

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.dot.il.gov/desenv/delett.html> before submitting final bid information.

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

Addenda questions may be directed to the Contracts Office at (217)782-7806 or 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 **Your bid will not be read if this is not completed.** 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

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RETURN WITH BID

Proposal Submitted By
Name
Address
City

Letting February 28, 2014

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. 63886
MCHENRY County
Section 13-00063-00-PV (Cary)
Route FAU 4058 (Jandus Cut Off Road)
Project M-4003(240)
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)

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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. 63886
MCHENRY County
Section 13-00063-00-PV (Cary)
Project M-4003(240)
Route FAU 4058 (Jandus Cut Off Road)
District 1 Construction Funds**

Project consists of removal and disposal of unsuitable materials, earth excavation, Class D patches, full-depth HMA pavement, combination curb and gutter, HMA driveway pavement, retaining wall, roadway lighting, traffic signal modifications and all other incidental items to complete the work of FAU Route 4058 (Jandus Cut Off Road) from the Union Pacific Railroad to US Route 14 in the Village of Cary.

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

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 do business 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)

STATE JOB # - C-91-087-04
 PPS NBR -

COUNTY NAME	CODE	DIST	SECTION NUMBER	PROJECT NUMBER	ROUTE
MCHENRY	111	01	13-00063-00-PV (CARY)	M-4003/240/000	FAU 4058

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
XX007797	LUMINAIRE SPL	EACH	6.000 X				
X0324085	EM VEH P S LSC 20 3C	FOOT	588.500 X				
X0325003	REM EX VALVE & VAULT	EACH	1.000 X				
X0327367	STL CAS P BOR/JKD 24	FOOT	123.000 X				
X4022000	TEMP ACCESS- COM ENT	EACH	10.000 X				
X4023000	TEMP ACCESS- ROAD	EACH	4.000 X				
X5121800	PERM STEEL SHT PILING	SQ FT	2,002.000 X				
X5610712	WATER MAIN REMOV 12	FOOT	100.000 X				
X5611106	DI WM CL52 POLY EN 6	FOOT	10.000 X				
X5611112	DI WM CL52 POLY EN 12	FOOT	144.000 X				
X6020094	MAN TA 6D T1F CL R-P	EACH	1.000 X				
X6022810	MAN SAN 4 DIA T1F CL	EACH	5.000 X				
X7010216	TRAF CONT & PROT SPL	L SUM	1.000 X				
X8570226	FAC T4 CAB SPL	EACH	1.000 X				
X8620200	UNINTER POWER SUP SPL	EACH	1.000 X				

FAU 4058
 13-00063-00-PV (CARY)
 MCHENRY

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT NUMBER - 63886

ECMS002 DTGECM03 ECMR003 PAGE 2
 RUN DATE - 01/24/14
 RUN TIME - 183116

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
X8710024	FOCC62.5/125 MM12SM24	FOOT	871.500 X	=			
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000 X	=			
Z0018700	DRAINAGE STR REMOVED	EACH	1.000 X	=			
Z0019500	DRYWELL	EACH	1.000 X	=			
Z0030850	TEMP INFO SIGNING	SQ FT	113.000 X	=			
Z0033044	RE-OPTIMIZE SIG SYS 1	EACH	1.000 X	=			
Z0058300	SAN SEW T1 8	FOOT	155.000 X	=			
Z0058500	SAN SEW T1 12	FOOT	162.000 X	=			
Z0062456	TEMP PAVEMENT	SQ YD	790.000 X	=			
Z0073510	TEMP TR SIGNAL TIMING	EACH	1.000 X	=			
Z0076600	TRAINEES	HOURL	500.000 X	=	0.80		400.00
Z0076604	TRAINEES TPG	HOURL	500.000 X	=	15.00		7,500.00
20200100	EARTH EXCAVATION	CU YD	1,530.000 X	=			
20201200	REM & DISP UNS MATL	CU YD	2,620.000 X	=			
20800150	TRENCH BACKFILL	CU YD	241.000 X	=			

FAU 4058
 13-00063-00-PV (CARY)
 MCHENRY

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT NUMBER - 63886

ECMS002 DTGECM03 ECMR003 PAGE 3
 RUN DATE - 01/24/14
 RUN TIME - 183116

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
21101615	TOPSOIL F & P 4	SQ YD	3,375.000 X	=		=	
25000115	SEEDING CL 1B	ACRE	0.750 X	=		=	
25000400	NITROGEN FERT NUTR	POUND	63.000 X	=		=	
25000500	PHOSPHORUS FERT NUTR	POUND	63.000 X	=		=	
25000600	POTASSIUM FERT NUTR	POUND	63.000 X	=		=	
25100630	EROSION CONTR BLANKET	SQ YD	3,380.000 X	=		=	
28000250	TEMP EROS CONTR SEED	POUND	200.000 X	=		=	
28000305	TEMP DITCH CHECKS	FOOT	24.000 X	=		=	
28000400	PERIMETER EROS BAR	FOOT	1,595.000 X	=		=	
28000500	INLET & PIPE PROTECT	EACH	6.000 X	=		=	
28000510	INLET FILTERS	EACH	10.000 X	=		=	
28100105	STONE RIPRAP CL A3	SQ YD	55.000 X	=		=	
28200200	FILTER FABRIC	SQ YD	65.000 X	=		=	
30300112	AGG SUBGRADE IMPR 12	SQ YD	4,210.000 X	=		=	
31101200	SUB GRAN MAT B 4	SQ YD	1,265.000 X	=		=	

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
35102000	AGG BASE CSE B 8	SQ YD	75.000 X			=	
35501316	HMA BASE CSE 8	SQ YD	775.000 X			=	
40201000	AGGREGATE-TEMP ACCESS	TON	263.000 X			=	
40600100	BIT MATLS PR CT	GALLON	1,355.000 X			=	
40600895	CONSTRUC TEST STRIP	EACH	2.000 X			=	
40603335	HMA SC "D" N50	TON	155.000 X			=	
40701881	HMA PAVT FD 10	SQ YD	3,770.000 X			=	
42300200	PCC DRIVEWAY PAVT 6	SQ YD	1,035.000 X			=	
42400200	PC CONC SIDEWALK 5	SQ FT	1,035.000 X			=	
42400800	DETECTABLE WARNINGS	SQ FT	60.000 X			=	
44000100	PAVEMENT REM	SQ YD	2,715.000 X			=	
44000200	DRIVE PAVEMENT REM	SQ YD	1,045.000 X			=	
44000500	COMB CURB GUTTER REM	FOOT	360.000 X			=	
44201771	CL D PATCH T4 10	SQ YD	100.000 X			=	
50300225	CONC STRUCT	CU YD	23.200 X			=	

FAU 4058
 13-00063-00-PV (CARY)
 MCHENRY

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT NUMBER - 63886

ECMS002 DTGECM03 ECMR003 PAGE 5
 RUN DATE - 01/24/14
 RUN TIME - 183116

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
50300285	FORM LINER TEX SURF	SQ FT	770.000 X	=		=	
50800205	REINF BARS, EPOXY CTD	POUND	1,740.000 X	=		=	
54213657	PRC FLAR END SEC 12	EACH	1.000 X	=		=	
550A0050	STORM SEW CL A 1 12	FOOT	456.000 X	=		=	
550A0090	STORM SEW CL A 1 18	FOOT	183.000 X	=		=	
56100065	DI WAT MN TEE, 12X12	EACH	1.000 X	=		=	
56101158	DI WAT MN RED, 12 X 6	EACH	1.000 X	=		=	
56105200	WATER VALVES 12	EACH	3.000 X	=		=	
56109424	DI WT MNF 12 45.0 DB	EACH	2.000 X	=		=	
56400500	FIRE HYDNTS TO BE REM	EACH	1.000 X	=		=	
56400820	FIRE HYD W/AUX V & VB	EACH	1.000 X	=		=	
60107600	PIPE UNDERDRAINS 4	FOOT	416.000 X	=		=	
60200805	CB TA 4 DIA T8G	EACH	3.000 X	=		=	
60201105	CB TA 4 DIA T11F&G	EACH	6.000 X	=		=	
60218400	MAN TA 4 DIA T1F CL	EACH	2.000 X	=		=	

FAU 4058
 13-00063-00-PV (CARY)
 MCHENRY

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT NUMBER - 63886

ECMS002 DTGECM03 ECMR003 PAGE 6
 RUN DATE - 01/24/14
 RUN TIME - 183116

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
60236200	INLETS TA T8G	EACH	2.000 X	=			
60236800	INLETS TA T11F&G	EACH	3.000 X	=			
60249010	VV TA 6 DIA T1F CL	EACH	3.000 X	=			
60250200	CB ADJUST	EACH	1.000 X	=			
60600095	CLASS SI CONC OUTLET	CU YD	6.000 X	=			
60600605	CONC CURB TB	FOOT	230.000 X	=			
60603800	COMB CC&G TB6.12	FOOT	1,605.000 X	=			
60605000	COMB CC&G TB6.24	FOOT	140.000 X	=			
66900200	NON SPL WASTE DISPOSL	CU YD	650.000 X	=			
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000 X	=			
66900530	SOIL DISPOSAL ANALY	EACH	2.000 X	=			
67100100	MOBILIZATION	L SUM	1.000 X	=			
70106800	CHANGEABLE MESSAGE SN	CAL MO	18.000 X	=			
70300100	SHORT TERM PAVT MKING	FOOT	2,650.000 X	=			
70300220	TEMP PVT MK LINE 4	FOOT	10,000.000 X	=			

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
70300280	TEMP PVT MK LINE 24	FOOT	60.000 X				
70301000	WORK ZONE PAVT MK REM	SQ FT	4,340.000 X				
72000100	SIGN PANEL T1	SQ FT	40.000 X				
72000200	SIGN PANEL T2	SQ FT	27.000 X				
72900100	METAL POST TY A	FOOT	44.000 X				
78000100	THPL PVT MK LTR & SYM	SQ FT	240.000 X				
78000200	THPL PVT MK LINE 4	FOOT	4,180.000 X				
78000400	THPL PVT MK LINE 6	FOOT	910.000 X				
78000600	THPL PVT MK LINE 12	FOOT	175.000 X				
78000650	THPL PVT MK LINE 24	FOOT	105.000 X				
78100100	RAISED REFL PAVT MKR	EACH	80.000 X				
78300100	PAVT MARKING REMOVAL	SQ FT	2,340.000 X				
80400100	ELECT SERV INSTALL	EACH	1.000 X				
80400200	ELECT UTIL SERV CONN	L SUM	1.000 X				
80500020	SERV INSTALL POLE MT	EACH	2.000 X				
				3,000	00	3,000	00

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
81028200	UNDRGRD C GALVS 2	FOOT	885.000 X	=		=	
81028210	UNDRGRD C GALVS 2 1/2	FOOT	45.000 X	=		=	
81028220	UNDRGRD C GALVS 3	FOOT	85.000 X	=		=	
81028240	UNDRGRD C GALVS 4	FOOT	407.000 X	=		=	
81028350	UNDRGRD C PVC 2	FOOT	15.000 X	=		=	
81400100	HANDHOLE	EACH	2.000 X	=		=	
81400200	HD HANDHOLE	EACH	4.000 X	=		=	
81400300	DBL HANDHOLE	EACH	2.000 X	=		=	
81603055	UD 3#8 #8G XLPUSE 1	FOOT	961.000 X	=		=	
81702400	EC C XLP USE 3-1C 2	FOOT	15.000 X	=		=	
82500350	LT CONT BASEM 240V100	EACH	1.000 X	=		=	
83007500	LT P A 35MH 12MA	EACH	6.000 X	=		=	
83600352	LP F M 11.5BC 8 5/8X6	EACH	6.000 X	=		=	
83800105	BKWHY DEV TR B 11.5BC	EACH	6.000 X	=		=	
85000200	MAIN EX TR SIG INSTAL	EACH	1.000 X	=		=	

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
85100500	PT NEW TRAF SIG POST	EACH	3.000 X	=	=	=	=
85100600	PT NEW MA&P < 40FT	EACH	1.000 X	=	=	=	=
85100701	PT NEW MA&P >=40FT	EACH	3.000 X	=	=	=	=
86400100	TRANSCEIVER - FIB OPT	EACH	1.000 X	=	=	=	=
87300925	ELCBL C TRACER 14 1C	FOOT	859.000 X	=	=	=	=
87301215	ELCBL C SIGNAL 14 2C	FOOT	2,191.000 X	=	=	=	=
87301225	ELCBL C SIGNAL 14 3C	FOOT	1,387.000 X	=	=	=	=
87301245	ELCBL C SIGNAL 14 5C	FOOT	2,026.000 X	=	=	=	=
87301255	ELCBL C SIGNAL 14 7C	FOOT	885.000 X	=	=	=	=
87301805	ELCBL C SERV 6 2C	FOOT	71.000 X	=	=	=	=
87301900	ELCBL C EGRDC 6 1C	FOOT	982.000 X	=	=	=	=
87502480	TS POST GALVS 14	EACH	1.000 X	=	=	=	=
87502500	TS POST GALVS 16	EACH	2.000 X	=	=	=	=
87700160	S MAA & P 24	EACH	1.000 X	=	=	=	=
87700240	S MAA & P 40	EACH	1.000 X	=	=	=	=

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
87700250	S MAA & P 42	EACH	1.000 X	=		=	
87700400	S MAA & P 60	EACH	1.000 X	=		=	
87800100	CONC FDN TY A	FOOT	12.000 X	=		=	
87800150	CONC FDN TY C	FOOT	4.000 X	=		=	
87800400	CONC FDN TY E 30D	FOOT	10.000 X	=		=	
87800415	CONC FDN TY E 36D	FOOT	26.000 X	=		=	
87800420	CONC FDN TY E 42D	FOOT	21.000 X	=		=	
88030020	SH LED 1F 3S MAM	EACH	7.000 X	=		=	
88030050	SH LED 1F 3S BM	EACH	1.000 X	=		=	
88030100	SH LED 1F 5S BM	EACH	2.000 X	=		=	
88030110	SH LED 1F 5S MAM	EACH	3.000 X	=		=	
88030240	SH LED 2F 1-3 1-5 BM	EACH	1.000 X	=		=	
88102717	PED SH LED 1F BM CDT	EACH	4.000 X	=		=	
88200110	TS BACKPLATE LOUVERED	EACH	10.000 X	=		=	
88500100	INDUCTIVE LOOP DETECT	EACH	7.000 X	=		=	

FAU 4058
 13-00063-00-PV (CARY)
 MCHENRY

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT NUMBER - 63886

ECMS002 DTGECM03 ECMR003 PAGE 11
 RUN DATE - 01/24/14
 RUN TIME - 183116

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
88600100	DET LOOP T1	FOOT	633.000 X		=		
88700200	LIGHT DETECTOR	EACH	2.000 X		=		
88700300	LIGHT DETECTOR AMP	EACH	1.000 X		=		
88800100	PED PUSH-BUTTON	EACH	4.000 X		=		
89000100	TEMP TR SIG INSTALL	EACH	1.000 X		=		
89502300	REM ELCBL FR CON	FOOT	7,193.500 X		=		
89502375	REMOV EX TS EQUIP	EACH	1.000 X		=		
89502380	REMOV EX HANDHOLE	EACH	7.000 X		=		
89502382	REMOV EX DBL HANDHOLE	EACH	1.000 X		=		
89502385	REMOV EX CONC FDN	EACH	8.000 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 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 bid for a State contract or as recompense for not having bid on a State contract is guilty of a Class 4 felony. Any person who accepts any money or other valuable thing for not bidding for a State contract or who withholds a bid in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

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 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 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.

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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.

F. Educational Loan

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

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 provides:

(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.

RETURN WITH BID

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

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

H. International Anti-Boycott

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

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

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

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

Check the appropriate statement:

Company has no business operations in Iran to disclose.

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

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.**

NA-FEDERAL

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

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 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 \$25,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the contract. Furthermore, pursuant to Section 5-5, the Procurement Policy Board may review a proposal, bid, or contract and issue a recommendation to void a contract or reject a proposal or bid based on any violation of the 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 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.
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 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on Form A must be signed and dated by a person that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 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 person per bid even if a specific individual would require a yes answer to more than one question.)

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

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

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 the 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 \$25,000, 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 the 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 bids in excess of \$25,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

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

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature of Authorized Representative, Date

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

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

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

RETURN WITH BID

**Contract No. 63886
MCHENRY County
Section 13-00063-00-PV (Cary)
Project M-4003(240)
Route FAU 4058 (Jandus Cut Off Road)
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 **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. 63886
MCHENRY County
Section 13-00063-00-PV (Cary)
Project M-4003(240)
Route FAU 4058 (Jandus Cut Off Road)
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 _____
Attest _____
Signature _____
(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW)
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.



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 2300 South Dirksen Parkway Springfield, Illinois 62764	Local Let Projects Submit forms to the 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.



**Illinois Department
of Transportation**

DBE Participation Statement

Subcontractor Registration _____

Letting _____

Participation Statement

Item No. _____

(1) Instructions

Contract _____

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

Pay Item No.	Description	Quantity	Unit Price	Total
Total				

(3) Partial Payment Items

For any of the above items which are partial pay items, specifically describe the work and subcontract dollar amount:

(4) Commitment

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. 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 Prime Contractor

Title _____

Date _____

Contact _____

Phone _____

Firm Name _____

Address _____

City/State/Zip _____

Signature for DBE Firm

Title _____

Date _____

Contact Person _____

Phone _____

Firm Name _____

Address _____

City/State/Zip _____

E _____

WC _____

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under the 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 Management Center.

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. 63886
MCHENRY County
Section 13-00063-00-PV (Cary)
Project M-4003(240)
Route FAU 4058 (Jandus Cut Off Road)
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 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

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 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the **NOT APPLICABLE STATEMENT** on the second page of Form A must be signed and dated by a person that is authorized to execute contracts for the 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 person 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 a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable.** The person signing can be, but does not have to be, the person for which the form is being completed. The subcontractor is responsible for the accuracy of any information provided.

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

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 the 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 the 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 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.

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

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

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

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

THE FOLLOWING STATEMENT MUST BE CHECKED

Signature box with fields: Signature of Authorized Officer, 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 (ics-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 o'clock a.m. February 28, 2014. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- 2. DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. 63886
MCHENRY County
Section 13-00063-00-PV (Cary)
Project M-4003(240)
Route FAU 4058 (Jandus Cut Off Road)
District 1 Construction Funds**

Project consists of removal and disposal of unsuitable materials, earth excavation, Class D patches, full-depth HMA pavement, combination curb and gutter, HMA driveway pavement, retaining wall, roadway lighting, traffic signal modifications and all other incidental items to complete the work of FAU Route 4058 (Jandus Cut Off Road) from the Union Pacific Railroad to US Route 14 in the Village of Cary.

- 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

Ann L. Schneider,
Secretary

CONTRACT 63886

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2014

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 1-1-14)

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

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Effective as of the: February 28, 2014 Letting

Pg #	√	File Name	Title	Effective	Revised
		GBSP 4	Polymer Modified Portland Cement Mortar	June 7, 1994	July 26, 2013
		GBSP 12	Drainage System	June 10, 1994	Jan 1, 2007
		GBSP 13	High-Load Multi-Rotational Bearings	Oct 13, 1988	Oct 30, 2012
		GBSP 14	Jack and Remove Existing Bearings	April 20, 1994	Jan 1, 2007
		GBSP 15	Three Sided Precast Concrete Structure	July 12, 1994	Oct 15, 2011
		GBSP 16	Jacking Existing Superstructure	Jan 11, 1993	Jan 1, 2007
		GBSP 17	Bonded Preformed Joint Seal	July 12, 1994	Jan 1, 2007
		GBSP 18	Modular Expansion Joint	May 19, 1994	Jan 3, 2014
		GBSP 21	Cleaning and Painting Contact Surface Areas of Existing Steel Structures	June 30, 2003	May 18, 2011
		GBSP 25	Cleaning and Painting Existing Steel Structures	Oct 2, 2001	April 19, 2012
		GBSP 26	Containment and Disposal of Lead Paint Cleaning Residues	Oct 2, 2001	April 30, 2010
		GBSP 28	Deck Slab Repair	May 15, 1995	Oct 15, 2011
		GBSP 29	Bridge Deck Microsilica Concrete Overlay	May 15, 1995	Oct 30, 2012
		GBSP 30	Bridge Deck Latex Concrete Overlay	May 15, 1995	Jan 18, 2011
		GBSP 31	Bridge Deck High-Reactivity Metakaolin (HRM) Conc Overlay	Jan 21, 2000	Oct 30, 2012
		GBSP 32	Temporary Sheet Piling	Sept 2, 1994	Jan 31, 2012
		GBSP 33	Pedestrian Truss Superstructure	Jan 13, 1998	Aug 17, 2012
		GBSP 34	Concrete Wearing Surface	June 23, 1994	Feb 6, 2013
		GBSP 35	Silicone Bridge Joint Sealer	Aug 1, 1995	Oct 15, 2011
		GBSP 38	Mechanically Stabilized Earth Retaining Walls	Feb 3, 1999	July 26, 2013
		GBSP 42	Drilled Soldier Pile Retaining Wall	Sept 20, 2001	Jan 3, 2014
		GBSP 43	Driven Soldier Pile Retaining Wall	Nov 13, 2002	Jan 3, 2014
		GBSP 44	Temporary Soil Retention System	Dec 30, 2002	May 11, 2009
		GBSP 45	Bridge Deck Thin Polymer Overlay	May 7, 1997	Feb 6, 2013
		GBSP 46	Geotextile Retaining Walls	Sept 19, 2003	July 26, 2013
		GBSP 47	High Performance Concrete Structures	Aug 5, 2002	Jan 1, 2007
		GBSP 51	Pipe Underdrain for Structures	May 17, 2000	Jan 22, 2010
		GBSP 53	Structural Repair of Concrete	Mar 15, 2006	July 26, 2013
		GBSP 55	Erection of Curved Steel Structures	June 1, 2007	
		GBSP 56	Setting Piles in Rock	Nov 14, 1996	April 19, 2012
		GBSP 57	Temporary Mechanically Stabilized Earth Retaining Walls	Jan 6, 2003	July 26, 2013
		GBSP 59	Diamond Grinding and Surface Testing Bridge Sections	Dec 6, 2004	Jan 3, 2014
		GBSP 60	Containment and Disposal of Non-Lead Paint Cleaning Residues	Nov 25, 2004	Mar 6, 2009
		GBSP 61	Slipform Parapet	June 1, 2007	Aug 17, 2012
		GBSP 62	Concrete Deck Beams	June 13, 2008	Oct 9, 2009
		GBSP 64	Segmental Concrete Block Wall	Jan 7, 1999	Oct 30, 2012
		GBSP 65	Precast Modular Retaining Walls	Mar 19, 2001	Jan 3, 2014
		GBSP 66	Wave Equation Analysis of Piles	Nov 14, 2008	
		GBSP 67	Structural Assessment Reports for Contractor's Means and Methods	Mar 6, 2009	
		GBSP 70	Braced Excavation	Aug 9, 1995	May 18, 2011
		GBSP 71	Aggregate Column Ground Improvement	Jan 15, 2009	Oct 15, 2011

		GBSP 72	Bridge Deck Fly Ash or GGBF Slag Concrete Overlay	Jan 18, 2011	Oct 15, 2011
		GBSP 73	Cofferdams	Oct 15, 2011	
252	X	GBSP 74	Permanent Steel Sheet Piling (LRFD)	Jan 31, 2012	Aug 17, 2012
		GBSP 75	Bond Breaker for Prestressed Concrete Bulb-T Beams	April 19, 2012	
		GBSP 76	Granular Backfill for Structures	April 19, 2012	Oct 30, 2012
		GBSP 77	Weep Hole Drains for Abutments, Wingwalls, Retaining Walls And Culverts	April 19, 2012	Oct 22, 2013
		GBSP 78	Bridge Deck Construction	Oct 22, 2013	Jan 3, 2014

LIST ANY ADDITIONAL SPECIAL PROVISIONS BELOW

The following Guide Bridge Special Provisions have been incorporated into the 2012 Standard Specifications:

File Name	Title	Std Spec Location
GBSP22	Cleaning and Painting New Metal Structures	506
GBSP36	Surface Preparation and Painting Req. for Weathering Steel	506
GBSP50	Removal of Existing Non-composite Bridge Decks	501
GBSP58	Mechanical Splicers	508
GBSP63	Demolition Plans for Removal of Existing Structures	501
GBSP68	Piling	512
GBSP69	Freeze-Thaw Aggregates for Concrete Superstructures Poured on Grade	1004

The following Guide Bridge Special Provisions have been discontinued or have been superseded:

File Name	Title	Disposition:
GBSP37	Underwater Structure Excavation Protection	Replaced by GBSP73
GBSP11	Permanent Steel Sheet Piling	Replaced by GBSP74
GBSP52	Porous Granular Embankment (Special)	Replaced by GBSP76

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
For the January 17 and February 28, 2014 Lettings

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

<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
80292			Coarse Aggregate in Bridge Approach Slabs/Footings	April 1, 2012	April 1, 2013
80310			Coated Galvanized Steel Conduit	Jan. 1, 2013	
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	
80294			Concrete Box Culverts with Skews ≤ 30 Degrees Regardless of Design Fill and Skews > 30 Degrees with Design Fills > 5 Feet	April 1, 2012	
80311			Concrete End Sections for Pipe Culverts	Jan. 1, 2013	
* 80277			Concrete Mix Design – Department Provided	Jan. 1, 2012	Jan. 1, 2014
* 80261	261	X	Construction Air Quality – Diesel Retrofit	June 1, 2010	Jan. 1, 2014
80029	264	X	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Aug. 2, 2011
80265			Friction Aggregate	Jan. 1, 2011	
80229	274	X	Fuel Cost Adjustment	April 1, 2009	July 1, 2009
* 80329			Glare Screen	Jan. 1, 2014	
80303	278	X	Granular Materials	Nov. 1, 2012	
80304			Grooving for Recessed Pavement Markings	Nov. 1, 2012	Jan. 1, 2013
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	
80323			Hot-Mix Asphalt – Mixture Design Verification and Production	Nov 1, 2013	
80315			Insertion Lining of Culverts	Jan. 1, 2013	Nov 1, 2013
80324			LRFD Pipe Culvert Burial Tables	Nov 1, 2013	
80325	281	X	LRFD Storm Sewer Burial Tables	Nov 1, 2013	
80045			Material Transfer Device	June 15, 1999	Jan. 1, 2009
80165			Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
* 80330			Pavement Marking for Bike Symbol	Jan. 1, 2014	
80298			Pavement Marking Tape Type IV	April 1, 2012	
80254	291	X	Pavement Patching	Jan. 1, 2010	
* 80331	292	X	Payrolls and Payroll Records	Jan. 1, 2014	
* 80332			Portland Cement Concrete – Curing of Abutments and Piers	Jan. 1, 2014	
80326	294	X	Portland Cement Concrete Equipment	Nov 1, 2013	
80300			Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	
* 80328	295	X	Progress Payments	Nov. 2, 2013	
* 80281	296	X	Quality Control/Quality Assurance of Concrete Mixes	Jan. 1, 2012	Jan. 1, 2014
34261			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157			Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	

<u>File Name</u>	<u>Pg.</u>		<u>Special Provision Title</u>	<u>Effective</u>	<u>Revised</u>
80306			Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	Nov. 1, 2013
80327	297	X	Reinforcement bars	Nov 1, 2013	
80283			Removal and Disposal of Regulated Substances	Jan. 1, 2012	Nov. 2, 2012
80319	299	X	Removal and Disposal of Surplus Materials	Nov. 2, 2012	
80307			Seeding	Nov. 1, 2012	
80127	300	X	Steel Cost Adjustment	April 2, 2004	April 1, 2009
80317			Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	
80301	304	X	Tracking the Use of Pesticides	Aug. 1, 2012	
* 80333			Traffic Control Setup and Removal Freeway/Expressway	Jan. 1, 2014	
20338	305	X	Training Special Provisions	Oct. 15, 1975	
80318			Traversable Pipe Grate	Jan. 1, 2013	April 1, 2013
80288	308	X	Warm Mix Asphalt	Jan. 1, 2012	Nov. 1, 2013
80302	312	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 2014 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>
80309	Anchor Bolts	Articles 1006.09, 1070.01, and 1070.03	Jan. 1, 2013	
80276	Bridge Relief Joint Sealer	Article 503.19 and Sections 588 and 589	Jan. 1, 2012	Aug. 1, 2012
80312	Drain Pipe, Tile, Drainage Mat, and Wall Drain	Article 101.01, 1040.03, and 1040.04	Jan. 1, 2013	
80313	Fabric Bearing Pads	Article 1082.01	Jan. 1, 2013	
80169	High Tension Cable Median Barrier	Section 644 and Article 1106.02	Jan. 1, 2007	Jan. 1, 2013
80320	Liquidated Damages	Article 108.09	April 1, 2013	
80297	Modified Urethane Pavement Marking	Section 780, Articles 1095.09 and 1105.04	April 1, 2012	
80253	Moveable Traffic Barrier	Section 707 and Article 1106.02	Jan. 1, 2010	Jan. 1, 2013
80231	Pavement Marking Removal	Recurring CS #33	April 1, 2009	
80321	Pavement Removal	Article 440.07	April 1, 2013	
80022	Payments to Subcontractors	Article 109.11	June 1, 2000	Jan. 1, 2006
80316	Placing and Consolidating Concrete	Articles 503.06, 503.07, and 516.12	Jan. 1, 2013	
80278	Planting Woody Plants	Section 253 and Article 1081.01	Jan. 1, 2012	Aug. 1, 2012
80305	Polyurea Pavement Markings	Article 780.14	Nov. 1, 2012	Jan. 1, 2013
80279	Portland Cement Concrete	Sections 312, 503, 1003, 1004, 1019, and 1020	Jan. 1, 2012	Nov. 1, 2013
80218	Preventive Maintenance – Bituminous Surface Treatment	Recurring CS #34	Jan. 1, 2009	April 1, 2012
80219	Preventive Maintenance – Cape Seal	Recurring CS #35	Jan. 1, 2009	April 1, 2012
80220	Preventive Maintenance – Micro Surfacing	Recurring CS #36	Jan. 1, 2009	April 1, 2012
80221	Preventive Maintenance – Slurry Seal	Recurring CS #37	Jan. 1, 2009	April 1, 2012
80224	Restoring Bridge Approach Pavements Using High-Density Foam	Recurring CS #39	Jan. 1, 2009	Jan. 1, 2012
80255	Stone Matrix Asphalt	Sections 406, 1003, 1004, 1030, and 1011	Jan. 1, 2010	Aug. 1, 2013
80143	Subcontractor Mobilization Payments	Article 109.12	April 2, 2005	April 1, 2011

<u>File Name</u>	<u>Special Provision Title</u>	<u>New Location</u>	<u>Effective</u>	<u>Revised</u>
80308	Synthetic Fibers in Concrete Gutter, Curb, Median and Paved Ditch	Articles 606.02 and 606.11	Nov. 1, 2012	
80286	Temporary Erosion and Sediment Control	Articles 280.04 and 280.08	Jan. 1, 2012	
80225	Temporary Raised Pavement Marker	Recurring CS #38	Jan. 1, 2009	
80256	Temporary Water Filled Barrier	Section 708 and Article 1106.02	Jan. 1, 2010	Jan. 1, 2013
80273	Traffic Control Deficiency Deduction	Article 105.03	Aug. 1, 2011	
80270	Utility Coordination and Conflicts	Articles 105.07, 107.19, 107.31, 107.37, 107.38, 107.39 and 107.40	April 1, 2011	Jan. 1, 2012

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

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

STATE OF ILLINOIS
SPECIAL PROVISIONS

The following Special Provisions supplement the Illinois Department of Transportation's (IDOT) "Standard Specifications for Road and Bridge Construction," adopted January 1, 2012, (hereinafter referred to as the "Standard Specifications"); the "Manual on Uniform Traffic Control Devices for Streets and Highways" the "Manual of Test Procedures of Materials", in effect on the date of invitation for bids; the "Supplemental Specifications and Recurring Special Provisions," latest edition as indicated on the Check Sheet included herein, and Standard Specifications for Water and Sewer Main Construction in Illinois latest edition which apply to and govern the construction of the Jandus Cut Off Road Reconstruction, Section 13-00063-00-PV, Project M-4003(240), Job C-91-087-14, Contract No. 63886, Village of Cary, McHenry County. In case of conflict with any part or parts of the Standard Specifications, these Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

The project is located within the Village of Cary in McHenry County, Illinois on Jandus Cut Off Road (FAU 4058) from east of Jandus Road to US Route 14. The total net and gross length of the project is 897 Lineal Feet (0.17 Miles).

DESCRIPTION OF PROJECT

The work consists of removal and disposal of unsuitable material, earth excavation, erosion control, subbase granular material, aggregate subgrade improvements, Class D Patches, full depth HMA pavement, hot mix asphalt base course, hot mix asphalt binder and surface courses, combination concrete curb and gutter, storm sewer, hot mix asphalt driveways, PCC sidewalk, retaining wall, thermoplastic pavement marking, restoration, roadway lighting, traffic signal modernization and all incidental and collateral work necessary to complete the project and described herein.

MAINTENANCE OF ROADWAYS

Effective: September 30, 1985

Revised: November 1, 1996

Beginning on the date that the Contractor begins work on this project, he 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 for 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
Com Ed Nora Fernandez: 123 Energy Avenue Rockford, Illinois 61109 815-490-2869	Electric: Overhead	Jandus Road along existing road. 6 poles to be moved to back of right of way.	Facilities to be located and protected during construction. Relocation to begin 2/3/2014 and be completed in 30 working days.
Nicor Gas Constance Lane: 1844 Ferry Road Naperville, Illinois 60563 630-388-3830	Gas: Mains and Vault	South of Intersection of US 14 at Jandus Road.	Facilities to be located and protected during construction. Relocation to begin 2/3/2014 and be completed in 30 working days.
AT&T Bruce Gilbert 222 West Jackson Woodstock, Illinois 60098 815-385-3322	Telephone: Overhead and Ducts	On ComEd poles not impacted by construction and buried lines.	Facilities to be located and protected during construction. No relocation needed.
Comcast Martha Gieras 688 Industrial Drive Elmhurst, Illinois 60126 630-600-6349	Cable	No impacts. Facilities outside of job improvements.	Facilities to be located and protected during construction. No relocation needed.
Village of Cary Cris Papierniak 847-639-0003, Ext. 185	Sanitary Sewer and Watermain	Intersection of US 14 and Jandus	Relocation of Sanitary Sewer and watermain during construction. Facilities to be located and protected during construction.

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.

TRAFFIC CONTROL PLAN

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 and Village of Cary at least 72 hours in advance of beginning work.

Standards

701006-05, 701011-04, 701301-04, 701311-03, 701501-06, 701701-09, 701801-05 and 701901-03

Details

Suggested Maintenance of Traffic Plans
Traffic Control and Protection for Side Roads, Intersections and Driveways (TC-10)
District One Typical Pavement Markings (TC-13)
Pavement Marking Letters and Symbols For Traffic Staging (TC-16)
Arterial Road Information Signs (TC-22)
Driveway Entrance Signing (TC-26)

Special Provisions

Maintenance of Roadways
Public Convenience and Safety (Dist. 1)
Temporary Information Signing
Traffic Control and Protection (Arterials)
Pavement Marking Removal (BDE)
Pavement Patching (BDE)
Advance Public Notification

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."

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.

COMPLETION DATE PLUS WORKING DAYS

Effective: September 30, 1985

Revised: January 1, 2007

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, August 31, 2014 except as specified herein.

The Contractor will be allowed to complete all clean-up work and punch list items within 10 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 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.

ADVANCED PUBLIC NOTIFICATION

Description: This work shall consist of furnishing, installing, maintaining, relocating temporary information signing and changeable message signs for various stages of construction.

The Contractor shall provide notice to the public a minimum of 5 days in advance of any work that requires the closure of lanes through the use of a changeable message sign or temporary information signing.

Basis of Payment: This work will be paid as TEMPORARY INFORMATION SIGNING in sq. ft. or as CHANGEABLE MESSAGE SIGN in calendar months.

FRICITION SURFACE AGGREGATE (D1)

Effective: January 1, 2011

Revised: November 1, 2013

Revise Article 1004.01(a)(4) of the Standard Specifications to read:

- "(4) Crushed Stone. Crushed stone shall be the angular fragments resulting from crushing undisturbed, consolidated deposits of rock by mechanical means. Crushed stone shall be divided into the following, when specified.
 - a. Carbonate Crushed Stone. Carbonate crushed stone shall be either dolomite or limestone. Dolomite shall contain 11.0 percent or more magnesium oxide (MgO). Limestone shall contain less than 11.0 percent magnesium oxide (MgO).
 - b. Crystalline Crushed Stone. Crystalline crushed stone shall be either metamorphic or igneous stone, including but is not limited to, quartzite, granite, rhyolite and diabase."

Revise Article 1004.03(a) of the Standard Specifications to read:

"1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA). The aggregate shall be according to Article 1004.01 and the following revisions.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

Use	Mixture	Aggregates Allowed
Class A	Seal or Cover	<u>Allowed Alone or in Combination:</u> Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete

Use	Mixture	Aggregates Allowed								
HMA All Other	Shoulders	<u>Allowed Alone or in Combination:</u> Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{1/} Crushed Steel Slag ^{1/} Crushed Concrete								
HMA High ESAL Low ESAL	C Surface IL-12.5,IL-9.5, or IL-9.5L	<u>Allowed Alone or in Combination:</u> Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{1/} Crushed Steel Slag ^{1/} Crushed Concrete								
HMA High ESAL	D Surface IL-12.5 or IL-9.5	<u>Allowed Alone or in Combination:</u> Crushed Gravel Carbonate Crushed Stone (other than Limestone) Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{1/} Crushed Steel Slag ^{1/} Crushed Concrete								
		<u>Other Combinations Allowed:</u>								
		<table border="1"> <thead> <tr> <th>Up to...</th> <th>With...</th> </tr> </thead> <tbody> <tr> <td>25% Limestone</td> <td>Dolomite</td> </tr> <tr> <td>50% Limestone</td> <td>Any Mixture D aggregate other than Dolomite</td> </tr> <tr> <td>75% Limestone</td> <td>Crushed Slag (ACBF)^{1/} or Crushed Sandstone</td> </tr> </tbody> </table>	Up to...	With...	25% Limestone	Dolomite	50% Limestone	Any Mixture D aggregate other than Dolomite	75% Limestone	Crushed Slag (ACBF) ^{1/} or Crushed Sandstone
		Up to...	With...							
		25% Limestone	Dolomite							
50% Limestone	Any Mixture D aggregate other than Dolomite									
75% Limestone	Crushed Slag (ACBF) ^{1/} or Crushed Sandstone									
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Up to...	With...									
25% Limestone	Dolomite									
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Up to...	With...									
25% Limestone	Dolomite									
50% Limestone	Any Mixture D aggregate other than Dolomite									
75% Limestone	Crushed Slag (ACBF) ^{1/} or Crushed Sandstone									
HMA High ESAL	F Surface IL-12.5 or IL-9.5	<u>Allowed Alone or in Combination:</u> Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{1/} Crushed Steel Slag ^{1/} No Limestone or no Crushed Gravel alone. <u>Other Combinations Allowed:</u> <table border="1"> <thead> <tr> <th>Up to...</th> <th>With...</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Up to...	With...						
Up to...	With...									

Use	Mixture	Aggregates Allowed	
		50% Crushed Gravel, or Dolomite	Crushed Sandstone, Crushed Slag (ACBF) ^{1/} , Crushed Steel Slag ^{1/} , or Crystalline Crushed Stone
HMA High ESAL	SMA Ndesign 80 Surface	Crystalline Crushed Stone Crushed Sandstone Crushed Steel Slag	

1/ When either slag is used, the blend percentages listed shall be by volume.

Add the following to Article 1004.03 (b):

“ When using Crushed Concrete, the quality shall be determined as follows. The Contractor shall obtain a representative sample from the stockpile, witnessed by the Engineer, at a frequency of 2500 tons (2300 metric tons). The sample shall be a minimum of 50 lb (25 kg). The Contractor shall submit the sample to the District Office. The District will forward the sample to the BMR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent by weight will be applied for acceptance. The stockpile shall be sealed until test results are complete and found to meet the specifications above.”

FINE AGGREGATE FOR HOT-MIX ASPHALT (HMA) (D-1)

Effective: May 1, 2007

Revised: January 1, 2012

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

“(c) Gradation. The fine aggregate gradation for all HMA shall be FA1, FA 2, FA 20, FA 21 or FA 22. When Reclaimed Asphalt Pavement (RAP) is incorporated in the HMA design, the use of FA 21 Gradation will not be permitted.

HMA MIXTURE DESIGN REQUIREMENTS (D-1)

Effective: January 1, 2013

Revised: November 1, 2013

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, the mixture and test strip will not be paid for and the mixture shall be removed at the Contractor’s expense. An additional test strip and 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, the mixture shall be removed. Removal will be paid in accordance to Article 109.04 of the Standard Specifications. This initial mixture and test strip will be paid for at the contract unit prices. The additional mixture will be paid for at the contract unit price, and any additional test strips will be paid for at one half the unit price of each test strip.”

1) Design Composition and Volumetric Requirements

Revise the following table in Article 1030.01 of the Standard Specifications to read.

High ESAL	IL-25.0 binder; IL-19.0 binder; IL-12.5 surface; IL-9.5 surface; IL-4.75, SMA
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Revise the following table in Article 1030.04(a)(1):

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

High ESAL, MIXTURE COMPOSITION (% PASSING) ^{1/}														
Sieve Size	IL-25.0 mm		IL-19.0 mm		IL-12.5 mm		IL-9.5 mm		IL-4.75 mm		SMA ^{4/} IL-12.5 mm		SMA ^{4/} IL-9.5 mm	
	Min	max	min	max	min	max	min	max	min	max	min	max	min	max
1 1/2 in (37.5 mm)		100												
1 in. (25 mm)	90	100		100										
3/4 in. (19 mm)		90	82	100		100						100		
1/2 in. (12.5 mm)	45	75	50	85	90	100		100		100	80	100		100
3/8 in. (9.5 mm)						89	90	100		100		65	90	100
#4 (4.75 mm)	24	42 ^{2/}	24	50 ^{2/}	28	65	32	69	90	100	20	30	36	50
#8 (2.36 mm)	16	31	20	36	28	48 ^{3/}	32	52 ^{3/}	70	90	16	24 ^{5/}	16	32
#16 (1.18 mm)	10	22	10	25	10	32	10	32	50	65				
#30 (600 μm)											12	16	12	18
#50 (300 μm)	4	12	4	12	4	15	4	15	15	30				
#100 (150 μm)	3	9	3	9	3	10	3	10	10	18				
#200 (75 μm)	3	6	3	6	4	6	4	6	7	9 ^{6/}	7.0	9.0 ^{6/}	7.5	9.5 ^{6/}
Ratio Dust/Asphalt Binder		1.0		1.0		1.0		1.0		1.0		1.5		1.5

- 1/ Based on percent of total aggregate weight.
- 2/ The mixture composition shall not exceed 40 percent passing the #4 (4.75 mm) sieve for binder courses with Ndesign ≥ 90.
- 3/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign ≥ 90.
- 4/ The maximum percent passing the 20 μm sieve shall be ≤ 3 percent.
- 5/ When establishing the Adjusted Job Mix Formula (AJMF) the #8 (2.36mm) sieve shall not be adjusted above 24 percent.
- 6/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer."

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-25.0	IL-19.0	IL-12.5	IL-9.5	IL-4.75 ^{1/}	
50	12.0	13.0	14.0	15.0	18.5	65 – 78 ^{2/}
70					65 - 75	
90						
105						

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

2/ VFA for IL-4.75 shall be 72-85%”

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

Revise table in Article 1030.04(b)(5) as follows:

- “(5) 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 ^{2/}	75 - 83
		16 ^{3/}	

1/ Maximum Draindown shall be 0.3%.

2/ Applies when specific gravity of coarse aggregate is ≥ 2.760 .

3/ Applies when specific gravity of coarse aggregate is < 2.760 .

4/ For surface course, coarse aggregate shall be Class B Quality; 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.*

*Blending of different types of aggregate will not be permitted.

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.

When the options of Warm Mix Asphalt, Reclaimed Asphalt Shingles, or Reclaimed Asphalt Pavement are used by the Contractor, the Hamburg Wheel and tensile strength requirements in this special provision will be superseded by the special provisions for Warm Mix Asphalt and/or by the District special provision for Reclaimed Asphalt Pavement and Reclaimed Asphalt Shingles as applicable.

Mix Design Testing. 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 meeting the following requirements:

(1)Hamburg Wheel Test criteria.

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

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 415 kPa (60 psi) for non-polymer modified performance graded (PG) asphalt binder and 550 kPa (80 psi) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 1380 kPa (200 psi).”

Production Testing.

Revise first paragraph of Article 1030.06(a) to read:

“(a) High ESAL and IL-4.75 Mixtures. For each contract, a 300 ton (275 metric tons) test strip, except for IL -4.75 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”.”

Delete second paragraph of Article 1030.06 (a).

Revise first sentence in fourth paragraph of Article 1030.06 (a) to read:

“Before constructing the test strip, target values shall be determined by applying gradation correction factors to the JMF when applicable.”

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).

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.

Basis of Payment. Revise the seventh paragraph of Article 406.14 of the Standard Specifications to read:

"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."

BITUMINOUS PRIME COAT FOR HOT-MIX ASPHALT PAVEMENT (FULL DEPTH) (D-1)

Effective: May 1, 2007

Revise Article 407.06(b) of the Standard Specifications to read:

"A bituminous prime coat shall be applied between each lift of HMA according to Article 406.05(b) at a rate of 0.02 to 0.05 gal/sq yd (0.1 to 0.2 L/sq m), the exact rate to be determined by the Engineer."

Revise the second paragraph of Article 407.12 of the Standard Specifications to read:

"Prime Coat will be paid for at the contract unit price per gallon (liter) or per ton (metric ton) for BITUMINOUS MATERIALS (PRIME COAT)."

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

Effective: November 1, 2012

Revise: November 1, 2013

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, RAS or FRAP in conjunction with RAS is used, 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/ 4/}	Maximum % ABR		
	Binder/Leveling Binder	Surface	Polymer Modified ^{3/}
30L	50	40	30
50	40	35	30
70	40	30	30
90	40	30	30
4.75 mm N-50			40
SMA N-80			30

- 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/ When FRAP or RAS is used alone, the maximum percent asphalt binder replacement designated on the table shall be reduced by 10%.

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 2.500 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."

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 ± 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.”

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.”

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.

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)	1090.01

Note 1. The Contractor may use 16mm (5/8 inch) instead of 19mm (3/4 inch) 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 1084.02(b).

Note 4. The overlay panels shall be 2mm (0.08 inch) 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 702.05 and Article 720.04. The signs shall be 2.1m (7') above the near edge of the pavement and shall be a minimum of 600mm (2') beyond the edge of the paved shoulder. A minimum of 2 posts shall be used.

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

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

Method of Measurement: This work shall be measured for payment in square feet edge to edge (horizontally and vertically).

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

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

TEMPORARY PAVEMENT

Effective: March 1, 2003

Revised: April 10, 2008

Description. This work shall consist of constructing a temporary pavement at the locations shown on the plans or as directed by the engineer.

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.

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.

Method of Measurement. Temporary pavement will be measured in place and the area computed in square yards (square meters).

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

Removal of temporary pavement will be paid for at the contract unit price per square yard for PAVEMENT REMOVAL.

AGGREGATE SURFACE COURSE FOR TEMPORARY ACCESS

Effective: April 1, 2001

Revised: January 2, 2007

Revise Article 402.10 of the Standard Specifications to read:

"402.10 For Temporary Access. 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 12 ft (3.6 m). The minimum compacted thickness shall be 6 in. (150 mm). The maximum grade shall be eight percent, except as required to match the existing grade.
- (a) Commercial Entrance. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). The maximum grade shall be six percent, except as required to match the existing grade.
- (b) Road. The minimum width shall be 24 ft (7.2 m). The minimum compacted thickness shall be 9 in. (230 mm). 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."

Add the following to Article 402.12 of the Standard Specifications:

"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."

Revise the second paragraph of Article 402.13 of the Standard Specifications to read:

"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."

AGGREGATE SUBGRADE IMPROVEMENT (D-1)

Effective: February 22, 2012
Revised: November 1, 2013

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.
- (3) Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

EMBANKMENT II

Effective: March 1, 2011

Revised: November 1, 2013

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. The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

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.

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.

FORM LINER TEXTURED SURFACE

This work shall consist of providing architectural form liner as formwork for exposed areas of retaining walls according to applicable portions of Sections 503 of the Standard Specifications.

Architectural form liner shall be used to provide decorative construction on exposed areas of the retaining wall as shown on the Plans and details. These components shall closely duplicate the appearance of natural stone. Patterning of the simulated stone shall be nonrepeating and random. Seam lines or match lines caused from two or more forms coming together shall not be apparent when viewing final surfaces. The final concrete surface finish shall be provided and applied to duplicate the effect of a random stone wall with individual stones of various colors ranging from four shades of gray and tan. Decorative construction should extend a minimum of 6 inches below exposure lines. Finish should also include the application of a grout material that creates an appearance of mortar joints surrounding the individual stones. The simulated stone form liner pattern shall be No. 11003-RUSTIC ASHLAR as manufactured by Custom Rock International, St. Paul, Minnesota (800) 637-2447. The color stain, release agent, and simulated granite patterns shall be manufactured by Custom Rock International, St. Paul, Minnesota (800) 637-2447.

Grout for simulated mortar joints shall be one of the following:

1. D-J Grouting Mortar by Thoro Systems: Jacksonville, Florida
2. Tammspatch by Tamms Industries: Kirkland, Illinois

The Contractor shall submit sample panels of the decorative concrete wall showing size, surface finish, and colors for approval by owner. The samples shall be a minimum of 36" x 36" in size. The sample panel will be used as a basis for comparison with the finished product for the purposes of acceptance or rejection. Shop drawings shall be submitted showing plan, elevation, and details (to show overall pattern, joint locations, end, edge, and other special conditions) for approval by Engineer.

Method of Measurement. Architectural Form Liner will be measured in square feet. The overall square footage will be based on exposed area of decorative construction for retaining walls as indicated by the drawing on the plans.

Basis of Payment. This work will be paid for at the contract unit price per square foot for FORM LINER TEXTURED SURFACE. This price will be payment in full for all form liner, color staining, surface finishes and grout materials. This price shall also include all labor, tools, equipment and incidentals necessary to complete work in accordance with the Special Provision for Architectural Form Liner including any cutting of form liner necessary to achieve appearance of natural stone.

ENVIRONMENTAL NOTICE FOR DRAINAGE STRUCTURES

This work shall consist of providing an environmental notice that shall be placed on all proposed open lid drainage structures.

The text of the notice shall be "DUMP NO WASTE" and "DRAINS TO WATERWAYS" or similar wording meeting the approval of the Engineer. The notice shall be cast into the top of the lid, curb inlet, or grate (if the frame does not have a curb inlet).

If the Engineer determines that the proposed grate is not of sufficient size to allow the text of the notice to be cast or engraved into the grate, the Contractor shall furnish and install a separate grey iron or ductile iron casting plate with the notice cast or engraved into the plate. The Contractor shall embed the plate in the plastic concrete flush with the top of curb at curb drainage structure locations as the curb is constructed.

The cost of this work will not be paid for separately, but shall be included in the contract unit price for the various drainage structures being constructed.

DRYWELL

This work shall consist of furnishing and installing a drywell at location shown in the plans and as directed by the Engineer. The size and depth of the dry well shall be as shown on the plans and as directed by the Engineer. The work shall be performed in accordance with applicable portions of Section 602 of the Standard Specifications and the detail in the plans.

Basis of Payment: This work will be paid for at the contract unit price per each for DRYWELL, which price shall include all materials, labor, and equipment necessary to perform the work as shown in the plans.

DRAINAGE STRUCTURE TO BE REMOVED

This work shall consist of the removal of existing drainage and sanitary structures and shall be performed in accordance with all applicable articles of Section 605 of the Standard Specifications except that manholes, valve vaults, catch basins and inlets shall all be considered as drainage structures. This work shall include all trench backfill required to fill excavated trenches.

Removal of vaults shall be coordinated with the Village of Cary and disposal of the vault shall be made at the public works facility

Basis of Payment: Drainage structure removal will be paid for at the contract unit price per each for DRAINAGE STRUCTURE TO BE REMOVED, regardless of type, which price shall include all excavation and backfilling, removing and disposing of structure and all sheeting or shoring required.

FIRE HYDRANTS TO BE REMOVED

This work shall be done in accordance with Section 564 of the Standard Specifications and Village standards except as modified herein and as shown on the details in the plans. This item includes the removal of existing auxiliary valve and valve boxes and fire hydrants (as directed by the Engineer).

All work, including operation of valves and water main shut-downs, shall be coordinated with the Village of Cary. All materials required must be on site prior to water turn off so that the service interruption will be minimal.

The excavated areas shall be backfilled with fine aggregate and mechanically compacted. All required trench backfill shall be included in the pay item FIRE HYDRANT TO BE REMOVED.

Basis of Payment: This work will be paid for at the contract unit price per each for FIRE HYDRANT TO BE REMOVED which price shall be payment in full for all labor, equipment, and materials necessary to complete the work specified herein.

FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX

This work shall consist of furnishing and installing fire hydrants, auxiliary valves, valve boxes and associated pipes and fittings at the locations indicated in the plans or as directed by the Engineer. In addition to this special provision, this work shall be in accordance with the Village of Cary Standard Specifications for Improvements and the details included in the plans.

Materials

Fire hydrants shall be Waterous Pacer Model WB-67.

Thrust blocking shall be either precast concrete blocks or cast-in-place concrete. Granular backfill material shall be IDOT gradation CA-7. These materials shall be according to the following:

	Item	Article/Section
(a)	Portland Cement Concrete	1020
(b)	Coarse Aggregate	1004.01

All hydrants and any required adjustment fittings shall receive one (1) coat of rustproof base federal safety red paint.

Construction Requirements

All new fire hydrants shall be set on a firm foundation. Thrust blocks shall be set so as to not block or obstruct the hydrant drain, and in such a manner that the pipe, fittings and joints shall be accessible for future repair. Clean aggregate shall placed in the excavation.

All fire hydrants shall be tested and disinfected in accordance with Article 561.03 of the Standard Specifications.

Any fire hydrant not in service shall be securely covered or bagged to prevent accidental use. Non-operative or out of service fire hydrants shall be reported to the Village of Cary Fire Department immediately.

At least 30 calendar days prior to installation of water mains covered in these specifications, the Contractor shall submit to the Engineer shop drawings of all items to be installed. The manufacturer's catalog description of all fittings and other related items shall also be submitted for review and approval.

Basis of Payment

This work will be paid for at the contract unit price per each for FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX, which price shall include furnishing and installation of the new hydrant, valve, and valve box, all connections and fittings, mechanical joints, trench backfill, thrust blocks, and required testing.

