the format of the contract pay items listed in the contract plans (identified by the preliminary environmental site assessment (PESA) site number),
- (c) Plan sheets showing the areas containing the regulated substances,
- (d) Field sampling and testing results used to identify the nature and extent of the regulated substances,
- (e) Waste manifests (identified by the preliminary environmental site assessment (PESA) site number) for special or hazardous waste disposal, and
- (f) Landfill tickets (identified by the preliminary environmental site assessment (PESA) site number) for non-special waste disposal.”

Revise the second paragraph of Article 669.16 of the Standard Specifications to read:

"The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for NON-SPECIAL WASTE DISPOSAL, SPECIAL WASTE DISPOSAL, or HAZARDOUS WASTE DISPOSAL."

Qualifications. The term environmental firm shall mean an environmental firm with at least five (5) documented leaking underground storage tank (LUST) cleanups or that is pre-qualified in hazardous waste by the Department. Documentation includes but not limited to verifying remediation and special waste operations for sites contaminated with gasoline, diesel, or waste oil in accordance with all Federal, State, or local regulatory requirements and shall be provided to the Engineer for approval. The environmental firm selected shall not be a former or current consultant or have any ties with any of the properties contained within and/or adjacent to this construction project.

General. This Special Provision will likely require the Contractor to subcontract for the execution of certain activities.

All contaminated materials shall be managed as either "uncontaminated soil" or non-special waste. This work shall include monitoring and potential sampling, analytical testing, and management of a material contaminated by regulated substances. The Environmental Firm shall continuously monitor all soil excavation for worker protection and soil contamination.

Phase I Preliminary Engineering information is available through the District's Environmental Studies Unit. Soil samples or analysis without the approval of the Engineer will be at no additional cost to the Department. The lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit whichever is less.

The Contractor shall manage any excavated soils and sediment within the following areas:

- Station 183+00 to Station 186+00 (IL 38) 0 to 100 feet LT (Vacant Building, PESA Site 2096-4, 1675 West Washington Street). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Benzo(a)Anthracene, Benzo(b)Fluoranthene, Benzo(K)Fluoranthene, Carbazole, Chrysene, Dibenzo(a,h)Anthracene, Indeno(1,2,3-cd)Pyrene, Naphthalene, and Manganese.
- Station 125+00 to Station 127+00 (Fabyan Parkway) 0 to 80 feet LT (Agricultural Field, PESA Site 2096-6, 1300-1600 Block of West Roosevelt Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 128+00 to Station 134+30 (Fabyan Parkway) 0 to 200 feet RT (Agricultural Field, PESA Site 2096-6, 1300-1600 Block of West Roosevelt Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic and Manganese.
- Station 134+30 to Station 135+60 (Washington Street) 0 to 100 feet RT (CITGO Gasoline Station, PESA Site 2096-7, 1491 West Roosevelt Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Manganese.
- Station 137+50 to Station 139+00 (Washington Street) 0 to 80 feet RT (CITGO Gasoline Station, PESA Site 2096-7, 1491 West Roosevelt Road). This material meets the criteria of

Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Dibenzo(a,h)Anthracene, and Manganese.

- Station 180+50 to Station 183+00 (IL 38) 0 to 100 feet LT (Agricultural Field, PESA Site 2096-1, 1500-1600 Block of West Roosevelt Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Iron, Lead, and Manganese.
- Station 186+00 to Station 188+60 (IL 38) 0 to 100 feet LT (Grassy Land, PESA Site 2096-5, 1500 Block of West Roosevelt Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 180+50 to Station 185+50 (IL 38) 0 to 100 feet RT (Agricultural Field, PESA Site 2096-6, 1300-1600 Block of West Roosevelt Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 191-50 to Station 194+50 (IL 38) 0 to 120 feet LT (CITGO Gasoline Station, PESA Site 2096-7, 1491 West Roosevelt Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene, Lead, and Manganese.
- Station 194+50 to Station 199+00 (IL 38) 0 to 120 feet LT (Jel Sert, PESA Site 2096-8, 1300 Block of West Roosevelt Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Lead and Manganese.
- Station 191+50 to Station 193+00 (IL 38) 0 to 130 feet RT (Agricultural Field, PESA Site 2096-6, 1300-1600 Block of West Roosevelt Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 196+00 to Station 199+00 (IL 38) 0 to 120 feet RT (Agricultural Field, PESA Site 2096-6, 1300-1600 Block of West Roosevelt Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 202+50 to Station 203+50 (IL 38) 0 to 80 feet LT (Jel Sert, PESA Site 2096-8, 1300 Block of West Roosevelt Road). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.
- Station 134+30 to Station 139+00 (Washington Street) 0 to 120 feet LT (Grassy Land, PESA Site 2096-5, 1500 Block of West Roosevelt Road). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Dibenzo(a,h)Anthracene.
- Station 188+60 to Station 189+50 (IL 38) 0 to 100 feet LT (Grassy Land, PESA Site 2096-5, 1500 Block of West Roosevelt Road). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)Pyrene and Dibenzo(a,h)Anthracene.

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG)

Effective: August 1, 2012

Revised: February 1, 2014

In addition to the Contractor's equal employment opportunity affirmative action efforts undertaken as elsewhere required by this Contract, the Contractor is encouraged to participate in the incentive program to provide additional on-the-job training to certified graduates of IDOT funded pre-apprenticeship training programs outlined by this Special Provision.

It is the policy of IDOT to fund IDOT pre-apprenticeship training programs throughout Illinois to provide training and skill-improvement opportunities to assure the increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The intent of this IDOT Training Program Graduate (TPG) Special Provision is to place certified graduates of these IDOT funded pre-apprentice training programs on IDOT project sites when feasible, and provide the graduates with meaningful on-the-job training intended to lead to journey-level employment. IDOT and its sub-recipients, in carrying out the responsibilities of a state contract, shall determine which construction contracts shall include "Training Program Graduate Special Provisions." To benefit from the incentives to encourage the participation in the additional on-the-job training under this Training Program Graduate Special Provision, the Contractor shall make every reasonable effort to employ certified graduates of IDOT funded Pre-apprenticeship Training Programs to the extent such persons are available within a reasonable recruitment area.

Participation pursuant to IDOT's requirements by the Contractor or subcontractor in this Training Program Graduate (TPG) Special Provision entitles the Contractor or subcontractor to be reimbursed at \$15.00 per hour for training given a certified TPG on this contract. As approved by the Department, reimbursement will be made for training persons as specified herein. This reimbursement will be made even though the Contractor or subcontractor may receive additional training program funds from other sources for other trainees, provided such other source does not specifically prohibit the Contractor or subcontractor from receiving other reimbursement. For purposes of this Special Provision the Contractor is not relieved of requirements under applicable federal law, the Illinois Prevailing Wage Act, and is not eligible for other training fund reimbursements in addition to the Training Program Graduate (TPG) Special Provision reimbursement.

No payment shall be made to the Contractor if the Contractor or subcontractor fails to provide the required training. It is normally expected that a TPG will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project through completion of the contract, so long as training opportunities exist in his work classification or until he has completed his training program. Should the TPG's employment end in advance of the completion of the contract, the Contractor shall promptly notify the designated IDOT staff member under this Special Provision that the TPG's involvement in the contract has ended and supply a written report of the reason for the end of the involvement, the hours completed by the TPG under the Contract and the number of hours for which the incentive payment provided under this Special Provision will be or has been claimed for the TPG.

The Contractor will provide for the maintenance of records and furnish periodic reports documenting its performance under this Special Provision.

METHOD OF MEASUREMENT: The unit of measurement is in hours.

BASIS OF PAYMENT: This work will be paid for at the contract unit price of \$15.00 per hour for certified TRAINEES TRAINING PROGRAM GRADUATE. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

The Contractor shall provide training opportunities aimed at developing full journeyworker in the type of trade or job classification involved. The initial number of TPGs for which the incentive is available under this contract is 3. During the course of performance of the Contract the Contractor may seek approval from the Department for additional incentive eligible TPGs. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the TPGs are to be trained by the subcontractor, provided however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this Special Provision. The Contractor shall also insure that this Training Program Graduate Special Provision is made applicable to such subcontract if the TPGs are to be trained by a subcontractor and that the incentive payment is passed on to each subcontractor.

For the Contractor to meet the obligations for participation in this TPG incentive program under this Special Provision, the Department has contracted with several entities to provide screening, tutoring and pre-training to individuals interested in working in the applicable construction classification and has certified those students who have successfully completed the program and are eligible to be TPGs. A designated IDOT staff member, the Director of the Office of Business and Workforce Diversity (OBWD), will be responsible for providing assistance and referrals to the Contractor for the applicable TPGs. For this contract, the Director of OBWD is designated as the responsible IDOT staff member to provide the assistance and referral services related to the placement for this Special Provision. For purposes of this Contract, contacting the Director of OBWD and interviewing each candidate he/she recommends constitutes reasonable recruitment.

Prior to commencing construction, the Contractor shall submit to the Department for approval the TPGs to be trained in each selected classification. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. No employee shall be employed as a TPG in any classification in which he/she has successfully completed a training course leading to journeyman status or in which he/she has been employed as a journeyman. Notwithstanding the on-the-job training purpose of this TPG Special Provision, some offsite training is permissible as long as the offsite training is an integral part of the work of the contract and does not comprise a significant part of the overall training.

Training and upgrading of TPGs of IDOT pre-apprentice training programs is intended to move said TPGs toward journeyman status and is the primary objective of this Training Program Graduate Special Provision. Accordingly, the Contractor shall make every effort to enroll TPGs by recruitment through the IDOT funded TPG programs to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance and entitled to the Training Program Graduate Special Provision \$15.00 an hour incentive.

The Contractor or subcontractor shall provide each TPG with a certificate showing the type and length of training satisfactorily completed.



Route F.A.P. 363
F.A.P. 347

Section 11-00210-04-CH

County DuPage

Marked Rte. County Route 21 (Fabyan Parkway)
IL Route 38 (Roosevelt Road)

Project No. CM-4003(136)

Contract No. 63849

This plan has been prepared to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit No. ILR10 (Permit ILR10), issued by the Illinois Environmental Protection Agency (IEPA) 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.

Christopher Snyder, P.E.
 Print Name
Director of Transportation / County Engineer
 Title
DuPage County Division of Transportation
 Agency

Christopher Snyder
 Signature
July 31, 2014
 Date

I. Site Description:

- A. Provide a description of the project location (include latitude and longitude):
 Intersection of IL38 with Fabyan Parkway (south leg) and Washington Street (north leg). Latitude 41 degrees, 52 minutes Longitude 88 degrees 14 minutes
- B. Provide a description of the construction activity which is the subject of this plan:
 Roadway reconstruction, widening, drainage improvements and stormwater detention
- C. Provide the estimated duration of this project:
 1 year
- D. The total area of the construction site is estimated to be 16.34 acres.
 The total area of the site estimated to be disturbed by excavation, grading or other activities is 8.32 acres.
- E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:
 0.76
- F. List all soils found within project boundaries. Include map unit name, slope information, and erosivity:
 Drummer silty clay loam, 0 to 2 percent slopes, Mundelein silt loam, 0 to 2 percent slopes, Barrington silt loam, 2 to 4 percent slopes, Grays silt loam, 2 to 4 percent slopes, Orthents, loamy, undulating, Muskego and Houghton mucks, 0 to 2 percent slopes
- G. Provide an aerial extent of wetland acreage at the site:
 38,333 SF = 0.88 acres
- H. Provide a description of potentially erosive areas associated with this project:
 The erosive areas include the roadside ditches and the proposed detention basin that will be reconstructed/ excavated as part of this project.

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

The soil disturbing activities will follow the Maintenance of Traffic (MOT) Plan. In general, for each leg traffic will be shifted over to one side of the roadway while the other side is reconstructed. Temporary pavement will be used as necessary. The roadway drainage will sheet flow to the roadway ditches on Fabyan Parkway and Illinois Route 38 during construction. The shallow slopes of the ditches along Fabyan Parkway will reduce the erosiveness on this leg. The north leg (Washington Street) will drain via the existing and proposed storm sewer drainage system. There is a proposed detention basin at this location that will receive stormwater runoff once the proposed drainage system is completed.

- J. 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.

- K. Identify who owns the drainage system (municipality or agency) this project will drain into:

At the points of discharge, the drainage system is owned by the City of West Chicago, DuDOT and IDOT, respectively.

- L. The following is a list of General NPDES ILR40 permittees within whose reporting jurisdiction this project is located.

City of West Chicago, DuPage County and IDOT

- M. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. The location of the receiving waters can be found on the erosion and sediment control plans:

Receiving Waters: Kress Creek

Ultimate Receiving Waters: West Branch of the DuPage River and Des Plaines River

- N. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes, highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc.

The wetland on the north leg of Washington Street will remain undisturbed during construction. This wetland is adjacent to the roadway drainage system. It will be protected with silt fence and ditch checks.

- O. The following sensitive environmental resources are associated with this project, and may have the potential to be impacted by the proposed development:

- Floodplain
- Wetland Riparian
- Threatened and Endangered Species
- Historic Preservation
- 303(d) Listed receiving waters for suspended solids, turbidity, or siltation
- Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity or siltation
- Applicable Federal, Tribal, State or Local Programs
- Other

1. 303(d) Listed receiving waters (fill out this section if checked above):

n/a

- a. The name(s) of the listed water body, and identification of all pollutants causing impairment:

- b. Provide a description of how erosion and sediment control practices will prevent a discharge of sediment resulting from a storm event equal to or greater than a twenty-five (25) year, twenty-four (24) hour rainfall event:

- c. Provide a description of the location(s) of direct discharge from the project site to the 303(d) water body:
- d. Provide a description of the location(s) of any dewatering discharges to the MS4 and/or water body:

2. TMDL (fill out this section if checked above)

- a. The name(s) of the listed water body:
- b. Provide a description of the erosion and sediment control strategy that will be incorporated into the site design that is consistent with the assumptions and requirements of the TMDL:
- c. If a specific numeric waste load allocation has been established that would apply to the project's discharges, provide a description of the necessary steps to meet that allocation:

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

- | | |
|---|--|
| <input checked="" type="checkbox"/> Soil Sediment | <input checked="" type="checkbox"/> Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids) |
| <input checked="" type="checkbox"/> Concrete | <input checked="" type="checkbox"/> Antifreeze / Coolants |
| <input checked="" type="checkbox"/> Concrete Truck Waste | <input checked="" type="checkbox"/> Waste water from cleaning construction equipment |
| <input checked="" type="checkbox"/> Concrete Curing Compounds | <input type="checkbox"/> Other (specify) |
| <input checked="" 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 ILR10. 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:** At a minimum, controls must be coordinated, installed and maintained to:

1. Minimize the amount of soil exposed during construction activity;
2. Minimize the disturbance of steep slopes;
3. Maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration, unless infeasible;
4. Minimize soil compaction and, unless infeasible, preserve topsoil.

B. **Stabilization 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(B)(1) and II(B)(2), stabilization measures shall be initiated **immediately** where construction activities have temporarily or permanently ceased, but in no case more than **one (1) day** 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 fourteen (14) or more calendar days.

1. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
2. On areas where construction activity has temporarily ceased and will resume after fourteen (14) days, a temporary stabilization method can be used.

The following stabilization practices will be used for this project:

- | | |
|---|--|
| <input type="checkbox"/> Preservation of Mature Vegetation | <input checked="" type="checkbox"/> Erosion Control Blanket / Mulching |
| <input type="checkbox"/> Vegetated Buffer Strips | <input 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 checked="" 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 during construction:

Upon completion of grading, the disturbed areas will be seeded and stabilized with erosion control blanket. Temporary seeding will be used as necessary to temporarily stabilize areas where construction activities have ceased for a prolonged period of time.

Describe how the stabilization practices listed above will be utilized after construction activities have been completed:

Upon completion of construction, seed will be spread over the disturbed areas and erosion control blanket will be laid over the disturbed areas.

- C. **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 checked="" 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 type="checkbox"/> Retaining Walls |
| <input type="checkbox"/> Temporary Sediment Basin | <input type="checkbox"/> Slope Walls |
| <input type="checkbox"/> Temporary Stream Crossing | <input checked="" type="checkbox"/> Concrete Revetment Mats |
| <input checked="" 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 during construction:

Silt fence will be used to protect the preserved wetland adjacent to Washington Street. The ditch checks will be utilized in all roadside ditches and will be spaced approximately 200-300 feet apart as indicated by the ditch slopes. Storm inlet protection will be utilized on the existing, proposed inlets, catchbasin and manholes with open grates to protect the storm sewer system during construction. A stabilized construction exit will be utilized at the proposed stormwater detention basin on Washington Street during excavation of the basin. Riprap will be utilized to protect culvert inlets during construction. Concrete revetment mats will be utilized at storm sewer / pipe culvert outlets located in the roadside ditches.

Describe how the structural practices listed above will be utilized after construction activities have been completed:

Articulate Block Revetment Mats are to remain in place at all pipe outlets of the proposed drainage system for permanent protection by dissipating velocities. All other temporary erosion control features are to be removed.

D. Treatment Chemicals

Will polymer flocculants or treatment chemicals be utilized on this project: Yes No

If yes above, identify where and how polymer flocculants or treatment chemicals will be utilized on this project.

E. Permanent Storm Water Management Controls: Provided below is a description of measures that will be installed during the construction process to control volume and 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.

1. 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 Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT Bureau of Design and Environment Manual. If practices other than those discussed in Chapter 41 are selected for implementation or if practices are applied to situations different from those covered in Chapter 41, the technical basis for such decisions will be explained below.

2. 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 permanent storm water management controls:

Stormwater detention is proposed in accordance with the LDS. On the north leg, a wetland detention basin is proposed. On all other legs, stormwater detention is proposed in ditch checks within the roadside ditches. Flow attenuation will also be accomplished with vegetated swales in the roadside ditches for the east, west and south legs of the project. Stormwater detention for the north (Washington Street) and south (Fabyan Parkway) legs was sized in accordance with the DuPage County Stormwater Ordinance. The east and west legs (IL Route 38) were sized with IDOT criteria in accordance with the LDS.

F. 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. 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 the 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:

A DuPage County Stormwater Management Permit will be obtained from the City of West Chicago, a partial waiver community. The following standards will also be maintained IDOT, EPA, USACE.

G. Contractor Required Submittals: Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342a.

1. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:
 - Approximate duration of the project, including each stage of the project
 - Rainy season, dry season, and winter shutdown dates
 - Temporary stabilization measures to be employed by contract phases
 - Mobilization timeframe
 - Mass clearing and grubbing/roadside clearing dates
 - Deployment of Erosion Control Practices
 - Deployment of Sediment Control Practices (including stabilized construction entrances/exits)
 - Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
 - Paving, saw-cutting, and any other pavement related operations
 - Major planned stockpiling operations
 - Timeframe for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
 - Permanent stabilization activities for each area of the project

2. The Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:
 - Vehicle Entrances and Exits – Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
 - Material Delivery, Storage and Use – Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
 - Stockpile Management – Identify the location of both on-site and off-site stockpiles. Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
 - Waste Disposal – Discuss methods of waste disposal that will be used for this project.
 - Spill Prevention and Control – Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.)
 - Concrete Residuals and Washout Wastes – Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
 - Litter Management – Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
 - Vehicle and Equipment Fueling – Identify equipment fueling locations for this project and what BMPs will be used to ensure containment and spill prevention.
 - Vehicle and Equipment Cleaning and Maintenance – Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
 - Dewatering Activities – Identify the controls which will be used during dewatering operations to ensure sediments will not leave the construction site.
 - Polymer Flocculants and Treatment Chemicals – Identify the use and dosage of treatment chemicals and provide the Resident Engineer with Material Safety Data Sheets. Describe procedures on how the chemicals will be used and identify who will be responsible for the use and application of these chemicals. The selected individual must be trained on the established procedures.
 - Additional measures indicated in the plan.

III. Maintenance:

When requested by the Contractor, the Resident Engineer will provide general maintenance guides to the Contractor for the practices associated with this project. The following additional procedures 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. It will be the Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

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 using IDOT Storm Water Pollution Prevention Plan Erosion Control Inspection Report (BC 2259). Such inspections shall be conducted at least once every seven (7) calendar days and within twenty-four (24) hours of the end of a storm or by the end of the following business or work day that is 0.5 inch or greater or equivalent snowfall.

Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is 0.5" or greater rain event, or a discharge due to snowmelt occurs.

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, telephone or fax within twenty-four (24) hours of the incident. The Resident Engineer shall then complete and submit an "Incidence of Non-Compliance" (ION) report for the identified violation within five (5) days of the incident. The Resident Engineer shall use forms provided by IEPA 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 non-compliance shall be signed by a responsible authority in accordance with Part VI. G of the Permit ILR10.

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

Additional Inspections Required:

V. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the Contractor and/or penalties under the Permit ILR10 which could be passed on to the Contractor.



Prior to conducting any professional services at the site covered by this contract, the Contractor and every subcontractor must complete and return to the Resident Engineer the following certification. A separate certification must be submitted by each firm. Attach to this certification all items required by Section II.G of the Storm Water Pollution Prevention Plan (SWPPP) which will be handled by the Contractor/subcontractor completing this form.

Route	F.A.P. 363 F.A.P. 347	Marked Rte.	County Route 21 (Fabyan Parkway) IL Route 38 (Roosevelt Road)
Section	11-00210-04-CH	Project No.	CM-4003(136)
County	DuPage	Contract No.	63849

This certification statement is a part of SWPPP for the project described above, in accordance with the 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 Permit No. 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 SWPPP for the above mentioned project; I have received copies of all appropriate maintenance procedures; and, I have provided all documentation required to be in compliance with the Permit ILR10 and SWPPP and will provide timely updates to these documents as necessary.

- Contractor
- Sub-Contractor

Print Name	Signature
Title	Date
Name of Firm	Telephone
Street Address	City/State/ZIP

Items which this Contractor/subcontractor will be responsible for as required in Section II.G. of SWPPP:

CITY OF WEST CHICAGO
PUBLIC IMPROVEMENT MATERIALS LIST

Updated June 20, 2014

WATER

1. PIPE

Class 52 Ductile Iron, cement lined asphaltic coating or paint, push on joints, polyethylene encased with taped joints. All PVC pipe shall conform to AWWA C-900 specs, and only be used upon City approval. All polyethylene pipe shall conform to AWWA C-906 Specs and only be used upon City approval.

2. MAIN LINE VALVE

Valves – Shall be resilient wedge type, rated for 250 PSI working pressure and meet AWWA C-509 and C-515 specs. Valves shall have factory installed 304 stainless steel exterior bolting. All internal and external surfaces shall have a fusion bonded epoxy coating. Valves shall be American Flow Control, Clow, East Jordan, or Mueller. Special structures may be required for larger valves.

Butterfly Valves – Require Special Approval by City Engineer - Shall be either Clow series 4500 MJ or Henry Pratt Ground Hog. All valves shall have “optional” epoxy coating conformed to AWWA C-550 specs, and be supplied with 2” operating nut. All exterior bolts will be factory installed 304 stainless steel.

Valve Operating Nuts Deeper than 7’ – may require valve operating rod extensions.

3. INSERTION VALVES

United States Pipe and Foundry Company Insertion valve with sleeve and retainer rings.
Part Number 910314

Team valve, with 304 stainless steel trim.

4. LINE STOP FITTINGS

Up to and including 12”

JCM 440 – All 304 Stainless Body – Branch or nozzle and flanges. All bolt trim shall also be 304 stainless including nuts and washers. Buna-N or SBR rubber gasket material is accepted.

Smith Blair – 685 Series - All 304 Stainless Body – Branch or nozzle and flanges. All bolt trim shall also be 304 stainless including nuts and washers. Buna-N or SBR rubber gasket material is accepted.

Hydra-Stop-Premier Series - All 304 stainless body, branch or nozzle and flanges. All bolt trim shall also be 304 stainless including nuts and washers. Buna-N or SBR rubber gasket material is accepted.

Line stops larger than 12” will require submittal and approval of the City Engineer. Only all stainless fittings will be direct bury, all others will require a pre-cast structure.

5. VALVE VAULTS

Pre-cast concrete, Neenah R 1772 Type “B” Lid or EJIW 1022-I HD
“WATER” and “City of West Chicago” to be cast into lid
EZ-Stick gasket or equal shall be installed at all joints
4’ Diameter for valves 8” and less
5’ Diameter for valves 10” and larger
5’ Diameter for all pressure connections up to 12”

5' Diameter for all insertion valves up to 12"

No steps

Concrete adjusting rings not to exceed 12" in height and 3 in number. Rubber mastic shall be installed between each joint.

6. FIRE HYDRANTS

Waterous Pacer 250 or East Jordan 5-BR with 304 stainless steel trim and breakaway traffic flange. Assembly shall be factory painted with chrome yellow primer. Hydrants may be flanged or MJ. All hydrants installed on 12" or larger water main must be installed on locking hydrant tees where available. All MJ fittings will require Megalugs. Paint coating for fire hydrants shall be Sherwin Williams Brand, Industrial Urethane Alkyd Enamel, Series B54-150. Color for hydrants on potable distribution mains shall be Safety Yellow. Color for hydrants on raw water mains shall be Safety Green.

7. AUXILIARY VALVE BOXES

East Jordan Series 8550 or Tyler 6850 Series adjustable cast iron with "WATER" cast into lid. Valve box stabilizers will be East Jordan No. 98725 or Adapter Inc. rubber doughnuts.

8. FITTINGS

American Ductile Iron C153, Tyler or US Pipe Class 350 Mechanical Joint. All fittings shall have EBAA Megalug retainer glands. Sleeves shall be ductile or cast iron MJ. Cutting in sleeves shall be Mueller, Clow, American Flow Control or Tyler Mechanical Joint. Where applicable, all hydrant tees on 12" or larger water main shall be "locking." No Bell repair clamps will be allowed.

Bolts for MJ fittings – fluorocarbon coated cor-ten steel t-bolts and nuts.

9. TAPPING TEE FOR DUCTILE IRON PIPE

Mueller cast iron MJ #H615, American Flow Control Ductile Iron Series 2800, Tyler/Union ductile iron, US Pipe Ductile Iron T-9

TAPPING TEE FOR PVC PIPE

Romac Industry, Inc. SST III with 304 stainless steel flange, Cascade CST-EX

10. CASINGS

Of necessary diameter, thickness, and length to meet all applicable requirements of the specific agency – City, County, State or Railway. Casing spacers to be Cascade Model CSS or approved equal. Matching casing size to pipe size. Casing end seals to be Cascade Model CCES or approved equal. Mortaring of casing ends subject only to pre-approval. All push joints in casing shall have "field lock gaskets." Annular space within casing may require filling by specific agency. Minimum casing wall thickness – ¼ inch.

11. LOCATING WIRE

Shall be used on any PVC or HDPE Watermain

High-Flex/Open Trench – Tracer wire for open-trench installation shall be a 12 AWG solid, PRO-TRACE[®] HF-CCS PE45. Conductor shall be soft-drawn, 21% IACS, copper clad steel, utilizing a AISI 1006 low carbon steel core (required to meet break load and flexibility), with break load of 282 lbs (55,000 psi). Conductor shall be extruded with a 45 mil, high density polyethylene, and meet the APWA color code of the buried utility line. Tracer wire shall be rated for direct burial use at 30 volts and RoHS compliant.

Directional Drilling – Tracer wire for directional boring installation shall be a 12 AWG solid, PRO-TRACE[®] HDD-CCS PE45. Conductor shall be hard-drawn, 21% IACS, copper clad steel, utilizing a AISI 1065 high carbon steel core (required to meet break load), with rated break load of 1,330 lbs. (260,000 psi). Conductor shall be extruded with a 45 mil, high-density, high molecular weight polyethylene (HMW-HDPE) pursuant to ASTM D1248 standard.

Connectors - shall be PRO-TRACE[®] TW.

12. TEST HOOKUPS

In valve boxes every 400 feet or RHINO[®] TRI-VIEW test station. The marker post shall be triangular in shape, with each side a minimum of 3" wide. Overall length shall be 120". Post shall be extruded RHINOPOLY[™] or similar thermoplastic material. Cap to be fused or stapled to the top. The test station cap shall be lockable. The terminal board has three stainless steel terminals. Post shall include three decals – one per side. Text "WARNING WATER PIPELINE" shall be printed. Decals are to contain operator name and 24hr emergency phone number. Post base is to be a minimum of 7" wide. Post shall be installed via direct bury. Tracer wires are to be run through the hole in the post base and attached to the terminal board with each wire attached to a separate terminal. Post Base is to be attached to the post via self-tapping screws.

NOTE: Type of test station will be determined by the City Engineer.

13. WARNING TAPE

Detectable metallic underground tape (Buried water line) two feet (2') above pipe.

14. WATER SERVICE

Type "K" Copper 2" and less, installed as one continuous piece from main to b-box. Ductile iron 3" and larger.

15. B-BOX

¾", 1", & 1 ¼" – Tyler No. 6500 with Vitelli or equivalent concrete B-Box pad

1 ½" & 2" – Tyler 6500 with Tyler 6500 enlarged base or Mueller No. E2032 Footpiece. For enlarged foot, a brick may be used for leg base.

