

Municipality	LOCAL AGENCY	 Illinois Department of Transportation Preliminary/Construction Engineering Services Agreement For Non-Motor Fuel Tax Funds	CONSULTANT	Name DRAFT Ciorba Group, Inc.
Township				Address 5507 N Cumberland Ave
County Lake County Div. of Transportation				City Chicago
Section 14-00999-05-RS				State Illinois

THIS AGREEMENT is made and entered into this _____ day of _____, 2015 between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above PROJECT. Non-Motor Fuel Tax Funds, allotted to the LA by the State of Illinois under the general supervision of **in coordination with** 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.

WHEREVER IN THIS AGREEMENT or attached exhibits the following terms are used, they shall be interpreted to mean:

Regional Engineer Deputy Director Division of Highways, Regional Engineer, Department of Transportation
Resident Construction Supervisor Authorized representative of the LA in immediate charge of the engineering details of the PROJECT
Contractor Company or Companies to which the construction contract was awarded

Section Description

Name Lewis Avenue Route CH 27 Length 1.76 miles Structure No. _____

Termini Argonne Drive to 14th Street and Sunset Avenue to Your House Road

Description

The project is the resurfacing and rehabilitation of Lewis Avenue at two locations. The first location is in North Chicago from Argonne Drive to 14th Street and the second one is in Waukegan from Sunset Avenue to York House Road. The project involves hot-mix asphalt (HMA) removal, curb and gutter removal and replacement, sidewalk removal and replacement, placement of HMA leveling binder, binder, and surface course, storm sewer, pavement markings, site restoration, and the removal of a pedestrian bridge

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 improvement 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, Division 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.

NOTE Four copies to be submitted to the Regional Engineer

- g. ☐ Make complete general and detailed plans, special provisions, proposals and estimates of cost and furnish the LA with five (5) copies of the plans, special provisions, proposals and estimates. Additional copies of any or all documents, if required shall be furnished to the LA by the ENGINEER at his actual cost for reproduction.
- h. ☐ Furnish the LA with survey and drafts in quadruplicate of all necessary right-of-way dedications, construction easements and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.
- i. ☐ Assist the LA in the receipt and evaluation of proposals and the awarding of the construction contract.
- j. ☐ Furnish or cause to be furnished:
 - (1) Proportioning and testing of concrete mixtures in accordance with the "Manual of Instructions for Concrete Proportioning and Testing" issued by the Bureau of Materials and Physical Research, of the DEPARTMENT and promptly submit reports on forms prepared by said Bureau.
 - (2) Proportioning and testing of bituminous mixtures (including extracting test) in accordance with the "Manual of Instructions for Bituminous Proportioning and Testing" issued by the Bureau of Materials and Physical Research, of the DEPARTMENT, and promptly submit reports on forms prepared by said Bureau.
 - (3) All compaction tests as required by the specifications and report promptly the same on forms prepared by the Bureau of Materials and Physical Research.
 - (4) Quality and sieve analyses on local aggregates to see that they comply with the specifications contained in the contract.
 - (5) Inspection of all materials when inspection is not provided at the sources by the Bureau of Materials and Physical Research, of the DEPARTMENT and submit inspection reports to the LA and the DEPARTMENT in accordance with the policies of the said DEPARTMENT.
- k. ☒ Furnish or cause to be furnished
 - (1) A resident construction supervisor, inspectors, and other technical personnel to perform the following work: (The number of such inspectors and other technical personnel required shall be subject to the approval of the LA.)
 - a. Continuous observation of the work and the contractor's operations for compliance with the plans and specifications as construction proceeds, but the ENGINEER does not guarantee the performance of the contract by the contractor.
 - b. Establishment and setting spot checking of lines and grades.
 - c. Maintain a daily record of the contractor's activities throughout construction including sufficient information to permit verification of the nature and cost of changes in plans and authorized extra work.
 - d. Supervision of inspectors, proportioning engineers and other technical personnel and the taking and submitting of material samples.
 - e. Revision of contract drawings to reflect as built conditions.
 - f. Preparation and submission to the LA in the required form and number of copies, all partial and final payment estimates, change orders, records and reports required by the LA and the DEPARTMENT.

g.-At least one DECI-certified employee available for erosion control inspection duties

NOTE: ~~When Federal funds are used for construction and the ENGINEER or the ENGINEER's assigned staff is named as resident construction supervisor, the ENGINEER is required to be prequalified with the STATE in Construction Inspection. The onsite resident construction supervisor and project inspectors shall possess valid Documentation of Contract Quantities certification.~~