WATER MAIN REMOVAL

This work shall consist of the removal of existing water main at the locations indicated in the plans or as directed by the Engineer.

The Contractor shall sawcut the existing water main and install a mechanical joint end cap on the end of the existing water main that is to be abandoned in place.

No pipe removed shall be considered as salvage. All material shall be disposed of, in accordance with Article 202.03 of the Standard Specifications.

Excavation of trenches shall be performed according to the applicable requirements of Article 550.04. Backfill of trenches shall be performed according to the applicable requirements of Article 550.07.

Method of Measurement

This work will be measured for payment in feet, along the pipe to be removed. The length measured will include stops, fittings and valves.

Basis of Payment

This work will be paid for at the contract unit price per foot for WATER MAIN REMOVAL, of the diameter specified.

Cutting and capping the existing water main will be paid for at the contract unit price per each for CUT AND CAP EXISTING WATER MAIN, of the size specified.

REMOVE EXISTING VALVE AND VAULT

This work shall consist of removing valve vaults at the locations indicated in the plans. In addition to this special provision, this work shall be in accordance with Articles 605.03 and 605.05 of the Standard Specifications.

Basis of Payment

This work will be paid for at the contract unit price per each for REMOVE EXISTING VALVE AND VAULT.

DUCTILE IRON FITTINGS

Ductile iron fittings shall be compact mechanical joint Class 350 fittings in accordance with AWWA C153. Ductile iron fittings shall be considered incidental to Pipe Installation for Water Mains of the type and size specified.

DUCTILE IRON WATER MAIN, CLASS 52, WITH POLYETHYLENE ENCASUREMENT

This work shall consist of constructing ductile iron water main at the locations indicated in the plans or as directed by the Engineer. In addition to this special provision, this work shall be in accordance with Section 561 of the Standard Specifications, the Village of Cary Standard Specifications for Improvements and the details included in the plans.

Materials

The water main shall be "Ductile Iron," ANSI thickness Class 52, single gasket, double dealing pipe per AWWA 151/ANSI A21.51 (latest edition) with cement mortar lining per AWWA C104/ANSI A21.4 (latest edition). The manufacturer shall be Griffin, Clow, American Cast Iron Pipe Co. or U.S. Pipe & Foundry.

Ductile iron pipe joints shall conform to AWWA C111/A21.11 (latest revision). Unless otherwise specified by the City Engineer, Ductile Iron Pipe joints shall be push-on type.

All water mains shall be wrapped in 8-mil thick polyethylene film encasement in accordance with AWWA C105-82/ANSI A21.5, with pipe and joints wrapped separately.

At least 30 calendar days prior to installation of water mains covered in these specifications, the Contractor shall submit to the Engineer shop drawings of all items to be installed. The manufacturer's catalog description of all fittings and other related items shall also be submitted for review and approval.

The Contractor shall perform Hydrostatic Tests in accordance with Division IV, Section 41 of the Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition, and applicable provisions of AWWA C-600 and C-603. The water mains shall maintain a 150 psi average for a period of not less than 2 hour. Allowable leakage shall be as set forth in Standard Specifications for Water and Sewer Main Construction in Illinois, latest edition, and at no time shall the pressure loss be greater than 2 psi.

Duration of the test shall be two (2) hours minimum. The Contractor shall provide and use a pressure gauge approved by the City for the test. The gauge should be of good quality and condition and be fluid filled. The gauge should have large enough range for the pressure of one (1) psi. The testing length shall be limited to 1000 lineal feet. If more than 1000 lineal feet of water main is tested, the allowable leakage will be based upon 1000 lineal feet. The City water operator in charge or person authorized by the City water operator in charge shall be present during all testing.

Upon completion of the newly laid water main, the water main shall be disinfected in accordance with the American Water Works Association, Procedure Destination, AWWA C-651. The Contractor is responsible for collecting samples and having bacteriological testing performed as required by the Illinois Environmental Protection Agency. The Engineer shall be present when the samples are taken.

Water samples collected on two (2) successive days from the treated piping system shall show satisfactory bacteriological results. Bacteriological analyses must be performed by a laboratory certified by the IEPA and approved by the Engineer.

Should the initial treatment result in an unsatisfactory bacterial test, the original chlorination procedure shall be repeated by the Contractor until satisfactory results are obtained at the contractors own expense.

The Contractor shall furnish to the Engineer the required documentation, test results, etc., required by the IEPA for placing the water main in service.

This work will not be paid for separately and shall be considered included in the cost to WATER MAIN of the size and type specified. Corporation stops shall be installed within the valve vaults as necessary for flushing, testing, and chlorinating/de-chlorinating. These corporation stops will not be paid for separately but shall be considered incidental to this pay item.

Method of Measurement

This work will be measured for payment in place in feet. The length measured will include stops, fittings and valves.

Basis of Payment

This work will be paid for at the contract unit price per foot for DUCTILE IRON WATER MAIN, CLASS 52, WITH POLYETHYLENE ENCASEMENT, of the size specified.

STEEL CASING PIPE, BORED AND JACKED

This work shall include providing a steel casing pipe and spacers for the sanitary sewer where it crosses under US route 14 as shown on the plans, excavation of push pits and receiving pits, required shoring, dewatering, backfill material and compaction of backfill material at the push pits and receiving pits, jacking the casing pipe into place, welding sections of the casing pipe together, filling the annular space around the outside of the casing pipe with an Engineer approved material, proper disposal of excavated material and all other work required to complete installation of the casing pipe.

The work shall be performed in accordance with applicable portions of Section 552 of the Standard Specifications in accordance with applicable portions of Division II, Section 23 TRENCHLESS CONSTRUCTION METHODS (TCM) of the "Standard Specifications for Water and Sewer Main Construction in Illinois" that is for boring and jacking; where casing is called out, steel sleeves shall meet or exceed ASTM A-139, Grade B and shall be a minimum of 3/8 inch thick, with a continuous, circular one-half inch bead weld. Stainless steel dual-carrier spacers with plastic or fiberglass runners shall be used and placed at a rate of 3 per 20 feet on the pipe. Grout or granular material approved by the Engineer shall be used to fill the space between the pipe and the casing, and the ends of the casing shall be sealed off with a concrete bulkhead.

Basis of Payment: This work shall be paid for at the contract unit price per foot for STEEL CASING PIPE, BORED AND JACKED, of the type and size specified, which price shall include all materials, labor, and

equipment necessary to perform the work as shown in the plans.

MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID.

Description: This work shall consist of supplying and placing a sanitary manhole at the locations shown on the plans. The work shall be performed in accordance with the Standard Specifications Section 602 and Standard Specifications for Water and Sewer Main Construction in Illinois.

Method of Measurement: This work shall be measured per each sanitary manhole.

Basis of Payment: This work shall be paid for at the contract unit price EACH for MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID.

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

This work shall consist of furnishing and installation of a manhole with restrictor plate in accordance with all applicable articles of the Standard Specifications and details in the plans.

Basis of Payment: This work will be paid for at the contract unit price each for MANHOLES, TYPE A, 6' DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE, which price shall include all frames, lids, concrete and reinforcement, plate, angles and all excavation and backfilling and other related work.

SANITARY SEWER, Type 1, 8"
SANITARY SEWER, Type 1, 12"

Description: This work consists of the installation of Sanitary Sewer of the size shown on the plans. The Sanitary Sewer shall be constructed with ductile iron pipe and fittings conforming to ANSI A 21.51 (AWWA C151), the class thickness designed per ANSI A 21.50 (AWWA C150), cement lined with bituminous coating per ANSI A 21.4 (AWWA C104), and joints per ANSI A 21.11 (AWWA C111 and C600). Installation shall be in accordance with applicable information from Standard Specifications, Division III Section 30 of the Standard Specifications for Water and Sewer Main Construction in Illinois.

Excavation and backfill for Sanitary Sewer shall conform to the provisions of Sections 20, 21, and 22 of the Standard Specifications for Water & Sewer Main Construction in Illinois.

When 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.

Dewatering, if required, shall be considered included in the cost to the Contract.

The Contractor shall furnish to the Engineer the required documentation, test results, etc., required by the IEPA for placing the sanitary sewer. This work will not be paid for separately and shall be considered included in the cost to SANITARY SEWER.

Method of Measurement: This work shall be measured per lineal foot of SANITARY SEWER of the size and type specified.

Basis of Payment: This work will be paid for at the contract unit price per linear foot for SANITARY SEWER, TYPE 1 of the size specified.

GENERAL ELECTRICAL REQUIREMENTS

Effective: January 1, 2012

Add the following to Article 801 of the Standard Specifications:

“Maintenance transfer and Preconstruction Inspection:

General. Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, the Contractor shall request a maintenance transfer and preconstruction site inspection, to be held in the presence of the Engineer and a representative of the party or parties responsible for maintenance of any lighting and/or traffic control systems which may be affected by the work. The request for the maintenance transfer and preconstruction inspection shall be made no less than seven (7) calendar days prior to the desired inspection date. The maintenance transfer and preconstruction inspection shall:

Establish the procedures for formal transfer of maintenance responsibility required for the construction period.

Establish the approximate location and operating condition of lighting and/or traffic control systems which may be affected by the work

Marking of Existing Cable Systems. The party responsible for maintenance of any existing lighting and/or traffic control systems at the project site will, at the Contractor's request, mark and/or stake, once per location, all underground cable routes owned or maintained by the State. A project may involve multiple "locations" where separated electrical systems are involved (i.e. different controllers). The markings shall be taken to have a horizontal tolerance of at least 304.8 mm (one (1) foot) to either side.. The request for the cable locations and marking shall be made at the same time the request for the maintenance transfer and preconstruction inspection is made. The Contractor shall exercise extreme caution where existing buried cable runs are involved. The markings of existing systems are made strictly for assistance to the Contractor and this does not relieve the Contractor of responsibility for the repair or replacement of any cable run damaged in the course of his work, as specified elsewhere herein. Note that the contractor shall be entitled to only one request for location marking of existing systems and that multiple requests may only be honored at the contractor's expense. No locates will be made after maintenance is transferred, unless it is at the contractor's expense.

Condition of Existing Systems. The Contractor shall conduct an inventory of all existing electrical system equipment within the project limits, which may be affected by the work, making note of any parts which are found broken or missing, defective or malfunctioning. Megger and load readings shall be taken for all existing circuits which will remain in place or be modified. If a circuit is to be taken out in its entirety, then readings do not have to be taken. The inventory and test data shall be reviewed with and approved by the Engineer and a record of the inventory shall be submitted to the Engineer for the record. Without such a record, all systems transferred to the Contractor for maintenance during construction shall be returned at the end of construction in complete, fully operating condition.”

Add the following to the 1st paragraph of Article 801.05(a) of the Standard Specifications:

“Items from multiple disciplines shall not be combined on a single submittal and transmittal. Items for lighting, signals, surveillance and CCTV must be in separate submittals since they may be reviewed by various personnel in various locations.”

Revise the second sentence of the 5th paragraph of Article 801.05(a) of the Standard Specifications to read:

"The Engineer will stamp the submittals indicating their status as 'Approved', 'Approved as Noted', 'Disapproved', or 'Information Only'.

Revise the 6th paragraph of Article 801.05(a) of the Standard Specifications to read:

"Resubmittals. All submitted items reviewed and marked 'Approved as Noted', or 'Disapproved' are to be resubmitted in their entirety with a disposition of previous comments to verify contract compliance at no additional cost to the state unless otherwise indicated within the submittal comments."

Revise Article 801.11(a) of the Standard Specifications to read:

"Lighting Operation and Maintenance Responsibility. The scope of work shall include the assumption of responsibility for the continuing operation and maintenance the of existing, proposed, temporary, sign and navigation lighting, or other lighting systems and all appurtenances affected by the work as specified elsewhere herein. Maintenance of lighting systems is specified elsewhere and will be paid for separately

Energy and Demand Charges. The payment of basic energy and demand charges by the electric utility for existing lighting which remains in service will continue as a responsibility of the Owner, unless otherwise indicated. Unless otherwise indicated or required by the Engineer duplicate lighting systems (such as temporary lighting and proposed new lighting) shall not be operated simultaneously at the Owner's expense and lighting systems shall not be kept in operation during long daytime periods at the Owner's expense. Upon written authorization from the Engineer to place a proposed new lighting system in service, whether the system has passed final acceptance or not, (such as to allow temporary lighting to be removed), the Owner will accept responsibility for energy and demand charges for such lighting, effective the date of authorization. All other energy and demand payments to the utility shall be the responsibility of the Contractor until final acceptance."

Add the following to Section 801 of the Standard Specifications:

"Lighting Cable Identification. Each wire installed shall be identified with its complete circuit number at each termination, splice, junction box or other location where the wire is accessible."

"Lighting Cable Fuse Installation. Standard fuse holders shall be used on non-frangible (non-breakaway) light pole installations and quick-disconnect fuse holders shall be used on frangible (breakaway) light pole installations. Wires shall be carefully stripped only as far as needed for connection to the device. Over-stripping shall be avoided. An oxide inhibiting lubricant shall be applied to the wire for minimum connection resistance before the terminals are crimped-on. Crimping shall be performed in accordance with the fuse holder manufacturer's recommendations. The exposed metal connecting portion of the assembly shall be taped with two half-lapped wraps of electrical tape and then covered by the specified insulating boot. The fuse holder shall be installed such that the fuse side is connected to the pole wire (load side) and the receptacle side of the holder is connected to the line side."

Revise the 2nd paragraph of Article 801.16 of the Standard Specifications to read:

"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. 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 either by filename or PDF table of contents the respective pay item number. Specific part or model numbers of items which have been selected shall be clearly visible.”

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 electrical components being installed, modified or being affected in other ways by this contract:

- Last light pole on each circuit
- Handholes
- Conduit roadway crossings
- Controllers
- Control Buildings
- Structures with electrical connections, i.e. DMS, lighted signs.
- Electric Service 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:

Equipment Description	Equipment Designation	Latitude	Longitude
CCTV Camera pole	ST42	41.580493	-87.793378
FO mainline splice handhole	HHL-ST31	41.558532	-87.792571
Handhole	HH at STA 234+35	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
Conduit crossing	SB IL83 to EB I290 ramp SIDE B	41.584600	-87.793432
Light Pole	DA03	41.558532	-87.792571
Lighting Controller	X	41.651848	-87.762053
Sign Structure	FGD	41.580493	-87.793378
Video Collection Point	VCP-IK	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."

MAINTENANCE OF LIGHTING SYSTEMS

Effective: January 1, 2012

Replace Article 801.11 and 801.12 of the Standard Specifications with the following:

Effective the date the Contractor's activities (electrical or otherwise) at the job site begin, the Contractor shall be responsible for the proper operation and maintenance of all existing and proposed lighting systems which are part of, or which may be affected by the work until final acceptance or as otherwise determined by the Engineer.

Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, the Contractor shall initiate a request for a maintenance transfer and preconstruction inspection, as specified elsewhere herein, to be held in the presence of the Engineer and a representative of the party or parties responsible for maintenance of any lighting systems which may be affected by the work. The request for the maintenance preconstruction inspection shall be made no less than seven (7) calendar days prior to the desired inspection date.

Existing lighting systems, when depicted on the plans, are intended only to indicate the general equipment installation of the systems involved and shall not be construed as an exact representation of the field conditions. It remains the Contractor's responsibility to visit the site to confirm and ascertain the exact condition of the electrical equipment and systems to be maintained.

Maintenance of Existing Lighting Systems

Existing lighting systems. Existing lighting systems shall be defined as any lighting system or part of a lighting system in service at the time of contract Letting. The contract drawings indicate the general extent of any existing lighting, but whether indicated or not, it remains the Contractor's responsibility to ascertain the extent of effort required for compliance with these specifications and failure to do so will not be justification for extra payment or reduced responsibilities.

Extent of Maintenance.

Partial Maintenance. Unless otherwise indicated, if the number of circuits affected by the contract is equal to or less than 40% of the total number of circuits in a given controller and the controller is not part of the contract work, the Contractor needs only to maintain the affected circuits. The affected circuits shall be isolated by means of in-line waterproof fuse holders as specified elsewhere and as approved by the Engineer.

Full Maintenance. If the number of circuits affected by the contract is greater than 40% of the total number of circuits in a given controller, or if the controller is modified in any way under the contract work, the Contractor shall maintain the entire controller and all associated circuits.

Maintenance of Proposed Lighting Systems

Proposed Lighting Systems. Proposed lighting systems shall be defined as any lighting system or part of a lighting system, temporary or permanent, which is to be constructed under this contract.

The Contractor shall be fully responsible for maintenance of all items installed under this contract. Maintenance shall include, but not be limited to, any equipment failures or malfunctions as well as equipment damage either by the motoring public, Contractor operations, vandalism, or other means. The potential cost of replacing or repairing any malfunctioning, damaged, or vandalized equipment shall be included in the bid price of this item and will not be paid for separately.

Lighting System Maintenance Operations

The Contractor's responsibility shall include all applicable responsibilities of the Electrical Maintenance Contract, State of Illinois, Department of Transportation, Division of Highways, District One. These responsibilities shall include the maintenance of lighting units (including sign lighting), cable runs and lighting controls. In the case of a pole knockdown or sign light damage, the Contractor shall promptly clear the lighting unit and circuit discontinuity and restore the system to service. The equipment shall then be re-set by the contractor within the time limits specified herein.

If the equipment damaged by normal vehicular traffic, not contractor operations, is beyond repair and cannot be re-set, the contractor shall replace the equipment in kind with payment made for such equipment under Article 109.04. If the equipment damaged by any construction operations, not normal vehicular traffic, is beyond repair and cannot be re-set, the contractor shall replace the equipment in kind and the cost of the equipment shall be included in the cost of this pay item and shall not be paid for separately.

Responsibilities shall also include weekly night-time patrol of the lighting system, with patrol reports filed immediately with the Engineer and with deficiencies corrected within 24 hours of the patrol. Patrol reports shall be presented on standard forms as designated by the Engineer. Uncorrected deficiencies may be designated by the Engineer as necessitating emergency repairs as described elsewhere herein.

The following chart lists the maximum response, service restoration, and permanent repair time the Contractor will be allowed to perform corrective action on specific lighting system equipment.

INCIDENT OR PROBLEM	SERVICE RESPONSE TIME	SERVICE RESTORATION TIME	PERMANENT REPAIR TIME
Control cabinet out	1 hour	4 hours	7 Calendar days
Hanging mast arm	1 hour to clear	na	7 Calendar days
Radio problem	1 hour	4 hours	7 Calendar days
Motorist caused damage or leaning light pole 10 degrees or more	1 hour to clear	4 hours	7 Calendar days
Circuit out – Needs to reset breaker	1 hour	4 hours	na
Circuit out – Cable trouble	1 hour	24 hours	21 Calendar days
Outage of 3 or more successive lights	1 hour	4 hours	na
Outage of 75% of lights on one tower	1 hour	4 hours	na
Outage of light nearest RR crossing approach, Islands and gores	1 hour	4 hours	na
Outage (single or multiple) found on night outage survey or reported to EMC	na	na	7 Calendar days
Navigation light outage	na	na	24 hours

- **Service Response Time** -- amount of time from the initial notification to the Contractor until a patrolman physically arrives at the location.
- **Service Restoration Time** – amount of time from the initial notification to the Contractor until the time the system is fully operational again (In cases of motorist caused damage the undamaged portions of the system are operational.)
- **Permanent Repair Time** – amount of time from initial notification to the Contractor until the time permanent repairs are made if the Contractor was required to make temporary repairs to meet the service restoration requirement.

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 any monies owed to the Contractor. Repeated failures and/or a gross failure of maintenance shall result in the State's Electrical Maintenance Contractor being directed to correct all deficiencies and the resulting costs deducted from any monies owed the contractor.

Damage caused by the Contractor's operations shall be repaired at no additional cost to the Contract.

Operation of Lighting

The lighting shall be operational every night, dusk to dawn. Duplicate lighting systems (such as temporary lighting and proposed new lighting) shall not be operated simultaneously. Lighting systems shall not be kept in operation during long daytime periods.

Method of Measurement

The contractor shall demonstrate to the satisfaction of the Engineer that the lighting system is fully operational prior to submitting a pay request. Failure to do so will be grounds for denying the pay request. Months in which the lighting systems are not maintained and not operational will not be paid for. Payment shall not be made retroactively for months in which lighting systems were not operational.

Basis of Payment. Maintenance of lighting systems shall be paid for at the contract unit price per calendar month for MAINTENANCE OF LIGHTING SYSTEM, which shall include all work as described herein.

EXPOSED RACEWAYS

Effective: January 1, 2012

Revise the first paragraph of Article 811.03(a) of the Standard Specifications to read:

“General. Rigid metal conduit installation shall be according to Article 810.05(a). Conduits terminating in junction and pull boxes shall be terminated with insulated and gasketed watertight threaded NEMA 4X conduit hubs. The hubs shall be Listed under UL 514B. The insulated throat shall be rated up to 105° C. When PVC coated conduit is utilized, the aforementioned hubs shall also be PVC coated.”

Add the following to Article 811.03(b) of the Standard Specifications:

“Where PVC coated conduit is utilized, all conduit fittings, couplings and clamps shall be PVC coated. All other mounting hardware and appurtenances shall be stainless steel.”

“The personnel installing the PVC coated conduit must be trained and certified by the PVC coated conduit Manufacturer or Manufacturer’s representative to install PVC coated conduit. Documentation demonstrating this requirement must be submitted for review and approval.”

Add the following to Article 1088.01(a) of the Standard Specifications:

All iron and steel products, which are to be incorporated into the work, including conduit and all conduit fittings, shall be domestically manufactured or produced and fabricated as specified in Article 106.”

Revise Article 1088.01(a)(3) of the Standard Specifications to read:

“a. PVC Coated Steel Conduit. The PVC coated rigid metal conduit shall be UL Listed (UL 6). The PVC coating must have been investigated by UL as providing the primary corrosion protection for the rigid metal conduit. Ferrous fittings for general service locations shall be UL Listed with PVC as the primary corrosion protection. Hazardous location fittings, prior to plastic coating shall be UL listed.

b. The PVC coating shall have the following characteristics:

Hardness:	85+ Shore A Durometer
Dielectric Strength:	400V/mil @ 60 Hz
Aging:	1,000 Hours Atlas Weatherometer
Temperature	The PVC compound shall conform at 0° F. to Federal Specifications PL-406b, Method 2051, Amendment 1 of 25 September 1952 (ASTM D 746)
Elongation:	200%

- c. The exterior and interior galvanized conduit surface shall be chemically treated to enhance PVC coating adhesion and shall also be coated with a primer before the PVC coating to ensure a bond between the zinc substrate and the PVC coating. The bond strength created shall be greater than the tensile strength of the plastic coating.
- d. The nominal thickness of the PVC coating shall be 1 mm (40 mils). The PVC exterior and urethane interior coatings applied to the conduit shall afford sufficient flexibility to permit field bending without cracking or flaking at temperatures above -1°C (30°F).
- e. An interior urethane coating shall be uniformly and consistently applied to the interior of all conduit and fittings. This internal coating shall be a nominal 2 mil thickness. The interior coating shall be applied in a manner so there are no runs, drips, or pinholes at any point. The coating shall not peel, flake, or chip off after a cut is made in the conduit or a scratch is made in the coating.
- f. Conduit bodies shall have a tongue-in-groove gasket for maximum sealing capability. The design shall incorporate a positive placement feature to assure proper installation. Certified test results confirming seal performance at 15 psig (positive) and 25 in. of mercury (vacuum) for 72 hours shall be submitted for review when requested by the Engineer.
- g. The PVC conduit shall pass the following tests:

Exterior PVC Bond test RN1:

Two parallel cuts 13 mm (1/2 inch) apart and 40 mm (1 1/2 inches) in length shall be made with a sharp knife along the longitudinal axis. A third cut shall be made perpendicular to and crossing the longitudinal cuts at one end. The knife shall then be worked under the PVC coating for 13 mm (1/2 inch) to free the coating from the metal.

Using pliers, the freed PVC tab shall be pulled with a force applied vertically and away from the conduit. The PVC tab shall tear rather than cause any additional PVC coating to separate from the substrate.

Boil Test:

Acceptable conduit coating bonds (exterior and interior) shall be confirmed if there is no disbondment after a minimum average of 200 hours in boiling water or exposure to steam vapor at one atmosphere. Certified test results from a national recognized independent testing laboratory shall be submitted for review and approval. The RN1 Bond Test and the Standard Method for Measuring Adhesion by Tape Test shall be utilized.

Exterior Adhesion. In accordance with ASTM D870, a 6" length of conduit test specimen shall be placed in boiling water. The specimen

shall be periodically removed, cooled to ambient temperature and immediately tested according to the bond test (RN1). When the PVC coating separates from the substrate, the boil time to failure in hours shall be recorded.

Interior Adhesion. In accordance with ASTM D3359, a 6" conduit test specimen shall be cut in half longitudinally and placed in boiling water or directly above boiling water with the urethane surface facing down. The specimen shall be periodically removed, cooled to ambient temperature and tested in accordance with the Standard Method of Adhesion by Tape Test (ASTM D3359). When the coating disbonds, the time to failure in hours shall be recorded.

Heat/Humidity Test:

Acceptable conduit coating bonds shall be confirmed by a minimum average of 30 days in the Heat and Humidity Test. The RN1 Bond Test and the Standard Method for Measuring Adhesion by Tape Test shall be utilized.

Exterior Adhesion. In accordance with ASTM D1151, D1735, D2247 and D4585, conduit specimens shall be placed in a heat and humidity environment where the temperature is maintained at 150°F (66°C) and 95% relative humidity. The specimens shall be periodically removed and a bond test (RN1) performed. When the PVC coating separates from the substrate, the exposure time to failure in days shall be recorded.

Interior Adhesion. In accordance with ASTM D3359, conduit specimens shall be placed in a heat and humidity environment where the temperature is maintained at 150°F (66°C) and 95% relative humidity. When the coating disbonds, the time to failure in hours shall be recorded.

Add the following to Article 1088.01(a)(4) of the Standard Specifications:

"All liquid tight flexible metal conduit fittings shall have an insulated throat to prevent abrasion of the conductors and shall have a captive sealing O-ring gasket. The fittings shall be Listed under UL 514B. The insulated throat shall be rated up to 105° C."

Revise the second paragraph of Article 811.04 of the Standard Specifications to read:

"Expansion fittings and LFNC will not be measured for payment."

Revise Article 811.05 of the Standard Specifications to read:

"811.05 Basis of Payment. This work will be paid for at the contract unit price per meter (foot) for CONDUIT ATTACHED TO STRUCTURE, of the diameter specified, RIGID GALVANIZED STEEL or CONDUIT ATTACHED TO STRUCTURE, of the diameter specified, RIGID GALVANIZED STEEL, PVC COATED."

UNDERGROUND RACEWAYS

Effective: January 1, 2012

Revise Article 810.04 of the Standard Specifications to read:

“Installation. All underground conduit shall have a minimum depth of 30-inches (700 mm) below the finished grade.”

Add the following to Article 810.04 of the Standard Specifications:

“All metal conduit installed underground shall be Rigid Steel Conduit unless otherwise indicated on the plans.”

Add the following to Article 810.04 of the Standard Specifications:

“All raceways which extend outside of a structure or duct bank but are not terminated in a cabinet, junction box, pull box, handhole, post, pole, or pedestal shall extend a minimum of 300 mm (12”) or the length shown on the plans beyond the structure or duct bank. The end of this extension shall be capped and sealed with a cap designed for the conduit to be capped. The ends of rigid metal conduit to be capped shall be threaded, the threads protected with full galvanizing, and capped with a threaded galvanized steel cap. The ends of rigid nonmetallic conduit and coilable nonmetallic conduit shall be capped with a rigid PVC cap of not less than 3 mm (0.125”) thick. The cap shall be sealed to the conduit using a room-temperature-vulcanizing (RTV) sealant compatible with the material of both the cap and the conduit. A washer or similar metal ring shall be glued to the inside center of the cap with epoxy, and the pull cord shall be tied to this ring.”

Add the following to Article 810.04(c) of the Standard Specifications:

“Coilable non-metallic conduit shall be machine straightened to remove the longitudinal curvature caused by coiling the conduit onto reels prior to installing in trench, encasing in concrete or embedding in structure. The straightening shall not deform the cross-section of the conduit such that any two measured outside diameters, each from any location and at any orientation around the longitudinal axis along the conduit differ by more than 6 mm (0.25”).” The longitudinal axis of the straightened conduit shall not deviate by more than 20 mm per meter (0.25” per foot” from a straight line. The HDPE and straightening mechanism manufacturer operating temperatures shall be followed.

ELECTRIC UTILITY SERVICE CONNECTION (COMED)

Effective: January 1, 2012

Description. This item shall consist of payment for work performed by ComEd in providing or modifying electric service as indicated. THIS MAY INVOLVE WORK AT MORE THAN ONE ELECTRIC SERVICE. For summary of the Electrical Service Drop Locations see the schedule contained elsewhere herein.

CONSTRUCTION REQUIREMENTS

General. It shall be the Contractor's responsibility to contact ComEd. The Contractor shall coordinate his work fully with the ComEd both as to the work required and the timing of the installation. No additional compensation will be granted under this or any other item for extra work caused by failure to meet this requirement. Please contact ComEd, New Business Center Call Center, at 866 NEW ELECTRIC (1-866-639-3532) to begin the service connection process. The Call Center Representatives will create a work order for the service connection. The representative will ask the requestor for information specific to the request. The representative will assign the request based upon the location of project.

The Contractor should make particular note of the need for the earliest attention to arrangements with ComEd for service. In the event of delay by ComEd, no extension of time will be considered applicable for the delay unless the Contractor can produce written evidence of a request for electric service within 30 days of execution.

Method Of Payment. The Contractor will be reimbursed to the exact amount of money as billed by ComEd for its services. Work provided by the Contractor for electric service will be paid separately as described under ELECTRIC SERVICE INSTALLATION. No extra compensation shall be paid to the Contractor for any incidental materials and labor required to fulfill the requirements as shown on the plans and specified herein.

For bidding purposes, this item shall be estimated as \$3,000.00

Basis Of Payment. This work will be paid for at the contract lump sum price for ELECTRIC UTILITY SERVICE CONNECTION which shall be reimbursement in full for electric utility service charges.

ELECTRIC SERVICE INSTALLATION

Effective: January 1, 2012

Description. This item shall consist of all material and labor required to extend, connect or modify the electric services, as indicated or specified, which is over and above the work performed by the utility. Unless otherwise indicated, the cost for the utility work, if any, will be reimbursed to the Contractor separately under ELECTRIC UTILITY SERVICE CONNECTION. This item may apply to the work at more than one service location and each will be paid separately.

Materials. Materials shall be in accordance with the Standard Specifications.

CONSTRUCTION REQUIREMENTS

General. The Contractor shall ascertain the work being provided by the electric utility and shall provide all additional material and work not included by other contract pay items required to complete the electric service work in complete compliance with the requirements of the utility.

No additional compensation will be allowed for work required for the electric service, even though not explicitly shown on the Drawings or specified herein

Method Of Measurement. Electric Service Installation shall be counted, each.

Basis Of Payment. This work will be paid for at the contract unit price each for ELECTRIC SERVICE INSTALLATION which shall be payment in full for the work specified herein.

UNIT DUCT

Effective: January 1, 2012

Revise the first paragraph of Article 810.04 to read:

“The unit duct shall be installed at a minimum depth of 30-inches (760 mm) unless otherwise directed by the Engineer.”

Revise Article 1088.01(c) to read:

“(c) Coilable Nonmetallic Conduit.

General:

The duct shall be a plastic duct which is intended for underground use and which can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties of performance. The duct shall be a plastic duct which is intended for underground use and can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties of performance.

The duct shall be made of high density polyethylene which shall meet the requirements of ASTM D 2447, for schedule 40. The duct shall be composed of black high density polyethylene meeting the requirements of ASTM D 3350, Class C, Grade P33. The wall thickness shall be in accordance with Table 2 for ASTM D 2447.

The duct shall be UL Listed per 651-B for continuous length HDPE coiled conduit. The duct shall also comply with NEC Article 354.100 and 354.120.

Submittal information shall demonstrate compliance with the details of these requirements.

Dimensions:

Duct dimensions shall conform to the standards listed in ASTM D2447. Submittal information shall demonstrate compliance with these requirements.

Nominal Size		Nominal I.D.		Nominal O.D.		Minimum Wall	
mm	in	mm	in	mm	in	mm	in
31.75	1.25	35.05	1.380	42.16	1.660	3.556	0.140
						+0.51	+0.020
38.1	1.50	40.89	1.610	48.26	1.900	3.683	0.145
						+0.51	+0.020

Nominal Size		Pulled Tensile	
mm	in	N	lbs
31.75	1.25	3322	747
38.1	1.50	3972	893

Marking:

As specified in NEMA Standard Publication No. TC-7, the duct shall be clearly and durably marked at least every 3.05 meters (10 feet) with the material designation (HDPE for high density polyethylene), nominal size of the duct and the name and/or trademark of the manufacturer.

Performance Tests:

Polyethylene Duct testing procedures and test results shall meet the requirements of UL 651. Certified copies of the test report shall be submitted to the Engineer prior to the installation of the duct. Duct crush test results shall meet or exceed the following requirements:

Duct Diameter		Min. force required to deform sample 50%	
mm	in	N	lbs
35	1.25	4937	1110
41	1.5	4559	1025

LUMINAIRE

Effective: January 1, 2012

Add the following to first paragraph of Article 1067(c) of the Standard Specifications:

“The reflector shall not be altered by paint or other opaque coatings which would cover or coat the reflecting surface. Control of the light distribution by any method other than the reflecting material and the aforementioned clear protective coating that will alter the reflective properties of the reflecting surface is unacceptable”

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

“The ballast shall be a High Pressure Sodium, high power factor, constant wattage auto-regulator, lead type (CWA) for operation on a nominal 240 volt system.”

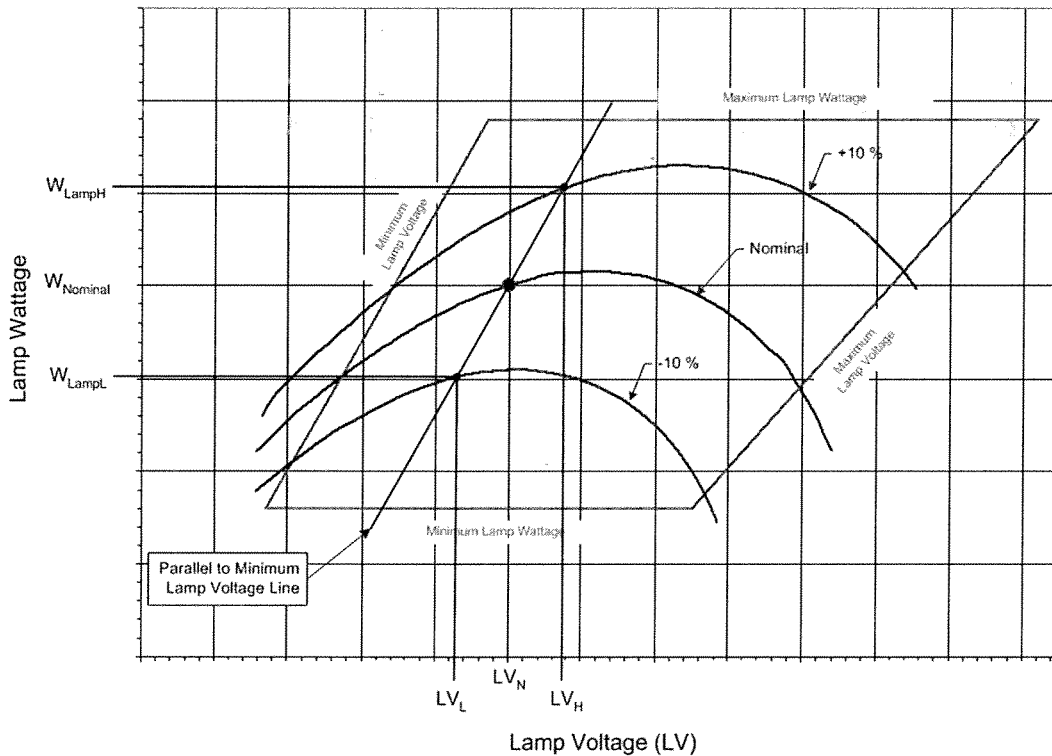
Revise Article 1067(f)(1) of the Standard Specifications to read:

“The high pressure sodium, auto-regulator, lead type (CWA) ballast shall be designed to ANSI Standards and shall be designed and rated for operation on a nominal 240 volt system. The ballast shall provide positive lamp ignition at the input voltage of 216 volts. It

shall operate the lamp over a range of input voltages from 216 to 264 volts without damage to the ballast. It shall provide lamp operation within lamp specifications for rated lamp life at input design voltage range. Operating characteristics shall produce output regulation not exceeding the following values:

Nominal Ballast Wattage	Maximum Ballast Regulation
750	25%
400	26%
310	26%
250	26%
150	24%
70	18%

For this measure, regulation shall be defined as the ratio of the lamp watt difference between the upper and lower operating curves to the nominal lamp watts; with the lamp watt difference taken within the ANSI trapezoid at the nominal lamp operating voltage point parallel to the minimum lamp volt line:



$$\text{Ballast Regulation} = \frac{W_{LampH} - W_{LampL}}{W_{LampN}} \times 100$$

where:

W_{LampH} = lamp watts at +10% line voltage when Lamp voltage = LV_H

W_{LampL} = lamp watts at -10% line voltage when lamp voltage = LV_L

W_{LampN} = lamp watts at nominal lamp operating voltage = LV_N

Wattage	Nominal Lamp Voltage, LV_N	LV_L	LV_H
750	120v	115v	125v
400	100v	95v	105v
310	100v	95v	105v
250	100v	95v	105v
150	55v	50v	60v
70	52v	47v	57v

Ballast losses, based on cold bench tests, shall not exceed the following values:

Nominal Ballast Wattage	Maximum Ballast Losses
750	15%
400	20%
310	21%
250	24%
150	26%
70	34%

Ballast losses shall be calculated based on input watts and lamp watts at nominal system voltage as indicated in the following equation:

$$\text{Ballast Losses} = \frac{W_{Line} - W_{Lamp}}{W_{Lamp}} \times 100$$

where:

W_{line} = line watts at nominal system voltage

W_{lamp} = lamp watts at nominal system voltage

Ballast output to lamp. At nominal system voltage and nominal lamp voltage, the ballast shall deliver lamp wattage with the variation specified in the following table.

Nominal Ballast Wattage	Output to lamp variation
750	± 7.5%
400	± 7.5%
310	± 7.5%
250	± 7.5%
150	± 7.5%
70	± 7.5%

Example: For a 400w luminaire, the ballast shall deliver 400 watts ±7.5% at a lamp voltage of 100v for the nominal system voltage of 240v which is the range of 370w to 430w.

Ballast output over lamp life. Over the life of the lamp the ballast shall produce average output wattage of the nominal lamp rating as specified in the following table. Lamp wattage readings shall be taken at 5-volt increments throughout the ballast trapezoid.

Reading shall begin at the lamp voltage (L_v) specified in the table and continue at 5 volt increments until the right side of the trapezoid is reached. The lamp wattage values shall then be averaged and shall be within the specified value of the nominal ballast rating. Submittal documents shall include a tabulation of the lamp wattage vs. lamp voltage readings.

Nominal Ballast Wattage	LV Readings begin at	Maximum Wattage Variation
750	110v	$\pm 7.5\%$
400	90v	$\pm 7.5\%$
310	90v	$\pm 7.5\%$
250	90v	$\pm 7.5\%$
150	50v	$\pm 7.5\%$
70	45v	$\pm 7.5\%$

Example: *For a 400w luminaire, the averaged lamp wattage reading shall not exceed the range of $\pm 7.5\%$ which is 370w to 430w*

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

"Independent Testing. Independent testing of luminaires shall be required whenever the pay item quantity of luminaires of a given pay item, as indicated on the plans, is 50 or more. For each luminaire type to be so tested, one luminaire plus one luminaire for each 50 luminaires shall be tested. Example: *A plan pay item quantity of 75 luminaires for a specific pay item would dictate that 2 be tested; 135 luminaires would dictate that three be tested.*" If the luminaire performance table is missing from the contract documents, the luminaire(s) shall be tested and the test results shall be evaluated against the manufacturer's data as provided in the approved material submittal. The test luminaire(s) results shall be equal to or better than the published data. If the test results indicated performance not meeting the published data, the test luminaire will be designated as failed and corrective action as described herein shall be performed.

The Contractor shall be responsible for all costs associated with the specified testing, including but not limited to shipping, travel and lodging costs as well as the costs of the tests themselves, all as part of the bid unit price for this item. Travel, lodging and other associated costs for travel by the Engineer shall be direct-billed to or shall be pre-paid by the Contractor, requiring no direct reimbursement to the Engineer or the independent witness, as applicable"

The Contractor shall select one of the following options for the required testing with the Engineer's approval:

- a. Engineer Factory Selection for Independent Lab: The Contractor may select this option if the luminaire manufacturing facility is within the state of Illinois. The Contractor shall propose an independent test laboratory for approval by the Engineer. The selected luminaires shall be marked by the Engineer and shipped to the independent laboratory for tests.
- b. Engineer Witness of Independent Lab Test: The Contractor may select this option if the independent testing laboratory is within the state of Illinois. The Engineer shall select, from the project luminaires at the manufacturer's facility or at the Contractor's storage facility, luminaires for testing by the independent laboratory.
- c. Independent Witness of Manufacturer Testing: The independent witness shall

select from the project luminaires at the manufacturers facility or at the Contractor's storage facility, the luminaires for testing. The Contractor shall propose a qualified independent agent, familiar with the luminaire requirements and test procedures, for approval by the Engineer, to witness the required tests as performed by the luminaire manufacturer.

The independent witness shall as a minimum meet the following requirements:

- ▶ Have been involved with roadway lighting design for at least 15 years.
- ▶ Not have been the employee of a luminaire or ballast manufacturer within the last 5 years.
- ▶ Not associated in any way (plan preparation, construction or supply) with the particular project being tested.
- ▶ Be a member of IESNA in good standing.
- ▶ Provide a list of professional references.

This list is not an all inclusive list and the Engineer will make the final determination as to the acceptability of the proposed independent witness.

- d. Engineer Factory Selection and Witness of Manufacturer Testing: The Contractor may select this option if the luminaire manufacturing facility is within the state of Illinois. At the Manufacturer's facility, the Engineer shall select the luminaires to be tested and shall be present during the testing process. The Contractor shall schedule travel by the Engineer to and from the Manufacturer's laboratory to witness the performance of the required tests.

Should any of the tested luminaires fail to satisfy the specifications and perform according to approved submittal information, the luminaire shall be unacceptable and be replaced by alternate equipment meeting the specifications with the submittal and testing process repeated in their entirety; or corrections made to achieve required performance. In the case of corrections, the Contractor shall advise the Engineer of corrections made and shall request a repeat of the specified testing and, if the corrections are deemed reasonable by the Engineer, the testing process shall be repeated. The number of luminaires to be tested shall be the same quantity as originally tested; i.e. if three luminaires were tested originally, one, two or three failed, another three must be tested after corrective action is taken.

Revise Article 1067.06(a)(1) of the Standard Specifications to read:

"The lamps shall be of the clear type and shall have a color of 1900° to 2200° Kelvin."

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

IDOT DISTRICT 1 LUMINAIRE PERFORMANCE TABLE

GIVEN CONDITIONS		
ROADWAY DATA	Pavement Width	36 (ft)
	Number of Lanes	3
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA	Mounting Height	35 (ft)
	Mast Arm Length	12 (ft)
	Pole Set-Back From Edge of Pavement	8 (ft)
LUMINAIRE DATA	Lamp Type	LED
	Lamp Lumens	n/a
	I.E.S. Vertical Distribution	Medium
	I.E.S. Control Of Distribution	Cutoff
	I.E.S. Lateral Distribution	Type I
	Total Light Loss Factor	0.75
LAYOUT DATA	Spacing	165 (ft)
	Configuration	Single Sided
	Luminaire Overhang over edge of pavement	4 (ft)

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

PERFORMANCE REQUIREMENTS

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

LUMINANCE	Average Luminance, L_{AVE}	0.6 Cd/m ²
	Uniformity Ratio, L_{AVE}/L_{MIN}	4.0 (Max)
	Uniformity Ratio, L_{MAX}/L_{MIN}	8.0 (Max)
	Veiling Luminance Ratio, L_V/L_{AVE}	0.4 (Max)

Description: This work shall consist of furnishing and installing complete luminaires, with drivers, LED arrays, splices, fuses, fuse holders, and wiring in accordance with the applicable portions of Sections 821, 1065, 1066 and 1067 of the Standard Specifications, manufacturer's specifications, and the details in the plans.

Luminaires shall operate on 240VAC. Luminaires shall be water-tight with 90 mph winds. Manufacturer/Contractor shall guarantee that no water will build up in the assemblies and provide a 5-year warrantee for field service and factory modifications as necessary to correct water problems if such should develop.

Roadway luminaires shall be LED with 4000K temperature. Nominal fixture input power shall be 170W. Distribution shall be cut-off type III. Roadway luminaire manufacturer shall be GE (model ERS4- _X_X) or American Electric Lighting (model ATB2) or approved equal.

Each piece of the luminaire shall be coated with custom color powder coat to match natural aluminum. The entire surface of the coating for each piece shall be tested according to ASTM standards.

Basis of Payment: This work will be paid for at the contract unit price each for LUMINAIRE (SPECIAL).

WIRE AND CABLE

Effective: January 1, 2012

Add the following to the first paragraph of Article 1066.02(a):

“The cable shall be rated at a minimum of 90°C dry and 75°C wet and shall be suitable for installation in wet and dry locations, and shall be resistant to oils and chemicals.”

Revise the Aerial Electric Cable Properties table of Article 1066.03(a)(3) to read:

Aerial Electric Cable Properties

Phase Conductor		Messenger wire			
Size AWG	Stranding	Average Insulation Thickness		Minimum Size AWG	Stranding
		mm	mils		
6	7	1.1	(45)	6	6/1
4	7	1.1	(45)	4	6/1
2	7	1.1	(45)	2	6/1
1/0	19	1.5	(60)	1/0	6/1
2/0	19	1.5	(60)	2/0	6/1
3/0	19	1.5	(60)	3/0	6/1
4/0	19	1.5	(60)	4/0	6/1

Add the following to Article 1066.03(b) of the Standard Specifications:

“Cable sized No. 2 AWG and smaller shall be U.L. listed Type RHH/RHW and may be Type RHH/RHW/USE. Cable sized larger than No. 2 AWG shall be U.L. listed Type RHH/RHW/USE.”

Revise Article 1066.04 to read:

“Aerial Cable Assembly. The aerial cable shall be an assembly of insulated aluminum conductors according to Section 1066.02 and 1066.03. Unless otherwise indicated, the cable assembly shall be composed of three insulated conductors and a steel reinforced bare aluminum conductor (ACSR) to be used as the ground conductor. Unless otherwise indicated, the code word designation of this cable assembly is “Palomino”. The steel reinforced aluminum conductor shall conform to ASTM B-232. The cable shall be assembled according to ANSI/ICEA S-76-474.”

Revise the second paragraph of Article 1066.05 to read:

“The tape shall have reinforced metallic detection capabilities consisting of a woven reinforced polyethylene tape with a metallic core or backing.”

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:

5. Description of item
6. Designation or approximate station if the item is undesignated
7. Latitude
8. 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 (Burdny 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 shall be measured in place for payment in foot (meter). Payment shall be at the contract unit price for ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6, 1C, which price includes all associated labor and material including grounding clamps, splicing, exothermic welds, grounding connectors, conduit grounding bushings, and other hardware.

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 manufacturer'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 signaled 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 signaled 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 aerially 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 contaminants 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 AllnGaP 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.

FULL-ACTUATED CONTROLLER AND CABINET (SPECIAL)

Effective: January 1, 2013

Description: This work shall consist of furnishing and installing a(n) "Econolite" brand traffic actuated solid state digital controller in a new Super-P, Type-IV or 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 FULLACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL) or FULL-ACTUATED CONTROLLER AND TYPE V CABINET (SPECIAL).

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 the 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 three (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 shall be payment in full for furnishing, installing and making all electrical connections necessary for proper operation.

UNINTERRUPTIBLE POWER SUPPLY

Effective: January 1, 2013

This special provision supersedes the IDOT District 1 Traffic Signal Specifications dated January 1, 2012 included within this Contract's Special Provisions.

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 (UPS).

Add the following to Article 862.03 of the Standard Specifications:

The UPS shall additionally include, but not be limited to, a battery cabinet, where applicable. For **Super-P, Type-IV** and **Super-R, Type-V** cabinets, the battery cabinet is integrated to the traffic signal cabinet. For **Super-P** and **Super-R** cabinets, the integrated battery cabinet shall be included in the cost for the traffic signal cabinet of the size and type indicated on the plans.

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.

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. 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 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 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 a detectable concentration which is equal to 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 inorganic 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, 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 for the following reason.
- (1) The pH of the soil is less than 6.25 or greater than 9.0.
 - (2) The soil exhibited elevated photoionization detector (PID) utilizing a lamp of 10.6eV or greater or a flame ionization detector (FID) readings.
- (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 investigation (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 investigation (PESA) site number) for special or hazardous waste disposal, and
- (f) Landfill tickets (identified by the preliminary environmental site investigation (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 10+50 to Station 12+00 (Jandus Cutoff Road) 0 to 50 feet LT (Utility Corridor, PESA Site 2687-8, 100 block of Jandus Cutoff 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 18+60 to Station 20+70 (Jandus Cutoff Road) 0 to 80 feet LT (Vacant Land, PESA Site 2687-6, 60 South Northwest Highway). 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 11+80 to Station 15+00 (Jandus Cutoff Road) 0 to 50 feet RT (Retention Pond, PESA Site 2687-9, 134-152 South Northwest Highway). 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 17+50 to Station 18+60 (Jandus Cutoff Road) 0 to 50 feet LT (All Marine Services/Max Auto Care, PESA Site 2687-7, 126 Jandus Cutoff 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.
- Station 17+00 to Station 18+50 (Jandus Cutoff Road) 0 to 50 feet RT (Retention Pond, PESA Site 2687-9, 134-152 South Northwest Highway). 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.
- Station 18+50 to Station 19+50 (Jandus Cutoff Road) 0 to 50 feet RT (Retention Pond, PESA Site 2687-9, 134-152 South Northwest Highway). This material meets the criteria of Article 669.09(b)(2) and shall be managed in accordance to Article 669.09.

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 \ . 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.



Illinois Environmental Protection Agency

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: FAU 305 (Jandus Cutoff Road) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
45-55 South Northwest Highway

City: Cary State: IL Zip Code: 60013
County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20736 Longitude: -88.23219
(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: 1110105045 BOW: _____ BOA: _____

II. Owner/Operator Information for Source Site

Site Owner
Name: Illinois Department of Transportation
Street Address: 201 West Center Street
PO Box: _____
City: Schaumburg State: IL
Zip Code: 60196-1096 Phone: 847-705-4101
Contact: Sam Mead
Email, if available: Sam.Mead@illinois.gov

Site Operator
Name: Illinois Department of Transportation
Street Address: 201 West Center Street
PO Box: _____
City: Schaumburg State: IL
Zip Code: 60196-1096 Phone: 847-705-4101
Contact: Sam Mead
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.

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Project Name: FAU 305 (Jandus Cutoff Road)
Latitude: 42.20736 Longitude: -88.23219

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):

LOCATION 2687-5-B01 WAS SAMPLED ADJACENT TO ISGS SITE 2687-5. SEE FIGURE 2 AND TABLE 3a OF REVISED PRELIMINARY SITE INVESTIGATION.

- 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]:

TEKLAB ANALYTICAL REPORT - JOB ID: 13070226

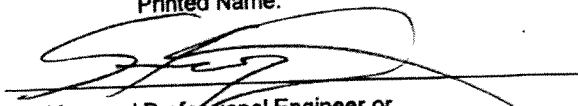
IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobleman, 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.

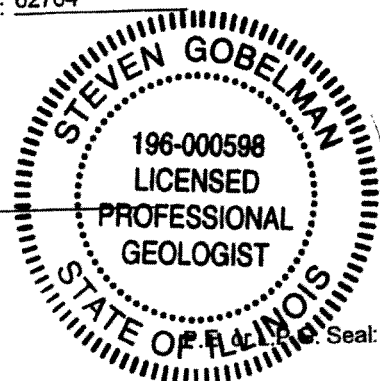
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name: IDOT Bureau of Design and Environment
Street Address: 2300 South Dirksen Parkway
City: Springfield State: IL Zip Code: 62764
Phone: 217.785.4246

Steven Gobleman
Printed Name:


Licensed Professional Engineer or
Licensed Professional Geologist Signature:

8/9/30
Date:



Seal:

The following table summarizes the results of laboratory analysis of site soil samples. In reading the table,

- Only parameters reported at concentrations above the most stringent MAC are listed.
- Samples with the notation “**No Contaminants of Concern Noted**” were below the most stringent MAC.

The laboratory report for site soils follows this summary table.