16. CORPORATION STOP

¾" and 1" – Ford F-600 Series or Mueller H 15000. Both shall have flared copper outlet and AWWA/CC Thread inlet.

1 ¼" – Ford F-600 or F-1000 Series or Mueller 15000 Series both shall have AWWA/CC Thread inlet but may have a flare or compression outlet.

1 ½" and 2" – Ford FB-600 Series or Mueller 300 Series. Both shall have AWWA/CC Thread inlet but may have a flare or compression outlet

17. ROUNDWAY-CURB STOP

¾" and 1" – Ford B-22 Series or Mueller H-15204

1 ¼", 1 ½" and 2" – Ford "B" Series or Mueller 300 Series. Flared or compression are acceptable.

18. PACK FITTINGS-BRASS

Only Ford or Mueller pack fittings acceptable.

19. SERVICE SADDLES

All non-direct taps 1 ½ and 2" shall use Smith Blair #372, Cascade #CSC2, or Ford FS313. Only 1 ½ and 2" taps can be made indirect.

SANITARY SEWER

1. PIPE

PVC SDR 26 up to 12' depth, SDR 21 up to 21' depth, SDR 18 over 21' depth, services to match sewer main class

Warning Tape – Detectable metallic underground tape (Buried Sewer Line), installed 2' above pipe.

2. MANHOLES

Precast concrete, Neenah R 1772 Type "B" Self Sealing Lid or EJIW 1022-1 HD

"SANITARY" and "City of West Chicago" to be cast into lid, "Sanitary Forcemain" and "City of West Chicago" to be cast into lids for air release vaults and cleanout manholes

EZ-Stick gasket or equal shall be installed at all joints

External chimney seals to be Canusa, Infishield, Mar Mac Surseal, or approved equivalent.

External Joint seals to be Mac-Wrap or equivalent

Concrete adjusting rings not to exceed 12" in height and 3 in number. Rubber mastic shall be installed between each joint.

No steps.

3. FORCE MAIN

PVC DR 18 (C-900)

Fittings – Epoxy lined ductile iron with EBAA megalug 2000 PV restraint, or Harco PVC C-907 blue push fittings, or Multi fittings PVC C-907 blue brute, both meeting 4000 psi HDB PVC compound with EBAA Series 2600 restraint with all stainless bolting.

NOTE – Any piping changes must be submitted and approved by City Engineer.

4. LOCATING WIRE

Used on any PVC force main.

High-Flex/Open Trench – Tracer wire for open-trench installation shall be a 12 AWG solid, PRO-TRACE[®] HF-CCS PE45. Conductor shall be soft-drawn, 21% IACS, copper clad steel, utilizing a AISI 1006 low carbon steel core (required to meet break load and flexibility), with break load of 282 lbs (55,000 psi). Conductor shall be extruded with a 45 mil, high density polyethylene, and meet the APWA color code of the buried utility line. Tracer wire shall be rated for direct burial use at 30 volts and RoHS compliant.

Directional Drilling – Tracer wire for directional boring installation shall be a 12 AWG solid, PRO-TRACE[®] HDD-CCS PE45. Conductor shall be hard-drawn, 21% IACS, copper clad steel, utilizing a AISI 1065 high carbon steel core (required to meet break load), with rated break load of 1,330 lbs. (260,000 psi). Conductor shall be extruded with a 45 mil, high-density, high molecular weight polyethylene (HMW-HDPE) pursuant to ASTM D1248 standard.

Connectors - shall be PRO-TRACE[®] TW.

5. TEST HOOKUPS

In valve boxes ("Sanitary" to be cast into lid) every 400 feet or RHINO[®] TRI-VIEW test station. The marker post shall be triangular in shape, with each side a minimum of 3" wide. Overall length shall be 120". Post shall be extruded RhinoPoly[™] or similar thermoplastic material. Cap to be fused or stapled to the top. The test station cap shall be lockable. The terminal board has 3 stainless steel terminals. Post shall include three decals – one per side. Text "WARNING SEWER PIPELINE" shall be printed. Decals are to contain operator name and 24hr emergency phone number. Post base is to be a minimum of 7" wide. Post shall be installed via direct bury. Tracer wires are to be run through the hole in the post base and attached to the terminal board with each wire attached to a separate terminal. Post base is to be attached to the post via self-tapping screws.

NOTE: Type of test station will be determined by the City Engineer.

6. WARNING TAPE

Detectable metallic underground tape (Buried Sewer Line), installed 2' above pipe.

5. CASINGS

Of the necessary diameter, thickness, and length to meet all applicable requirements of other involved agencies (IDOT, Railroad, Etc)

Casing spacers to be CASCADE Model CSS or approved equal

Casing end seals to be CASCADE Model CCES End Seals or approved equal

6. SERVICE FITTINGS

Inserta Tee® Mfg. or Inserta WYE® by Inserta Fittings Co.

Kor-N-Tee® Mfg. by Trelleborg Eng. Products

Approved equals will require submittal and approval by the City Engineer

7. COUPLINGS & ADAPTORS

Non-shear type, either stainless band or PVC shell

STORM SEWER

1. PIPE

Reinforced concrete pipe with rubber gasket joints, or ductile iron, Class 52.

PVC SDR 26 if approved by City Engineer on an project specific basis

2. MANHOLES

Precast concrete, Neenah R 1772 Type "B" Lid or EJIW 1022-1 HD

"STORM" and "City of West Chicago" to be cast into lid

3. INLETS AND CATCH BASINS

Precast concrete with the appropriate frame and lid as follows:

In curbs - Neenah R-3281- AL or EJIW 7210, with vane grate on flow through structures and at double structures at sag locations. Neenah Type C or EJIW Type M1 grate to be used at all other locations. EJIW Type M3 grate to be used if structure within driveway.

Non curb areas - Neenah R 2502 B with Type "D" grate or EJIW 1022 with Type M1 grate

STREET LIGHTS

1. RESIDENTIAL STREETS (STANDARD)

Luminaire Cooper Utility Lighting Traditionaire, or equal. Post Top Mounted, with Polycarbonate Lens Panel
Model Number UTR 15 S P 2 33 4 J P

Lamp Westinghouse High Pressure Sodium, ANSI designation
H39KC-150/R, 150 Watt, 24,000 hour rated life.

Pole Hapco Model Style 78, Catalog Number 78-009 or equal.
Brushed aluminum with factory installed ladder rest
and 3" X 5" special handhole (Modification 154)
4-3/4 inch diameter anchor bolts with individual bolt covers on pole base
24" Diameter concrete foundation, 4' deep, with reinforcement cage of 6-#5
verticals, and #4 horizontal ties at 12 inch maximum spacing

Cable & Both conductors shall be single conductor, underground feeder

Power Supply to Luminaire and branch circuit cable, bare copper ground, Type USE insulated copper conductor, 600 volt cable, and minimum AWG size 6 or of the size required based on use of 150-watt Luminaire, in 2-inch uniduct or conduit. Each light to be connected directly to utility pedestal

2. RESIDENTIAL STREETS (ALTERNATIVE DECORATIVE)

Luminaire Antique Street Lamps, Inc. Capitol Series or equal, High Pressure Sodium with Clear Textured Polycarbonate Acorn Globe, Post Top Mounted

Pole Antique Street Lamps, Inc. Capitol Series or equal, Fiberglass Reinforced Polyester, with standard handhole. Model C15/20-FRP/CM-WA25F/CM-S150/QV(120)-SCRV-PEC Pole height 14' 6" height with Luminaire 18' 0". 24" Diameter concrete foundation 5' deep, with reinforcement cage of 6-#5 verticals, and #4 horizontal ties at 12 inch spacing, with 4-3/4" anchor bolts Color to match "Customer Grey"

Lamp Westinghouse High Pressure Sodium, ANSI designation H39KC-150/R, 150 Watt, 24,000 hour rated life.

Cable & Power Supply to Luminaire Both conductors shall be single conductor, underground feeder and branch circuit cable, bare copper ground, Type USE insulated copper conductor, 600 volt cable, and minimum AWG size 6 or of the size required based on use of 150-watt Luminaire, in 2-inch uniduct or conduit. Each light to be connected directly to utility pedestal

3. COLLECTOR STREETS

Luminaire GE Lighting Systems Powr/Door Luminaire or equal, with cutoff optics Model Number M2AC 25 S O A G MC 2 1

Pole Valmont Model #31-30010BS0845 or Hapco Model #31-532, or equal. Tapered Aluminum, 30 foot mounting height with 10 foot arm Breakaway Coupling and Skirt required if speed limit is 40 mph or higher 4-1 inch diameter anchor bolts with individual bolt covers on pole base

24" Diameter concrete foundation 9' deep, with reinforcement cage of 6-#5 verticals, and #4 horizontal ties at 12 inch maximum spacing

Cable & Power Supply to Luminaire Same as residential except conductor size shall be as required based on voltage drop calculations

STREET NAME SIGNS

1. POST

2" diameter Galvanized Steel Post, 11 foot long, supported in 24" of concrete, buried 3 feet. Signs can also be banded to street light poles (Minimum mounting height: 7 feet from bottom of sign to near edge of pavement.)

2. SIGN

0.080 gauge Aluminum Blanks - 8 inches by length to accommodate street name. Engineer Grade Reflective Green Backing with Silver high intensity lettering 6 inch height for Street Name and 3 inch for Avenue, Street, etc.

STOP SIGNS

1. POST

2 LB galvanized U-channel 12-foot post, buried 3 feet. Signs can also be banded to street light poles (Minimum mounting height: 7 feet from bottom of sign to near edge of pavement).

2. SIGN

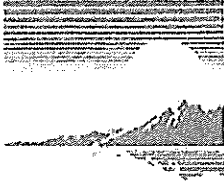
0.080 gauge Aluminum Blanks - 30 inch x 30 inch with high intensity sheeting

SIDEWALKS

1. TACTILE DETECTABLE WARNING SURFACE

Detectable warning panels shall be "EZ-Set Tile" as manufactured by Detectable Warning Systems, Inc. Panels required for use in public sidewalks shall be cast in place and Brick Red in color.

PSI Fabyan Analytic Reports



**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

March 07, 2013

Ms. Emily Sturnfield
HUFF & HUFF INC.
915 Harger Road
Suite 330
Oak Brook, IL 60523

Project ID: Fabyan PO# 026443
First Environmental File ID: 13-0963
Date Received: March 01, 2013

Dear Ms. Emily Sturnfield:

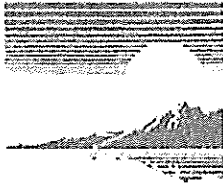
The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number 002902: effective 03/08/2012 through 02/28/2013.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Bill Mottashed
Project Manager



**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Case Narrative

HUFF & HUFF INC.

Project ID: **Fabyan PO# 026443**

First Environmental File ID: **13-0963**

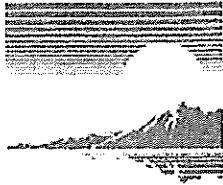
Date Received: **March 01, 2013**

Flag	Description	Flag	Description
<	Analyte not detected at or above the reporting limit.	I+	LCS recovery outside control limits; high bias.
B	Analyte detected in associated method blank.	L-	LCS recovery outside control limits; low bias.
C	Identification confirmed by GC/MS.	M	MS recovery outside control limits; LCS acceptable.
D	Surrogates diluted out; recovery not available.	M+	MS recovery outside control limits high bias; LCS acceptable.
E	Estimated result; concentration exceeds calibration range.	M-	MS recovery outside control limits low bias; LCS acceptable.
F	Field measurement.	N	Analyte is not part of our NELAC accreditation.
		ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.
G	Surrogate recovery outside control limits; matrix effect.	P	Chemical preservation pH adjusted in lab.
H	Analysis or extraction holding time exceeded.	Q	The analyte was determined by a GC/MS database search.
J	Estimated result; concentration is less than calib range.	S	Analyte was sub-contracted to another laboratory for analysis.
K	RPD outside control limits.	T	Sample temperature upon receipt exceeded 0-6°C
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	W	Reporting limit elevated due to sample matrix.

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

Sample Batch Comments:

Sample acceptance criteria were met.



**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

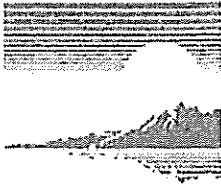
Analytical Report

Client: HUFF & HUFF INC.
Project ID: Fabyan PO# 026443
Sample ID: SB-1 7-10
Sample No: 13-0963-001

Date Collected: 02/28/13
Time Collected: 9:15
Date Received: 03/01/13
Date Reported: 03/07/13

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total Method: 2540B				
Analysis Date: 03/01/13				
Total Solids	86.37		%	
BTEX Organic Compounds Method: 5035A/8260B				
Analysis Date: 03/06/13				
Benzene	< 5.0	5.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Polynuclear Aromatic Hydrocarbons Method: 8270C				
Analysis Date: 03/05/13				
Preparation Method 3540C				
Preparation Date: 03/04/13				
Acenaphthene	< 50	50	ug/kg	
Acenaphthylene	< 50	50	ug/kg	
Anthracene	< 50	50	ug/kg	
Benzo(a)anthracene	< 8.7	8.7	ug/kg	
Benzo(a)pyrene	< 15	15	ug/kg	
Benzo(b)fluoranthene	< 11	11	ug/kg	
Benzo(k)fluoranthene	< 11	11	ug/kg	
Benzo(ghi)perylene	< 50	50	ug/kg	
Chrysene	< 50	50	ug/kg	
Dibenzo(a,h)anthracene	< 20	20	ug/kg	
Fluoranthene	< 50	50	ug/kg	
Fluorene	< 50	50	ug/kg	
Indeno(1,2,3-cd)pyrene	< 29	29	ug/kg	
Naphthalene	< 25	25	ug/kg	
Phenanthrene	< 50	50	ug/kg	
Pyrene	< 50	50	ug/kg	
Total Metals Method: 6010B				
Analysis Date: 03/05/13				
Preparation Method 3050B				
Preparation Date: 03/05/13				
Lead	11.8	0.2	mg/kg	
pH @ 25°C, 1:2 Method: 9045C				
Analysis Date: 03/04/13 13:30				
pH @ 25°C, 1:2	8.36		Units	



**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

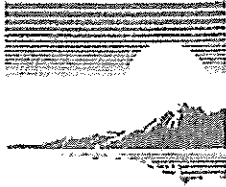
Analytical Report

Client: HUFF & HUFF INC.
Project ID: Fabyan PO# 026443
Sample ID: SB-2 7-10
Sample No: 13-0963-002

Date Collected: 02/28/13
Time Collected: 9:36
Date Received: 03/01/13
Date Reported: 03/07/13

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total Method: 2540B				
Analysis Date: 03/01/13				
Total Solids	87.57		%	
BTEX Organic Compounds Method: 5035A/8260B				
Analysis Date: 03/06/13				
Benzene	< 5.0	5.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Polynuclear Aromatic Hydrocarbons Method: 8270C				
Analysis Date: 03/05/13				
Preparation Method 3540C Preparation Date: 03/04/13				
Acenaphthene	< 50	50	ug/kg	
Acenaphthylene	< 50	50	ug/kg	
Anthracene	< 50	50	ug/kg	
Benzo(a)anthracene	< 8.7	8.7	ug/kg	
Benzo(a)pyrene	< 15	15	ug/kg	
Benzo(b)fluoranthene	< 11	11	ug/kg	
Benzo(k)fluoranthene	< 11	11	ug/kg	
Benzo(ghi)perylene	< 50	50	ug/kg	
Chrysene	< 50	50	ug/kg	
Dibenzo(a,h)anthracene	< 20	20	ug/kg	
Fluoranthene	< 50	50	ug/kg	
Fluorene	< 50	50	ug/kg	
Indeno(1,2,3-cd)pyrene	< 29	29	ug/kg	
Naphthalene	< 25	25	ug/kg	
Phenanthrene	< 50	50	ug/kg	
Pyrene	< 50	50	ug/kg	
Total Metals Method: 6010B				
Analysis Date: 03/05/13				
Preparation Method 3050B Preparation Date: 03/05/13				
Lead	7.1	0.2	mg/kg	
pH @ 25°C, 1:2 Method: 9045C				
Analysis Date: 03/04/13 13:30				
pH @ 25°C, 1:2	8.34		Units	



**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

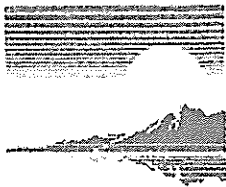
Analytical Report

Client: HUFF & HUFF INC.
Project ID: Fabyan PO# 026443
Sample ID: SB-3 7-8
Sample No: 13-0963-003

Date Collected: 02/28/13
Time Collected: 9:55
Date Received: 03/01/13
Date Reported: 03/07/13

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total		Method: 2540B		
Analysis Date: 03/01/13				
Total Solids	85.10		%	
Volatile Organic Compounds		Method: 5035A/8260B		
Analysis Date: 03/06/13				
Acetone	< 100	100	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	



**First
Environmental
Laboratories, Inc.**

IL ELAP / NELAC Accreditation # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233

Analytical Report

Client: HUFF & HUFF INC.
Project ID: Fabyan PO# 026443
Sample ID: SB-3 7-8
Sample No: 13-0963-003

Date Collected: 02/28/13
Time Collected: 9:55
Date Received: 03/01/13
Date Reported: 03/07/13

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds		Method: 5035A/8260B		
Analysis Date: 03/06/13				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Polynuclear Aromatic Hydrocarbons		Method: 8270C		Preparation Method 3540C
Analysis Date: 03/05/13				
Preparation Date: 03/04/13				
Acenaphthene	< 50	50	ug/kg	
Acenaphthylene	< 50	50	ug/kg	
Anthracene	< 50	50	ug/kg	
Benzo(a)anthracene	12.9	8.7	ug/kg	
Benzo(a)pyrene	< 15	15	ug/kg	
Benzo(b)fluoranthene	13	11	ug/kg	
Benzo(k)fluoranthene	< 11	11	ug/kg	
Benzo(ghi)perylene	< 50	50	ug/kg	
Chrysene	< 50	50	ug/kg	
Dibenzo(a,h)anthracene	< 20	20	ug/kg	
Fluoranthene	< 50	50	ug/kg	
Fluorene	< 50	50	ug/kg	
Indeno(1,2,3-cd)pyrene	< 29	29	ug/kg	
Naphthalene	< 25	25	ug/kg	
Phenanthrene	< 50	50	ug/kg	
Pyrene	< 50	50	ug/kg	
Total Metals		Method: 6010B		Preparation Method 3050B
Analysis Date: 03/05/13				
Preparation Date: 03/05/13				
Lead	10.9	0.2	mg/kg	
pH @ 25°C, 1:2		Method: 9045C		
Analysis Date: 03/04/13 13:30				
pH @ 25°C, 1:2	8.47		Units	



First Environmental Laboratories, Inc.

First Environmental Laboratories
 1600 Shore Road, Suite 10
 Naperville, Illinois 60563
 Phone: (630) 778-1200 • Fax: (630) 778-1233
 E-mail: firstinfo@firstenv.com
 IEPA Certification #100292

CHAIN OF CUSTODY RECORD

Company Name: Huff & Huff, Inc
 Street Address: 915 Harper Rd Suite 330
 City: Oak Brook State: IL Zip: 60523
 Phone: 630-684-4429 Fax: _____
 Send Report To: Emily Starfield Via: Fax e-mail: starfield@huffenv.com
 Sampled By: Emily Starfield e-mail: _____

Analyses

Project ID: <u>Fabian</u>	Date/Time Taken	Sample Description	Matrix	VOCS	BTEX	PNA's	total lead	soil PH	HOLD	Comments	Lab ID.
	2/22/13	SR-1	0-1 S								
	0905		1-3								
	0910		3-5								
	0912		5-7								
	0915		7-10	X	X	X	X				13-09103-001
	0920	SR-2	0-1								
	0925		3-5								
	0930		5-7								
	0936		7-10	X	X	X	X				002
	0944	SR-3	0-1								
	0942		1-3								
	0944		3-5								

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6°C Yes No °C
 Received within 6 hrs. of collection: _____ °C
 Ice Present: Yes No
 Sample Refrigerated: Yes No °C
 Refrigerator Temperature: _____ °C
 5035 Vials Frozen: Yes No
 Freezer Temperature: _____ °C
 Preservation Requirements Met: Yes No
 Need to meet: IL TACO IN RISC

Notes and Special Instructions: _____

Relinquished By: Emily Starfield Date/Time: 3/1/13 10:55
 Received By: _____ Date/Time: _____



First Environmental Laboratories, Inc.

First Environmental Laboratories
 1600 Shore Road, Suite D
 Naperville, Illinois 60563
 Phone: (630) 778-1200 • Fax: (630) 778-1233
 E-mail: firstinfo@firstenv.com
 IEPA Certification #100292

CHAIN OF CUSTODY RECORD

Company Name: Huff & Huff, Inc
 Street Address: 915 Harper Rd Suite 330
 City: Oak Brook State: IL Zip: 60523
 Phone: 630-184-4421 Fax: _____
 e-mail: 2shu@huff.com
 Send Report To: Emily Shurfield Via Fax
 Sampled By: Emily Shurfield e-mail

Analyses

Date/Time Taken	Sample Description	Matrix	Analyses										Comments	Lab ID.	
			VOCs	BTEX	PNA's	total lead	soil pH	HOLD							
7/28/13 0950	SB-3	S-7													
↓ 0955	↓	7-8	X	X	X	X	X								13-0967-103

FOR LAB USE ONLY:

Cooler Temperature: 0, 1-6°C Yes No °C Sample Refrigerated: Yes No °C
 Received within 6 hrs. of collection: _____ °C Refrigerator Temperature: _____ °C
 Ice Present: Yes No 5035 Vials Frozen: Yes No Freezer temperature: _____ °C
 Preservation Requirements Met: Yes No
 Need to meet: IL TACO IN RISC

Notes and Special Instructions: _____

Relinquished By: Emily Shurfield Date/Time: 3/13 10⁰⁰
 Received By: _____ Date/Time: 3/13 10⁰⁰
 Relinquished By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____

3. FIELD INVESTIGATION RESULTS

This section summarizes Andrews Engineering's field investigation activities including field observations, headspace screening results, a discussion of analytical results compared to soil remediation objectives, and an assessment of the nature and extent of contamination relative to proposed IDOT excavation and construction. The field investigation summaries are reported on a site-by-site basis.

3.1. Applicable Project Area Geology

3.1.1 Shallow Soils

In general, the soils observed within the proposed construction extents and depths are primarily a silty clay mix with trace sand and gravel. Within the project area the National Resources Conservation Services (NRCS) has classified the soils as Drummer silt clay loam, 0 to 2 percent slopes, Mundelein silt clay loam, 0 to 2 percent slopes, Barrington silt loam, 2 to 4 percent slopes, and Grays silt loam, 2 to 4 percent slopes. Soils observed during the investigation are synonymous with the soils described by the NRCS.

A detailed description of project geology and hydrogeology is presented in ISGS PESA 2096 in Appendix A. Soil boring logs are presented in Appendix B.

3.2. ISGS Site 2096-1 – Agricultural Field

3.2.1 Field Investigation Summary

A total of one soil sample was collected from boring 2096-1-B01 between 0 and 2 feet bgs. The boring location is shown on Figure 5. Andrews Engineering field personnel did not observe odors or staining indicative of contamination in soil samples collected from the borings and PID headspace screening readings were not detected above background (0 ppm).

3.2.2 Analytical Results

3.2.2.1 *Soil*

The analytical results for the soil sample are presented in Table 3a. Two VOCs, 17 SVOCs, and 20 metals were detected in the sample collected from site 2096-1 between 0 and 2 feet bgs. Twelve metals were detected by SPLP analysis. Based on the results of SPLP metal analysis, TCLP beryllium, chromium, iron, lead, manganese and nickel were analyzed.

The pH of the sample from site 2096-1 was within the acceptable range.

3.2.3 Nature and Extent of Contaminants of Concern

3.2.3.1 *Soil*

As shown in Table 5, the contaminants of concern in site soils are benzo(a)pyrene, iron, lead, and manganese.

- **Benzo(a)pyrene** exceeded the most stringent MAC and the outside a populated area MAC in sample 2096-1-B01 (0-2).

- **Lead** exceeded all MACs in sample 2096-1-B01 (0-2).
- **TCLP/SPLP Iron** exceeded applicable MACs in sample 2096-1-B01 (0-2).
- **TCLP/SPLP Manganese** exceeded applicable MACs in sample 2096-1-B01 (0-2).

Table 6 lists the COCs detected above applicable MACs and the estimated volume of impacted soil at each boring. Volumes of impacted soil are estimated without regard for property boundaries or planned excavation activities.

3.2.4 IDOT Construction Activities within Impacted Areas

3.2.4.1 Soil

Proposed construction excavation for ditch installation is anticipated within site areas impacted by COCs. As indicated by IDOT, the maximum excavation depth is two feet bgs.

Table 7 summarizes the area where construction excavation is anticipated to encounter soil assumed to contain COCs above applicable MACs. The table includes the assumed dimensions of the proposed construction excavation within the impacted soil area and volumes of impacted soil from each area that will require proper handling and disposal if removed from the site. The assumed area of impacted construction excavation is depicted on Figure 5.

3.2.5 Potential IDOT Property Acquisition

According to IDOT's proposed plans, a portion of site 2096-1 will be acquired under this contract. As indicated in Table 9, approximately 268 cubic yards are presumed to be impacted and should be managed and disposed of as a non-special waste.

3.3. ISGS Site 2096-4 – Vacant Building

3.3.1 Field Investigation Summary

A total of one soil sample was collected from boring 2096-4-B01 between 0 and 2 feet bgs. The boring location is shown on Figure 5. Andrews Engineering field personnel did not observe odors or staining indicative of contamination in the soil sample collected from the borings and PID headspace screening readings were not detected above background (0 ppm).

3.3.2 Analytical Results

3.3.2.1 Soil

The analytical results for the soil sample are presented in Table 3b. Nineteen SVOCs and 20 metals were detected among the samples collected from site 2096-4 between 0 and 2 feet bgs. Ten metals were detected by SPLP analysis. Based on the results of SPLP metal analysis, TCLP iron, lead, and manganese analyses were completed on the sample.

The pH of the sample from site 2096-4 was within the acceptable range.

3.3.3 Nature and Extent of Contaminants of Concern

3.3.3.1 Soil

As shown in Table 5, the contaminants of concern in site soils are PNAs benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, carbazole, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and naphthalene; and manganese.

- **PNAs** exceeded all applicable MACs in sample 2096-4-B01 (0-2).
- **Manganese** exceeded all applicable MACs in sample 2096-4-B01 (0-2).

Table 6 lists the COCs detected above applicable MACs and the estimated volume of impacted soil at each boring. Volumes of impacted soil are estimated without regard for property boundaries or planned excavation activities.

3.3.4 IDOT Construction Activities within Impacted Areas

3.3.4.1 Soil

Proposed construction excavation for ditch installation is anticipated within site areas impacted by COCs. As indicated by IDOT, the maximum excavation depth is two feet bgs.

Table 7 summarizes the area where construction excavation is anticipated to encounter soil assumed to contain COCs above applicable MACs. The table includes the assumed dimensions of the proposed construction excavation within the impacted soil area and volumes of impacted soil from each area that will require proper handling and disposal if removed from the site. The assumed area of impacted construction excavation is depicted on Figure 5.

3.3.5 Potential IDOT Property Acquisition

According to IDOT's proposed plans, a portion of site 2096-4 will be acquired under this contract. As indicated in Table 9, approximately 389 cubic yards are presumed to be impacted and should be managed and disposed of as a non-special waste.

3.4. IGS Site 2096-5 – Grassy Land

3.4.1 Field Investigation Summary

A total of four soil samples, including one duplicate sample were collected from borings 2096-5-B01 through 2096-5-B03 between 0 and 3.5 feet bgs. Boring locations are shown on Figure 3 and Figure 5. Andrews Engineering field personnel did not observe odors or staining indicative of contamination in soil samples collected from the borings and PID headspace screening readings were not detected above background (0 ppm).

3.4.2 Analytical Results

3.4.2.1 Soil

The analytical results for soil samples are presented in Table 3c. One VOC, 15 SVOCs, and 20 metals were detected among the samples collected from site 2096-5 between 0 and 3.5 feet

bgs. Eleven metals were detected by SPLP analysis. Based on the results of SPLP metal analysis, TCLP iron, lead, and manganese analyses were performed on several samples.

The pHs of the samples site 2096-5 were within the acceptable range.

3.4.3 Nature and Extent of Contaminants of Concern

3.4.3.1 Soil

As shown in Table 5, the contaminants of concern in site soils are benzo(a)pyrene, dibenzo(a,h)anthracene, and manganese.