2. That all reports, plans, plats and special provisions **construction documentation** to be furnished by the ENGINEER pursuant to this agreement will be in accordance with the current standard specifications and policies of the DEPARTMENT & the LA, it being understood that all such reports, plats, plans and drafts **construction documentation** shall before being finally accepted, be subject to approval by the LA and the said DEPARTMENT.
3. To attend conferences at any reasonable time when requested to do so by the LA or representatives of the DEPARTMENT.
4. In the event plans, surveys or construction staking are found to be in error during the construction of the PROJECT and revisions of the plans or survey or construction staking corrections are necessary, the ENGINEER agrees that he will perform such work without expense to the LA, even though final payment has been received by him. He shall give immediate attention to these changes so there will be a minimum delay to the contractor.
5. The 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. To make such changes in working plans, including all necessary preliminary surveys and investigations, as may be required after the award of the construction contract and during the construction of the improvement.
7. That all plans and other documents furnished by the ENGINEER pursuant to the AGREEMENT will be endorsed by him and will show his professional seal where such is required by law.
8. To submit, upon request by the LA or the DEPARTMENT a list of the personnel and the equipment he/she proposes to use in fulfilling the requirements of this AGREEMENT.

The LA Agrees,

1. To pay the Engineer as compensation for all services performed as stipulated in paragraphs 1a, 1g, 1i, 2, 3, 5 and 6 in accordance with one of the following methods 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 percentage 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 services stipulated in paragraphs 4b, 4c, 4d, 4e, 4f, 4h, 1j and 1k of THE ENGINEER AGREES at the hourly rates stipulated below for personnel assigned to this PROJECT as payment in full to the ENGINEER for the actual time spent in providing these services the hourly rates to include profit, overhead, readiness to serve, insurance, social security and retirement deductions. Traveling and other out-of-pocket expenses will be reimbursed to the ENGINEER at his actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided under paragraphs 4b, 4c, 4d, 4e, 4f, 1j and 1k of THE ENGINEER AGREES. If the ENGINEER sublets all or a part of this work, the LA will pay the cost to the ENGINEER plus a five (5) percent service charge. "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.

Grade Classification of Employee	Hourly Rate
<u>Project Manager</u>	70.00
<u>Resident Engineer</u>	39.50
<u>Construction Engineer</u>	27.00
<u>Structural Engineer</u>	54.00
<u>Engineer Intern</u>	17.00

The hourly rates itemized above shall be effective the date the parties, hereunto entering this AGREEMENT, have affixed their hands and seals and shall remain in effect until 12/31/2015. In event the services of the ENGINEER extend beyond 12/31/2015, the hourly rates will be adjusted yearly by addendum to this AGREEMENT to compensate for increases or decreases in the salary structure of the ENGINEER that are in effect at that time.

The Total Not-to-Exceed Contract Amount shall be 193,587.16 as shown on the attached Exhibit A – Construction Engineering (Cost Estimate of Consultant Services)

3. That payments due the ENGINEER for services rendered pursuant to 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 paragraphs 1a through 1g under THE ENGINEER AGREES -- to the satisfaction of the LA and their approval by the DEPARTMENT, 90 percent of the total fee based on the above fee schedule and 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 (excluding any fees paragraphs 1j and 1k of the ENGINEER AGREES), based on the above fee schedule and the awarded contract cost, less any previous payment.
 - c. Upon completion of the construction of the improvement, 90 percent of the fee due for services stipulated in paragraphs 1j and 1k.
 - d. Upon completion of all final reports required by the LA and the DEPARTMENT and acceptance of the improvement by the DEPARTMENT, 100 percent of the total fees due under this AGREEMENT, less any amounts previously paid.

~~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 improvements be abandoned at any time after the ENGINEER has performed any part of the services provided for in paragraphs **1j** and **1k**, and prior to the completion of such services the LA shall reimburse the ENGINEER for his actual costs plus 179.51 percent incurred up to the time he is notified in writing of such abandonment "actual cost" being defined as material costs plus actual payrolls, insurance, social security and retirement deductions **and profit**. Traveling and other out-of-pocket expenses will be reimbursed to the ENGINEER at his actual cost.
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 179.51 percent to cover profit, overhead and readiness to serve - "actual cost" being defined as in paragraph 4 above. ~~It is understood that "changes" as used in this paragraph shall in no way relieve the ENGINEER of his responsibility to prepare a complete and adequate set of plans.~~
6. That should the LA extend completion of the improvement beyond the time limit given in the contract, the LA will pay the ENGINEER, in addition to the fees provided herein, his actual cost incurred beyond such time limit - "actual cost" being defined as in paragraph 4 above.
7. To submit approved forms BC 775 and BC 776 with this AGREEMENT ~~when federal funds are used for construction.~~