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Volatil Organic Compounds (mg/kg)
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dichloroethane
1,2-Dichloropropane
1,3-Dichloropropene
2-Butanone (MEK)
2-Hexanone (MBK)
4-Methyl-2-pentanone (MIBK)
Acetone
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Ethylbenzene
Methylene chloride
Methyl-tert-butyl-ether (MTBE)
Styrene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Vinyl Acetate
Vinyl Chloride
Xylenes, total
m-Xylene
o-Xylene
p-Xylene
Semivolatil Organic Compounds (mg/kg)
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2-Chloronaphthalene
2-Chlorophenol
2-Methylnaphthalene
2-Methylphenol
2-Nitroaniline
2-Nitrophenol
3,3'-Dichlorobenzidine
3-Nitroaniline
4,6-Dinitro-2-methylphenol
4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol
4-Chloroaniline
4-Chlorophenyl phenyl ether
4-Methylphenol
4-Nitroaniline
4-Nitrophenol
Acenaphthene
Acenaphthylene
Anthracene
Benzo (a) anthracene
Benzo (a) pyrene

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Semivolatile Organic Compounds (mg/kg) (cont.)
Benzo (b) fluoranthene
Benzo (g,h,i) perylene
Benzo (k) fluoranthene
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl)ether
bis(2-chloroisopropyl)ether
Bis(2-ethylhexyl)phthalate
Butyl benzyl phthalate
Carbazole
Chrysene
Dibenzo (a,h) anthracene
Dibenzofuran
Diethyl phthalate
Dimethyl phthalate
Di-n-butyl phthalate
Di-n-octyl phthalate
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Indeno (1,2,3-cd) pyrene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodi-n-propylamine
N-Nitrosodiphenylamine
Pentachlorophenol
Phenanthrene
Phenol
Pyrene
Inorganic Compounds, Total (mg/kg)
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Potassium
Selenium
Silver
Sodium
Thallium
Vanadium
Zinc
TCLP/SPLP Inorganics (mg/L)
Antimony
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Zinc

ISGS Site 2687-5
Vacant Land

Sample ID	2687-5-B01-1	2687-5-B01-2							
Sample Depth (ft)	0-5	5-10							
Sample Date	7/2/2013	7/2/2013							
% Solids	82.5	96.5							
Sample pH	7.7	8.74							
Matrix	Soil	Soil							
No Contaminants of Concern Noted.									
			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	

July 11, 2013

Colleen Grey
Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711-7233
TEL: (217) 787-2334
FAX: (217) 787-9495



RE: IDOT2013-019

WorkOrder: 13070226

Dear Colleen Grey:

TEKLAB, INC received 2 samples on 7/3/2013 12:25:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070226

Client Project: IDOT2013-019

Report Date: 11-Jul-13

This reporting package includes the following:

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Definitions

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070226

Client Project: IDOT2013-019

Report Date: 11-Jul-13

Abbr Definition

- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.
- DNI Did not ignite
- DUP Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
- ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
- IDPH IL Dept. of Public Health
- LCS Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. The acceptable recovery range is in the QC Package (provided upon request).
- LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MB Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
- MDL Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.
- MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
- MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MW Molecular weight
- ND Not Detected at the Reporting Limit
- NELAP NELAP Accredited
- PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The acceptable recovery range is listed in the QC Package (provided upon request).
- RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
- RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
- SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
- Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
- TNTC Too numerous to count (> 200 CFU)

Qualifiers

- | | |
|--|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| E - Value above quantitation range | H - Holding times exceeded |
| J - Analyte detected below quantitation limits | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | X - Value exceeds Maximum Contaminant Level |



Case Narrative

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070226

Client Project: IDOT2013-019

Report Date: 11-Jul-13

Cooler Receipt Temp: 1.0 °C

Locations and Accreditations

	Collinsville	Springfield	Kansas City	Collinsville Air
Address	5445 Horseshoe Lake Road Collinsville, IL 62234-7425	3920 Pintail Dr Springfield, IL 62711-9415	8421 Nieman Road Lenexa, KS 66214	5445 Horseshoe Lake Road Collinsville, IL 62234-7425
Phone	(618) 344-1004	(217) 698-1004	(913) 541-1998	(618) 344-1004
Fax	(618) 344-1005	(217) 698-1005	(913) 541-1998	(618) 344-1005
Email	jhriley@teklabinc.com	KKlostermann@teklabinc.com	dthompson@teklabinc.com	EHurley@teklabinc.com

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2014	Collinsville
Kansas	KDHE	E-10374	NELAP	1/31/2014	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2014	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2014	Springfield
Texas	TCEQ	T104704515-12-1	NELAP	7/31/2013	Collinsville
Arkansas	ADEQ	88-0966		3/14/2014	Collinsville
Illinois	IDPH	17584		4/30/2013	Collinsville
Kentucky	UST	0073		4/5/2014	Collinsville
Missouri	MDNR	00930		4/13/2013	Collinsville
Oklahoma	ODEQ	9978		8/31/2013	Collinsville

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070226

Client Project: IDOT2013-019

Report Date: 11-Jul-13

Lab ID: 13070226-001

Client Sample ID: 2687-5-B01-1

Matrix: SOLID

Collection Date: 07/02/2013 13:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		17.5	%	1	07/05/2013 13:17	R179199
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		82.5	%	1	07/05/2013 13:17	R179199
SW-846 9045C									
pH (1:1)	NELAP	0	1		7.7		1	07/05/2013 18:55	R179171
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Iron	NELAP	0.007	0.02		0.0292	mg/L	1	07/11/2013 10:17	89960
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005		0.044	mg/L	1	07/08/2013 13:59	89826
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/08/2013 13:59	89826
Boron	NELAP	1	2		< 2	mg/L	1	07/08/2013 13:59	89826
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/08/2013 13:59	89826
Chromium	NELAP	0.004	0.01	J	0.0091	mg/L	1	07/08/2013 13:59	89826
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/08/2013 13:59	89826
Iron	NELAP	0.007	0.1	X	7.71	mg/L	1	07/08/2013 13:59	89826
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/08/2013 13:59	89826
Manganese	NELAP	0.0016	0.005		0.0923	mg/L	1	07/08/2013 13:59	89826
Nickel	NELAP	0.0033	0.01	J	0.0078	mg/L	1	07/08/2013 13:59	89826
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/08/2013 13:59	89826
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/08/2013 13:59	89826
Zinc	NELAP	0.0021	0.01		0.0206	mg/L	1	07/08/2013 13:59	89826
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/08/2013 11:11	89832
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/08/2013 15:49	89832
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/08/2013 10:08	89834
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.6	5		< 5	mg/Kg-dry	1	07/08/2013 20:11	89800
Arsenic	NELAP	1.2	2.4		10.2	mg/Kg-dry	1	07/08/2013 16:03	89802
Barium	NELAP	0.24	0.48		173	mg/Kg-dry	1	07/08/2013 16:03	89802
Beryllium	NELAP	0.05	0.1		0.78	mg/Kg-dry	1	07/08/2013 16:03	89802
Boron	NELAP	0.96	1.92		4.95	mg/Kg-dry	1	07/08/2013 16:03	89802
Cadmium	NELAP	0.1	0.19	J	0.18	mg/Kg-dry	1	07/08/2013 16:03	89802
Calcium	NELAP	2.4	4.81	S	3570	mg/Kg-dry	1	07/08/2013 16:03	89802
Chromium	NELAP	0.48	0.96	X	26.2	mg/Kg-dry	1	07/08/2013 16:03	89802
Cobalt	NELAP	0.48	0.96		11.8	mg/Kg-dry	1	07/08/2013 16:03	89802
Copper	NELAP	0.48	0.96		21.6	mg/Kg-dry	1	07/08/2013 16:03	89802
Iron	NELAP	0.96	1.92	BSX	25000	mg/Kg-dry	1	07/08/2013 16:03	89802
Lead	NELAP	1.92	3.85		13.9	mg/Kg-dry	1	07/08/2013 16:03	89802
Magnesium	NELAP	0.48	0.96	BS	5010	mg/Kg-dry	1	07/08/2013 16:03	89802
Manganese	NELAP	0.24	0.48	SX	949	mg/Kg-dry	1	07/08/2013 16:03	89802
Nickel	NELAP	0.48	0.96		26.8	mg/Kg-dry	1	07/08/2013 16:03	89802
Potassium	NELAP	4.81	9.62	S	1760	mg/Kg-dry	1	07/09/2013 11:27	89802
Silver	NELAP	0.48	0.53		< 0.53	mg/Kg-dry	1	07/08/2013 16:03	89802
Sodium	NELAP	2.4	4.81		402	mg/Kg-dry	1	07/08/2013 16:03	89802
Thallium	NELAP	2.4	2.5		< 2.5	mg/Kg-dry	1	07/08/2013 16:03	89802

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070226

Client Project: IDOT2013-019

Report Date: 11-Jul-13

Lab ID: 13070226-001

Client Sample ID: 2687-5-B01-1

Matrix: SOLID

Collection Date: 07/02/2013 13:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 6010B, METALS BY ICP									
Vanadium	NELAP	0.48	0.96		46.8	mg/Kg-dry	1	07/08/2013 16:03	89802
Zinc	NELAP	0.48	0.96		60.2	mg/Kg-dry	1	07/08/2013 16:03	89802
<i>MS QC limits for K are not applicable due to high sample/spike ratio.</i>									
<i>Sample results for Fe and Mg exceed 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.1).</i>									
<i>MS QC limits for Ca, Fe, Mg, and Mn are not applicable due to high sample/spike ratio.</i>									
<i>Allowable Marginal Exceedance of Ca in the LCS verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).</i>									
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.343	0.588	S	< 0.588	mg/Kg-dry	1	07/08/2013 13:23	89801
<i>Se - Matrix interference present in sample. Confirmed by bench spike.</i>									
SW-846 7471B									
Mercury	NELAP	0.003	0.011		0.034	mg/Kg-dry	1	07/08/2013 11:09	89830
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.16	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
1,2-Dichlorobenzene	NELAP	0.191	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
1,3-Dichlorobenzene	NELAP	0.202	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
1,4-Dichlorobenzene	NELAP	0.191	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
2,4,5-Trichlorophenol	NELAP	0.114	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
2,4,6-Trichlorophenol	NELAP	0.151	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
2,4-Dichlorophenol	NELAP	0.145	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
2,4-Dimethylphenol	NELAP	0.152	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
2,4-Dinitrophenol	NELAP	0.128	1.2		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
2,4-Dinitrotoluene	NELAP	0.125	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
2,6-Dinitrotoluene	NELAP	0.13	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
2-Chloronaphthalene	NELAP	0.144	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
2-Chlorophenol	NELAP	0.152	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
2-Methylnaphthalene	NELAP	0.143	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
2-Nitroaniline	NELAP	0.109	1.2		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
2-Nitrophenol	NELAP	0.134	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
3,3'-Dichlorobenzidine	NELAP	0.24	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
3-Nitroaniline	NELAP	0.098	1.2		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
4,6-Dinitro-2-methylphenol	NELAP	0.13	1.2		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
4-Bromophenyl phenyl ether	NELAP	0.11	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
4-Chloro-3-methylphenol	NELAP	0.132	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
4-Chloroaniline	NELAP	0.145	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
4-Chlorophenyl phenyl ether	NELAP	0.119	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
4-Nitroaniline	NELAP	0.109	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
4-Nitrophenol	NELAP	0.118	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Acenaphthene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Acenaphthylene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Anthracene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Benzo(a)anthracene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Benzo(a)pyrene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Benzo(b)fluoranthene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Benzo(g,h,i)perylene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Benzo(k)fluoranthene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Bis(2-chloroethoxy)methane	NELAP	0.14	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Bis(2-chloroethyl)ether	NELAP	0.17	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070226

Client Project: IDOT2013-019

Report Date: 11-Jul-13

Lab ID: 13070226-001

Client Sample ID: 2687-5-B01-1

Matrix: SOLID

Collection Date: 07/02/2013 13:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Bis(2-chloroisopropyl)ether	NELAP	0.137	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Bis(2-ethylhexyl)phthalate	NELAP	0.14	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Butyl benzyl phthalate	NELAP	0.121	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Carbazole		0.146	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Chrysene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Dibenzo(a,h)anthracene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Dibenzofuran	NELAP	0.151	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Diethyl phthalate	NELAP	0.115	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Dimethyl phthalate	NELAP	0.109	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Di-n-butyl phthalate	NELAP	0.124	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Di-n-octyl phthalate	NELAP	0.125	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Fluoranthene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Fluorene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Hexachlorobenzene	NELAP	0.118	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Hexachlorobutadiene	NELAP	0.186	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Hexachlorocyclopentadiene	NELAP	0.122	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Hexachloroethane	NELAP	0.2	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Indeno(1,2,3-cd)pyrene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Isophorone	NELAP	0.142	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
m,p-Cresol	NELAP	0.151	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Naphthalene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Nitrobenzene	NELAP	0.15	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
N-Nitroso-di-n-propylamine	NELAP	0.132	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
N-Nitrosodiphenylamine	NELAP	0.11	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
o-Cresol	NELAP	0.142	0.6		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Pentachlorophenol	NELAP	0.792	2.4		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Phenanthrene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Phenol	NELAP	0.139	0.42		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Pyrene	NELAP	0.02	0.041		ND	mg/Kg-dry	1	07/09/2013 3:09	89823
Surr: 2,4,6-Tribromophenol		0	32.7-130		71	%REC	1	07/09/2013 3:09	89823
Surr: 2-Fluorobiphenyl		0	34.1-116		54.5	%REC	1	07/09/2013 3:09	89823
Surr: 2-Fluorophenol		0	30.5-99		68	%REC	1	07/09/2013 3:09	89823
Surr: Nitrobenzene-d5		0	34.1-101		72.8	%REC	1	07/09/2013 3:09	89823
Surr: Phenol-d5		0	34.9-110		63.8	%REC	1	07/09/2013 3:09	89823
Surr: p-Terphenyl-d14		0	41.7-124		63.3	%REC	1	07/09/2013 3:09	89823

Allowable Marginal Exceedance of 2,4,5-Trichlorophenol in the LCS verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).

SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
1,1,2,2-Tetrachloroethane		0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
1,1,2-Trichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
1,1-Dichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
1,1-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
1,2-Dichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
1,2-Dichloropropane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
1,3-Dichloropropene, Total		0.001	0.004		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
2-Butanone	NELAP	0.0099	0.049		0.07	mg/Kg-dry	1	07/09/2013 17:31	89919
2-Hexanone	NELAP	0.0099	0.049		ND	mg/Kg-dry	1	07/09/2013 17:31	89919



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070226

Client Project: IDOT2013-019

Report Date: 11-Jul-13

Lab ID: 13070226-001

Client Sample ID: 2687-5-B01-1

Matrix: SOLID

Collection Date: 07/02/2013 13:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
4-Methyl-2-pentanone	NELAP	0.0099	0.049		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Acetone	NELAP	0.0099	0.049		0.168	mg/Kg-dry	1	07/09/2013 17:31	89919
Benzene	NELAP	0.0005	0.001		0.001	mg/Kg-dry	1	07/09/2013 17:31	89919
Bromodichloromethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Bromoform	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Bromomethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Carbon disulfide	NELAP	0.003	0.005	J	0.003	mg/Kg-dry	1	07/09/2013 17:31	89919
Carbon tetrachloride	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Chlorobenzene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Chloroethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Chloroform	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Chloromethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
cis-1,2-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
cis-1,3-Dichloropropene	NELAP	0.001	0.004		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Dibromochloromethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Ethylbenzene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
m,p-Xylenes	NELAP	0.001	0.005	J	0.002	mg/Kg-dry	1	07/09/2013 17:31	89919
Methyl tert-butyl ether	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Methylene chloride	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
o-Xylene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Styrene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Tetrachloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Toluene	NELAP	0.001	0.005	J	0.004	mg/Kg-dry	1	07/09/2013 17:31	89919
trans-1,2-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
trans-1,3-Dichloropropene	NELAP	0.001	0.004		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Trichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Vinyl acetate	NELAP	0.0197	0.049		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Vinyl chloride	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/09/2013 17:31	89919
Xylenes, Total	NELAP	0.001	0.005	J	0.002	mg/Kg-dry	1	07/09/2013 17:31	89919
Surr: 1,2-Dichloroethane-d4		0	72.2-131		105.8	%REC	1	07/09/2013 17:31	89919
Surr: 4-Bromofluorobenzene		0	82.1-116		92.1	%REC	1	07/09/2013 17:31	89919
Surr: Dibromofluoromethane		0	77.7-120		98.8	%REC	1	07/09/2013 17:31	89919
Surr: Toluene-d8		0	86-116		101	%REC	1	07/09/2013 17:31	89919



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070226

Client Project: IDOT2013-019

Report Date: 11-Jul-13

Lab ID: 13070226-002

Client Sample ID: 2687-5-B01-2

Matrix: SOLID

Collection Date: 07/02/2013 13:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		3.5	%	1	07/05/2013 13:17	R179199
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		96.5	%	1	07/05/2013 13:17	R179199
SW-846 9045C									
pH (1:1)	NELAP	0	1		8.74		1	07/05/2013 18:58	R179171
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005	J	0.0043	mg/L	1	07/08/2013 14:06	89826
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/08/2013 14:06	89826
Boron	NELAP	1	2		< 2	mg/L	1	07/08/2013 14:06	89826
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/08/2013 14:06	89826
Chromium	NELAP	0.004	0.01		< 0.01	mg/L	1	07/08/2013 14:06	89826
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/08/2013 14:06	89826
Iron	NELAP	0.007	0.1	J	0.0415	mg/L	1	07/08/2013 14:06	89826
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/08/2013 14:06	89826
Manganese	NELAP	0.0016	0.005		< 0.005	mg/L	1	07/08/2013 14:06	89826
Nickel	NELAP	0.0033	0.01		< 0.01	mg/L	1	07/08/2013 14:06	89826
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/08/2013 14:06	89826
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/08/2013 14:06	89826
Zinc	NELAP	0.0021	0.01	J	0.0054	mg/L	1	07/08/2013 14:06	89826
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/08/2013 11:15	89832
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/08/2013 15:52	89832
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/08/2013 10:13	89834
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.5	4.81		< 4.81	mg/Kg-dry	1	07/08/2013 20:29	89800
Arsenic	NELAP	1.16	2.31		4.27	mg/Kg-dry	1	07/09/2013 11:45	89802
Barium	NELAP	0.23	0.46		35.6	mg/Kg-dry	1	07/09/2013 11:45	89802
Beryllium	NELAP	0.05	0.09		0.19	mg/Kg-dry	1	07/09/2013 11:45	89802
Boron	NELAP	0.93	1.85		8.95	mg/Kg-dry	1	07/09/2013 11:45	89802
Cadmium	NELAP	0.09	0.19	J	0.1	mg/Kg-dry	1	07/09/2013 11:45	89802
Calcium	NELAP	2.31	4.63		127000	mg/Kg-dry	1	07/09/2013 11:45	89802
Chromium	NELAP	0.46	0.93		7.72	mg/Kg-dry	1	07/09/2013 11:45	89802
Cobalt	NELAP	0.46	0.93		5	mg/Kg-dry	1	07/09/2013 11:45	89802
Copper	NELAP	0.46	0.93		17.8	mg/Kg-dry	1	07/09/2013 11:45	89802
Iron	NELAP	0.93	1.85	B	11800	mg/Kg-dry	1	07/09/2013 11:45	89802
Lead	NELAP	1.85	3.7		4.25	mg/Kg-dry	1	07/09/2013 11:45	89802
Magnesium	NELAP	0.46	0.93		65100	mg/Kg-dry	1	07/09/2013 11:45	89802
Manganese	NELAP	0.23	0.46		368	mg/Kg-dry	1	07/09/2013 11:45	89802
Nickel	NELAP	0.46	0.93		12.2	mg/Kg-dry	1	07/09/2013 11:45	89802
Potassium	NELAP	4.63	9.26		1010	mg/Kg-dry	1	07/09/2013 11:45	89802
Silver	NELAP	0.46	0.51		< 0.51	mg/Kg-dry	1	07/09/2013 11:45	89802
Sodium	NELAP	2.31	4.63		446	mg/Kg-dry	1	07/09/2013 11:45	89802
Thallium	NELAP	2.31	2.41		< 2.41	mg/Kg-dry	1	07/08/2013 16:14	89802
Vanadium	NELAP	0.46	0.93		21.5	mg/Kg-dry	1	07/09/2013 11:45	89802
Zinc	NELAP	4.63	9.26		40.8	mg/Kg-dry	10	07/09/2013 17:53	89802

Sample result for Fe exceeds 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume1, Module 4, section 1.7.4.1).



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070226

Client Project: IDOT2013-019

Report Date: 11-Jul-13

Lab ID: 13070226-002

Client Sample ID: 2687-5-B01-2

Matrix: SOLID

Collection Date: 07/02/2013 13:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.357	0.612		< 0.612	mg/Kg-dry	1	07/08/2013 9:27	89801
SW-846 7471B									
Mercury	NELAP	0.003	0.01	J	0.008	mg/Kg-dry	1	07/08/2013 11:11	89830
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.138	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
1,2-Dichlorobenzene	NELAP	0.164	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
1,3-Dichlorobenzene	NELAP	0.174	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
1,4-Dichlorobenzene	NELAP	0.164	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
2,4,5-Trichlorophenol	NELAP	0.098	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
2,4,6-Trichlorophenol	NELAP	0.13	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
2,4-Dichlorophenol	NELAP	0.125	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
2,4-Dimethylphenol	NELAP	0.131	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
2,4-Dinitrophenol	NELAP	0.111	1.03		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
2,4-Dinitrotoluene	NELAP	0.108	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
2,6-Dinitrotoluene	NELAP	0.112	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
2-Chloronaphthalene	NELAP	0.124	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
2-Chlorophenol	NELAP	0.131	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
2-Methylnaphthalene	NELAP	0.123	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
2-Nitroaniline	NELAP	0.094	1.03		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
2-Nitrophenol	NELAP	0.116	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
3,3'-Dichlorobenzidine	NELAP	0.207	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
3-Nitroaniline	NELAP	0.085	1.03		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
4,6-Dinitro-2-methylphenol	NELAP	0.112	1.03		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
4-Bromophenyl phenyl ether	NELAP	0.095	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
4-Chloro-3-methylphenol	NELAP	0.114	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
4-Chloroaniline	NELAP	0.125	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
4-Chlorophenyl phenyl ether	NELAP	0.102	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
4-Nitroaniline	NELAP	0.094	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
4-Nitrophenol	NELAP	0.101	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Acenaphthene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Acenaphthylene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Anthracene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Benzo(a)anthracene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Benzo(a)pyrene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Benzo(b)fluoranthene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Benzo(g,h,i)perylene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Benzo(k)fluoranthene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Bis(2-chloroethoxy)methane	NELAP	0.121	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Bis(2-chloroethyl)ether	NELAP	0.147	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Bis(2-chloroisopropyl)ether	NELAP	0.118	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Bis(2-ethylhexyl)phthalate	NELAP	0.121	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Butyl benzyl phthalate	NELAP	0.104	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Carbazole		0.126	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Chrysene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Dibenzo(a,h)anthracene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Dibenzofuran	NELAP	0.13	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Diethyl phthalate	NELAP	0.099	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070226

Client Project: IDOT2013-019

Report Date: 11-Jul-13

Lab ID: 13070226-002

Client Sample ID: 2687-5-B01-2

Matrix: SOLID

Collection Date: 07/02/2013 13:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Dimethyl phthalate	NELAP	0.094	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Di-n-butyl phthalate	NELAP	0.106	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Di-n-octyl phthalate	NELAP	0.108	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Fluoranthene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Fluorene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Hexachlorobenzene	NELAP	0.101	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Hexachlorobutadiene	NELAP	0.16	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Hexachlorocyclopentadiene	NELAP	0.105	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Hexachloroethane	NELAP	0.173	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Indeno(1,2,3-cd)pyrene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Isophorone	NELAP	0.122	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
m,p-Cresol	NELAP	0.13	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Naphthalene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Nitrobenzene	NELAP	0.129	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
N-Nitroso-di-n-propylamine	NELAP	0.114	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
N-Nitrosodiphenylamine	NELAP	0.095	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
o-Cresol	NELAP	0.122	0.517		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Pentachlorophenol	NELAP	0.682	2.07		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Phenanthrene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Phenol	NELAP	0.12	0.362		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Pyrene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 3:32	89823
Surr: 2,4,6-Tribromophenol		0	32.7-130		66.2	%REC	1	07/09/2013 3:32	89823
Surr: 2-Fluorobiphenyl		0	34.1-116		57	%REC	1	07/09/2013 3:32	89823
Surr: 2-Fluorophenol		0	30.5-99		67.1	%REC	1	07/09/2013 3:32	89823
Surr: Nitrobenzene-d5		0	34.1-101		66.4	%REC	1	07/09/2013 3:32	89823
Surr: Phenol-d5		0	34.9-110		63.3	%REC	1	07/09/2013 3:32	89823
Surr: p-Terphenyl-d14		0	41.7-124		65.4	%REC	1	07/09/2013 3:32	89823

Allowable Marginal Exceedance of 2,4,5-Trichlorophenol in the LCS verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).

SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
1,1,1,2-Tetrachloroethane		0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
1,1,2-Trichloroethane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
1,1-Dichloroethane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
1,1-Dichloroethene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
1,2-Dichloroethane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
1,2-Dichloropropane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
1,3-Dichloropropene, Total		0.0007	0.003		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
2-Butanone	NELAP	0.0075	0.037		0.054	mg/Kg-dry	1	07/09/2013 18:01	89919
2-Hexanone	NELAP	0.0075	0.037		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
4-Methyl-2-pentanone	NELAP	0.0075	0.037		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Acetone	NELAP	0.0075	0.037		0.171	mg/Kg-dry	1	07/09/2013 18:01	89919
Benzene	NELAP	0.0004	0.001		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Bromodichloromethane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Bromoform	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Bromomethane	NELAP	0.0015	0.007		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Carbon disulfide	NELAP	0.0022	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Carbon tetrachloride	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070226

Client Project: IDOT2013-019

Report Date: 11-Jul-13

Lab ID: 13070226-002

Client Sample ID: 2687-5-B01-2

Matrix: SOLID

Collection Date: 07/02/2013 13:35

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Chlorobenzene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Chloroethane	NELAP	0.0015	0.007		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Chloroform	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Chloromethane	NELAP	0.0015	0.007		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
cis-1,2-Dichloroethene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
cis-1,3-Dichloropropene	NELAP	0.0007	0.003		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Dibromochloromethane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Ethylbenzene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
m,p-Xylenes	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Methyl tert-butyl ether	NELAP	0.0004	0.001		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Methylene chloride	NELAP	0.0007	0.004	J	0.001	mg/Kg-dry	1	07/09/2013 18:01	89919
o-Xylene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Styrene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Tetrachloroethene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Toluene	NELAP	0.0007	0.004	J	0.001	mg/Kg-dry	1	07/09/2013 18:01	89919
trans-1,2-Dichloroethene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
trans-1,3-Dichloropropene	NELAP	0.0007	0.003		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Trichloroethene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Vinyl acetate	NELAP	0.015	0.037		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Vinyl chloride	NELAP	0.0004	0.001		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Xylenes, Total	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/09/2013 18:01	89919
Surr: 1,2-Dichloroethane-d4		0	72.2-131		107	%REC	1	07/09/2013 18:01	89919
Surr: 4-Bromofluorobenzene		0	82.1-116		91.9	%REC	1	07/09/2013 18:01	89919
Surr: Dibromofluoromethane		0	77.7-120		101.8	%REC	1	07/09/2013 18:01	89919
Surr: Toluene-d8		0	86-116		101.3	%REC	1	07/09/2013 18:01	89919



Illinois Environmental Protection Agency

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: FAU 305 (Jandus Cutoff Road) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
126 Jandus Cutoff Road

City: Cary State: IL Zip Code: 60013

County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20705 Longitude: -88.23348

(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: 1110105022 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 Street

Street Address: 201 West Center Street

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

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.

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Project Name: FAU 305 (Jandus Cutoff Road)
Latitude: 42.20705 Longitude: -88.23348

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 2687-7-B01, -B02 AND -B03 WERE SAMPLED ADJACENT TO ISGS SITE 2687-7. SEE FIGURE 2 AND TABLE 3c OF REVISED PRELIMINARY SITE INVESTIGATION.

- 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]:

TEKLAB ANALYTICAL REPORT - JOB ID: 13070309

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobleman, 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: IDOT Bureau of Design and Environment
Street Address: 2300 South Dirksen Parkway
City: Springfield State: IL Zip Code: 62764
Phone: 217.785.4246

Steven Gobleman
Printed Name:

[Signature]
Licensed Professional Engineer or
Licensed Professional Geologist Signature:

8/9/13
Date:



The following table summarizes the results of laboratory analysis of site soil samples. In reading the table,

- Only parameters reported at concentrations above the most stringent MAC are listed.
- Samples with the notation “**No Contaminants of Concern Noted**” were below the most stringent MAC.

The laboratory report for site soils follows this summary table.

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Volatile Organic Compounds (mg/kg)
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dichloroethane
1,2-Dichloropropane
1,3-Dichloropropene
2-Butanone (MEK)
2-Hexanone (MBK)
4-Methyl-2-pentanone (MIBK)
Acetone
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Ethylbenzene
Methylene chloride
Methyl-tert-butyl-ether (MTBE)
Styrene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Vinyl Acetate
Vinyl Chloride
Xylenes, total
m-Xylene
o-Xylene
p-Xylene
Semivolatile Organic Compounds (mg/kg)
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2-Chloronaphthalene
2-Chlorophenol
2-Methylnaphthalene
2-Methylphenol
2-Nitroaniline
2-Nitrophenol
3,3'-Dichlorobenzidine
3-Nitroaniline
4,6-Dinitro-2-methylphenol
4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol
4-Chloroaniline
4-Chlorophenyl phenyl ether
4-Methylphenol
4-Nitroaniline
4-Nitrophenol
Acenaphthene
Acenaphthylene
Anthracene
Benzo (a) anthracene
Benzo (a) pyrene

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THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Semivolatile Organic Compounds (mg/kg) (cont.)
Benzo (b) fluoranthene
Benzo (g,h,i) perylene
Benzo (k) fluoranthene
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl)ether
bis(2-chloroisopropyl)ether
Bis(2-ethylhexyl)phthalate
Butyl benzyl phthalate
Carbazole
Chrysene
Dibenzo (a,h) anthracene
Dibenzofuran
Diethyl phthalate
Dimethyl phthalate
Di-n-butyl phthalate
Di-n-octyl phthalate
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Indeno (1,2,3-cd) pyrene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodi-n-propylamine
N-Nitrosodiphenylamine
Pentachlorophenol
Phenanthrene
Phenol
Pyrene
Inorganic Compounds, Total (mg/kg)
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Potassium
Selenium
Silver
Sodium
Thallium
Vanadium
Zinc
TCLP/SPLP Inorganics (mg/L)
Antimony
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Zinc

ISGS Site 2687-7
All Marine Services/Max Auto Care

Sample ID	2687-7-B01	2687-7-B02	2687-7-B03									
Sample Depth (ft)	0-6	0-6	0-6									
Sample Date	7/2/2013	7/2/2013	7/2/2013									
% Solids	95.4	94.5	98.9									
Sample pH	7.89	8.57	7.98									
Matrix	Soil	Soil	Soil									
Semivolatile Organic Compounds (mg/kg)												
Benzo(a)pyrene	J 0.158	1.2	ND	ND	0.09	0.09	0.09	0.98	1.3	2.1	NA	

July 12, 2013

Colleen Grey
Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711-7233
TEL: (217) 787-2334
FAX: (217) 787-9495



RE: IDOT2013-019

WorkOrder: 13070309

Dear Colleen Grey:

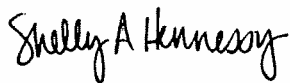
TEKLAB, INC received 3 samples on 7/5/2013 12:35:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

This reporting package includes the following:

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Definitions

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Abbr Definition

- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.
- DNI Did not ignite
- DUP Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
- ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
- IDPH IL Dept. of Public Health
- LCS Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. The acceptable recovery range is in the QC Package (provided upon request).
- LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MB Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
- MDL Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.
- MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
- MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MW Molecular weight
- ND Not Detected at the Reporting Limit
- NELAP NELAP Accredited
- PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The acceptable recovery range is listed in the QC Package (provided upon request).
- RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
- RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
- SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
- Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
- TNTC Too numerous to count (> 200 CFU)

Qualifiers

- | | |
|--|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| E - Value above quantitation range | H - Holding times exceeded |
| J - Analyte detected below quantitation limits | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | X - Value exceeds Maximum Contaminant Level |



Case Narrative

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Cooler Receipt Temp: 1.6 °C

Locations and Accreditations

	Collinsville	Springfield	Kansas City	Collinsville Air
Address	5445 Horseshoe Lake Road Collinsville, IL 62234-7425	3920 Pintail Dr Springfield, IL 62711-9415	8421 Nieman Road Lenexa, KS 66214	5445 Horseshoe Lake Road Collinsville, IL 62234-7425
Phone	(618) 344-1004	(217) 698-1004	(913) 541-1998	(618) 344-1004
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Email	jhriley@teklabinc.com	KKlostermann@teklabinc.com	dthompson@teklabinc.com	EHurley@teklabinc.com

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2014	Collinsville
Kansas	KDHE	E-10374	NELAP	1/31/2014	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2014	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2014	Springfield
Texas	TCEQ	T104704515-12-1	NELAP	7/31/2013	Collinsville
Arkansas	ADEQ	88-0966		3/14/2014	Collinsville
Illinois	IDPH	17584		4/30/2013	Collinsville
Kentucky	UST	0073		4/5/2014	Collinsville
Missouri	MDNR	00930		4/13/2013	Collinsville
Oklahoma	ODEQ	9978		8/31/2013	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Lab ID: 13070309-001

Client Sample ID: 2687-7-B01

Matrix: SOLID

Collection Date: 07/02/2013 15:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		4.6	%	1	07/08/2013 15:59	R179241
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		95.4	%	1	07/08/2013 15:59	R179241
SW-846 9045C									
pH (1:1)	NELAP	0	1		7.89		1	07/09/2013 11:09	R179242
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005	J	0.0047	mg/L	1	07/10/2013 12:20	89883
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/10/2013 12:20	89883
Boron	NELAP	1	2		< 2	mg/L	1	07/10/2013 12:20	89883
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/10/2013 12:20	89883
Chromium	NELAP	0.004	0.01		< 0.01	mg/L	1	07/10/2013 12:20	89883
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/10/2013 12:20	89883
Iron	NELAP	0.007	0.02		0.192	mg/L	1	07/10/2013 12:20	89883
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/10/2013 12:20	89883
Manganese	NELAP	0.0016	0.005	J	0.0024	mg/L	1	07/10/2013 12:20	89883
Nickel	NELAP	0.0033	0.01		< 0.01	mg/L	1	07/10/2013 12:20	89883
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/10/2013 12:20	89883
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/10/2013 12:20	89883
Zinc	NELAP	0.0021	0.01		0.0408	mg/L	1	07/10/2013 12:20	89883
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/10/2013 11:46	89885
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/10/2013 13:59	89885
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/10/2013 10:31	89907
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.32	4.46		< 4.46	mg/Kg-dry	1	07/09/2013 17:28	89841
Arsenic	NELAP	1.16	2.31		4.67	mg/Kg-dry	1	07/09/2013 18:09	89843
Barium	NELAP	0.23	0.46		16.4	mg/Kg-dry	1	07/09/2013 18:09	89843
Beryllium	NELAP	0.05	0.09		0.1	mg/Kg-dry	1	07/09/2013 18:09	89843
Boron	NELAP	0.93	1.85		7.07	mg/Kg-dry	1	07/09/2013 18:09	89843
Cadmium	NELAP	0.09	0.19		< 0.19	mg/Kg-dry	1	07/10/2013 12:49	89843
Calcium	NELAP	2.31	4.63		128000	mg/Kg-dry	1	07/09/2013 18:09	89843
Chromium	NELAP	0.46	0.93		12.7	mg/Kg-dry	1	07/09/2013 18:09	89843
Cobalt	NELAP	0.46	0.93		4.56	mg/Kg-dry	1	07/09/2013 19:40	89843
Copper	NELAP	0.46	0.93		14	mg/Kg-dry	1	07/09/2013 18:09	89843
Iron	NELAP	0.93	1.85		10800	mg/Kg-dry	1	07/09/2013 18:09	89843
Lead	NELAP	1.85	3.7		7.56	mg/Kg-dry	1	07/09/2013 18:09	89843
Magnesium	NELAP	0.46	0.93		69300	mg/Kg-dry	1	07/09/2013 18:09	89843
Manganese	NELAP	0.23	0.46		336	mg/Kg-dry	1	07/09/2013 18:09	89843
Nickel	NELAP	0.46	0.93		12.5	mg/Kg-dry	1	07/09/2013 19:40	89843
Potassium	NELAP	4.63	9.26		927	mg/Kg-dry	1	07/10/2013 12:49	89843
Silver	NELAP	0.46	0.51		< 0.51	mg/Kg-dry	1	07/09/2013 18:09	89843
Sodium	NELAP	2.31	4.63		214	mg/Kg-dry	1	07/09/2013 18:09	89843
Thallium	NELAP	2.31	2.41		< 2.41	mg/Kg-dry	1	07/09/2013 18:09	89843
Vanadium	NELAP	0.46	0.93		18	mg/Kg-dry	1	07/09/2013 18:09	89843
Zinc	NELAP	0.46	0.93		32	mg/Kg-dry	1	07/09/2013 19:40	89843

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Lab ID: 13070309-001

Client Sample ID: 2687-7-B01

Matrix: SOLID

Collection Date: 07/02/2013 15:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.343	0.588		< 0.588	mg/Kg-dry	1	07/09/2013 10:08	89839
SW-846 7471B									
Mercury	NELAP	0.003	0.01	J	0.01	mg/Kg-dry	1	07/09/2013 12:13	89873
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.692	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
1,2-Dichlorobenzene	NELAP	0.827	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
1,3-Dichlorobenzene	NELAP	0.874	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
1,4-Dichlorobenzene	NELAP	0.827	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
2,4,5-Trichlorophenol	NELAP	0.494	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
2,4,6-Trichlorophenol	NELAP	0.655	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
2,4-Dichlorophenol	NELAP	0.629	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
2,4-Dimethylphenol	NELAP	0.66	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
2,4-Dinitrophenol	NELAP	0.556	5.2		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
2,4-Dinitrotoluene	NELAP	0.541	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
2,6-Dinitrotoluene	NELAP	0.562	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
2-Chloronaphthalene	NELAP	0.624	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
2-Chlorophenol	NELAP	0.66	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
2-Methylnaphthalene	NELAP	0.619	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
2-Nitroaniline	NELAP	0.473	5.2		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
2-Nitrophenol	NELAP	0.582	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
3,3'-Dichlorobenzidine	NELAP	1.04	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
3-Nitroaniline	NELAP	0.426	5.2		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
4,6-Dinitro-2-methylphenol	NELAP	0.562	5.2		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
4-Bromophenyl phenyl ether	NELAP	0.478	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
4-Chloro-3-methylphenol	NELAP	0.572	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
4-Chloroaniline	NELAP	0.629	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
4-Chlorophenyl phenyl ether	NELAP	0.515	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
4-Nitroaniline	NELAP	0.473	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
4-Nitrophenol	NELAP	0.51	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Acenaphthene	NELAP	0.087	0.177		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Acenaphthylene	NELAP	0.087	0.177		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Anthracene	NELAP	0.087	0.177		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Benzo(a)anthracene	NELAP	0.087	0.177	J	0.151	mg/Kg-dry	5	07/10/2013 1:09	89856
Benzo(a)pyrene	NELAP	0.087	0.177	J	0.158	mg/Kg-dry	5	07/10/2013 1:09	89856
Benzo(b)fluoranthene	NELAP	0.087	0.177		0.292	mg/Kg-dry	5	07/10/2013 1:09	89856
Benzo(g,h,i)perylene	NELAP	0.087	0.177		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Benzo(k)fluoranthene	NELAP	0.087	0.177		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Bis(2-chloroethoxy)methane	NELAP	0.608	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Bis(2-chloroethyl)ether	NELAP	0.738	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Bis(2-chloroisopropyl)ether	NELAP	0.593	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Bis(2-ethylhexyl)phthalate	NELAP	0.608	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Butyl benzyl phthalate	NELAP	0.525	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Carbazole		0.634	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Chrysene	NELAP	0.087	0.177	J	0.16	mg/Kg-dry	5	07/10/2013 1:09	89856
Dibenzo(a,h)anthracene	NELAP	0.087	0.177		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Dibenzofuran	NELAP	0.655	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Diethyl phthalate	NELAP	0.499	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Lab ID: 13070309-001

Client Sample ID: 2687-7-B01

Matrix: SOLID

Collection Date: 07/02/2013 15:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Dimethyl phthalate	NELAP	0.473	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Di-n-butyl phthalate	NELAP	0.536	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Di-n-octyl phthalate	NELAP	0.541	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Fluoranthene	NELAP	0.087	0.177		0.316	mg/Kg-dry	5	07/10/2013 1:09	89856
Fluorene	NELAP	0.087	0.177		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Hexachlorobenzene	NELAP	0.51	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Hexachlorobutadiene	NELAP	0.806	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Hexachlorocyclopentadiene	NELAP	0.53	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Hexachloroethane	NELAP	0.868	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Indeno(1,2,3-cd)pyrene	NELAP	0.087	0.177		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Isophorone	NELAP	0.614	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
m,p-Cresol	NELAP	0.655	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Naphthalene	NELAP	0.087	0.177		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Nitrobenzene	NELAP	0.65	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
N-Nitroso-di-n-propylamine	NELAP	0.572	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
N-Nitrosodiphenylamine	NELAP	0.478	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
o-Cresol	NELAP	0.614	2.6		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Pentachlorophenol	NELAP	3.43	10.4		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Phenanthrene	NELAP	0.087	0.177		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Phenol	NELAP	0.603	1.82		ND	mg/Kg-dry	5	07/10/2013 1:09	89856
Pyrene	NELAP	0.087	0.177		0.241	mg/Kg-dry	5	07/10/2013 1:09	89856
Surr: 2,4,6-Tribromophenol		0	32.7-130		42.6	%REC	5	07/10/2013 1:09	89856
Surr: 2-Fluorobiphenyl		0	34.1-116		44.5	%REC	5	07/10/2013 1:09	89856
Surr: 2-Fluorophenol		0	30.5-99		56.1	%REC	5	07/10/2013 1:09	89856
Surr: Nitrobenzene-d5		0	34.1-101		56.5	%REC	5	07/10/2013 1:09	89856
Surr: Phenol-d5		0	34.9-110		55	%REC	5	07/10/2013 1:09	89856
Surr: p-Terphenyl-d14		0	41.7-124		42.5	%REC	5	07/10/2013 1:09	89856
<i>Elevated reporting limit due to sample extract composition.</i>									
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
1,1,2,2-Tetrachloroethane		0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
1,1,2-Trichloroethane	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
1,1-Dichloroethane	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
1,1-Dichloroethene	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
1,2-Dichloroethane	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
1,2-Dichloropropane	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
1,3-Dichloropropene, Total		0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
2-Butanone	NELAP	0.0093	0.046		0.082	mg/Kg-dry	1	07/10/2013 22:27	89977
2-Hexanone	NELAP	0.0093	0.046		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
4-Methyl-2-pentanone	NELAP	0.0093	0.046		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Acetone	NELAP	0.0093	0.046		0.21	mg/Kg-dry	1	07/10/2013 22:27	89977
Benzene	NELAP	0.0005	0.001		0.002	mg/Kg-dry	1	07/10/2013 22:27	89977
Bromodichloromethane	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Bromoform	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Bromomethane	NELAP	0.0019	0.009		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Carbon disulfide	NELAP	0.0028	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Carbon tetrachloride	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Lab ID: 13070309-001

Client Sample ID: 2687-7-B01

Matrix: SOLID

Collection Date: 07/02/2013 15:30

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Chlorobenzene	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Chloroethane	NELAP	0.0019	0.009		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Chloroform	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Chloromethane	NELAP	0.0019	0.009		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
cis-1,2-Dichloroethene	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
cis-1,3-Dichloropropene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Dibromochloromethane	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Ethylbenzene	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
m,p-Xylenes	NELAP	0.0009	0.005	J	0.001	mg/Kg-dry	1	07/10/2013 22:27	89977
Methyl tert-butyl ether	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Methylene chloride	NELAP	0.0009	0.005	J	0.001	mg/Kg-dry	1	07/10/2013 22:27	89977
o-Xylene	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Styrene	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Tetrachloroethene	NELAP	0.0009	0.005	J	0.003	mg/Kg-dry	1	07/10/2013 22:27	89977
Toluene	NELAP	0.0009	0.005	J	0.004	mg/Kg-dry	1	07/10/2013 22:27	89977
trans-1,2-Dichloroethene	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
trans-1,3-Dichloropropene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Trichloroethene	NELAP	0.0009	0.005		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Vinyl acetate	NELAP	0.0185	0.046		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Vinyl chloride	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/10/2013 22:27	89977
Xylenes, Total	NELAP	0.0009	0.005	J	0.001	mg/Kg-dry	1	07/10/2013 22:27	89977
Surr: 1,2-Dichloroethane-d4		0	72.2-131		115	%REC	1	07/10/2013 22:27	89977
Surr: 4-Bromofluorobenzene		0	82.1-116		98.6	%REC	1	07/10/2013 22:27	89977
Surr: Dibromofluoromethane		0	77.7-120		108.2	%REC	1	07/10/2013 22:27	89977
Surr: Toluene-d8		0	86-116		96.4	%REC	1	07/10/2013 22:27	89977



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Lab ID: 13070309-002

Client Sample ID: 2687-7-B02

Matrix: SOLID

Collection Date: 07/02/2013 16:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		5.5	%	1	07/08/2013 15:59	R179241
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		94.5	%	1	07/08/2013 15:59	R179241
SW-846 9045C									
pH (1:1)	NELAP	0	1		8.57		1	07/09/2013 11:12	R179242
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005		0.0133	mg/L	1	07/10/2013 12:45	89883
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/10/2013 12:45	89883
Boron	NELAP	1	2		< 2	mg/L	1	07/10/2013 12:45	89883
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/10/2013 12:45	89883
Chromium	NELAP	0.004	0.01		< 0.01	mg/L	1	07/10/2013 12:45	89883
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/10/2013 12:45	89883
Iron	NELAP	0.007	0.02		2.19	mg/L	1	07/10/2013 12:45	89883
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/10/2013 12:45	89883
Manganese	NELAP	0.0016	0.005		0.0382	mg/L	1	07/10/2013 12:45	89883
Nickel	NELAP	0.0033	0.01		< 0.01	mg/L	1	07/10/2013 12:45	89883
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/10/2013 12:45	89883
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/10/2013 12:45	89883
Zinc	NELAP	0.0021	0.01		0.0809	mg/L	1	07/10/2013 12:45	89883
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/10/2013 11:50	89885
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/10/2013 14:03	89885
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/10/2013 10:34	89907
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.36	4.55		< 4.55	mg/Kg-dry	1	07/09/2013 17:31	89841
Arsenic	NELAP	1.16	2.31		2.63	mg/Kg-dry	1	07/09/2013 18:15	89843
Barium	NELAP	0.23	0.46		23.4	mg/Kg-dry	1	07/09/2013 18:15	89843
Beryllium	NELAP	0.05	0.09		0.11	mg/Kg-dry	1	07/09/2013 18:15	89843
Boron	NELAP	0.93	1.85		5.69	mg/Kg-dry	1	07/09/2013 18:15	89843
Cadmium	NELAP	0.09	0.19		< 0.19	mg/Kg-dry	1	07/09/2013 18:15	89843
Calcium	NELAP	2.31	4.63		95600	mg/Kg-dry	1	07/09/2013 18:15	89843
Chromium	NELAP	0.46	0.93		9.4	mg/Kg-dry	1	07/09/2013 18:15	89843
Cobalt	NELAP	0.46	0.93		3.21	mg/Kg-dry	1	07/09/2013 18:15	89843
Copper	NELAP	0.46	0.93		10.1	mg/Kg-dry	1	07/09/2013 19:44	89843
Iron	NELAP	0.93	1.85		9250	mg/Kg-dry	1	07/09/2013 18:15	89843
Lead	NELAP	1.85	3.7		4.35	mg/Kg-dry	1	07/09/2013 18:15	89843
Magnesium	NELAP	0.46	0.93		45500	mg/Kg-dry	1	07/09/2013 18:15	89843
Manganese	NELAP	0.23	0.46		303	mg/Kg-dry	1	07/09/2013 18:15	89843
Nickel	NELAP	0.46	0.93		7.78	mg/Kg-dry	1	07/09/2013 18:15	89843
Potassium	NELAP	4.63	9.26		873	mg/Kg-dry	1	07/09/2013 19:44	89843
Silver	NELAP	0.46	0.51		< 0.51	mg/Kg-dry	1	07/10/2013 12:55	89843
Sodium	NELAP	2.31	4.63		539	mg/Kg-dry	1	07/09/2013 18:15	89843
Thallium	NELAP	2.31	2.41		< 2.41	mg/Kg-dry	1	07/09/2013 18:15	89843
Vanadium	NELAP	0.46	0.93		12	mg/Kg-dry	1	07/09/2013 18:15	89843
Zinc	NELAP	0.46	0.93		22.4	mg/Kg-dry	1	07/09/2013 18:15	89843



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Lab ID: 13070309-002

Client Sample ID: 2687-7-B02

Matrix: SOLID

Collection Date: 07/02/2013 16:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.343	0.588		< 0.588	mg/Kg-dry	1	07/09/2013 10:11	89839
SW-846 7471B									
Mercury	NELAP	0.003	0.01	J	0.006	mg/Kg-dry	1	07/09/2013 12:15	89873
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.14	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
1,2-Dichlorobenzene	NELAP	0.168	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
1,3-Dichlorobenzene	NELAP	0.177	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
1,4-Dichlorobenzene	NELAP	0.168	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
2,4,5-Trichlorophenol	NELAP	0.1	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
2,4,6-Trichlorophenol	NELAP	0.133	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
2,4-Dichlorophenol	NELAP	0.128	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
2,4-Dimethylphenol	NELAP	0.134	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
2,4-Dinitrophenol	NELAP	0.113	1.06		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
2,4-Dinitrotoluene	NELAP	0.11	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
2,6-Dinitrotoluene	NELAP	0.114	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
2-Chloronaphthalene	NELAP	0.127	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
2-Chlorophenol	NELAP	0.134	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
2-Methylnaphthalene	NELAP	0.126	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
2-Nitroaniline	NELAP	0.096	1.06		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
2-Nitrophenol	NELAP	0.118	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
3,3'-Dichlorobenzidine	NELAP	0.211	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
3-Nitroaniline	NELAP	0.087	1.06		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
4,6-Dinitro-2-methylphenol	NELAP	0.114	1.06		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
4-Bromophenyl phenyl ether	NELAP	0.097	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
4-Chloro-3-methylphenol	NELAP	0.116	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
4-Chloroaniline	NELAP	0.128	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
4-Chlorophenyl phenyl ether	NELAP	0.104	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
4-Nitroaniline	NELAP	0.096	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
4-Nitrophenol	NELAP	0.103	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Acenaphthene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Acenaphthylene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Anthracene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Benzo(a)anthracene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Benzo(a)pyrene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Benzo(b)fluoranthene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Benzo(g,h,i)perylene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Benzo(k)fluoranthene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Bis(2-chloroethoxy)methane	NELAP	0.123	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Bis(2-chloroethyl)ether	NELAP	0.15	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Bis(2-chloroisopropyl)ether	NELAP	0.12	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Bis(2-ethylhexyl)phthalate	NELAP	0.123	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Butyl benzyl phthalate	NELAP	0.107	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Carbazole		0.129	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Chrysene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Dibenzo(a,h)anthracene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Dibenzofuran	NELAP	0.133	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Diethyl phthalate	NELAP	0.101	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Lab ID: 13070309-002

Client Sample ID: 2687-7-B02

Matrix: SOLID

Collection Date: 07/02/2013 16:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Dimethyl phthalate	NELAP	0.096	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Di-n-butyl phthalate	NELAP	0.109	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Di-n-octyl phthalate	NELAP	0.11	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Fluoranthene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Fluorene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Hexachlorobenzene	NELAP	0.103	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Hexachlorobutadiene	NELAP	0.164	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Hexachlorocyclopentadiene	NELAP	0.108	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Hexachloroethane	NELAP	0.176	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Indeno(1,2,3-cd)pyrene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Isophorone	NELAP	0.124	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
m,p-Cresol	NELAP	0.133	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Naphthalene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Nitrobenzene	NELAP	0.132	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
N-Nitroso-di-n-propylamine	NELAP	0.116	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
N-Nitrosodiphenylamine	NELAP	0.097	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
o-Cresol	NELAP	0.124	0.528		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Pentachlorophenol	NELAP	0.696	2.11		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Phenanthrene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Phenol	NELAP	0.122	0.369		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Pyrene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/09/2013 22:22	89856
Surr: 2,4,6-Tribromophenol		0	32.7-130		59.4	%REC	1	07/09/2013 22:22	89856
Surr: 2-Fluorobiphenyl		0	34.1-116		53	%REC	1	07/09/2013 22:22	89856
Surr: 2-Fluorophenol		0	30.5-99		67.5	%REC	1	07/09/2013 22:22	89856
Surr: Nitrobenzene-d5		0	34.1-101		66.7	%REC	1	07/09/2013 22:22	89856
Surr: Phenol-d5		0	34.9-110		62.8	%REC	1	07/09/2013 22:22	89856
Surr: p-Terphenyl-d14		0	41.7-124		50.9	%REC	1	07/09/2013 22:22	89856
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
1,1,2,2-Tetrachloroethane		0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
1,1,2-Trichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
1,1-Dichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
1,1-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
1,2-Dichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
1,2-Dichloropropane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
1,3-Dichloropropene, Total		0.001	0.004		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
2-Butanone	NELAP	0.0098	0.049		0.126	mg/Kg-dry	1	07/10/2013 22:54	89977
2-Hexanone	NELAP	0.0098	0.049	J	0.012	mg/Kg-dry	1	07/10/2013 22:54	89977
4-Methyl-2-pentanone	NELAP	0.0098	0.049		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Acetone	NELAP	0.0098	0.049		0.273	mg/Kg-dry	1	07/10/2013 22:54	89977
Benzene	NELAP	0.0005	0.001		0.002	mg/Kg-dry	1	07/10/2013 22:54	89977
Bromodichloromethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Bromofom	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Bromomethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Carbon disulfide	NELAP	0.0029	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Carbon tetrachloride	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Chlorobenzene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Lab ID: 13070309-002

Client Sample ID: 2687-7-B02

Matrix: SOLID

Collection Date: 07/02/2013 16:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Chloroethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Chloroform	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Chloromethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
cis-1,2-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
cis-1,3-Dichloropropene	NELAP	0.001	0.004		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Dibromochloromethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Ethylbenzene	NELAP	0.001	0.005	J	0.001	mg/Kg-dry	1	07/10/2013 22:54	89977
m,p-Xylenes	NELAP	0.001	0.005	J	0.002	mg/Kg-dry	1	07/10/2013 22:54	89977
Methyl tert-butyl ether	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Methylene chloride	NELAP	0.001	0.005	J	0.001	mg/Kg-dry	1	07/10/2013 22:54	89977
o-Xylene	NELAP	0.001	0.005	J	0.001	mg/Kg-dry	1	07/10/2013 22:54	89977
Styrene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Tetrachloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Toluene	NELAP	0.001	0.005	J	0.005	mg/Kg-dry	1	07/10/2013 22:54	89977
trans-1,2-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
trans-1,3-Dichloropropene	NELAP	0.001	0.004		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Trichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Vinyl acetate	NELAP	0.0196	0.049		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Vinyl chloride	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/10/2013 22:54	89977
Xylenes, Total	NELAP	0.001	0.005	J	0.003	mg/Kg-dry	1	07/10/2013 22:54	89977
Surr: 1,2-Dichloroethane-d4		0	72.2-131		111.3	%REC	1	07/10/2013 22:54	89977
Surr: 4-Bromofluorobenzene		0	82.1-116		98.5	%REC	1	07/10/2013 22:54	89977
Surr: Dibromofluoromethane		0	77.7-120		106	%REC	1	07/10/2013 22:54	89977
Surr: Toluene-d8		0	86-116		96.4	%REC	1	07/10/2013 22:54	89977