- **Benzo(a)pyrene** exceeded the most stringent MAC and the outside a populated area MAC in samples 2096-5-B02 (0-3.5), 2096-5-B03 (0-3.5) and 2096-5-B03 DUP (0-3.5).
- **Dibenzo(a,h)anthracene** exceeded the most stringent MAC and the outside a populated area MAC in sample 2096-5-B02 (0-3.5).
- **TCLP/SPLP Manganese** exceeded applicable MACs in sample 2096-5-B01 (0-3.5).

Table 6 lists the COCs detected above applicable MACs and the estimated volume of impacted soil at each boring. Volumes of impacted soil are estimated without regard for property boundaries or planned excavation activities.

3.4.4 IDOT Construction Activities within Impacted Areas

3.4.4.1 Soil

Proposed construction excavations for ditch installation are anticipated within site areas impacted by COCs. As indicated by IDOT, the maximum excavation depth is 3.5 feet bgs.

Table 7 summarizes the areas where construction excavation is anticipated to encounter soil assumed to contain COCs above applicable MACs. The table includes the assumed dimensions of the proposed construction excavation within the impacted soil area and volumes of impacted soil from each area that will require proper handling and disposal if removed from the site. The assumed areas of impacted construction excavation are depicted on Figure 3 and Figure 5.

3.4.5 Potential IDOT Property Acquisition

According to IDOT's proposed plans, a portion of site 2096-5 will be acquired under this contract. As indicated in Table 9, approximately 2,138 cubic yards are presumed to be impacted and should be managed and disposed of as a non-special waste.

3.5. ISGS Site 2096-6 – Agricultural Field

3.5.1 Field Investigation Summary

A total of 15 soil samples, including one duplicate sample, were collected from borings 2096-6-B01 through 2096-6-B14 between 0 and 5 feet bgs. The boring locations are shown on Figures 2 through 5. Andrews Engineering field personnel did not observe odors or staining indicative of contamination in the soil sample collected from the boring and PID headspace screening readings were not detected above background (0 ppm).

3.5.2 Analytical Results

3.5.2.1 Soil

The analytical results for the soil samples are presented in Table 3d. Two VOCs, 10 SVOCs, and 21 metals were detected in the sample collected from site 2096-6 between 0 and 5 feet bgs. Thirteen metals were detected by SPLP analysis. Based on the results of SPLP metal analysis, TCLP beryllium, chromium, iron, lead, manganese, nickel, and thallium analyses was performed on several samples.

The pHs of the samples from site 2096-6 were within the acceptable range.

3.5.3 Nature and Extent of Contaminants of Concern

3.5.3.1 Soil

As shown in Table 5, the contaminants of concern in site soils are arsenic and manganese.

- **Arsenic** exceeded all applicable MACs in sample 2096-6-B08 (0-5).
- **Manganese** exceeded all MACs in sample 2096-6-B06 (0-5).
- **TCLP/SPLP Manganese** exceeded applicable MACs in samples 2096-6-B01 (0-5), 2096-6-B05 (0-5), 2096-6-B08 (0-5), 2096-6-B09 (0-5), 2096-6-B09 DUP (0-5), and 2096-6-B10 (0-5).

Table 6 lists the COCs detected above applicable MACs and the estimated volume of impacted soil at each boring. Volumes of impacted soil are estimated without regard for property boundaries or planned excavation activities.

3.5.4 IDOT Construction Activities within Impacted Soil Areas

3.5.4.1 Soil

Proposed construction excavations for ditch installation, roadway widening, shoulder installation, curb and gutter installation, and grading for future bike path are anticipated within site areas impacted by COCs. As indicated by IDOT, the maximum excavation depth is five feet bgs.

Table 7 summarizes the areas where construction excavation is anticipated to encounter soil assumed to contain COCs above applicable MACs. The table includes the assumed dimensions of the proposed construction excavation within the impacted soil area and volumes of impacted soil from each area that will require proper handling and disposal if removed from the site. The assumed areas of impacted construction excavation are depicted on Figures 2 through 5.

3.5.5 Potential IDOT Property Acquisition

According to IDOT's proposed plans, a portion of site 2096-6 will be acquired under this contract. As indicated in Table 9, approximately 9,228 cubic yards are presumed to be impacted and should be managed and disposed of as a non-special waste.

3.6. ISGS Site 2096-7 – Citgo Gasoline Station

3.6.1 Field Investigation Summary

A total of eight soil samples, including one duplicate sample, were collected from boring 2096-7-B01 through boring 2096-7-B07 between 0 and 2 feet bgs. The boring locations are shown on Figure 3. Andrews Engineering field personnel did not observe odors or staining indicative of contamination in the samples collected from the boring and PID headspace screening readings were not detected above background (0 ppm).

Boring 2096-7-B01/G01 was advanced to 24 feet bgs to collect a groundwater sample. Static groundwater was observed at 11.9 feet bgs and a sample was collected.

3.6.2 Analytical Results

3.6.2.1 *Soil*

The analytical results for soil samples are presented in Table 3e. One VOC, 16 SVOCs and 21 metals were detected in the samples collected from site 2096-7 between 0 and 2 feet bgs. Eleven metals were detected by SPLP analysis. Based on the results of SPLP metal analysis, TCLP chromium, iron, lead, manganese, and thallium analyses were performed on several samples.

The pHs of the samples from site 2096-7 were within the acceptable range.

3.6.2.2 *Groundwater*

The analytical results for groundwater samples are presented in Table 4a. One VOC and 19 metals were detected in the groundwater sample.

3.6.3 Nature and Extent of Contaminants of Concern

3.6.3.1 *Soil*

As shown in Table 5, the contaminants of concern in site soils are benzo(a)pyrene, dibenzo(a,h)anthracene, lead, and manganese.

- **Benzo(a)pyrene** exceeded the most stringent MAC and the outside a populated area MAC in samples 2096-7-B01 (0-2), 2096-7-B03 (0-2), and 2096-7-B07 (0-2).
- **Dibenzo(a,h)anthracene** exceeded the most stringent MAC and the populated non-metropolitan statistical area MAC in sample 2096-7-B07 (0-2).
- **Lead** exceeded all MACs in sample 2096-7-B03 (0-2).
- **TCLP/SPLP Manganese** exceeded applicable MACs in samples 2096-7-B01 (0-2), 2096-7-B03 (0-2), 2096-7-B04 (0-2), 2096-7-B04 DUP (0-2), and 2096-7-B07 (0-2).

Table 6 lists the COCs detected above applicable MACs and the estimated volume of impacted soil at each boring. Volumes of impacted soil are estimated without regard for property boundaries or planned excavation activities.

3.6.3.2 Groundwater

The concentrations of iron and lead observed in groundwater exceeded TACO Tier 1 groundwater remediation objectives. The lateral extent of impacted groundwater is assumed to extend across the entire site. Only one groundwater sample was collected; therefore, this assumption is conservative.

3.6.4 IDOT Construction Activities within Impacted Soil Areas

3.6.4.1 Soil

Proposed construction excavations for driveway replacement, roadway widening, and grading for future bike path are anticipated within site areas impacted by COCs. As indicated by IDOT, the maximum excavation depth is two feet bgs.

Table 7 summarizes the areas where construction excavation is anticipated to encounter soil assumed to contain COCs above applicable MACs. The table includes the assumed dimensions of the proposed construction excavation within the impacted soil area and volumes of impacted soil from each area that will require proper handling and disposal if removed from the site. The assumed areas of impacted construction excavation are depicted on Figure 3.

3.6.4.2 Groundwater

Analytical results for groundwater exceeded TACO Tier 1 groundwater remediation objectives for iron and lead. Groundwater was observed at approximately 11.9 feet bgs, approximately 9.9 feet below the bottom of the proposed excavation. Groundwater is not expected to be encountered during excavation.

3.6.5 Potential IDOT Property Acquisition

According to IDOT's proposed plans, a portion of site 2096-7 will be acquired under this contract. As indicated in Table 9, approximately 305 cubic yards are presumed to be impacted and should be managed and disposed of as a non-special waste.

3.7. **ISGS Site 2096-8 – Jel Sert**

3.7.1 Field Investigation Summary

A total of ten soil samples, including one duplicate sample, were collected from borings 2096-8-B01 through 2096-8-B09 between 0 and 4.5 feet bgs. Boring locations are shown on Figures 3 and 4. Andrews Engineering field personnel did not observe odors or staining indicative of contamination in soil samples collected from the borings and PID headspace screening readings were not detected above background (0 ppm).

Boring 2096-8-B01/G01 was advanced to 20 feet bgs to collect a groundwater sample. Static groundwater was observed at 8.6 feet bgs and a sample was collected.

3.7.2 Analytical Results

3.7.2.1 Soil

The analytical results for soil samples are presented in Table 3f. One VOC, 13 SVOCs, and 21 metals were detected among the samples collected from site 2096-8 between 0 and 4.5 feet bgs. Eleven metals were detected by SPLP analysis. Based on the results of SPLP metal analysis, TCLP beryllium, chromium, iron, lead, and manganese analyses were performed on several samples.

The pHs of the samples from site 2096-8 were within the acceptable range.

3.7.2.2 Groundwater

The analytical results for groundwater samples are presented in Table 4b. Twenty-one metals were detected in the groundwater sample.

3.7.3 Nature and Extent of Contaminants of Concern

3.7.3.1 Soil

As shown in Table 5, the contaminants of concern in site soils are benzo(a)pyrene, lead, iron, arsenic and manganese.

- **Benzo(a)pyrene** exceeded the most stringent MAC and outside a populated area MAC in sample 2096-8-B01 (0-4.5).
- **Arsenic** exceeded the most stringent MAC and populated non-metropolitan statistical area MAC in sample 2096-8-B08 (0-4.5).
- **Iron** exceeded applicable MACs in sample 2096-8-B08 (0-4.5).
- **Total Manganese** exceeded applicable MACs in sample 2096-8-B01 (0-4.5).
- **TCLP/SPLP Lead** exceeded applicable MACs in sample 2096-8-B03 DUP (0-4.5).
- **TCLP/SPLP Manganese** exceeded applicable MACs in sample 2096-8-B09 (0-4.5).

Table 6 lists the COCs detected above applicable MACs and the estimated volume of impacted soil at each boring. Volumes of impacted soil are estimated without regard for property boundaries or planned excavation activities.

3.7.3.2 Groundwater

The concentrations of arsenic, iron, lead, manganese, and vanadium observed in groundwater exceeded TACO Tier 1 groundwater remediation objectives. The lateral extent of impacted groundwater is assumed to extend across the entire site. Only one groundwater sample was collected; therefore, this assumption is conservative.

3.7.4 IDOT Construction Activities within Impacted Areas

3.7.4.1 Soil

Proposed construction excavations for driveway replacement, roadway widening, and grading for future bike path are anticipated within site areas impacted by COCs. As indicated by IDOT, the maximum excavation depth is 4.5 feet bgs.

Table 7 summarizes the areas where construction excavation is anticipated to encounter soil assumed to contain COCs above applicable MACs. The table includes the assumed dimensions of the proposed construction excavation within the impacted soil area and volumes of impacted soil from each area that will require proper handling and disposal if removed from the site. The assumed areas of impacted construction excavation are depicted on Figures 3 and 4.

3.7.4.2 Groundwater

Analytical results for groundwater exceeded TACO Tier 1 groundwater remediation objectives for arsenic, iron, lead, manganese, and vanadium. Groundwater was observed at approximately 8.6 feet bgs, approximately 4.1 feet below the bottom of the proposed excavation. Groundwater is not expected to be encountered during excavation.

3.7.5 Potential IDOT Property Acquisition

According to IDOT's proposed plans, a portion of site 2096-8 will be acquired under this contract. As indicated in Table 9, approximately 1,807 cubic yards are presumed to be impacted and should be managed and disposed of as a non-special waste.

Table 3a
Soil Analytical Results
ISGS Site 2096-1
Agricultural Field
West Chicago, DuPage County, Illinois

Sample ID	2096-1-B01		Matrix	1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class 1 Soil TCLP/SPLP Comparisons Only
	Sample Depth (ft)	Sample Date							
	0-2	7/22/2013	Soil						
		83							
		7.97							
Volatle Organic Compounds (mg/kg)									
1,1,1-Trichloroethane	ND			2	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND			NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND			0.02	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND			23	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND			0.06	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND			0.02	NA	NA	NA	NA	NA
1,2-Dichloropropane	ND			0.03	NA	NA	NA	NA	NA
1,3-Dichloropropane	ND			0.005	NA	NA	NA	NA	NA
2-Butanone (MEK)	0.009			NA	NA	NA	NA	NA	NA
2-Hexanone (MBK)	ND			NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (MIBK)	ND			NA	NA	NA	NA	NA	NA
Acetone	0.052			25	NA	NA	NA	NA	NA
Benzene	ND			0.03	NA	NA	NA	NA	NA
Bromodichloromethane	ND			0.6	NA	NA	NA	NA	NA
Bromoform	ND			0.8	NA	NA	NA	NA	NA
Bromomethane	ND			0.2	NA	NA	NA	NA	NA
Carbon disulfide	ND			9	NA	NA	NA	NA	NA
Carbon Tetrachloride	ND			0.07	NA	NA	NA	NA	NA
Chlorobenzene	ND			1	NA	NA	NA	NA	NA
Chloroethane	ND			NA	NA	NA	NA	NA	NA
Chloroform	ND			0.3	NA	NA	NA	NA	NA
Chloromethane	ND			NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ND			0.4	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ND			NA	NA	NA	NA	NA	NA
Dibromochloromethane	ND			0.4	NA	NA	NA	NA	NA
Ethylbenzene	ND			13	NA	NA	NA	NA	NA
Methylene chloride	ND			0.02	NA	NA	NA	NA	NA
Methyl-tert-butyl-ether (MTBE)	ND			0.32	NA	NA	NA	NA	NA
Styrene	ND			4	NA	NA	NA	NA	NA
Tetrachloroethene	ND			0.06	NA	NA	NA	NA	NA
Toluene	ND			12	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND			0.7	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ND			NA	NA	NA	NA	NA	NA
Trichloroethene	ND			0.06	NA	NA	NA	NA	NA
Vinyl Acetate	ND			10	NA	NA	NA	NA	NA
Vinyl Chloride	ND			0.01	NA	NA	NA	NA	NA
Xylenes, total	ND			5.6	NA	NA	NA	NA	NA

Table 3a
Soil Analytical Results
ISGS Site 2096-1
Agricultural Field
West Chicago, DuPage County, Illinois

Sample ID	2096-1-B01		Sample Depth (ft)	Sample Date	% Solids	Sample pH	Matrix	1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class I Soil TCLP/SPLP Comparisons Only
	0-2	7/22/2013											
Semivolatile Organic Compounds (mg/kg)													
1,2,4-Trichlorobenzene	ND							5	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ND							17	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ND							NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ND							2	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ND							26	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ND							0.66	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ND							0.48	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ND							9	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ND							3.3	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ND							0.25	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ND							0.26	NA	NA	NA	NA	NA
2-Chloronaphthalene	ND							NA	NA	NA	NA	NA	NA
2-Chlorophenol	ND							1.5	NA	NA	NA	NA	NA
2-Methylnaphthalene	ND							NA	NA	NA	NA	NA	NA
2-Methylphenol	ND							15	NA	NA	NA	NA	NA
2-Nitroaniline	ND							NA	NA	NA	NA	NA	NA
2-Nitrophenol	ND							NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ND							1.3	NA	NA	NA	NA	NA
3-Nitroaniline	ND							NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ND							NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ND							NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	ND							NA	NA	NA	NA	NA	NA
4-Chloroaniline	ND							0.7	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ND							NA	NA	NA	NA	NA	NA
4-Methylphenol	ND							NA	NA	NA	NA	NA	NA
4-Nitroaniline	ND							NA	NA	NA	NA	NA	NA
4-Nitrophenol	ND							570	NA	NA	NA	NA	NA
Acenaphthene	J 0.033							NA	NA	NA	NA	NA	NA
Acenaphthylene	0.038							12,000	NA	NA	NA	NA	NA
Anthracene	0.13							0.9	0.9	0.9	1.1	1.8	NA
Benzo(a)anthracene	0.49							0.09	0.09	0.98	1.3	2.1	NA
Benzo(a)pyrene	0.42	1.2						0.09	0.9	0.9	1.5	2.1	NA
Benzo(b)fluoranthene	0.62							NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	0.18							9	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.27							NA	NA	NA	NA	NA	NA
Bis(2-chloroethoxy)methane	ND							NA	NA	NA	NA	NA	NA

Table 3a
 Soil Analytical Results
 IGS Site 2096-1
 Agricultural Field
 West Chicago, DuPage County, Illinois

Sample ID	2096-1-B01		Sample Depth (ft)	Sample Date	% Solids	Sample pH	Matrix	1 Most Stringent		2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class 1 Soil TCLP/SPLP Comparisons Only
	0-2	7/22/2013						83	7.97					
Bis(2-chloroethyl)ether	ND							0.66	NA	NA	NA	NA	NA	NA
Bis(2-chloroisopropyl)ether	ND							NA	NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	ND							46	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate	ND							930	NA	NA	NA	NA	NA	NA
Carbazole	J 0.057							0.6	NA	NA	NA	NA	NA	NA
Chrysene	0.49							88	NA	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	0.043							0.09	0.09	0.15	0.2	0.42	NA	NA
Dibenzofuran	ND							NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	ND							470	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	ND							NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	ND							2,300	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	ND							1,600	NA	NA	NA	NA	NA	NA
Fluoranthene	0.96							3,100	NA	NA	NA	NA	NA	NA
Fluorene	0.048							560	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ND							0.4	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	ND							NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ND							1.1	NA	NA	NA	NA	NA	NA
Hexachloroethane	ND							0.5	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.17							0.9	0.9	0.9	0.9	1.6	NA	NA
Isophorone	ND							8	NA	NA	NA	NA	NA	NA
Naphthalene	J 0.008							1.8	NA	NA	NA	NA	NA	NA
Nitrobenzene	ND							0.26	NA	NA	NA	NA	NA	NA
N-Nitrosodi-n-propylamine	ND							0.0018	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ND							1	NA	NA	NA	NA	NA	NA
Pentachlorophenol	ND							0.02	NA	NA	NA	NA	NA	NA
Phenanthrene	0.72							100	NA	NA	NA	NA	NA	NA
Phenol	ND							2,300	NA	NA	NA	NA	NA	NA
Pyrene	0.84													
Inorganic Compounds, Total (mg/kg)														
Antimony	ND							5	NA	NA	NA	NA	NA	NA
Arsenic	6.3							11.3	NA	11.3	NA	13	NA	NA
Barium	87							1,500	NA	NA	NA	NA	NA	NA
Beryllium	0.64							22	NA	NA	NA	NA	NA	NA
Boron	3.7							40	NA	NA	NA	NA	NA	NA
Cadmium	0.65							5.2	NA	NA	NA	NA	NA	NA
Calcium	B 25000							NA	NA	NA	NA	NA	NA	NA
Chromium	14							21	NA	NA	NA	NA	NA	NA

Table 3a
Soil Analytical Results
ISGS Site 2096-1
Agricultural Field
West Chicago, DuPage County, Illinois

Sample ID	2096-1-B01		1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class I Soil TCLP/SPLP Comparisons Only
	Sample Depth (ft)	Sample Date						
% Solids	0-2	7/22/2013						
Sample pH	83	7.97						
Matrix	Soil							
Cobalt	7.4		20	NA	NA	NA	NA	NA
Copper	18		2,900	NA	NA	NA	NA	NA
Iron	15000		15,000	NA	15,000	NA	15,900	NA
Lead	B 120 1		107	NA	NA	NA	NA	NA
Magnesium	B 17000		325,000	NA	NA	NA	NA	NA
Manganese	420		630	NA	630	NA	636	NA
Mercury	0.053		0.89	NA	NA	NA	NA	NA
Nickel	B 14		100	NA	NA	NA	NA	NA
Potassium	1200		NA	NA	NA	NA	NA	NA
Selenium	ND		1.3	NA	NA	NA	NA	NA
Silver	ND		4.4	NA	NA	NA	NA	NA
Sodium	B 1600		NA	NA	NA	NA	NA	NA
Thallium	J 0.3		2.6	NA	NA	NA	NA	NA
Vanadium	24		550	NA	NA	NA	NA	NA
Zinc	B 60		5,100	NA	NA	NA	NA	NA
SPLP Metals (mg/L)								
Antimony	ND		m	NA	NA	NA	NA	0.006
Barium	1.1		m	NA	NA	NA	NA	2
Beryllium	0.0068	6	m	NA	NA	NA	NA	0.004
Boron	0.87		m	NA	NA	NA	NA	2
Cadmium	J 0.0028		m	NA	NA	NA	NA	0.005
Chromium	0.15	6	m	NA	NA	NA	NA	0.1
Cobalt	0.048		m	NA	NA	NA	NA	1
Iron	140	6	m	NA	NA	NA	NA	5
Lead	0.79	6	m	NA	NA	NA	NA	0.0075
Manganese	2.2	6	m	NA	NA	NA	NA	0.15
Mercury	0.00032		m	NA	NA	NA	NA	0.002
Nickel	0.11	6	m	NA	NA	NA	NA	0.1
Selenium	ND		m	NA	NA	NA	NA	0.05
Silver	ND		m	NA	NA	NA	NA	0.05
Thallium	ND		m	NA	NA	NA	NA	0.002
Zinc	0.87		m	NA	NA	NA	NA	5

Table 3a
 Soil Analytical Results
 I/SGS Site 2096-1
 Agricultural Field
 West Chicago, DuPage County, Illinois

Sample ID	2096-1-B01		1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class 1 Soil TCLP/SPLP Comparisons Only
	Sample Depth (ft)	Sample Date						
Sample Depth (ft)	0-2	7/22/2013						
% Solids	83							
Sample pH	7.97							
Matrix	Soil							
TCLP Metals (mg/L)								
Antimony	NT		m	NA	NA	NA	NA	0.006
Barium	NT		m	NA	NA	NA	NA	2
Beryllium	ND		m	NA	NA	NA	NA	0.004
Boron	NT		m	NA	NA	NA	NA	2
Cadmium	NT		m	NA	NA	NA	NA	0.005
Chromium	J 0.014		m	NA	NA	NA	NA	0.1
Cobalt	NT		m	NA	NA	NA	NA	1
Iron	11	6	m	NA	NA	NA	NA	5
Lead	0.24	6	m	NA	NA	NA	NA	0.0075
Manganese	11	6	m	NA	NA	NA	NA	0.15
Mercury	NT		m	NA	NA	NA	NA	0.002
Nickel	0.043		m	NA	NA	NA	NA	0.1
Selenium	NT		m	NA	NA	NA	NA	0.05
Silver	NT		m	NA	NA	NA	NA	0.05
Thallium	NT		m	NA	NA	NA	NA	0.002
Zinc	NT		m	NA	NA	NA	NA	5

Table 3b
Soil Analytical Results
ISGS Site 2096-4
Vacant Land
West Chicago, DuPage County, Illinois

Sample ID	2096-4-B01		Matrix	1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class I Soil TCLP/SPLP Comparisons Only
	Sample Depth (ft)	Sample Date							
	0-2	7/22/2013	Soil						
% Solids	88								
Sample pH	8.93								
Volatile Organic Compounds (mg/kg)									
1,1,1-Trichloroethane	ND			2	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND			NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND			0.02	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND			23	NA	NA	NA	NA	NA
1,1-Dichloroethene	ND			0.06	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND			0.02	NA	NA	NA	NA	NA
1,2-Dichloropropane	ND			0.03	NA	NA	NA	NA	NA
1,3-Dichloropropene	ND			0.005	NA	NA	NA	NA	NA
2-Butanone (MEK)	ND			NA	NA	NA	NA	NA	NA
2-Hexanone (MBK)	ND			NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (MIBK)	ND			NA	NA	NA	NA	NA	NA
Acetone	ND			25	NA	NA	NA	NA	NA
Benzene	ND			0.03	NA	NA	NA	NA	NA
Bromodichloromethane	ND			0.6	NA	NA	NA	NA	NA
Bromoform	ND			0.8	NA	NA	NA	NA	NA
Bromomethane	ND			0.2	NA	NA	NA	NA	NA
Carbon disulfide	ND			9	NA	NA	NA	NA	NA
Carbon Tetrachloride	ND			0.07	NA	NA	NA	NA	NA
Chlorobenzene	ND			1	NA	NA	NA	NA	NA
Chloroethane	ND			NA	NA	NA	NA	NA	NA
Chloroform	ND			0.3	NA	NA	NA	NA	NA
Chloromethane	ND			NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ND			0.4	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ND			NA	NA	NA	NA	NA	NA
Dibromochloromethane	ND			0.4	NA	NA	NA	NA	NA
Ethylbenzene	ND			13	NA	NA	NA	NA	NA
Methylene chloride	ND			0.02	NA	NA	NA	NA	NA
Methyl-tert-butyl-ether (MTBE)	ND			0.32	NA	NA	NA	NA	NA
Styrene	ND			4	NA	NA	NA	NA	NA
Tetrachloroethene	ND			0.06	NA	NA	NA	NA	NA
Toluene	ND			12	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND			0.7	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ND			NA	NA	NA	NA	NA	NA
Trichloroethene	ND			0.06	NA	NA	NA	NA	NA
Vinyl Acetate	ND			10	NA	NA	NA	NA	NA
Vinyl Chloride	ND			0.01	NA	NA	NA	NA	NA
Xylenes, total	ND			5.6	NA	NA	NA	NA	NA

Table 3b
Soil Analytical Results
ISGS Site 2096-4
Vacant Land
West Chicago, DuPage County, Illinois

Sample ID	2096-4-B01	1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class I Soil TCLP/SPLP Comparisons Only
Sample Depth (ft)	0-2						
Sample Date	7/22/2013						
% Solids	88						
Sample pH	8.93						
Matrix	Soil						
Semivolatile Organic Compounds (mg/kg)							
1,2,4-Trichlorobenzene	ND	5	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ND	17	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ND	2	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ND	26	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ND	0.66	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ND	0.48	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ND	9	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ND	3.3	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ND	0.25	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ND	0.26	NA	NA	NA	NA	NA
2-Chloronaphthalene	ND	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ND	1.5	NA	NA	NA	NA	NA
2-Methylnaphthalene	27	NA	NA	NA	NA	NA	NA
2-Methylphenol	ND	15	NA	NA	NA	NA	NA
2-Nitroaniline	ND	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ND	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ND	1.3	NA	NA	NA	NA	NA
3-Nitroaniline	ND	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ND	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ND	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	ND	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ND	0.7	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ND	NA	NA	NA	NA	NA	NA
4-Methylphenol	ND	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ND	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ND	NA	NA	NA	NA	NA	NA
Acenaphthene	18	570	NA	NA	NA	NA	NA
Acenaphthylene	16	NA	NA	NA	NA	NA	NA
Anthracene	85	12,000	NA	NA	NA	NA	NA
Benzo(a)anthracene	140	1,2,3,4,5	0.9	0.9	1.1	1.8	NA
Benzo(a)pyrene	110	1,2,3,4,5	0.09	0.98	1.3	2.1	NA
Benzo(b)fluoranthene	140	1,2,3,4,5	0.9	0.9	1.5	2.1	NA
Benzo(g,h,i)perylene	43	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	25	9	NA	NA	NA	NA	NA
Bis(2-chloroethoxy)methane	ND	NA	NA	NA	NA	NA	NA

Table 3b
Soil Analytical Results
ISGS Site 2096-4
Vacant Land
West Chicago, DuPage County, Illinois

Sample ID	2096-4-B01		Matrix	1 st Most Stringent MAC	2 nd Outside a Populated Area MAC	3 rd Populated non-Metropolitan Statistical Area MAC	4 th Within Chicago Corporate Limits MAC	5 th Metropolitan Statistical Area MAC	6 th Class I Soil TCLP/SPLP Comparisons Only
	Sample Depth (ft)	Sample Date							
	0-2	7/22/2013	Soil						
% Solids	88								
Sample pH	8.93								
Bis(2-chloroethyl)ether	ND			0.66	NA	NA	NA	NA	NA
bis(2-chloroisopropyl)ether	ND			NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	ND			46	NA	NA	NA	NA	NA
Butyl benzyl phthalate	ND			930	NA	NA	NA	NA	NA
Carbazole	23	1		0.6	NA	NA	NA	NA	NA
Chrysene	130	1		88	NA	NA	NA	NA	NA
Dibenzo(a,h)anthracene	17	1,2,3,4,5		0.09	0.09	0.15	0.2	0.42	NA
Dibenzofuran	36			NA	NA	NA	NA	NA	NA
Diethyl phthalate	ND			470	NA	NA	NA	NA	NA
Dimethyl phthalate	ND			NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	ND			2,300	NA	NA	NA	NA	NA
Di-n-octyl phthalate	ND			1,600	NA	NA	NA	NA	NA
Fluoranthene	320			3,100	NA	NA	NA	NA	NA
Fluorene	72			560	NA	NA	NA	NA	NA
Hexachlorobenzene	ND			0.4	NA	NA	NA	NA	NA
Hexachlorobutadiene	ND			NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ND			1.1	NA	NA	NA	NA	NA
Hexachloroethane	ND			0.5	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	41	1,2,3,4,5		0.9	0.9	0.9	0.9	1.6	NA
Isophorone	ND			8	NA	NA	NA	NA	NA
Naphthalene	59	1		1.8	NA	NA	NA	NA	NA
Nitrobenzene	ND			0.26	NA	NA	NA	NA	NA
N-Nitrosodi-n-propylamine	ND			0.0018	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ND			1	NA	NA	NA	NA	NA
Pentachlorophenol	ND			0.02	NA	NA	NA	NA	NA
Phenanthrene	390			NA	NA	NA	NA	NA	NA
Phenol	ND			100	NA	NA	NA	NA	NA
Pyrene	280			2,300	NA	NA	NA	NA	NA
Inorganic Compounds, Total (mg/kg)									
Antimony	ND			5	NA	NA	NA	NA	NA
Arsenic	4.1			11.3	NA	11.3	NA	13	NA
Barium	170			1,500	NA	NA	NA	NA	NA
Beryllium	1.1			22	NA	NA	NA	NA	NA
Boron	38			40	NA	NA	NA	NA	NA
Cadmium	1.4			5.2	NA	NA	NA	NA	NA
Calcium	B 95000			NA	NA	NA	NA	NA	NA
Chromium	25	1		21	NA	NA	NA	NA	NA

