


Municipality	L O C A L A G E N C Y	 Illinois Department of Transportation	C O N S U L T A N T	Name Hampton, Lenzini & Renwick, Inc.
Township				Address 380 Shepard Drive
County Lake County – Division of Transportation				City Elgin
Section 18-00268-17-TL				State IL
		Preliminary Engineering Services Agreement For Non-Motor Fuel Tax Funds		

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. 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 2018 PASSAGE Field Elements

Route Various Length 0.00 Mi. _____ FT (Structure No. _____)

Termini Various termini

Description:

This project includes integrating various existing IDOT and LCDOT signals into the Lake County PASSAGE system. A base project and various alternates will be included based on the initial engineer's estimate.

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 and** 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	(see note)
Under \$50,000	_____	%
	_____	%
	_____	%

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 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. ***See the CECs**

The Total Not-to-Exceed Contract Amount shall be \$56035.62

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 ____ 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 ____ 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 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 quintuplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

ATTEST: _____ County of Lake _____ of the
(Municipality/Township/County)
State of Illinois, acting by and through its
County Board
By _____
Lake County Clerk By _____
(Seal) Title Chairman of the County Board

RECOMMENDED FOR EXECUTION

Shane E. Schneider, P.E.
Director of Transportation/County Engineer
Lake County

Executed by the ENGINEER:

ATTEST: _____
Engineering Firm
Street Address
City, State
By _____
Title _____



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**Lake County
Division of Transportation
ITS and Traffic Signal Design
Phase II Engineering
Scope of Work**

I. INTRODUCTION

The Lake County Division of Transportation intends to integrate existing IDOT and LCDOT signals into the Lake County PASSAGE system. The work will include preparing PS&E for the entire project scope, which is envisioned to include installing new underground conduit, fiber optic cable, tracer cable, Layer II switches, PTZ cameras, traffic signal controllers, and other ITS and communications related equipment and hardware at various locations throughout Lake County. In addition, the consultant will be responsible for following the IDOT District One Bureau of Traffic Permit process.

II. SCOPE OF SERVICES

Phase II engineering for design of traffic signals modifications and upgrades for incorporation into the LCDOT PASSAGE system. The project includes the following locations and work:

- **Riverwoods & Yorkshire**-Point-to-point wireless, Layer II switch, PTZ, New controller.
- **Deerfield & Portwine**- Point-to-point wireless, Layer II switch, PTZ, New controller.
- **Center & Atkinson**- Fiber going west to 83 & Center, Layer II switch, PTZ.
- **Lewis & 9th**- Fiber going south to Lewis & 173, New controller, Layer II switch, PTZ.
- **Darrell & Roberts**- Cell modem, PTZ, new controller.
- **Darrell & Bonner**- Fiber going south to 176 & Darrell.
- **IL 176 & Darrell** - Layer II switch, PTZ, upgrade/replace controller, 4-Port Digi.
- **IL 176 & River**- Layer II switch, PTZ, upgrade/replace controller.
- **IL 176 & Roberts**- Layer II switch, PTZ, upgrade/replace controller.
- **IL 176 & Westridge** - upgrade/replace controller.
- **IL 176 & Beech** - upgrade/replace controller.
- **IL 176 & Newport** - upgrade/replace controller.
- **US 12 & Big Hollow**- New controller, Layer II switch.
- **US 12 & Hartigan**- Point-to-Point wireless, New controller, Layer II switch, PTZ.
- **US 12 & Molidor**- Point-to-Point wireless, Layer II switch, PTZ

There are no CCDD services included in the scope; it is assumed we can keep all material on site. The plans on State intersections will be submitted to IDOT Traffic Permits for approval.

Task 1 – Start-up, Data Collection, Survey

HLR will conduct a field inspection of the project sites to verify existing conditions match the plans and aerials obtained from IDOT and LCDOT. A photo log will be compiled for any inconsistencies. HLR will verify the existing fiber types in use along IL Route 176 and US Route 12. PTZ camera locations will be determined during the field visit as well (quadrant location and extension pole versus mast arm shaft installation).

HLR will review and analyze the project-related data and records provided by IDOT and Lake County, including utility plans. A design-level JULIE locate will be done to determine the utilities in the area; these utility companies will be contacted for more information. We will prepare a letter for Lake County to send to IDOT requesting any plans they have available. Staff from HLR will scan through the plans at IDOT and make



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copies as necessary (sometimes IDOT requires someone to come and go through the microfilm to find the necessary sheets).