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Lab ID: 13070309-003

Client Sample ID: 2687-7-B03

Matrix: SOLID

Collection Date: 07/02/2013 16:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		1.1	%	1	07/08/2013 15:59	R179241
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		98.9	%	1	07/08/2013 15:59	R179241
SW-846 9045C									
pH (1:1)	NELAP	0	1		7.98		1	07/09/2013 11:16	R179242
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005		0.0053	mg/L	1	07/10/2013 12:49	89883
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/10/2013 12:49	89883
Boron	NELAP	1	2		< 2	mg/L	1	07/10/2013 12:49	89883
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/10/2013 12:49	89883
Chromium	NELAP	0.004	0.01		< 0.01	mg/L	1	07/10/2013 12:49	89883
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/10/2013 12:49	89883
Iron	NELAP	0.007	0.02		0.0257	mg/L	1	07/10/2013 12:49	89883
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/10/2013 12:49	89883
Manganese	NELAP	0.0016	0.005		< 0.005	mg/L	1	07/10/2013 12:49	89883
Nickel	NELAP	0.0033	0.01		< 0.01	mg/L	1	07/10/2013 12:49	89883
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/10/2013 12:49	89883
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/10/2013 12:49	89883
Zinc	NELAP	0.0021	0.01	J	0.0074	mg/L	1	07/10/2013 12:49	89883
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/10/2013 11:54	89885
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/11/2013 13:46	89885
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/10/2013 10:36	89907
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.36	4.55		< 4.55	mg/Kg-dry	1	07/09/2013 17:35	89841
Arsenic	NELAP	1.14	2.27		5.11	mg/Kg-dry	1	07/09/2013 18:33	89843
Barium	NELAP	0.23	0.45		17.1	mg/Kg-dry	1	07/09/2013 18:33	89843
Beryllium	NELAP	0.05	0.09	J	0.08	mg/Kg-dry	1	07/09/2013 18:33	89843
Boron	NELAP	0.91	1.82		5.3	mg/Kg-dry	1	07/09/2013 18:33	89843
Cadmium	NELAP	0.09	0.18	J	0.1	mg/Kg-dry	1	07/09/2013 18:33	89843
Calcium	NELAP	2.27	4.55		83100	mg/Kg-dry	1	07/09/2013 18:33	89843
Chromium	NELAP	0.45	0.91		6.36	mg/Kg-dry	1	07/09/2013 18:33	89843
Cobalt	NELAP	0.45	0.91		3.01	mg/Kg-dry	1	07/09/2013 18:33	89843
Copper	NELAP	0.45	0.91		11.4	mg/Kg-dry	1	07/09/2013 18:33	89843
Iron	NELAP	0.91	1.82		10200	mg/Kg-dry	1	07/09/2013 18:33	89843
Lead	NELAP	1.82	3.64		4.81	mg/Kg-dry	1	07/09/2013 18:33	89843
Magnesium	NELAP	0.45	0.91		42600	mg/Kg-dry	1	07/09/2013 18:33	89843
Manganese	NELAP	0.23	0.45		380	mg/Kg-dry	1	07/09/2013 18:33	89843
Nickel	NELAP	0.45	0.91		8.13	mg/Kg-dry	1	07/09/2013 18:33	89843
Potassium	NELAP	4.55	9.09		525	mg/Kg-dry	1	07/10/2013 13:01	89843
Silver	NELAP	0.45	0.5		< 0.5	mg/Kg-dry	1	07/09/2013 18:33	89843
Sodium	NELAP	2.27	4.55		152	mg/Kg-dry	1	07/09/2013 18:33	89843
Thallium	NELAP	2.27	2.36		< 2.36	mg/Kg-dry	1	07/09/2013 18:33	89843
Vanadium	NELAP	0.45	0.91		14.6	mg/Kg-dry	1	07/09/2013 18:33	89843
Zinc	NELAP	0.45	0.91		30	mg/Kg-dry	1	07/09/2013 19:47	89843



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Lab ID: 13070309-003

Client Sample ID: 2687-7-B03

Matrix: SOLID

Collection Date: 07/02/2013 16:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.33	0.566		< 0.566	mg/Kg-dry	1	07/09/2013 10:14	89839
SW-846 7471B									
Mercury	NELAP	0.003	0.01	J	0.006	mg/Kg-dry	1	07/09/2013 12:17	89873
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.134	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
1,2-Dichlorobenzene	NELAP	0.16	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
1,3-Dichlorobenzene	NELAP	0.169	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
1,4-Dichlorobenzene	NELAP	0.16	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
2,4,5-Trichlorophenol	NELAP	0.096	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
2,4,6-Trichlorophenol	NELAP	0.127	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
2,4-Dichlorophenol	NELAP	0.122	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
2,4-Dimethylphenol	NELAP	0.128	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
2,4-Dinitrophenol	NELAP	0.108	1.01		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
2,4-Dinitrotoluene	NELAP	0.105	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
2,6-Dinitrotoluene	NELAP	0.109	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
2-Chloronaphthalene	NELAP	0.121	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
2-Chlorophenol	NELAP	0.128	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
2-Methylnaphthalene	NELAP	0.12	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
2-Nitroaniline	NELAP	0.092	1.01		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
2-Nitrophenol	NELAP	0.113	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
3,3'-Dichlorobenzidine	NELAP	0.201	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
3-Nitroaniline	NELAP	0.083	1.01		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
4,6-Dinitro-2-methylphenol	NELAP	0.109	1.01		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
4-Bromophenyl phenyl ether	NELAP	0.093	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
4-Chloro-3-methylphenol	NELAP	0.111	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
4-Chloroaniline	NELAP	0.122	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
4-Chlorophenyl phenyl ether	NELAP	0.1	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
4-Nitroaniline	NELAP	0.092	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
4-Nitrophenol	NELAP	0.099	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Acenaphthene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Acenaphthylene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Anthracene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Benzo(a)anthracene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Benzo(a)pyrene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Benzo(b)fluoranthene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Benzo(g,h,i)perylene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Benzo(k)fluoranthene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Bis(2-chloroethoxy)methane	NELAP	0.118	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Bis(2-chloroethyl)ether	NELAP	0.143	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Bis(2-chloroisopropyl)ether	NELAP	0.115	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Bis(2-ethylhexyl)phthalate	NELAP	0.118	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Butyl benzyl phthalate	NELAP	0.102	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Carbazole		0.123	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Chrysene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Dibenzo(a,h)anthracene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Dibenzofuran	NELAP	0.127	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Diethyl phthalate	NELAP	0.097	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Lab ID: 13070309-003

Client Sample ID: 2687-7-B03

Matrix: SOLID

Collection Date: 07/02/2013 16:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Dimethyl phthalate	NELAP	0.092	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Di-n-butyl phthalate	NELAP	0.104	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Di-n-octyl phthalate	NELAP	0.105	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Fluoranthene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Fluorene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Hexachlorobenzene	NELAP	0.099	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Hexachlorobutadiene	NELAP	0.156	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Hexachlorocyclopentadiene	NELAP	0.103	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Hexachloroethane	NELAP	0.168	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Indeno(1,2,3-cd)pyrene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Isophorone	NELAP	0.119	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
m,p-Cresol	NELAP	0.127	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Naphthalene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Nitrobenzene	NELAP	0.126	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
N-Nitroso-di-n-propylamine	NELAP	0.111	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
N-Nitrosodiphenylamine	NELAP	0.093	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
o-Cresol	NELAP	0.119	0.504		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Pentachlorophenol	NELAP	0.665	2.01		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Phenanthrene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Phenol	NELAP	0.117	0.352		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Pyrene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/09/2013 15:45	89856
Surr: 2,4,6-Tribromophenol		0	32.7-130		61.3	%REC	1	07/09/2013 15:45	89856
Surr: 2-Fluorobiphenyl		0	34.1-116		54.7	%REC	1	07/09/2013 15:45	89856
Surr: 2-Fluorophenol		0	30.5-99		62.6	%REC	1	07/09/2013 15:45	89856
Surr: Nitrobenzene-d5		0	34.1-101		59.1	%REC	1	07/09/2013 15:45	89856
Surr: Phenol-d5		0	34.9-110		61.3	%REC	1	07/09/2013 15:45	89856
Surr: p-Terphenyl-d14		0	41.7-124		58.4	%REC	1	07/09/2013 15:45	89856

SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

1,1,1-Trichloroethane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
1,1,2,2-Tetrachloroethane		0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
1,1,2-Trichloroethane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
1,1-Dichloroethane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
1,1-Dichloroethene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
1,2-Dichloroethane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
1,2-Dichloropropane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
1,3-Dichloropropene, Total		0.0007	0.003		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
2-Butanone	NELAP	0.0072	0.036		0.113	mg/Kg-dry	1	07/11/2013 9:46	89996
2-Hexanone	NELAP	0.0072	0.036	J	0.013	mg/Kg-dry	1	07/11/2013 9:46	89996
4-Methyl-2-pentanone	NELAP	0.0072	0.036		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Acetone	NELAP	0.0072	0.036		0.233	mg/Kg-dry	1	07/11/2013 9:46	89996
Benzene	NELAP	0.0004	0.001		0.002	mg/Kg-dry	1	07/11/2013 9:46	89996
Bromodichloromethane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Bromoform	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Bromomethane	NELAP	0.0014	0.007		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Carbon disulfide	NELAP	0.0022	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Carbon tetrachloride	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Chlorobenzene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070309

Client Project: IDOT2013-019

Report Date: 12-Jul-13

Lab ID: 13070309-003

Client Sample ID: 2687-7-B03

Matrix: SOLID

Collection Date: 07/02/2013 16:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Chloroethane	NELAP	0.0014	0.007		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Chloroform	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Chloromethane	NELAP	0.0014	0.007		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
cis-1,2-Dichloroethene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
cis-1,3-Dichloropropene	NELAP	0.0007	0.003		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Dibromochloromethane	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Ethylbenzene	NELAP	0.0007	0.004	J	0.002	mg/Kg-dry	1	07/11/2013 9:46	89996
m,p-Xylenes	NELAP	0.0007	0.004	J	0.003	mg/Kg-dry	1	07/11/2013 9:46	89996
Methyl tert-butyl ether	NELAP	0.0004	0.001		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Methylene chloride	NELAP	0.0007	0.004	J	0.001	mg/Kg-dry	1	07/11/2013 9:46	89996
o-Xylene	NELAP	0.0007	0.004	J	0.001	mg/Kg-dry	1	07/11/2013 9:46	89996
Styrene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Tetrachloroethene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Toluene	NELAP	0.0007	0.004		0.007	mg/Kg-dry	1	07/11/2013 9:46	89996
trans-1,2-Dichloroethene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
trans-1,3-Dichloropropene	NELAP	0.0007	0.003		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Trichloroethene	NELAP	0.0007	0.004		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Vinyl acetate	NELAP	0.0144	0.036		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Vinyl chloride	NELAP	0.0004	0.001		ND	mg/Kg-dry	1	07/11/2013 9:46	89996
Xylenes, Total	NELAP	0.0007	0.004		0.005	mg/Kg-dry	1	07/11/2013 9:46	89996
Surr: 1,2-Dichloroethane-d4		0	72.2-131		111.4	%REC	1	07/11/2013 9:46	89996
Surr: 4-Bromofluorobenzene		0	82.1-116		93.7	%REC	1	07/11/2013 9:46	89996
Surr: Dibromofluoromethane		0	77.7-120		107.2	%REC	1	07/11/2013 9:46	89996
Surr: Toluene-d8		0	86-116		100	%REC	1	07/11/2013 9:46	89996

Allowable Marginal Exceedance of Acetone in the LCS/LCSD and Methylene chloride in the LCSD verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).



CHAIN OF CUSTODY RECORD

13070309

Client Contact Andrews Engineering, Inc. 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact: Colleen Grey email: cgrey@andrews-eng.com	Laboratory Lab: TekLab, Inc. Address: 5445 Horseshoe Lake Road Collinsville, IL 62234 Phone: 877-344-1003 Contact: Shelly Hennessy email: shennessy@teklabinc.com	Project Name: <u>CARY, McHENRY CO</u> Project No.: <u>IDOT 2013-019</u> TAT: <input checked="" type="checkbox"/> 15 BD <input type="checkbox"/> 10 BD <input type="checkbox"/> 5 BD <input type="checkbox"/> 2 BD <input type="checkbox"/> Other Sampler: _____	COC No.: _____ of _____ Lab Job No.: _____ Sample Temp: <u>1.0 ice</u> Matrix Key: W: Water S: Soil SL: Sludge S: Sediment L: Leachate DW: Drinking Water OL: Oil O: Other																																																																		
Special Instructions: See Table 2 for complete parameter lists and minimum reporting limits. * If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal. ** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter.		ANALYSES																																																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Lab ID</th> <th>Sample ID</th> <th>Sample Date</th> <th>Sample Time</th> <th>Matrix</th> </tr> </thead> <tbody> <tr> <td>13070309</td> <td>2022687-7-B01</td> <td>7/2</td> <td>3:30</td> <td>S</td> </tr> <tr> <td></td> <td>2022687-7-B02</td> <td>↓</td> <td>4:00</td> <td>S</td> </tr> <tr> <td></td> <td>2022687-7-B03</td> <td>↓</td> <td>4:20</td> <td>S</td> </tr> </tbody> </table>	Lab ID	Sample ID	Sample Date	Sample Time	Matrix	13070309	2022687-7-B01	7/2	3:30	S		2022687-7-B02	↓	4:00	S		2022687-7-B03	↓	4:20	S	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>WOCs</th> <th>SVOCs</th> <th>BETX & MTBE</th> <th>PNAs</th> <th>Pesticides</th> <th>PCBs</th> <th>* Total Metals</th> <th>SPLP/** TCLP Metals</th> <th>pH</th> <th>% Solids</th> <th>Waste Characterization</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> </tbody> </table>			WOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	pH	% Solids	Waste Characterization	X	X					X	X	X	X		X	X					X	X	X	X		X	X					X	X	X	X		Received by: _____ Date/Time: <u>7-5-13 10:30</u>	
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Teklab, Inc.
Courier Pick Up



Illinois Environmental Protection Agency

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: FAU 305 (Jandus Cutoff Road) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

100 Block Jandus Cutoff Road

City: Cary State: IL Zip Code: 60013

County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20628 Longitude: -88.23410
(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

Name: Illinois Department of Transportation

Street Address: 201 West Center Street

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

Email, if available: Sam.Mead@illinois.gov

Site Operator

Name: Illinois Department of Transportation

Street Address: 201 West Center Street

PO Box: _____

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Contact: Sam Mead

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: FAU 305 (Jandus Cutoff Road)

Latitude: 42.20628 Longitude: -88.23410

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 2687-8-B01, -B02 AND -B03 WERE SAMPLED ADJACENT TO ISGS SITE 2687-8. SEE FIGURE 2 AND TABLE 3d OF REVISED PRELIMINARY SITE INVESTIGATION.

- 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]:

TEKLAB ANALYTICAL REPORT - JOB ID: 13070316

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobleman, 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))

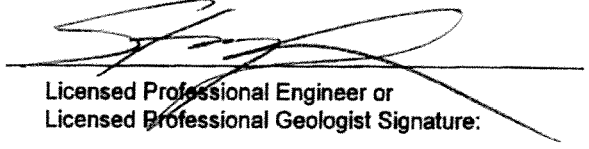
Company Name: IDOT Bureau of Design and Environment

Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

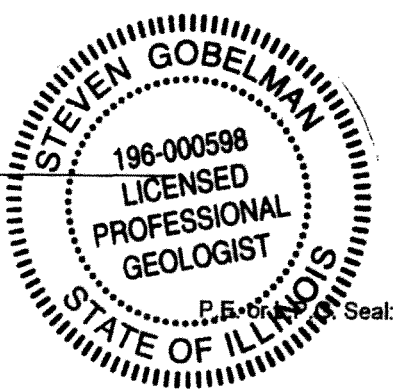
Phone: 217.785.4246

Steven Gobleman
Printed Name:


 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

8/1/13

Date:



Seal:

150

The following table summarizes the results of laboratory analysis of site soil samples. In reading the table,

- Only parameters reported at concentrations above the most stringent MAC are listed.
- Samples with the notation “**No Contaminants of Concern Noted**” were below the most stringent MAC.

The laboratory report for site soils follows this summary table.

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Volatile Organic Compounds (mg/kg)
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dichloroethane
1,2-Dichloropropane
1,3-Dichloropropene
2-Butanone (MEK)
2-Hexanone (MBK)
4-Methyl-2-pentanone (MIBK)
Acetone
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Ethylbenzene
Methylene chloride
Methyl-tert-butyl-ether (MTBE)
Styrene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Vinyl Acetate
Vinyl Chloride
Xylenes, total
m-Xylene
o-Xylene
p-Xylene
Semivolatile Organic Compounds (mg/kg)
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2-Chloronaphthalene
2-Chlorophenol
2-Methylnaphthalene
2-Methylphenol
2-Nitroaniline
2-Nitrophenol
3,3'-Dichlorobenzidine
3-Nitroaniline
4,6-Dinitro-2-methylphenol
4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol
4-Chloroaniline
4-Chlorophenyl phenyl ether
4-Methylphenol
4-Nitroaniline
4-Nitrophenol
Acenaphthene
Acenaphthylene
Anthracene
Benzo (a) anthracene
Benzo (a) pyrene

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Semivolatile Organic Compounds (mg/kg) (cont.)
Benzo (b) fluoranthene
Benzo (g,h,i) perylene
Benzo (k) fluoranthene
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl)ether
bis(2-chloroisopropyl)ether
Bis(2-ethylhexyl)phthalate
Butyl benzyl phthalate
Carbazole
Chrysene
Dibenzo (a,h) anthracene
Dibenzofuran
Diethyl phthalate
Dimethyl phthalate
Di-n-butyl phthalate
Di-n-octyl phthalate
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Indeno (1,2,3-cd) pyrene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodi-n-propylamine
N-Nitrosodiphenylamine
Pentachlorophenol
Phenanthrene
Phenol
Pyrene
Inorganic Compounds, Total (mg/kg)
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Potassium
Selenium
Silver
Sodium
Thallium
Vanadium
Zinc
TCLP/SPLP Inorganics (mg/L)
Antimony
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Zinc

ISGS Site 2687-8
Utility Corridor

Sample ID	2687-8-B01	2687-8-B02	2687-8-B03										
Sample Depth (ft)	0-6	0-6	0-6										
Sample Date	7/2/2013	7/2/2013	7/2/2013										
% Solids	95.4	98.7	79.2										
Sample pH	8.24	8.35	8.2										
Matrix	Soil	Soil	Soil										
Inorganic Compounds, Total (mg/kg)													
Manganese	B 375	B 249	B 299	630	NA	NA	630	NA	NA	636	NA	NA	NA
SPLP Metals (mg/L)													
Manganese	0.0181	ND	0.016	m	NA	NA	NA	NA	NA	NA	NA	0.15	0.15
TCLP Metals (mg/L)													
Manganese	NT	NT	NT	m	NA	NA	NA	NA	NA	NA	NA	0.15	0.15

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July 16, 2013

Colleen Grey
Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711-7233
TEL: (217) 787-2334
FAX: (217) 787-9495



RE: IDOT2013-019

WorkOrder: 13070316

Dear Colleen Grey:

TEKLAB, INC received 4 samples on 7/5/2013 12:35:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	4
Laboratory Results	5
Quality Control Results	21
Receiving Check List	52
Chain of Custody	Appended



Definitions

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Abbr Definition

- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.
- DNI Did not ignite
- DUP Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
- ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
- IDPH IL Dept. of Public Health
- LCS Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. The acceptable recovery range is in the QC Package (provided upon request).
- LCS D Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MB Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
- MDL Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.
- MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
- MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MW Molecular weight
- ND Not Detected at the Reporting Limit
- NELAP NELAP Accredited
- PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The acceptable recovery range is listed in the QC Package (provided upon request).
- RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
- RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
- SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
- Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
- TNTC Too numerous to count (> 200 CFU)

Qualifiers

- | | |
|--|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| E - Value above quantitation range | H - Holding times exceeded |
| J - Analyte detected below quantitation limits | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | X - Value exceeds Maximum Contaminant Level |



Case Narrative

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Cooler Receipt Temp: 1.6 °C

Locations and Accreditations

	Collinsville	Springfield	Kansas City	Collinsville Air
Address	5445 Horseshoe Lake Road Collinsville, IL 62234-7425	3920 Pintail Dr Springfield, IL 62711-9415	8421 Nieman Road Lenexa, KS 66214	5445 Horseshoe Lake Road Collinsville, IL 62234-7425
Phone	(618) 344-1004	(217) 698-1004	(913) 541-1998	(618) 344-1004
Fax	(618) 344-1005	(217) 698-1005	(913) 541-1998	(618) 344-1005
Email	jhriley@teklabinc.com	KKlostermann@teklabinc.com	dthompson@teklabinc.com	EHurley@teklabinc.com

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2014	Collinsville
Kansas	KDHE	E-10374	NELAP	1/31/2014	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2014	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2014	Springfield
Texas	TCEQ	T104704515-12-1	NELAP	7/31/2014	Collinsville
Arkansas	ADEQ	88-0966		3/14/2014	Collinsville
Illinois	IDPH	17584		4/30/2013	Collinsville
Kentucky	UST	0073		4/5/2014	Collinsville
Missouri	MDNR	00930		4/13/2013	Collinsville
Oklahoma	ODEQ	9978		8/31/2013	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Lab ID: 13070316-001

Client Sample ID: 2687-8-B01

Matrix: SOLID

Collection Date: 07/02/2013 16:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		4.6	%	1	07/08/2013 16:02	R179241
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		95.4	%	1	07/08/2013 16:02	R179241
SW-846 9045C									
pH (1:1)	NELAP	0	1		8.24		1	07/09/2013 13:34	R179242
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.02	0.05		< 0.05	mg/L	1	07/11/2013 13:10	89962
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/11/2013 13:10	89962
Boron	NELAP	1	2		< 2	mg/L	1	07/11/2013 13:10	89962
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/11/2013 13:10	89962
Chromium	NELAP	0.004	0.01		< 0.01	mg/L	1	07/11/2013 13:10	89962
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/11/2013 13:10	89962
Iron	NELAP	0.007	0.02		1.76	mg/L	1	07/11/2013 13:10	89962
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/11/2013 13:10	89962
Manganese	NELAP	0.0016	0.005		0.0181	mg/L	1	07/11/2013 13:10	89962
Nickel	NELAP	0.0033	0.01		< 0.01	mg/L	1	07/11/2013 13:10	89962
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/11/2013 13:10	89962
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/11/2013 13:10	89962
Zinc	NELAP	0.0021	0.01	J	0.0091	mg/L	1	07/11/2013 13:10	89962
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/11/2013 10:58	89963
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/12/2013 10:03	89963
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/11/2013 11:52	89970
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.5	4.81		< 4.81	mg/Kg-dry	1	07/09/2013 21:05	89842
Arsenic	NELAP	1.2	2.4	J	2.1	mg/Kg-dry	1	07/09/2013 10:48	89844
Barium	NELAP	0.24	0.48		14.3	mg/Kg-dry	1	07/09/2013 10:48	89844
Beryllium	NELAP	0.05	0.1		0.11	mg/Kg-dry	1	07/09/2013 10:48	89844
Boron	NELAP	0.96	1.92		5.23	mg/Kg-dry	1	07/09/2013 10:48	89844
Cadmium	NELAP	0.1	0.19		< 0.19	mg/Kg-dry	1	07/09/2013 10:48	89844
Calcium	NELAP	2.4	4.81		110000	mg/Kg-dry	1	07/09/2013 23:25	89844
Chromium	NELAP	0.48	0.96		5.22	mg/Kg-dry	1	07/09/2013 10:48	89844
Cobalt	NELAP	0.48	0.96		2.58	mg/Kg-dry	1	07/09/2013 10:48	89844
Copper	NELAP	0.48	0.96		8.47	mg/Kg-dry	1	07/09/2013 10:48	89844
Iron	NELAP	0.96	1.92	B	7520	mg/Kg-dry	1	07/09/2013 10:48	89844
Lead	NELAP	1.92	3.85	J	3.44	mg/Kg-dry	1	07/09/2013 10:48	89844
Magnesium	NELAP	0.48	0.96	B	64400	mg/Kg-dry	1	07/09/2013 10:48	89844
Manganese	NELAP	0.24	0.48	B	375	mg/Kg-dry	1	07/09/2013 10:48	89844
Nickel	NELAP	0.48	0.96		6.63	mg/Kg-dry	1	07/09/2013 10:48	89844
Potassium	NELAP	4.81	9.62		549	mg/Kg-dry	1	07/09/2013 10:48	89844
Silver	NELAP	0.48	0.53		< 0.53	mg/Kg-dry	1	07/09/2013 10:48	89844
Sodium	NELAP	2.4	4.81		298	mg/Kg-dry	1	07/09/2013 10:48	89844
Thallium	NELAP	2.4	2.5		< 2.5	mg/Kg-dry	1	07/09/2013 10:48	89844
Vanadium	NELAP	0.48	0.96		7.68	mg/Kg-dry	1	07/09/2013 10:48	89844
Zinc	NELAP	0.48	0.96		17.3	mg/Kg-dry	1	07/09/2013 10:48	89844

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Lab ID: 13070316-001

Client Sample ID: 2687-8-B01

Matrix: SOLID

Collection Date: 07/02/2013 16:40

Analyses Certification MDL RL Qual Result Units DF Date Analyzed Batch

SW-846 3050B, 6010B, METALS BY ICP

Sample results for Fe, Mg, and Mn exceed 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.1).

SW-846 3050B, 7010 METALS BY GFAA

Selenium	NELAP	0.324	0.556		< 0.556	mg/Kg-dry	1	07/09/2013 12:04	89840
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SW-846 7471B

Mercury	NELAP	0.003	0.01	J	0.006	mg/Kg-dry	1	07/10/2013 11:55	89909
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SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Compound	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
1,2,4-Trichlorobenzene	NELAP	0.14	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
1,2-Dichlorobenzene	NELAP	0.167	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
1,3-Dichlorobenzene	NELAP	0.176	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
1,4-Dichlorobenzene	NELAP	0.167	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
2,4,5-Trichlorophenol	NELAP	0.1	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
2,4,6-Trichlorophenol	NELAP	0.132	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
2,4-Dichlorophenol	NELAP	0.127	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
2,4-Dimethylphenol	NELAP	0.133	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
2,4-Dinitrophenol	NELAP	0.112	1.05		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
2,4-Dinitrotoluene	NELAP	0.109	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
2,6-Dinitrotoluene	NELAP	0.113	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
2-Chloronaphthalene	NELAP	0.126	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
2-Chlorophenol	NELAP	0.133	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
2-Methylnaphthalene	NELAP	0.125	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
2-Nitroaniline	NELAP	0.096	1.05		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
2-Nitrophenol	NELAP	0.118	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
3,3'-Dichlorobenzidine	NELAP	0.21	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
3-Nitroaniline	NELAP	0.086	1.05		ND	mg/Kg-dry	1	07/11/2013 11:21	89871
4,6-Dinitro-2-methylphenol	NELAP	0.113	1.05		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
4-Bromophenyl phenyl ether	NELAP	0.097	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
4-Chloro-3-methylphenol	NELAP	0.115	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
4-Chloroaniline	NELAP	0.127	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
4-Chlorophenyl phenyl ether	NELAP	0.104	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
4-Nitroaniline	NELAP	0.096	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
4-Nitrophenol	NELAP	0.103	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Acenaphthene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Acenaphthylene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Anthracene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Benzo(a)anthracene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Benzo(a)pyrene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Benzo(b)fluoranthene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Benzo(g,h,i)perylene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Benzo(k)fluoranthene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Bis(2-chloroethoxy)methane	NELAP	0.123	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Bis(2-chloroethyl)ether	NELAP	0.149	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Bis(2-chloroisopropyl)ether	NELAP	0.12	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Bis(2-ethylhexyl)phthalate	NELAP	0.123	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Butyl benzyl phthalate	NELAP	0.106	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Carbazole		0.128	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Chrysene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871

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Laboratory Results

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Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Lab ID: 13070316-001

Client Sample ID: 2687-8-B01

Matrix: SOLID

Collection Date: 07/02/2013 16:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Dibenzo(a,h)anthracene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Dibenzofuran	NELAP	0.132	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Diethyl phthalate	NELAP	0.101	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Dimethyl phthalate	NELAP	0.096	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Di-n-butyl phthalate	NELAP	0.108	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Di-n-octyl phthalate	NELAP	0.109	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Fluoranthene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Fluorene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Hexachlorobenzene	NELAP	0.103	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Hexachlorobutadiene	NELAP	0.163	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Hexachlorocyclopentadiene	NELAP	0.107	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Hexachloroethane	NELAP	0.175	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Indeno(1,2,3-cd)pyrene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Isophorone	NELAP	0.124	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
m,p-Cresol	NELAP	0.132	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Naphthalene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Nitrobenzene	NELAP	0.131	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
N-Nitroso-di-n-propylamine	NELAP	0.115	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
N-Nitrosodiphenylamine	NELAP	0.097	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
o-Cresol	NELAP	0.124	0.525		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Pentachlorophenol	NELAP	0.693	2.1		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Phenanthrene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Phenol	NELAP	0.122	0.367		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Pyrene	NELAP	0.018	0.036		ND	mg/Kg-dry	1	07/10/2013 21:34	89871
Surr: 2,4,6-Tribromophenol		0	32.7-130		77.4	%REC	1	07/10/2013 21:34	89871
Surr: 2-Fluorobiphenyl		0	34.1-116		64.4	%REC	1	07/10/2013 21:34	89871
Surr: 2-Fluorophenol		0	30.5-99		76.9	%REC	1	07/10/2013 21:34	89871
Surr: Nitrobenzene-d5		0	34.1-101		82.4	%REC	1	07/10/2013 21:34	89871
Surr: Phenol-d5		0	34.9-110		78.2	%REC	1	07/10/2013 21:34	89871
Surr: p-Terphenyl-d14		0	41.7-124		69.6	%REC	1	07/10/2013 21:34	89871
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
1,1,2,2-Tetrachloroethane		0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
1,1,2-Trichloroethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
1,1-Dichloroethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
1,1-Dichloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
1,2-Dichloroethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
1,2-Dichloropropane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
1,3-Dichloropropene, Total		0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
2-Butanone	NELAP	0.0089	0.044		0.129	mg/Kg-dry	1	07/12/2013 19:25	90054
2-Hexanone	NELAP	0.0089	0.044	J	0.02	mg/Kg-dry	1	07/12/2013 19:25	90054
4-Methyl-2-pentanone	NELAP	0.0089	0.044		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Acetone	NELAP	0.0089	0.044		0.253	mg/Kg-dry	1	07/12/2013 19:25	90054
Benzene	NELAP	0.0004	0.001		0.004	mg/Kg-dry	1	07/12/2013 19:25	90054
Bromodichloromethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Bromoform	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Bromomethane	NELAP	0.0018	0.009		ND	mg/Kg-dry	1	07/12/2013 19:25	90054

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Lab ID: 13070316-001

Client Sample ID: 2687-8-B01

Matrix: SOLID

Collection Date: 07/02/2013 16:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Carbon disulfide	NELAP	0.0027	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Carbon tetrachloride	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Chlorobenzene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Chloroethane	NELAP	0.0018	0.009		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Chloroform	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Chloromethane	NELAP	0.0018	0.009		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
cis-1,2-Dichloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
cis-1,3-Dichloropropene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Dibromochloromethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Ethylbenzene	NELAP	0.0009	0.004	J	0.003	mg/Kg-dry	1	07/12/2013 19:25	90054
m,p-Xylenes	NELAP	0.0009	0.004		0.006	mg/Kg-dry	1	07/12/2013 19:25	90054
Methyl tert-butyl ether	NELAP	0.0004	0.002		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Methylene chloride	NELAP	0.0009	0.004	J	0.001	mg/Kg-dry	1	07/12/2013 19:25	90054
o-Xylene	NELAP	0.0009	0.004	J	0.002	mg/Kg-dry	1	07/12/2013 19:25	90054
Styrene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Tetrachloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Toluene	NELAP	0.0009	0.004		0.011	mg/Kg-dry	1	07/12/2013 19:25	90054
trans-1,2-Dichloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
trans-1,3-Dichloropropene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Trichloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Vinyl acetate	NELAP	0.0177	0.044		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Vinyl chloride	NELAP	0.0004	0.002		ND	mg/Kg-dry	1	07/12/2013 19:25	90054
Xylenes, Total	NELAP	0.0009	0.004		0.009	mg/Kg-dry	1	07/12/2013 19:25	90054
Surr: 1,2-Dichloroethane-d4		0	72.2-131		108.8	%REC	1	07/12/2013 19:25	90054
Surr: 4-Bromofluorobenzene		0	82.1-116		102.7	%REC	1	07/12/2013 19:25	90054
Surr: Dibromofluoromethane		0	77.7-120		99.4	%REC	1	07/12/2013 19:25	90054
Surr: Toluene-d8		0	86-116		105.5	%REC	1	07/12/2013 19:25	90054

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Lab ID: 13070316-002

Client Sample ID: 2687-8-B02

Matrix: SOLID

Collection Date: 07/02/2013 16:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1	R	1.3	%	1	07/08/2013 16:02	R179241
<i>RPD for DUP was outside of QC limit due to sample composition.</i>									
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		98.7	%	1	07/08/2013 16:02	R179241
SW-846 9045C									
pH (1:1)	NELAP	0	1		8.35		1	07/09/2013 13:39	R179242
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.02	0.05		< 0.05	mg/L	1	07/11/2013 13:21	89962
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/11/2013 13:21	89962
Boron	NELAP	1	2		< 2	mg/L	1	07/11/2013 13:21	89962
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/11/2013 13:21	89962
Chromium	NELAP	0.004	0.01		< 0.01	mg/L	1	07/11/2013 13:21	89962
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/11/2013 13:21	89962
Iron	NELAP	0.007	0.02		0.0243	mg/L	1	07/11/2013 13:21	89962
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/11/2013 13:21	89962
Manganese	NELAP	0.0016	0.005		< 0.005	mg/L	1	07/11/2013 13:21	89962
Nickel	NELAP	0.0033	0.01		< 0.01	mg/L	1	07/11/2013 13:21	89962
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/11/2013 13:21	89962
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/11/2013 13:21	89962
Zinc	NELAP	0.0021	0.01	J	0.0029	mg/L	1	07/11/2013 13:21	89962
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/11/2013 11:02	89963
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/12/2013 10:06	89963
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/11/2013 12:01	89970
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.45	4.72		< 4.72	mg/Kg-dry	1	07/09/2013 21:11	89842
Arsenic	NELAP	1.2	2.4	J	1.36	mg/Kg-dry	1	07/09/2013 10:51	89844
Barium	NELAP	0.24	0.48		8.65	mg/Kg-dry	1	07/09/2013 10:51	89844
Beryllium	NELAP	0.05	0.1	J	0.07	mg/Kg-dry	1	07/09/2013 10:51	89844
Boron	NELAP	0.96	1.92		2.93	mg/Kg-dry	1	07/09/2013 10:51	89844
Cadmium	NELAP	0.1	0.2		< 0.2	mg/Kg-dry	1	07/09/2013 10:51	89844
Calcium	NELAP	2.4	4.81		113000	mg/Kg-dry	1	07/09/2013 23:32	89844
Chromium	NELAP	0.48	0.96		7.63	mg/Kg-dry	1	07/09/2013 10:51	89844
Cobalt	NELAP	0.48	0.96		2.78	mg/Kg-dry	1	07/09/2013 10:51	89844
Copper	NELAP	0.48	0.96		6.86	mg/Kg-dry	1	07/09/2013 10:51	89844
Iron	NELAP	0.96	1.92	B	6720	mg/Kg-dry	1	07/09/2013 10:51	89844
Lead	NELAP	1.92	3.85	J	2.65	mg/Kg-dry	1	07/09/2013 10:51	89844
Magnesium	NELAP	0.48	0.96	B	46600	mg/Kg-dry	1	07/09/2013 10:51	89844
Manganese	NELAP	0.24	0.48	B	249	mg/Kg-dry	1	07/09/2013 10:51	89844
Nickel	NELAP	0.48	0.96		7.04	mg/Kg-dry	1	07/09/2013 10:51	89844
Potassium	NELAP	4.81	9.62		433	mg/Kg-dry	1	07/09/2013 10:51	89844
Silver	NELAP	0.48	0.53		< 0.53	mg/Kg-dry	1	07/09/2013 10:51	89844
Sodium	NELAP	2.4	4.81		309	mg/Kg-dry	1	07/09/2013 10:51	89844
Thallium	NELAP	2.4	2.5		< 2.5	mg/Kg-dry	1	07/09/2013 10:51	89844
Vanadium	NELAP	0.48	0.96		12.9	mg/Kg-dry	1	07/09/2013 10:51	89844
Zinc	NELAP	0.48	0.96		18	mg/Kg-dry	1	07/09/2013 10:51	89844

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Laboratory Results

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Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Lab ID: 13070316-002

Client Sample ID: 2687-8-B02

Matrix: SOLID

Collection Date: 07/02/2013 16:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 6010B, METALS BY ICP									
<i>Sample results for Fe, Mg, and Mn exceed 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.1).</i>									
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.343	0.588		< 0.588	mg/Kg-dry	1	07/09/2013 12:07	89840
SW-846 7471B									
Mercury	NELAP	0.002	0.01	J	0.003	mg/Kg-dry	1	07/10/2013 12:02	89909
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.134	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
1,2-Dichlorobenzene	NELAP	0.16	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
1,3-Dichlorobenzene	NELAP	0.169	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
1,4-Dichlorobenzene	NELAP	0.16	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
2,4,5-Trichlorophenol	NELAP	0.095	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
2,4,6-Trichlorophenol	NELAP	0.126	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
2,4-Dichlorophenol	NELAP	0.121	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
2,4-Dimethylphenol	NELAP	0.127	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
2,4-Dinitrophenol	NELAP	0.107	1		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
2,4-Dinitrotoluene	NELAP	0.104	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
2,6-Dinitrotoluene	NELAP	0.108	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
2-Chloronaphthalene	NELAP	0.12	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
2-Chlorophenol	NELAP	0.127	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
2-Methylnaphthalene	NELAP	0.119	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
2-Nitroaniline	NELAP	0.091	1		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
2-Nitrophenol	NELAP	0.112	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
3,3'-Dichlorobenzidine	NELAP	0.201	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
3-Nitroaniline	NELAP	0.082	1		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
4,6-Dinitro-2-methylphenol	NELAP	0.108	1		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
4-Bromophenyl phenyl ether	NELAP	0.092	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
4-Chloro-3-methylphenol	NELAP	0.11	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
4-Chloroaniline	NELAP	0.121	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
4-Chlorophenyl phenyl ether	NELAP	0.099	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
4-Nitroaniline	NELAP	0.091	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
4-Nitrophenol	NELAP	0.098	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Acenaphthene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Acenaphthylene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Anthracene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Benzo(a)anthracene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Benzo(a)pyrene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Benzo(b)fluoranthene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Benzo(g,h,i)perylene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Benzo(k)fluoranthene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Bis(2-chloroethoxy)methane	NELAP	0.117	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Bis(2-chloroethyl)ether	NELAP	0.143	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Bis(2-chloroisopropyl)ether	NELAP	0.114	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Bis(2-ethylhexyl)phthalate	NELAP	0.117	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Butyl benzyl phthalate	NELAP	0.101	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Carbazole		0.122	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Chrysene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871

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Laboratory Results

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Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Lab ID: 13070316-002

Client Sample ID: 2687-8-B02

Matrix: SOLID

Collection Date: 07/02/2013 16:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Dibenzo(a,h)anthracene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Dibenzofuran	NELAP	0.126	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Diethyl phthalate	NELAP	0.096	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Dimethyl phthalate	NELAP	0.091	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Di-n-butyl phthalate	NELAP	0.103	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Di-n-octyl phthalate	NELAP	0.104	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Fluoranthene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Fluorene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Hexachlorobenzene	NELAP	0.098	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Hexachlorobutadiene	NELAP	0.156	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Hexachlorocyclopentadiene	NELAP	0.102	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Hexachloroethane	NELAP	0.168	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Indeno(1,2,3-cd)pyrene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Isophorone	NELAP	0.118	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
m,p-Cresol	NELAP	0.126	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Naphthalene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Nitrobenzene	NELAP	0.125	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
N-Nitroso-di-n-propylamine	NELAP	0.11	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
N-Nitrosodiphenylamine	NELAP	0.092	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
o-Cresol	NELAP	0.118	0.502		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Pentachlorophenol	NELAP	0.663	2.01		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Phenanthrene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Phenol	NELAP	0.116	0.351		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Pyrene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 21:58	89871
Surr: 2,4,6-Tribromophenol		0	32.7-130		73.6	%REC	1	07/10/2013 21:58	89871
Surr: 2-Fluorobiphenyl		0	34.1-116		66.9	%REC	1	07/10/2013 21:58	89871
Surr: 2-Fluorophenol		0	30.5-99		69.5	%REC	1	07/10/2013 21:58	89871
Surr: Nitrobenzene-d5		0	34.1-101		80.1	%REC	1	07/10/2013 21:58	89871
Surr: Phenol-d5		0	34.9-110		74.1	%REC	1	07/10/2013 21:58	89871
Surr: p-Terphenyl-d14		0	41.7-124		67.2	%REC	1	07/10/2013 21:58	89871
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
1,1,2,2-Tetrachloroethane		0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
1,1,2-Trichloroethane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
1,1-Dichloroethane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
1,1-Dichloroethene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
1,2-Dichloroethane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
1,2-Dichloropropane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
1,3-Dichloropropene, Total		0.0011	0.004		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
2-Butanone	NELAP	0.0106	0.053		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
2-Hexanone	NELAP	0.0106	0.053		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
4-Methyl-2-pentanone	NELAP	0.0106	0.053		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Acetone	NELAP	0.0106	0.053		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Benzene	NELAP	0.0005	0.001		0.003	mg/Kg-dry	1	07/11/2013 16:43	89996
Bromodichloromethane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Bromoform	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Bromomethane	NELAP	0.0021	0.011		ND	mg/Kg-dry	1	07/11/2013 16:43	89996



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Lab ID: 13070316-002

Client Sample ID: 2687-8-B02

Matrix: SOLID

Collection Date: 07/02/2013 16:50

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Carbon disulfide	NELAP	0.0032	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Carbon tetrachloride	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Chlorobenzene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Chloroethane	NELAP	0.0021	0.011		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Chloroform	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Chloromethane	NELAP	0.0021	0.011		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
cis-1,2-Dichloroethene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
cis-1,3-Dichloropropene	NELAP	0.0011	0.004		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Dibromochloromethane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Ethylbenzene	NELAP	0.0011	0.005	J	0.003	mg/Kg-dry	1	07/11/2013 16:43	89996
m,p-Xylenes	NELAP	0.0011	0.005		0.008	mg/Kg-dry	1	07/11/2013 16:43	89996
Methyl tert-butyl ether	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Methylene chloride	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
o-Xylene	NELAP	0.0011	0.005	J	0.003	mg/Kg-dry	1	07/11/2013 16:43	89996
Styrene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Tetrachloroethene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Toluene	NELAP	0.0011	0.005		0.009	mg/Kg-dry	1	07/11/2013 16:43	89996
trans-1,2-Dichloroethene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
trans-1,3-Dichloropropene	NELAP	0.0011	0.004		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Trichloroethene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Vinyl acetate	NELAP	0.0212	0.053		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Vinyl chloride	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/11/2013 16:43	89996
Xylenes, Total	NELAP	0.0011	0.005		0.011	mg/Kg-dry	1	07/11/2013 16:43	89996
Surr: 1,2-Dichloroethane-d4		0	72.2-131		96	%REC	1	07/11/2013 16:43	89996
Surr: 4-Bromofluorobenzene		0	82.1-116		104.6	%REC	1	07/11/2013 16:43	89996
Surr: Dibromofluoromethane		0	77.7-120		98.7	%REC	1	07/11/2013 16:43	89996
Surr: Toluene-d8		0	86-116		93.6	%REC	1	07/11/2013 16:43	89996

Allowable Marginal Exceedance of Acetone in the LCS/LCSD and Methylene chloride in the LCSD verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Lab ID: 13070316-003

Client Sample ID: 2687-8-B03

Matrix: SOLID

Collection Date: 07/02/2013 17:10

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		20.8	%	1	07/08/2013 16:03	R179241
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		79.2	%	1	07/08/2013 16:03	R179241
SW-846 9045C									
pH (1:1)	NELAP	0	1		8.2		1	07/09/2013 13:45	R179242
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.02	0.05		< 0.05	mg/L	1	07/11/2013 13:25	89962
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/11/2013 13:25	89962
Boron	NELAP	1	2		< 2	mg/L	1	07/11/2013 13:25	89962
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/11/2013 13:25	89962
Chromium	NELAP	0.004	0.01		< 0.01	mg/L	1	07/11/2013 13:25	89962
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/11/2013 13:25	89962
Iron	NELAP	0.007	0.02		1.89	mg/L	1	07/11/2013 13:25	89962
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/11/2013 13:25	89962
Manganese	NELAP	0.0016	0.005		0.016	mg/L	1	07/11/2013 13:25	89962
Nickel	NELAP	0.0033	0.01		< 0.01	mg/L	1	07/11/2013 13:25	89962
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/11/2013 13:25	89962
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/11/2013 13:25	89962
Zinc	NELAP	0.0021	0.01		0.0119	mg/L	1	07/11/2013 13:25	89962
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/11/2013 11:09	89963
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/12/2013 10:13	89963
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/11/2013 12:06	89970
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.65	4.9		< 4.9	mg/Kg-dry	1	07/09/2013 21:18	89842
Arsenic	NELAP	1.23	2.45	J	2.14	mg/Kg-dry	1	07/09/2013 11:15	89844
Barium	NELAP	0.25	0.49		14.7	mg/Kg-dry	1	07/09/2013 11:15	89844
Beryllium	NELAP	0.05	0.1		0.12	mg/Kg-dry	1	07/09/2013 11:15	89844
Boron	NELAP	0.98	1.96		4.55	mg/Kg-dry	1	07/09/2013 11:15	89844
Cadmium	NELAP	0.1	0.2		< 0.2	mg/Kg-dry	1	07/09/2013 11:15	89844
Calcium	NELAP	2.45	4.9		117000	mg/Kg-dry	1	07/09/2013 23:38	89844
Chromium	NELAP	0.49	0.98		5.63	mg/Kg-dry	1	07/09/2013 11:15	89844
Cobalt	NELAP	0.49	0.98		2.25	mg/Kg-dry	1	07/09/2013 11:15	89844
Copper	NELAP	0.49	0.98		7.85	mg/Kg-dry	1	07/09/2013 11:15	89844
Iron	NELAP	0.98	1.96	B	7650	mg/Kg-dry	1	07/09/2013 11:15	89844
Lead	NELAP	1.96	3.92		3.99	mg/Kg-dry	1	07/09/2013 11:15	89844
Magnesium	NELAP	0.49	0.98	B	62100	mg/Kg-dry	1	07/09/2013 11:15	89844
Manganese	NELAP	0.25	0.49	B	299	mg/Kg-dry	1	07/09/2013 11:15	89844
Nickel	NELAP	0.49	0.98		5.44	mg/Kg-dry	1	07/09/2013 11:15	89844
Potassium	NELAP	4.9	9.8		675	mg/Kg-dry	1	07/09/2013 11:15	89844
Silver	NELAP	0.49	0.54		< 0.54	mg/Kg-dry	1	07/09/2013 11:15	89844
Sodium	NELAP	2.45	4.9		334	mg/Kg-dry	1	07/09/2013 11:15	89844
Thallium	NELAP	2.45	2.55		< 2.55	mg/Kg-dry	1	07/09/2013 11:15	89844
Vanadium	NELAP	0.49	0.98		9.68	mg/Kg-dry	1	07/09/2013 11:15	89844
Zinc	NELAP	0.49	0.98		19.4	mg/Kg-dry	1	07/09/2013 11:15	89844

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Lab ID: 13070316-003

Client Sample ID: 2687-8-B03

Matrix: SOLID

Collection Date: 07/02/2013 17:10

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 6010B, METALS BY ICP									
<i>Sample results for Fe, Mg, and Mn exceed 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.1).</i>									
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.33	0.566		< 0.566	mg/Kg-dry	1	07/09/2013 12:11	89840
SW-846 7471B									
Mercury	NELAP	0.003	0.012	J	0.006	mg/Kg-dry	1	07/10/2013 12:04	89909
SW-846 3550B, 8270C, SEMI-VOL. TILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.167	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
1,2-Dichlorobenzene	NELAP	0.2	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
1,3-Dichlorobenzene	NELAP	0.211	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
1,4-Dichlorobenzene	NELAP	0.2	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
2,4,5-Trichlorophenol	NELAP	0.119	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
2,4,6-Trichlorophenol	NELAP	0.158	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
2,4-Dichlorophenol	NELAP	0.152	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
2,4-Dimethylphenol	NELAP	0.16	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
2,4-Dinitrophenol	NELAP	0.135	1.26		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
2,4-Dinitrotoluene	NELAP	0.131	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
2,6-Dinitrotoluene	NELAP	0.136	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
2-Chloronaphthalene	NELAP	0.151	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
2-Chlorophenol	NELAP	0.16	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
2-Methylnaphthalene	NELAP	0.15	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
2-Nitroaniline	NELAP	0.114	1.26		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
2-Nitrophenol	NELAP	0.141	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
3,3'-Dichlorobenzidine	NELAP	0.252	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
3-Nitroaniline	NELAP	0.103	1.26		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
4,6-Dinitro-2-methylphenol	NELAP	0.136	1.26		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
4-Bromophenyl phenyl ether	NELAP	0.116	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
4-Chloro-3-methylphenol	NELAP	0.138	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
4-Chloroaniline	NELAP	0.152	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
4-Chlorophenyl phenyl ether	NELAP	0.125	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
4-Nitroaniline	NELAP	0.114	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
4-Nitrophenol	NELAP	0.123	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Acenaphthene	NELAP	0.021	0.043		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Acenaphthylene	NELAP	0.021	0.043		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Anthracene	NELAP	0.021	0.043		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Benzo(a)anthracene	NELAP	0.021	0.043		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Benzo(a)pyrene	NELAP	0.021	0.043		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Benzo(b)fluoranthene	NELAP	0.021	0.043	J	0.042	mg/Kg-dry	1	07/11/2013 10:37	89871
Benzo(g,h,i)perylene	NELAP	0.021	0.043		0.062	mg/Kg-dry	1	07/11/2013 10:37	89871
Benzo(k)fluoranthene	NELAP	0.021	0.043		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Bis(2-chloroethoxy)methane	NELAP	0.147	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Bis(2-chloroethyl)ether	NELAP	0.179	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Bis(2-chloroisopropyl)ether	NELAP	0.143	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Bis(2-ethylhexyl)phthalate	NELAP	0.147	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Butyl benzyl phthalate	NELAP	0.127	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Carbazole		0.153	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Chrysene	NELAP	0.021	0.043		ND	mg/Kg-dry	1	07/11/2013 10:37	89871

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Lab ID: 13070316-003

Client Sample ID: 2687-8-B03

Matrix: SOLID

Collection Date: 07/02/2013 17:10

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Dibenzo(a,h)anthracene	NELAP	0.021	0.043		0.047	mg/Kg-dry	1	07/11/2013 10:37	89871
Dibenzofuran	NELAP	0.158	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Diethyl phthalate	NELAP	0.121	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Dimethyl phthalate	NELAP	0.114	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Di-n-butyl phthalate	NELAP	0.13	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Di-n-octyl phthalate	NELAP	0.131	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Fluoranthene	NELAP	0.021	0.043		0.057	mg/Kg-dry	1	07/11/2013 10:37	89871
Fluorene	NELAP	0.021	0.043		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Hexachlorobenzene	NELAP	0.123	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Hexachlorobutadiene	NELAP	0.195	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Hexachlorocyclopentadiene	NELAP	0.128	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Hexachloroethane	NELAP	0.21	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Indeno(1,2,3-cd)pyrene	NELAP	0.021	0.043		0.056	mg/Kg-dry	1	07/11/2013 10:37	89871
Isophorone	NELAP	0.148	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
m,p-Cresol	NELAP	0.158	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Naphthalene	NELAP	0.021	0.043		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Nitrobenzene	NELAP	0.157	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
N-Nitroso-di-n-propylamine	NELAP	0.138	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
N-Nitrosodiphenylamine	NELAP	0.116	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
o-Cresol	NELAP	0.148	0.629		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Pentachlorophenol	NELAP	0.83	2.52		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Phenanthrene	NELAP	0.021	0.043		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Phenol	NELAP	0.146	0.44		ND	mg/Kg-dry	1	07/11/2013 10:37	89871
Pyrene	NELAP	0.021	0.043		0.045	mg/Kg-dry	1	07/11/2013 10:37	89871
Surr: 2,4,6-Tribromophenol			0 32.7-130		73	%REC	1	07/11/2013 10:37	89871
Surr: 2-Fluorobiphenyl			0 34.1-116		50.8	%REC	1	07/11/2013 10:37	89871
Surr: 2-Fluorophenol			0 30.5-99		68.1	%REC	1	07/11/2013 10:37	89871
Surr: Nitrobenzene-d5			0 34.1-101		58.6	%REC	1	07/11/2013 10:37	89871
Surr: Phenol-d5			0 34.9-110		70.8	%REC	1	07/11/2013 10:37	89871
Surr: p-Terphenyl-d14			0 41.7-124		73.4	%REC	1	07/11/2013 10:37	89871

SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
1,1,1,2-Tetrachloroethane		0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
1,1,2-Trichloroethane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
1,1-Dichloroethane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
1,1-Dichloroethene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
1,2-Dichloroethane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
1,2-Dichloropropane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
1,3-Dichloropropene, Total		0.0011	0.004		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
2-Butanone	NELAP	0.0106	0.053		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
2-Hexanone	NELAP	0.0106	0.053		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
4-Methyl-2-pentanone	NELAP	0.0106	0.053		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Acetone	NELAP	0.0106	0.053		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Benzene	NELAP	0.0005	0.001		0.006	mg/Kg-dry	1	07/11/2013 17:09	89996
Bromodichloromethane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Bromoform	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Bromomethane	NELAP	0.0021	0.011		ND	mg/Kg-dry	1	07/11/2013 17:09	89996

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070316

Client Project: IDOT2013-019

Report Date: 16-Jul-13

Lab ID: 13070316-003

Client Sample ID: 2687-8-B03

Matrix: SOLID

Collection Date: 07/02/2013 17:10

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Carbon disulfide	NELAP	0.0032	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Carbon tetrachloride	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Chlorobenzene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Chloroethane	NELAP	0.0021	0.011		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Chloroform	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Chloromethane	NELAP	0.0021	0.011		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
cis-1,2-Dichloroethene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
cis-1,3-Dichloropropene	NELAP	0.0011	0.004		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Dibromochloromethane	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Ethylbenzene	NELAP	0.0011	0.005	J	0.002	mg/Kg-dry	1	07/11/2013 17:09	89996
m,p-Xylenes	NELAP	0.0011	0.005		0.007	mg/Kg-dry	1	07/11/2013 17:09	89996
Methyl tert-butyl ether	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Methylene chloride	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
o-Xylene	NELAP	0.0011	0.005	J	0.003	mg/Kg-dry	1	07/11/2013 17:09	89996
Styrene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Tetrachloroethene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Toluene	NELAP	0.0011	0.005		0.009	mg/Kg-dry	1	07/11/2013 17:09	89996
trans-1,2-Dichloroethene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
trans-1,3-Dichloropropene	NELAP	0.0011	0.004		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Trichloroethene	NELAP	0.0011	0.005		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Vinyl acetate	NELAP	0.0213	0.053		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Vinyl chloride	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/11/2013 17:09	89996
Xylenes, Total	NELAP	0.0011	0.005		0.009	mg/Kg-dry	1	07/11/2013 17:09	89996
Surr: 1,2-Dichloroethane-d4		0	72.2-131		96	%REC	1	07/11/2013 17:09	89996
Surr: 4-Bromofluorobenzene		0	82.1-116		101.9	%REC	1	07/11/2013 17:09	89996
Surr: Dibromofluoromethane		0	77.7-120		99.9	%REC	1	07/11/2013 17:09	89996
Surr: Toluene-d8		0	86-116		94.2	%REC	1	07/11/2013 17:09	89996

Allowable Marginal Exceedance of Acetone in the LCS/LCSD and Methylene chloride in the LCSD verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).