Table 3b
Soil Analytical Results
ISGS Site 2096-4
Vacant Land
West Chicago, DuPage County, Illinois

Sample ID	2096-4-B01		Sample Depth (ft)	Sample Date	% Solids	Sample pH	Matrix	1 Most Stringent		2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class 1 Soil TCLP/SPLP Comparisons Only
	MAC	20												
Cobalt	10						Soil	20	NA	NA	NA	NA	NA	NA
Copper	31							2,900	NA	NA	NA	NA	NA	NA
Iron	20000	1,3,5						15,000	NA	15,000	NA	15,900	NA	NA
Lead	B 65							107	NA	NA	NA	NA	NA	NA
Magnesium	B 37000							325,000	NA	NA	NA	NA	NA	NA
Manganese	B 1600	1,3,5						630	NA	630	NA	636	NA	NA
Mercury	J 0.015							0.89	NA	NA	NA	NA	NA	NA
Nickel	17							100	NA	NA	NA	NA	NA	NA
Potassium	B 1500							NA	NA	NA	NA	NA	NA	NA
Selenium	ND							1.3	NA	NA	NA	NA	NA	NA
Silver	J 0.074							4.4	NA	NA	NA	NA	NA	NA
Sodium	1200							NA	NA	NA	NA	NA	NA	NA
Thallium	ND							2.6	NA	NA	NA	NA	NA	NA
Vanadium	22							550	NA	NA	NA	NA	NA	NA
Zinc	110							5,100	NA	NA	NA	NA	NA	NA
SPLP Metals (mg/L)														
Antimony	ND							m	NA	NA	NA	NA	NA	0.006
Barium	J 0.41							m	NA	NA	NA	NA	NA	2
Beryllium	ND							m	NA	NA	NA	NA	NA	0.004
Boron	1							m	NA	NA	NA	NA	NA	2
Cadmium	ND							m	NA	NA	NA	NA	NA	0.005
Chromium	0.08							m	NA	NA	NA	NA	NA	0.1
Cobalt	J 0.015							m	NA	NA	NA	NA	NA	1
Iron	68	6						m	NA	NA	NA	NA	NA	5
Lead	0.12	6						m	NA	NA	NA	NA	NA	0.0075
Manganese	0.64	6						m	NA	NA	NA	NA	NA	0.15
Mercury	J 0.000091							m	NA	NA	NA	NA	NA	0.002
Nickel	0.048							m	NA	NA	NA	NA	NA	0.1
Selenium	ND							m	NA	NA	NA	NA	NA	0.05
Silver	ND							m	NA	NA	NA	NA	NA	0.05
Thallium	ND							m	NA	NA	NA	NA	NA	0.002
Zinc	0.34							m	NA	NA	NA	NA	NA	5

Table 3b
Soil Analytical Results
ISGS Site 2096-4
Vacant Land

West Chicago, DuPage County, Illinois

Sample ID	2096-4-B01		Sample Depth (ft)	Sample Date	% Solids	Sample pH	Matrix	1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class 1 Soil TCLP/SPLP Comparisons Only
	0-2	7/22/2013											
TCLP Metals (mg/L)													
Antimony	NT							m	NA	NA	NA	NA	0.006
Barium	NT							m	NA	NA	NA	NA	2
Beryllium	NT							m	NA	NA	NA	NA	0.004
Boron	NT							m	NA	NA	NA	NA	2
Cadmium	NT							m	NA	NA	NA	NA	0.005
Chromium	NT							m	NA	NA	NA	NA	0.1
Cobalt	NT							m	NA	NA	NA	NA	1
Iron	ND							m	NA	NA	NA	NA	5
Lead	ND							m	NA	NA	NA	NA	0.0075
Manganese	1.6						6	m	NA	NA	NA	NA	0.15
Mercury	NT							m	NA	NA	NA	NA	0.002
Nickel	NT							m	NA	NA	NA	NA	0.1
Selenium	NT							m	NA	NA	NA	NA	0.05
Silver	NT							m	NA	NA	NA	NA	0.05
Thallium	NT							m	NA	NA	NA	NA	0.002
Zinc	NT							m	NA	NA	NA	NA	5

Table 3c
Soil Analytical Results
ISGS Site 2096-5
Grassy Land
West Chicago, DuPage County, Illinois

Sample ID	2096-5-B01		2096-5-B02		2096-5-B03		2096-5-B03 DUP		1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class I Soil TCLP/SPLP Comparisons Only
	0-3.5 7/22/2013	84 Soil	0-3.5 7/22/2013	91 Soil	0-3.5 7/10/2013	81 Soil	0-3.5 7/10/2013	0-3.5 7/10/2013						
Sample Depth (ft)														
Sample Date														
% Solids	84	84	91	81	81	81	79	79						
Sample pH	8.28	8.28	8.02	8.3	8.3	8.3	7.46	7.46						
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Volatile Organic Compounds (mg/kg)														
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	2	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	0.02	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	23	NA	NA	NA	NA	NA
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	0.06	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	0.02	NA	NA	NA	NA	NA
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	0.03	NA	NA	NA	NA	NA
1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	0.005	NA	NA	NA	NA	NA
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
2-Hexanone (MBK)	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Acetone	0.0069	0.0069	ND	ND	ND	ND	ND	ND	25	NA	NA	NA	NA	NA
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	0.03	NA	NA	NA	NA	NA
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	0.6	NA	NA	NA	NA	NA
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	0.8	NA	NA	NA	NA	NA
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	0.2	NA	NA	NA	NA	NA
Carbon disulfide	ND	ND	ND	ND	ND	ND	ND	ND	9	NA	NA	NA	NA	NA
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	0.07	NA	NA	NA	NA	NA
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1	NA	NA	NA	NA	NA
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	0.3	NA	NA	NA	NA	NA
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	0.4	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	0.4	NA	NA	NA	NA	NA
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	0.4	NA	NA	NA	NA	NA
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	13	NA	NA	NA	NA	NA
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	0.02	NA	NA	NA	NA	NA
Methyl-tert-butyl-ether (MTBE)	ND	ND	ND	ND	ND	ND	ND	ND	0.32	NA	NA	NA	NA	NA
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	4	NA	NA	NA	NA	NA
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	0.06	NA	NA	NA	NA	NA
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	12	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	0.7	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	0.06	NA	NA	NA	NA	NA
Vinyl Acetate	ND	ND	ND	ND	ND	ND	ND	ND	10	NA	NA	NA	NA	NA
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	0.01	NA	NA	NA	NA	NA
Xylenes, total	ND	ND	ND	ND	ND	ND	ND	ND	5.6	NA	NA	NA	NA	NA

Table 3c
Soil Analytical Results
ISGS Site 2096-5
Grassy Land
West Chicago, DuPage County, Illinois

Sample ID	2096-5-B01		2096-5-B02		2096-5-B03		2096-5-B03 DUP		1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class I Soil TCLP/SLP Comparisons Only
	0-3.5 7/22/2013	84 Soil	0-3.5 7/22/2013	91 Soil	0-3.5 7/10/2013	81 Soil	0-3.5 7/10/2013	0-3.5 7/10/2013						
Sample Depth (ft)	0-3.5	84	0-3.5	91	0-3.5	81	0-3.5	0-3.5						
Sample Date	7/22/2013	84	7/22/2013	91	7/10/2013	81	7/10/2013	7/10/2013						
% Solids	84	84	91	91	81	81	79	79						
Sample pH	8.28	8.28	8.02	8.02	8.3	8.3	7.46	7.46						
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Semivolatile Organic Compounds (mg/kg)														
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	5	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	17	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	2	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	26	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	0.66	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	0.48	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND	9	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	3.3	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	0.25	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	0.26	NA	NA	NA	NA	NA
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	1.5	NA	NA	NA	NA	NA
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
2-Methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	15	NA	NA	NA	NA	NA
2-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	ND	ND	1.3	NA	NA	NA	NA	NA
3-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4-Chloroaniline	ND	ND	ND	ND	ND	ND	ND	ND	0.7	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4-Methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Acenaphthene	ND	J 0.012	ND	ND	ND	ND	ND	ND	570	NA	NA	NA	NA	NA
Acenaphthylene	ND	0.052	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Anthracene	ND	0.095	ND	J 0.02	J 0.02	ND	J 0.012	ND	12,000	NA	NA	NA	NA	NA
Benzo(a)anthracene	ND	0.51	ND	0.2	0.2	0.13	0.13	0.9	0.9	0.9	1.1	1.8	NA	NA
Benzo(a)pyrene	J 0.007	0.58	1.2	0.22	1.2	0.16	1.2	0.09	0.09	0.98	1.3	2.1	NA	NA
Benzo(b)fluoranthene	J 0.01	0.77	0.32	0.32	0.22	0.22	0.22	0.9	0.9	0.9	1.5	2.1	NA	NA
Benzo(g,h,i)perylene	ND	0.37	0.16	0.16	0.1	0.1	0.1	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	ND	0.31	0.14	0.14	0.059	0.059	0.059	9	NA	NA	NA	NA	NA	NA
Bis(2-chloroethoxy)methane	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA

Table 3c
Soil Analytical Results
ISGS Site 2096-5
Grassy Land
West Chicago, DuPage County, Illinois

Sample ID	2096-5-B01		2096-5-B02		2096-5-B03		2096-5-B03 DUP		1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class I Soil TCLP/SPLP Comparisons Only
	0-3.5 7/22/2013 84 Soil	0-3.5 7/22/2013 91 Soil	0-3.5 8/02 8.02 Soil	0-3.5 8/02 8.3 Soil	0-3.5 7/10/2013 81 Soil	0-3.5 7/10/2013 79 Soil	0-3.5 7/10/2013 79 Soil	0-3.5 7/10/2013 79 Soil						
Bis(2-chloroethyl)ether	ND	ND	ND	ND	ND	ND	ND	ND	0.66	NA	NA	NA	NA	NA
bis(2-chloroisopropyl)ether	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Bis(2-ethylhexyl)phthalate	ND	ND	ND	ND	ND	ND	ND	ND	46	NA	NA	NA	NA	NA
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	930	NA	NA	NA	NA	NA
Carbazole	ND	ND	ND	ND	ND	ND	ND	ND	0.6	NA	NA	NA	NA	NA
Chrysene	ND	0.54	0.11	0.25	0.082	0.15	0.054	0.09	88	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	ND	0.11	1.2	0.082	0.082	0.054	0.054	0.09	0.09	0.15	0.2	0.42	0.42	NA
Dibenzofuran	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Diethyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	470	NA	NA	NA	NA	NA
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	2,300	NA	NA	NA	NA	NA
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	1,600	NA	NA	NA	NA	NA
Fluoranthene	ND	0.97	ND	0.45	ND	0.38	0.38	3,100	3,100	NA	NA	NA	NA	NA
Fluorene	ND	J 0.019	ND	ND	ND	ND	ND	560	560	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	0.4	0.4	NA	NA	NA	NA	NA
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	ND	1.1	1.1	NA	NA	NA	NA	NA
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	0.5	0.5	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ND	0.36	ND	0.15	ND	0.1	0.1	0.9	0.9	0.9	0.9	1.6	1.6	NA
Isophorone	ND	ND	ND	ND	ND	ND	ND	8	8	NA	NA	NA	NA	NA
Naphthalene	ND	ND	ND	ND	ND	ND	ND	1.8	1.8	NA	NA	NA	NA	NA
Nitrobenzene	ND	ND	ND	ND	ND	ND	ND	0.26	0.26	NA	NA	NA	NA	NA
N-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	ND	0.0018	0.0018	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	ND	1	1	NA	NA	NA	NA	NA
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	0.02	0.02	NA	NA	NA	NA	NA
Phenanthrene	ND	0.38	ND	0.2	ND	0.15	0.15	NA	NA	NA	NA	NA	NA	NA
Phenol	ND	ND	ND	ND	ND	ND	ND	100	100	NA	NA	NA	NA	NA
Pyrene	ND	0.77	ND	0.36	ND	0.27	0.27	2,300	2,300	NA	NA	NA	NA	NA
Inorganic Compounds, Total (mg/kg)														
Antimony	ND	ND	ND	ND	ND	ND	ND	5	5	NA	NA	NA	NA	NA
Arsenic	6.8	5.5	78	4.3	4.3	4.7	4.7	11.3	11.3	11.3	NA	13	13	NA
Barium	90	78	B 110	B 110	B 110	B 130	B 130	1,500	1,500	NA	NA	NA	NA	NA
Beryllium	0.67	0.54	B 0.64	B 0.64	B 0.64	B 0.74	B 0.74	22	22	NA	NA	NA	NA	NA
Boron	J 1.8	J 0.99	J 2.7	J 2.7	J 2.7	J 2.4	J 2.4	40	40	NA	NA	NA	NA	NA
Cadmium	0.39	0.34	B 0.38	B 0.38	B 0.38	0.35	0.35	5.2	5.2	NA	NA	NA	NA	NA
Calcium	B 9900	B 5000	B 4900	B 4900	B 4900	B 3800	B 3800	NA	NA	NA	NA	NA	NA	NA
Chromium	15	12	13	13	13	14	14	21	21	NA	NA	NA	NA	NA

Table 3c
Soil Analytical Results
ISGS Site 2096-5
Grassy Land
West Chicago, DuPage County, Illinois

Sample ID	2096-5-B01		2096-5-B02		2096-5-B03		2096-5-B03 DUP		1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class I Soil TCLP/SPLP Comparisons Only
	0-3.5 7/22/2013	8-28 Soil	0-3.5 7/22/2013	8-02 Soil	0-3.5 7/10/2013	8-3 Soil	0-3.5 7/10/2013	0-3.5 7/10/2013						
Sample Depth (ft)	0-3.5	8.6	0-3.5	6.7	0-3.5	6.6	0-3.5	8.7	20	NA	NA	NA	NA	NA
Sample Date	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/10/2013	7/10/2013	7/10/2013	7/10/2013	2,900	NA	NA	NA	NA	NA
% Solids	84	84	91	81	81	81	81	79	15,000	15,000	15,000	15,900	15,900	NA
Sample pH	8.28	8.02	8.02	8.3	8.3	8.3	7.46	7.46	107	NA	NA	NA	NA	NA
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	325,000	NA	NA	NA	NA	NA
Cobalt	14	14	14	13	13	13	11	11	630	NA	NA	NA	NA	NA
Copper	16000	16000	14000	13000	13000	13000	15000	15000	0.89	NA	NA	NA	NA	NA
Iron	B 13	B 13	B 9.6	B 29	B 29	B 29	B 18	B 18	100	NA	NA	NA	NA	NA
Lead	B 7000	B 4000	B 4000	B 3100	B 3100	B 3100	B 2800	B 2800	NA	NA	NA	NA	NA	NA
Magnesium	B 510	930	1,3.5	B 560	B 560	B 560	95	95	NA	NA	NA	NA	NA	NA
Manganese	ND	0.023	0.04	0.04	0.04	0.04	0.032	0.032	NA	NA	NA	NA	NA	NA
Mercury	13	21	21	B 12	B 12	B 12	B 13	B 13	NA	NA	NA	NA	NA	NA
Nickel	B 680	B 650	B 650	B 890	B 890	B 890	B 890	B 890	NA	NA	NA	NA	NA	NA
Potassium	ND	ND	ND	J 0.46	J 0.46	J 0.46	J 0.49	J 0.49	1.3	NA	NA	NA	NA	NA
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	4.4	NA	NA	NA	NA	NA
Silver	890	83	83	76	76	76	67	67	NA	NA	NA	NA	NA	NA
Sodium	ND	ND	ND	ND	ND	ND	ND	ND	2.6	NA	NA	NA	NA	NA
Thallium	27	15	15	21	21	21	25	25	550	NA	NA	NA	NA	NA
Vanadium	35	30	30	B 49	B 49	B 49	B 43	B 43	5,100	NA	NA	NA	NA	NA
Zinc	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	NA
SPLP Metals (mg/L)	J 0.29	J 0.13	J 0.13	0.73	0.73	0.73	0.97	0.97	m	NA	NA	NA	NA	0.006
Antimony	ND	ND	ND	0.0041	0.0041	0.0041	6	6	m	NA	NA	NA	NA	2
Barium	1	1.2	1.2	0.65	0.65	0.65	0.75	0.75	m	NA	NA	NA	NA	0.004
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	2
Boron	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	0.005
Cadmium	0.055	J 0.021	J 0.021	ND	ND	ND	0.064	0.064	m	NA	NA	NA	NA	0.1
Chromium	J 0.011	ND	ND	ND	ND	ND	J 0.0081	J 0.0081	m	NA	NA	NA	NA	1
Cobalt	46	14	14	4.2	4.2	4.2	50	50	m	NA	NA	NA	NA	5
Iron	0.02	0.011	0.011	0.014	0.014	0.014	0.017	0.017	m	NA	NA	NA	NA	0.0075
Lead	0.28	0.08	0.08	0.075	0.075	0.075	0.25	0.25	m	NA	NA	NA	NA	0.15
Manganese	J 0.000068	ND	ND	J 0.000045	J 0.000045	J 0.000045	J 0.000052	J 0.000052	m	NA	NA	NA	NA	0.002
Mercury	0.037	J 0.014	J 0.014	ND	ND	ND	0.034	0.034	m	NA	NA	NA	NA	0.1
Nickel	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	0.05
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	0.05
Silver	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	0.002
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	5
Zinc	0.13	J 0.06	J 0.06	0.44	0.44	0.44	0.56	0.56	m	NA	NA	NA	NA	5

Table 3c
Soil Analytical Results
ISGS Site 2096-5
Grassy Land
West Chicago, DuPage County, Illinois

Sample ID	2096-5-B01		2096-5-B02		2096-5-B03		2096-5-B03 DUP		1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non- Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class I Soil TCLP/SPLP Comparisons Only
	0-3.5 7/22/2013	84 8.28	0-3.5 7/22/2013	91 8.02	0-3.5 7/10/2013	81 8.3	0-3.5 7/10/2013	0-3.5 7/10/2013						
Sample Depth (ft)														
Sample Date														
% Solids														
Sample pH														
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
TCLP Metals (mg/L)														
Antimony	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	0.006
Barium	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	2
Beryllium	NT	NT	NT	NT	ND	NT	NT	NT	m	NA	NA	NA	NA	0.004
Boron	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	2
Cadmium	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	0.005
Chromium	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	0.1
Cobalt	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	1
Iron	0.28	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	5
Lead	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	0.0075
Manganese	0.16	6	NT	NT	NT	NT	J 0.02	NT	m	NA	NA	NA	NA	0.15
Mercury	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	0.002
Nickel	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	0.1
Selenium	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	0.05
Silver	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	0.05
Thallium	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	0.002
Zinc	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	5

Table 3d
Soil Analytical Results
ISGS Site 2096-B
Agricultural Field
West Chicago, DuPage County, Illinois

Sample ID	2096-B-309 DUP		2096-B-310		2096-B-311		2096-B-312		2096-B-313		2096-B-314		1 Most Stringent MAC	2	3 Outside a Populated Area MAC	4 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class 1 Soil TCLP/SPLP Comparisons Only
	Sample Depth (ft)	Sample Date	% Solids	Sample pH	Matrix	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013							
Volatile Organic Compounds (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Heptanone (MIBK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Enthalbene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl-tert-butyl-ether (MTBE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semivolatile Organic Compounds (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	ND	ND	ND																

Table 30
Soil Analytical Results
ISCS Site 2006.7

West Chicago Station
Crigo Gasoline Station
West Chicago, DuPage County, Illinois

Sample ID	Sample Depth (ft)	Sample Date	% Solids	Sample pH	2006-7-801		2006-7-802		2006-7-803		2006-7-804		2006-7-805		2006-7-806		2006-7-807		1 Most Stringent MAC	2 Outside # Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class 1 Soil TCE/PSLPC Comparisons Only
					0-2	7/10/2013	81	8.6	0-2	7/10/2013	81	8.6	0-2	7/10/2013	81	8.6	0-2	7/10/2013						
Volatile Organic Compounds (mg/kg)																								
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.02	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.06	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.02	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.03	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.005	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
2-Heptanone (MIBK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25	NA	NA	NA	NA	NA	NA
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.03	NA	NA	NA	NA	NA	NA
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6	NA	NA	NA	NA	NA	NA
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.8	NA	NA	NA	NA	NA	NA
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.8	NA	NA	NA	NA	NA	NA
Bromotetrahalomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2	NA	NA	NA	NA	NA	NA
Carbon disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9	NA	NA	NA	NA	NA	NA
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.07	NA	NA	NA	NA	NA	NA
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	NA	NA	NA	NA	NA	NA
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.3	NA	NA	NA	NA	NA	NA
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4	NA	NA	NA	NA	NA	NA
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13	NA	NA	NA	NA	NA	NA
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.02	NA	NA	NA	NA	NA	NA
Heptane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.32	NA	NA	NA	NA	NA	NA
Methyl-tert-butyl ether (MTBE)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4	NA	NA	NA	NA	NA	NA
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.06	NA	NA	NA	NA	NA	NA
Tetrahaloethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	NA	NA	NA	NA	NA	NA
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.06	NA	NA	NA	NA	NA	NA
Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10	NA	NA	NA	NA	NA	NA
Vinyl Acetate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.01	NA	NA	NA	NA	NA	NA
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.6	NA	NA	NA	NA	NA	NA
Xylenes, total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA
Semi-volatile Organic Compounds (mg/kg)																								
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	26	NA	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.66	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.48	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.3	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.26	NA	NA	NA	NA	NA	NA
2,6-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.26	NA	NA	NA	NA	NA	NA
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.5	NA	NA	NA	NA	NA	NA

Table 3e
Soil Analytical Results
ISGS Site 2096-7
Cigo Gasoline Station
West Chicago, DuPage County, Illinois

Sample ID	2096-7-B01		2096-7-B02		2096-7-B03		2096-7-B04		2096-7-B05		2096-7-B06		2096-7-B07		1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class I Soil TCLP/SLP Comparisons Only
	Sample Depth (ft)	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date	Sample Date						
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3-Dichlorobenzidene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzodiazepine	J 0.0091	J 0.0098	0.095	0.12	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.11	0.12	0.095	0.12	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.14	0.15	0.12	0.15	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.19	0.20	0.17	0.20	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.26	0.27	0.24	0.27	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.33	0.34	0.31	0.34	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.40	0.41	0.38	0.41	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.47	0.48	0.45	0.48	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.54	0.55	0.52	0.55	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.61	0.62	0.59	0.62	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.68	0.69	0.65	0.68	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.75	0.76	0.72	0.75	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.82	0.83	0.79	0.82	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.89	0.90	0.85	0.89	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	0.96	0.97	0.92	0.96	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.03	1.04	0.99	1.03	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.10	1.11	1.06	1.10	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.17	1.18	1.13	1.17	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.24	1.25	1.20	1.24	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.31	1.32	1.27	1.31	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.38	1.39	1.34	1.38	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.45	1.46	1.41	1.45	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.52	1.53	1.48	1.52	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.59	1.60	1.55	1.59	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.66	1.67	1.62	1.66	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.73	1.74	1.69	1.73	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.80	1.81	1.76	1.80	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.87	1.88	1.83	1.87	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	1.94	1.95	1.90	1.94	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	2.01	2.02	1.97	2.01	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	2.08	2.09	2.03	2.08	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	2.15	2.16	2.10	2.15	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	2.22	2.23	2.17	2.22	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	2.29	2.30	2.24	2.29	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	2.36	2.37	2.31	2.36	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	2.43	2.44	2.38	2.43	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	2.50	2.51	2.45	2.50	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	2.57	2.58	2.52	2.57	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	2.64	2.65	2.59	2.64	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	2.71	2.72	2.66	2.71	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025	0.048	J 0.021	J 0.024	0.061	0.061	0.061	0.061	0.061	0.061
Benzodiazepine	2.78	2.79	2.73	2.78	J 0.035	0.062	0.09	0.092	0.047	0.051	J 0.025</									

Table 3f
Soil Analytical Results
JCSGS Site 2096-8

West Chicago, DuPage County, Illinois

Sample ID	2096-8-B01	2096-8-B02	2096-8-B03	2096-8-B03 DUJF	2096-8-B04	2096-8-B03		1 st Outside a Populated Area MAC	2 nd Populated non-Metropolitan Statistical Area MAC	4 th Within Chicago Corporate Limits MAC	5 th Metropolitan Statistical Area MAC	9 th Class / Soil TCLP/SPLP Comparisons City
						0-1 S	0-4 S					
Sample Depth (ft)	0-1 S	0-4 S	0-4 S	0-4 S	0-4 S	0-4 S	0-4 S					
Sample Date	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013					
% Solids	84	86	84	84	84	84	84					
Sample pH	7.93	8.15	8.13	8.13	8.13	8.13	8.13					
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil					
Volatile Organic Compounds (mp/ug)												
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	2	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	0.02	NA	NA	NA	NA
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	23	NA	NA	NA	NA
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	0.05	NA	NA	NA	NA
1,1-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	0.02	NA	NA	NA	NA
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	0.03	NA	NA	NA	NA
1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	0.05	NA	NA	NA	NA
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
2-Hexanone (MEK)	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
4-Halophenanthrene (MIBK)	ND	ND	ND	ND	ND	ND	0.0089	25	NA	NA	NA	NA
Acetone	ND	ND	ND	ND	ND	ND	ND	0.03	NA	NA	NA	NA
Benzene	ND	ND	ND	ND	ND	ND	ND	0.6	NA	NA	NA	NA
Bromochloroethane	ND	ND	ND	ND	ND	ND	ND	0.8	NA	NA	NA	NA
Bromobrom	ND	ND	ND	ND	ND	ND	ND	0.2	NA	NA	NA	NA
Bromonaphthalene	ND	ND	ND	ND	ND	ND	ND	9	NA	NA	NA	NA
Bromonaphthalene	ND	ND	ND	ND	ND	ND	ND	0.07	NA	NA	NA	NA
Carbon disulfide	ND	ND	ND	ND	ND	ND	ND	1	NA	NA	NA	NA
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	0.3	NA	NA	NA	NA
Chloroethane	ND	ND	ND	ND	ND	ND	ND	0.4	NA	NA	NA	NA
Chloroform	ND	ND	ND	ND	ND	ND	ND	0.4	NA	NA	NA	NA
Chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	0.4	NA	NA	NA	NA
Chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	0.4	NA	NA	NA	NA
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	0.4	NA	NA	NA	NA
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	13	NA	NA	NA	NA
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	0.02	NA	NA	NA	NA
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	0.32	NA	NA	NA	NA
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	4	NA	NA	NA	NA
Methyl ethyl ether (MEE)	ND	ND	ND	ND	ND	ND	ND	0.05	NA	NA	NA	NA
Methyl tert-butyl ether (MTBE)	ND	ND	ND	ND	ND	ND	ND	0.7	NA	NA	NA	NA
Styrene	ND	ND	ND	ND	ND	ND	ND	0.06	NA	NA	NA	NA
Tetrahydrofuran	ND	ND	ND	ND	ND	ND	ND	10	NA	NA	NA	NA
Toluene	ND	ND	ND	ND	ND	ND	ND	0.01	NA	NA	NA	NA
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	5.6	NA	NA	NA	NA
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	5	NA	NA	NA	NA
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	17	NA	NA	NA	NA
Vinyl Acetate	ND	ND	ND	ND	ND	ND	ND	2	NA	NA	NA	NA
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	26	NA	NA	NA	NA
Xylenes, total	ND	ND	ND	ND	ND	ND	ND	0.88	NA	NA	NA	NA
Xylenes, total	ND	ND	ND	ND	ND	ND	ND	9	NA	NA	NA	NA
Xylenes, total	ND	ND	ND	ND	ND	ND	ND	3.3	NA	NA	NA	NA
Xylenes, total	ND	ND	ND	ND	ND	ND	ND	0.25	NA	NA	NA	NA
Xylenes, total	ND	ND	ND	ND	ND	ND	ND	0.26	NA	NA	NA	NA
Xylenes, total	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
Xylenes, total	ND	ND	ND	ND	ND	ND	ND	1.5	NA	NA	NA	NA
Semi-volatile Organic Compounds (mp/ug)												
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	5	NA	NA	NA	NA
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	17	NA	NA	NA	NA
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	2	NA	NA	NA	NA
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	26	NA	NA	NA	NA
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	0.88	NA	NA	NA	NA
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	0.48	NA	NA	NA	NA
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	9	NA	NA	NA	NA
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	3.3	NA	NA	NA	NA
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	0.25	NA	NA	NA	NA
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	0.26	NA	NA	NA	NA
2,6-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	1.5	NA	NA	NA	NA