STAFF HOUR SCHEDULE
Lake County Division of Transportation
Lewis Avenue Resurfacing

2015																																
		June				July				August				September				October				November				December						
	Total Hours	6/1	6/8	6/15	6/22	6/29	7/6	7/13	7/20	7/27	8/3	8/10	8/17	8/24	8/31	9/7	9/14	9/21	9/28	10/5	10/12	10/19	10/26	11/2	11/9	11/16	11/23	11/30	12/7	12/14	12/21	12/28
Project Manager	79				4	2	4	4	4	5	4	4	4	5	4	4	4	4	5	4	4	4	2				2					2
Resident Engineer	971				30	40	40	45	45	45	45	45	45	45	45	45	40	40	40	40	40	40	40	24	24	24	16	16	16	16	16	16
Engineer	485							45	45	45	45	45	45	45	45	45	40	40														
Engineer Intern	350					40	40	45	45	45	45	45	45																			
Structural Engineer	8					8																										
Vehicle Days	210					10	15	15	15	15	15	15	15	10	10	10	10	10	10	10	10	5	5	5			5					5
Project Manager - 79 hrs					6				17		17			17					21			14				2					2	
Resident Engineer - 971 hrs					70				175		175			180					210			160				96					80	
Engineer - 485 hrs					0				135		135			180					170			0				0					0	
Engineer Intern - 350 hrs					40				175		175			135					0			0				0					0	
Structural Engineer - 8 hrs					8				0		0			0					0			0				0					0	
41 WD / 17 WD/Month = 2.5 months construction		Proj Start		Construction														Punch		Closeout												

Assume 7/6/15 Start Date
Assume 9/18/15 Completion Date

STAFF HOURS
Lake County Division of Transportation
Lewis Avenue Resurfacing

Task	Sub-Task	Activity		Project Manager	Resident Engineer	Construction Engineer	Structural Engineer	Engineer Intern
1. Construction Engineering			Total	79	971	485	8	350
		Task Total:	1882	68	971	485	8	350
	080 Construction Startup		Subtotal:		56			40
		Review Plans, Specifications and Contract Documents	8		8			
		Layout C&G and sidewalk removals	80		40			40
		Utility Coordination Including On-site Meetings	4		4			
		Set Up Project Documentation	4		4			
	081 Pre-Construction Conference		Subtotal:	18	4	14		
		Preparation	8		8			
083 Construction Observation / Documentation		Attendance	8	4	4			
		Meeting Minutes	2		2			
		Subtotal:	1384	64	525	485		310
		Resident Engineer (9 weeks x 5 days/week x 9 hrs/day + 3 weeks x 5 days/week x 8 hrs/day)	525		525			
		Construction Engineer (9 weeks x 5 days/week x 9 hrs/day + 2 weeks x 5 days/week x 8 hrs/day)	485			485		
		Engineer Intern (6 weeks x 5 days/week x 9 hrs/day + 1 weeks x 5 days/week x 8 hrs/day)	310					310
		Project Manager site visits (4 hrs/week x 16 weeks)	64	64				
	084 Project Close-out		Subtotal:	376	376			
		Develop Punch List Items	8		8			
		Coordinate Punch List Completion	8		8			
		Inspect Punch List Items	8		8			
		Final Walk Through with Client	8		8			
		Complete Documentation Including Material Certification	344		344			

STAFF HOURS
Lake County Division of Transportation
Lewis Avenue Resurfacing

Task	Sub-Task	Activity		Project Manager	Resident Engineer	Construction Engineer	Structural Engineer	Engineer Intern
	085 Construction Record Drawings		Subtotal:					
		Plan Sheets						
		Cross Sections						
	086 Shop Drawing Review / Catalog Cut Review		Subtotal:	8			8	
		Pedestrian Bridge Demolition Plan		8			8	
2. Project Management & Administration								
	010 Project Management & Administration		Task Total:	11	11			
			Subtotal:	11	11			
		Project Management		11	11			

IN-HOUSE DIRECT COSTS
Lake County Division of Transportation
Lewis Avenue Resurfacing
PHASE III

Construction Engineering

Description	Unit	Unit Cost	Quantity	Extended Cost
Copies	sheet	\$ 0.10	1000	\$ 100.00
Vehicle (mileage)	mile	\$ 0.58	1200	\$ 690.00
Vehicle (day)	day	\$ 65.00	210	\$ 13,650.00
Total:				\$ <u>14,440.00</u>