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: FAU 305 (Jandus Cutoff Road) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):
134 - 152 South Northwest Highway

City: Cary State: IL Zip Code: 60013

County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20669 Longitude: -88.23383
(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: 1110105109 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 Street

Street Address: 201 West Center Street

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

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

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Project Name: FAU 305 (Jandus Cutoff Road)

Latitude: 42.20669 Longitude: -88.23383

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 2687-9-B01, -B04, -B05, -B06 AND -B08 WERE SAMPLED ADJACENT TO ISGS SITE 2687-9. SEE FIGURE 2 AND TABLE 3e OF REVISED PRELIMINARY SITE INVESTIGATION.

- 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]:

TEKLAB ANALYTICAL REPORT - JOB ID: 13070246

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobleman, 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: IDOT Bureau of Design and Environment

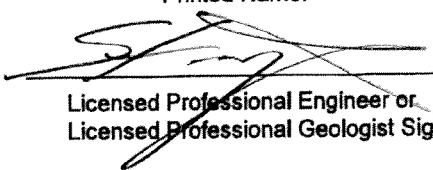
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217.785.4246

Steven Gobleman

Printed Name:



 Licensed Professional Engineer or
 Licensed Professional Geologist Signature:

8/7/13

 Date:



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The following table summarizes the results of laboratory analysis of site soil samples. In reading the table,

- Only parameters reported at concentrations above the most stringent MAC are listed.
- Samples with the notation “**No Contaminants of Concern Noted**” were below the most stringent MAC.

The laboratory report for site soils follows this summary table.

The following table summarizes the results of laboratory analysis of site soil samples. In reading the table,

- Only parameters reported at concentrations above the most stringent MAC are listed.
- Samples with the notation “**No Contaminants of Concern Noted**” were below the most stringent MAC.

The laboratory report for site soils follows this summary table.

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Volatile Organic Compounds (mg/kg)
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dichloroethane
1,2-Dichloropropane
1,3-Dichloropropene
2-Butanone (MEK)
2-Hexanone (MBK)
4-Methyl-2-pentanone (MIBK)
Acetone
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Ethylbenzene
Methylene chloride
Methyl-tert-butyl-ether (MTBE)
Styrene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Vinyl Acetate
Vinyl Chloride
Xylenes, total
m-Xylene
o-Xylene
p-Xylene
Semivolatile Organic Compounds (mg/kg)
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2-Chloronaphthalene
2-Chlorophenol
2-Methylnaphthalene
2-Methylphenol
2-Nitroaniline
2-Nitrophenol
3,3'-Dichlorobenzidine
3-Nitroaniline
4,6-Dinitro-2-methylphenol
4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol
4-Chloroaniline
4-Chlorophenyl phenyl ether
4-Methylphenol
4-Nitroaniline
4-Nitrophenol
Acenaphthene
Acenaphthylene
Anthracene
Benzo (a) anthracene
Benzo (a) pyrene

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THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Semivolatile Organic Compounds (mg/kg) (cont.)
Benzo (b) fluoranthene
Benzo (g,h,i) perylene
Benzo (k) fluoranthene
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl)ether
bis(2-chloroisopropyl)ether
Bis(2-ethylhexyl)phthalate
Butyl benzyl phthalate
Carbazole
Chrysene
Dibenzo (a,h) anthracene
Dibenzofuran
Diethyl phthalate
Dimethyl phthalate
Di-n-butyl phthalate
Di-n-octyl phthalate
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Indeno (1,2,3-cd) pyrene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodi-n-propylamine
N-Nitrosodiphenylamine
Pentachlorophenol
Phenanthrene
Phenol
Pyrene
Inorganic Compounds, Total (mg/kg)
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Potassium
Selenium
Silver
Sodium
Thallium
Vanadium
Zinc
TCLP/SPLP Inorganics (mg/L)
Antimony
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Zinc

ISGS Site 2687-9
Retention Pond

Sample ID	2687-9-B01	2687-9-B04	2687-9-B05	2687-9-B06	2687-9-B08-1	2687-9-B08-2													
Sample Depth (ft)	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5	0-5
Sample Date	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013	7/2/2013
% Solids	95.1	82.5	95.7	98	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86
Sample pH	8.22	7.53	8.3	8.62	7.68	7.68	7.68	7.68	7.68	7.68	7.68	7.68	7.68	7.68	7.68	7.68	7.68	7.68	7.68
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Semivolatile Organic Compounds (mg/kg)																			
Benzo(a)pyrene	ND	ND	ND	0.241	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Inorganic Compounds, Total (mg/kg)																			
Manganese	299	761	395	319	497	315	315	315	315	315	315	315	315	315	315	315	315	315	315
SPLP Metals (mg/L)																			
Manganese	0.0198	0.154	0.0194	ND	0.201	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TCLP Metals (mg/L)																			
Manganese	NT	0.0429	NT	NT	0.0255	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
MAC																			
1 Most Stringent	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09
2 Outside a Populated Area	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 Populated non-Metropolitan Statistical Area	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 Within Chicago Corporate Limits	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5 Metropolitan Statistical Area	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 Class I Soil TCLP/SPLP Comparisons Only	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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July 15, 2013

Colleen Grey
Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711-7233
TEL: (217) 787-2334
FAX: (217) 787-9495



RE: IDOT2013-019

WorkOrder: 13070246

Dear Colleen Grey:

TEKLAB, INC received 10 samples on 7/3/2013 12:25:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

This reporting package includes the following:

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Laboratory Results	5
Quality Control Results	45
Receiving Check List	76
Chain of Custody	Appended



Definitions

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Abbr Definition

- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.
- DNI Did not ignite
- DUP Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
- ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
- IDPH IL Dept. of Public Health
- LCS Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. The acceptable recovery range is in the QC Package (provided upon request).
- LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MB Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
- MDL Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.
- MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
- MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MW Molecular weight
- ND Not Detected at the Reporting Limit
- NELAP NELAP Accredited
- PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The acceptable recovery range is listed in the QC Package (provided upon request).
- RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
- RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
- SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
- Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
- TNTC Too numerous to count (> 200 CFU)

Qualifiers

- | | |
|--|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| E - Value above quantitation range | H - Holding times exceeded |
| J - Analyte detected below quantitation limits | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | X - Value exceeds Maximum Contaminant Level |



Case Narrative

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Cooler Receipt Temp: 2.4 °C

Locations and Accreditations

	Collinsville	Springfield	Kansas City	Collinsville Air
Address	5445 Horseshoe Lake Road Collinsville, IL 62234-7425	3920 Pintail Dr Springfield, IL 62711-9415	8421 Nieman Road Lenexa, KS 66214	5445 Horseshoe Lake Road Collinsville, IL 62234-7425
Phone	(618) 344-1004	(217) 698-1004	(913) 541-1998	(618) 344-1004
Fax	(618) 344-1005	(217) 698-1005	(913) 541-1998	(618) 344-1005
Email	jhriley@teklabinc.com	KKIostermann@teklabinc.com	dthompson@teklabinc.com	EHurley@teklabinc.com

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2014	Collinsville
Kansas	KDHE	E-10374	NELAP	1/31/2014	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2014	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2014	Springfield
Texas	TCEQ	T104704515-12-1	NELAP	7/31/2014	Collinsville
Arkansas	ADEQ	88-0966		3/14/2014	Collinsville
Illinois	IDPH	17584		4/30/2013	Collinsville
Kentucky	UST	0073		4/5/2014	Collinsville
Missouri	MDNR	00930		4/13/2013	Collinsville
Oklahoma	ODEQ	9978		8/31/2013	Collinsville

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.
 Client Project: IDOT2013-019
 Lab ID: 13070246-001
 Matrix: SOLID

Work Order: 13070246
 Report Date: 15-Jul-13
 Client Sample ID: 2687-9-B01
 Collection Date: 07/02/2013 8:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		4.9	%	1	07/05/2013 13:21	R179199
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		95.1	%	1	07/05/2013 13:21	R179199
SW-846 9045C									
pH (1:1)	NELAP	0	1		8.22		1	07/05/2013 20:08	R179171
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005		0.0107	mg/L	1	07/09/2013 14:53	89860
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/09/2013 14:53	89860
Boron	NELAP	1	2		< 2	mg/L	1	07/09/2013 14:53	89860
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/09/2013 14:53	89860
Chromium	NELAP	0.004	0.01		< 0.01	mg/L	1	07/09/2013 14:53	89860
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/09/2013 14:53	89860
Iron	NELAP	0.007	0.02		1.64	mg/L	1	07/09/2013 14:53	89860
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/09/2013 14:53	89860
Manganese	NELAP	0.0016	0.005		0.0198	mg/L	1	07/09/2013 14:53	89860
Nickel	NELAP	0.0033	0.01		< 0.01	mg/L	1	07/09/2013 14:53	89860
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/09/2013 14:53	89860
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/09/2013 14:53	89860
Zinc	NELAP	0.0021	0.01	J	0.0076	mg/L	1	07/09/2013 14:53	89860
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/09/2013 15:14	89864
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/10/2013 10:31	89864
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/09/2013 14:26	89869
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.45	4.72		< 4.72	mg/Kg-dry	1	07/08/2013 18:16	89808
Arsenic	NELAP	1.25	2.5		4.82	mg/Kg-dry	1	07/08/2013 18:37	89809
Barium	NELAP	0.25	0.5		26.2	mg/Kg-dry	1	07/08/2013 18:37	89809
Beryllium	NELAP	0.05	0.1		0.13	mg/Kg-dry	1	07/08/2013 18:37	89809
Boron	NELAP	1	2		3.08	mg/Kg-dry	1	07/08/2013 18:37	89809
Cadmium	NELAP	0.1	0.2		< 0.2	mg/Kg-dry	1	07/08/2013 18:37	89809
Calcium	NELAP	2.5	5		60800	mg/Kg-dry	1	07/08/2013 18:37	89809
Chromium	NELAP	0.5	1		8.84	mg/Kg-dry	1	07/08/2013 18:37	89809
Cobalt	NELAP	0.5	1		4.03	mg/Kg-dry	1	07/08/2013 18:37	89809
Copper	NELAP	0.5	1		12	mg/Kg-dry	1	07/08/2013 18:37	89809
Iron	NELAP	1	2		10700	mg/Kg-dry	1	07/08/2013 18:37	89809
Lead	NELAP	2	4		7.27	mg/Kg-dry	1	07/08/2013 18:37	89809
Magnesium	NELAP	0.5	1	B	30000	mg/Kg-dry	1	07/08/2013 18:37	89809
Manganese	NELAP	0.25	0.5		299	mg/Kg-dry	1	07/08/2013 18:37	89809
Nickel	NELAP	0.5	1		9.61	mg/Kg-dry	1	07/08/2013 18:37	89809
Potassium	NELAP	5	10		600	mg/Kg-dry	1	07/08/2013 18:37	89809
Silver	NELAP	0.5	0.55		< 0.55	mg/Kg-dry	1	07/08/2013 18:37	89809
Sodium	NELAP	2.5	5		107	mg/Kg-dry	1	07/08/2013 18:37	89809
Thallium	NELAP	2.5	2.6		< 2.6	mg/Kg-dry	1	07/08/2013 18:37	89809
Vanadium	NELAP	0.5	1		15.4	mg/Kg-dry	1	07/08/2013 18:37	89809
Zinc	NELAP	0.5	1		29.7	mg/Kg-dry	1	07/08/2013 18:37	89809

Sample results for Mg exceed 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.1).



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-001

Client Sample ID: 2687-9-B01

Matrix: SOLID

Collection Date: 07/02/2013 8:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.337	0.577		< 0.577	mg/Kg-dry	1	07/08/2013 15:35	89807
SW-846 7471B									
Mercury	NELAP	0.003	0.01		0.017	mg/Kg-dry	1	07/08/2013 13:22	89831
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.138	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
1,2-Dichlorobenzene	NELAP	0.165	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
1,3-Dichlorobenzene	NELAP	0.174	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
1,4-Dichlorobenzene	NELAP	0.165	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
2,4,5-Trichlorophenol	NELAP	0.098	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
2,4,6-Trichlorophenol	NELAP	0.13	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
2,4-Dichlorophenol	NELAP	0.125	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
2,4-Dimethylphenol	NELAP	0.132	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
2,4-Dinitrophenol	NELAP	0.111	1.04		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
2,4-Dinitrotoluene	NELAP	0.108	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
2,6-Dinitrotoluene	NELAP	0.112	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
2-Chloronaphthalene	NELAP	0.124	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
2-Chlorophenol	NELAP	0.132	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
2-Methylnaphthalene	NELAP	0.123	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
2-Nitroaniline	NELAP	0.094	1.04		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
2-Nitrophenol	NELAP	0.116	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
3,3'-Dichlorobenzidine	NELAP	0.207	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
3-Nitroaniline	NELAP	0.085	1.04		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
4,6-Dinitro-2-methylphenol	NELAP	0.112	1.04		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
4-Bromophenyl phenyl ether	NELAP	0.095	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
4-Chloro-3-methylphenol	NELAP	0.114	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
4-Chloroaniline	NELAP	0.125	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
4-Chlorophenyl phenyl ether	NELAP	0.103	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
4-Nitroaniline	NELAP	0.094	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
4-Nitrophenol	NELAP	0.101	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Acenaphthene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Acenaphthylene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Anthracene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Benzo(a)anthracene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Benzo(a)pyrene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Benzo(b)fluoranthene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Benzo(g,h,i)perylene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Benzo(k)fluoranthene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Bis(2-chloroethoxy)methane	NELAP	0.121	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Bis(2-chloroethyl)ether	NELAP	0.147	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Bis(2-chloroisopropyl)ether	NELAP	0.118	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Bis(2-ethylhexyl)phthalate	NELAP	0.121	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Butyl benzyl phthalate	NELAP	0.105	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Carbazole		0.126	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Chrysene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Dibenzo(a,h)anthracene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Dibenzofuran	NELAP	0.13	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Dioethyl phthalate	NELAP	0.099	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-001

Client Sample ID: 2687-9-B01

Matrix: SOLID

Collection Date: 07/02/2013 8:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Dimethyl phthalate	NELAP	0.094	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Di-n-butyl phthalate	NELAP	0.107	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Di-n-octyl phthalate	NELAP	0.108	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Fluoranthene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Fluorene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Hexachlorobenzene	NELAP	0.101	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Hexachlorobutadiene	NELAP	0.161	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Hexachlorocyclopentadiene	NELAP	0.106	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Hexachloroethane	NELAP	0.173	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Indeno(1,2,3-cd)pyrene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Isophorone	NELAP	0.122	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
m,p-Cresol	NELAP	0.13	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Naphthalene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Nitrobenzene	NELAP	0.129	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
N-Nitroso-di-n-propylamine	NELAP	0.114	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
N-Nitrosodiphenylamine	NELAP	0.095	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
o-Cresol	NELAP	0.122	0.518		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Pentachlorophenol	NELAP	0.683	2.07		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Phenanthrene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Phenol	NELAP	0.12	0.362		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Pyrene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:44	89823
Surr: 2,4,6-Tribromophenol		0	32.7-130		73.6	%REC	1	07/09/2013 4:44	89823
Surr: 2-Fluorobiphenyl		0	34.1-116		60.9	%REC	1	07/09/2013 4:44	89823
Surr: 2-Fluorophenol		0	30.5-99		75.5	%REC	1	07/09/2013 4:44	89823
Surr: Nitrobenzene-d5		0	34.1-101		73	%REC	1	07/09/2013 4:44	89823
Surr: Phenol-d5		0	34.9-110		72.2	%REC	1	07/09/2013 4:44	89823
Surr: p-Terphenyl-d14		0	41.7-124		73.6	%REC	1	07/09/2013 4:44	89823

Allowable Marginal Exceedance of 2,4,5-Trichlorophenol in the LCS verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).

SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
1,1,1,2-Tetrachloroethane		0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
1,1,2-Trichloroethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
1,1-Dichloroethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
1,1-Dichloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
1,2-Dichloroethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
1,2-Dichloropropane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
1,3-Dichloropropene, Total		0.0008	0.003		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
2-Butanone	NELAP	0.0084	0.042		0.069	mg/Kg-dry	1	07/10/2013 14:01	89975
2-Hexanone	NELAP	0.0084	0.042		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
4-Methyl-2-pentanone	NELAP	0.0084	0.042		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Acetone	NELAP	0.0084	0.042		0.149	mg/Kg-dry	1	07/10/2013 14:01	89975
Benzene	NELAP	0.0004	0.001		0.001	mg/Kg-dry	1	07/10/2013 14:01	89975
Bromodichloromethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Bromoform	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Bromomethane	NELAP	0.0017	0.008		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Carbon disulfide	NELAP	0.0025	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Carbon tetrachloride	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-001

Client Sample ID: 2687-9-B01

Matrix: SOLID

Collection Date: 07/02/2013 8:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Chlorobenzene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Chloroethane	NELAP	0.0017	0.008		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Chloroform	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Chloromethane	NELAP	0.0017	0.008		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
cis-1,2-Dichloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
cis-1,3-Dichloropropene	NELAP	0.0008	0.003		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Dibromochloromethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Ethylbenzene	NELAP	0.0008	0.004	J	0.001	mg/Kg-dry	1	07/10/2013 14:01	89975
m,p-Xylenes	NELAP	0.0008	0.004	J	0.002	mg/Kg-dry	1	07/10/2013 14:01	89975
Methyl tert-butyl ether	NELAP	0.0004	0.002		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Methylene chloride	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
o-Xylene	NELAP	0.0008	0.004	J	0.001	mg/Kg-dry	1	07/10/2013 14:01	89975
Styrene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Tetrachloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Toluene	NELAP	0.0008	0.004	J	0.003	mg/Kg-dry	1	07/10/2013 14:01	89975
trans-1,2-Dichloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
trans-1,3-Dichloropropene	NELAP	0.0008	0.003		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Trichloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Vinyl acetate	NELAP	0.0169	0.042		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Vinyl chloride	NELAP	0.0004	0.002		ND	mg/Kg-dry	1	07/10/2013 14:01	89975
Xylenes, Total	NELAP	0.0008	0.004	J	0.003	mg/Kg-dry	1	07/10/2013 14:01	89975
Surr: 1,2-Dichloroethane-d4		0	72.2-131		109.4	%REC	1	07/10/2013 14:01	89975
Surr: 4-Bromofluorobenzene		0	82.1-116		93.2	%REC	1	07/10/2013 14:01	89975
Surr: Dibromofluoromethane		0	77.7-120		100.1	%REC	1	07/10/2013 14:01	89975
Surr: Toluene-d8		0	86-116		101.2	%REC	1	07/10/2013 14:01	89975

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.
 Client Project: IDOT2013-019
 Lab ID: 13070246-005
 Matrix: SOLID

Work Order: 13070246
 Report Date: 15-Jul-13
 Client Sample ID: 2687-9-B04
 Collection Date: 07/02/2013 9:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		17.5	%	1	07/05/2013 13:22	R179199
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		82.5	%	1	07/05/2013 13:22	R179199
SW-846 9045C									
pH (1:1)	NELAP	0	1		7.53		1	07/05/2013 20:19	R179171
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Iron	NELAP	0.007	0.02		0.148	mg/L	1	07/12/2013 14:22	89985
Manganese	NELAP	0.0016	0.005		0.0429	mg/L	1	07/12/2013 14:22	89985
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005		0.0567	mg/L	1	07/09/2013 15:08	89860
Beryllium	NELAP	0.0003	0.001	J	0.0003	mg/L	1	07/09/2013 15:08	89860
Boron	NELAP	1	2		< 2	mg/L	1	07/09/2013 15:08	89860
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/09/2013 15:08	89860
Chromium	NELAP	0.004	0.01		0.0135	mg/L	1	07/09/2013 15:08	89860
Cobalt	NELAP	0.0022	0.01	J	0.0028	mg/L	1	07/09/2013 15:08	89860
Iron	NELAP	0.007	0.02	X	12.7	mg/L	1	07/09/2013 15:08	89860
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/09/2013 15:08	89860
Manganese	NELAP	0.0016	0.005	X	0.154	mg/L	1	07/09/2013 15:08	89860
Nickel	NELAP	0.0033	0.01		0.0101	mg/L	1	07/09/2013 15:08	89860
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/09/2013 15:08	89860
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/09/2013 15:08	89860
Zinc	NELAP	0.0021	0.01		0.0307	mg/L	1	07/09/2013 15:08	89860
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/09/2013 15:51	89864
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/10/2013 10:52	89864
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/09/2013 14:35	89869
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.6	5		< 5	mg/Kg-dry	1	07/08/2013 18:52	89808
Arsenic	NELAP	1.18	2.36		9.46	mg/Kg-dry	1	07/08/2013 18:59	89809
Barium	NELAP	0.24	0.47		105	mg/Kg-dry	1	07/08/2013 18:59	89809
Beryllium	NELAP	0.05	0.09		0.67	mg/Kg-dry	1	07/08/2013 18:59	89809
Boron	NELAP	0.94	1.89		3.63	mg/Kg-dry	1	07/08/2013 18:59	89809
Cadmium	NELAP	0.09	0.19	J	0.16	mg/Kg-dry	1	07/08/2013 18:59	89809
Calcium	NELAP	2.36	4.72	S	2940	mg/Kg-dry	1	07/08/2013 18:59	89809
Chromium	NELAP	0.47	0.94	X	22.1	mg/Kg-dry	1	07/08/2013 18:59	89809
Cobalt	NELAP	0.47	0.94		10.1	mg/Kg-dry	1	07/08/2013 18:59	89809
Copper	NELAP	0.47	0.94		16.3	mg/Kg-dry	1	07/08/2013 18:59	89809
Iron	NELAP	0.94	1.89	SX	23100	mg/Kg-dry	1	07/08/2013 18:59	89809
Lead	NELAP	1.89	3.77		12.7	mg/Kg-dry	1	07/08/2013 18:59	89809
Magnesium	NELAP	0.47	0.94	BS	3700	mg/Kg-dry	1	07/08/2013 18:59	89809
Manganese	NELAP	0.24	0.47	SX	761	mg/Kg-dry	1	07/08/2013 18:59	89809
Nickel	NELAP	0.47	0.94		21.1	mg/Kg-dry	1	07/08/2013 18:59	89809
Potassium	NELAP	4.72	9.43	S	1830	mg/Kg-dry	1	07/09/2013 14:52	89809
Silver	NELAP	0.47	0.52		< 0.52	mg/Kg-dry	1	07/08/2013 18:59	89809
Sodium	NELAP	2.36	4.72		160	mg/Kg-dry	1	07/08/2013 18:59	89809

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-005

Client Sample ID: 2687-9-B04

Matrix: SOLID

Collection Date: 07/02/2013 9:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 6010B, METALS BY ICP									
Thallium	NELAP	2.36	2.45		< 2.45	mg/Kg-dry	1	07/08/2013 18:59	89809
Vanadium	NELAP	0.47	0.94		41.3	mg/Kg-dry	1	07/08/2013 18:59	89809
Zinc	NELAP	0.47	0.94		49.3	mg/Kg-dry	1	07/08/2013 18:59	89809
<i>MS QC limits for K are not applicable due to high sample/spike ratio.</i>									
<i>Sample results for Mg exceed 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.1).</i>									
<i>MS QC limits for Ca, Fe, Mg, and Mn are not applicable due to high sample/spike ratio.</i>									
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.35	0.6		< 0.6	mg/Kg-dry	1	07/10/2013 9:03	89881
SW-846 7471B									
Mercury	NELAP	0.003	0.012		0.029	mg/Kg-dry	1	07/08/2013 13:35	89831
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.163	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
1,2-Dichlorobenzene	NELAP	0.194	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
1,3-Dichlorobenzene	NELAP	0.205	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
1,4-Dichlorobenzene	NELAP	0.194	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
2,4,5-Trichlorophenol	NELAP	0.116	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
2,4,6-Trichlorophenol	NELAP	0.154	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
2,4-Dichlorophenol	NELAP	0.148	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
2,4-Dimethylphenol	NELAP	0.155	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
2,4-Dinitrophenol	NELAP	0.131	1.22		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
2,4-Dinitrotoluene	NELAP	0.127	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
2,6-Dinitrotoluene	NELAP	0.132	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
2-Chloronaphthalene	NELAP	0.147	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
2-Chlorophenol	NELAP	0.155	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
2-Methylnaphthalene	NELAP	0.145	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
2-Nitroaniline	NELAP	0.111	1.22		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
2-Nitrophenol	NELAP	0.137	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
3,3'-Dichlorobenzidine	NELAP	0.244	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
3-Nitroaniline	NELAP	0.1	1.22		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
4,6-Dinitro-2-methylphenol	NELAP	0.132	1.22		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
4-Bromophenyl phenyl ether	NELAP	0.112	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
4-Chloro-3-methylphenol	NELAP	0.134	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
4-Chloroaniline	NELAP	0.148	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
4-Chlorophenyl phenyl ether	NELAP	0.121	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
4-Nitroaniline	NELAP	0.111	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
4-Nitrophenol	NELAP	0.12	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Acenaphthene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Acenaphthylene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Anthracene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Benzo(a)anthracene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Benzo(a)pyrene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Benzo(b)fluoranthene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Benzo(g,h,i)perylene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Benzo(k)fluoranthene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Bis(2-chloroethoxy)methane	NELAP	0.143	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Bis(2-chloroethyl)ether	NELAP	0.174	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Bis(2-chloroisopropyl)ether	NELAP	0.139	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-005

Client Sample ID: 2687-9-B04

Matrix: SOLID

Collection Date: 07/02/2013 9:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Bis(2-ethylhexyl)phthalate	NELAP	0.143	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Butyl benzyl phthalate	NELAP	0.123	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Carbazole		0.149	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Chrysene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Dibenzo(a,h)anthracene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Dibenzofuran	NELAP	0.154	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Diethyl phthalate	NELAP	0.117	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Dimethyl phthalate	NELAP	0.111	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Di-n-butyl phthalate	NELAP	0.126	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Di-n-octyl phthalate	NELAP	0.127	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Fluoranthene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Fluorene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Hexachlorobenzene	NELAP	0.12	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Hexachlorobutadiene	NELAP	0.189	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Hexachlorocyclopentadiene	NELAP	0.125	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Hexachloroethane	NELAP	0.204	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Indeno(1,2,3-cd)pyrene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Isophorone	NELAP	0.144	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
m,p-Cresol	NELAP	0.154	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Naphthalene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Nitrobenzene	NELAP	0.153	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
N-Nitroso-di-n-propylamine	NELAP	0.134	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
N-Nitrosodiphenylamine	NELAP	0.112	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
o-Cresol	NELAP	0.144	0.611		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Pentachlorophenol	NELAP	0.807	2.44		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Phenanthrene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Phenol	NELAP	0.142	0.428		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Pyrene	NELAP	0.02	0.042		ND	mg/Kg-dry	1	07/09/2013 5:55	89823
Surr: 2,4,6-Tribromophenol		0	32.7-130		61.8	%REC	1	07/09/2013 5:55	89823
Surr: 2-Fluorobiphenyl		0	34.1-116		35.1	%REC	1	07/09/2013 5:55	89823
Surr: 2-Fluorophenol		0	30.5-99		63	%REC	1	07/09/2013 5:55	89823
Surr: Nitrobenzene-d5		0	34.1-101		61.7	%REC	1	07/09/2013 5:55	89823
Surr: Phenol-d5		0	34.9-110		59.3	%REC	1	07/09/2013 5:55	89823
Surr: p-Terphenyl-d14		0	41.7-124		61.5	%REC	1	07/09/2013 5:55	89823

Allowable Marginal Exceedance of 2,4,5-Trichlorophenol in the LCS verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).

SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
1,1,2,2-Tetrachloroethane		0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
1,1,2-Trichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
1,1-Dichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
1,1-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
1,2-Dichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
1,2-Dichloropropane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
1,3-Dichloropropene, Total		0.001	0.004		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
2-Butanone	NELAP	0.01	0.05		0.083	mg/Kg-dry	1	07/10/2013 15:47	89975
2-Hexanone	NELAP	0.01	0.05		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
4-Methyl-2-pentanone	NELAP	0.01	0.05		ND	mg/Kg-dry	1	07/10/2013 15:47	89975



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-005

Client Sample ID: 2687-9-B04

Matrix: SOLID

Collection Date: 07/02/2013 9:40

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Acetone	NELAP	0.01	0.05		0.217	mg/Kg-dry	1	07/10/2013 15:47	89975
Benzene	NELAP	0.0005	0.001		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Bromodichloromethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Bromoform	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Bromomethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Carbon disulfide	NELAP	0.003	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Carbon tetrachloride	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Chlorobenzene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Chloroethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Chloroform	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Chloromethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
cis-1,2-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
cis-1,3-Dichloropropene	NELAP	0.001	0.004		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Dibromochloromethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Ethylbenzene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
m,p-Xylenes	NELAP	0.001	0.005	J	0.002	mg/Kg-dry	1	07/10/2013 15:47	89975
Methyl tert-butyl ether	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Methylene chloride	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
o-Xylene	NELAP	0.001	0.005	J	0.001	mg/Kg-dry	1	07/10/2013 15:47	89975
Styrene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Tetrachloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Toluene	NELAP	0.001	0.005	J	0.004	mg/Kg-dry	1	07/10/2013 15:47	89975
trans-1,2-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
trans-1,3-Dichloropropene	NELAP	0.001	0.004		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Trichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Vinyl acetate	NELAP	0.02	0.05		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Vinyl chloride	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/10/2013 15:47	89975
Xylenes, Total	NELAP	0.001	0.005	J	0.003	mg/Kg-dry	1	07/10/2013 15:47	89975
Surr: 1,2-Dichloroethane-d4		0	72.2-131		104.7	%REC	1	07/10/2013 15:47	89975
Surr: 4-Bromofluorobenzene		0	82.1-116		92.9	%REC	1	07/10/2013 15:47	89975
Surr: Dibromofluoromethane		0	77.7-120		99.3	%REC	1	07/10/2013 15:47	89975
Surr: Toluene-d8		0	86-116		102.2	%REC	1	07/10/2013 15:47	89975



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-006

Client Sample ID: 2687-9-B05

Matrix: SOLID

Collection Date: 07/02/2013 9:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		4.3	%	1	07/05/2013 13:22	R179199
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		95.7	%	1	07/05/2013 13:22	R179199
SW-846 9045C									
pH (1:1)	NELAP	0	1		8.3		1	07/05/2013 20:22	R179171
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005		0.0115	mg/L	1	07/09/2013 15:11	89860
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/09/2013 15:11	89860
Boron	NELAP	1	2		< 2	mg/L	1	07/09/2013 15:11	89860
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/09/2013 15:11	89860
Chromium	NELAP	0.004	0.01		< 0.01	mg/L	1	07/09/2013 15:11	89860
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/09/2013 15:11	89860
Iron	NELAP	0.007	0.02		1.51	mg/L	1	07/09/2013 15:11	89860
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/09/2013 15:11	89860
Manganese	NELAP	0.0016	0.005		0.0194	mg/L	1	07/09/2013 15:11	89860
Nickel	NELAP	0.0033	0.01		< 0.01	mg/L	1	07/09/2013 15:11	89860
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/09/2013 15:11	89860
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/09/2013 15:11	89860
Zinc	NELAP	0.0021	0.01	J	0.0078	mg/L	1	07/09/2013 15:11	89860
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/09/2013 15:55	89864
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/10/2013 10:55	89864
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/09/2013 14:42	89869
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.36	4.55		< 4.55	mg/Kg-dry	1	07/08/2013 19:10	89808
Arsenic	NELAP	1.25	2.5		4.11	mg/Kg-dry	1	07/08/2013 19:10	89809
Barium	NELAP	0.25	0.5		31.9	mg/Kg-dry	1	07/08/2013 19:10	89809
Beryllium	NELAP	0.05	0.1		0.17	mg/Kg-dry	1	07/08/2013 19:10	89809
Boron	NELAP	1	2		3.67	mg/Kg-dry	1	07/08/2013 19:10	89809
Cadmium	NELAP	0.1	0.2		< 0.2	mg/Kg-dry	1	07/08/2013 19:10	89809
Calcium	NELAP	2.5	5		76200	mg/Kg-dry	1	07/08/2013 19:10	89809
Chromium	NELAP	0.5	1		6.87	mg/Kg-dry	1	07/08/2013 19:10	89809
Cobalt	NELAP	0.5	1		4.21	mg/Kg-dry	1	07/08/2013 19:10	89809
Copper	NELAP	0.5	1		11.7	mg/Kg-dry	1	07/08/2013 19:10	89809
Iron	NELAP	1	2		11200	mg/Kg-dry	1	07/08/2013 19:10	89809
Lead	NELAP	2	4		6.68	mg/Kg-dry	1	07/08/2013 19:10	89809
Magnesium	NELAP	0.5	1	B	37000	mg/Kg-dry	1	07/08/2013 19:10	89809
Manganese	NELAP	0.25	0.5		395	mg/Kg-dry	1	07/08/2013 19:10	89809
Nickel	NELAP	0.5	1		9.53	mg/Kg-dry	1	07/08/2013 19:10	89809
Potassium	NELAP	5	10		697	mg/Kg-dry	1	07/08/2013 19:10	89809
Silver	NELAP	0.5	0.55		< 0.55	mg/Kg-dry	1	07/08/2013 19:10	89809
Sodium	NELAP	2.5	5		106	mg/Kg-dry	1	07/08/2013 19:10	89809
Thallium	NELAP	2.5	2.6		< 2.6	mg/Kg-dry	1	07/08/2013 19:10	89809
Vanadium	NELAP	0.5	1		14	mg/Kg-dry	1	07/08/2013 19:10	89809
Zinc	NELAP	0.5	1		28.5	mg/Kg-dry	1	07/08/2013 19:10	89809

Sample results for Mg exceed 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.1).

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-006

Client Sample ID: 2687-9-B05

Matrix: SOLID

Collection Date: 07/02/2013 9:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.324	0.556		< 0.556	mg/Kg-dry	1	07/08/2013 16:05	89807
SW-846 7471B									
Mercury	NELAP	0.003	0.01		0.011	mg/Kg-dry	1	07/08/2013 13:42	89831
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.139	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
1,2-Dichlorobenzene	NELAP	0.166	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
1,3-Dichlorobenzene	NELAP	0.176	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
1,4-Dichlorobenzene	NELAP	0.166	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
2,4,5-Trichlorophenol	NELAP	0.099	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
2,4,6-Trichlorophenol	NELAP	0.132	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
2,4-Dichlorophenol	NELAP	0.126	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
2,4-Dimethylphenol	NELAP	0.133	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
2,4-Dinitrophenol	NELAP	0.112	1.04		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
2,4-Dinitrotoluene	NELAP	0.109	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
2,6-Dinitrotoluene	NELAP	0.113	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
2-Chloronaphthalene	NELAP	0.125	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
2-Chlorophenol	NELAP	0.133	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
2-Methylnaphthalene	NELAP	0.124	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
2-Nitroaniline	NELAP	0.095	1.04		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
2-Nitrophenol	NELAP	0.117	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
3,3'-Dichlorobenzidine	NELAP	0.209	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
3-Nitroaniline	NELAP	0.086	1.04		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
4,6-Dinitro-2-methylphenol	NELAP	0.113	1.04		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
4-Bromophenyl phenyl ether	NELAP	0.096	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
4-Chloro-3-methylphenol	NELAP	0.115	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
4-Chloroaniline	NELAP	0.126	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
4-Chlorophenyl phenyl ether	NELAP	0.103	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
4-Nitroaniline	NELAP	0.095	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
4-Nitrophenol	NELAP	0.102	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Acenaphthene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Acenaphthylene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Anthracene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Benzo(a)anthracene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Benzo(a)pyrene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Benzo(b)fluoranthene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Benzo(g,h,i)perylene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Benzo(k)fluoranthene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Bis(2-chloroethoxy)methane	NELAP	0.122	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Bis(2-chloroethyl)ether	NELAP	0.148	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Bis(2-chloroisopropyl)ether	NELAP	0.119	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Bis(2-ethylhexyl)phthalate	NELAP	0.122	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Butyl benzyl phthalate	NELAP	0.106	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Carbazole		0.127	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Chrysene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Dibenzo(a,h)anthracene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Dibenzofuran	NELAP	0.132	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Diethyl phthalate	NELAP	0.1	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-006

Client Sample ID: 2687-9-B05

Matrix: SOLID

Collection Date: 07/02/2013 9:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Dimethyl phthalate	NELAP	0.095	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Di-n-butyl phthalate	NELAP	0.108	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Di-n-octyl phthalate	NELAP	0.109	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Fluoranthene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Fluorene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Hexachlorobenzene	NELAP	0.102	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Hexachlorobutadiene	NELAP	0.162	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Hexachlorocyclopentadiene	NELAP	0.107	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Hexachloroethane	NELAP	0.174	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Indeno(1,2,3-cd)pyrene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Isophorone	NELAP	0.123	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
m,p-Cresol	NELAP	0.132	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Naphthalene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Nitrobenzene	NELAP	0.131	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
N-Nitroso-di-n-propylamine	NELAP	0.115	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
N-Nitrosodiphenylamine	NELAP	0.096	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
o-Cresol	NELAP	0.123	0.522		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Pentachlorophenol	NELAP	0.69	2.09		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Phenanthrene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Phenol	NELAP	0.121	0.366		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Pyrene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 6:19	89823
Surr: 2,4,6-Tribromophenol		0	32.7-130		60.2	%REC	1	07/09/2013 6:19	89823
Surr: 2-Fluorobiphenyl		0	34.1-116		49.1	%REC	1	07/09/2013 6:19	89823
Surr: 2-Fluorophenol		0	30.5-99		58	%REC	1	07/09/2013 6:19	89823
Surr: Nitrobenzene-d5		0	34.1-101		59.5	%REC	1	07/09/2013 6:19	89823
Surr: Phenol-d5		0	34.9-110		55.7	%REC	1	07/09/2013 6:19	89823
Surr: p-Terphenyl-d14		0	41.7-124		61.4	%REC	1	07/09/2013 6:19	89823
<i>Allowable Marginal Exceedance of 2,4,5-Trichlorophenol in the LCS verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).</i>									
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
1,1,2,2-Tetrachloroethane		0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
1,1,2-Trichloroethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
1,1-Dichloroethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
1,1-Dichloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
1,2-Dichloroethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
1,2-Dichloropropane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
1,3-Dichloropropene, Total		0.0009	0.003		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
2-Butanone	NELAP	0.0086	0.043		0.082	mg/Kg-dry	1	07/10/2013 16:14	89975
2-Hexanone	NELAP	0.0086	0.043	J	0.011	mg/Kg-dry	1	07/10/2013 16:14	89975
4-Methyl-2-pentanone	NELAP	0.0086	0.043		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Acetone	NELAP	0.0086	0.043		0.176	mg/Kg-dry	1	07/10/2013 16:14	89975
Benzene	NELAP	0.0004	0.001		0.002	mg/Kg-dry	1	07/10/2013 16:14	89975
Bromodichloromethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Bromoform	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Bromomethane	NELAP	0.0017	0.009		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Carbon disulfide	NELAP	0.0026	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Carbon tetrachloride	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-006

Client Sample ID: 2687-9-B05

Matrix: SOLID

Collection Date: 07/02/2013 9:45

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Chlorobenzene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Chloroethane	NELAP	0.0017	0.009		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Chloroform	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Chloromethane	NELAP	0.0017	0.009		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
cis-1,2-Dichloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
cis-1,3-Dichloropropene	NELAP	0.0009	0.003		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Dibromochloromethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Ethylbenzene	NELAP	0.0009	0.004	J	0.001	mg/Kg-dry	1	07/10/2013 16:14	89975
m,p-Xylenes	NELAP	0.0009	0.004	J	0.002	mg/Kg-dry	1	07/10/2013 16:14	89975
Methyl tert-butyl ether	NELAP	0.0004	0.002		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Methylene chloride	NELAP	0.0009	0.004	J	0.001	mg/Kg-dry	1	07/10/2013 16:14	89975
o-Xylene	NELAP	0.0009	0.004	J	0.001	mg/Kg-dry	1	07/10/2013 16:14	89975
Styrene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Tetrachloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Toluene	NELAP	0.0009	0.004		0.006	mg/Kg-dry	1	07/10/2013 16:14	89975
trans-1,2-Dichloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
trans-1,3-Dichloropropene	NELAP	0.0009	0.003		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Trichloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Vinyl acetate	NELAP	0.0172	0.043		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Vinyl chloride	NELAP	0.0004	0.002		ND	mg/Kg-dry	1	07/10/2013 16:14	89975
Xylenes, Total	NELAP	0.0009	0.004	J	0.003	mg/Kg-dry	1	07/10/2013 16:14	89975
Surr: 1,2-Dichloroethane-d4		0	72.2-131		108.1	%REC	1	07/10/2013 16:14	89975
Surr: 4-Bromofluorobenzene		0	82.1-116		90.5	%REC	1	07/10/2013 16:14	89975
Surr: Dibromofluoromethane		0	77.7-120		100.5	%REC	1	07/10/2013 16:14	89975
Surr: Toluene-d8		0	86-116		100.4	%REC	1	07/10/2013 16:14	89975



Laboratory Results

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Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-007

Client Sample ID: 2687-9-B06

Matrix: SOLID

Collection Date: 07/02/2013 9:55

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1	R	2	%	1	07/05/2013 13:22	R179199
<i>RPD for DUP was outside of QC limit due to sample composition.</i>									
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		98	%	1	07/05/2013 13:22	R179199
SW-846 9045C									
pH (1:1)	NELAP	0	1		8.62		1	07/05/2013 20:25	R179171
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005	J	0.0025	mg/L	1	07/09/2013 15:15	89860
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/09/2013 15:15	89860
Boron	NELAP	1	2		< 2	mg/L	1	07/09/2013 15:15	89860
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/09/2013 15:15	89860
Chromium	NELAP	0.004	0.01		< 0.01	mg/L	1	07/09/2013 15:15	89860
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/09/2013 15:15	89860
Iron	NELAP	0.007	0.02	J	0.0071	mg/L	1	07/09/2013 15:15	89860
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/09/2013 15:15	89860
Manganese	NELAP	0.0016	0.005		< 0.005	mg/L	1	07/09/2013 15:15	89860
Nickel	NELAP	0.0033	0.01		< 0.01	mg/L	1	07/09/2013 15:15	89860
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/09/2013 15:15	89860
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/09/2013 15:15	89860
Zinc	NELAP	0.0021	0.01	J	0.0053	mg/L	1	07/09/2013 15:15	89860
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/09/2013 15:58	89864
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/10/2013 10:59	89864
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/09/2013 14:48	89869
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.55	4.9		< 4.9	mg/Kg-dry	1	07/08/2013 19:16	89808
Arsenic	NELAP	1.23	2.45	J	2.21	mg/Kg-dry	1	07/08/2013 19:21	89809
Barium	NELAP	0.25	0.49		27.8	mg/Kg-dry	1	07/08/2013 19:21	89809
Beryllium	NELAP	0.05	0.1	J	0.09	mg/Kg-dry	1	07/08/2013 19:21	89809
Boron	NELAP	0.98	1.96		4.31	mg/Kg-dry	1	07/08/2013 19:21	89809
Cadmium	NELAP	0.1	0.2		< 0.2	mg/Kg-dry	1	07/08/2013 19:21	89809
Calcium	NELAP	2.45	4.9		119000	mg/Kg-dry	1	07/09/2013 15:11	89809
Chromium	NELAP	0.49	0.98	X	13	mg/Kg-dry	1	07/08/2013 19:21	89809
Cobalt	NELAP	0.49	0.98		3.37	mg/Kg-dry	1	07/08/2013 19:21	89809
Copper	NELAP	0.49	0.98		14.1	mg/Kg-dry	1	07/08/2013 19:21	89809
Iron	NELAP	0.98	1.96		10100	mg/Kg-dry	1	07/08/2013 19:21	89809
Lead	NELAP	1.96	3.92		12.1	mg/Kg-dry	1	07/08/2013 19:21	89809
Magnesium	NELAP	0.49	0.98	B	61600	mg/Kg-dry	1	07/08/2013 19:21	89809
Manganese	NELAP	0.25	0.49		319	mg/Kg-dry	1	07/08/2013 19:21	89809
Nickel	NELAP	0.49	0.98		7.92	mg/Kg-dry	1	07/08/2013 19:21	89809
Potassium	NELAP	4.9	9.8		736	mg/Kg-dry	1	07/08/2013 19:21	89809
Silver	NELAP	0.49	0.54		< 0.54	mg/Kg-dry	1	07/08/2013 19:21	89809
Sodium	NELAP	2.45	4.9		254	mg/Kg-dry	1	07/08/2013 19:21	89809
Thallium	NELAP	2.45	2.55		< 2.55	mg/Kg-dry	1	07/08/2013 19:21	89809
Vanadium	NELAP	0.49	0.98		17.8	mg/Kg-dry	1	07/08/2013 19:21	89809
Zinc	NELAP	0.49	0.98		50.4	mg/Kg-dry	1	07/08/2013 19:21	89809



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-007

Client Sample ID: 2687-9-B06

Matrix: SOLID

Collection Date: 07/02/2013 9:55

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 6010B, METALS BY ICP									
<i>Sample results for Mg exceed 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.1).</i>									
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.318	0.545		< 0.545	mg/Kg-dry	1	07/08/2013 16:09	89807
SW-846 7471B									
Mercury	NELAP	0.002	0.01	J	0.006	mg/Kg-dry	1	07/08/2013 13:44	89831
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.135	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
1,2-Dichlorobenzene	NELAP	0.161	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
1,3-Dichlorobenzene	NELAP	0.17	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
1,4-Dichlorobenzene	NELAP	0.161	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
2,4,5-Trichlorophenol	NELAP	0.096	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
2,4,6-Trichlorophenol	NELAP	0.128	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
2,4-Dichlorophenol	NELAP	0.123	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
2,4-Dimethylphenol	NELAP	0.129	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
2,4-Dinitrophenol	NELAP	0.109	1.01		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
2,4-Dinitrotoluene	NELAP	0.105	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
2,6-Dinitrotoluene	NELAP	0.11	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
2-Chloronaphthalene	NELAP	0.122	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
2-Chlorophenol	NELAP	0.129	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
2-Methylnaphthalene	NELAP	0.121	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
2-Nitroaniline	NELAP	0.092	1.01		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
2-Nitrophenol	NELAP	0.114	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
3,3'-Dichlorobenzidine	NELAP	0.203	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
3-Nitroaniline	NELAP	0.083	1.01		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
4,6-Dinitro-2-methylphenol	NELAP	0.11	1.01		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
4-Bromophenyl phenyl ether	NELAP	0.093	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
4-Chloro-3-methylphenol	NELAP	0.112	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
4-Chloroaniline	NELAP	0.123	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
4-Chlorophenyl phenyl ether	NELAP	0.1	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
4-Nitroaniline	NELAP	0.092	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
4-Nitrophenol	NELAP	0.099	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Acenaphthene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Acenaphthylene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Anthracene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Benzo(a)anthracene	NELAP	0.017	0.034		0.231	mg/Kg-dry	1	07/10/2013 1:57	89823
Benzo(a)pyrene	NELAP	0.017	0.034		0.241	mg/Kg-dry	1	07/10/2013 1:57	89823
Benzo(b)fluoranthene	NELAP	0.017	0.034		0.365	mg/Kg-dry	1	07/10/2013 1:57	89823
Benzo(g,h,i)perylene	NELAP	0.017	0.034		0.131	mg/Kg-dry	1	07/10/2013 1:57	89823
Benzo(k)fluoranthene	NELAP	0.017	0.034		0.129	mg/Kg-dry	1	07/10/2013 1:57	89823
Bis(2-chloroethoxy)methane	NELAP	0.119	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Bis(2-chloroethyl)ether	NELAP	0.144	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Bis(2-chloroisopropyl)ether	NELAP	0.116	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Bis(2-ethylhexyl)phthalate	NELAP	0.119	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Butyl benzyl phthalate	NELAP	0.102	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Carbazole	NELAP	0.124	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Chrysene	NELAP	0.017	0.034		0.208	mg/Kg-dry	1	07/10/2013 1:57	89823
Dibenzo(a,h)anthracene	NELAP	0.017	0.034		0.036	mg/Kg-dry	1	07/10/2013 1:57	89823



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-007

Client Sample ID: 2687-9-B06

Matrix: SOLID

Collection Date: 07/02/2013 9:55

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Dibenzofuran	NELAP	0.128	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Diethyl phthalate	NELAP	0.097	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Dimethyl phthalate	NELAP	0.092	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Di-n-butyl phthalate	NELAP	0.104	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Di-n-octyl phthalate	NELAP	0.105	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Fluoranthene	NELAP	0.017	0.034		0.398	mg/Kg-dry	1	07/10/2013 1:57	89823
Fluorene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Hexachlorobenzene	NELAP	0.099	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Hexachlorobutadiene	NELAP	0.157	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Hexachlorocyclopentadiene	NELAP	0.103	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Hexachloroethane	NELAP	0.169	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Indeno(1,2,3-cd)pyrene	NELAP	0.017	0.034		0.153	mg/Kg-dry	1	07/10/2013 1:57	89823
Isophorone	NELAP	0.12	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
m,p-Cresol	NELAP	0.128	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Naphthalene	NELAP	0.017	0.034		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Nitrobenzene	NELAP	0.127	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
N-Nitroso-di-n-propylamine	NELAP	0.112	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
N-Nitrosodiphenylamine	NELAP	0.093	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
o-Cresol	NELAP	0.12	0.507		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Pentachlorophenol	NELAP	0.669	2.03		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Phenanthrene	NELAP	0.017	0.034		0.13	mg/Kg-dry	1	07/10/2013 1:57	89823
Phenol	NELAP	0.118	0.355		ND	mg/Kg-dry	1	07/10/2013 1:57	89823
Pyrene	NELAP	0.017	0.034		0.317	mg/Kg-dry	1	07/10/2013 1:57	89823
Surr: 2,4,6-Tribromophenol		0	32.7-130		52.3	%REC	1	07/10/2013 1:57	89823
Surr: 2-Fluorobiphenyl		0	34.1-116		47.7	%REC	1	07/10/2013 1:57	89823
Surr: 2-Fluorophenol		0	30.5-99		54.4	%REC	1	07/10/2013 1:57	89823
Surr: Nitrobenzene-d5		0	34.1-101		58.8	%REC	1	07/10/2013 1:57	89823
Surr: Phenol-d5		0	34.9-110		53.9	%REC	1	07/10/2013 1:57	89823
Surr: p-Terphenyl-d14		0	41.7-124		52.1	%REC	1	07/10/2013 1:57	89823
<i>Allowable Marginal Exceedance of 2,4,5-Trichlorophenol in the LCS verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).</i>									
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
1,1,2,2-Tetrachloroethane		0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
1,1,2-Trichloroethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
1,1-Dichloroethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
1,1-Dichloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
1,2-Dichloroethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
1,2-Dichloropropane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
1,3-Dichloropropene, Total		0.0008	0.003		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
2-Butanone	NELAP	0.0082	0.041		0.092	mg/Kg-dry	1	07/10/2013 16:41	89975
2-Hexanone	NELAP	0.0082	0.041	J	0.016	mg/Kg-dry	1	07/10/2013 16:41	89975
4-Methyl-2-pentanone	NELAP	0.0082	0.041		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Acetone	NELAP	0.0082	0.041		0.184	mg/Kg-dry	1	07/10/2013 16:41	89975
Benzene	NELAP	0.0004	0.001		0.003	mg/Kg-dry	1	07/10/2013 16:41	89975
Bromodichloromethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Bromoform	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Bromomethane	NELAP	0.0016	0.008		ND	mg/Kg-dry	1	07/10/2013 16:41	89975



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-007

Client Sample ID: 2687-9-B06

Matrix: SOLID

Collection Date: 07/02/2013 9:55

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Carbon disulfide	NELAP	0.0025	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Carbon tetrachloride	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Chlorobenzene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Chloroethane	NELAP	0.0016	0.008		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Chloroform	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Chloromethane	NELAP	0.0016	0.008		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
cis-1,2-Dichloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
cis-1,3-Dichloropropene	NELAP	0.0008	0.003		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Dibromochloromethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Ethylbenzene	NELAP	0.0008	0.004	J	0.002	mg/Kg-dry	1	07/10/2013 16:41	89975
m,p-Xylenes	NELAP	0.0008	0.004	J	0.004	mg/Kg-dry	1	07/10/2013 16:41	89975
Methyl tert-butyl ether	NELAP	0.0004	0.002		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Methylene chloride	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
o-Xylene	NELAP	0.0008	0.004	J	0.002	mg/Kg-dry	1	07/10/2013 16:41	89975
Styrene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Tetrachloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Toluene	NELAP	0.0008	0.004		0.007	mg/Kg-dry	1	07/10/2013 16:41	89975
trans-1,2-Dichloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
trans-1,3-Dichloropropene	NELAP	0.0008	0.003		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Trichloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Vinyl acetate	NELAP	0.0164	0.041		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Vinyl chloride	NELAP	0.0004	0.002		ND	mg/Kg-dry	1	07/10/2013 16:41	89975
Xylenes, Total	NELAP	0.0008	0.004		0.005	mg/Kg-dry	1	07/10/2013 16:41	89975
Surr: 1,2-Dichloroethane-d4		0	72.2-131		106.9	%REC	1	07/10/2013 16:41	89975
Surr: 4-Bromofluorobenzene		0	82.1-116		93.5	%REC	1	07/10/2013 16:41	89975
Surr: Dibromofluoromethane		0	77.7-120		100.9	%REC	1	07/10/2013 16:41	89975
Surr: Toluene-d8		0	86-116		101.8	%REC	1	07/10/2013 16:41	89975