Table 31
Soil Analytical Results
ISGS Site 2096-8
Jel Sert

West Chicago, DuPage County, Illinois

Sample ID	2086-8-B01		2096-8-002		2096-8-B03		2096-8-B03 DUP		2096-8-B04		1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class 1 Soil TCLP/SPLP Comparisons Only
	Sample Date	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013								
	Sample PT	84	84	84	84	84	84	84								
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
2-Nitrofluorene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15	NA	NA	NA	NA	NA
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
2-Nitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3	NA	NA	NA	NA	NA
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
3-Nitroaniline	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.7	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4-Cyclohexyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	570	NA	NA	NA	NA	NA
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Acenaphthene	ND	0.952	ND	ND	ND	ND	ND	ND	ND	ND	12,000	NA	NA	NA	NA	NA
Acenaphthylene	ND	0.057	ND	ND	ND	ND	ND	ND	ND	ND	0.9	0.9	1.1	1.8	2.1	NA
Anthracene	ND	0.17	J 0.015	ND	ND	ND	ND	ND	ND	ND	0.09	0.09	1.3	1.5	2.1	NA
Benzofluoranthene	ND	0.22	J 0.018	ND	ND	ND	ND	ND	ND	ND	0.9	0.9	1.5	1.5	2.1	NA
Benzofluoranthene	ND	0.37	J 0.025	J 0.0284	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Benzofluoranthene	ND	0.23	ND	ND	ND	ND	ND	ND	ND	ND	9	NA	NA	NA	NA	NA
Benzofluoranthene	ND	0.17	ND	ND	ND	ND	ND	ND	ND	ND	0.66	NA	NA	NA	NA	NA
Benzofluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.66	NA	NA	NA	NA	NA
Benzofluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	46	NA	NA	NA	NA	NA
Benzo[a]fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	930	NA	NA	NA	NA	NA
Benzo[b]fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.6	NA	NA	NA	NA	NA
Benzo[k]fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	88	NA	NA	NA	NA	NA
Benzofluoranthene	ND	ND	J 0.017	ND	ND	ND	ND	ND	ND	ND	0.09	0.09	0.2	0.42	0.42	NA
Chrysene	ND	0.25	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Carbazole	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Dibenz[a,h]anthracene	ND	0.657	ND	ND	ND	ND	ND	ND	ND	ND	470	NA	NA	NA	NA	NA
Dibenz[a,h]anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Dibenz[a,h]anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Dibenz[a,h]anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,300	NA	NA	NA	NA	NA
Dibenz[a,h]anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,600	NA	NA	NA	NA	NA
Dibenz[a,h]anthracene	ND	ND	J 0.02	ND	ND	ND	ND	ND	ND	ND	3,100	NA	NA	NA	NA	NA
Dibenz[a,h]anthracene	ND	0.3	ND	ND	ND	ND	ND	ND	ND	ND	560	NA	NA	NA	NA	NA
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.4	NA	NA	NA	NA	NA
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.8	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	0.2	ND	ND	ND	ND	ND	ND	ND	ND	0.26	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.9018	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.02	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	0.954	ND	ND	ND	ND	ND	ND	ND	ND	2,300	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	ND	0.22	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA	NA

Table 3f
Soil Analytical Results
ISGS Site 2096-8

West Chicago, DuPage County, Illinois

Sample ID	2096-8-B01		2096-8-B02		2096-8-B03		2096-8-B03 DUP		2096-8-B04		1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class 1 Soil TCLP/PLP Comparisons Only
	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013						
Sample Depth (ft)	0-1.5	1.5-3	0-1.5	1.5-3	0-1.5	1.5-3	0-1.5	1.5-3	0-1.5	1.5-3						
Sample Date	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013	7/22/2013						
Sample Eff.	84	86	84	84	84	84	84	84	84	84						
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil						
Inorganic Compounds, Total (mg/kg)																
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	NA	NA	NA	NA	NA
Arsenic	6.5	6.4	5.3	4.7	5.3	4.7	5.3	4.7	5.3	4.7	11.3	NA	NA	NA	NA	NA
Barium	130	94	100	100	100	100	100	100	100	100	1,500	NA	NA	NA	NA	NA
Beryllium	0.62	0.51	0.3	0.53	0.3	0.53	0.3	0.53	0.3	0.53	22	NA	NA	NA	NA	NA
Boron	11.9	3.7	4.8	11.1	4.8	11.1	4.8	11.1	4.8	11.1	40	NA	NA	NA	NA	NA
Cadmium	0.34	0.64	0.56	0.32	0.56	0.32	0.56	0.32	0.56	0.32	3.2	NA	NA	NA	NA	NA
Calcium	B 4300	B 35000	130000	B 5000	B 3200	B 5000	B 3200	B 5000	B 3200	B 5000	NA	NA	NA	NA	NA	NA
Chromium	13	10	6.6	13	6.6	13	6.6	13	6.6	13	21	NA	NA	NA	NA	NA
Cobalt	9.9	5.9	4.5	5.1	4.8	5.1	4.8	5.1	4.8	5.1	20	NA	NA	NA	NA	NA
Copper	17	16	12	12	12	12	12	12	12	12	2,900	NA	NA	NA	NA	NA
Iron	14000	15900	9300	13000	9300	13000	9300	13000	9300	13000	15,000	NA	NA	NA	NA	NA
Lead	B 21	B 23	B 11	B 10	B 9.9	B 10	B 9.9	B 10	B 9.9	B 10	107	NA	NA	NA	NA	NA
Magnesium	B 2700	B 21000	82000	B 3600	B 2800	B 3600	B 2800	B 3600	B 2800	B 3600	325,000	NA	NA	NA	NA	NA
Manganese	B 810	1.35	B 470	B 390	B 390	B 470	B 390	B 470	B 390	B 470	630	NA	NA	NA	NA	NA
Mercury	0.055	0.03	J 0.012	J 0.012	0.035	0.048	0.048	0.048	0.048	0.048	0.69	NA	NA	NA	NA	NA
Nickel	13	11	13	13	13	13	13	13	13	13	100	NA	NA	NA	NA	NA
Potassium	B 11000	B 11000	B 10000	B 7200	B 6800	B 7200	B 6800	B 7200	B 6800	B 7200	1.3	NA	NA	NA	NA	NA
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.4	NA	NA	NA	NA	NA
Silver	J 0.031	J 0.031	J 0.031	J 0.031	J 0.031	J 0.031	J 0.031	J 0.031	J 0.031	J 0.031	2.6	NA	NA	NA	NA	NA
Sodium	170	210	210	200	210	200	210	200	210	200	580	NA	NA	NA	NA	NA
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17	NA	NA	NA	NA	NA
Vanadium	24	18	11	14	14	14	14	14	14	14	5,100	NA	NA	NA	NA	NA
Zinc	44	57	28	47	28	47	28	47	28	47	5,100	NA	NA	NA	NA	NA
SPL Metals (mg/L)																
Antimony	ND	ND	J 0.2	J 0.3	J 0.2	J 0.3	J 0.2	J 0.3	J 0.2	J 0.3	m	NA	NA	NA	NA	NA
Barium	J 0.19	J 0.16	J 0.2	J 0.3	J 0.2	J 0.3	J 0.2	J 0.3	J 0.2	J 0.3	m	NA	NA	NA	NA	NA
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	NA
Boron	0.6	1.2	1.1	1.2	1.1	1.2	1.1	1.2	1.1	1.2	m	NA	NA	NA	NA	NA
Chromium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	NA
Chromium	0.029	J 0.024	0.033	0.046	0.046	0.046	0.046	0.046	0.046	0.046	m	NA	NA	NA	NA	NA
Cobalt	ND	ND	J 0.072	J 0.054	J 0.072	J 0.054	J 0.072	J 0.054	J 0.072	J 0.054	m	NA	NA	NA	NA	NA
Iron	23	17	31	34	31	34	31	34	31	34	m	NA	NA	NA	NA	NA
Lead	0.012	0.014	0.019	0.044	0.019	0.044	0.019	0.044	0.019	0.044	m	NA	NA	NA	NA	NA
Manganese	0.18	J 0.00026	J 0.00029	J 0.00052	J 0.00029	J 0.00052	J 0.00029	J 0.00052	J 0.00029	J 0.00052	m	NA	NA	NA	NA	NA
Mercury	J 0.00003	J 0.014	J 0.022	J 0.022	J 0.022	J 0.022	J 0.022	J 0.022	J 0.022	J 0.022	m	NA	NA	NA	NA	NA
Nickel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	NA
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	NA
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	NA
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	NA
Zinc	J 0.089	J 0.081	0.11	0.12	0.11	0.12	0.11	0.12	0.11	0.12	m	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																
Antimony	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Barium	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Beryllium	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Boron	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Cadmium	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Chromium	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Cobalt	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Iron	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Lead	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Manganese	J 0.024	J 0.024	NT	J 0.028	NT	J 0.028	NT	J 0.028	NT	J 0.028	m	NA	NA	NA	NA	NA
Mercury	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Nickel	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Selenium	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Silver	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Thallium	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA
Zinc	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	NA	NA	NA	NA	NA

Table 3f
Soil Analytical Results
JSGS Site 2096-6
Jel Sert

West Chicago, DuPage County, Illinois

Sample ID	2096-8-B05		2096-8-B06		2096-8-B07		2096-8-B08		2096-8-B09		1 Most Stringent MAC	2 Outside a Populated Area MAC	3 Populated non-Metropolitan Statistical Area MAC	4 Within Chicago Corporate Limits MAC	5 Metropolitan Statistical Area MAC	6 Class I Soil TCLP/PLP Comparisons Only
	0-4.5 7/22/2013	Soil	0-4.5 7/22/2013	Soil	0-4.5 7/22/2013	Soil	0-4.5 7/22/2013	Soil	0-4.5 7/22/2013	Soil						
Sample Depth (ft)	0-4.5		0-4.5		0-4.5		0-4.5		0-4.5							
Sample Date	7/22/2013		7/22/2013		7/22/2013		7/22/2013		7/22/2013							
Sample ID	84		85		86		83		80							
Sample ID	833		788		798		814		812							
Matrix	Soil		Soil		Soil		Soil		Soil							
Volatile Organic Compounds (mg/kg)																
1,1,1-Trichloroethane	ND		ND		ND		ND		ND		2	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	ND		ND		ND		ND		ND		NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	ND		ND		ND		ND		ND		0.02	NA	NA	NA	NA	NA
1,1-Dichloroethane	ND		ND		ND		ND		ND		23	NA	NA	NA	NA	NA
1,1-Dichloroethene	ND		ND		ND		ND		ND		0.06	NA	NA	NA	NA	NA
1,2-Dichloroethane	ND		ND		ND		ND		ND		0.02	NA	NA	NA	NA	NA
1,2-Dichloroethene	ND		ND		ND		ND		ND		0.03	NA	NA	NA	NA	NA
1,3-Dichloropropane	ND		ND		ND		ND		ND		0.005	NA	NA	NA	NA	NA
1,3-Dichloropropene	ND		ND		ND		ND		ND		NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	ND		ND		ND		ND		ND		NA	NA	NA	NA	NA	NA
2-Hexanone (MIBK)	ND		ND		ND		ND		ND		NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone (MIBK)	ND		ND		ND		ND		ND		NA	NA	NA	NA	NA	NA
Acetone	0.016		ND		ND		0.0093		ND		25	NA	NA	NA	NA	NA
Benzene	ND		ND		ND		ND		ND		0.03	NA	NA	NA	NA	NA
Bromochloroethane	ND		ND		ND		ND		ND		0.6	NA	NA	NA	NA	NA
Bromodichloroethane	ND		ND		ND		ND		ND		0.8	NA	NA	NA	NA	NA
Bromomethane	ND		ND		ND		ND		ND		9	NA	NA	NA	NA	NA
Carbon disulfide	ND		ND		ND		ND		ND		1	NA	NA	NA	NA	NA
Carbon Tetrachloride	ND		ND		ND		ND		ND		0.3	NA	NA	NA	NA	NA
Chlorobenzene	ND		ND		ND		ND		ND		0.4	NA	NA	NA	NA	NA
Chloroethane	ND		ND		ND		ND		ND		0.4	NA	NA	NA	NA	NA
Chloroform	ND		ND		ND		ND		ND		0.4	NA	NA	NA	NA	NA
Chloroethene	ND		ND		ND		ND		ND		0.4	NA	NA	NA	NA	NA
cis-1,2-Dichloroethane	ND		ND		ND		ND		ND		0.4	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	ND		ND		ND		ND		ND		0.4	NA	NA	NA	NA	NA
Dibromochloromethane	ND		ND		ND		ND		ND		0.4	NA	NA	NA	NA	NA
Ethylbenzene	ND		ND		ND		ND		ND		13	NA	NA	NA	NA	NA
Methylcyclohexane	ND		ND		ND		ND		ND		0.02	NA	NA	NA	NA	NA
Methyl-tert-butyl-ether (MTBE)	ND		ND		ND		ND		ND		0.32	NA	NA	NA	NA	NA
Naphthalene	ND		ND		ND		ND		ND		4	NA	NA	NA	NA	NA
Styrene	ND		ND		ND		ND		ND		12	NA	NA	NA	NA	NA
Toluene	ND		ND		ND		ND		ND		0.05	NA	NA	NA	NA	NA
trans-1,2-Dichloroethane	ND		ND		ND		ND		ND		0.7	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	ND		ND		ND		ND		ND		NA	NA	NA	NA	NA	NA
Trichloroethene	ND		ND		ND		ND		ND		0.06	NA	NA	NA	NA	NA
Vinyl Acetate	ND		ND		ND		ND		ND		10	NA	NA	NA	NA	NA
Vinyl Chloride	ND		ND		ND		ND		ND		0.01	NA	NA	NA	NA	NA
Xylenes, total	ND		ND		ND		ND		ND		5.6	NA	NA	NA	NA	NA
Semi-volatile Organic Compounds (mg/kg)																
1,2,4-Trichlorobenzene	ND		ND		ND		ND		ND		5	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	ND		ND		ND		ND		ND		17	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	ND		ND		ND		ND		ND		NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	ND		ND		ND		ND		ND		2	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	ND		ND		ND		ND		ND		26	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	ND		ND		ND		ND		ND		0.66	NA	NA	NA	NA	NA
2,4-Dichlorophenol	ND		ND		ND		ND		ND		0.88	NA	NA	NA	NA	NA
2,4-Dimethylphenol	ND		ND		ND		ND		ND		9	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ND		ND		ND		ND		ND		3.3	NA	NA	NA	NA	NA
2,4-Dinitrophenol	ND		ND		ND		ND		ND		0.25	NA	NA	NA	NA	NA
2,6-Dinitrophenol	ND		ND		ND		ND		ND		0.26	NA	NA	NA	NA	NA
2-Chlorophthalene	ND		ND		ND		ND		ND		1.5	NA	NA	NA	NA	NA
2-Chlorophenol	ND		ND		ND		ND		ND		1.5	NA	NA	NA	NA	NA

Table 31
Soil Analytical Results
156S Site 2096-8
Jet Set

Sample ID	2096-8-B05		2096-8-B06		2096-8-B07		2096-8-B08		2096-8-B09		1. Most Stringent MAC	2. Outside a Populated Area MAC	3. Populated non-Metropolitan Statistical Area MAC	4. Within Chicago Corporate Limits MAC	5. Metropolitan Statistical Area MAC	6. Class I Soil TCLP/PLP Comparisons Only
	0-4.5	7/22/2013	0-4.5	7/22/2013	0-4.5	7/22/2013	0-4.5	7/22/2013	0-4.5	7/22/2013						
	8.3	Soil	8.3	Soil	8.0	Soil	8.3	Soil	8.0	Soil						
Acidic Compounds, Total (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	NA	NA	NA	NA	NA
Antimony	7.2	3.6	1.3	1.3	4	11.3	1.3	1.3	6.9	11.3	11.3	NA	NA	NA	13	NA
Arsenic	64	160	130	130	130	1500	82	82	1500	1500	1500	NA	NA	NA	NA	NA
Barium	0.41	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	22	NA	NA	NA	NA	NA
Beryllium	2.9	J 0.87	J 1.3	J 1.3	J 0.87	4.8	4.8	4.8	4.8	4.8	46	NA	NA	NA	NA	NA
Boron	0.62	0.26	0.26	0.26	0.26	0.57	0.57	0.57	0.57	0.57	5.2	NA	NA	NA	NA	NA
Cadmium	B 50000	B 3500	B 3500	B 3500	B 3500	B 3500	B 3500	B 3500	B 3500	B 3500	21	NA	NA	NA	NA	NA
Calcium	8.7	6.5	6.4	6.4	6.4	10	10	10	6.7	10	20	NA	NA	NA	NA	NA
Chromium	16	12	9.5	9.5	9.5	27	27	27	16	27	2900	NA	NA	NA	NA	NA
Cobalt	13060	14000	15000	15000	15000	22000	1.3.5	1.3.5	14000	15000	15000	NA	NA	NA	15,900	NA
Copper	B 7.9	B 11	B 9.8	B 9.8	B 9.8	B 14	B 14	B 14	B 12	197	197	NA	NA	NA	NA	NA
Lead	B 20000	B 2400	B 2400	B 2400	B 2400	B 3200	B 3200	B 3200	B 34000	325,000	325,000	NA	NA	NA	NA	NA
Magnesium	B 400	1500	1.3.5	1.3.5	1.3.5	B 570	B 570	B 570	B 520	630	630	NA	NA	NA	635	NA
Manganese	J 0.015	0.04	0.04	0.04	0.04	0.084	0.084	0.084	0.038	0.89	0.89	NA	NA	NA	NA	NA
Mercury	1.4	1.2	1.2	1.2	1.2	21	21	21	15	100	100	NA	NA	NA	NA	NA
Nickel	B 720	B 950	B 950	B 950	B 950	B 620	B 620	B 620	B 1200	NA	NA	NA	NA	NA	NA	NA
Polonium	ND	ND	ND	ND	ND	B 570	B 570	B 570	ND	1.3	1.3	NA	NA	NA	NA	NA
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.4	4.4	NA	NA	NA	NA	NA
Silver	440	450	420	420	420	260	260	260	320	NA	NA	NA	NA	NA	NA	NA
Sodium	ND	J 0.3	ND	ND	ND	ND	ND	ND	ND	5.6	5.6	NA	NA	NA	NA	NA
Thallium	17	19	19	19	19	38	38	38	20	550	550	NA	NA	NA	NA	NA
Vanadium	40	52	43	43	43	48	48	48	41	5,100	5,100	NA	NA	NA	NA	NA
Zinc	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
SPLP Metals (mg/L)																
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	0.06
Barium	J 0.14	J 0.27	J 0.41	J 0.41	J 0.41	J 0.15	J 0.15	J 0.15	J 0.15	2	2	NA	NA	NA	NA	2
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	0.004
Boron	0.88	0.99	1.3	1.3	1.3	1.1	1.1	1.1	1.2	2	2	NA	NA	NA	NA	2
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	NA	NA	NA	NA	0.005
Chromium	0.03	0.052	0.11	0.11	0.11	0.038	0.038	0.038	0.023	ND	ND	NA	NA	NA	NA	0.1
Cobalt	26	33	33	33	33	26	26	26	17	6	6	NA	NA	NA	NA	1
Iron	0.11	0.11	0.23	0.23	0.23	0.089	0.089	0.089	0.13	5	5	NA	NA	NA	NA	5
Lead	0.11	0.24	0.23	0.23	0.23	0.078	0.078	0.078	0.18	6	6	NA	NA	NA	NA	0.0075
Manganese	J 0.00036	J 0.00078	0.0032	0.0032	0.0032	J 0.00045	J 0.00045	J 0.00045	J 0.00027	m	m	NA	NA	NA	NA	0.002
Mercury	J 0.017	J 0.02	0.04	0.04	0.04	J 0.016	J 0.016	J 0.016	J 0.014	m	m	NA	NA	NA	NA	0.1
Nickel	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	m	NA	NA	NA	NA	0.05
Selenium	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	m	NA	NA	NA	NA	0.05
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	m	NA	NA	NA	NA	0.02
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	m	NA	NA	NA	NA	0.02
Zinc	J 0.093	0.18	0.23	0.23	0.23	J 0.095	J 0.095	J 0.095	J 0.079	m	m	NA	NA	NA	NA	5
TCLP Metals (mg/L)																
Antimony	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	0.066
Barium	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	2
Beryllium	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	0.004
Boron	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	2
Cadmium	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	0.005
Chromium	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	0.1
Cobalt	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	1
Iron	ND	0.2	0.2	0.2	0.2	0.62	0.62	0.62	ND	m	m	NA	NA	NA	NA	5
Lead	ND	ND	ND	ND	ND	ND	ND	ND	ND	m	m	NA	NA	NA	NA	0.0075
Manganese	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	0.15
Mercury	NT	NT	NT	NT	NT	J 0.015	J 0.015	J 0.015	6.9	6	6	NA	NA	NA	NA	0.002
Nickel	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	0.1
Selenium	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	0.05
Silver	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	0.05
Thallium	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	0.02
Zinc	NT	NT	NT	NT	NT	NT	NT	NT	NT	m	m	NA	NA	NA	NA	5



Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as
amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: IL 38 at Fabyan Parkway Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

1500 Block of W. Roosevelt Road

City: West Chicago State: IL Zip Code: 60185

County: DuPage Township: 39N

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.87765 Longitude: -88.23495
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: _____

Zip Code: 60196-1096 Phone: _____

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: IL 38 at Fabyan Parkway
 Latitude: 41.87765 Longitude: -88.23495

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2096-5-B02 and 2096-5-B03 were sampled adjacent to ISGS site No. 2096-5. See Figure 2 and 3 and Table 3 of the revised preliminary site investigation report for sampling details.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

TestAmerica analytical report - TestAmerica job IDs: 500-59590-2 and 500-59001-1

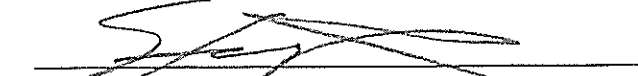
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobelman, P.E., L.P.G. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Illinois Department of Transportation, Bureau of Design and Environment
 Street Address: 2300 South Dirksen Parkway
 City: Springfield State: IL Zip Code: 62764
 Phone: (217)-785-7525

Steven Gobelman, P.E., L.P.G.
 Printed Name:


 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

10/8/13
 Date:





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as
amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: IL 38 at Fabyan Parkway Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

1300-1600 Block of W. Roosevelt Road

City: West Chicago State: IL Zip Code: 60185

County: DuPage Township: 39N

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.87643 Longitude: -88.23469

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: _____

Zip Code: 60196-1096 Phone: _____

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms

Project Name: IL 38 at Fabyan Parkway

Latitude: 41.87643 Longitude: -88.23469

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located [35 Ill. Adm. Code 1100.610(a)]:

Locations 2096-6-B02, 2096-6-B03, 2096-6-B04, 2096-6-B07, 2096-6-B11, 2096-6-B13, and 2096-6-B14 were sampled adjacent to ISGS site No. 2096-6. See Figure 2, 3, 4, and 5 and Table 3 of the revised preliminary site investigation report for sampling details.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

TestAmerica analytical report - TestAmerica job IDs: 500-59658-2 and 500-59590-3

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobelman, P.E., L.P.G. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Illinois Department of Transportation, Bureau of Design and Environment

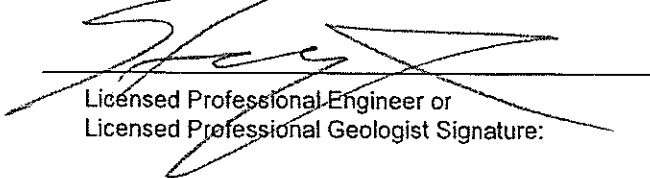
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

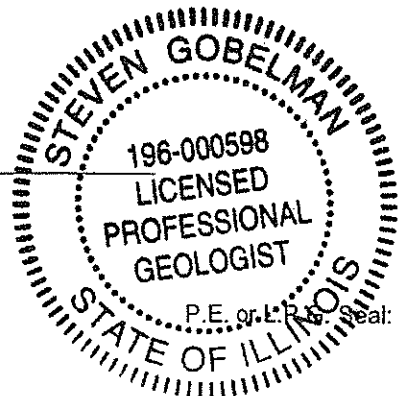
Phone: (217)-785-7525

Steven Gobelman, P.E., L.P.G.

Printed Name:


 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

10/8/13
 Date:





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: IL 38 at Fabyan Parkway Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

1491 W. Roosevelt Road

City: West Chicago State: IL Zip Code: 60185

County: DuPage Township: 39N

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.87704 Longitude: -88.23459
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: _____

Zip Code: 60196-1096 Phone: _____

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: IL 38 at Fabyan Parkway

Latitude: 41.87704 Longitude: -88.23459

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2096-7-B05 and 2096-7-B06 were sampled adjacent to ISGS site No. 2096-7. See Figure 3 and Table 3 and 4 of the revised preliminary site investigation report for sampling details.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

TestAmerica analytical report - TestAmerica job ID: 500-59001-2

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobelman, P.E., L.P.G. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

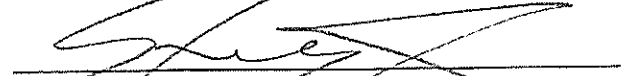
Company Name: Illinois Department of Transportation, Bureau of Design and Environment

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

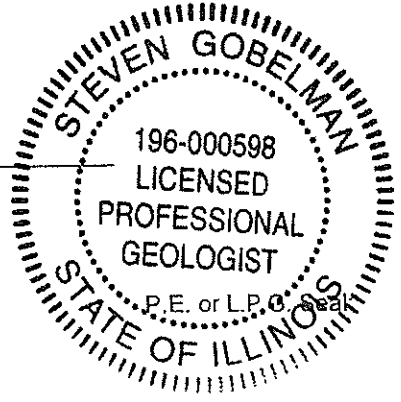
Phone: (217)-785-7525

Steven Gobelman, P.E., L.P.G.
Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:

10/8/13
Date:





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: IL 38 at Fabyan Parkway Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

1300 Block of W. Roosevelt Road

City: West Chicago State: IL Zip Code: 60185

County: DuPage Township: 39N

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.87565 Longitude: -88.23252

(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

GPS Map Interpolation Photo Interpolation Survey Other

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: Illinois Department of Transportation

Name: Illinois Department of Transportation

Street Address: 201 West Center Court

Street Address: 201 West Center Court

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: _____

Zip Code: 60196-1096 Phone: _____

Contact: Sam Mead

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Email, if available: Sam.Mead@illinois.gov

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: IL 38 at Fabyan Parkway

Latitude: 41.87565 Longitude: -88.23252

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Locations 2096-8-B04, 2096-8-B05, 2096-8-B06, and 2096-8-B07 were sampled adjacent to ISGS site No. 2096-8. See Figure 3 and 4 and Table 3 and 4 of the revised preliminary site investigation report for sampling details.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

TestAmerica analytical report - TestAmerica job ID: 500-59590-4

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobelman, P.E., L.P.G. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Illinois Department of Transportation, Bureau of Design and Environment

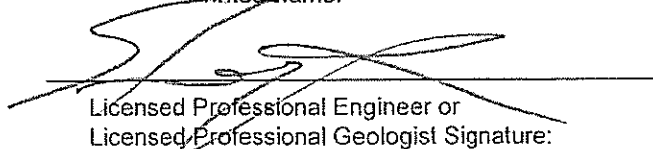
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: (217)-785-7525

Steven Gobelman, P.E., L.P.G.

Printed Name:


 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

10/8/13
 Date:





Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Fabyan Parkway Reconstruction Office Phone Number, if available: 630-293-2255

Physical Site Location (address, including number and street):

Fabyan Parkway, consisting of 1,500 ft south from the Route 38 intersection, and 1,100 ft north from the Route 38 intersection.

