DRAFT

Municipality	LOCAL AGENCY	Illinois Department of Transportation	CONSULTANT	Name: Sam Schwartz Engineering
Township				Address: 3100 W. Higgins Rd., Suite 100
County: Lake County – Division of Transportation		**Preliminary Engineering Services Agreement For Non-Motor Fuel Tax Funds**		City: Hoffman Estates
Section: Various				State: IL

THIS AGREEMENT is made and entered into this _____ day of _____ , _____ between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. Non-Motor Fuel Tax Funds, allotted to the LA ~~by the State of Illinois~~, under the general supervision of the State Department of Transportation, hereinafter called the "DEPARTMENT", will be used entirely ~~or in part~~ to finance ENGINEERING services as described under AGREEMENT PROVISIONS.

Section Description

Name Various

Route Various Length _____ Mi. _____ FT (Structure No. _____)

Termini _____

Description:
Engineering Services (Signal Coordination 2013 - 13-00999-49-TL)

Agreement Provisions

The Engineer Agrees,

1. To perform or be responsible for the performance of the following engineering services for the LA, in connection with the proposed improvements herein before described, and checked below:

   a. ☐ Make such detailed surveys as are necessary for the preparation of detailed roadway plans

   b. ☐ Make stream and flood plain hydraulic surveys and gather high water data, and flood histories for the preparation of detailed bridge plans.

   c. ☐ Make or cause to be made such soil surveys or subsurface investigations including borings and soil profiles and analyses thereof as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations are to be made in accordance with the current requirements of the DEPARTMENT.

   d. ☐ Make or cause to be made such traffic studies and counts and special intersection studies as may be required to furnish sufficient data for the design of the proposed improvement.

   e. ☐ Prepare Army Corps of Engineers Permit, Lake County Stormwater Management Commission Permit, Department of Natural Resources-Office of Water Resources Permit, Bridge waterway sketch, and/or Channel Change sketch, Utility plan and locations, and Railroad Crossing work agreements.

   f. ☐ Prepare Preliminary Bridge design and Hydraulic Report, (including economic analysis of bridge or culvert types) and high water effects on roadway overflows and bridge approaches.

   g. ☐ Make complete general and detailed plans, special provisions, proposals and estimates of cost and furnish the LA with one (1) copy of each document in both hardcopy and electronic format. Additional copies of any or all documents, if required, shall be furnished to the LA by the ENGINEER at the ENGINEER's actual cost for reproduction.

   h. ☐ Furnish the LA with survey and drafts in duplicate of all necessary right-of-way dedications, construction easement and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.

   i. ☐ Assist the LA in the tabulation and interpretation of the contractors' proposals

j. ☐ Prepare the necessary environmental documents in accordance with the procedures adopted by the DEPARTMENT's Bureau of Local Roads & Streets.

k. ☐ Prepare the Project Development Report when required by the DEPARTMENT.

l. ☒ Services as included and/or defined in the attached Scope of Services.

2. That all reports, plans, plats and special provisions to be furnished by the ENGINEER pursuant to the AGREEMENT, will be in accordance with current standard specifications and policies of the LA ~~of the DEPARTMENT~~. It is being understood that all such reports, plats, plans and drafts shall, before being finally accepted, be subject to approval by the LA ~~and the DEPARTMENT~~.

3. To attend conferences at any reasonable time when requested to do so by representatives of the LA ~~or the Department~~.

4. In the event plans or surveys are found to be in error during construction of the SECTION and revisions of the plans or survey corrections are necessary, the ENGINEER agrees that the ENGINEER will perform such work without expense to the LA, even though final payment has been received by the ENGINEER. The ENGINEER shall give immediate attention to these changes so there will be a minimum delay to the CONTRACTOR.

5. That basic survey notes and sketches, charts, computations and other data prepared or obtained by the ENGINEER pursuant to this AGREEMENT will be made available, upon request, to the LA ~~or the DEPARTMENT~~ without cost and without restriction or limitations as to their use.

6. That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will show the ENGINEER's professional seal where such is required by law.