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-009

Client Sample ID: 2687-9-B08-1

Matrix: SOLID

Collection Date: 07/02/2013 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		14	%	1	07/05/2013 13:23	R179199
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		86	%	1	07/05/2013 13:23	R179199
SW-846 9045C									
pH (1:1)	NELAP	0	1		7.68		1	07/05/2013 20:35	R179171
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Iron	NELAP	0.007	0.02		0.0852	mg/L	1	07/12/2013 14:28	89985
Manganese	NELAP	0.0016	0.005		0.0255	mg/L	1	07/12/2013 14:28	89985
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005		0.0891	mg/L	1	07/09/2013 15:30	89860
Beryllium	NELAP	0.0003	0.001	J	0.0004	mg/L	1	07/09/2013 15:30	89860
Boron	NELAP	1	2		< 2	mg/L	1	07/09/2013 15:30	89860
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/09/2013 15:30	89860
Chromium	NELAP	0.004	0.01		0.0136	mg/L	1	07/09/2013 15:30	89860
Cobalt	NELAP	0.0022	0.01	J	0.0027	mg/L	1	07/09/2013 15:30	89860
Iron	NELAP	0.007	0.02	X	14.1	mg/L	1	07/09/2013 15:30	89860
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/09/2013 15:30	89860
Manganese	NELAP	0.0016	0.005	X	0.201	mg/L	1	07/09/2013 15:30	89860
Nickel	NELAP	0.0033	0.01		0.0139	mg/L	1	07/09/2013 15:30	89860
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/09/2013 15:30	89860
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/09/2013 15:30	89860
Zinc	NELAP	0.0021	0.01		0.0355	mg/L	1	07/09/2013 15:30	89860
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/10/2013 8:55	89864
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/10/2013 11:06	89864
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/09/2013 14:53	89869
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.36	4.55		< 4.55	mg/Kg-dry	1	07/08/2013 19:28	89808
Arsenic	NELAP	1.23	2.45		5.54	mg/Kg-dry	1	07/08/2013 19:29	89809
Barium	NELAP	0.25	0.49		94.9	mg/Kg-dry	1	07/08/2013 19:29	89809
Beryllium	NELAP	0.05	0.1		0.4	mg/Kg-dry	1	07/08/2013 19:29	89809
Boron	NELAP	0.98	1.96		3.05	mg/Kg-dry	1	07/08/2013 19:29	89809
Cadmium	NELAP	0.1	0.2	J	0.13	mg/Kg-dry	1	07/08/2013 19:29	89809
Calcium	NELAP	2.45	4.9		1900	mg/Kg-dry	1	07/08/2013 19:29	89809
Chromium	NELAP	0.49	0.98	X	13.9	mg/Kg-dry	1	07/08/2013 19:29	89809
Cobalt	NELAP	0.49	0.98		6.04	mg/Kg-dry	1	07/08/2013 19:29	89809
Copper	NELAP	0.49	0.98		11.6	mg/Kg-dry	1	07/08/2013 19:29	89809
Iron	NELAP	0.98	1.96	X	15200	mg/Kg-dry	1	07/08/2013 19:29	89809
Lead	NELAP	1.96	3.92		7.35	mg/Kg-dry	1	07/08/2013 19:29	89809
Magnesium	NELAP	0.49	0.98	B	2450	mg/Kg-dry	1	07/08/2013 19:29	89809
Manganese	NELAP	0.25	0.49		497	mg/Kg-dry	1	07/08/2013 19:29	89809
Nickel	NELAP	0.49	0.98		17.6	mg/Kg-dry	1	07/08/2013 19:29	89809
Potassium	NELAP	4.9	9.8		1010	mg/Kg-dry	1	07/09/2013 15:19	89809
Silver	NELAP	0.49	0.54		< 0.54	mg/Kg-dry	1	07/08/2013 19:29	89809
Sodium	NELAP	2.45	4.9		94.3	mg/Kg-dry	1	07/08/2013 19:29	89809

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-009

Client Sample ID: 2687-9-B08-1

Matrix: SOLID

Collection Date: 07/02/2013 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 6010B, METALS BY ICP									
Thallium	NELAP	2.45	2.55		< 2.55	mg/Kg-dry	1	07/08/2013 19:29	89809
Vanadium	NELAP	0.49	0.98		28.1	mg/Kg-dry	1	07/08/2013 19:29	89809
Zinc	NELAP	0.49	0.98		32	mg/Kg-dry	1	07/08/2013 19:29	89809
<i>Sample results for Mg exceed 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume1, Module 4, section 1.7.4.1).</i>									
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.313	0.536		< 0.536	mg/Kg-dry	1	07/08/2013 16:16	89807
SW-846 7471B									
Mercury	NELAP	0.003	0.011		0.024	mg/Kg-dry	1	07/08/2013 13:49	89831
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.156	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
1,2-Dichlorobenzene	NELAP	0.186	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
1,3-Dichlorobenzene	NELAP	0.197	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
1,4-Dichlorobenzene	NELAP	0.186	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
2,4,5-Trichlorophenol	NELAP	0.111	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
2,4,6-Trichlorophenol	NELAP	0.147	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
2,4-Dichlorophenol	NELAP	0.142	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
2,4-Dimethylphenol	NELAP	0.149	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
2,4-Dinitrophenol	NELAP	0.125	1.17		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
2,4-Dinitrotoluene	NELAP	0.122	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
2,6-Dinitrotoluene	NELAP	0.126	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
2-Chloronaphthalene	NELAP	0.14	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
2-Chlorophenol	NELAP	0.149	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
2-Methylnaphthalene	NELAP	0.139	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
2-Nitroaniline	NELAP	0.107	1.17		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
2-Nitrophenol	NELAP	0.131	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
3,3'-Dichlorobenzidine	NELAP	0.234	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
3-Nitroaniline	NELAP	0.096	1.17		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
4,6-Dinitro-2-methylphenol	NELAP	0.126	1.17		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
4-Bromophenyl phenyl ether	NELAP	0.108	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
4-Chloro-3-methylphenol	NELAP	0.129	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
4-Chloroaniline	NELAP	0.142	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
4-Chlorophenyl phenyl ether	NELAP	0.116	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
4-Nitroaniline	NELAP	0.107	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
4-Nitrophenol	NELAP	0.115	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Acenaphthene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Acenaphthylene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Anthracene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Benzo(a)anthracene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Benzo(a)pyrene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Benzo(b)fluoranthene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Benzo(g,h,i)perylene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Benzo(k)fluoranthene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Bis(2-chloroethoxy)methane	NELAP	0.137	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Bis(2-chloroethyl)ether	NELAP	0.166	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Bis(2-chloroisopropyl)ether	NELAP	0.133	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Bis(2-ethylhexyl)phthalate	NELAP	0.137	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Butyl benzyl phthalate	NELAP	0.118	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-009

Client Sample ID: 2687-9-B08-1

Matrix: SOLID

Collection Date: 07/02/2013 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Carbazole		0.143	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Chrysene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Dibenzo(a,h)anthracene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Dibenzofuran	NELAP	0.147	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Diethyl phthalate	NELAP	0.112	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Dimethyl phthalate	NELAP	0.107	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Di-n-butyl phthalate	NELAP	0.121	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Di-n-octyl phthalate	NELAP	0.122	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Fluoranthene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Fluorene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Hexachlorobenzene	NELAP	0.115	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Hexachlorobutadiene	NELAP	0.181	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Hexachlorocyclopentadiene	NELAP	0.119	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Hexachloroethane	NELAP	0.195	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Indeno(1,2,3-cd)pyrene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Isophorone	NELAP	0.138	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
m,p-Cresol	NELAP	0.147	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Naphthalene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Nitrobenzene	NELAP	0.146	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
N-Nitroso-di-n-propylamine	NELAP	0.129	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
N-Nitrosodiphenylamine	NELAP	0.108	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
o-Cresol	NELAP	0.138	0.585		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Pentachlorophenol	NELAP	0.772	2.34		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Phenanthrene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Phenol	NELAP	0.136	0.41		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Pyrene	NELAP	0.02	0.04		ND	mg/Kg-dry	1	07/09/2013 21:09	89823
Surr: 2,4,6-Tribromophenol		0	32.7-130		64.6	%REC	1	07/09/2013 21:09	89823
Surr: 2-Fluorobiphenyl		0	34.1-116		44.4	%REC	1	07/09/2013 21:09	89823
Surr: 2-Fluorophenol		0	30.5-99		64.1	%REC	1	07/09/2013 21:09	89823
Surr: Nitrobenzene-d5		0	34.1-101		60.9	%REC	1	07/09/2013 21:09	89823
Surr: Phenol-d5		0	34.9-110		63.9	%REC	1	07/09/2013 21:09	89823
Surr: p-Terphenyl-d14		0	41.7-124		56.7	%REC	1	07/09/2013 21:09	89823

SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

1,1,1-Trichloroethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
1,1,2,2-Tetrachloroethane		0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
1,1,2-Trichloroethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
1,1-Dichloroethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
1,1-Dichloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
1,2-Dichloroethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
1,2-Dichloropropane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
1,3-Dichloropropene, Total		0.0008	0.003		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
2-Butanone	NELAP	0.0084	0.042		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
2-Hexanone	NELAP	0.0084	0.042		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
4-Methyl-2-pentanone	NELAP	0.0084	0.042		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Acetone	NELAP	0.0084	0.042		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Benzene	NELAP	0.0004	0.001		0.001	mg/Kg-dry	1	07/11/2013 18:02	89996
Bromodichloromethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-009

Client Sample ID: 2687-9-B08-1

Matrix: SOLID

Collection Date: 07/02/2013 10:15

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Bromoform	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Bromomethane	NELAP	0.0017	0.008		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Carbon disulfide	NELAP	0.0025	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Carbon tetrachloride	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Chlorobenzene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Chloroethane	NELAP	0.0017	0.008		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Chloroform	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Chloromethane	NELAP	0.0017	0.008		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
cis-1,2-Dichloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
cis-1,3-Dichloropropene	NELAP	0.0008	0.003		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Dibromochloromethane	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Ethylbenzene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
m,p-Xylenes	NELAP	0.0008	0.004	J	0.002	mg/Kg-dry	1	07/11/2013 18:02	89996
Methyl tert-butyl ether	NELAP	0.0004	0.002		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Methylene chloride	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
o-Xylene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Styrene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Tetrachloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Toluene	NELAP	0.0008	0.004	J	0.004	mg/Kg-dry	1	07/11/2013 18:02	89996
trans-1,2-Dichloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
trans-1,3-Dichloropropene	NELAP	0.0008	0.003		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Trichloroethene	NELAP	0.0008	0.004		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Vinyl acetate	NELAP	0.0168	0.042		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Vinyl chloride	NELAP	0.0004	0.002		ND	mg/Kg-dry	1	07/11/2013 18:02	89996
Xylenes, Total	NELAP	0.0008	0.004	J	0.002	mg/Kg-dry	1	07/11/2013 18:02	89996
Surr: 1,2-Dichloroethane-d4		0	72.2-131		96	%REC	1	07/11/2013 18:02	89996
Surr: 4-Bromofluorobenzene		0	82.1-116		101.9	%REC	1	07/11/2013 18:02	89996
Surr: Dibromofluoromethane		0	77.7-120		100.5	%REC	1	07/11/2013 18:02	89996
Surr: Toluene-d8		0	86-116		93.7	%REC	1	07/11/2013 18:02	89996

Allowable Marginal Exceedance of Acetone in the LCS/LCSD and Methylene chloride in the LCSD verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-010

Client Sample ID: 2687-9-B08-2

Matrix: SOLID

Collection Date: 07/02/2013 10:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		4.2	%	1	07/05/2013 13:23	R179199
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		95.8	%	1	07/05/2013 13:23	R179199
SW-846 9045C									
pH (1:1)	NELAP	0	1		8.46		1	07/05/2013 20:39	R179171
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005		< 0.005	mg/L	1	07/09/2013 15:37	89860
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/09/2013 15:37	89860
Boron	NELAP	1	2		< 2	mg/L	1	07/09/2013 15:37	89860
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/09/2013 15:37	89860
Chromium	NELAP	0.004	0.01		< 0.01	mg/L	1	07/09/2013 15:37	89860
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/09/2013 15:37	89860
Iron	NELAP	0.007	0.02	J	0.0085	mg/L	1	07/09/2013 15:37	89860
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/09/2013 15:37	89860
Manganese	NELAP	0.0016	0.005		< 0.005	mg/L	1	07/09/2013 15:37	89860
Nickel	NELAP	0.0033	0.01		< 0.01	mg/L	1	07/09/2013 15:37	89860
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/09/2013 15:37	89860
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/09/2013 15:37	89860
Zinc	NELAP	0.0021	0.01	J	0.0079	mg/L	1	07/09/2013 15:37	89860
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/09/2013 16:39	89864
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/10/2013 11:13	89864
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/09/2013 14:57	89869
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.55	4.9		< 4.9	mg/Kg-dry	1	07/08/2013 19:46	89808
Arsenic	NELAP	1.23	2.45		4.13	mg/Kg-dry	1	07/08/2013 19:33	89809
Barium	NELAP	0.25	0.49		23.7	mg/Kg-dry	1	07/08/2013 19:33	89809
Beryllium	NELAP	0.05	0.1	J	0.09	mg/Kg-dry	1	07/08/2013 19:33	89809
Boron	NELAP	0.98	1.96		3.34	mg/Kg-dry	1	07/08/2013 19:33	89809
Cadmium	NELAP	0.1	0.2		< 0.2	mg/Kg-dry	1	07/08/2013 19:33	89809
Calcium	NELAP	2.45	4.9		73500	mg/Kg-dry	1	07/08/2013 19:33	89809
Chromium	NELAP	0.49	0.98		7.7	mg/Kg-dry	1	07/08/2013 19:33	89809
Cobalt	NELAP	0.49	0.98		3.53	mg/Kg-dry	1	07/08/2013 19:33	89809
Copper	NELAP	0.49	0.98		14.1	mg/Kg-dry	1	07/08/2013 19:33	89809
Iron	NELAP	0.98	1.96		9910	mg/Kg-dry	1	07/08/2013 19:33	89809
Lead	NELAP	1.96	3.92	J	3.71	mg/Kg-dry	1	07/08/2013 19:33	89809
Magnesium	NELAP	0.49	0.98	B	40900	mg/Kg-dry	1	07/08/2013 19:33	89809
Manganese	NELAP	0.25	0.49		315	mg/Kg-dry	1	07/08/2013 19:33	89809
Nickel	NELAP	0.49	0.98		8.74	mg/Kg-dry	1	07/08/2013 19:33	89809
Potassium	NELAP	4.9	9.8		642	mg/Kg-dry	1	07/08/2013 19:33	89809
Silver	NELAP	0.49	0.54		< 0.54	mg/Kg-dry	1	07/08/2013 19:33	89809
Sodium	NELAP	2.45	4.9		140	mg/Kg-dry	1	07/08/2013 19:33	89809
Thallium	NELAP	2.45	2.55		< 2.55	mg/Kg-dry	1	07/08/2013 19:33	89809
Vanadium	NELAP	0.49	0.98		10.4	mg/Kg-dry	1	07/08/2013 19:33	89809
Zinc	NELAP	0.49	0.98		22.8	mg/Kg-dry	1	07/08/2013 19:33	89809

Sample results for Mg exceed 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.1).

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-010

Client Sample ID: 2687-9-B08-2

Matrix: SOLID

Collection Date: 07/02/2013 10:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.35	0.6		< 0.6	mg/Kg-dry	1	07/08/2013 16:19	89807
SW-846 7471B									
Mercury	NELAP	0.003	0.01	J	0.004	mg/Kg-dry	1	07/08/2013 13:55	89831
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.139	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
1,2-Dichlorobenzene	NELAP	0.166	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
1,3-Dichlorobenzene	NELAP	0.175	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
1,4-Dichlorobenzene	NELAP	0.166	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
2,4,5-Trichlorophenol	NELAP	0.099	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
2,4,6-Trichlorophenol	NELAP	0.132	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
2,4-Dichlorophenol	NELAP	0.126	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
2,4-Dimethylphenol	NELAP	0.133	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
2,4-Dinitrophenol	NELAP	0.112	1.04		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
2,4-Dinitrotoluene	NELAP	0.109	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
2,6-Dinitrotoluene	NELAP	0.113	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
2-Chloronaphthalene	NELAP	0.125	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
2-Chlorophenol	NELAP	0.133	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
2-Methylnaphthalene	NELAP	0.124	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
2-Nitroaniline	NELAP	0.095	1.04		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
2-Nitrophenol	NELAP	0.117	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
3,3'-Dichlorobenzidine	NELAP	0.209	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
3-Nitroaniline	NELAP	0.086	1.04		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
4,6-Dinitro-2-methylphenol	NELAP	0.113	1.04		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
4-Bromophenyl phenyl ether	NELAP	0.096	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
4-Chloro-3-methylphenol	NELAP	0.115	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
4-Chloroaniline	NELAP	0.126	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
4-Chlorophenyl phenyl ether	NELAP	0.103	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
4-Nitroaniline	NELAP	0.095	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
4-Nitrophenol	NELAP	0.102	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Acenaphthene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Acenaphthylene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Anthracene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Benzo(a)anthracene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Benzo(a)pyrene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Benzo(b)fluoranthene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Benzo(g,h,i)perylene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Benzo(k)fluoranthene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Bis(2-chloroethoxy)methane	NELAP	0.122	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Bis(2-chloroethyl)ether	NELAP	0.148	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Bis(2-chloroisopropyl)ether	NELAP	0.119	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Bis(2-ethylhexyl)phthalate	NELAP	0.122	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Butyl benzyl phthalate	NELAP	0.105	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Carbazole		0.127	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Chrysene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Dibenzo(a,h)anthracene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Dibenzofuran	NELAP	0.132	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Diethyl phthalate	NELAP	0.1	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-010

Client Sample ID: 2687-9-B08-2

Matrix: SOLID

Collection Date: 07/02/2013 10:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Dimethyl phthalate	NELAP	0.095	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Di-n-butyl phthalate	NELAP	0.108	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Di-n-octyl phthalate	NELAP	0.109	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Fluoranthene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Fluorene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Hexachlorobenzene	NELAP	0.102	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Hexachlorobutadiene	NELAP	0.162	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Hexachlorocyclopentadiene	NELAP	0.107	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Hexachloroethane	NELAP	0.174	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Indeno(1,2,3-cd)pyrene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Isophorone	NELAP	0.123	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
m,p-Cresol	NELAP	0.132	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Naphthalene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Nitrobenzene	NELAP	0.131	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
N-Nitroso-di-n-propylamine	NELAP	0.115	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
N-Nitrosodiphenylamine	NELAP	0.096	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
o-Cresol	NELAP	0.123	0.522		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Pentachlorophenol	NELAP	0.689	2.09		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Phenanthrene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Phenol	NELAP	0.121	0.365		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Pyrene	NELAP	0.017	0.036		ND	mg/Kg-dry	1	07/09/2013 14:57	89823
Surr: 2,4,6-Tribromophenol		0	32.7-130		64.1	%REC	1	07/09/2013 14:57	89823
Surr: 2-Fluorobiphenyl		0	34.1-116		51.2	%REC	1	07/09/2013 14:57	89823
Surr: 2-Fluorophenol		0	30.5-99		63.6	%REC	1	07/09/2013 14:57	89823
Surr: Nitrobenzene-d5		0	34.1-101		62.1	%REC	1	07/09/2013 14:57	89823
Surr: Phenol-d5		0	34.9-110		60	%REC	1	07/09/2013 14:57	89823
Surr: p-Terphenyl-d14		0	41.7-124		61.5	%REC	1	07/09/2013 14:57	89823

Allowable Marginal Exceedance of 2,4,5-Trichlorophenol in the LCS verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).

SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
1,1,2,2-Tetrachloroethane		0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
1,1,2-Trichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
1,1-Dichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
1,1-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
1,2-Dichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
1,2-Dichloropropane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
1,3-Dichloropropene, Total		0.001	0.004		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
2-Butanone	NELAP	0.0098	0.049		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
2-Hexanone	NELAP	0.0098	0.049		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
4-Methyl-2-pentanone	NELAP	0.0098	0.049		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Acetone	NELAP	0.0098	0.049		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Benzene	NELAP	0.0005	0.001		0.003	mg/Kg-dry	1	07/11/2013 18:28	89996
Bromodichloromethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Bromoform	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Bromomethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Carbon disulfide	NELAP	0.0029	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Carbon tetrachloride	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070246

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070246-010

Client Sample ID: 2687-9-B08-2

Matrix: SOLID

Collection Date: 07/02/2013 10:20

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Chlorobenzene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Chloroethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Chloroform	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Chloromethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
cis-1,2-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
cis-1,3-Dichloropropene	NELAP	0.001	0.004		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Dibromochloromethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Ethylbenzene	NELAP	0.001	0.005	J	0.001	mg/Kg-dry	1	07/11/2013 18:28	89996
m,p-Xylenes	NELAP	0.001	0.005	J	0.003	mg/Kg-dry	1	07/11/2013 18:28	89996
Methyl tert-butyl ether	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Methylene chloride	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
o-Xylene	NELAP	0.001	0.005	J	0.001	mg/Kg-dry	1	07/11/2013 18:28	89996
Styrene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Tetrachloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Toluene	NELAP	0.001	0.005	J	0.005	mg/Kg-dry	1	07/11/2013 18:28	89996
trans-1,2-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
trans-1,3-Dichloropropene	NELAP	0.001	0.004		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Trichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Vinyl acetate	NELAP	0.0197	0.049		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Vinyl chloride	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/11/2013 18:28	89996
Xylenes, Total	NELAP	0.001	0.005	J	0.004	mg/Kg-dry	1	07/11/2013 18:28	89996
Surr: 1,2-Dichloroethane-d4		0	72.2-131		100.8	%REC	1	07/11/2013 18:28	89996
Surr: 4-Bromofluorobenzene		0	82.1-116		102.2	%REC	1	07/11/2013 18:28	89996
Surr: Dibromofluoromethane		0	77.7-120		102.3	%REC	1	07/11/2013 18:28	89996
Surr: Toluene-d8		0	86-116		93.6	%REC	1	07/11/2013 18:28	89996

Allowable Marginal Exceedance of Acetone in the LCS/LCSD and Methylene chloride in the LCSD verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).



CHAIN OF CUSTODY RECORD

Client Contact Andrews Engineering, Inc. 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact: Colleen Grey email: cgrey@andrews-eng.com		Laboratory Lab: TekLab, Inc. Address: 5445 Horseshoe Lake Road Collinsville, IL 62234 Phone: 877-344-1003 Contact: Shelly Hennessy email: shennessy@teklabinc.com		Project Name: <u>CARY, McHENRY CO</u> Project No.: <u>IDOT 2013-019</u> TAT: <input checked="" type="checkbox"/> 15 BD <input type="checkbox"/> 10 BD <input type="checkbox"/> 5 BD <input type="checkbox"/> 2 BD <input type="checkbox"/> Other		COC No.: _____ of _____ Lab Job No.: _____ Sample Temp: <u>24°C</u> Sample ID: <u>13070246</u>											
Special Instructions: See Table 2 for complete parameter lists and minimum reporting limits. * If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal. ** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter.				Matrix Key: W: Water S: Soil SL: Sludge S: Sediment L: Leachate DW: Drinking Water OL: Oil O: Other													
		ANALYSES <i>Teklab, Inc.</i> Courier Pick Up															
Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BETX & MTBE	PNAs	Pesticides	PCBS	* Total Metals	SPLP/** TCLP Metals	pH	% Solids	Waste Characterization	Comments	
13070246	2687-9-B01	7/2	8:15	S	X	X					X	X	X	X			
002	2687-9-B02		9:15														
003	2687-9-B03		9:20														
004	2687-9-B03 DUP		9:25														
005	2687-9-B04		9:40														
006	2687-9-B05		9:45														
007	2687-9-B06		9:55														
008	2687-9-B07		10:05														
009	2687-9-B08-1		10:15														
010	2687-9-B08-2		10:20	S	X	X					X	X	X	X			
Relinquished by:				Date/Time		7/2/13 3:15 PM		Received by:						Date/Time		7-2-13 1515	
Relinquished by:				Date/Time		7-3-13 1050		Received by:						Date/Time		07/03/13 1050	
Relinquished by:				Date/Time		7/05/13 1225		Received by:						Date/Time		7/3/13 12:25	



Illinois Environmental Protection Agency

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: FAU 305 (Jandus Cutoff Road) Office Phone Number, if available: _____

Physical Site Location (address, including number and street):

65 South Northwest Highway

City: Cary State: IL Zip Code: 60013

County: McHenry Township: Algonquin

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.20714 Longitude: -88.23206
(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: 1110105107 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 Street

Street Address: 201 West Center Street

PO Box: _____

PO Box: _____

City: Schaumburg State: IL

City: Schaumburg State: IL

Zip Code: 60196-1096 Phone: 847-705-4101

Zip Code: 60196-1096 Phone: 847-705-4101

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.

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Project Name: FAU 305 (Jandus Cutoff Road)

Latitude: 42.20714 Longitude: -88.23206

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):

LOCATION 2687-10-B01 WAS SAMPLED ADJACENT TO ISGS SITE 2687-10. SEE FIGURE 2 AND TABLE 3f OF REVISED PRELIMINARY SITE INVESTIGATION.

- 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]:

TEKLAB ANALYTICAL REPORT - JOB ID: 13070245

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Steven Gobleman, 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: IDOT Bureau of Design and Environment

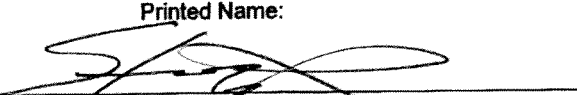
Street Address: 2300 South Dirksen Parkway

City: Springfield State: IL Zip Code: 62764

Phone: 217.785.4246

Steven Gobleman

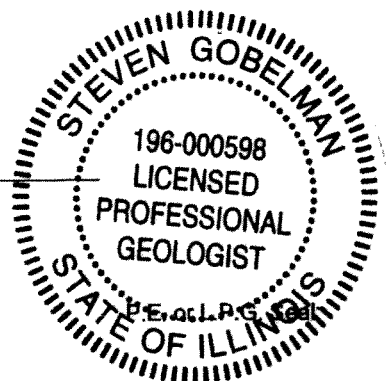
Printed Name:



Licensed Professional Engineer or
Licensed Professional Geologist Signature:

8/9/13

Date:



The following table summarizes the results of laboratory analysis of site soil samples. In reading the table,

- Only parameters reported at concentrations above the most stringent MAC are listed.
- Samples with the notation “**No Contaminants of Concern Noted**” were below the most stringent MAC.

The laboratory report for site soils follows this summary table.

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Volatile Organic Compounds (mg/kg)
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dichloroethane
1,2-Dichloropropane
1,3-Dichloropropene
2-Butanone (MEK)
2-Hexanone (MBK)
4-Methyl-2-pentanone (MIBK)
Acetone
Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Ethylbenzene
Methylene chloride
Methyl-tert-butyl-ether (MTBE)
Styrene
Tetrachloroethene
Toluene
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Vinyl Acetate
Vinyl Chloride
Xylenes, total
m-Xylene
o-Xylene
p-Xylene
Semivolatile Organic Compounds (mg/kg)
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2-Chloronaphthalene
2-Chlorophenol
2-Methylnaphthalene
2-Methylphenol
2-Nitroaniline
2-Nitrophenol
3,3'-Dichlorobenzidine
3-Nitroaniline
4,6-Dinitro-2-methylphenol
4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol
4-Chloroaniline
4-Chlorophenyl phenyl ether
4-Methylphenol
4-Nitroaniline
4-Nitrophenol
Acenaphthene
Acenaphthylene
Anthracene
Benzo (a) anthracene
Benzo (a) pyrene

THIS TABLE LISTS THE PARAMETERS ANALYZED IN SITE SOIL SAMPLES

Analytical Parameters

Semivolatile Organic Compounds (mg/kg) (cont.)
Benzo (b) fluoranthene
Benzo (g,h,i) perylene
Benzo (k) fluoranthene
Bis(2-chloroethoxy)methane
Bis(2-chloroethyl)ether
bis(2-chloroisopropyl)ether
Bis(2-ethylhexyl)phthalate
Butyl benzyl phthalate
Carbazole
Chrysene
Dibenzo (a,h) anthracene
Dibenzofuran
Diethyl phthalate
Dimethyl phthalate
Di-n-butyl phthalate
Di-n-octyl phthalate
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Indeno (1,2,3-cd) pyrene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodi-n-propylamine
N-Nitrosodiphenylamine
Pentachlorophenol
Phenanthrene
Phenol
Pyrene
Inorganic Compounds, Total (mg/kg)
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Potassium
Selenium
Silver
Sodium
Thallium
Vanadium
Zinc
TCLP/SPLP Inorganics (mg/L)
Antimony
Barium
Beryllium
Boron
Cadmium
Chromium
Cobalt
Iron
Lead
Manganese
Mercury
Nickel
Selenium
Silver
Thallium
Zinc

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ISGS Site 2687-10

Lake Julian Trout/Lake Julian Storage/Lake Julian Contracting/Rons Tidy Tank

Sample ID	2687-10-B01-1	2687-10-B01-2	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)	0-5	5-10						
Sample Date	7/2/2013	7/2/2013						
% Solids	77.4	96.1						
Sample pH	7.89	8.29						
Matrix	Soil	Soil						

No Contaminants of Concern Noted.

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July 15, 2013

Colleen Grey
Andrews Engineering, Inc.
3300 Ginger Creek Drive
Springfield, IL 62711-7233
TEL: (217) 787-2334
FAX: (217) 787-9495



RE: IDOT2013-019

WorkOrder: 13070245

Dear Colleen Grey:

TEKLAB, INC received 2 samples on 7/3/2013 12:25:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Shelly A. Hennessy
Project Manager
(618)344-1004 ex 36
SHennessy@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070245

Client Project: IDOT2013-019

Report Date: 15-Jul-13

This reporting package includes the following:

Cover Letter	1
Report Contents	2
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Laboratory Results	5
Quality Control Results	13
Receiving Check List	41
Chain of Custody	Appended



Definitions

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070245

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Abbr Definition

- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.
- DNI Did not ignite
- DUP Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
- ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
- IDPH IL Dept. of Public Health
- LCS Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. The acceptable recovery range is in the QC Package (provided upon request).
- LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MB Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
- MDL Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.
- MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
- MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MW Molecular weight
- ND Not Detected at the Reporting Limit
- NELAP NELAP Accredited
- PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The acceptable recovery range is listed in the QC Package (provided upon request).
- RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
- RPD Relative percent difference is a calculated difference between two recoveries (i.e. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
- SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
- Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
- TNTC Too numerous to count (> 200 CFU)

Qualifiers

- | | |
|--|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| E - Value above quantitation range | H - Holding times exceeded |
| J - Analyte detected below quantitation limits | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | X - Value exceeds Maximum Contaminant Level |



Case Narrative

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070245

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Cooler Receipt Temp: 2.4 °C

Locations and Accreditations

	Collinsville	Springfield	Kansas City	Collinsville Air
Address	5445 Horseshoe Lake Road Collinsville, IL 62234-7425	3920 Pintail Dr Springfield, IL 62711-9415	8421 Nieman Road Lenexa, KS 66214	5445 Horseshoe Lake Road Collinsville, IL 62234-7425
Phone	(618) 344-1004	(217) 698-1004	(913) 541-1998	(618) 344-1004
Fax	(618) 344-1005	(217) 698-1005	(913) 541-1998	(618) 344-1005
Email	jhriley@teklabinc.com	KKlostermann@teklabinc.com	dthompson@teklabinc.com	EHurley@teklabinc.com

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2014	Collinsville
Kansas	KDHE	E-10374	NELAP	1/31/2014	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2014	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2014	Springfield
Texas	TCEQ	T104704515-12-1	NELAP	7/31/2014	Collinsville
Arkansas	ADEQ	88-0966		3/14/2014	Collinsville
Illinois	IDPH	17584		4/30/2013	Collinsville
Kentucky	UST	0073		4/5/2014	Collinsville
Missouri	MDNR	00930		4/13/2013	Collinsville
Oklahoma	ODEQ	9978		8/31/2013	Collinsville

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.
 Client Project: IDOT2013-019
 Lab ID: 13070245-001
 Matrix: SOLID

Work Order: 13070245
 Report Date: 15-Jul-13

Client Sample ID: 2687-10-B01-1

Collection Date: 07/02/2013 11:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		22.6	%	1	07/05/2013 13:21	R179199
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		77.4	%	1	07/05/2013 13:21	R179199
SW-846 9045C									
pH (1:1)	NELAP	0	1		7.89		1	07/05/2013 20:01	R179171
SW-846 1311, 3010A, 6010B, METALS IN TCLP EXTRACT BY ICP									
Iron	NELAP	0.007	0.02		0.103	mg/L	1	07/12/2013 13:58	89985
Manganese	NELAP	0.0016	0.005		0.0334	mg/L	1	07/12/2013 13:58	89985
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005		0.179	mg/L	1	07/09/2013 14:46	89860
Beryllium	NELAP	0.0003	0.001	J	0.0008	mg/L	1	07/09/2013 14:46	89860
Boron	NELAP	1	2		< 2	mg/L	1	07/09/2013 14:46	89860
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/09/2013 14:46	89860
Chromium	NELAP	0.004	0.01		0.0282	mg/L	1	07/09/2013 14:46	89860
Cobalt	NELAP	0.0022	0.01	J	0.0056	mg/L	1	07/09/2013 14:46	89860
Iron	NELAP	0.007	0.02	X	28.9	mg/L	1	07/09/2013 14:46	89860
Lead	NELAP	0.006	0.007	J	0.0063	mg/L	1	07/09/2013 14:46	89860
Manganese	NELAP	0.0016	0.005	X	0.27	mg/L	1	07/09/2013 14:46	89860
Nickel	NELAP	0.0033	0.01		0.0255	mg/L	1	07/09/2013 14:46	89860
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/09/2013 14:46	89860
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/09/2013 14:46	89860
Zinc	NELAP	0.0021	0.01		0.078	mg/L	1	07/09/2013 14:46	89860
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/09/2013 14:29	89864
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/10/2013 10:11	89864
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/09/2013 14:21	89869
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.45	4.72		< 4.72	mg/Kg-dry	1	07/08/2013 17:51	89808
Arsenic	NELAP	1.23	2.45		11.1	mg/Kg-dry	1	07/08/2013 18:23	89809
Barium	NELAP	0.25	0.49		229	mg/Kg-dry	1	07/08/2013 18:23	89809
Beryllium	NELAP	0.05	0.1		0.85	mg/Kg-dry	1	07/08/2013 18:23	89809
Boron	NELAP	0.98	1.96	S	9.94	mg/Kg-dry	1	07/09/2013 13:53	89809
Cadmium	NELAP	0.1	0.2		0.27	mg/Kg-dry	1	07/08/2013 18:23	89809
Calcium	NELAP	2.45	4.9	S	3340	mg/Kg-dry	1	07/08/2013 18:23	89809
Chromium	NELAP	0.49	0.98	X	25.5	mg/Kg-dry	1	07/08/2013 18:23	89809
Cobalt	NELAP	0.49	0.98		11.5	mg/Kg-dry	1	07/08/2013 18:23	89809
Copper	NELAP	0.49	0.98		20.3	mg/Kg-dry	1	07/08/2013 18:23	89809
Iron	NELAP	0.98	1.96	SX	26700	mg/Kg-dry	1	07/08/2013 18:23	89809
Lead	NELAP	1.96	3.92		17.5	mg/Kg-dry	1	07/08/2013 18:23	89809
Magnesium	NELAP	0.49	0.98	BS	5010	mg/Kg-dry	1	07/08/2013 18:23	89809
Manganese	NELAP	0.25	0.49	SX	828	mg/Kg-dry	1	07/08/2013 18:23	89809
Nickel	NELAP	0.49	0.98		28.2	mg/Kg-dry	1	07/08/2013 18:23	89809
Potassium	NELAP	4.9	9.8	S	1870	mg/Kg-dry	1	07/09/2013 13:53	89809
Silver	NELAP	0.49	0.54		< 0.54	mg/Kg-dry	1	07/08/2013 18:23	89809
Sodium	NELAP	2.45	4.9	S	1190	mg/Kg-dry	1	07/08/2013 18:23	89809



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.
 Client Project: IDOT2013-019
 Lab ID: 13070245-001
 Matrix: SOLID

Work Order: 13070245
 Report Date: 15-Jul-13
 Client Sample ID: 2687-10-B01-1
 Collection Date: 07/02/2013 11:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 6010B, METALS BY ICP									
Thallium	NELAP	2.45	2.55		< 2.55	mg/Kg-dry	1	07/08/2013 18:23	89809
Vanadium	NELAP	0.49	0.98		47.9	mg/Kg-dry	1	07/08/2013 18:23	89809
Zinc	NELAP	0.49	0.98		65.2	mg/Kg-dry	1	07/08/2013 18:23	89809
<i>MS QC limits for K are not applicable due to high sample/spike ratio.</i>									
<i>MS and MSD did not recover for B within control limits due to matrix interference. Verified by Bench Spike.</i>									
<i>Sample results for Mg exceed 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.1).</i>									
<i>MS QC limits for Ca, Fe, Mg, Mn, and Na are not applicable due to high sample/spike ratio.</i>									

SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.318	0.545	S	< 0.545	mg/Kg-dry	1	07/08/2013 15:21	89807
<i>Se - Matrix interference present in sample. Confirmed by bench spike.</i>									

SW-846 7471B									
Mercury	NELAP	0.003	0.013		0.047	mg/Kg-dry	1	07/08/2013 13:13	89831

SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.172	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
1,2-Dichlorobenzene	NELAP	0.205	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
1,3-Dichlorobenzene	NELAP	0.217	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
1,4-Dichlorobenzene	NELAP	0.205	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
2,4,5-Trichlorophenol	NELAP	0.123	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
2,4,6-Trichlorophenol	NELAP	0.163	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
2,4-Dichlorophenol	NELAP	0.156	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
2,4-Dimethylphenol	NELAP	0.164	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
2,4-Dinitrophenol	NELAP	0.138	1.29		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
2,4-Dinitrotoluene	NELAP	0.134	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
2,6-Dinitrotoluene	NELAP	0.139	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
2-Chloronaphthalene	NELAP	0.155	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
2-Chlorophenol	NELAP	0.164	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
2-Methylnaphthalene	NELAP	0.154	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
2-Nitroaniline	NELAP	0.117	1.29		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
2-Nitrophenol	NELAP	0.145	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
3,3'-Dichlorobenzidine	NELAP	0.258	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
3-Nitroaniline	NELAP	0.106	1.29		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
4,6-Dinitro-2-methylphenol	NELAP	0.139	1.29		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
4-Bromophenyl phenyl ether	NELAP	0.119	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
4-Chloro-3-methylphenol	NELAP	0.142	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
4-Chloroaniline	NELAP	0.156	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
4-Chlorophenyl phenyl ether	NELAP	0.128	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
4-Nitroaniline	NELAP	0.117	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
4-Nitrophenol	NELAP	0.126	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Acenaphthene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Acenaphthylene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Anthracene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Benzo(a)anthracene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Benzo(a)pyrene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Benzo(b)fluoranthene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Benzo(g,h,i)perylene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Benzo(k)fluoranthene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Bis(2-chloroethoxy)methane	NELAP	0.151	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.
 Client Project: IDOT2013-019
 Lab ID: 13070245-001
 Matrix: SOLID

Work Order: 13070245
 Report Date: 15-Jul-13

Client Sample ID: 2687-10-B01-1

Collection Date: 07/02/2013 11:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Bis(2-chloroethyl)ether	NELAP	0.183	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Bis(2-chloroisopropyl)ether	NELAP	0.147	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Bis(2-ethylhexyl)phthalate	NELAP	0.151	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Butyl benzyl phthalate	NELAP	0.13	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Carbazole		0.157	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Chrysene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Dibenzo(a,h)anthracene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Dibenzofuran	NELAP	0.163	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Diethyl phthalate	NELAP	0.124	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Dimethyl phthalate	NELAP	0.117	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Di-n-butyl phthalate	NELAP	0.133	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Di-n-octyl phthalate	NELAP	0.134	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Fluoranthene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Fluorene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Hexachlorobenzene	NELAP	0.126	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Hexachlorobutadiene	NELAP	0.2	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Hexachlorocyclopentadiene	NELAP	0.132	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Hexachloroethane	NELAP	0.216	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Indeno(1,2,3-cd)pyrene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Isophorone	NELAP	0.152	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
m,p-Cresol	NELAP	0.163	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Naphthalene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Nitrobenzene	NELAP	0.161	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
N-Nitroso-di-n-propylamine	NELAP	0.142	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
N-Nitrosodiphenylamine	NELAP	0.119	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
o-Cresol	NELAP	0.152	0.645		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Pentachlorophenol	NELAP	0.852	2.58		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Phenanthrene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Phenol	NELAP	0.15	0.452		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Pyrene	NELAP	0.022	0.044		ND	mg/Kg-dry	1	07/09/2013 3:56	89823
Surr: 2,4,6-Tribromophenol		0	32.7-130		62	%REC	1	07/09/2013 3:56	89823
Surr: 2-Fluorobiphenyl		0	34.1-116	S	30.1	%REC	1	07/09/2013 3:56	89823
Surr: 2-Fluorophenol		0	30.5-99		61.5	%REC	1	07/09/2013 3:56	89823
Surr: Nitrobenzene-d5		0	34.1-101		62	%REC	1	07/09/2013 3:56	89823
Surr: Phenol-d5		0	34.9-110		60.4	%REC	1	07/09/2013 3:56	89823
Surr: p-Terphenyl-d14		0	41.7-124		61.3	%REC	1	07/09/2013 3:56	89823

Surrogate recovery is outside QC limits due to matrix interference.

Allowable Marginal Exceedance of 2,4,5-Trichlorophenol in the LCS verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).

SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,1,1-Trichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
1,1,1,2,2-Tetrachloroethane		0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
1,1,2-Trichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
1,1-Dichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
1,1-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
1,2-Dichloroethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
1,2-Dichloropropane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
1,3-Dichloropropene, Total		0.001	0.004		ND	mg/Kg-dry	1	07/10/2013 13:08	89975

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.
 Client Project: IDOT2013-019
 Lab ID: 13070245-001
 Matrix: SOLID

Work Order: 13070245
 Report Date: 15-Jul-13
 Client Sample ID: 2687-10-B01-1
 Collection Date: 07/02/2013 11:00

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
2-Butanone	NELAP	0.01	0.05		0.077	mg/Kg-dry	1	07/10/2013 13:08	89975
2-Hexanone	NELAP	0.01	0.05		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
4-Methyl-2-pentanone	NELAP	0.01	0.05		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Acetone	NELAP	0.01	0.05		0.322	mg/Kg-dry	1	07/10/2013 13:08	89975
Benzene	NELAP	0.0005	0.001		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Bromodichloromethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Bromoform	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Bromomethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Carbon disulfide	NELAP	0.003	0.005	J	0.003	mg/Kg-dry	1	07/10/2013 13:08	89975
Carbon tetrachloride	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Chlorobenzene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Chloroethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Chloroform	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Chloromethane	NELAP	0.002	0.01		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
cis-1,2-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
cis-1,3-Dichloropropene	NELAP	0.001	0.004		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Dibromochloromethane	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Ethylbenzene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
m,p-Xylenes	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Methyl tert-butyl ether	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Methylene chloride	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
o-Xylene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Styrene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Tetrachloroethene	NELAP	0.001	0.005	J	0.001	mg/Kg-dry	1	07/10/2013 13:08	89975
Toluene	NELAP	0.001	0.005	J	0.003	mg/Kg-dry	1	07/10/2013 13:08	89975
trans-1,2-Dichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
trans-1,3-Dichloropropene	NELAP	0.001	0.004		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Trichloroethene	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Vinyl acetate	NELAP	0.02	0.05		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Vinyl chloride	NELAP	0.0005	0.002		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Xylenes, Total	NELAP	0.001	0.005		ND	mg/Kg-dry	1	07/10/2013 13:08	89975
Surr: 1,2-Dichloroethane-d4		0	72.2-131		105.1	%REC	1	07/10/2013 13:08	89975
Surr: 4-Bromofluorobenzene		0	82.1-116		100.3	%REC	1	07/10/2013 13:08	89975
Surr: Dibromofluoromethane		0	77.7-120		99.4	%REC	1	07/10/2013 13:08	89975
Surr: Toluene-d8		0	86-116		105	%REC	1	07/10/2013 13:08	89975

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.
 Client Project: IDOT2013-019
 Lab ID: 13070245-002
 Matrix: SOLID

Work Order: 13070245
 Report Date: 15-Jul-13
 Client Sample ID: 2687-10-B01-2
 Collection Date: 07/02/2013 11:05

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA SW846 3550C, 5035A, ASTM D2974									
Percent Moisture		0.1	0.1		3.9	%	1	07/05/2013 13:21	R179199
STANDARD METHODS 2540 G									
Total Solids		0.1	0.1		96.1	%	1	07/05/2013 13:21	R179199
SW-846 9045C									
pH (1:1)	NELAP	0	1		8.29		1	07/05/2013 20:04	R179171
SW-846 1312, 3005A, 6010B, METALS IN SPLP EXTRACT BY ICP									
Barium	NELAP	0.0024	0.005	J	0.0037	mg/L	1	07/09/2013 14:49	89860
Beryllium	NELAP	0.0003	0.001		< 0.001	mg/L	1	07/09/2013 14:49	89860
Boron	NELAP	1	2		< 2	mg/L	1	07/09/2013 14:49	89860
Cadmium	NELAP	0.0003	0.002		< 0.002	mg/L	1	07/09/2013 14:49	89860
Chromium	NELAP	0.004	0.01		< 0.01	mg/L	1	07/09/2013 14:49	89860
Cobalt	NELAP	0.0022	0.01		< 0.01	mg/L	1	07/09/2013 14:49	89860
Iron	NELAP	0.007	0.02		0.0332	mg/L	1	07/09/2013 14:49	89860
Lead	NELAP	0.006	0.007		< 0.007	mg/L	1	07/09/2013 14:49	89860
Manganese	NELAP	0.0016	0.005		< 0.005	mg/L	1	07/09/2013 14:49	89860
Nickel	NELAP	0.0033	0.01		< 0.01	mg/L	1	07/09/2013 14:49	89860
Selenium	NELAP	0.022	0.05		< 0.05	mg/L	1	07/09/2013 14:49	89860
Silver	NELAP	0.003	0.01		< 0.01	mg/L	1	07/09/2013 14:49	89860
Zinc	NELAP	0.0021	0.01	J	0.0076	mg/L	1	07/09/2013 14:49	89860
SW-846 1312, 3020A, 7010 METALS IN SPLP EXTRACT BY GFAA									
Antimony, SPLP by GFAA	NELAP	0.0017	0.005		< 0.005	mg/L	1	07/09/2013 15:25	89864
Thallium, SPLP by GFAA	NELAP	0.0005	0.002		< 0.002	mg/L	1	07/10/2013 10:21	89864
SW-846 1312, 7470A IN SPLP EXTRACT									
Mercury	NELAP	0.00005	0.0002		< 0.0002	mg/L	1	07/09/2013 14:24	89869
SW-846 3050B, 6010B, METALS BY ICP									
Antimony	NELAP	2.55	4.9		< 4.9	mg/Kg-dry	1	07/08/2013 18:09	89808
Arsenic	NELAP	1.18	2.36	J	2.29	mg/Kg-dry	1	07/08/2013 18:34	89809
Barium	NELAP	0.24	0.47		21.3	mg/Kg-dry	1	07/08/2013 18:34	89809
Beryllium	NELAP	0.05	0.09		0.12	mg/Kg-dry	1	07/08/2013 18:34	89809
Boron	NELAP	0.94	1.89		4.46	mg/Kg-dry	1	07/08/2013 18:34	89809
Cadmium	NELAP	0.09	0.19		< 0.19	mg/Kg-dry	1	07/08/2013 18:34	89809
Calcium	NELAP	2.36	4.72		106000	mg/Kg-dry	1	07/09/2013 14:11	89809
Chromium	NELAP	0.47	0.94		9.61	mg/Kg-dry	1	07/08/2013 18:34	89809
Cobalt	NELAP	0.47	0.94		3.21	mg/Kg-dry	1	07/08/2013 18:34	89809
Copper	NELAP	0.47	0.94		9.13	mg/Kg-dry	1	07/08/2013 18:34	89809
Iron	NELAP	0.94	1.89		8330	mg/Kg-dry	1	07/08/2013 18:34	89809
Lead	NELAP	1.89	3.77	J	3.71	mg/Kg-dry	1	07/08/2013 18:34	89809
Magnesium	NELAP	0.47	0.94	B	54400	mg/Kg-dry	1	07/08/2013 18:34	89809
Manganese	NELAP	0.24	0.47		327	mg/Kg-dry	1	07/08/2013 18:34	89809
Nickel	NELAP	0.47	0.94		9.28	mg/Kg-dry	1	07/08/2013 18:34	89809
Potassium	NELAP	4.72	9.43		661	mg/Kg-dry	1	07/08/2013 18:34	89809
Silver	NELAP	0.47	0.52		< 0.52	mg/Kg-dry	1	07/08/2013 18:34	89809
Sodium	NELAP	2.36	4.72		216	mg/Kg-dry	1	07/08/2013 18:34	89809
Thallium	NELAP	2.36	2.45		< 2.45	mg/Kg-dry	1	07/08/2013 18:34	89809
Vanadium	NELAP	0.47	0.94		10.7	mg/Kg-dry	1	07/08/2013 18:34	89809
Zinc	NELAP	0.47	0.94		19.7	mg/Kg-dry	1	07/08/2013 18:34	89809

Sample results for Mg exceed 10 times the MBLK contamination. Data is reportable per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.1).

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Laboratory Results

http://www.teklabinc.com/

Client: Andrews Engineering, Inc.

Work Order: 13070245

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070245-002

Client Sample ID: 2687-10-B01-2

Matrix: SOLID

Collection Date: 07/02/2013 11:05

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3050B, 7010 METALS BY GFAA									
Selenium	NELAP	0.343	0.588		< 0.588	mg/Kg-dry	1	07/08/2013 15:31	89807
SW-846 7471B									
Mercury	NELAP	0.003	0.01	J	0.007	mg/Kg-dry	1	07/08/2013 13:19	89831
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
1,2,4-Trichlorobenzene	NELAP	0.136	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
1,2-Dichlorobenzene	NELAP	0.163	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
1,3-Dichlorobenzene	NELAP	0.172	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
1,4-Dichlorobenzene	NELAP	0.163	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
2,4,5-Trichlorophenol	NELAP	0.097	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
2,4,6-Trichlorophenol	NELAP	0.129	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
2,4-Dichlorophenol	NELAP	0.124	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
2,4-Dimethylphenol	NELAP	0.13	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
2,4-Dinitrophenol	NELAP	0.11	1.03		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
2,4-Dinitrotoluene	NELAP	0.107	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
2,6-Dinitrotoluene	NELAP	0.111	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
2-Chloronaphthalene	NELAP	0.123	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
2-Chlorophenol	NELAP	0.13	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
2-Methylnaphthalene	NELAP	0.122	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
2-Nitroaniline	NELAP	0.093	1.03		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
2-Nitrophenol	NELAP	0.115	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
3,3'-Dichlorobenzidine	NELAP	0.205	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
3-Nitroaniline	NELAP	0.084	1.03		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
4,6-Dinitro-2-methylphenol	NELAP	0.111	1.03		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
4-Bromophenyl phenyl ether	NELAP	0.094	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
4-Chloro-3-methylphenol	NELAP	0.113	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
4-Chloroaniline	NELAP	0.124	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
4-Chlorophenyl phenyl ether	NELAP	0.101	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
4-Nitroaniline	NELAP	0.093	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
4-Nitrophenol	NELAP	0.1	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Acenaphthene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Acenaphthylene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Anthracene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Benzo(a)anthracene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Benzo(a)pyrene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Benzo(b)fluoranthene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Benzo(g,h,i)perylene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Benzo(k)fluoranthene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Bis(2-chloroethoxy)methane	NELAP	0.12	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Bis(2-chloroethyl)ether	NELAP	0.146	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Bis(2-chloroisopropyl)ether	NELAP	0.117	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Bis(2-ethylhexyl)phthalate	NELAP	0.12	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Butyl benzyl phthalate	NELAP	0.104	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Carbazole		0.125	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Chrysene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Dibenzo(a,h)anthracene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Dibenzofuran	NELAP	0.129	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Diethyl phthalate	NELAP	0.098	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823

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Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070245

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070245-002

Client Sample ID: 2687-10-B01-2

Matrix: SOLID

Collection Date: 07/02/2013 11:05

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3550B, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Dimethyl phthalate	NELAP	0.093	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Di-n-butyl phthalate	NELAP	0.106	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Di-n-octyl phthalate	NELAP	0.107	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Fluoranthene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Fluorene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Hexachlorobenzene	NELAP	0.1	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Hexachlorobutadiene	NELAP	0.159	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Hexachlorocyclopentadiene	NELAP	0.105	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Hexachloroethane	NELAP	0.171	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Indeno(1,2,3-cd)pyrene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Isophorone	NELAP	0.121	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
m,p-Cresol	NELAP	0.129	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Naphthalene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Nitrobenzene	NELAP	0.128	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
N-Nitroso-di-n-propylamine	NELAP	0.113	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
N-Nitrosodiphenylamine	NELAP	0.094	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
o-Cresol	NELAP	0.121	0.513		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Pentachlorophenol	NELAP	0.677	2.05		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Phenanthrene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Phenol	NELAP	0.119	0.359		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Pyrene	NELAP	0.017	0.035		ND	mg/Kg-dry	1	07/09/2013 4:20	89823
Surr: 2,4,6-Tribromophenol		0	32.7-130		70.3	%REC	1	07/09/2013 4:20	89823
Surr: 2-Fluorobiphenyl		0	34.1-116		55.5	%REC	1	07/09/2013 4:20	89823
Surr: 2-Fluorophenol		0	30.5-99		67.4	%REC	1	07/09/2013 4:20	89823
Surr: Nitrobenzene-d5		0	34.1-101		68.1	%REC	1	07/09/2013 4:20	89823
Surr: Phenol-d5		0	34.9-110		65.5	%REC	1	07/09/2013 4:20	89823
Surr: p-Terphenyl-d14		0	41.7-124		69.2	%REC	1	07/09/2013 4:20	89823

Allowable Marginal Exceedance of 2,4,5-Trichlorophenol in the LCS verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).

SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

1,1,1-Trichloroethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
1,1,2,2-Tetrachloroethane		0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
1,1,2-Trichloroethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
1,1-Dichloroethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
1,1-Dichloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
1,2-Dichloroethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
1,2-Dichloropropane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
1,3-Dichloropropene, Total		0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
2-Butanone	NELAP	0.0089	0.045		0.097	mg/Kg-dry	1	07/10/2013 13:35	89975
2-Hexanone	NELAP	0.0089	0.045	J	0.015	mg/Kg-dry	1	07/10/2013 13:35	89975
4-Methyl-2-pentanone	NELAP	0.0089	0.045		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Acetone	NELAP	0.0089	0.045		0.194	mg/Kg-dry	1	07/10/2013 13:35	89975
Benzene	NELAP	0.0004	0.001		0.003	mg/Kg-dry	1	07/10/2013 13:35	89975
Bromodichloromethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Bromoform	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Bromomethane	NELAP	0.0018	0.009		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Carbon disulfide	NELAP	0.0027	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Carbon tetrachloride	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975



Laboratory Results

<http://www.teklabinc.com/>

Client: Andrews Engineering, Inc.

Work Order: 13070245

Client Project: IDOT2013-019

Report Date: 15-Jul-13

Lab ID: 13070245-002

Client Sample ID: 2687-10-B01-2

Matrix: SOLID

Collection Date: 07/02/2013 11:05

Analyses	Certification	MDL	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5035, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS									
Chlorobenzene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Chloroethane	NELAP	0.0018	0.009		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Chloroform	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Chloromethane	NELAP	0.0018	0.009		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
cis-1,2-Dichloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
cis-1,3-Dichloropropene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Dibromochloromethane	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Ethylbenzene	NELAP	0.0009	0.004	J	0.002	mg/Kg-dry	1	07/10/2013 13:35	89975
m,p-Xylenes	NELAP	0.0009	0.004	J	0.003	mg/Kg-dry	1	07/10/2013 13:35	89975
Methyl tert-butyl ether	NELAP	0.0004	0.002		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Methylene chloride	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
o-Xylene	NELAP	0.0009	0.004	J	0.001	mg/Kg-dry	1	07/10/2013 13:35	89975
Styrene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Tetrachloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Toluene	NELAP	0.0009	0.004		0.007	mg/Kg-dry	1	07/10/2013 13:35	89975
trans-1,2-Dichloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
trans-1,3-Dichloropropene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Trichloroethene	NELAP	0.0009	0.004		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Vinyl acetate	NELAP	0.0178	0.045		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Vinyl chloride	NELAP	0.0004	0.002		ND	mg/Kg-dry	1	07/10/2013 13:35	89975
Xylenes, Total	NELAP	0.0009	0.004	J	0.004	mg/Kg-dry	1	07/10/2013 13:35	89975
Surr: 1,2-Dichloroethane-d4		0	72.2-131		107.3	%REC	1	07/10/2013 13:35	89975
Surr: 4-Bromofluorobenzene		0	82.1-116		92.5	%REC	1	07/10/2013 13:35	89975
Surr: Dibromofluoromethane		0	77.7-120		100.8	%REC	1	07/10/2013 13:35	89975
Surr: Toluene-d8		0	86-116		101.1	%REC	1	07/10/2013 13:35	89975



CHAIN OF CUSTODY RECORD

Client Contact Andrews Engineering, Inc. 3300 Ginger Creek Drive Springfield, IL 62711 217-787-2334 Contact: Colleen Grey email: cgrey@andrews-eng.com		Laboratory Lab: TekLab, Inc. Address: 5445 Horseshoe Lake Road Collinsville, IL 62234 Phone: 877-344-1003 Contact: Shelly Hennessy email: shennessy@teklabinc.com		Project Name: <u>CARY, McHENRY CO</u> Project No.: <u>IDOT 2013-019</u> TAT: <input checked="" type="checkbox"/> 15 BD <input type="checkbox"/> 10 BD <input type="checkbox"/> 5 BD <input type="checkbox"/> 2 BD <input type="checkbox"/> Other		COC No.: <u>1</u> of <u>1</u> Lab Job No.: <u>13070245</u> Sample Temp: <u>24°C</u> Matrix Key: <u>Soil</u>										
Special Instructions: See Table 2 for complete parameter lists and minimum reporting limits. * If Total RCRA metal (mg/kg) result exceeds the Soil Toxicity Characteristics Limit (Table 3), run TCLP for that specific RCRA metal. ** If SPLP result exceeds Class I Standard, run TCLP for that specific parameter.				ANALYSES												
Lab ID	Sample ID	Sample Date	Sample Time	Matrix	VOCs	SVOCs	BTEX & MTBE	PNAs	Pesticides	PCBs	* Total Metals	SPLP/** TCLP Metals	pH	% Solids	Waste Characterization	Comments
	2687-10-B01-1	7/2	11:00	S	X	X					X	X	X	X		13070245-001
	2687-10-B01-2	7/2	11:05	S	X	X					X	X	X	X		612
<i>Teklab, Inc. Courier Pick Up</i>																
Relinquished by: <u>[Signature]</u> Date/Time: <u>7/2/13 3:15pm</u> Received by: <u>[Signature]</u> Date/Time: <u>7-2-13 1515</u>																
Relinquished by: <u>[Signature]</u> Date/Time: <u>7-2-13 1050</u> Received by: <u>[Signature]</u> Date/Time: <u>07/03/13 1050</u>																
Relinquished by: <u>[Signature]</u> Date/Time: <u>07/03/13 1225</u> Received by: <u>[Signature]</u> Date/Time: <u>7/3/13 1225</u>																

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TESTING SERVICE CORPORATION

Corporate Office:

360 S. Main Place, Carol Stream, IL 60188-2404
630.462.2600 • Fax 630.653.2988

Local Office:

457 E. Gundersen Drive, Carol Stream, IL 60188-2492
630.653.3920 • Fax 630.653.2726

Local Office
July 19, 2013

Mr. Jack Melhuish
HR Green, Inc.
420 North Front Street, Suite 100
McHenry, Illinois 60050

Re: L-79,849
Jandus Cutoff Road Realignment
Sta. 10+00 to 19+50
Cary, Illinois

Dear Mr. Melhuish:

This report presents results of the soils investigation performed for Jandus Cutoff Road Improvements in Cary, Illinois. These geotechnical services have been provided in accordance with TSC Proposal No. 49,338 revised May 14, 2013 and the attached General Conditions, incorporated herein by reference.

Current plans call for the realignment of Jandus Cutoff Road west of U.S. Route 14 (Northwest Highway). The realignment will extend from Janus Road to U.S. Route 14 for a total distance of about 950 lf, approximate Sta. 10+00 to 19+50. Jandus Cutoff Road currently consist of two-lanes of asphalt roadway with gravel shoulders and open ditch drainage.

It is understood that Jandus Cutoff Road intersection with U.S. Route 14 is to be shifted approximately 50 feet south and widened to incorporate turn lanes. The remaining portion of the road will follow the majority of the existing roadway, with a slight shift west at the bend in the road alignment. The new roadway will consist of 2 to 3 traffic lanes, with gravel shoulders and open ditch drainage.

It is understood that stormwater infiltration is also being studied as part of the Jandus Cutoff Roadway improvements. This will likely consist of a dry well to be installed near the bend in the road alignment (i.e. Sta. 15+75). Plans also call for the installation of a sanitary sewer by horizontal directional drilling (HDD) methods under U.S. Route 14. The receiving pit for the HDD will be located on the northeast side of U.S. Route 14 just north of where Jandus Cutoff Road tees into it.

Field Investigation and Laboratory Testing

A total of five (5) soil borings were performed as part of this exploration. Borings 1-3 were extended to 10 feet below existing grade for the realignment of Jandus Cutoff Road. Boring 4 was made 16 feet deep for a jacking pit and Boring 5 made 35 feet deep in the area for stormwater infiltration. The boring locations were selected by the Client and staked by TSC. Reference is made to the Boring Location Plan included with this report.



Borings 2 and 4 were performed using an ATV GeoProbe rig which employs continuous Macro-core (1.5 inch diam.) sampling methods. The GeoProbe rig was chosen because it is best able to negotiate the uneven terrain and/or overhead power lines. Soil sampling was performed continuously to boring completion depths.

Borings 1, 3 and 5 were performed using conventional drilling equipment. The samples were tested in accordance with currently recommended American Society for Testing and Materials specifications. Soil sampling at Borings 1 and 3 were performed continuously to a depth of 5 feet and at no greater than 2½-foot intervals thereafter, with Boring 5 taken at 2½-foot intervals to completion depth. The samples were taken in conjunction with the Standard Penetration Test, for which driving resistance to a 2" split-spoon sampler (N-value in blows per foot) provides an indication of the relative density of granular materials and consistency of cohesive soils. Water level readings were taken during and following completion of drilling operations, with the boreholes then immediately backfilled and those in pavement areas patch at the surface.

Soil samples were examined in the laboratory to verify field descriptions and to classify them in accordance with Unified and AASHTO Soil Classification System. Laboratory testing included moisture content determinations for all cohesive and intermediate (silt or loamy) soil types. An estimate of unconfined compressive strength was obtained for all cohesive samples using a calibrated pocket penetrometer. For classification purposes and to verify field identifications, two (2) Atterberg limit determinations and five (5) grain-size analyses were performed on representative samples of cohesive and granular soil types. Results of these tests are summarized on the Soil Test Data Sheet which is included with this report.

Reference is made to the attached boring logs indicating subsurface stratigraphy and soil descriptions, results of field and laboratory tests, as well as water level observations. Definitions of descriptive terminology are also included. While strata changes are shown as a definite line on the boring logs, the actual transition between soil layers will probably be more gradual.

Discussion of Test Data

Boring 2 was drilled on Jandus Cutoff Road, revealing on the order of 7 inches bituminous concrete, overlying approximately 17 inches granular base materials. The pavement thickness was estimated from the disturbed side of the augered borehole and should be considered approximate; pavement cores may be taken if individual bituminous layers are required. Boring 1 was drilled on the roadway shoulder revealing 6 inches crushed stone.

Surficial topsoil Fill was about 2 to 3 inches thick at Borings 4 and 5, apparently being absent at B-3. Fill materials consisting of Clay Loam, Sandy Loam and/or Sandy Clay Loam were found underlying the topsoil layer at Borings 4 and 5, extending 8 and 2 feet below existing grade, respectively. The cohesive sample in B-4 exhibited a dry unit weight of 135 pounds per cubic foot (pcf) at a water content of 9 percent.



Stiff to very stiff Clay soils were found between 4 and 6 feet deep in Boring 2 and at the surface in Boring 3, extending 2 feet in depth. They had pocket penetrometer readings (estimates of unconfined compressive strength) ranging from 1.5 to 3.5 tons per square foot (tsf) at water contents varying from 17 to 21 percent.

Medium dense to dense granular and/or intermediate materials otherwise predominated in the borings, extending to completion depths. They consisted of Sand, Sandy Loam, Sandy Clay Loam, Silt and/or Silty Loam, having SPT N-values ranging from 11 to 44 blows per foot (bpf). The borings were all "dry" both during and upon completion of drilling operations.

Additional Laboratory Testing

Two (2) Atterberg limit determinations were performed on the Sandy Loam and Clay Loam materials encountered in the upper 4 feet at Borings 2 and 3. The soils revealed Liquid Limits of 22 to 30, Plastic Limits from 10 to 14 and Plasticity Indices from 20 to 22. These results can also be seen on the Soil Test Data sheets attached.

Conclusion and Recommendations

Borings 1-3 were drilled for the realignment of Jandus Cutoff Road. The realignment will extend from Janus Road to U.S. Route 14 for a total distance of about 950 lf, approximate Sta. 10+00 to 19+50. It is understood that Jandus Cutoff Road intersection with U.S. Route 14 is to be shifted approximately 50 feet south and widened to incorporate turn lanes. The remaining portion of the road will follow the majority of the existing roadway, with a slight shift west at the bend in the road alignment (Sta. 19+75). The new roadway will consist of two traffic lanes, with gravel shoulders and open ditch drainage. The proposed grade line (PGL) along the realignment of Jandus Cutoff Road will likely be at or near existing grade.

Included in the Appendix is a Subgrade Support Rating (SSR) chart where two (2) representative soil samples obtained from the upper 3 feet have been plotted. The samples consisted of cohesive and intermediate soils plotting within the "Poor" rating. Based on these results it is recommended that an SSR rating of "Poor" be used for this project.

Work performed for this study did not include performing any IBR tests on representative subgrade samples. However, the IBR value used for pavement design is typically based on the worst soil type (lowest IBR) within the limits of the project. Based on the data obtained from these soil borings, an IBR value no greater than 3.0 is recommended for pavement design. This represents a typical design IBR value for the clay soil types primarily encountered in the upper subgrade at the project site.

Normal topsoil stripping of all vegetation and root zone materials will be required in some areas along the realignment of Jandus Cutoff Road, prior to pavement construction and/or placement of any fill materials. The soil borings revealed 2 to 3 inches of topsoil materials. However, for preliminary



estimation of contract quantities, a nominal topsoil/root zone stripping depth on the order of 6 inches is recommended.

The following are general recommendations/guidelines in connection with roadway reconstruction. Once the existing pavement section and/or topsoil/root zone materials have been removed, the exposed subgrade materials should be tested with a Cone Penetrometer in accordance with the IDOT Subgrade Stability manual to determine if remedial treatment is required. Observations of heavy construction vehicles on subgrade areas or a proof rolling procedure will help to delineate areas which have deficient strength.

Sand and gravel materials were found in the upper 2 feet at Boring 1. These granular materials are considered to provide adequate stability for pavement support. Very stiff native Clay soils were found in the upper 2 feet at Boring 3. Based on the unconfined compressive strength, moisture content and Standard Penetration Test data, these subgrade soils are also considered to provide adequate stability for pavement support. However, they will likely need to be reduced in moisture and recompacted in order to create a stable base for pavement construction.

Sandy Clay Loam materials were found in the upper 2 feet at Boring 4, with Clay Loam found below the pavement section at Boring 2 (i.e. 2 feet deep). The traffic of heavy construction equipment frequently causes these material types to experience a short-term decrease in stability. The associated soft and spongy condition of exposed soils is commonly referred to as "pumping" in this area. This condition is likely to require undercuts and the use of geotextile stabilization fabric or geogrid products and coarse aggregate backfill for a portion of the new roadway alignment. Subgrade stability will also be affected by weather conditions at the time of paving.

If time and weather conditions allow for it, remedial work for unstable subgrade should consist of discing, aerating, and recompacting exposed subgrade soils, as provided for in Art. 301.04 of the IDOT Standard Specifications. Compaction for subgrade materials should be to at least 95 percent Standard Proctor density (AASHTO T-99). This compaction requirement should also be specified for any new fill placed within pavement subgrade. Solutions to a persistent pumping problem may include use of a geotextile fabric, removal of unsuitable soils and replacement with granular fill, or a combination thereof.

The subgrade stability will be influenced by such factors as surface drainage provided by the contractor as well as the prevailing temperature and precipitation experienced during construction. The amount of trafficking and subgrade disturbance created by heavy construction vehicles will also have an influence on subgrade stability. The Contractor should try to make full use of inlets or ditches in order to maintain positive drainage for subgrade areas. Temporary drainage ditches or pumping from depressional areas should be provided as needed during construction in order to prevent ponded water from affecting the stability of the roadway.



Aggregate Fill may be required for bridging over weak subgrade soils which demonstrate persistent stability problems. Aggregate materials needed beneath the Aggregate Subgrade layer may consist of the crushed stone or crushed gravel meeting IDOT gradation CA-2, CA-6, CA-10 or CS-01. Please note that the granular materials are to be placed beneath the aggregate base course and are to be used only as a bridging layer over soft, pumpy subgrade or for replacement of unsuitable soils. The use of geotextile fabric can help to reduce the depth of undercutting and aggregate Fill required.

A Shrinkage Factor on the order of 15 percent should be used to correlate the volume of earth borrow materials for use as new earth embankment or subgrade Fill. Unsuitable organic soils should not be included as suitable earth Fill.

New engineered fill should consist of inorganic silty clays of medium plasticity or approved granular materials. It is recommended that compaction for the roadway subgrade be to a minimum of 95 of maximum dry density as determined by the Standard Proctor test (AASHTO T-99), to create a stable subgrade for proof-rolling and paving. The fill should be placed in approximate 9 inch lifts loose measure for cohesive soils and up to 12 inches for granular materials, each lift to be compacted to the specified density prior to the placement of additional fill.

Moisture control is important in the compaction of most soil types, and it is recommended that the water content of new fill be within 1 percentage point on the low side and 3 percentage points on the high side of optimum moisture as established by its laboratory compaction curve. If the soil is too dry, it will have an apparent stability which may be lost if it later becomes saturated. If the soil is too wet, the Contractor will not be able to achieve proper compaction.

Consideration should be given to the installation of underdrains wherever cohesive subgrade soils underlie the aggregate subgrade layer for new roadways as well as in areas of widening. They should consist of longitudinal underdrains which are placed at the outside edges of the proposed roadway, extending 50 to 100-foot in both directions of outlets. Wherever possible, it is best to install transverse underdrains at the low points of undercut areas where an open-graded coarse aggregate backfill is placed, such as the Aggregate Subgrade Improvement materials or otherwise at the low points of the roadway profile. They should be installed in accordance with Check Sheet 19 of the IDOT Recurring Special Provisions. All underdrains should outlet into ditches or storm sewers in such manner as to allow positive drainage and should be installed to a depth of at least 30 inches below pavement grade.

Receiving Pit

Boring 4 was drilled in the area of the receiving pit to be used in connection with the horizontal directional drilling (HDD) for the new sanitary sewer under U.S. Route 14. It is understood that the receiving pit to be located on the northeast side of U.S. Route 14 will be approximately 16 feet below existing grade. The boring revealed Fill materials consisting of Clay/Sandy Loam and Sandy Clay Loam in the upper 8 feet, with Sand and Gravel materials found extending to completion depth (i.e. 16 feet). The boring was dry both during and upon completion of drilling operations.



The Sand and Gravel materials found below a depth of 8 feet in the boring may cause some instability problems during drilling/pipe installation due to its cohesionless nature. The contractor should also evaluate the capabilities of their equipment to drill through these materials. It should be noted that the granular and intermediate materials found in the boring will also likely slough in to the excavation during construction.

In connection with the access pits, the Contractor must either brace the sides of the excavations or slope them back in accordance with current OSHA requirements to prevent excavation instability. In this regard, all excavations should comply with the requirements of OSHA 29CFR, Part 1926, Subpart P, "Excavations" and its appendices as well as any other applicable codes. This document states that excavation safety is the responsibility of the Contractor. Reference to this OSHA requirement should be included in the job specifications. The Sand and Gravel as well as Sandy Loam materials found below a depth of 4 at Boring 4 are considered to be Type C Soil in accordance with the definitions set forth in OSHA 29CFR 1926 Subpart P Appendix A.

Lateral earth pressures for permanent underground structures will be dependent on the type of backfill used and the groundwater levels. Equivalent fluid pressures are given for cohesive and granular backfills, assuming at-rest (K_0) earth pressures. The values shown represent the increase in lateral pressure over a 1.0 foot distance measured in pounds per square foot (psf/ft).

<u>BACKFILL TYPE</u>	<u>EQUIVALENT FLUID PRESSURE (PSF/FT)</u>	
	<u>ABOVE WATER TABLE</u>	<u>BELOW WATER TABLE</u>
Granular	50	90
Cohesive	65	100

Groundwater Infiltration

Boring 5 was taken in the area of the proposed dry well for stormwater infiltration. Sand and Sandy Loam materials were found extending 18 feet below existing grade, with Silt and Sandy Silt materials otherwise predominating to completion depth (i.e. 35 feet). The Sand materials found in the upper 18 feet are considered to be pervious. They have coefficients of permeability estimated to be in range of 10^{-2} to 10^{-3} cm/sec, with associated water infiltration expected to be relatively high. Given that the granular deposit has a high permeability and was relatively thick as well as the borehole being dry both during and upon completion of drilling operations, this area should provide favorable conditions for a groundwater infiltration system. It should be noted that the underlying Silt and Sandy Silt materials are considered to be relatively impervious in comparison, estimated to have coefficients of permeability in range of 10^{-4} to 10^{-6} cm/sec.



Closure

It is recommended that full-time technician services be provided by Testing Service Corporation personnel during roadway construction, so that the soils at undercut and subgrade levels can be verified and tested. In addition pavement construction should be closely checked and monitored for compliance with the recommended procedures and specifications.

The analysis and recommendations submitted in this report are based upon the data obtained from the five (5) soil borings performed at the approximate locations indicated on the Boring Location Plan. This report does not reflect any variations which may occur, the nature and extent of which may not become evident until during the course of construction. If variations are then identified, recommendations contained in this report should be re-evaluated after performing on-site observations.

It has been a pleasure to assist you with this work. Please call if there are any questions or if we may be of further service.

Respectfully submitted,

TESTING SERVICE CORPORATION

Timothy R. Peceniak, P.E.
Project Engineer
Registered Professional Engineer
Illinois No. 062-061269

Charles R. DuBose, P.E.
Vice President



TESTING SERVICE CORPORATION

GENERAL CONDITIONS

Geotechnical and Construction Services

1. PARTIES AND SCOPE OF WORK: If Client is ordering the services on behalf of another, Client represents and warrants that Client is the duly authorized agent of said party for the purpose of ordering and directing said services, and in such case the term "Client" shall also include the principal for whom the services are being performed. Prices quoted and charged by TSC for its services are predicated on the conditions and the allocations of risks and obligations expressed in these General Conditions. Unless otherwise stated in writing, Client assumes sole responsibility for determining whether the quantity and the nature of the services ordered by Client are adequate and sufficient for Client's intended purpose. Client shall communicate these General Conditions to each and every third party to whom the Client transmits any report prepared by TSC. Unless otherwise expressly assumed in writing, TSC shall have no duty or obligation other than those duties and obligations expressly set forth in this Agreement. Ordering services from TSC shall constitute acceptance of these General Conditions.

2. SCHEDULING OF SERVICES: The services set forth in this Agreement will be accomplished in a timely and workmanlike manner. If TSC is required to delay any part of its services to accommodate the requests or requirements of Client, regulatory agencies, or third parties, or due to any cause beyond its reasonable control, Client agrees to pay such additional charges, if any, as may be applicable.

3. ACCESS TO SITE: TSC shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as a result of its services or the use of its equipment; however, TSC has not included in its fee the cost of restoration of damage which may occur. If Client desires or requires TSC to restore the site to its former condition, TSC will, upon written request, perform such additional work as is necessary to do so and Client agrees to pay to TSC the cost thereof plus TSC's normal markup for overhead and profit.

4. CLIENT'S DUTY TO NOTIFY ENGINEER: Client represents and warrants that Client has advised TSC of any known or suspected hazardous materials, utility lines and underground structures at any site at which TSC is to perform services under this agreement.

5. DISCOVERY OF POLLUTANTS: TSC's services shall not include investigation for hazardous materials as defined by the Resource Conservation Recovery Act, 42 U.S.C. § 6901, et. seq., as amended ("RCRA") or by any state or Federal statute or regulation. In the event that hazardous materials are discovered and identified by TSC, TSC's sole duty shall be to notify Client.

6. MONITORING: If this Agreement includes testing construction materials or observing any aspect of construction of improvements, Client's construction personnel will verify that the pad is properly located and sized to meet Client's projected building loads. Client shall cause all tests and inspections of the site, materials and work to be timely and properly performed in accordance with the plans, specifications, contract documents, and TSC's recommendations. No claims for loss, damage or injury shall be brought against TSC unless all tests and inspections have been so performed and unless TSC's recommendations have been followed.

TSC's services shall not include determining or implementing the means, methods, techniques or procedures of work done by the contractor(s) being monitored or whose work is being tested. TSC's services shall not include the authority to accept or reject work or to in any manner supervise the work of any contractor. TSC's services or failure to perform same shall

not in any way operate or excuse any contractor from the performance of its work in accordance with its contract. "Contractor" as used herein shall include subcontractors, suppliers, architects, engineers and construction managers.

Information obtained from borings, observations and analyses of sample materials shall be reported in formats considered appropriate by TSC unless directed otherwise by Client. Such information is considered evidence, but any inference or conclusion based thereon is, necessarily, an opinion also based on engineering judgment and shall not be construed as a representation of fact. Subsurface conditions may not be uniform throughout an entire site and ground water levels may fluctuate due to climatic and other variations. Construction materials may vary from the samples taken. Unless otherwise agreed in writing, the procedures employed by TSC are not designed to detect intentional concealment or misrepresentation of facts by others.

7. SAMPLE DISPOSAL: Unless otherwise agreed in writing, test specimens or samples will be disposed immediately upon completion of the test. All drilling samples or specimens will be disposed sixty (60) days after submission of TSC's report.

8. TERMINATION: This Agreement may be terminated by either party upon seven days prior written notice. In the event of termination, TSC shall be compensated by Client for all services performed up to and including the termination date, including reimbursable expenses.

9. PAYMENT: Client shall be invoiced periodically for services performed. Client agrees to pay each invoice within thirty (30) days of its receipt. Client further agrees to pay interest on all amounts invoiced and not paid or objected to in writing for valid cause within sixty (60) days at the rate of twelve (12%) per annum (or the maximum interest rate permitted by applicable law, whichever is the lesser) until paid and TSC's costs of collection of such accounts, including court costs and reasonable attorney's fees.

10. WARRANTY: TSC's professional services will be performed, its findings obtained and its reports prepared in accordance with these General Conditions and with generally accepted principles and practices. In performing its professional services, TSC will use that degree of care and skill ordinarily exercised under similar circumstances by members of its profession. In performing physical work in pursuit of its professional services, TSC will use that degree of care and skill ordinarily used under similar circumstances. This warranty is in lieu of all other warranties or representations, either express or implied. Statements made in TSC reports are opinions based upon engineering judgment and are not to be construed as representations of fact.

Should TSC or any of its employees be found to have been negligent in performing professional services or to have made and breached any express or implied warranty, representation or contract, Client, all parties claiming through Client and all parties claiming to have in any way relied upon TSC's services or work agree that the maximum aggregate amount of damages for which TSC, its officers, employees and agents shall be liable is limited to \$50,000 or the total amount of the fee paid to TSC for its services performed with respect to the project, whichever amount is greater.

In the event Client is unwilling or unable to limit the damages for which TSC may be liable in accordance with the provisions set forth in the preceding paragraph, upon written request of Client received within five days of Client's acceptance of TSC's proposal together with payment of an additional fee in the amount of 5% of TSC's estimated cost for its services (to be adjusted to 5% of the amount actually billed by TSC for its services on the project at time of completion), the limit on

damages shall be increased to \$500,000 or the amount of TSC's fee, whichever is the greater. This charge is not to be construed as being a charge for insurance of any type, but is increased consideration for the exposure to an award of greater damages.

11. INDEMNITY: Subject to the provisions set forth herein, TSC and Client hereby agree to indemnify and hold harmless each other and their respective shareholders, directors, officers, partners, employees, agents, subsidiaries and division (and each of their heirs, successors, and assigns) from any and all claims, demands, liabilities, suits, causes of action, judgments, costs and expenses, including reasonable attorneys' fees, arising, or allegedly arising, from personal injury, including death, property damage, including loss of use thereof, due in any manner to the negligence of either of them or their agents or employees or independent contractors. In the event both TSC and Client are found to be negligent or at fault, then any liability shall be apportioned between them pursuant to their pro rata share of negligence or fault. TSC and Client further agree that their liability to any third party shall, to the extent permitted by law, be several and not joint. The liability of TSC under this provision shall not exceed the policy limits of insurance carried by TSC. Neither TSC nor Client shall be bound under this indemnity agreement to liability determined in a proceeding in which it did not participate represented by its own independent counsel. The indemnities provided hereunder shall not terminate upon the termination or expiration of this Agreement, but may be modified to the extent of any waiver of subrogation agreed to by TSC and paid for by Client.

12. SUBPOENAS: TSC's employees shall not be retained as expert witnesses except by separate, written agreement. Client agrees to pay TSC pursuant to TSC's then current fee schedule for any TSC employee(s) subpoenaed by any party as an occurrence witness as a result of TSC's services.

13. OTHER AGREEMENTS: TSC shall not be bound by any provision or agreement (i) requiring or providing for arbitration of disputes or controversies arising out of this Agreement or its performance, (ii) wherein TSC waives any rights to a mechanics lien or surety bond claim, (iii) that conditions TSC's right to receive payment for its services upon payment to Client by any third party or (iv) that requires TSC to indemnify any party beyond its own negligence. These General Conditions are notice, where required, that TSC shall file a lien whenever necessary to collect past due amounts. This Agreement contains the entire understanding between the parties. Unless expressly accepted by TSC in writing prior to delivery of TSC's services, Client shall not add any conditions or impose conditions which are in conflict with those contained herein, and no such additional or conflicting terms shall be binding upon TSC. The unenforceability or invalidity of any provision or provisions shall not render any other provision or provisions unenforceable or invalid. This Agreement shall be construed and enforced in accordance with the laws of the State of Illinois. In the event of a dispute arising out of or relating to the performance of this Agreement, the breach thereof or TSC's services, the parties agree to try in good faith to settle the dispute by mediation under the Construction Industry Mediation Rules of the American Arbitration Association as a condition precedent to filing any demand for arbitration, or any petition or complaint with any court. Should litigation be necessary, the parties consent to jurisdiction and venue in an appropriate Illinois State Court in and for the County of DuPage, Wheaton, Illinois or the Federal District Court for the Northern District of Illinois. Paragraph headings are for convenience only and shall not be construed as limiting the meaning of the provisions contained in these General Conditions.

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APPENDIX

SOIL TEST DATA

SUBGRADE SUPPORT RATING (SSR)

SOIL TEST DATA SHEET (3)

IDH TEXTURAL CLASSIFICATION CHART

AASHTO CLASSIFICATION CHART

UNIFIED CLASSIFICATION CHART

LEGEND FOR BORING LOGS

BORING LOGS (5)

BORING LOCATION PLAN

TESTING SERVICE CORPORATION

457 East Gundersen Drive
Carol Stream, Illinois

Client: HR Green, Inc.
420 North Front Street, Suite 100
McHenry, Illinois 60050

TSC Job No. L - 79,849
Page 1 of 1

Project: Jandus Cutoff Road Realignment
Sta. 10+00 to 19+50
Cary, Illinois

SOIL TEST DATA

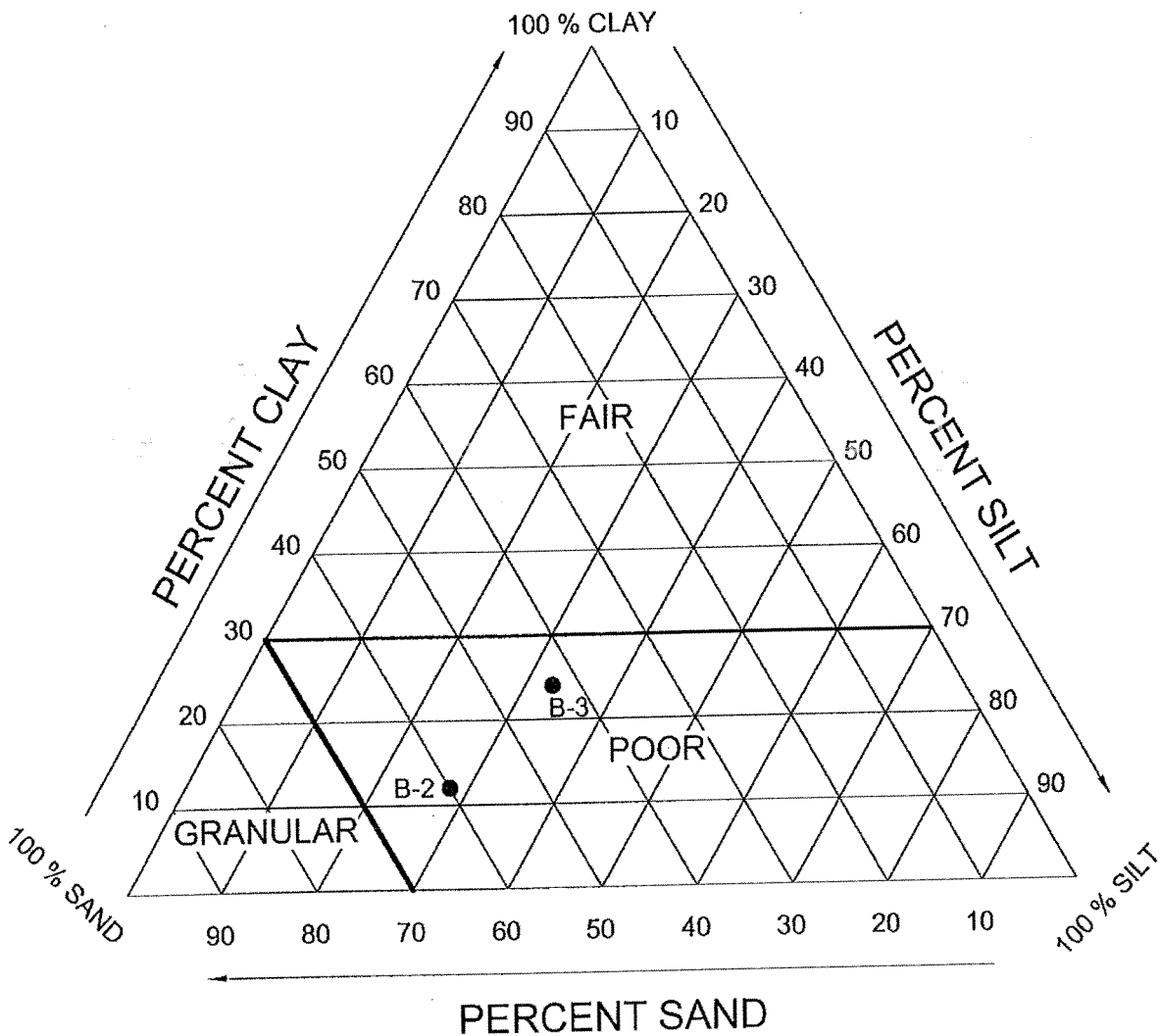
LOCATION	Sta.	
BORING NUMBER	2	3
SAMPLE NUMBER	1B	1
DEPTH IN FEET	2' - 4'	½' - 2'
UNIFIED CLASSIFICATION	SC	CL
IDH TEXTURAL CLASSIFICATION	SANDY LOAM	CLAY LOAM
AASHTO CLASSIFICATION	A-6	A-6
GRADATION - PASSING 1 ½" SIEVE %	100	100
GRADATION - PASSING 1" SIEVE %	100	100
GRADATION - PASSING ¾" SIEVE %	100	86
GRADATION - PASSING ⅜" SIEVE %	96	81
GRADATION - PASSING # 4 SIEVE %	90	78
GRADATION - PASSING # 10 SIEVE %	86	77
GRADATION - PASSING # 40 SIEVE %	74	70
GRADATION - PASSING # 100 SIEVE %	47	61
GRADATION - PASSING # 200 SIEVE %	40	57
GRAVEL%	10	22
SAND %	50	21
SILT %	28	33
CLAY % (<0.002 MM)	12	24
LIQUID LIMIT %	30	36
PLASTIC LIMIT %	10	14
PLASTICITY INDEX %	20	22
NATURAL MOISTURE CONTENT %	17.4	17.9
LIQUIDITY INDEX	-	0.18
ORGANIC CONTENT	L-O-I %	-
	WET COMBUSTION %	-

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SUBGRADE SUPPORT RATING (SSR)

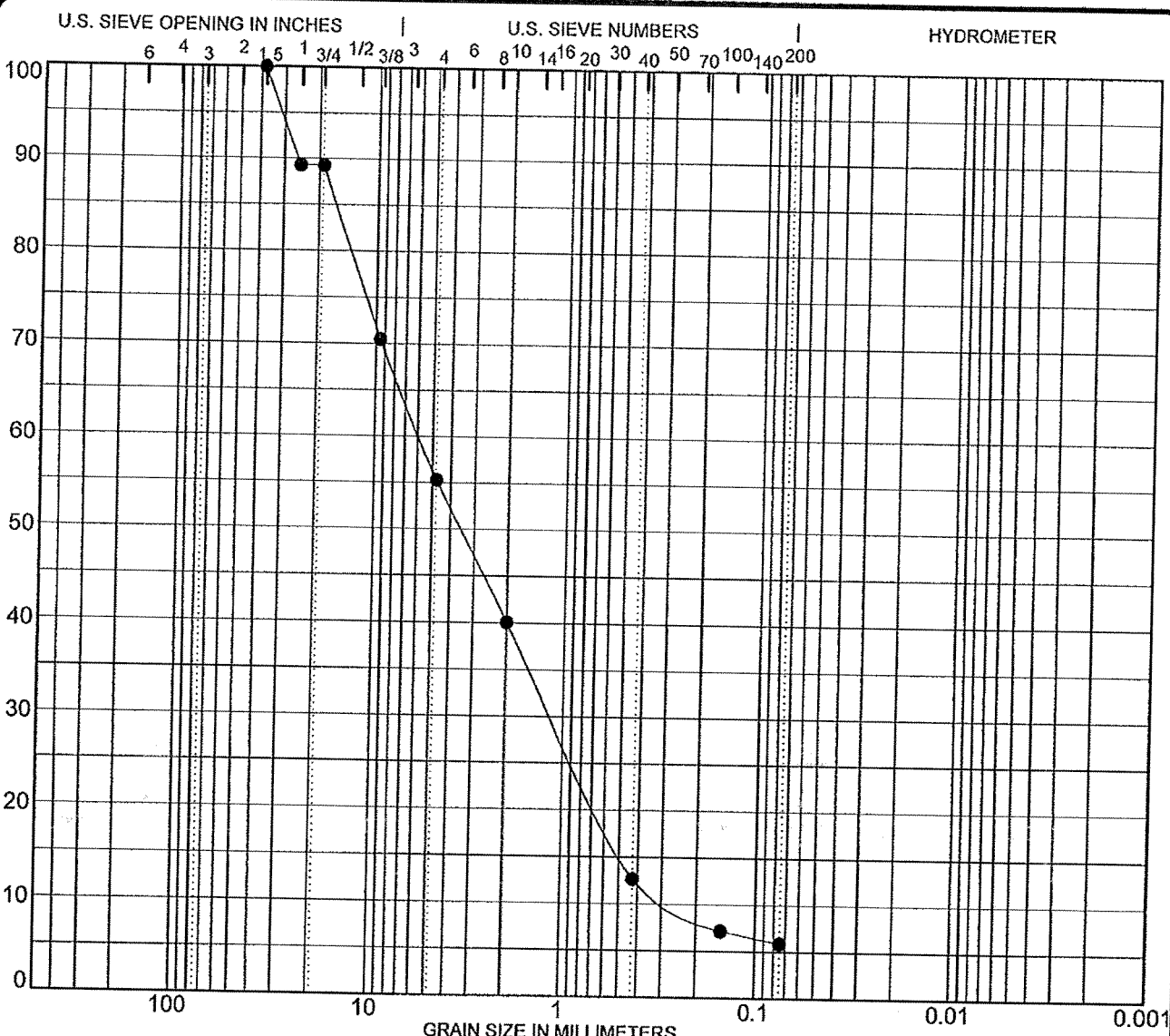
L-79,849

Jandus Cutoff Road Realignment
Cary, Illinois



PARTICLE-SIZE LIMITS

SAND 2.000 - 0.075 mm
SILT 0.075 - 0.002 mm
CLAY finer than 0.002 mm



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

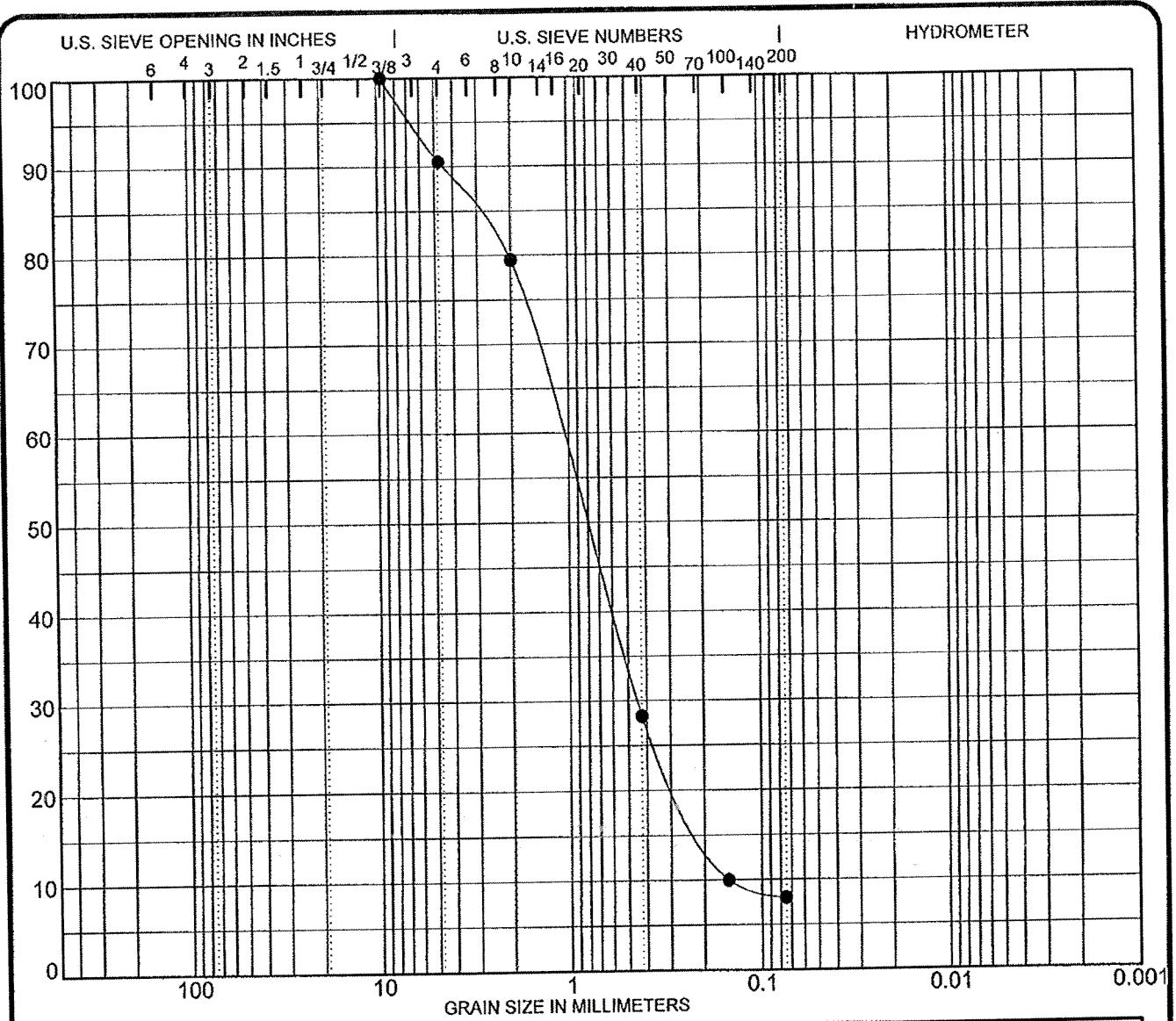
SPECIMEN IDENTIFICATION		SIEVE	% PASS	SOIL CLASSIFICATION			
Boring: 5		3 inch	100	Brown and gray SAND and GRAVEL, trace silt (SP-GP/SM-GM)			
Sample: 3		2	100				
		1 1/2	100				
		1	89	%GRAVEL	%SAND	%SILT	%CLAY
NOTES:		3/4	89	45	49	(6% Combined)	
		3/8	71				
		# 4	55				
		# 10	40				
		# 40	13				
		# 100	7				
		# 200	6				

PROJECT Jandus Cutoff Road Realignment
 LOCATION Cary, Illinois

JOB NO. L-79,849
 DATE July 5, 2013

SOIL DATA SHEET
 Testing Service Corporation
 Carol Stream, IL 60188

SOILGENR 79849.GPJ TSC ALL.GDT 7/18/13



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

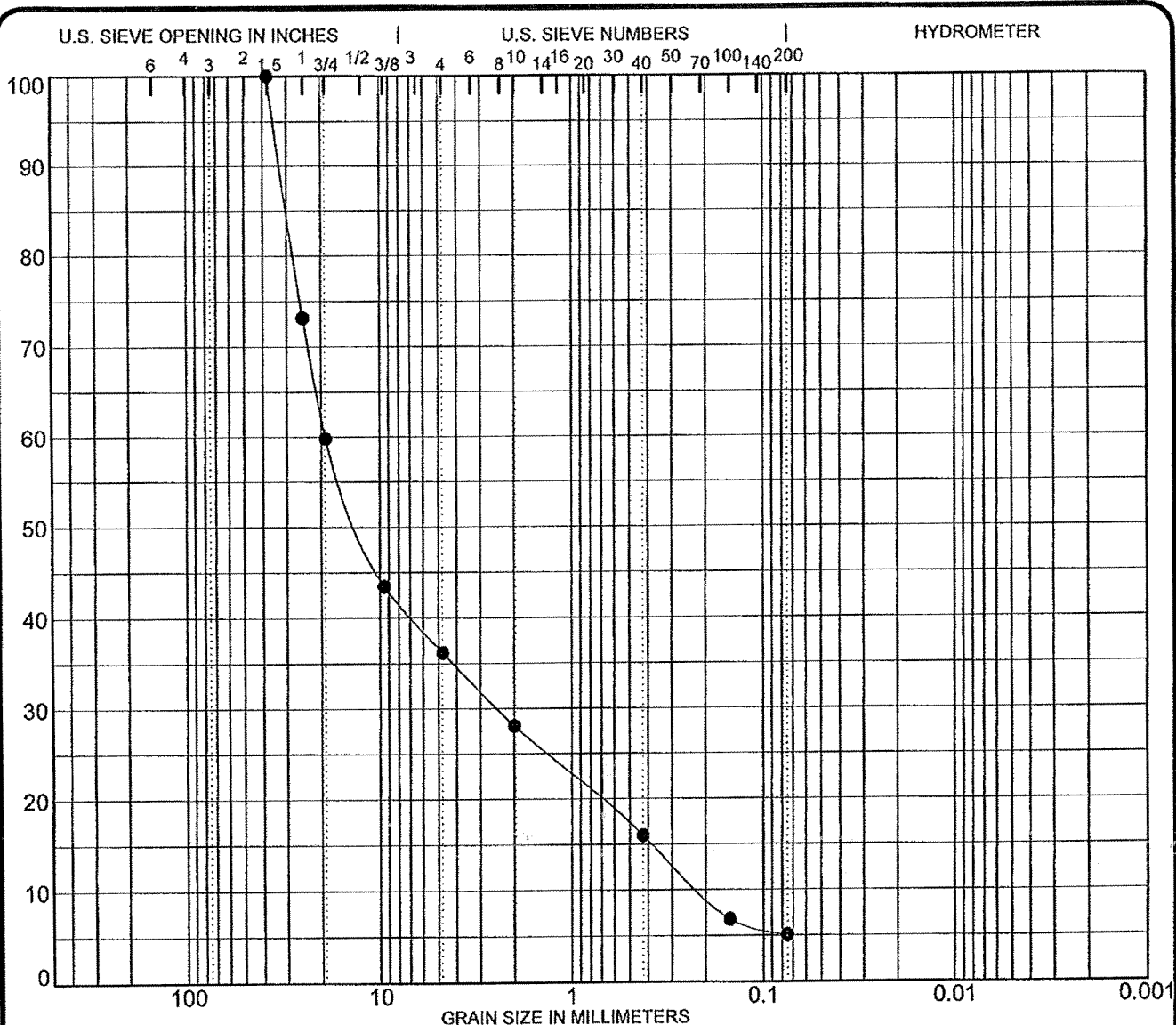
SPECIMEN IDENTIFICATION		SIEVE	% PASS	SOIL CLASSIFICATION			
Boring: 5		3 inch	100	Brown and gray SAND, trace silt and gravel (SP-SM)			
Sample: 5		2	100				
		1 1/2	100				
		1	100	%GRAVEL	%SAND	%SILT	%CLAY
NOTES:		3/4	100	9	83	(8% Combined)	
		3/8	100				
		# 4	91				
		# 10	80				
		# 40	28				
		# 100	10				
		# 200	8				

SOILGENR 79849.GPJ TSC ALL.GDT 7/18/13

PROJECT Jandus Cutoff Road Realignment JOB NO. L-79,849
 LOCATION Cary, Illinois DATE July 5, 2013

SOIL DATA SHEET
 Testing Service Corporation
 Carol Stream, IL 60188

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COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

SPECIMEN IDENTIFICATION		SIEVE	% PASS	SOIL CLASSIFICATION			
Boring: 5		3 inch	100	Brown and gray GRAVEL, some sand,			
Sample: 7		2	100	trace silt (GP-GM)			
		1 1/2	100				
		1	73	%GRAVEL	%SAND	%SILT	%CLAY
NOTES:		3/4	60	64	31	(5% Combined)	
		3/8	44				
		# 4	36				
		# 10	28				
		# 40	16				
		# 100	7				
		# 200	5				

PROJECT Jandus Cutoff Road Realignment JOB NO. L-79,849
 LOCATION Cary, Illinois DATE July 5, 2013

SOIL DATA SHEET
 Testing Service Corporation
 Carol Stream, IL 60188

SOIL GENR 78849.GPJ TSC ALL.GDT 7/18/13

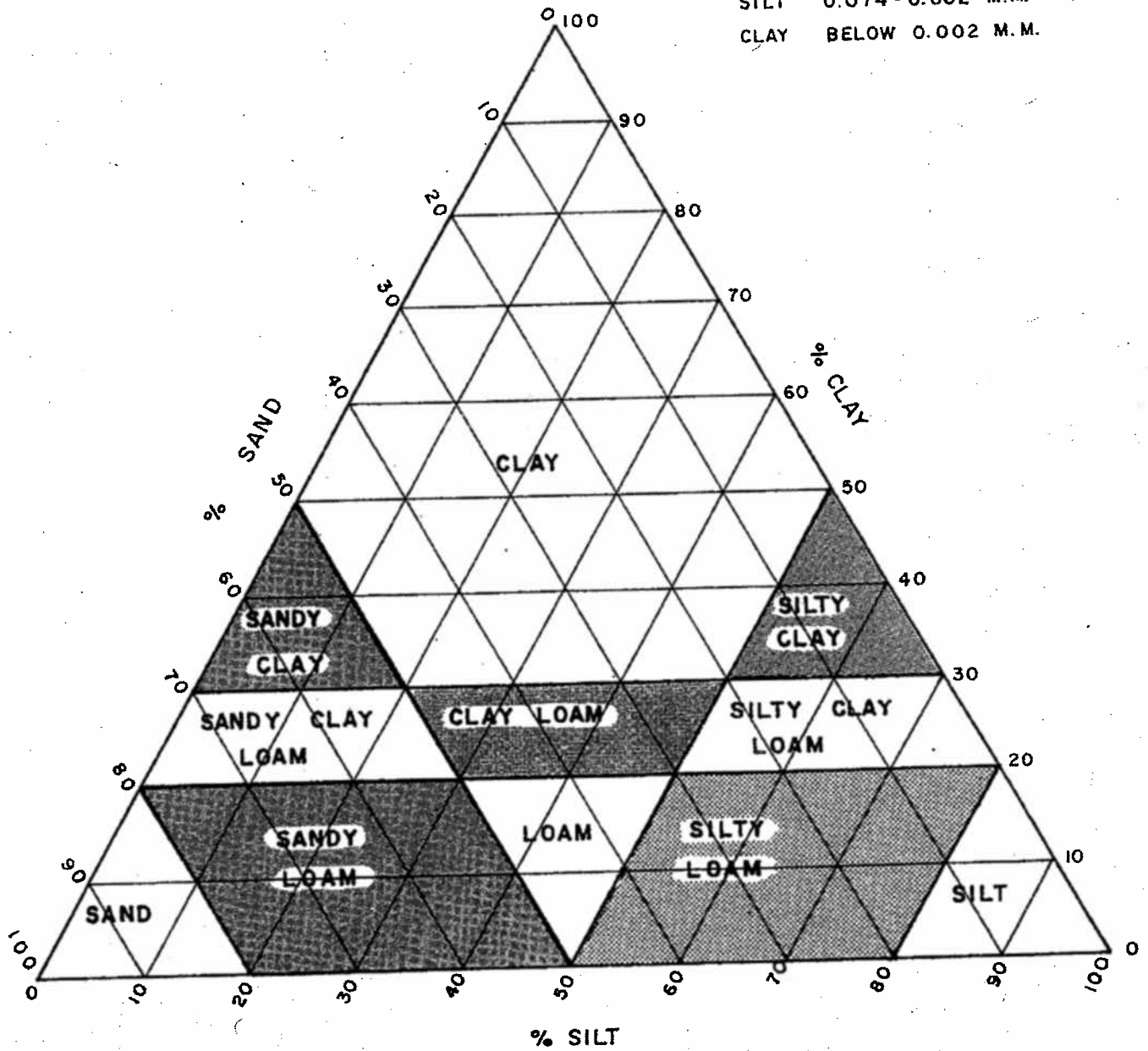
240

TESTING SERVICE CORPORATION

I D H TEXTURAL CLASSIFICATION CHART

SIZE LIMITS

SAND	2.0 - 0.074	M.M.
SILT	0.074 - 0.002	M.M.
CLAY	BELOW 0.002	M.M.