City: West Chicago State: IL Zip Code: 60185

County: DuPage Township: West Chicago

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.8768124 Longitude: -88.2351959
(Decimal Degrees) (-Decimal Degrees)

Identify how the lat/long data were determined:

- GPS Map Interpolation Photo Interpolation Survey Other

Google Earth

IEPA Site Number(s), if assigned: BOL: _____ BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner

Site Operator

Name: City of West Chicago

Name: City of West Chicago

Street Address: 475 Main Street

Street Address: 475 Main Street

PO Box: _____

PO Box: _____

City: West Chicago State: IL

City: West Chicago State: IL

Zip Code: 60185 Phone: 630-293-2255

Zip Code: 60185 Phone: 630-293-2255

Contact: Robert E. Flatter, P.E.

Contact: Robert E. Flatter, P.E.

Email, if available: rflatter@westchicago.org

Email, if available: rflatter@westchicago.org

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: Fabyan Parkway Reconstruction

Latitude: 41.8768124 Longitude: -88.2351959

Uncontaminated Site Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

- a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a):

Please see Attachment A for database information and a description of the soil sample locations. A Preliminary Environmental Site Assessment (PESA) and Preliminary Site Investigation (PSI) were conducted in support of this LPC-663 document.

- b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0, including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

Please see Attachment B for a description of the soil testing results. Three soil borings (SB-1, SB-2, and SB-3) were conducted with laboratory analysis for BTEX, VOCs, PNAs, lead, and soil pH. All results achieve the most stringent MAC values and soil pH results are within the acceptable range of 6.25 to 9.0.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Jeremy Reynolds, P.G. (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: Huff & Huff, Inc.

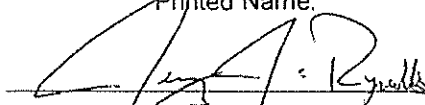
Street Address: 915 Harger Road, Suite 330

City: Oak Brook State: IL Zip Code: 60523

Phone: 630-684-9100

Jeremy Reynolds, P.G.

Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:

7/10/14

Date:



P.E. or L.P.G. Seal:

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:

DuPage County

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

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

Effective: November 2, 2006

Revised: August 1, 2013

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 preventative maintenance type surface treatments. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, or joint filling/sealing.

The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

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

- Where: CA = Cost Adjustment, \$.
- BPI_P = Bituminous Price Index, as published by the Department for the month the work is performed, \$/ton (\$/metric ton).
- BPI_L = Bituminous Price Index, as published by the Department for the month prior to the letting, \$/ton (\$/metric ton).
- %AC_V = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_V will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC_V and undiluted emulsified asphalt will be considered to be 65% AC_V.
- Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: $Q, \text{ tons} = A \times D \times (G_{mb} \times 46.8) / 2000$. For HMA mixtures measured in square meters: $Q, \text{ metric tons} = A \times D \times (G_{mb} \times 1) / 1000$. When computing adjustments for full-depth HMA pavement, separate calculations will be made for the binder and surface courses to account for their different G_{mb} and % AC_V.

For bituminous materials measured in gallons: $Q, \text{ tons} = V \times 8.33 \text{ lb/gal} \times SG / 2000$
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

CONCRETE END SECTIONS FOR PIPE CULVERTS (BDE)

Effective: January 1, 2013

Description. This work shall consist of constructing cast-in-place concrete and precast concrete end sections for pipe culverts. These end sections are shown on the plans as Highway Standard 542001, 542006, 542011, or 542016. This work shall be according to Section 542 of the Standard Specifications except as modified herein.

Materials. Materials shall be according to the following Articles of Division 1000 – Materials of the Standard Specifications.

Item	Article/Section
(a) Portland Cement Concrete (Note 1)	1020
(b) Precast Concrete End Sections (Note 2)	
(c) Coarse Aggregate (Note 3)	1004.05
(d) Structural Steel (Note 4)	1006.04
(e) Anchor Bolts and Rods (Note 5)	1006.09
(f) Reinforcement Bars	1006.10(a)
(g) Nonshrink Grout	1024.02
(h) Chemical Adhesive Resin System	1027
(i) Mastic Joint Sealer for Pipe	1055
(j) Hand Hole Plugs	1042.16

Note 1. Cast-in-place concrete end sections shall be Class SI, except the 14 day mix design shall have a compressive strength of 5000 psi (34,500 kPa) or a flexural strength of (800 psi) 5500 kPa and a minimum cement factor of 6.65 cwt/cu yd (395 kg/cu m).

Note 2. Precast concrete end sections shall be according to Articles 1042.02 and 1042.03(b)(c)(d)(e) of the Standard Specifications. The concrete shall be Class PC according to Section 1020, and shall have a minimum compressive strength of 5000 psi (34,000 kPa) at 28 days.

Joints between precast sections shall be produced with reinforced tongue and groove ends according to the requirements of ASTM C 1577.

Note 3. The granular bedding placed below a precast concrete end section shall be gradation CA 6, CA 9, CA 10, CA 12, CA 17, CA 18, or CA 19.

Note 4. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.

Note 5. The anchor rods for the culvert ties shall be according to the requirements of ASTM F 1554, Grade 105 (Grade 725).

CONSTRUCTION REQUIREMENTS

The concrete end sections may be precast or cast-in-place construction. Toe walls shall be either precast or cast-in-place, and shall be in proper position and backfilled according to the applicable paragraphs of Article 502.10 of the Standard Specifications prior to the installation of the concrete end sections. If soil conditions permit, cast-in-place toe walls may be poured directly against the soil. When poured directly against the soil, the clear cover of the sides and bottom of the toe wall shall be increased to 3 in. (75 mm) by increasing the thickness of the toe wall.

- (a) Cast-In-Place Concrete End Sections. Cast-in-place concrete end sections shall be constructed according to the requirements of Section 503 of the Standard Specifications and as shown on the plans.
- (b) Precast Concrete End Sections. When the concrete end sections will be precast, shop drawings detailing the slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval.

The excavation and backfilling for precast concrete end sections shall be according to the requirements of Section 502 of the Standard Specifications, except a layer of granular bedding at least 6 in. (150 mm) in thickness shall be placed below the elevation of the bottom of the end section. The granular bedding shall extend a minimum of 2 ft (600 mm) beyond each side of the end section.

Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 2/3 turn on one of the nuts. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut.

Method of Measurement. This work will be measured for payment as each, with each end of each culvert being one each.

Basis of Payment. This work will be paid for at the contract unit price per each for CONCRETE END SECTION, STANDARD 542001; CONCRETE END SECTION, STANDARD 542006; CONCRETE END SECTION, 542011; or CONCRETE END SECTION, 542016, of the pipe diameter and slope specified.

80311

CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH (BDE)

Effective: April 1, 2014

| Revised: August 1, 2014

Add the following to Article 606.02 of the Standard Specifications:

“(i) Polyurethane Joint Sealant1050.04”

Revise the fifth paragraph of Article 606.07 of the Standard Specifications to read:

“Transverse contraction and longitudinal construction joints shall be sealed according to Article 420.12, except transverse joints in concrete curb and gutter shall be sealed with polysulfide or polyurethane joint sealant.”

Add the following to Section 1050 of the Standard Specifications:

| **“1050.04 Polyurethane Joint Sealant.** The joint sealant shall be a polyurethane sealant, Type S, Grade NS, Class 25 or better, Use T (T₁ or T₂), according to ASTM C 920.”

80334

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010

Revised: November 1, 2014

The reduction of emissions of particulate matter (PM) for off-road equipment shall be accomplished by installing retrofit emission control devices. The term "equipment" refers to diesel fuel powered devices rated at 50 hp and above, to be used on the jobsite in excess of seven calendar days over the course of the construction period on the jobsite (including rental equipment).

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted using the phased in approach shown below. Equipment that is of a model year older than the year given for that equipment's respective horsepower range shall be retrofitted:

Effective Dates	Horsepower Range	Model Year
June 1, 2010 ^{1/}	600-749	2002
	750 and up	2006
June 1, 2011 ^{2/}	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006
June 1, 2012 ^{2/}	50-99	2004
	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006

1/ Effective dates apply to Contractor diesel powered off-road equipment assigned to the contract.

2/ Effective dates apply to Contractor and subcontractor diesel powered off-road equipment assigned to the contract.

The retrofit emission control devices shall achieve a minimum PM emission reduction of 50 percent and shall be:

- a) Included on the U.S. Environmental Protection Agency (USEPA) *Verified Retrofit Technology List* (<http://www.epa.gov/cleandiesel/verification/verif-list.htm>), or verified by the California Air Resources Board (CARB) (<http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>); or
- b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit

device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

Diesel Retrofit Deficiency Deduction

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected.

Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

80261

CONTRACT CLAIMS (BDE)

Effective: April 1, 2014

Revise the first paragraph of Article 109.09(a) of the Standard Specifications to read:

“(a) Submission of Claim. All claims filed by the Contractor shall be in writing and in sufficient detail to enable the Department to ascertain the basis and amount of the claim. As a minimum, the following information must accompany each claim submitted.”

Revise Article 109.09(e) of the Standard Specifications to read:

“(e) Procedure. The Department provides two administrative levels for claims review.

Level I Engineer of Construction

Level II Chief Engineer/Director of Highways or Designee

- (1) Level I. All claims shall first be submitted at Level I. Two copies each of the claim and supporting documentation shall be submitted simultaneously to the District and the Engineer of Construction. The Engineer of Construction, in consultation with the District, will consider all information submitted with the claim and render a decision on the claim within 90 days after receipt by the Engineer of Construction. Claims not conforming to this Article will be returned without consideration. The Engineer of Construction may schedule a claim presentation meeting if in the Engineer of Construction’s judgment such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. If a Level I decision is not rendered within 90 days of receipt of the claim, or if the Contractor disputes the decision, an appeal to Level II may be made by the Contractor.
- (2) Level II. An appeal to Level II shall be made in writing to the Engineer of Construction within 45 days after the date of the Level I decision. Review of the claim at Level II shall be conducted as a full evaluation of the claim. A claim presentation meeting may be scheduled if the Chief Engineer/Director of Highways determines that such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. A Level II final decision will be rendered within 90 days of receipt of the written request for appeal.

Full compliance by the Contractor with the provisions specified in this Article is a contractual condition precedent to the Contractor’s right to seek relief in the Court of Claims. The Director’s written decision shall be the final administrative action of the Department. Unless the Contractor files a claim for adjudication by the Court of Claims within 60 days after the date of the written decision, the failure to file shall constitute a release and waiver of the claim.”

80335

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: January 2, 2015

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor.

The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (a) Withholding progress payments;
- (b) Assessing sanctions;
- (c) Liquidated damages; and/or
- (d) Disqualifying the Contractor from future bidding as non-responsible.

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. The 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 24.00 % of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

- (a) The bidder documents that enough DBE participation has been obtained to meet the goal or,
- (b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders shall 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 website at www.dot.il.gov.

BIDDING PROCEDURES. Compliance with this Special Provision is a material bidding requirement. The failure of the bidder to comply will render the bid not responsive.

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.
- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.

- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:
- (1) The names and addresses of DBE firms that will participate in the contract;
 - (2) A description, including pay item numbers, of the work each DBE will perform;
 - (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
 - (4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
 - (5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
 - (6) If the contract goal is not met, evidence of good faith efforts; the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor is selected over a DBE for work on the contract.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document that good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work performance to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not document sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of

efforts that the bidder has made. Mere *pro forma* efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

(a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.

(1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up 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. In accordance with Section 6 of the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
 - (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
 - (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
 - (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons for the determination.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217) 785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. 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 documentation and 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 consideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR Part 26.55, the provisions of which govern over the summary contained herein.

- (a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:
 - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.

- (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission is receives as a result of the lease arrangement.

(e) DBE as a material supplier:

- (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
- (2) 100 percent goal credit for the cost of materials of supplies obtained from a DBE manufacturer.
- (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement.

- (a) NO AMENDMENT. 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) CHANGES TO WORK. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, than a new Request for Approval of Subcontractor shall not be

required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

- (c) SUBCONTRACT. The Contractor must provide DBE subcontracts to IDOT upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.
- (d) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
- (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
 - (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
 - (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.
- (e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in this Special Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a). Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE listed in the Utilization Plan.

As stated above, the Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of

Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor, with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the prime Contractor's reasonable, nondiscriminatory bond requirements;
- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1,200 or applicable state law.
- (6) You have determined that the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;
- (10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime

Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated, or fails to complete its work on the Contract for any reason the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional seven days if necessary at the request of the Contractor. The Department shall provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

- (f) PAYMENT RECORDS. The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) ENFORCEMENT. 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.
- (h) RECONSIDERATION. 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.

80029

HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)

Effective: January 1, 2010

Revised: April 1, 2012

Description. This work shall consist of testing the density of longitudinal joints as part of the quality control/quality assurance (QC/QA) of hot-mix asphalt (HMA). Work shall be according to Section 1030 of the Standard Specifications except as follows.

Quality Control/Quality Assurance (QC/QA). Delete the second and third sentence of the third paragraph of Article 1030.05(d)(3) of the Standard Specifications.

Add the following paragraphs to the end of Article 1030.05(d)(3) of the Standard Specifications:

“Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 4 in. (100 mm), from each pavement edge. (i.e. for a 5 in. (125 mm) lift the near edge of the density gauge or core barrel shall be within 5 in. (125 mm) from the edge of pavement.) Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

- a. Confined Edge. Each confined edge density shall be represented by a one-minute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.
- b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced ten feet apart longitudinally along the unconfined pavement edge and centered at the random density test location.”

Revise the Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

“Mixture Composition	Parameter	Individual Test (includes confined edges)	Unconfined Edge Joint Density Minimum
IL-4.75	Ndesign = 50	93.0 – 97.4%	91.0%
IL-9.5, IL-12.5	Ndesign ≥ 90	92.0 – 96.0%	90.0%
IL-9.5, IL-9.5L, IL-12.5	Ndesign < 90	92.5 – 97.4%	90.0%
IL-19.0, IL-25.0	Ndesign ≥ 90	93.0 – 96.0%	90.0%
IL-19.0, IL-19.0L, IL-25.0	Ndesign < 90	93.0 – 97.4%	90.0%

SMA	Ndesign = 50 & 80	93.5 – 97.4%	91.0%
All Other	Ndesign = 30	93.0 - 97.4%	90.0%”

80246

LRFD PIPE CULVERT BURIAL TABLES (BDE)

Effective: November 1, 2013

Revised: November 1, 2014

Revise Article 542.02 of the Standard Specifications to read as follows:

"Item	Article/Section
(a) Galvanized Corrugated Steel Pipe	1006.01
(b) Galvanized Corrugated Steel Pipe Arch	1006.01
(c) Bituminous Coated Corrugated Steel Pipe	1006.01
(d) Bituminous Coated Corrugated Steel Pipe Arch	1006.01
(e) Reserved	
(f) Aluminized Steel Type 2 Corrugated Pipe	1006.01
(g) Aluminized Steel Type 2 Corrugated Pipe Arch	1006.01
(h) Precoated Galvanized Corrugated Steel Pipe	1006.01
(i) Precoated Galvanized Corrugated Steel Pipe Arch	1006.01
(j) Corrugated Aluminum Alloy Pipe	1006.03
(k) Corrugated Aluminum Alloy Pipe Arch	1006.03
(l) Extra Strength Clay Pipe	1040.02
(m) Concrete Sewer, Storm Drain, and Culvert Pipe	1042
(n) Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe	1042
(o) Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe.....	1042
(p) Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe	1042
(q) Polyvinyl Chloride (PVC) Pipe	1040.03
(r) Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior	1040.03
(s) Corrugated Polypropylene (CPP) pipe with smooth Interior	1040.07
(t) Corrugated Polyethylene (PE) Pipe with a Smooth Interior	1040.04
(u) Polyethylene (PE) Pipe with a Smooth Interior	1040.04
(v) Rubber Gaskets and Preformed Flexible Joint Sealants for Concrete Pipe	1056
(w) Mastic Joint Sealer for Pipe	1055
(x) External Sealing Band	1057
(y) Fine Aggregate (Note 1)	1003.04
(z) Coarse Aggregate (Note 2)	1004.05
(aa) Packaged Rapid Hardening Mortar or Concrete	1018
(bb) Nonshrink Grout	1024.02
(cc) Reinforcement Bars and Welded Wire Fabric	1006.10
(dd) Handling Hole Plugs	1042.16

Note 1. The fine aggregate shall be moist.

Note 2. The coarse aggregate shall be wet."

Revise the table for permitted materials in Article 542.03 of the Standard Specifications as follows:

"Class	Materials
A	Rigid Pipes: Extra Strength Clay Pipe Concrete Sewer Storm Drain and Culvert Pipe, Class 3 Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
C	Rigid Pipes: Extra Strength Clay Pipe Concrete Sewer Storm Drain and Culvert Pipe, Class 3 Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe Flexible Pipes: Aluminized Steel Type 2 Corrugated Pipe Aluminized Steel Type 2 Corrugated Pipe Arch Precoated Galvanized Corrugated Steel Pipe Precoated Galvanized Corrugated Steel Pipe Arch Corrugated Aluminum Alloy Pipe Corrugated Aluminum Alloy Pipe Arch Polyvinyl Chloride (PVC) Pipe Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior Polyethylene (PE) Pipe with a Smooth Interior Corrugated Polypropylene (CPP) Pipe with Smooth Interior
D	Rigid Pipes: Extra Strength Clay Pipe Concrete Sewer Storm Drain and Culvert Pipe, Class 3 Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe Flexible Pipes: Galvanized Corrugated Steel Pipe Galvanized Corrugated Steel Pipe Arch Bituminous Coated Corrugated Steel Pipe Bituminous Coated Corrugated Steel Pipe Arch Aluminized Steel Type 2 Corrugated Pipe Aluminized Steel Type 2 Corrugated Pipe Arch Precoated Galvanized Corrugated Steel Pipe Precoated Galvanized Corrugated Steel Pipe Arch Corrugated Aluminum Alloy Pipe Corrugated Aluminum Alloy Pipe Arch Polyvinyl Chloride (PVC) Pipe Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior Corrugated Polyethylene (PE) Pipe with a Smooth Interior Polyethylene (PE) Pipe with a Smooth Interior" Corrugated Polypropylene (CPP) Pipe with Smooth Interior

Revise Articles 542.03(b) and (c) of the Standard Specifications to read:

"(b) Extra strength clay pipe will only be permitted for pipe culverts Type 1, for 10 in., 12 in., 42 in. and 48 in. (250 mm, 300 mm, 1050 mm and 1200 mm), Types 2, up to and including 48 in. (1200 mm), Type 3, up to and including 18 in. (450 mm), Type 4 up to and including 10 in. (250 mm), for all pipe classes.

(c) Concrete sewer, storm drain, and culvert pipe Class 3 will only be permitted for pipe culverts Type 1, up to and including 10 in (250 mm), Type 2, up to and including 30 in. (750 mm), Type 3, up to and including 15 in. (375 mm); Type 4, up to and including 10 in. (250 mm), for all pipe classes."

Replace the pipe tables in Article 542.03 of the Standard Specifications with the following:

"Table IA: Classes of Reinforced Concrete Pipe for the Respective Diameters of Pipe and Fill Heights over the Top of the Pipe							
Nominal Diameter in.	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7
	Fill Height: 3' and less 1' min cover	Fill Height: Greater than 3' not exceeding 10'	Fill Height: Greater than 10' not exceeding 15'	Fill Height: Greater than 15' not exceeding 20'	Fill Height: Greater than 20' not exceeding 25'	Fill Height: Greater than 25' not exceeding 30'	Fill Height: Greater than 30' not exceeding 35'
12	IV	II	III	IV	IV	V	V
15	IV	II	III	IV	IV	V	V
18	IV	II	III	IV	IV	V	V
21	III	II	III	IV	IV	V	V
24	III	II	III	IV	IV	V	V
30	IV	II	III	IV	IV	V	V
36	III	II	III	IV	IV	V	V
42	II	II	III	IV	IV	V	V
48	II	II	III	IV	IV	V	V
54	II	II	III	IV	IV	V	V
60	II	II	III	IV	IV	V	V
66	II	II	III	IV	IV	V	V
72	II	II	III	IV	IV	V	V
78	II	II	III	IV	IV	V	V
84	II	II	III	IV	IV	V	V
90	II	II	III	IV	V	V	V
96	III	III	III	IV	2020	2370	2730
102	III	III	III	IV	2020	2380	2740
108	III	III	1360	1680	2030	2390	2750
				1690	2040	2400	2750
				1700	2050	2410	2760
				1710	2060	2410	2770

Notes:
A number indicates the D-Load for the diameter and depth of fill and that a special design is required.
Design assumptions; Water filled pipe, Type 2 bedding and Class C Walls

Table IA: Classes of Reinforced Concrete Pipe for the Respective Diameters of Pipe and Fill Heights over the Top of the Pipe (Metric)							
Nominal Diameter mm	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7
	Fill Height: 1 m and less 0.3 m min cover	Fill Height: Greater than 1 m not exceeding 3 m	Fill Height: Greater than 3 m not exceeding 4.5 m	Fill Height: Greater than 4.5 m not exceeding 6 m	Fill Height: Greater than 6 m not exceeding 7.5 m	Fill Height: Greater than 7.5 m not exceeding 9 m	Fill Height: Greater than 9 m not exceeding 10.5 m
300	IV	II	III	IV	IV	V	V
375	IV	II	III	IV	IV	V	V
450	IV	II	III	IV	IV	V	V
525	III	II	III	IV	IV	V	V
600	III	II	III	IV	IV	V	V
750	IV	II	III	IV	IV	V	V
900	III	II	III	IV	IV	V	V
1050	II	II	III	IV	IV	V	V
1200	II	II	III	IV	IV	V	V
1350	II	II	III	IV	IV	V	V
1500	II	II	III	IV	IV	V	V
1650	II	II	III	IV	IV	V	V
1800	II	II	III	IV	V	V	V
1950	II	II	III	IV	100	110	130
2100	II	II	III	IV	100	110	130
2250	II	II	III	80	100	110	130
2400	II	III	III	80	100	110	130
2550	II	III	III	80	100	120	130
2700	II	III	70	80	100	120	130

Notes:

A number indicates the D-Load for the diameter and depth of fill and that a special design is required.
Design assumptions: Water filled pipe, Type 2 bedding and Class C Walls

Nominal Diameter	Type 1		Type 2		Type 3		Type 4		Type 5		Type 6		Type 7	
	Fill Height:		Fill Height:		Fill Height:		Fill Height:		Fill Height:		Fill Height:		Fill Height:	
	3'x1"	5'x1"	2 2/3' x 1/2"	3'x1"	5'x1"	2 2/3' x 1/2"	3'x1"	5'x1"	2 2/3' x 1/2"	3'x1"	5'x1"	2 2/3' x 1/2"	3'x1"	5'x1"
12	0.064		0.064			0.064			0.064			0.064		
15	0.064		0.064			0.064			0.064			0.064		
18	(0.079)		0.064			0.064			0.064			(0.079)		
21	(0.079)		0.064			0.064			(0.079)			(0.079)		
24	(0.079)		0.064			0.064			(0.079)			(0.079)		
30	(0.109E)		0.064			0.064			(0.079)			(0.109)		
36	(0.109E)		0.064			(0.079)			(0.109)			(0.109)		
42	0.079		0.064			(0.079)			(0.109)			(0.109E)		
48	0.109	0.109	(0.109)	0.079	0.079	(0.109)	0.079	0.109	(0.109)	0.109	0.109	(0.138E)	0.109	0.109
54	0.109	0.109	(0.109)	0.079	0.079	0.109	(0.109)	0.109	(0.109)	0.109	0.109	(0.138E)	0.109	0.138
60	0.109	0.109	0.109	(0.109)	(0.109)	0.109	(0.109)	0.109	(0.138)	0.109	(0.138)	0.138E	0.138	(0.138E)
66	(0.138)	0.109	0.109	(0.109)	(0.109)	0.109	(0.109)	0.109	0.109	0.109	0.138	0.138E	0.138	0.138E
72	0.138	0.109	0.138	(0.109)	(0.109)	0.138	(0.109)	0.109	0.138	0.138	(0.138)	0.168E	0.138E	0.138E
78	0.168	0.109	0.168	(0.109)	0.109	0.168	(0.109)	0.109	0.168	0.168	(0.138)	HO.168E	0.138E	0.168E
84	0.168	0.138	0.168	(0.109)	0.109	0.168	(0.109)	0.109	0.168	0.168	(0.138)	HO.168E	0.168E	0.168E
90		0.138		(0.109)	0.109		0.109	0.109		0.138	0.138			0.168E
96		0.138		(0.109)	0.109		0.109	0.109		0.138	0.138			0.168E
102	0.109Z	0.109Z		(0.109)	0.109		0.109	0.109		0.138	0.138			HO.138E
108	0.109Z	0.138Z		0.109	0.109		0.109	0.109		0.138	0.138			HO.138E
114		0.109Z		0.109	0.109		0.109	0.138		0.168	0.168			HO.138E
120		0.109Z		0.109	0.109		0.138	0.138		0.168	0.168			HO.168E
126		0.138Z		0.138	0.138		0.138	0.138		0.168	0.168			HO.168E
132		0.138Z		0.138	0.138		0.138	0.168		0.168	0.168			HO.168E
138		0.138Z		0.138	0.138		0.138	0.168		0.168	0.168			HO.168E
144		0.168Z		0.168	0.168		0.168	0.168		0.168	0.168			HO.168E

Notes:
 * Aluminum Type 2 Steel or Precoated Galvanized Steel shall be required for diameters up to 42" according to Article 1006.01, 1 1/2" x 1/4" corrugations shall be used for diameters less than 12".
 Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized.
 A thickness preceded by "H" indicates only helical seam fabrication is allowed.
 E Elongation according to Article 542.04(e)
 Z 1'-6" Minimum fill

TABLE IB: THICKNESS OF CORRUGATED STEEL PIPE
FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE FOR 68 mm x 13 mm, 75 mm x 25 mm AND 125 mm x 25 mm CORRUGATIONS
(Metric)

Nominal Diameter	Type 1		Type 2		Type 3		Type 4		Type 5		Type 6		Type 7			
	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:	Fill Height:		
300	1 m and less 0.3 m min. cover	Greater than 1 m not exceeding 3 m	Greater than 3 m not exceeding 4.5 m	Greater than 4.5 m not exceeding 6 m	Greater than 6 m not exceeding 7.5 m	Greater than 7.5 m not exceeding 9 m	Greater than 9 m not exceeding 10.5 m	68 x 13	75 x 25	125 x 25	68 x 13	75 x 25	125 x 25	68 x 13	75 x 25	125 x 25
375	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
450	(2.01)	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
525	(2.01)	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
600	(2.01)	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
750	(2.77E)	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
900	(2.77E)	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
1050	2.01	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
1200	2.77	(2.77)	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01
1350	2.77	(2.77)	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01
1500	2.77	2.77	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01
1650	(3.51)	2.77	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01
1800	3.51	2.77	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01
1950	4.27	2.77	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01
2100	4.27	(3.51)	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77
2250	(3.51)	(3.51)	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77
2400	(3.51)	(3.51)	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77
2550	2.77Z	2.77Z	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77
2700	2.77Z	(3.51Z)	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77
2850	2.77Z	(3.51Z)	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77
3000	2.77Z	(3.51Z)	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77	2.77
3150	3.51Z	3.51Z	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51
3300	3.51Z	3.51Z	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51
3450	3.51Z	3.51Z	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51
3600	4.27Z	4.27Z	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27	4.27

Notes:
 * Aluminized Type 2 Steel or Precoated Galvanized Steel shall be required for diameters up to 1050 mm according to Article 1006.01, 38 mm x 6.5 mm corrugations shall be used for diameters less than 300 mm.
 Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized.
 A thickness preceded by an "H" indicates only helical seam fabrication is allowed.
 E Elongation according to Article 542.04(e)
 Z 450 mm Minimum Fill

Nominal Diameter	Type 1		Type 2		Type 3		Type 4		Type 5		Type 6		Type 7							
	Fill Height: 3' and less 1' min. cover	3"x1"	Fill Height: Greater than 3' not exceeding 10'	2 2/3"x1/2"	3"x1"	Fill Height: Greater than 10' not exceeding 15'	2 2/3"x1/2"	3"x1"	Fill Height: Greater than 15' not exceeding 20'	2 2/3"x1/2"	3"x1"	Fill Height: Greater than 20' not exceeding 25'	2 2/3"x1/2"	3"x1"	Fill Height: Greater than 25' not exceeding 30'	2 2/3"x1/2"	3"x1"	Fill Height: Greater than 30' not exceeding 35'	2 2/3"x1/2"	3"x1"
12	(0.075)		0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060
15	(0.075)		0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060
18	(0.075)		0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060
21	H 0.060E		0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060
24	(0.105E)		0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060
30	H 0.075E	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060
36	(0.135E)	H 0.060E	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060	0.075	H 0.060
42	0.105E	(0.075)	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060
48	0.105E	(0.075)	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060
54	0.105E	(0.105)	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060	0.105	0.060
60	0.135E	(0.105)	0.135	0.060	0.135	0.060	0.135	0.060	0.135	0.060	0.135	0.060	0.135	0.060	0.135	0.060	0.135	0.060	0.135	0.060
66	0.164E	(0.105)	0.164	0.060	0.164	0.060	0.164	0.060	0.164	0.060	0.164	0.060	0.164	0.060	0.164	0.060	0.164	0.060	0.164	0.060
72	0.164E	(0.105)	0.164	0.060	0.164	0.060	0.164	0.060	0.164	0.060	0.164	0.060	0.164	0.060	0.164	0.060	0.164	0.060	0.164	0.060
78		(0.135)	0.075	0.075	0.105	0.105	0.075	0.105	0.075	0.105	0.075	0.105	0.075	0.105	0.075	0.105	0.075	0.105	0.075	0.105
84		(0.135)	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105
90		(0.135)	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105
96		(0.135)	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105	0.105
102		0.135Z	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135
108		0.135Z	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135	0.135
114		0.164Z	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164
120		0.164Z	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164	0.164