The LA Agrees,

1. To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT according to the following method indicated by a check mark:

   a. ☐ A sum of money equal to _____ percent of the awarded contract cost of the proposed improvement as approved by the DEPARTMENT.

   b. ☐ A sum of money equal to the percent of the awarded contract cost for the proposed improvement as approved by the DEPARTMENT based on the following schedule:

Schedule for Percentages Based on Awarded Contract Cost

Awarded Cost	Percentage Fees
Under $50,000	_____ (see note)
	_____ %
	_____ %
	_____ %

Note: Not necessarily a percentage. Could use per diem, cost-plus or lump sum.

2. To pay for all services rendered in accordance with this AGREEMENT at the actual cost of performing such work plus 14 percent to cover profit, overhead and readiness to serve - "actual cost" being defined as material cost plus payrolls, insurance, social security and retirement deductions. Traveling and other out-of-pocket expenses will be reimbursed to the ENGINEER at the ENGINEER's actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided in section 1 of the ENGINEER AGREES. If the ENGINEER sublets all or part of this work, the LA will pay the cost to the ENGINEER plus an additional service charge of up to five (5) percent.

   "Cost to Engineer" to be verified by furnishing the LA ~~and the DEPARTMENT~~ copies of invoices from the party doing the work. The classifications of the employees used in the work should be consistent with the employee classifications for the services performed. If the personnel of the firm, including the Principal Engineer, perform routine services that should normally be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the work performed.

   The total Not-to-Exceed Contract Amount shall be $99,999.24

3. That payments due the ENGINEER for services rendered in accordance with this AGREEMENT will be made as soon as practicable after the services have been performed in accordance with the following schedule:

   a. Upon completion of detailed plans, special provisions, proposals and estimate of cost - being the work required by section 1 of the ENGINEER AGREES - to the satisfaction of the LA ~~and their approval by the DEPARTMENT~~, 90 percent of the total fee due under this AGREEMENT based on the approved estimate of cost.

   b. Upon award of the contract for the improvement by the LA ~~and its approval by the DEPARTMENT~~, 100 percent of the total fee due under the AGREEMENT based on the awarded contract cost, less any amounts paid under "a" above.

   By Mutual agreement, partial payments, not to exceed 90 percent of the amount earned, may be made from time to time as the work progresses.

4. That, should the improvement be abandoned at any time after the ENGINEER has performed any part of the services provided for in sections 1 and 3 of the ENGINEER AGREES and prior to the completion of such services, the LA shall reimburse the ENGINEER for the ENGINEER's actual costs plus 14 percent incurred up to the time the ENGINEER is notified in writing of such abandonment -"actual cost" being defined as in paragraph 2 of the LA AGREES.

5. That, should the LA require changes in any of the detailed plans, specifications or estimates except for those required pursuant to paragraph 4 of the ENGINEER AGREES, ~~after they have been approved by the DEPARTMENT~~, the LA will pay the ENGINEER for such changes on the basis of actual cost plus 14 percent to cover profit, overhead and readiness to serve -"actual cost" being defined as in paragraph 2 of the LA AGREES. It is understood that "changes" as used in this paragraph shall in no way relieve the ENGINEER of the ENGINEER's responsibility to prepare a complete and adequate set of plans and specifications.

It is Mutually Agreed,

1. That any difference between the ENGINEER and the LA concerning their interpretation of the provisions of this Agreement shall be referred to a committee of disinterested parties consisting of one member appointed by the ENGINEER, one member appointed by the LA and a third member appointed by the two other members for disposition and that the committee's decision shall be final.

2. This AGREEMENT may be terminated by the LA upon giving notice in writing to the ENGINEER at the ENGINEER's last known post office address. Upon such termination, the ENGINEER shall cause to be delivered to the LA all surveys, permits, agreements, preliminary bridge design & hydraulic report, drawings, specifications, partial and completed estimates and data, if any from traffic studies and soil survey and subsurface investigations with the understanding that all such material becomes the property of the LA. The ENGINEER shall be paid for any services completed and any services partially completed in accordance with section 4 of the LA AGREES.