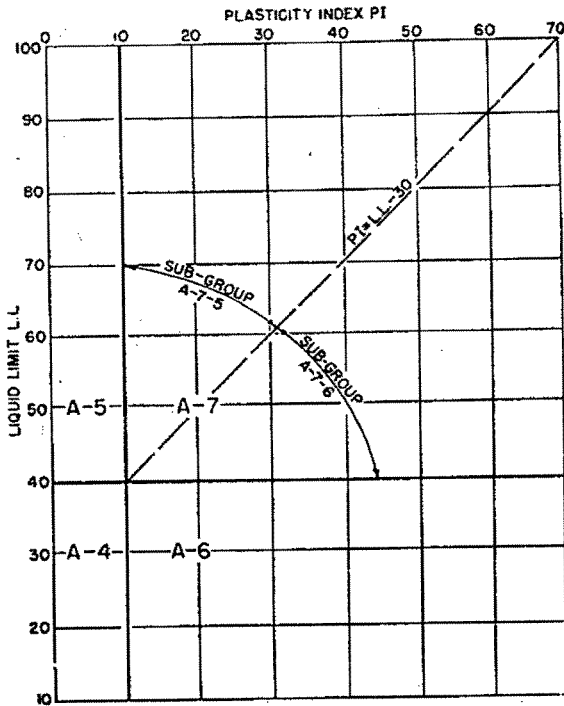


TESTING SERVICE CORPORATION AASHTO CLASSIFICATION CHART

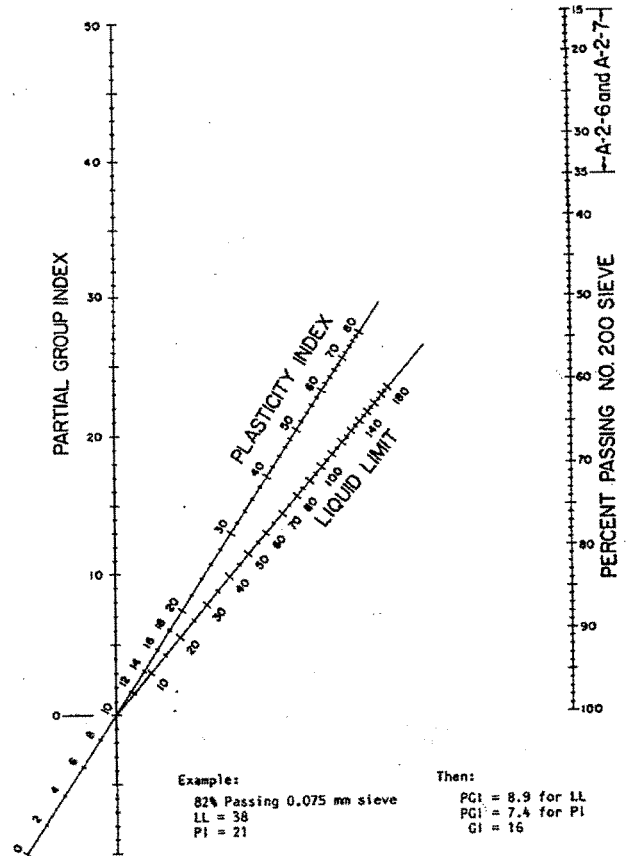
Group Index (GI) = (F-35)[0.2+0.005(LL-40)]+0.01(F-15)(PI-10)
 where F = % Passing 0.075 mm sieve, LL = Liquid Limit,
 and PI = Plasticity Index

When working with A-2-6 and A-2-7 subgroups the Partial Group Index (PGI) is determined from the PI only.

When the combined Partial Group Indices are negative, the Group Index should be reported as zero.



Liquid Limit and Plasticity Index Ranges for the A-4, A-5, A-6 and A-7 Subgrade Groups



Example:
 82% Passing 0.075 mm sieve
 LL = 38
 PI = 21

Then:
 PGI = 8.9 for LL
 PGI = 7.4 for PI
 GI = 16

AASHTO SOIL CLASSIFICATION SYSTEM

General Classification	Granular Materials (35% or less passing No. 200)							Silt-Clay Materials (more than 35% passing No. 200)			
	A-1		A-3	A-2				A-4	A-5	A-6	A-7
Group Classification	A-1-a	A-1-b		A-2-4	A-2-5	A-2-6	A-2-7				A-7-5, A-7-6
Sieve analysis, % passing:											
No. 10	50 max	50 max	51 min	.....	.....	.....	.....	.....	.....	.....	.....
No. 40	30 max	25 max	10 max	.....	.....	.....	.....	.....	.....	.....	.....
No. 200	15 max	.....	.....	35 max	35 max	35 max	35 max	36 min	36 min	36 min	36 min
Characteristics of fraction passing No. 40:											
Liquid limit	.....	.....	.....	40 max	41 min	40 max	41 min	40 max	41 min	40 max	41 min
Plasticity index	6 max	.....	N.P.	10 max	10 max	11 min	11 min	10 max	10 max	11 min	11 min†
Usual types of significant constituent materials	Stone fragments, gravel and sand		Fine sand	Silty or clayey gravel and sand				Silty soils		Clayey soils	
General rating as subgrade	Excellent to good						Fair to poor				

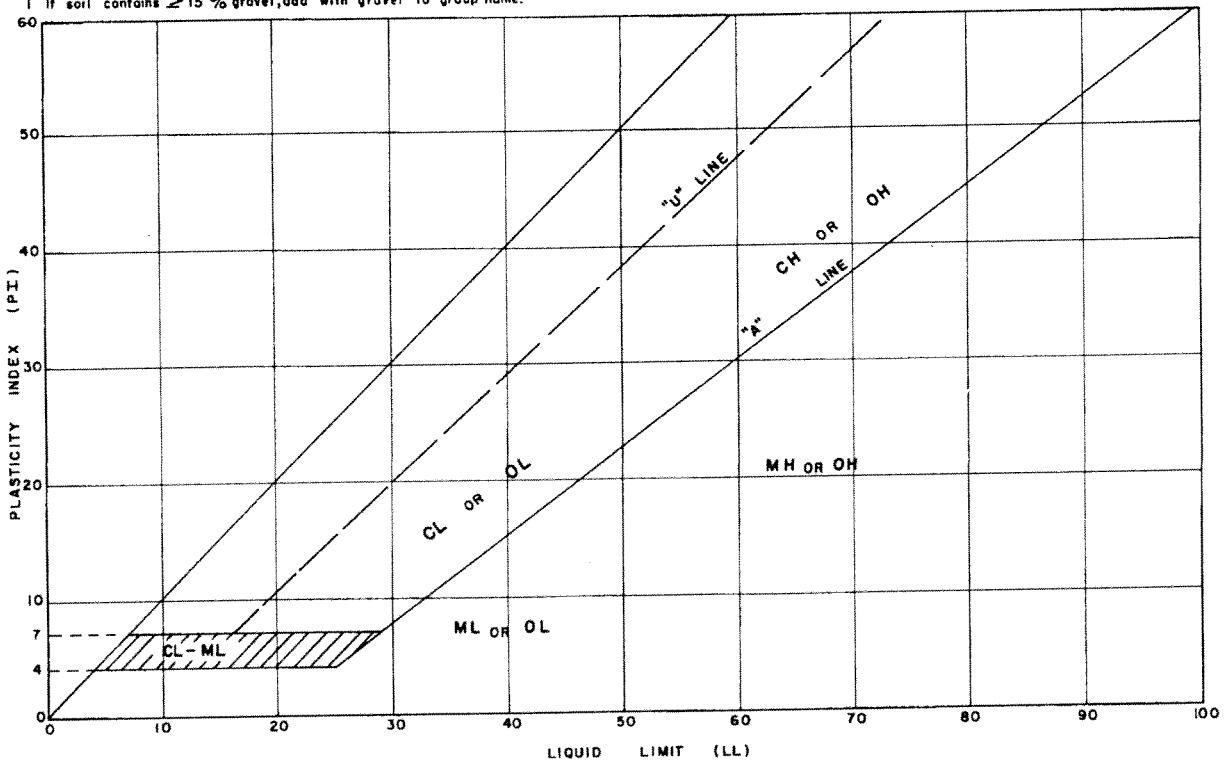
† Plasticity index of A-7-5 subgroup is equal to or less than LL minus 30. Plasticity index of A-7-6 subgroup is greater than LL minus 30.

**TESTING SERVICE CORPORATION
UNIFIED CLASSIFICATION CHART**

CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TESTS ^a				SOIL CLASSIFICATION		
				GROUP SYMBOL	GROUP NAME ^b	
COARSE-GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS Less than 5% fines ^c	$C_u \geq 4$ and $1 \leq C_c \leq 3$ ^e	GW	Well graded gravel ^f	
			$C_u < 4$ and/or $1 > C_c > 3$ ^e	GP	Poorly graded gravel ^f	
		GRAVELS WITH FINES More than 12% fines ^c	Fines classify as ML or MH	GM	Silty gravel f,g,h	
			Fines classify as CL or CH	GC	Clayey gravel f,g,h	
	SANDS 50% or more of coarse fraction passes No. 4 sieve	CLEAN SANDS Less than 5% fines ^d	$C_u \geq 6$ and $1 \leq C_c \leq 3$ ^e	SW	Well-graded sand ^l	
			$C_u < 6$ and/or $1 > C_c > 3$ ^e	SP	Poorly graded sand ^l	
		SANDS WITH FINES More than 12% fines ^d	Fines classify as ML or MH	SM	Silty sand g,h,f	
			Fines classify as CL or CH	SC	Clayey sand g,h,f	
FINE-GRAINED SOILS 50% or more passed the No. 200 sieve	SILTS & CLAYS Liquid limit less than 50%	Inorganic	$PI \geq 7$ and plots on or above "A" line j	CL	Lean clay k,l,m	
			$PI < 4$ or plots below "A" line j	ML	Silt k,l,m	
		Organic	$\frac{\text{Liquid limit - oven dried}}{\text{Liquid limit - not dried}} \leq 0.75$	OL	Organic clay k,l,m,n Organic silt k,l,m,o	
		SILTS & CLAYS Liquid limit 50% or more	Inorganic	PI plots on or above "A" line	CH	Fat clay k,l,m
	PI plots below "A" line			MH	Elastic silt k,l,m	
	Organic		$\frac{\text{Liquid limit - oven dried}}{\text{Liquid limit - not dried}} < 0.75$	OH	Organic clay k,l,m,p Organic silt k,l,m,q	
	Highly organic soils		Primarily organic matter, dark in color, and organic odor			PT	Peat

- a. Based on the material passing the 3-in (75-mm) sieve.
- b. If field sample contained cobbles and/or boulders, add "with cobbles and/or boulders" to group name.
- c. Gravels with 5 to 12% fines require dual symbols
 GW-GM well graded gravel with silt
 GW-GC well graded gravel with clay
 GP-GM poorly graded gravel with silt
 GP-GC poorly graded gravel with clay
- d. Sands with 5% to 12% fines require dual symbols
 SW-SM well graded sand with silt
 SW-SC well graded sand with clay
 SP-SM poorly graded sand with silt
 SP-SC poorly graded sand with clay
- e. $C_u = D_{60}/D_{10}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
- f. If soil contains $\geq 15\%$ sand, add "with sand" to group name.
- g. If fines classify as CL-ML, use dual symbol GC-GM, SC-SM.
- h. If fines are organic, add "with organic fines" to group name.
- i. If soil contains $\geq 15\%$ gravel, add "with gravel" to group name.

- j. If Atterberg Limits plot in hatched area, soil is a CL-ML, silty clay.
- k. If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant.
- l. If soil contains $\geq 30\%$ plus No. 200, predominantly sand, add "sandy" to group name.
- m. If soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.
- n. $PI \geq 4$ and plots on or above "A" line.
- o. $PI \geq 4$ or plots below "A" line.
- p. PI plots on or above "A" line.
- q. PI plots below "A" line.



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TESTING SERVICE CORPORATION
LEGEND FOR BORING LOGS
(FPS Units)

SAMPLE TYPE:

SS = Split Spoon
ST = Thin-Walled Tube
A = Auger

FIELD AND LABORATORY TEST DATA:

BLOWS = Standard Penetration Resistance in Blows per 6 inches
W% = In-Situ Water Content in percent
Qu = Unconfined Compressive Strength in tons per square foot (tsf)
* = Hand Penetrometer Measurement; Max. Reading = 4.5+ tsf

SOIL DESCRIPTION:

<u>MATERIAL</u>	<u>PARTICLE SIZE RANGE</u>
BOULDER	Over 12 inch
COBBLE	12 - 3 inch
Coarse GRAVEL	3 - ¾ inch
Small GRAVEL	¾ inch to No. 10 Sieve
Coarse SAND	No. 10 Sieve to No. 40 Sieve
Fine SAND	No. 40 Sieve to No. 200 Sieve
SILT and CLAY	Passing No. 200 Sieve

<u>COHESIVE SOILS</u>		<u>COHESIONLESS SOILS</u>	
<u>CONSISTENCY</u>	<u>Qu (tsf)</u>	<u>RELATIVE DENSITY</u>	<u>N</u>
Very Soft	Less than 0.3	Very Loose	0 - 4
Soft	0.3 to 0.6	Loose	4 - 10
Medium Stiff	0.6 to 1.0	Medium Dense	10 - 30
Stiff	1.0 to 2.0	Dense	30 - 50
Very Stiff	2.0 to 4.0	Very Dense	50 and over
Hard	4.0 and over		

<u>MODIFYING TERM</u>	<u>PERCENT BY WEIGHT</u>
Trace	1 - 10
Little	10 - 20
Some	20 - 35

PROJECT Jandus Cutoff Road Realignment, Sta. 10+00 to 19+50, Cary, IL



CLIENT HR Green, Inc., McHenry, IL

BORING 1 DATE STARTED 6-19-13 DATE COMPLETED 6-19-13 JOB L-79,849

ELEVATIONS
 GROUND SURFACE _____ WATER LEVEL OBSERVATIONS
 END OF BORING _____
 ▼ WHILE DRILLING Dry
 ▼ AT END OF BORING Dry
 ▼ 24 HOURS _____

Sta. 13+00

DISTANCE BELOW SURFACE IN FEET

LENGTH RECOVERY	SAMPLE		N	WC	Qu	γ _{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
	NO.	TYPE							
0							0.5		6" Crushed Stone
	1	SS	15						Med. dense brown SAND and GRAVEL, moist (SP/GP) A-1-a SAND
	2	SS	17						
	3	SS	20						
	4	SS	25						
	5	SS	21						
10									End of Boring at 10.0'
15									
20									
25									

TSC 79849.GPJ TSC_ALL.GDT 7/19/13

DRILL RIG NO. 315

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

245

PROJECT **Jandus Cutoff Road Realignment, Sta. 10+00 to 19+50, Cary, IL**



CLIENT **HR Green, Inc., McHenry, IL**

BORING **2** DATE STARTED **6-19-13** DATE COMPLETED **6-19-13** JOB **L-79,849**

ELEVATIONS
 GROUND SURFACE _____
 END OF BORING _____

WATER LEVEL OBSERVATIONS
 ▼ WHILE DRILLING **Dry**
 ▼ AT END OF BORING **Dry**
 ▼ 24 HOURS _____

DISTANCE BELOW SURFACE IN FEET	LENGTH RECOVERY	SAMPLE		N	WC	Qu	γ _{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
		NO.	TYPE							
0										7" Bituminous Concrete
		1A	MC					0.6		17" Sand and Gravel Base
		1B	MC		17.4			2.0		Brown clayey SAND, trace gravel, moist (SC) A-6 CLAY LOAM LL/PL/PI =30/10/20
		2A	MC		20.5	1.5*		4.0		Stiff brown silty CLAY, little sand, trace gravel, occasional sand seams, very moist (CL) A-6 CLAY
5		2B	MC					6.0		Brown SAND and GRAVEL, moist (SP/GP) A-1-a SAND
10		3	MC							End of Boring at 10.0'

TSC 79849.GPJ TSC_ALL.GDT 7/19/13

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

241

PROJECT **Jandus Cutoff Road Realignment, Sta. 10+00 to 19+50, Cary, IL**



CLIENT **HR Green, Inc., McHenry, IL**

BORING **3** DATE STARTED **6-19-13** DATE COMPLETED **6-19-13** JOB **L-79,849**

ELEVATIONS
 GROUND SURFACE _____
 END OF BORING _____

WATER LEVEL OBSERVATIONS
 ▽ WHILE DRILLING **Dry**
 ▽ AT END OF BORING **Dry**
 ▽ 24 HOURS _____

DISTANCE BELOW SURFACE IN FEET	LENGTH RECOVERY	SAMPLE		N	WC	Qu	Y _{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
		NO.	TYPE							
0										
0 - 2.0		1	SS	12	17.9	3.5*				Very stiff brown sandy CLAY, little gravel, moist (CL) A-6 CLAY LOAM LL/PL/PI = 36/14/22
2.0 - 3.5		2	SS	11	5.9					Med. dense brown silty SAND and GRAVEL, moist (SM/GM) A-2-4 SANDY LOAM
3.5 - 5.0		3	SS	17						
5.0 - 8.0		4	SS	23						Med. dense brown SAND and GRAVEL, moist (SP/GP) A-1-a SAND
8.0 - 10.0		5	SS	21						
10.0 - 25.0										End of Boring at 10.0' * Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

TSC 79849.GPJ TSC_ALL.GDT 7/19/13

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

2.0

PROJECT **Jandus Cutoff Road Realignment, Sta. 10+00 to 19+50, Cary, IL**



CLIENT **HR Green, Inc., McHenry, IL**

BORING **4** DATE STARTED **6-19-13** DATE COMPLETED **6-19-13** JOB **L-79,849**

ELEVATIONS
 GROUND SURFACE _____
 END OF BORING _____

WATER LEVEL OBSERVATIONS
 WHILE DRILLING **Dry**
 AT END OF BORING **Dry**
 24 HOURS _____

DISTANCE BELOW SURFACE IN FEET	LENGTH RECOVERY	SAMPLE		N	WC	Qu	γ _{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
		NO.	TYPE							
0										FILL - Black clayey TOPSOIL (OL)
		1A			6.2				0.3	FILL - Brown clayey SAND and GRAVEL, moist (SC/GC) A-4 SANDY CLAY LOAM
			MC						2.0	
		1B			9.1	2.0*	135			FILL - Brown sandy CLAY, little to some gravel, moist (CL-ML) A-4 CLAY LOAM
									4.0	
5		2A			3.9					FILL - Brown silty SAND and GRAVEL, little Cinders, moist (SM/GM) A-2-4 SANDY LOAM
			MC							
		2B			7.6					
									8.0	
10		3A								
			MC							
		3B								Brown SAND and GRAVEL, moist (SP/GP) A-1-a SAND
		4A								
			MC							
15		4B								
										End of Boring at 16.0'
										* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.
20										
25										

TSC 79849.GPJ TSC_ALL.GDT 7/19/13

DRILL RIG NO. **294**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Jandus Cutoff Road Realignment, Sta. 10+00 to 19+50, Cary, IL**

CLIENT **HR Green, Inc., McHenry, IL**



BORING **5** DATE STARTED **6-19-13** DATE COMPLETED **6-19-13** JOB **L-79,849**

ELEVATIONS
 GROUND SURFACE _____
 END OF BORING _____

WATER LEVEL OBSERVATIONS
 ▽ WHILE DRILLING **Dry**
 ▽ AT END OF BORING **Dry**
 ▽ 24 HOURS _____

15+75

DISTANCE BELOW SURFACE IN FEET	LENGTH RECOVERY	SAMPLE		N	WC	Qu	γ DRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
		NO.	TYPE							
0								0.2		FILL - Black sandy TOPSOIL (OL)
		1	SS	14	6.3					FILL - Brown and black silty SAND, some gravel, moist (SM) A-2-4 SANDY LOAM
		2	SS	18	3.9			2.0		
		3	SS	17	4.2					
5		4	SS	20	3.4					Med. dense brown SAND and GRAVEL, trace to little silt, moist (SP-GP / SM-GM) A-1-a SAND
		5	SS	14				8.0		
10		6	SS	14						Med. dense brown SAND, trace to little gravel, trace silt, moist (SP-SM) A-1-b SAND
		7	SS	31	5.3			13.0		Dense brown GRAVEL, some sand, trace silt, moist (GP-GM) A-1-a SAND
15		8	SS	16	12.5			15.5		Med. dense brown silty SAND, trace gravel, moist (SM) A-4 SANDY LOAM
		9	SS	22	19.8			18.0		
		10	SS	23	17.2					Med. dense brown SILT, trace to little sand, moist (ML) A-4 SILT
25		11	SS	25	19.2					

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

DRILL RIG NO. **315**

TSC 79849.GPJ TSC_ALL.GDT 7/19/13

PROJECT **Jandus Cutoff Road Realignment, Sta. 10+00 to 19+50, Cary, IL**

CLIENT **HR Green, Inc., McHenry, IL**



BORING **5** DATE STARTED **6-19-13** DATE COMPLETED **6-19-13** JOB **L-79,849**

ELEVATIONS
 GROUND SURFACE _____
 END OF BORING _____

WATER LEVEL OBSERVATIONS
 ▽ WHILE DRILLING **Dry**
 ▽ AT END OF BORING **Dry**
 ▽ 24 HOURS _____

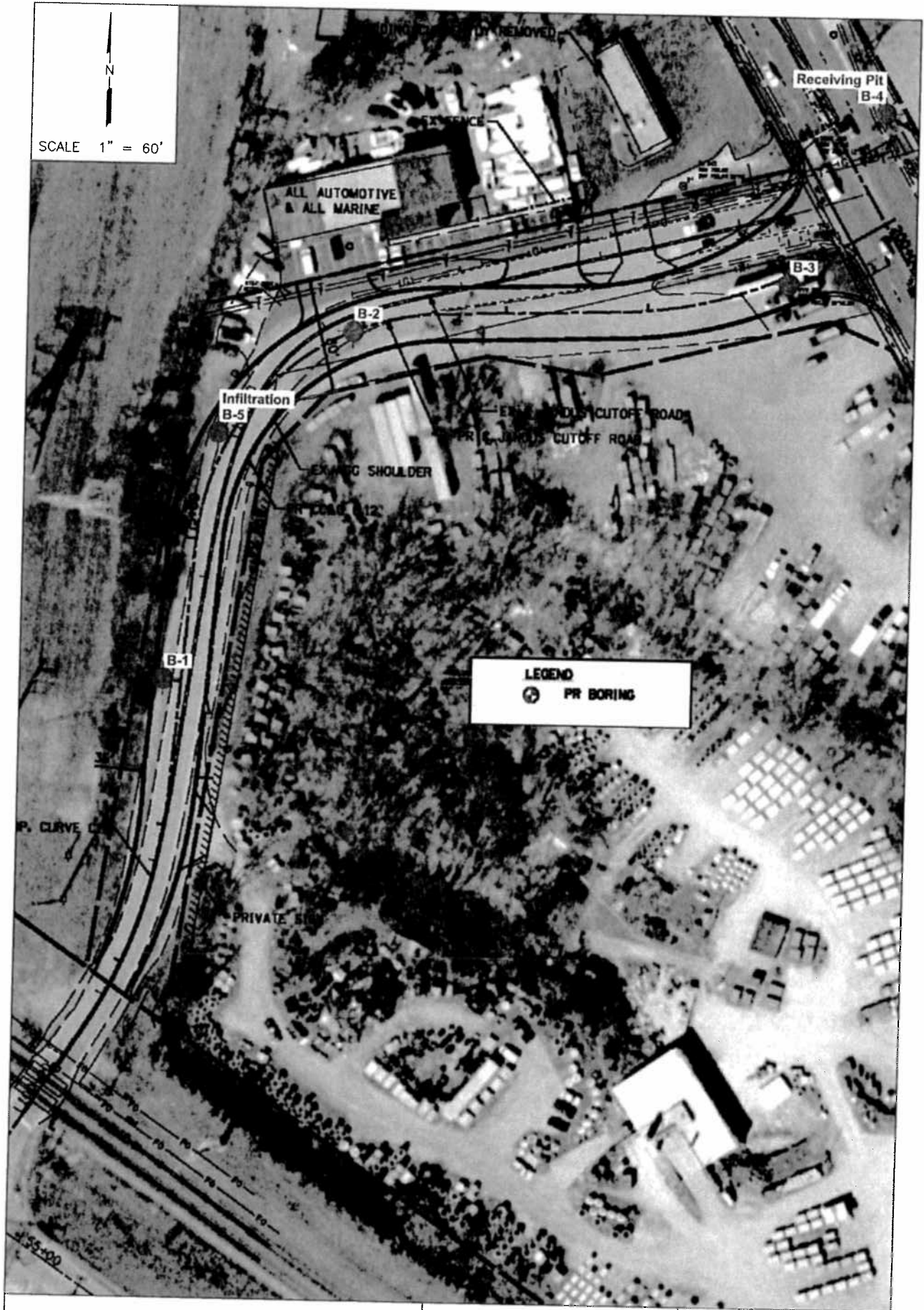
DISTANCE BELOW SURFACE IN FEET	LENGTH RECOVERY	SAMPLE		N	WC	Qu	γ _{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
		NO.	TYPE							
25		12	SS	29	20.3					Med. dense brown SILT, trace to little sand, moist (ML) A-4 SILT
		13	SS	35	15.8			28.0		
30		14	SS	38	15.4					Dense brown sandy SILT, trace to little gravel, moist (ML) A-4 SILTY LOAM
		15	SS	44	21.4					
35		End of Boring at 35.0'								
40										
45										
50										

TSC 79849.GPJ TSC_ALL.GDT 7/19/13

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

SCALE 1" = 60'



LEGEND
⊕ PR BORING

BORING LOCATION PLAN
JANDUS CUTOFF ROAD REALIGNMENT
SAT. 10+00 TO 19+50
CARY, ILLINOIS



TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

DRAWN BY: TRP
CHECKED BY: CRD
JOB NO.: L-79,849
DATE: 07-09-13

PAGE NO.
1 OF 1

PERMANENT STEEL SHEET PILING (LRFD)

Effective: January 31, 2012

Revised: August 17, 2012

Description. This work shall consist of furnishing and installing the permanent sheet piling to the limits and tolerances shown on the plans according to Section 512 of the Standard Specifications.

Material. The sheet piling shall be made of steel and shall be new material. Unless otherwise specified the sheeting shall have a minimum yield strength of 50 ksi (345 MPa) according to ASTM A 572. The sheeting shall be identifiable and free of bends and other structural defects. The Contractor shall furnish a copy of the published sheet pile section properties to the Engineer for verification purposes. The Engineer's approval will be required prior to driving any sheeting. All driven sheeting not approved by the Engineer shall be removed at the Contractor's expense.

The Contractor shall furnish a sheet pile section, to be used for each wall section, with a published section modulus equal to or larger than that specified on the plans.

The selection of the sheet pile section shall not relieve the Contractor of the responsibility to satisfy all details including minimum clearances, cover, reinforcement, shear stud locations, interlocking, and field cutting. Any modifications of the plans to accommodate the Contractor's selection shall be paid for by the Contractor and subject to the approval of the Engineer.

Construction. The Contractor shall verify locations of all underground utilities before driving any sheet piling. Any disturbance or damage to existing structures, utilities or other property, caused by the Contractor's operation, shall be repaired by the Contractor in a manner satisfactory to the Engineer at no additional cost to the Department. The Contractor shall be responsible for determining the appropriate equipment necessary to drive the sheeting to the tip elevation(s) specified on the plans or according to the Contractor's approved design. The sheet piling shall be driven, as a minimum, to the tip elevation(s) specified, prior to commencing any related construction. If unable to reach the minimum tip elevation, the adequacy of the sheet piling design will require re-evaluation by the Department prior to allowing construction adjacent to the sheet piling in question.

Obstructions. Obstructions shall be defined as any object (such as but not limited to, boulders, logs, old foundations, etc.) that cannot be driven through with normal driving procedures, but requires special equipment to remove the obstruction. When obstructions are encountered, the Contractor shall notify the Engineer and upon concurrence of the Engineer, the Contractor shall begin working to break up, push aside, or remove the obstruction.

Method of Measurement. This work will be measured in place in square feet (square meters). Sheet piling associated with other work in this contract or for permanent sheet piling that is cut off or driven beyond those dimensions shown on the plans will not be measured for payment.

Obstruction mitigation shall be paid for according to Article 109.04.

Basis of Payment. This work will be paid for at the contract unit price per square foot (square meter) for PERMANENT STEEL SHEET PILING at the location shown on the plans.

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

SPECIAL PROVISION
FOR
COOPERATION WITH UTILITIES (LR 105)

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 (LR 107-4)

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:

Village of Cary

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:** _____

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CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010
 Revised: January 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

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: August 2, 2011

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.

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 23.00% 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.

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.
- (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 and/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 it receives as a result of the lease arrangement.
- (e) DBE as a material supplier:
 - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
 - (2) 100 percent goal credit for the cost of materials or supplies obtained from a DBE manufacturer.
 - (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

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) TERMINATION OR REPLACEMENT. 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 the Special Provision.
- (c) 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, then 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.
- (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 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.

- (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 BDE 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

FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 1, 2009

Revised: July 1, 2009

Description. Fuel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in fuel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form or failure to indicate contract number, company name and sign and date the form shall make this contract exempt of fuel cost adjustments for all categories of work. Failure to indicate "Yes" for any category of work will make that category of work exempt from fuel cost adjustment.

General. The fuel cost adjustment shall apply to contract pay items as grouped by category. The adjustment shall only apply to those categories of work checked "Yes", and only when the cumulative plan quantities for a category exceed the required threshold. Adjustments to work items in a category, either up or down, and work added by adjusted unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Added work paid for by time and materials will not be subject to fuel cost adjustment. Category descriptions and thresholds for application and the fuel usage factors which are applicable to each are as follows:

(a) Categories of Work.

- (1) Category A: Earthwork. Contract pay items performed under Sections 202, 204, and 206 including any modified standard or nonstandard items where the character of the work to be performed is considered earthwork. The cumulative total of all applicable item plan quantities shall exceed 25,000 cu yd (20,000 cu m). Included in the fuel usage factor is a weighted average 0.10 gal/cu yd (0.50 liters/cu m) factor for trucking.
- (2) Category B: Subbases and Aggregate Base Courses. Contract pay items constructed under Sections 311, 312 and 351 including any modified standard or nonstandard items where the character of the work to be performed is considered construction of a subbase or aggregate, stabilized or modified base course. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is a 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
- (3) Category C: Hot-Mix Asphalt (HMA) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 355, 406, 407 and 482 including any modified standard or nonstandard items where the character of the work to be performed is considered HMA bases, pavements and shoulders. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.

- (4) Category D: Portland Cement Concrete (PCC) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 353, 420, 421 and 483 including any modified standard or nonstandard items where the character of the work to be performed is considered PCC base, pavement or shoulder. The cumulative total of all applicable item plan quantities shall exceed 7500 sq yd (6000 sq m). Included in the fuel usage factor is 1.20 gal/cu yd (5.94 liters/cu m) factor for trucking.
- (5) Category E: Structures. Structure items having a cumulative bid price that exceeds \$250,000 for pay items constructed under Sections 502, 503, 504, 505, 512, 516 and 540 including any modified standard or nonstandard items where the character of the work to be performed is considered structure work when similar to that performed under these sections and not included in categories A through D.

(b) Fuel Usage Factors.

English Units Category	Factor	Units
A - Earthwork	0.34	gal / cu yd
B - Subbase and Aggregate Base courses	0.62	gal / ton
C - HMA Bases, Pavements and Shoulders	1.05	gal / ton
D - PCC Bases, Pavements and Shoulders	2.53	gal / cu yd
E - Structures	8.00	gal / \$1000

Metric Units Category	Factor	Units
A - Earthwork	1.68	liters / cu m
B - Subbase and Aggregate Base courses	2.58	liters / metric ton
C - HMA Bases, Pavements and Shoulders	4.37	liters / metric ton
D - PCC Bases, Pavements and Shoulders	12.52	liters / cu m
E - Structures	30.28	liters / \$1000

(c) Quantity Conversion Factors.

Category	Conversion	Factor
B	sq yd to ton	0.057 ton / sq yd / in depth
	sq m to metric ton	0.00243 metric ton / sq m / mm depth
C	sq yd to ton	0.056 ton / sq yd / in depth
	sq m to metric ton	0.00239 m ton / sq m / mm depth
D	sq yd to cu yd	0.028 cu yd / sq yd / in depth
	sq m to cu m	0.001 cu m / sq m / mm depth

Method of Adjustment. Fuel cost adjustments will be computed as follows.

$$| CA = (FPI_p - FPI_L) \times FUF \times Q$$

Where: CA = Cost Adjustment, \$
FPI_p = Fuel Price Index, as published by the Department for the month the work is performed, \$/gal (\$/liter)
FPI_L = Fuel Price Index, as published by the Department for the month prior to the letting, \$/gal (\$/liter)
FUF = Fuel Usage Factor in the pay item(s) being adjusted
Q = Authorized construction Quantity, tons (metric tons) or cu yd (cu m)

The entire FUF indicated in paragraph (b) will be used regardless of use of trucking to perform the work.

Progress Payments. Fuel cost adjustments will be calculated for each calendar month in which applicable work is performed; and will be paid or deducted when all other contract requirements for the items of work are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Final Quantities. Upon completion of the work and determination of final pay quantities, an adjustment will be prepared to reconcile any differences between estimated quantities previously paid and the final quantities. The value for the balancing adjustment will be based on a weighted average of FPI_p and Q only for those months requiring the cost adjustment. The cost adjustment will be applicable to the final measured quantities of all applicable pay items.

Basis of Payment. Fuel cost adjustments may be positive or negative but will only be made when there is a difference between the FPI_L and FPI_p in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(FPI_L - FPI_p) \div FPI_L\} \times 100$$

Return With Bid

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**OPTION FOR
FUEL COST ADJUSTMENT**

The bidder shall submit this completed form with his/her bid. Failure to submit the form or properly complete contract number, company name, and sign and date the form shall make this contract exempt of fuel cost adjustments in all categories. Failure to indicate "Yes" for any category of work at the time of bid will make that category of work exempt from fuel cost adjustment. After award, this form, when submitted shall become part of the contract.

Contract No.: _____

Company Name: _____

Contractor's Option:

Is your company opting to include this special provision as part of the contract plans for the following categories of work?

- | | | |
|--|-----|--------------------------|
| Category A Earthwork. | Yes | <input type="checkbox"/> |
| Category B Subbases and Aggregate Base Courses | Yes | <input type="checkbox"/> |
| Category C HMA Bases, Pavements and Shoulders | Yes | <input type="checkbox"/> |
| Category D PCC Bases, Pavements and Shoulders | Yes | <input type="checkbox"/> |
| Category E Structures | Yes | <input type="checkbox"/> |

Signature: _____ **Date:** _____

80229

277

GRANULAR MATERIALS (BDE)

Effective: November 1, 2012

Revise the title of Article 1003.04 of the Standard Specifications to read:

“1003.04 Fine Aggregate for Bedding, Trench Backfill, Embankment, Porous Granular Backfill, Sand Backfill for Underdrains, and French Drains.”

Revise Article 1003.04(c) of the Standard Specifications to read:

“(c) Gradation. The fine aggregate gradations for granular embankment, granular backfill, bedding, and trench backfill for pipe culverts and storm sewers shall be FA 1, FA 2, or FA 6 through FA 21.

The fine aggregate gradation for porous granular embankment, porous granular backfill, french drains, and sand backfill for underdrains shall be FA 1, FA 2, or FA 20, except the percent passing the No. 200 (75 µm) sieve shall be 2±2.”

Revise Article 1004.05(c) of the Standard Specifications to read:

“(c) Gradation. The coarse aggregate gradations shall be as follows.

Application	Gradation
Blotter	CA 15
Granular Embankment, Granular Backfill, Bedding, and Trench Backfill for Pipe Culverts and Storm Sewers	CA 6, CA 9, CA 10, CA 12, CA17, CA18, and CA 19
Porous Granular Embankment, Porous Granular Backfill, and French Drains	CA 7, CA 8, CA 11, CA 15, CA 16 and CA 18”

80303

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 STORM SEWER BURIAL TABLES (BDE)

Effective: November 1, 2013

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	NA		
12	IV	NA	X	X	X	X	X	II	1	*X	X	X	X	X	X		
15	IV	NA	NA	X	NA	NA	X	II	1	*X	X	X	NA	X	X		
18	IV	NA	NA	X	X	X	X	II	2	X	X	X	X	X	X		
21	III	NA	NA	X	X	NA	NA	II	2	X	X	X	NA	NA	NA		
24	III	NA	NA	X	X	X	X	II	2	X	X	X	X	X	X		
27	III	NA	NA	NA	NA	NA	NA	II	3	X	NA	NA	NA	NA	NA		
30	IV	NA	NA	X	X	X	X	II	3	X	X	X	X	X	X		
33	III	NA	NA	NA	NA	NA	NA	II	NA	X	NA	NA	NA	NA	NA		
36	III	NA	NA	NA	X	X	X	II	NA	X	X	X	X	X	X		
42	II	NA	X	X	NA	X	X	II	NA	X	X	NA	NA	NA	NA		
48	II	NA	X	NA	NA	X	X	II	NA	X	X	NA	NA	NA	NA		
54	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
60	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
66	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
72	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
78	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
84	II	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA		
90	II	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA		
96	II	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA		
102	II	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA		
108	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 (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	X	NA
300	IV	NA	X	X	X	X	X	X	1	*X	X	X	X	NA	X	X
375	IV	NA	NA	X	X	NA	X	X	1	*X	X	X	X	X	X	X
450	IV	NA	NA	X	X	X	X	X	2	X	X	X	X	X	X	X
525	III	NA	NA	X	X	NA	NA	NA	2	X	X	X	X	NA	NA	NA
600	III	NA	NA	X	X	X	X	X	2	X	X	X	X	X	X	X
675	III	NA	NA	NA	NA	NA	NA	NA	3	X	NA	NA	NA	NA	NA	NA
750	IV	NA	NA	NA	X	X	X	X	3	X	X	X	X	X	X	X
825	III	NA	NA	NA	NA	NA	NA	NA	NA	X	NA	NA	NA	NA	NA	NA
900	III	NA	NA	NA	X	X	X	X	NA	X	X	X	X	X	X	X
1050	III	NA	NA	X	NA	X	X	NA	NA	X	X	X	NA	NA	NA	NA
1200	II	NA	NA	X	NA	NA	NA	NA	NA	X	X	X	NA	NA	NA	NA
1350	II	NA	NA	NA	NA	NA	NA	NA	NA	X	X	X	NA	NA	NA	NA
1500	II	NA	NA	NA	NA	NA	NA	NA	NA	X	X	X	NA	NA	NA	NA
1650	II	NA	NA	NA	NA	NA	NA	NA	NA	X	X	X	NA	NA	NA	NA
1800	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1950	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2100	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2250	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2400	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2550	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2700	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 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 4														
	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	X	NA	NA	3	X	X	X	X	NA
12	III	2	X	X	X	X	NA	X	IV	NA	NA	X	X	X	NA
15	III	3	X	X	X	NA	NA	X	IV	NA	NA	X	X	NA	X
18	III	NA	X	X	X	X	NA	X	IV	NA	NA	X	X	NA	NA
21	III	NA	NA	X	X	NA	NA	NA	IV	NA	NA	X	X	NA	NA
24	III	NA	NA	X	X	X	NA	NA	IV	NA	NA	X	X	NA	NA
27	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
30	III	NA	NA	NA	X	X	NA	X	IV	NA	NA	X	X	NA	NA
33	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
36	III	NA	NA	NA	X	X	NA	NA	IV	NA	NA	X	X	NA	NA
42	III	NA	NA	NA	X	X	NA	NA	IV	NA	NA	X	X	NA	NA
48	III	NA	NA	NA	X	X	NA	NA	IV	NA	NA	X	X	NA	NA
54	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
60	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
66	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
72	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
78	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
84	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
90	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
96	III	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
102	IV	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA	NA	NA
108	1360	NA	NA	NA	NA	NA	NA	NA	1680	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.
 * This material is Not Acceptable for the given pipe diameter and fill height.
 NA 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.

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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	X	NA	NA	X	X	X	X	NA
375	III	3	X	X	X	NA	NA	X	NA	NA	X	X	X	NA	X
450	III	NA	X	X	X	X	NA	X	NA	NA	X	X	X	X	NA
525	III	NA	NA	NA	X	NA	NA	IV	NA	NA	X	X	X	NA	NA
600	III	NA	NA	NA	X	X	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	NA	X	X	NA	X	NA	NA	X	X	X	X	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	X	NA
1050	III	NA	NA	NA	X	X	NA	IV	NA	NA	X	NA	NA	X	NA
1200	III	NA	NA	NA	X	X	NA	IV	NA	NA	X	NA	NA	X	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	IV	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.
 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 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	CPVC	RCCP	PVC	CPVC		RCCP	CPVC
10	NA	X	X	NA	X	NA	X	X	NA	X
12	IV	X	X	V	X	V	X	X	V	X
15	IV	X	X	V	X	V	X	X	V	X
18	IV	X	X	V	X	V	X	X	V	X
21	IV	X	X	V	X	V	X	X	V	X
24	IV	X	X	V	X	V	X	X	V	X
27	IV	NA	NA	V	NA	V	NA	NA	V	NA
30	IV	X	X	V	X	V	X	X	V	X
33	IV	NA	NA	V	NA	V	NA	NA	V	NA
36	IV	X	X	V	X	V	X	X	V	X
42	IV	X	NA	V	NA	V	X	NA	V	NA
48	IV	X	NA	V	NA	V	X	NA	V	NA
54	IV	NA	NA	V	NA	V	NA	NA	V	NA
60	IV	NA	NA	V	NA	V	NA	NA	V	NA
66	IV	NA	NA	V	NA	V	NA	NA	V	NA
72	V	NA	NA	V	NA	V	NA	NA	V	NA
78	2020	NA	NA	2370	NA	2370	NA	NA	2730	NA
84	2020	NA	NA	2380	NA	2380	NA	NA	2740	NA
90	2030	NA	NA	2390	NA	2390	NA	NA	2750	NA
96	2040	NA	NA	2400	NA	2400	NA	NA	2750	NA
102	2050	NA	NA	2410	NA	2410	NA	NA	2760	NA
108	2060	NA	NA	2410	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.

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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
250	NA	X	X	X	NA	X	X	NA	X
300	IV	X	X	X	V	X	X	V	X
375	IV	X	X	X	V	X	X	V	X
450	IV	X	X	X	V	X	X	V	X
525	IV	X	X	X	V	X	X	V	X
600	IV	X	X	X	V	X	X	V	X
675	IV	NA	NA	NA	V	NA	NA	V	NA
750	IV	X	X	X	V	X	X	V	X
825	IV	NA	NA	NA	V	NA	NA	V	NA
900	IV	X	X	X	V	X	X	V	X
1050	IV	X	NA	NA	V	X	NA	V	NA
1200	IV	X	NA	NA	V	X	NA	V	NA
1350	IV	NA	NA	NA	V	NA	NA	V	NA
1500	IV	NA	NA	NA	V	NA	NA	V	NA
1650	IV	NA	NA	NA	V	NA	NA	V	NA
1800	V	NA	NA	NA	V	NA	NA	V	NA
1950	100	NA	NA	NA	110	NA	NA	130	NA
2100	100	NA	NA	NA	110	NA	NA	130	NA
2250	100	NA	NA	NA	110	NA	NA	130	NA
2400	100	NA	NA	NA	120	NA	NA	130	NA
2550	100	NA	NA	NA	120	NA	NA	130	NA
2700	100	NA	NA	NA	120	NA	NA	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 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.”

80325

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

PAYROLLS AND PAYROLL RECORDS (BDE)

Effective: January 1, 2014

FEDERAL AID CONTRACTS. Revise the following section of Check Sheet #1 of the Recurring Special Provisions to read:

"STATEMENTS AND PAYROLLS

The payroll records shall include the worker's name, the worker's address, the worker's telephone number when available, the worker's social security number, the worker's classification or classifications, the worker's gross and net wages paid in each pay period, the worker's number of hours worked each day, the worker's starting and ending times of work each day. However, any Contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employers and one or more labor organization must additionally submit the worker's hourly wage rate, the worker's hourly overtime wage rate, the worker's hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable.

The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead, the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form."

STATE CONTRACTS. Revise Section IV of Check Sheet #5 of the Recurring Special Provisions to read:

"IV.COMPLIANCE WITH THE PREVAILING WAGE ACT

1. **Prevailing Wages.** All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. If the Department of Labor revises the wage rates, the Contractor will not be allowed additional compensation on account of said revisions.
2. **Payroll Records.** The Contractor and each subcontractor shall make and keep, for a period of five years from the later of the date of final payment under the contract or completion of the contract, records of the wages paid to his/her workers. The payroll

records shall include the worker's name, the worker's address, the worker's telephone number when available, the worker's social security number, the worker's classification or classifications, the worker's gross and net wages paid in each pay period, the worker's number of hours worked each day, the worker's starting and ending times of work each day. However, any contractor or subcontractor who remits contributions to a fringe benefit fund that is not jointly maintained and jointly governed by one or more employers and one or more labor organization must additionally submit the worker's hourly wage rate, the worker's hourly overtime wage rate, the worker's hourly fringe benefit rates, the name and address of each fringe benefit fund, the plan sponsor of each fringe benefit, if applicable, and the plan administrator of each fringe benefit, if applicable. Upon seven business days' notice, these records shall be available at a location within the State, during reasonable hours, for inspection by the Department or the Department of Labor; and Federal, State, or local law enforcement agencies and prosecutors.

3. Submission of Payroll Records. The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted to the Engineer. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form.

Each submittal shall be accompanied by a statement signed by the Contractor or subcontractor, or an officer, employee, or officer thereof, which avers that: (i) he or she has examined the records and such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by the Act; and (iii) the Contractor or subcontractor is aware that filing a payroll record that he/she knows to be false is a Class A misdemeanor.

4. Employee Interviews. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor."

PORTLAND CEMENT CONCRETE EQUIPMENT (BDE)

Effective: November 1, 2013

Add the following to the first paragraph of Article 1103.03(a)(5) of the Standard Specifications to read:

“As an alternative to a locking key, the start and finish time for mixing may be automatically printed on the batch ticket. The start and finish time shall be reported to the nearest second.”

80326

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

QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES (BDE)

Effective: January 1, 2012

Revised: January 1, 2014

Revise Note 7/ of Schedule B of Recurring Special Provision Check Sheet #31 of the Standard Specifications to read:

- 7/ The test of record for strength shall be the day indicated in Article 1020.04. For cement aggregate mixture II, a strength requirement is not specified and testing is not required. Additional strength testing to determine early falsework and form removal, early pavement or bridge opening to traffic, or to monitor strengths is at the discretion of the Contractor. Strength shall be defined as the average of two 6 x 12 in. (150 x 300 mm) cylinder breaks, three 4 x 8 in. (100 x 200 mm) cylinder breaks, or two beam breaks for field tests. Per Illinois Modified AASHTO T 23, cylinders shall be 6 x 12 in. (150 x 300 mm) when the nominal maximum size of the coarse aggregate exceeds 1 in. (25 mm).

80281

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 or 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

REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)

Effective: November 2, 2012

Revise the first four paragraphs of Article 202.03 of the Standard Specifications to read:

“202.03 Removal and Disposal of Surplus, Unstable, Unsuitable, and Organic Materials. Suitable excavated materials shall not be wasted without permission of the Engineer. The Contractor shall dispose of all surplus, unstable, unsuitable, and organic materials, in such a manner that public or private property will not be damaged or endangered.

Suitable earth, stones and boulders naturally occurring within the right-of-way may be placed in fills or embankments in lifts and compacted according to Section 205. Broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities may be used in embankment or in fill. If used in fills or embankments, these materials shall be placed and compacted to the satisfaction of the Engineer; shall be buried under a minimum of 2 ft (600 mm) of earth cover (except when the materials include only uncontaminated dirt); and shall not create an unsightly appearance or detract from the natural topographic features of an area. Broken concrete without protruding metal bars, bricks, rock, or stone may be used as riprap as approved by the Engineer. If the materials are used for fill in locations within the right-of-way but outside project construction limits, the Contractor must specify to the Engineer, in writing, how the landscape restoration of the fill areas will be accomplished. Placement of fill in such areas shall not commence until the Contractor's landscape restoration plan is approved by the Engineer.

Aside from the materials listed above, all other construction and demolition debris or waste shall be disposed of in a licensed landfill, recycled, reused, or otherwise disposed of as allowed by State or Federal laws and regulations. When the Contractor chooses to dispose of uncontaminated soil at a clean construction and demolition debris (CCDD) facility or at an uncontaminated soil fill operation, it shall be the Contractor's responsibility to have the pH of the material tested to ensure the value is between 6.25 and 9.0, inclusive. A copy of the pH test results shall be provided to the Engineer.

A permit shall be obtained from IEPA and made available to the Engineer prior to open burning of organic materials (i.e., plant refuse resulting from pruning or removal of trees or shrubs) or other construction or demolition debris. Organic materials originating within the right-of-way limits may be chipped or shredded and placed as mulch around landscape plantings within the right-of-way when approved by the Engineer. Chipped or shredded material to be placed as mulch shall not exceed a depth of 6 in. (150 mm).”

80319

STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 2, 2004

Revised: April 1, 2009

Description. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form or failure to indicate contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment.

Types of Steel Products. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling)
Structural Steel
Reinforcing Steel

Other steel materials such as dowel bars, tie bars, mesh reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), and frames and grates will be subject to a steel cost adjustment when the pay items they are used in has a contract value of \$10,000 or greater.

Documentation. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

$$SCA = Q \times D$$

Where: SCA = steel cost adjustment, in dollars
Q = quantity of steel incorporated into the work, in lb (kg)
D = price factor, in dollars per lb (kg)

$$D = MPI_M - MPI_L$$

Where: MPI_M = The Materials Cost Index for steel as published by the Engineering News-Record for the month the steel is shipped from the mill. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

$MPI_L =$ The Materials Cost Index for steel as published by the Engineering News-Record for the month prior to the letting. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the MPI_M will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

Basis of Payment. Steel cost adjustments may be positive or negative but will only be made when there is a difference between the MPI_L and MPI_M in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(MPI_L - MPI_M) \div MPI_L\} \times 100$$

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Attachment

Item	Unit Mass (Weight)
Metal Piling (excluding temporary sheet piling)	
Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness	23 lb/ft (34 kg/m)
Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness	32 lb/ft (48 kg/m)
Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness	37 lb/ft (55 kg/m)
Other piling	See plans
Structural Steel	See plans for weights (masses)
Reinforcing Steel	See plans for weights (masses)
Dowel Bars and Tie Bars	6 lb (3 kg) each
Mesh Reinforcement	63 lb/100 sq ft (310 kg/sq m)
Guardrail	
Steel Plate Beam Guardrail, Type A w/steel posts	20 lb/ft (30 kg/m)
Steel Plate Beam Guardrail, Type B w/steel posts	30 lb/ft (45 kg/m)
Steel Plate Beam Guardrail, Types A and B w/wood posts	8 lb/ft (12 kg/m)
Steel Plate Beam Guardrail, Type 2	305 lb (140 kg) each
Steel Plate Beam Guardrail, Type 6	1260 lb (570 kg) each
Traffic Barrier Terminal, Type 1 Special (Tangent)	730 lb (330 kg) each
Traffic Barrier Terminal, Type 1 Special (Flared)	410 lb (185 kg) each
Steel Traffic Signal and Light Poles, Towers and Mast Arms	
Traffic Signal Post	11 lb/ft (16 kg/m)
Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 - 12 m)	14 lb/ft (21 kg/m)
Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 - 16.5 m)	21 lb/ft (31 kg/m)
Light Pole w/Mast Arm, 30 - 50 ft (9 - 15.2 m)	13 lb/ft (19 kg/m)
Light Pole w/Mast Arm, 55 - 60 ft (16.5 - 18 m)	19 lb/ft (28 kg/m)
Light Tower w/Luminaire Mount, 80 - 110 ft (24 - 33.5 m)	31 lb/ft (46 kg/m)
Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 - 42.5 m)	65 lb/ft (97 kg/m)
Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 - 48.5 m)	80 lb/ft (119 kg/m)
Metal Railings (excluding wire fence)	
Steel Railing, Type SM	64 lb/ft (95 kg/m)
Steel Railing, Type S-1	39 lb/ft (58 kg/m)
Steel Railing, Type T-1	53 lb/ft (79 kg/m)
Steel Bridge Rail	52 lb/ft (77 kg/m)
Frames and Grates	
Frame	250 lb (115 kg)
Lids and Grates	150 lb (70 kg)

Return With Bid

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**OPTION FOR
STEEL COST ADJUSTMENT**

The bidder shall submit this completed form with his/her bid. Failure to submit the form or properly complete contract number, company name, and sign and date the form shall make this contract exempt of steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment. After award, this form, when submitted shall become part of the contract.

Contract No.: _____

Company Name: _____

Contractor's Option:

Is your company opting to include this special provision as part of the contract plans for the following items of work?

- | | | |
|--|-----|--------------------------|
| Metal Piling | Yes | <input type="checkbox"/> |
| Structural Steel | Yes | <input type="checkbox"/> |
| Reinforcing Steel | Yes | <input type="checkbox"/> |
| Dowel Bars, Tie Bars and Mesh Reinforcement | Yes | <input type="checkbox"/> |
| Guardrail | Yes | <input type="checkbox"/> |
| Steel Traffic Signal and Light Poles, Towers and Mast Arms | Yes | <input type="checkbox"/> |
| Metal Railings (excluding wire fence) | Yes | <input type="checkbox"/> |
| Frames and Grates | Yes | <input type="checkbox"/> |

Signature: _____ **Date:** _____

80127

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 1. 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

WARM MIX ASPHALT (BDE)

Effective: January 1, 2012

Revised: November 1, 2013

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.

Materials.

Add the following to Article 1030.02 of the Standard Specifications.

"(h) Warm Mix Asphalt (WMA) Technologies (Note 3)"

Add the following note to Article 1030.02 of the Standard Specifications.

"Note 3. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm-Mix Asphalt Technologies"."

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.

Production.

Revise the second paragraph of Article 1030.06(a) of the Standard Specifications to read:

“At the start of mix production for HMA, WMA, and HMA using WMA technologies, QC/QA mixture start-up will be required for the following situations; at the beginning of production of a new mixture design, at the beginning of each production season, and at every plant utilized to produce mixtures, regardless of the mix.”

Quality Control/Quality Assurance Testing.

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	All Other Mixtures	
Aggregate Gradation % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 μm) No. 200 (75 μm) Note 1.	1 washed ignition oven test on the mix per half day of production Note 4.	1 washed ignition oven test on the mix per day of production Note 4.	Illinois Procedure
Asphalt Binder Content by Ignition Oven Note 2.	1 per half day of production	1 per day	Illinois-Modified AASHTO T 308
VMA Note 3.	Day's production ≥ 1200 tons: 1 per half day of production 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)	N/A	Illinois-Modified AASHTO R 35
Air Voids Bulk Specific Gravity of Gyratory Sample Note 5.	Day's production ≥ 1200 tons: 1 per half day of production Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	1 per day	Illinois-Modified AASHTO T 312
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	1 per day	Illinois-Modified AASHTO T 209

Parameter	Frequency of Tests	Frequency of Tests	Test Method See Manual of Test Procedures for Materials
	High ESAL Mixture Low ESAL Mixture	All Other Mixtures	
	day thereafter (first sample of the day)		

Note 1. The No. 8 (2.36 mm) and No. 30 (600 µm) sieves are not required for All Other Mixtures.

Note 2. The Engineer may waive the ignition oven requirement for asphalt binder content if the aggregates to be used are known to have ignition asphalt binder content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the asphalt binder content.

Note 3. The G_{sb} used in the voids in the mineral aggregate (VMA) calculation shall be the same average G_{sb} value listed in the mix design.

Note 4. The Engineer reserves the right to require additional hot bin gradations for batch

Note 5. 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.”

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.

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.

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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.

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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.

NOTICE

The most current **General Wage Determination Decisions** (wage rates) are available on the IDOT web site. They are located on the Letting and Bidding page at <http://www.dot.state.il.us/desenv/delett.html>.

In addition, ten (10) days prior to the letting, the applicable Federal wage rates will be e-mailed to subscribers. It is recommended that all contractors subscribe to the Federal Wage Rates List or the Contractor's Packet through IDOT's subscription service.

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates.

The instructions for subscribing are at <http://www.dot.state.il.us/desenv/subsc.html>.

If you have any questions concerning the wage rates, please contact IDOT's Chief Contract Official at 217-782-7806.