Task 2 – Traffic Signal Plans

HLR will prepare the preliminary and prefinal plans and specifications for the subject improvements. The contract plans will be signed and certified by a Licensed Professional Engineer in Illinois. The plans may be separated into a Base project along with several Alternates, with separate quantity calculations and engineer's estimate of probable construction cost for each part. Traffic signal modification plans and cable plans will be completed for 15 intersections. Interconnect plans and schematic will be completed for all locations where new fiber is to be installed. Interconnect schematics will be prepared for locations using wireless communications. Network diagrams will be prepared by Parsons Engineering; LCDOT will coordinate with Parsons Engineering. The plan sets will include construction details and standard drawings. Quantity calculations with engineer's opinion of probable construction cost for each alternate will be broken out separately. Two meetings with the County to discuss project status and plan reviews are included.

LCDOT will provide HLR with the most recent Special Provisions for any applicable pay items. HLR will compile a full set of project specifications.

Task 3 – Permit Coordination

HLR will coordinate the review of the plans through the IDOT permit process. The plan set will be submitted to IDOT for review and updated per their comments. Two review cycles through IDOT are assumed. We will prepare the transmittal letter to Lake County, forward the partially signed permit with instructions for processing and respond to questions once the plans have been accepted by IDOT. We will obtain the signed permit and performance bond from the selected contractor and prepare the transmittal letter to IDOT with the permit documents.

Task 4 – Project Administration & Management and Quality Assurance / Quality Control

HLR will complete in-house management of manpower and coordinate the design and plan development. A kick-off meeting will be conducted with Lake County and HLR staff to determine milestone schedule, submittal requirements and project scope. The work includes the time for project-related progress reports, invoicing and filing.

HLR will conduct independent QA/QC reviews to ensure that the final design and contract plans meet the approval of LCDOT and the policy guidelines of IDOT. QA/QC will be completed by Don Ryba for the final contract plans.



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Project Schedule

Phase 2 Notice To Proceed.....	June 15, 2018
Preliminary Plan Submittal	July, 15 2018
Prefinal Plan Submittal.....	August 10, 2018
Coordinate With Regulatory Agencies.....	Aug. – Sept. 2018
Receive IDOT / LCDOT Review Comments.....	September 15, 2018
Submit Final Plans For Approval.....	September 21, 2018
Construction Letting	October 2018
Phase III Consultation.....	April 2019 – July 2019

PAYROLL ESCALATION TABLE
FIXED RAISES
COST PLUS FIXED FEE

FIRM NAME
PRIME/SUPPLEMENT

Hampton, Lenzini & Renwick, Inc.
 Prime

DATE 05/08/18
PTB NO. N/A

CONTRACT TERM
START DATE
RAISE DATE

7 MONTHS
 6/1/2018
 1/1/2019

OVERHEAD RATE
COMPLEXITY FACTOR
% OF RAISE

159.00%
 0
 3.00%

ESCALATION PER YEAR

6/1/2018 - 1/1/2019

7
 7

= 100.00%
 = 1.0000

The total escalation for this project would be:

0.00%

PAYROLL RATES

FIRM NAME
PRIME/SUPPLEMENT
PSB NO.

Hampton, Lenzini & Ren **DATE**
Prime
N/A

05/08/18

ESCALATION FACTOR

0.00%

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Principal	\$69.00	\$69.00
Engineer 6	\$53.00	\$53.00
Engineer 5	\$50.17	\$50.17
Engineer 4	\$45.32	\$45.32
Engineer 3	\$40.38	\$40.38
Engineer 2	\$35.20	\$35.20
Engineer1	\$27.50	\$27.50
Structural 2	\$59.67	\$59.67
Structural 1	\$43.00	\$43.00
Technician 3	\$39.25	\$39.25
Technician 2	\$30.12	\$30.12
Technician 1	\$23.58	\$23.58
Intern	\$18.00	\$18.00
Land Acquisition	\$39.67	\$39.67
Survey 2	\$40.33	\$40.33
Survey 1	\$30.88	\$30.88
Environmental 2	\$42.00	\$42.00
Environmental 1	\$22.15	\$22.15
Administration 2	\$39.73	\$39.73
Administration 1	\$19.88	\$19.88
		\$0.00
		\$0.00
		\$0.00
		\$0.00