3. That if the contract for construction has not been awarded one year after the acceptance of the plans by the LA ~~and their approval by the DEPARTMENT~~, the LA will pay the ENGINEER the balance of the engineering fee due to make 100 percent of the total fees due under this AGREEMENT, based on the estimate of cost as prepared by the ENGINEER and approved by the LA ~~and the DEPARTMENT~~.

4. That the ENGINEER warrants that the ENGINEER has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this contract, and that the ENGINEER's has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For Breach or violation of this warranty the LA shall have the right to annul this contract without liability.

IN WITNESS WHEREOF, the parties have caused the AGREEMENT to be executed in triplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

County of Lake of the
(~~Municipality/Township~~/County)

ATTEST:

By _____

Lake County Clerk

(Seal)

State of Illinois, acting by and through its

County Board

By _____

Title Chairman of the County Board

RECOMMENDED FOR EXECUTION

Paula J. Trigg, P.E.
Director of Transportation/County Engineer
Lake County

Executed by the ENGINEER:

ATTEST:

OFFICIAL SEAL
KRISTIN D GOLOJUCH
NOTARY PUBLIC - STATE OF ILLINOIS
MY COMMISSION EXPIRES:02/19/17

By Kristin D Golojuch

Title Office Administrator

Sam Schwartz Engineering, DPC
Engineering Firm

3100 W. Higgins Rd. Suite 100
Street Address

Hoffman Estates, IL 60169
City, State

By Peter W

Title Vice President

Note: three (3) Original Executed Contracts – (2) LCDOT; (1) Consultant

3100 W. Higgins Road
Suite 100
Hoffman Estates, IL 60169
phone: (630) 213-1000
samschwartz.com

ATTACHMENT A

PROJECT SCOPE

The proposed work program for the 2013 Signal Coordination and Timing Contract is based on work completed by Sam Schwartz Engineering (SSE) on the Rollins Rd. optimization study in SSE's 2012 contract with the Lake County Division of Transportation (Contract #12-00999-36-TL) and our knowledge and experience gained through our experience as a Region One/District One Signal Coordination and Timing consultant. The project will be managed out of our Hoffman Estates, IL office. The objective of this project is to complete signal optimization studies on various corridors throughout Lake County.

Within the proposed budget, using traffic counts collected previously by Lake County, SSE estimates we could study 4 signal corridors, with each corridor containing 10-15 traffic signals.

SCAT STUDY OF A TYPICAL SIGNAL CORRIDOR

Data Collection

A majority of the field data collection for various corridors will have been accomplished in the Synchro modeling portion of the 2012 contract. Traffic counts used in the optimization study will be those that were previously completed by Lake County. A before travel time study will be completed for all three peak periods for comparison to after study conditions. 24 hour system detector counts will be compiled over 7 consecutive days for use in developing a cost benefit ratio and emissions data. If necessary, SSE can collect traffic counts at key intersections on the various corridors.

Data Analysis

The Synchro networks for the various corridors will be pulled from the countywide Synchro model and combined with count data from the data collection task of each work order. The Synchro networks will be analyzed to develop optimized coordination plans for all three peak periods.

Implementation

Time of day steps will be developed for the corridors based on analysis of the traffic counts as well as field observations. The 3 coordination plans developed in the data analysis portion of the study will be downloaded via Centracs to field controllers. SSE personnel will be in the field observing the corridors as the database downloads occur. Adjustments will be made in the field over several observation periods to maximize operating efficiency. Traffic Responsive Implementation will not be part of these optimization studies

Evaluation

After implementation on new coordination plans on a corridor, a second travel time survey will be completed. This along with system detector data collected will be used to determine emission and fuel consumption reductions, a cost benefit ratio, and other measures of effectiveness, based on formulas from the Texas Transportation Institutes'' 2012 Urban Mobility Study. This summary of MOE's along with traffic count data and Synchro analysis will be compiled into an electronic final report in Adobe PDF format.

QA/QC

An established Quality Assurance / Quality Control process used on all IDOT SCAT work orders will used on the optimization portion of this contract. QA/QC checks during each task of the optimization study will insure an efficient and accurate study end product.

LIST OF DELIVERABLES

The following work products and/or reports will be provided to LCDOT at various stages during this contract.