Notes:
 Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized.
 A thickness preceded by an "H" indicates only helical seam fabrication is allowed.
 E Elongation according to Article 542.04(e), the elongation requirement for Type 1 fill heights may be eliminated for fills above 1'-6"
 Z 1"-6" Minimum fill

**TABLE IC: THICKNESS OF CORRUGATED ALUMINUM ALLOY PIPE
FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE
FOR 68 mm x 13 mm AND 75 mm x 25 mm CORRUGATIONS
(Metric)**

Nominal Diameter	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7
	Fill Height: 1 m and less 0.3 m min. cover	Fill Height: Greater than 1 m not exceeding 3 m	Fill Height: Greater than 3 m not exceeding 4.5 m	Fill Height: Greater than 4.5 m not exceeding 6 m	Fill Height: Greater than 6 m not exceeding 7.5 m	Fill Height: Greater than 7.5 m not exceeding 9 m	Fill Height: Greater than 9 m not exceeding 10.5 m
68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm	68 x 13 mm	75 x 25 mm
300	1.52	1.52	1.52	1.52	1.52	1.52	1.52
375	(1.91)	1.52	1.52	1.52	1.52	1.52	(1.91)
450	(1.91)	1.52	1.52	1.52	1.52	(1.91)	H 1.52
525	H 1.52E	1.52	1.52	1.52	(1.91)	H 1.52	H 1.52E
600	(2.67E)	1.52	1.52	(1.91)	(2.67)	(2.67)	(2.67E)
750	H 1.91E	1.91	H 1.52	H 1.52	(2.67)	H 1.91E	H 1.91E
900	(3.43E)	1.91	H 1.52	H 1.52	(2.67)	H 1.52	H 1.52E
1050	2.67E	2.67	1.52	1.52	2.67	2.67E	2.67E
1200	2.67E	2.67	1.52	1.52	2.67	2.67E	2.67E
1350	2.67E	2.67	1.52	1.52	2.67	2.67E	(3.43E)
1500	3.43E	3.43	1.52	1.52	3.43	3.43E	(3.43E)
1650	4.17E	4.17	1.52	1.52	4.17	4.17E	(3.43E)
1800	4.17E	4.17	1.52	1.52	4.17	4.17E	(4.17E)
1950	(3.43)	1.91	(2.67)	(2.67)	(3.43)	(3.43E)	(4.17E)
2100	(3.43)	2.67	2.67	(3.43)	(3.43)	(4.17E)	(4.17E)
2250	(3.43)	2.67	2.67	(3.43)	(3.43)	(4.17E)	(4.17E)
2400	(3.43)	2.67	2.67	(3.43)	(3.43)	(4.17E)	H 3.43E
2550	3.43Z	3.43	3.43	3.43	(4.17)	(4.17E)	H 3.43E
2700	3.43Z	3.43	3.43	3.43	(4.17)	(4.17E)	H 4.17E
2850	4.17Z	4.17	4.17	4.17	4.17	H 4.17E	H 4.17E
3000	4.17Z	4.17	4.17	4.17	4.17	H 4.17E	H 4.17E

Notes:
 Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized.
 A thickness preceded by an "H" indicates only helical seam fabrication is allowed.
 E Elongation according to Article 542.04(e), the elongation requirement for Type 1 fill heights may be eliminated for fills above 450 mm.
 Z 450 mm Minimum fill

Table IIA: THICKNESS FOR CORRUGATED STEEL PIPE ARCHES AND CORRUGATED ALUMINUM ALLOY PIPE ARCHES FOR THE RESPECTIVE EQUIVALENT ROUND SIZE OF PIPE AND FILL HEIGHTS OVER THE TOP OF PIPE																		
Equivalent Round Size	Corrugated Steel & Aluminum Pipe Arch 2 2/3" x 1/2"			Corrugated Steel & Aluminum Pipe Arch 3" x 1"			Corrugated Steel Pipe Arch 5" x 1"			Min. Cover								
	Span (in.)	Rise (in.)	(in.)	Span (in.)	Rise (in.)	(in.)	Span (in.)	Rise (in.)	(in.)	Type 1 Fill Height: 3' and less								
										Steel		Aluminum		Steel		Aluminum		
2 2/3" x 1/2"		3" x 1"		5" x 1"		2 2/3" x 1/2"		3" x 1"		5" x 1"		2 2/3" x 1/2"		3" x 1"				
Type 2 Fill Height: Greater than 3' not exceeding 10'													Type 3 Fill Height: Greater than 10' not exceeding 15'					
15	17	13																
18	21	15																
21	24	18																
24	28	20																
30	35	24																
36	42	29																
42	49	33																
48	57	38																
54	64	43																
60	71	47																
66	77	52																
72	83	57																
78																		
84																		
90																		
96																		
102																		
108																		
114																		
120																		

Notes:
 * Aluminized Type 2 Steel or Precoated Galvanized Steel shall be required for steel spans up to 42' according to Article 1006.01.
 Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized.
 The Type 1 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 3 tons per square foot.
 The Type 2 and 3 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 2 tons per square foot.
 This minimum bearing capacity will be determined by the Engineer in the field.

Table IIA: THICKNESS FOR CORRUGATED STEEL PIPE ARCHES AND CORRUGATED ALUMINUM ALLOY PIPE ARCHES FOR THE RESPECTIVE EQUIVALENT ROUND SIZE OF PIPE AND FILL HEIGHTS OVER THE TOP OF PIPE (Metric)														
Equivalent Round Size (mm)	Corrugated Steel & Aluminum Pipe Arch 68 x 13 mm			Corrugated Steel & Aluminum Pipe Arch 75 x 25 mm			Corrugated Steel Pipe Arch 125 x 25 mm			Min. Cover				
	Span Rise (mm)*			Span Rise (mm)			Span Rise (mm)			Steel & Aluminum				
	Span (mm)	Rise (mm)	Span Rise (mm)	Span (mm)	Rise (mm)	Span Rise (mm)	Span (mm)	Rise (mm)	Span Rise (mm)	Steel	Aluminum	Steel & Aluminum		
Type 1 Fill Height: 1 m and less														
			Steel			Aluminum			Type 2 Fill Height: Greater than 1 m not exceeding 3 m					
			68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm
Type 3 Fill Height: Greater than 3 m not exceeding 4.5 m														
			68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm	68 x 13 mm	75 x 25 mm	125 x 25 mm
375	430	330	1.63			1.52			1.63			1.63		
450	530	380	1.63			1.52			1.63			1.63		
525	610	460	1.63			(1.91)			1.63			1.63		
600	710	510	(2.01)			(2.67)			1.63			(2.01)		
750	870	630	(2.01)			(2.67)			1.63			(2.01)		
900	1060	740	(2.01)			2.67			1.63			2.67		
1050	1240	840	2.77			2.67			(2.77)			2.67		
1200	1440	970	2.77	1340	1050	3.43	1.52		2.77	2.01		2.77	2.01	
1350	1620	1100	2.77	1520	1170	4.17	(1.91)		2.77	2.01		2.77	2.01	
1500	1800	1200	3.51	1670	1300	4.17	(1.91)		3.51	2.01		3.51	2.01	
1650	1950	1320	4.27	1850	1400	4.27	1.91		4.27	2.01		4.27	2.01	
1800	2100	1450	4.27	2050	1500	4.27	2.67		4.27	2.01		4.27	2.01	
1950				2200	1620	2.77	2.67			(2.77)			(2.77)	
2100				2400	1720	2.77	2.67			(2.77)			(2.77)	
2250				2600	1820	2.77	3.43			(2.77)			(2.77)	
2400				2840	1920	(3.51)	4.17			2.77			2.77	(3.51)
2550				2970	2020	(3.51)	4.17			2.77			2.77	(3.51)
2700				3240	2120	3.51				3.51			3.51	
2850				3470	2220	3.51				3.51			3.51	
3000				3600	2320	4.27				4.27			4.27	

Notes:
 * Aluminumized Type 2 Steel or Precoated Galvanized Steel shall be required for steel spans up to 1060 mm according to Article 1006.01.
 Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized.
 The Type 1 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 290 kN per square meter.
 The Type 2 and 3 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 192 kN per square meter.
 This minimum bearing capacity will be determined by the Engineer in the field.

Table IIB: CLASSES OF REINFORCED CONCRETE ELLIPTICAL AND REINFORCED CONCRETE ARCH PIPE FOR THE RESPECTIVE EQUIVALENT ROUND SIZE OF PIPE AND FILL HEIGHTS OVER THE TOP OF PIPE											
Equivalent Round Size (in.)	Reinforced Concrete Elliptical pipe (in.)		Reinforced Concrete Arch pipe (in.)		Minimum Cover	Type 1		Type 2		Type 3	
	Span	Rise	Span	Rise		HE	Arch	HE	Arch	HE	Arch
15	23	14	18	11	RCCP HE & A	HE	Arch	HE	Arch	HE	Arch
18	23	14	22	13 1/2	1'-0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
21	30	19	26	15 1/2	1'-0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
24	30	19	28 1/2	18	1'-0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
27	34	22	36 1/4	22 1/2	1'-0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
30	38	24	36 1/4	22 1/2	1'-0"	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
36	45	29	43 3/4	26 5/8	1'-0"	HE-II	A-II	HE-III	A-III	HE-IV	A-IV
42	53	34	51 1/8	31 5/16	1'-0"	HE-I	A-II	HE-III	A-III	HE-IV	A-IV
48	60	38	58 1/2	36	1'-0"	HE-I	A-II	HE-III	A-III	1460	1450
54	68	43	65	40	1'-0"	HE-I	A-II	HE-III	A-III	1460	1460
60	76	48	73	45	1'-0"	HE-I	A-II	HE-III	A-III	1460	1470
66	83	53	88	54	1'-0"	HE-I	A-II	HE-III	A-III	1470	1480
72	91	58	88	54	1'-0"	HE-I	A-II	HE-III	A-III	1470	1480

Notes:

A number indicates the D-Load for the diameter and depth of fill and that a special design is required.
 Design assumptions: Water filled pipe, AASHTO Type 2 installation per AASHTO LRFD Table 12.10.2.1-1

Table IIB: CLASSES OF REINFORCED CONCRETE ELLIPTICAL AND REINFORCED CONCRETE ARCH PIPE FOR THE RESPECTIVE EQUIVALENT ROUND SIZE OF PIPE AND FILL HEIGHTS OVER THE TOP OF PIPE (Metric)

Equivalent Round Size (mm)	Reinforced Concrete Elliptical pipe (mm)		Reinforced Concrete Arch pipe (mm)		Minimum Cover	Type 1		Type 2		Type 3	
	Span	Rise	Span	Rise		Fill Height: 1 m and less		Fill Height: Greater than 1 m not exceeding 3 m		Fill Height: Greater than 3 m not exceeding 4.5 m	
						HE	Arch	HE	Arch	HE	Arch
375	584	356	457	279	RCCP	HE	Arch	HE	Arch	HE	Arch
450	584	356	559	343	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
525	762	483	660	394	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
600	762	483	724	457	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
686	864	559	921	572	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
750	965	610	921	572	0.3 m	HE-III	A-III	HE-III	A-III	HE-IV	A-IV
900	1143	737	1111	676	0.3 m	HE-II	A-II	HE-III	A-III	HE-IV	A-IV
1050	1346	864	1299	795	0.3 m	HE-I	A-I	HE-III	A-III	HE-IV	A-IV
1200	1524	965	1486	914	0.3 m	HE-I	A-I	HE-III	A-III	70	70
1350	1727	1092	1651	1016	0.3 m	HE-I	A-I	HE-III	A-III	70	70
1500	1930	1219	1854	1143	0.3 m	HE-I	A-I	HE-III	A-III	70	70
1676	2108	1346	2235	1372	0.3 m	HE-I	A-I	HE-III	A-III	70	70
1800	2311	1473	2235	1372	0.3 m	HE-I	A-I	HE-III	A-III	70	70

Notes:

A number indicates the D-Load for the diameter and depth of fill and that a special design is required.
Design assumptions; Water filled pipe, AASHTO Type 2 installation per AASHTO LRFD Table 12.10.2.1-1

TABLE IIIA: PLASTIC PIPE PERMITTED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE																			
Nominal Diameter (in.)	Type 1 Fill Height: 3' and less, with 1' min					Type 2 Fill Height: Greater than 3', not exceeding 10'					Type 3 Fill Height: Greater than 10', not exceeding 15'					Type 4 Fill Height: Greater than 15', not exceeding 20'			
	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPE	CPP	PVC	CPVC	PE	CPP
	10	X	X	X	X	NA	X	X	X	X	NA	X	X	X	X	NA	X	X	X
12	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	X	X	X	X	NA
15	X	X	NA	X	X	X	X	NA	X	X	X	X	NA	NA	X	X	X	NA	X
18	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	X	X	X	X	NA
21	X	X	NA	NA	NA	X	X	NA	NA	NA	X	X	NA	NA	NA	X	X	NA	NA
24	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	NA	X	X	X	NA
30	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	X	X	X	X	NA
36	X	X	X	X	X	X	X	X	X	X	X	X	X	NA	NA	X	X	X	NA
42	X	NA	X	X	NA	X	NA	X	NA	NA	X	NA	X	NA	NA	X	NA	X	NA
48	X	NA	X	X	X	X	NA	X	NA	NA	X	NA	X	NA	NA	X	NA	X	NA

Notes:

- PVC Polyvinyl Chloride (PVC) pipe with a smooth interior
- CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior
- PE Polyethylene (PE) pipe with a smooth interior
- CPE Corrugated Polyethylene (PE) pipe with a smooth interior
- CPP Corrugated Polypropylene (CPP) pipe with a smooth interior
- X This material may be used for the given pipe diameter and fill height
- NA Not Available

TABLE IIIA: PLASTIC PIPE PERMITTED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE (Metric)

Nominal Diameter (mm)	Type 1 Fill Height: 1 m and less, with 0.3 m min. cover						Type 2 Fill Height: Greater than 1 m, not exceeding 3 m						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									
	PVC		CPVC		PE		CPE		CPP		PVC		CPVC		PE		CPE		CPP		PVC		CPVC		PE		CPP	
250	X	X	X	X	NA	X	X	X	X	NA	X	X	X	X	X	X	X	X	X	NA	X	X	X	X	X	X	X	NA
300	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA
375	X	X	NA	X	X	NA	X	X	X	X	X	X	X	NA	X	X	NA	X	X	X	X	X	X	X	X	X	X	X
450	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA
525	X	X	NA	X	NA	NA	X	X	X	NA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA
600	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA
750	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA
900	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA
1000	X	NA	X	X	X	X	X	X	X	NA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA
1200	X	NA	X	X	X	X	X	X	X	NA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	NA

Notes:
PVC Polyvinyl Chloride (PVC) pipe with a smooth interior
CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior
PE Polyethylene (PE) pipe with a smooth interior
CPE Corrugated Polyethylene (PE) pipe with a smooth interior
CPP Corrugated Polypropylene (CPP) pipe with a smooth interior
X This material may be used for the given pipe diameter and fill height
NA Not Available

TABLE IIIB: PLASTIC PIPE PERMITTED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE									
Nominal Diameter (in.)	Type 5			Type 6			Type 7		
	Fill Height: Greater than 20', not exceeding 25'			Fill Height: Greater than 25', not exceeding 30'			Fill Height: Greater than 30', not exceeding 35'		
	PVC	CPVC		PVC	CPVC		PVC	CPVC	
10	X	X		X	X		X	X	
12	X	X		X	X		X	X	
15	X	X		X	X		X	X	
18	X	X		X	X		X	X	
21	X	X		X	X		X	X	
24	X	X		X	X		X	X	
30	X	X		X	X		X	X	
36	X	X		X	X		X	X	
42	X	NA		X	NA		X	NA	
48	X	NA		X	NA		X	NA	

Notes:

- PVC Polyvinyl Chloride (PVC) pipe with a smooth interior
- CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior
- X This material may be used for the given pipe diameter and fill height
- NA Not Available

TABLE IIIB: PLASTIC PIPE PERMITTED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE (metric)						
Nominal Diameter (mm)	Type 5		Type 6		Type 7	
	Fill Height: Greater than 6 m, not exceeding 7.5 m		Fill Height: Greater than 7.5 m, not exceeding 9 m		Fill Height: Greater than 9 m, not exceeding 10.5 m	
	PVC	CPVC	PVC	CPVC	CPVC	
250	X	X	X	X	X	X
300	X	X	X	X	X	X
375	X	X	X	X	X	X
450	X	X	X	X	X	X
525	X	X	X	X	X	X
600	X	X	X	X	X	X
750	X	X	X	X	X	X
900	X	X	X	X	X	X
1000	X	NA	X	NA	NA	NA
1200	X	NA	X	NA	NA	NA

Notes:

- PVC Polyvinyl Chloride (PVC) pipe with a smooth interior
- CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior
- PE Polyethylene (PE) pipe with a smooth interior
- X This material may be used for the given pipe diameter and fill height
- NA Not Available"

Revise the first sentence of the first paragraph of Article 542.04(c) of the Standard Specifications to read:

“Compacted aggregate, at least 4 in. (100 mm) in depth below the pipe culvert, shall be placed the entire width of the trench and for the length of the pipe culvert, except compacted impervious material shall be used for the outer 3 ft (1 m) at each end of the pipe culvert.”

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

“PVC, PE and CPP pipes shall be joined according to the manufacturer’s specifications.”

Replace the third sentence of the first paragraph of Article 542.04(h) of the Standard Specifications with the following:

“The total cover required for various construction loadings shall be the responsibility of the Contractor.”

Delete “Table IV : Wheel Loads and Total Cover” in Article 542.04(h) of the Standard Specifications.

Revise the first and second paragraphs of Article 542.04(i) of the Standard Specifications to read:

“(i) Deflection Testing for Pipe Culverts. All PE, PVC and CPP pipe culverts 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, PE, and CPP pipe culverts with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC, PE, and CPP pipe culverts with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel shall be used.”

Revise Articles 542.04(i)(1) and (2) of the Standard Specifications to read:

“(1) For all PVC pipe: as defined using ASTM D 3034 methodology.

(2) For all PE and CPP pipe: the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications.”

Revise the second sentence of the second paragraph of Article 542.07 of the Standard Specifications to read:

“When a prefabricated end section is used, it shall be of the same material as the pipe culvert, except for polyethylene (PE), polyvinylchloride (PVC), and polypropylene (PP) pipes which shall have metal end sections.”

Revise the first paragraph of Article 1040.03 of the Standard Specifications to read:

“**1040.03 Polyvinyl Chloride (PVC) Pipe.** Acceptance testing of PVC pipe and fittings shall be accomplished during the same construction season in which they are installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.”

Delete Articles 1040.03(e) and (f) of the Standard Specifications.

Revise Articles 1040.04(c) and (d) of the Standard Specifications to read:

“(c) PE Profile Wall Pipe for Insertion Lining. The pipe shall be according to ASTM F 894. When used for insertion lining of pipe culverts, the pipe liner shall have a minimum pipe stiffness of 46 psi (317 kPa) at five percent deflection for nominal inside diameters of 42 in. (1050 mm) or less. For nominal inside diameters of greater than 42 in. (1050 mm), the pipe liner shall have a minimum pipe stiffness of 32.5 psi (225 kPa) at five percent deflection. All sizes shall have wall construction that presents essentially smooth internal and external surfaces.

(d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties and the resin used to manufacture the pipe meets or exceeds the minimum cell classification requirements.”

Add the following to Section 1040 of the Standard Specifications:

“**1040.08 Polypropylene (PP) Pipe.** Storage and handling shall be according to the manufacturer’s recommendations, except in no case shall the pipe be exposed to direct sunlight for more than six months. Acceptance testing of the pipe shall be accomplished during the same construction season in which it is installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.

(a) Corrugated PP Pipe with a Smooth Interior. The pipe shall be according to AAHSTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type S or D.

(b) Perforated Corrugated PP Pipe with A Smooth Interior. The pipe shall be according to AASHTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be

Type SP. In addition, the top centerline of the pipe shall be marked so that it is readily visible from the top of the trench before backfilling, and the upper ends of the slot perforations shall be a minimum of ten degrees below the horizontal."

80324

LRFD STORM SEWER BURIAL TABLES (BDE)

Effective: November 1, 2013

Revised: November 1, 2014

Revise Article 550.02 of the Standard Specifications to read as follows:

"Item	Article Section
(a) Clay Sewer Pipe	1040.02
(b) Extra Strength Clay Pipe	1040.02
(c) Concrete Sewer, Storm Drain, and Culvert Pipe	1042
(d) Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe	1042
(e) Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe (Note 1)	1042
(f) Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe (Note 1)	1042
(g) Polyvinyl Chloride (PVC) Pipe	1040.03
(h) Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior	1040.03
(i) Corrugated Polypropylene (CPP) Pipe with Smooth Interior	1040.07
(j) Rubber Gaskets and Preformed Flexible Joint Sealants for Concrete Pipe	1056
(k) Mastic Joint Sealer for Pipe	1055
(l) External Sealing Band	1057
(m) Fine Aggregate (Note 2)	1003.04
(n) Coarse Aggregate (Note 3)	1004.05
(o) Reinforcement Bars and Welded Wire Fabric	1006.10
(p) Handling Hole Plugs	1042.16
(q) Polyethylene (PE) Pipe with a Smooth Interior	1040.04
(r) Corrugated Polyethylene (PE) Pipe with a Smooth Interior	1040.04

Note 1. The class of elliptical and arch pipe used for various storm sewer sizes and heights of fill shall conform to the requirements for circular pipe.

Note 2. The fine aggregate shall be moist.

Note 3. The coarse aggregate shall be wet."

Revise the table for permitted materials in Article 550.03 of the Standard Specifications as follows:

"Class	Materials
A	Rigid Pipes: Clay Sewer Pipe Extra Strength Clay Pipe Concrete Sewer, Storm Drain, and Culvert Pipe Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe
B	Rigid Pipes: Clay Sewer Pipe Extra Strength Clay Pipe Concrete Sewer, Storm Drain, and Culvert Pipe Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe Flexible Pipes: Polyvinyl Chloride (PVC) Pipe Corrugated Polyvinyl Chloride Pipe (PVC) with a Smooth Interior Polyethylene (PE) Pipe with a Smooth Interior Corrugated Polyethylene (PE) Pipe with a Smooth Interior Corrugated Polypropylene (CPP) Pipe with a Smooth Interior"

Replace the storm sewers tables in Article 550.03 of the Standard Specifications with the following:

STORM SEWERS																
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE																
Nominal Diameter in.	Type 1							Type 2								
	Fill Height: 3' and less With 1' minimum cover							Fill Height: Greater than 3' not exceeding 10'								
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP
10	NA	3	X	X	X	X	X	NA	1	*X	X	X	X	X	X	NA
12	IV	NA	X	X	X	NA	X	X	1	*X	X	X	X	NA	X	X
15	IV	NA	NA	X	X	NA	X	X	1	*X	X	X	X	X	X	X
18	IV	NA	NA	X	X	X	X	X	2	X	X	X	X	X	X	X
21	III	NA	NA	X	X	NA	NA	NA	2	X	X	X	X	NA	NA	NA
24	III	NA	NA	X	X	X	X	X	2	X	X	X	X	X	X	X
27	III	NA	NA	NA	NA	NA	NA	NA	3	X	NA	NA	NA	NA	NA	NA
30	IV	NA	NA	X	X	X	X	X	3	X	X	X	X	X	X	X
33	III	NA	NA	NA	NA	NA	NA	NA	NA	X	NA	NA	NA	NA	NA	NA
36	III	NA	NA	NA	X	X	X	X	NA	X	X	X	X	X	X	X
42	II	NA	X	X	NA	X	X	NA	NA	X	X	NA	NA	X	NA	NA
48	II	NA	NA	X	NA	X	X	X	NA	X	X	NA	NA	X	NA	NA
54	II	NA	NA	NA	NA	NA	NA	NA	NA	X	X	NA	NA	X	NA	NA
60	II	NA	NA	NA	NA	NA	NA	NA	NA	X	X	NA	NA	X	NA	NA
66	II	NA	NA	NA	NA	NA	NA	NA	NA	X	X	NA	NA	X	NA	NA
72	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
78	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
84	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
90	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
96	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
102	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
108	II	NA	NA	NA	NA	NA	NA	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
 PVC Polyvinyl Chloride Pipe
 CPVC Corrugated Polyvinyl Chloride Pipe
 ESCP Extra Strength Clay Pipe
 PE Polyethylene Pipe with a Smooth Interior
 CPE Corrugated Polyethylene Pipe with a Smooth Interior
 CPP Corrugated Polypropylene pipe with a Smooth Interior
 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 Pipe

STORM SEWERS (Metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter in.	Type 1											Type 2					
	Fill Height: 1 m and less With 300 mm minimum cover											Fill Height: Greater than 1 m not exceeding 3 m					
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	
250	NA	3	X	X	X	X	X	NA	1	*X	X	X	X	X	NA		
300	IV	NA	X	X	X	X	X	II	1	*X	X	X	X	X	X		
375	IV	NA	NA	NA	NA	NA	X	II	1	*X	X	X	NA	X	X		
450	IV	NA	X	X	X	X	X	II	2	X	X	X	X	X	X		
525	III	NA	NA	NA	NA	NA	NA	II	2	X	X	X	NA	NA	NA		
600	III	NA	NA	NA	X	X	X	II	2	X	X	X	X	X	X		
675	III	NA	NA	NA	NA	NA	NA	II	3	X	NA	NA	NA	NA	NA		
750	IV	NA	X	X	X	X	X	II	3	X	X	X	X	X	X		
825	III	NA	NA	NA	NA	NA	NA	II	NA	X	NA	NA	NA	NA	NA		
900	III	NA	NA	NA	X	X	X	II	NA	X	X	X	X	X	X		
1050	II	NA	X	X	NA	X	X	II	NA	X	X	NA	NA	NA	NA		
1200	II	NA	X	X	NA	X	X	II	NA	X	X	NA	NA	NA	NA		
1350	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
1500	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	X		
1650	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
1800	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
1950	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
2100	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
2250	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
2400	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
2550	II	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA		
2700	II	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA		

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
 CSP Concrete Sewer, Storm drain, and Culvert Pipe
 PVC Polyvinyl Chloride Pipe
 CPVC Corrugated Polyvinyl Chloride Pipe
 ESCP Extra Strength Clay Pipe
 PE Polyethylene Pipe with a Smooth Interior
 CPE Corrugated Polyethylene Pipe with a Smooth Interior
 CPP Corrugated Polypropylene pipe with a Smooth Interior
 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 Pipe

STORM SEWERS
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter in.	Type 3										Type 4					
	Fill Height: Greater than 10' not exceeding 15'										Fill Height: Greater than 15' not exceeding 20'					
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPP	
10	NA	2	X	X	X	X	NA	NA	3	X	X	X	X	X	NA	
12	III	2	X	X	X	NA	X	IV	NA	NA	X	X	X	X	NA	
15	III	3	X	X	NA	NA	X	IV	NA	NA	X	X	X	X	X	
18	III	NA	X	X	X	NA	X	IV	NA	NA	X	X	X	X	NA	
21	III	NA	NA	X	X	NA	NA	IV	NA	NA	X	X	X	NA	NA	
24	III	NA	NA	X	X	NA	NA	IV	NA	NA	X	X	X	X	NA	
27	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA	
30	III	NA	NA	NA	X	NA	X	IV	NA	NA	X	X	X	X	NA	
33	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA	
36	III	NA	NA	NA	X	X	NA	IV	NA	NA	X	X	X	X	NA	
42	III	NA	NA	NA	X	X	NA	IV	NA	NA	X	NA	NA	X	NA	
48	III	NA	NA	NA	X	X	NA	IV	NA	NA	X	NA	NA	X	NA	
54	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA	
60	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA	
66	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA	
72	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA	
78	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA	
84	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA	
90	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA	
96	III	NA	NA	NA	NA	NA	NA	1680	NA	NA	NA	NA	NA	NA	NA	
102	III	NA	NA	NA	NA	NA	NA	1690	NA	NA	NA	NA	NA	NA	NA	
108	1360	NA	NA	NA	NA	NA	NA	1700	NA	NA	NA	NA	NA	NA	NA	
								1710	NA	NA	NA	NA	NA	NA	NA	

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
 CSP Concrete Sewer, Storm drain, and Culvert Pipe
 PVC Polyvinyl Chloride Pipe
 CPVC Corrugated Polyvinyl Chloride Pipe
 ESCP Extra Strength Clay Pipe
 PE Polyethylene Pipe with a Smooth Interior
 CPE Corrugated Polyethylene Pipe with a Smooth Interior
 CPP Corrugated Polypropylene pipe with a Smooth Interior
 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 Pipe
 Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.