FIRM	Hampton, Lenzini & Renwick, Inc.
PSB	N/A
PRIME/SUPPLEMENT	Prime

SHEET **1** **OF** **5**

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES						Start-up, Data Coll.			Traffic Signal Plans			Permit Coordination			Project Admin. & QC/QA		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	69.00	0																	
Engineer 6	53.00	39	7.85%	4.16		4.84%	2.56												
Engineer 5	50.17	0																	
Engineer 4	45.32	89	17.91%	8.12	16	25.81%	11.70	60	17.91%	8.12	13	20.31%	9.21						
Engineer 3	40.38	207	41.65%	16.82	31	50.00%	20.19	152	45.37%	18.32	24	37.50%	15.14						
Engineer 2	35.20	0																	
Engineer1	27.50	156	31.39%	8.63	12	19.35%	5.32	117	34.93%	9.60	27	42.19%	11.60						
Structural 2	59.67	0																	
Structural 1	43.00	0																	
Technician 3	39.25	0																	
Technician 2	30.12	0																	
Technician 1	23.58	0																	
Intern	18.00	0																	
Land Acquisition	39.67	0																	
Survey 2	40.33	0																	
Survey 1	30.88	0																	
Environmental 2	42.00	0																	
Environmental 1	22.15	0																	
Administration 2	39.73	0																	
Administration 1	19.88	6	1.21%	0.24				6	1.79%	0.36									
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
TOTALS		497	100%	\$37.96		100.00%	\$39.77	62	100.00%	\$36.40	64	100%	\$35.95	36	100%	\$53.00	0	0%	\$0.00



**Lake County Division of Transportation
ITS and Traffic Signal Design
Phase II Engineering Services
Anticipated Scope of Services**

Phase II engineering for design of traffic signals modifications and upgrades for incorporation into the LCDOT PASSAGE system. The locations to be designed are included in the written scope of work. There are no CCDD services included in the scope; it is assumed we can keep all material on site. The plans on State routes will be submitted to IDOT Traffic Permits for approval.

Description	Hours by Employee Classification					Hours
	E6	E4	E3	E1	A1	
I. Start-up, Data Collection						
a. Field inspection of the project sites.		16	16			32
b. Project kick-off meeting with LCDOT	3		3			6
c. Obtain and review existing plans provided by IDOT and the County.			4	4		8
d. Utility coordination.			8	8		16
Task I Sub-Total =	3	16	31	12	0	62
II. Traffic Signal Plans						
a. Project Setup & Initiation			2			2
b. Plot existing plans (as necessary)				16		16
c. Prepare Cover Sheet, General Notes, SOQ			2	4		6
d. Traffic signal modification plans and cable plans (assumes 15 intersections)		20	40	30		90
e. Additional traffic signal modification plans and cable plans for IL 22 & Riverwoods, Deerfield & Saunders, IL 83 & Center and IL 173 & Lewis (4 intersections)		4	12	12		28
f. Standard District 1 details (project wide)				2		2
g. Interconnect plan (3 interconnects)		12	36	38		86
h. Interconnect schematic (7 locations)		7	14	7		28
i. Construction Details and Standard Drawings			2	8		10
j. Coordination for County reviews, plan updates and preparation of submittal packages.		4	20			24
k. Quantity Calculation with EOPCC		4	12			16
l. Specifications			4		2	6
m. Printing, Plotting & Typing		1			4	5
n. Meetings with County		8	8			16
Task II Sub-Total =	0	60	152	117	6	335
III. Permit Coordination (IDOT)						
a. Forward Plans to IDOT for review.		2				2
b. Update plans per IDOT review comments. Submit updated plans to IDOT with supporting documentation and disposition of comments (assume 2 submittals).		4	24	24		52
c. Conduct follow-up coordination with IDOT.		4				4
d. Prepare transmittal letter to Lake County, forward partially signed permit with instructions for processing, and respond to questions.		1				1
e. Obtain the signed permit and performance bond from selected contractor.		1				1
f. Prepare transmittal letter to IDOT with permit documents, performance bond, plans, specifications and CD with dgn and pdf files.		1		3		4
Task III Sub-Total =	0	13	24	27	0	64
III. Project Administration and QC/QA						
a. Project Administration		20				20
b. Quality Control/Quality Assurance		16				16
Task III Sub-Total =	36	0	0	0	0	36
Subtotals Engineering Hours & Fee =	3	89	207	156	6	497
Direct Costs:						Cost
Mileage for 3 trips to LCDOT						\$ 130.80
Mileage for site visit						\$ 54.50