1. Progress reports will be emailed to County staff twice a month for the entire length of the contract, updating the status of various tasks on various corridors that may be under study at any one point in time

2. For each corridor studies the end product will be a Final Report containing:

    a. Summary Report, including system description, analysis methodology, MOE comparison results and special recommendations or observations.

    b. Synchro analyses for each intersection and count period.

    c. Synchro Time Space Diagrams for the Corridor

    d. Summary of turning movement traffic counts used in the Synchro Analysis

    e. Before and after speed and delay runs.

    f. 7-day System Detector Counts

PAYROLL ESCALATION TABLE
FIXED RAISES

FIRM NAME: Sam Schwartz Engineering
PRIME/SUPPLEMENT: Prime

DATE: 09/16/13
PTB NO.:

CONTRACT TERM	12 MONTHS	OVERHEAD RATE	1.26%
START DATE	11/1/2013	COMPLEXITY FACTOR	0
RAISE DATE	1/1/2014	% OF RAISE	4.75%

ESCALATION PER YEAR

11/1/2013 - 12/31/2013	1/1/2014 - 11/1/2014			
2	10			
12	12			
= 16.67%	87.29%			
= 1.0396				

The total escalation for this project would be: 3.96%

PAYROLL RATES

FIRM NAME Sam Schwartz Engineer **DATE** 09/16/13
PRIME/SUPPLEMENT Prime
PSB NO.

ESCALATION FACTOR **3.96%**

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Project Manager / Director	$55.29	$57.48
Project Engineer	$31.12	$32.35
Engineer	$30.05	$31.24
Senior Technician	$20.09	$20.89
Technician	$16.00	$16.63
		$0.00
		$0.00
		$0.00
		$0.00
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		$0.00

Subconsultants

FIRM NAME Sam Schwartz Engineering **DATE** 09/16/13
PRIME/SUPPLEMENT Prime
PSB NO.

NAME	Direct Labor Total	Contribution to Prime Consultant
NONE		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
		0.00
Total	0.00	0.00

COST PLUS FIXED FEE
COST ESTIMATE OF CONSULTANT SERVICES

DF-824-039
REV 12/04

FIRM Sam Schwartz Engineering **DATE** 09/16/13

PSB

PRIME/SUPPLEMENT Prime

OVERHEAD RATE 1.2571

COMPLEXITY FACTOR 0

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	IN-HOUSE DIRECT COSTS (D)	FIXED FEE (E)	11/1/2012 Direct Costs (F)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
	Data Collection	59	2,009.27	2,525.85	320.00	743.43				5,598.54	5.60%
	Data Analysis	144	5,261.71	6,614.49		1,946.83				13,823.03	13.82%
	Implementation	448	17,709.84	22,263.04	1,252.50	6,552.64				47,778.03	47.78%
	Evaluation	160	7,186.43	9,034.06	330.00	2,658.98				19,209.47	19.21%
	QA/QC	90	5,173.07	6,503.07		1,914.04				13,590.17	13.59%
	Subconsultant DL					0.00				0.00	0.00%
	TOTALS	901	37,340.32	46,940.51	1,902.50	13,815.92	0.00	0.00	0.00	**99,999.24**	100.00%

DBE 0.00%

DBE

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AVERAGE HOURLY PROJECT RATES

FIRM Sam Schwartz Engineering

PSB

PRIME/SUPPLEMENT Prime

DATE 09/16/13

SHEET 1 OF 1

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PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			Data Collection			Data Analysis			Implementation			Evaluation			QA/QC		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Project Manager / Director	57.48	326	36.18%	20.80	4	6.78%	3.90	24	16.67%	9.58	128	28.57%	16.42	80	50.00%	28.74	90	100.00%	57.48
Project Engineer	32.35	575	63.82%	20.65	55	93.22%	30.16	120	83.33%	26.96	320	71.43%	23.11	80	50.00%	16.18			
Engineer	31.24	0																	
Senior Technician	20.89	0																	
Technician	16.63	0																	
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TOTALS		901	100%	$41.44	59	100.00%	$34.06	144	100%	$36.54	448	100%	$39.53	160	100%	$44.92	90	100%	$57.48

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