STORM SEWERS (metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter in.	Type 3											Type 4					
	Fill Height: Greater than 3 m not exceeding 4.5 m											Fill Height: Greater than 4.5 m not exceeding 6 m					
	RCCP	CSP	ESCP	PVC	CPVC	PE	CPE	CPP	RCCP	CSP	ESCP	PVC	CPVC	PE	CPP		
250	NA	2	X	X	X	X	X	NA	3	X	X	X	X	X	NA		
300	III	2	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA	NA		
375	III	3	X	X	NA	NA	X	IV	NA	NA	X	X	NA	X	NA		
450	III	NA	X	X	X	NA	NA	IV	NA	NA	X	X	X	NA	NA		
525	III	NA	NA	X	X	NA	NA	IV	NA	NA	X	X	X	NA	NA		
600	III	NA	NA	X	X	NA	NA	IV	NA	NA	X	X	X	NA	NA		
675	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA		
750	III	NA	NA	X	X	X	NA	IV	NA	NA	X	X	X	NA	NA		
825	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA		
900	III	NA	NA	NA	X	X	NA	IV	NA	NA	X	X	X	NA	NA		
1050	III	NA	NA	NA	X	X	NA	IV	NA	NA	X	X	X	NA	NA		
1200	III	NA	NA	NA	NA	X	NA	IV	NA	NA	NA	NA	NA	NA	NA		
1350	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA		
1500	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA		
1650	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA		
1800	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA		
1950	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA		
2100	III	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA	NA		
2250	III	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA	NA		
2400	III	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA	NA		
2550	III	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA	NA		
2700	70	NA	NA	NA	NA	NA	NA	80	NA	NA	NA	NA	NA	NA	NA		

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
CSP Concrete Sewer, Storm drain, and Culvert Pipe
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe
ESCP Extra Strength Clay Pipe
PE Polyethylene Pipe with a Smooth Interior
CPE Corrugated Polyethylene Pipe with a Smooth Interior
CPP Corrugated Polypropylene pipe with a Smooth Interior
X This material is Not Acceptable for the given pipe diameter and fill height.
* This material may be used for the given pipe diameter and fill height.
Note May also use Standard Strength Clay Pipe
RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4 micro-meter crack.

STORM SEWERS

KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE

Nominal Diameter in.	Type 5				Type 6			Type 7	
	Fill Height: Greater than 20' not exceeding 25'				Fill Height: Greater than 25' not exceeding 30'			Fill Height: Greater than 30' not exceeding 35'	
	RCCP	PVC	CPVC		RCCP	PVC	CPVC	RCCP	CPVC
10	NA	X	X		NA	X	X	NA	X
12	IV	X	X		V	X	X	V	X
15	IV	X	X		V	X	X	V	X
18	IV	X	X		V	X	X	V	X
21	IV	X	X		V	X	X	V	X
24	IV	X	X		V	X	X	V	X
27	IV	NA	NA		V	NA	NA	V	NA
30	IV	X	X		V	X	X	V	X
33	IV	NA	NA		V	NA	NA	V	NA
36	IV	X	X		V	X	X	V	X
42	IV	X	NA		V	X	NA	V	NA
48	IV	X	NA		V	X	NA	V	NA
54	IV	NA	NA		V	NA	NA	V	NA
60	IV	NA	NA		V	NA	NA	V	NA
66	IV	NA	NA		V	NA	NA	V	NA
72	V	NA	NA		V	NA	NA	V	NA
78	2020	NA	NA		2370	NA	NA	2730	NA
84	2020	NA	NA		2380	NA	NA	2740	NA
90	2030	NA	NA		2390	NA	NA	2750	NA
96	2040	NA	NA		2400	NA	NA	2750	NA
102	2050	NA	NA		2410	NA	NA	2760	NA
108	2060	NA	NA		2410	NA	NA	2770	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
PVC Polyvinyl Chloride Pipe
CPVC Corrugated Polyvinyl Chloride Pipe
ESCP Extra Strength Clay 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.
Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the D-load to produce a 0.01 in crack.

STORM SEWERS (metric)									
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED FOR A GIVEN PIPE DIAMETERS AND FILL HEIGHTS OVER THE TOP OF THE PIPE									
Nominal Diameter in.	Type 5			Type 6			Type 7		
	Fill Height: Greater than 20' not exceeding 25'			Fill Height: Greater than 25' not exceeding 30'			Fill Height: Greater than 30' not exceeding 35'		
	RCCP	PVC	CPVC	RCCP	PVC	CPVC	RCCP	CPVC	CPVC
250	NA	X	X	NA	X	X	NA	NA	X
300	IV	X	X	V	X	X	V	V	X
375	IV	X	X	V	X	X	V	V	X
450	IV	X	X	V	X	X	V	V	X
525	IV	X	X	V	X	X	V	V	X
600	IV	X	X	V	X	X	V	V	X
675	IV	NA	NA	V	NA	NA	V	V	NA
750	IV	X	X	V	X	X	V	V	X
825	IV	NA	NA	V	NA	NA	V	V	NA
900	IV	X	X	V	X	X	V	V	X
1050	IV	X	NA	V	X	NA	V	V	NA
1200	IV	X	NA	V	X	NA	V	V	NA
1350	IV	NA	NA	V	NA	NA	V	V	NA
1500	IV	NA	NA	V	NA	NA	V	V	NA
1650	IV	NA	NA	V	NA	NA	V	V	NA
1800	V	NA	NA	V	NA	NA	V	V	NA
1950	100	NA	NA	110	NA	NA	130	130	NA
2100	100	NA	NA	110	NA	NA	130	130	NA
2250	100	NA	NA	110	NA	NA	130	130	NA
2400	100	NA	NA	120	NA	NA	130	130	NA
2550	100	NA	NA	120	NA	NA	130	130	NA
2700	100	NA	NA	120	NA	NA	130	130	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe

PVC Polyvinyl Chloride Pipe

CPVC Corrugated Polyvinyl Chloride Pipe

ESCP Extra Strength Clay 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.

Note RCCP with a number instead of a Roman numeral shall be furnished according to AASHTO M170 Section 6. This number represents the metric D-load to produce a 25.4 micro-meter crack.

Revise the sixth paragraph of Article 550.06 of the Standard Specifications to read:

"PVC, PE and CPP pipes shall be joined according to the manufacturer's specifications."

Revise the first and second paragraphs of Article 550.08 of the Standard Specifications to read:

"550.08 Deflection Testing for Storm Sewers. All PVC, PE, and CPP 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, PE, and CPP storm sewers with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC, PE, and CPP storm sewers with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel shall be used."

Revise the fifth paragraph of Article 550.08 to read as follows.

"The outside diameter of the mandrel shall be 95 percent of the base inside diameter. For all PVC pipe the base inside diameter shall be defined using ASTM D 3034 methodology. For all PE and CPP 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."

Revise the first paragraph of Article 1040.03 of the Standard Specifications to read:

"1040.03 Polyvinyl Chloride (PVC) Pipe. Acceptance testing of PVC pipe and fittings shall be accomplished during the same construction season in which they are installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements."

Delete Articles 1040.03(e) and (f) of the Standard Specifications.

Revise Articles 1040.04(c) and (d) of the Standard Specifications to read:

"(c) PE Profile Wall Pipe for Insertion Lining. The pipe shall be according to ASTM F 894. When used for insertion lining of pipe culverts, the pipe liner shall have a minimum pipe stiffness of 46 psi (317 kPa) at five percent deflection for nominal inside diameters of 42 in. (1050 mm) or less. For nominal inside diameters of greater than 42 in. (1050 mm), the pipe liner shall have a minimum pipe stiffness of 32.5 psi (225 kPa) at five percent deflection. All sizes shall have wall construction that presents essentially smooth internal and external surfaces.

(d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written

certification that the material meets those properties and the resin used to manufacture the pipe meets or exceeds the minimum cell classification requirements.”

Add the following to Section 1040 of the Standard Specifications:

“1040.08 Polypropylene (PP) Pipe. Storage and handling shall be according to the manufacturer's recommendations, except in no case shall the pipe be exposed to direct sunlight for more than six months. Acceptance testing of the pipe shall be accomplished during the same construction season in which it is installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.

- (a) Corrugated PP Pipe with a Smooth Interior. The pipe shall be according to AASHTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type S or D.
- (b) Perforated Corrugated PP Pipe with A Smooth Interior. The pipe shall be according to AASHTO M 330 (nominal size – 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type SP. In addition, the top centerline of the pipe shall be marked so that it is readily visible from the top of the trench before backfilling, and the upper ends of the slot perforations shall be a minimum of ten degrees below the horizontal.”

80325

MECHANICAL SIDE TIE BAR INSERTER (BDE)

Effective: August 1, 2014
Revised: January 1, 2015

Add the following to Article 420.03 of the Standard Specifications:

“(k) Mechanical Side Tie Bar Inserters 1103.18”

Revise Article 420.05(b) of the Standard Specifications to read:

“(b) Longitudinal Construction Joint. The tie bars shall be installed using one of the following methods.

- (1) Preformed or Drilled Holes. The tie bars shall be installed with an approved nonshrink grout or chemical adhesive providing a minimum pull-out strength as follows.

Bar Size	Minimum Pull-Out Strength
No. 6 (No. 19)	11,000 lb (49 kN)
No. 8 (No. 25)	19,750 lb (88 kN)

Holes shall be blown clean and dry prior to placing the grout or adhesive. If compressed air is used, the pneumatic tool lubricator shall be bypassed and a filter installed on the discharge valve to keep water and oil out of the lines. The installation shall be with methods and tools conforming to the grout or adhesive manufacturer’s recommendations.

The Contractor shall load test five percent of the first 500 tie bars installed. No further installation will be allowed until the initial five percent testing has been completed and approval to continue installation has been given by the Engineer. Testing will be required for 0.5 percent of the bars installed after the initial 500. For each bar that fails to pass the minimum requirements, two more bars selected by the Engineer shall be tested. Each bar that fails to meet the minimum load requirement shall be reinstalled and retested. The equipment and method used for testing shall meet the requirements of ASTM E 488. All tests shall be performed within 72 hours of installation. The tie bars shall be installed and approved before concrete is placed in the adjacent lane.”

- (2) Inserted. The tie bars shall be installed with the use of a mechanical side tie bar inserter. The inserter shall insert the tie bars with vibration while still within the extrusion process, after the concrete has been struck off and consolidated without deformation of the slab. The inserter shall remain stationary relative to the pavement when inserting tie bars, while the formless paver continues to move in the direction of paving.

A void greater than 1/8 in. (3 mm) at any location around the tie bar shall require immediate adjustment of the paving operation. A void greater than 1/2 in.(13 mm) shall be repaired with a nonshrink grout or chemical adhesive after the concrete has hardened. If at the end of the day of paving more than 20 percent of the tie bars show a void larger than 1/8 in. (3 mm) at any point around the bar, the use of the side tie bar inserter shall be discontinued.

(3) Formed in Place. The tie bar shall be formed in place as shown on the plans.

The sealant reservoir shall be formed either by sawing after the concrete has set according to Article 420.05(a) or by hand tools when the concrete is in a plastic state.”

Add the following to Section 1103 of the Standard Specifications:

“**1103.18 Mechanical Side Bar Inserters.** The mechanical side tie bar inserter shall be self-contained and supported on the formless paver with the ability to move independently from the formless paver. The insertion apparatus shall vibrate within a frequency of 2000 to 6000 vpm. A vibrating reed tachometer, hand type, shall be provided according to Article 1103.12.”

80342

PAVED SHOULDER REMOVAL (BDE)

Effective: April 1, 2014

Revise the first paragraph of Article 440.07(b) of the Standard Specifications to read:

“(b) Measured Quantities. Pavement removal, driveway pavement removal, and paved shoulder removal will be measured for payment in place and the area computed in square yards (square meters).”

Revise Article 440.07(c) of the Standard Specifications to read:

“(c) Adjustment of Quantities. The quantity of pavement removal and paved shoulder removal will be adjusted if their respective thickness varies more than 15 percent from that shown on the plans. The quantity will be either increased or decreased according to the following table.

% change of thickness	% change of quantity
0 to less than 15	0
15 to less than 20	10
20 to less than 30	15
30 to less than 50	20

If the thickness of the existing pavement varies by 50 percent or more from that shown on the plans, the character of the work will be considered significantly changed and an adjustment to the contract will be made according to Article 104.02.

When an adjustment is made for variations in pavement or shoulder thickness a resulting adjustment will also be made in the earthwork quantities when applicable.

No adjustment will be made for variations in the amount of reinforcement.”

80337

PAVEMENT PATCHING (BDE)

Effective: January 1, 2010

Revise the first sentence of the second paragraph of Article 701.17(e)(1) of the Standard Specifications to read:

“In addition to the traffic control and protection shown elsewhere in the contract for pavement, two devices shall be placed immediately in front of each open patch, open hole, and broken pavement where temporary concrete barriers are not used to separate traffic from the work area.”

80254

PAVEMENT STRIPING - SYMBOLS (BDE)

Effective: January 1, 2015

Revise the Symbol Table of Article 780.14 of the Supplemental Specifications to read:

"SYMBOLS

Symbol	Large Size sq ft (sq m)	Small Size sq ft (sq m)
Through Arrow	11.5 (1.07)	6.5 (0.60)
Left or Right Arrow	15.6 (1.47)	8.8 (0.82)
2 Arrow Combination Left (or Right) and Through	26.0 (2.42)	14.7 (1.37)
3 Arrow Combination Left, Right, and Through	38.4 (3.56)	20.9 (1.94)
Lane Drop Arrow	41.5 (3.86)	--
Wrong Way Arrow	24.3 (2.26)	--
Railroad "R" 6 ft (1.8 m)	3.6 (0.33)	--
Railroad "X" 20 ft (6.1 m)	54.0 (5.02)	--
International Symbol of Accessibility	3.1 (0.29)	--
Bike Symbol	4.7 (0.44)	--
Shared Lane Symbol	8.0 (0.74)	--"

80352

PRECAST CONCRETE HANDHOLE (BDE)

Effective: August 1, 2014

Revise the third paragraph of Article 814.03 of the Standard Specifications to read:

“Handholes shall be constructed as shown on the plans and shall be cast-in-place, composite concrete, or precast units. Heavy duty handholes shall be either cast-in-place or precast units.”

Add the following to Article 814.03 of the Standard Specifications:

“(c) Precast Concrete. Precast concrete handholes shall be fabricated according to Article 1042.17. Where a handhole is contiguous to a sidewalk, preformed joint filler of 1/2 inch (13 mm) thickness shall be placed between the handhole and the sidewalk.”

Add the following to Section 1042 of the Standard Specifications:

“**1042.17 Precast Concrete Handholes.** Precast concrete handholes shall be according to Articles 1042.03(a)(c)(d)(e).”

80343

PROGRESS PAYMENTS (BDE)

Effective: November 2, 2013

Revise Article 109.07(a) of the Standard Specifications to read:

“(a) Progress Payments. At least once each month, the Engineer will make a written estimate of the quantity of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1000.00 will be approved for payment other than the final payment.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics' Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610), progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor, the Contractor's obligation to pay the subcontractor, and the Contractor's or subcontractor's total loan indebtedness to the Department. The offset shall continue until such time as the entire loan indebtedness is satisfied. The Department will notify the Contractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved.”

80328

RETROREFLECTIVE SHEETING FOR HIGHWAY SIGNS (BDE)

Effective: November 1, 2014

Revise the first sentence of the first paragraph of Article 1091.03(a)(3) of the Standard Specifications to read:

“When tested according to ASTM E 810, with averaging, the sheeting shall have a minimum coefficient of retroreflection as show in the following tables.”

Replace the Tables for Type AA sheeting, Type AP sheeting, Type AZ sheeting and Type ZZ sheeting in Article 1091.03(a)(3) with the following.

Type AA Sheeting
Minimum Coefficient of Retroreflection
Candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AA (Average of 0 and 90 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	White	Yellow	Red	Green	Blue	FO
0.2	-4	800	600	120	80	40	200
0.2	+30	400	300	60	35	20	100
0.5	-4	200	150	30	20	10	75
0.5	+30	100	75	15	10	5	35

Type AA (45 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	Yellow	FO
0.2	-4	500	165
0.2	+30	115	40
0.5	-4	140	65
0.5	+30	60	30

Type AP Sheeting
Minimum Coefficient of Retroreflection
Candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AP (Average of 0 and 90 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	White	Yellow	Red	Green	Blue	Brown	FO
0.2	-4	500	380	75	55	35	25	150
0.2	+30	180	135	30	20	15	10	55
0.5	-4	300	225	50	30	20	15	90
0.5	+30	90	70	15	10	7.5	5	30

Type AZ Sheeting
Minimum Coefficient of Retroreflection
Candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type AZ (Average of 0 and 90 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	White	Yellow	Red	Green	Blue	FYG	FY
0.2	-4	375	280	75	45	25	300	230
0.2	+30	235	170	40	25	15	190	150
0.5	-4	245	180	50	30	20	200	155
0.5	+30	135	100	25	15	10	100	75
1.0	-4	50	37.5	8.5	5	2	45	25
1.0	+30	22.5	20	5	3	1	25	12.5

Type ZZ Sheeting
Minimum Coefficient of Retroreflection
Candelas/foot candle/sq ft (candelas/lux/sq m) of material

Type ZZ (Average of 0 and 90 degree rotation)

Observation Angle (deg.)	Entrance Angle (deg.)	White	Yellow	Red	Green	Blue	FYG	FY	FO
0.2	-4	570	425	90	60	30	460	340	170
0.2	+30	190	140	35	20	10	150	110	65
0.5	-4	400	300	60	40	20	320	240	120
0.5	+30	130	95	20	15	7	100	80	45
1.0	-4	115	90	17	12	5	95	70	35
1.0	+30	45	35	7	5	2	35	25	15

80350

REINFORCEMENT BARS (BDE)

Effective: November 1, 2013

Revise the first and second paragraphs of Article 508.05 of the Standard Specifications to read:

“508.05 Placing and Securing. All reinforcement bars shall be placed and tied securely at the locations and in the configuration shown on the plans prior to the placement of concrete. Manual welding of reinforcement may only be permitted on precast concrete products as indicated in the current Bureau of Materials and Physical Research Policy Memorandum “Quality Control / Quality Assurance Program for Precast Concrete Products”, and for precast prestressed concrete products as indicated in the Department’s current “Manual for Fabrication of Precast Prestressed Concrete Products”. Reinforcement bars shall not be placed by sticking or floating into place or immediately after placement of the concrete.

Bars shall be tied at all intersections, except where the center to center dimension is less than 1 ft (300 mm) in each direction, in which case alternate intersections shall be tied. Molded plastic clips may be used in lieu of wire to secure bar intersections, but shall not be permitted in horizontal bar mats subject to construction foot traffic or to secure longitudinal bar laps. Plastic clips shall adequately secure the reinforcement bars, and shall permit the concrete to flow through and fully encase the reinforcement. Plastic clips may be recycled plastic, and shall meet the approval of the Engineer. The number of ties as specified shall be doubled for lap splices at the stage construction line of concrete bridge decks when traffic is allowed on the first completed stage during the pouring of the second stage.”

Revise the fifth paragraph of Article 508.05 of the Standard Specifications to read:

“Supports for reinforcement in bridge decks shall be metal. For all other concrete construction the supports shall be metal or plastic. Metal bar supports shall be made of cold-drawn wire, or other approved material and shall be either epoxy coated, galvanized or plastic tipped. When the reinforcement bars are epoxy coated, the metal supports shall be epoxy coated. Plastic supports may be recycled plastic. Supports shall be provided in sufficient number and spaced to provide the required clearances. Supports shall adequately support the reinforcement bars, and shall permit the concrete to flow through and fully encase the reinforcement. The legs of supports shall be spaced to allow an opening that is a minimum 1.33 times the nominal maximum aggregate size used in the concrete. Nominal maximum aggregate size is defined as the largest sieve which retains any of the aggregate sample particles. All supports shall meet the approval of the Engineer.”

Revise the first sentence of the eighth paragraph of Article 508.05 of the Standard Specifications to read:

“Epoxy coated reinforcement bars shall be tied with plastic coated wire, epoxy coated wire, or molded plastic clips where allowed.”

Add the following sentence to the end of the first paragraph of Article 508.06(c) of the Standard Specifications:

"In addition, the total slip of the bars within the splice sleeve of the connector after loading in tension to 30 ksi (207 MPa) and relaxing to 3 ksi (20.7 MPa) shall not exceed 0.01 in. (254 microns)."

Revise Article 1042.03(d) of the Standard Specifications to read:

"(d) Reinforcement and Accessories: The concrete cover over all reinforcement shall be within $\pm 1/4$ in. (± 6 mm) of the specified cover.

Welded wire fabric shall be accurately bent and tied in place.

Miscellaneous accessories to be cast into the concrete or for forming holes and recesses shall be carefully located and rigidly held in place by bolts, clamps, or other effective means. If paper tubes are used for vertical dowel holes, or other vertical holes which require grouting, they shall be removed before transportation to the construction site."

80327

SIDEWALK, CORNER, OR CROSSWALK CLOSURE (BDE)

Effective: January 1, 2015

Revise the first sentence of Article 1106.02(m) of the Supplemental Specifications to read:

“The top and bottom panels shall have alternating white and orange stripes sloping 45 degrees on both sides.”

80354

TRACKING THE USE OF PESTICIDES (BDE)

Effective: August 1, 2012

Add the following paragraph after the first paragraph of Article 107.23 of the Standard Specifications:

“Within 48 hours of the application of pesticides, including but not limited to herbicides, insecticides, algaecides, and fungicides, the Contractor shall complete and return to the Engineer, Operations form “OPER 2720”.”

80301

TRAINING SPECIAL PROVISIONS (BDE) This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be 3 . In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

METHOD OF MEASUREMENT The unit of measurement is in hours.

BASIS OF PAYMENT This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

20338

TRAVERSABLE PIPE GRATE (BDE)

Effective: January 1, 2013

Revised: April 1, 2014

Description. This work shall consist of constructing a traversable pipe grate on a concrete end section.

Materials. Materials shall be according to the following Articles of Division 1000 – Materials of the Standard Specifications.

Item	Article/Section
(a) Traversable Pipe Grate Components (Note 1)	
(b) Chemical Adhesive Resin System	1027
(c) High Strength Steel Bolts, Nuts, and Washers (Note 2).....	1006.08

Note 1. All steel pipe shall be according to ASTM A 53 (Type E or S), Grade B, or ASTM A 500 Grade B, standard weight (SCH. 40). Structural steel shapes and plates shall be according to AASHTO M270 Grade 50 (M 270M Grade 345) and the requirements of Article 1006.04 of the Standard Specifications. All steel components of the grating system shall be galvanized according to AASHTO M 111 or M 232 as applicable.

Anchor rods shall be according to ASTM F 1554, Grade 36 (Grade 250).

Note 2. Threaded rods conforming to the requirements of ASTM F 1554, Grade 105 (Grade 725) may be used for the thru bolts.

CONSTRUCTION REQUIREMENTS

Fabrication of the traversable pipe grate shall be according to the requirements of Section 505 of the Standard Specifications and as shown on the plans.

Anchor rods shall be set according to Article 509.06 of the Standard Specifications. Bolts and anchor rods shall be snug tightened by a few impacts of an impact wrench or the full force of a worker using an ordinary spud wrench. Thru bolts shall be snug tightened and shall be brought to a snug tight condition followed by an additional 2/3 turn on one of the nuts. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut.

Splicing of pipes shall be made by utilizing full penetration butt welds according to Article 505.04(q) of the Standard Specifications. In lieu of welding, bolted or sleeve type splices may be utilized, provided the splices are located over intermediate supports with no more than one splice per pipe run with the exception that no splice may occur in pipe runs under 30 ft (9 m) in length.

Method of Measurement. This work will be measured for payment in place in feet (meters). The length measured shall be along the pipe grate elements from end to end for both longitudinal and intermediate support pipes.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for TRAVERSABLE PIPE GRATE.

80318

WARM MIX ASPHALT (BDE)

Effective: January 1, 2012

Revised: November 1, 2014

Description. This work shall consist of designing, producing and constructing Warm Mix Asphalt (WMA) in lieu of Hot Mix Asphalt (HMA) at the Contractor's option. Work shall be according to Sections 406, 407, 408, 1030, and 1102 of the Standard Specifications, except as modified herein. In addition, any references to HMA in the Standard Specifications, or the special provisions shall be construed to include WMA.

WMA is an asphalt mixture which can be produced at temperatures lower than allowed for HMA utilizing approved WMA technologies. WMA technologies are defined as the use of additives or processes which allow a reduction in the temperatures at which HMA mixes are produced and placed. WMA is produced by the use of additives, a water foaming process, or combination of both. Additives include minerals, chemicals or organics incorporated into the asphalt binder stream in a dedicated delivery system. The process of foaming injects water into the asphalt binder stream, just prior to incorporation of the asphalt binder with the aggregate.

Approved WMA technologies may also be used in HMA provided all the requirements specified herein, with the exception of temperature, are met. However, asphalt mixtures produced at temperatures in excess of 275 °F (135 °C) will not be considered WMA when determining the grade reduction of the virgin asphalt binder grade.

Equipment.

Revise the first paragraph of Article 1102.01 of the Standard Specifications to read:

"1102.01 Hot-Mix Asphalt Plant. The hot-mix asphalt (HMA) plant shall be the batch-type, continuous-type, or dryer drum plant. The plants shall be evaluated for prequalification rating and approval to produce HMA according to the current Bureau of Materials and Physical Research Policy Memorandum, "Approval of Hot-Mix Asphalt Plants and Equipment". Once approved, the Contractor shall notify the Bureau of Materials and Physical Research to obtain approval of all plant modifications. The plants shall not be used to produce mixtures concurrently for more than one project or for private work unless permission is granted in writing by the Engineer. The plant units shall be so designed, coordinated and operated that they will function properly and produce HMA having uniform temperatures and compositions within the tolerances specified. The plant units shall meet the following requirements."

Add the following to Article 1102.01(a) of the Standard Specifications.

"(13) Equipment for Warm Mix Technologies.

- a. Foaming. Metering equipment for foamed asphalt shall have an accuracy of ± 2 percent of the actual water metered. The foaming control system shall be electronically interfaced with the asphalt binder meter.

- b. Additives. Additives shall be introduced into the plant according to the supplier's recommendations and shall be approved by the Engineer. The system for introducing the WMA additive shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes."

Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

"(e) Warm Mix Technologies.

- (1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.
- (2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification."

Construction Requirements.

Revise the second paragraph of Article 406.06(b)(1) of the Standard Specifications to read:

"The HMA shall be delivered at a temperature of 250 to 350 °F (120 to 175 °C).
WMA shall be delivered at a minimum temperature of 215 °F (102 °C)."

Basis of Payment.

This work will be paid at the contract unit price bid for the HMA pay items involved. Anti-strip will not be paid for separately, but shall be considered as included in the cost of the work.

80288

WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012

The Contractor shall provide a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used on the jobsite; or used for the delivery and/or removal of equipment/material to and from the jobsite. The jobsite shall also include offsite locations, such as plant sites or storage sites, when those locations are used solely for this contract.

The report shall be submitted on the form provided by the Department within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur. The report shall be submitted to the Engineer and a copy shall be provided to the district EEO Officer.

Any costs associated with providing weekly DBE trucking reports 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.

80302

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, 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.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

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, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) 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 provisions of the Americans with 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 contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its 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, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program 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 minorities and women.

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 minorities and women 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 employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women 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, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such 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 its 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 their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

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. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

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 employees who are minorities and women 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 good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 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 good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith 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 contracting agency 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 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 minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. 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 contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. 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. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor 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 DOT-assisted contracts. 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 contracting agency deems appropriate.

11. 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 the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours 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; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency 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](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color,

religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. Davis-Bacon and Related Act Provisions

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency 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.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) 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 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the 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.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor 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. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. 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.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for

debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the 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 or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such

contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

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 contracting agency. 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 contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased 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 or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

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 or propose 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 VI 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 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 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 contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

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 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. 3704).

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.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

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, Form FHWA-1022 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:

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 under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier 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 first tier 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 first tier 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 contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier 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," "participant," "person," "principal," and "voluntarily excluded,"

as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first 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 entering into this transaction.

g. The prospective first tier 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 Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

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 is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective 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.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) 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 (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

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," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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 exceeding the \$25,000 threshold.

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 is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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 dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

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 participating in covered transactions 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.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is 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 its bid or proposal that the participant 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.