


Local Agency Lake County	 <b>Illinois Department of Transportation</b>  <b>Preliminary Engineering Services Agreement For Federal Participation Supplement #1</b>	Consultant MACTEC Engineering and Consulting, Inc.
County Lake		Address 8745 W. Higgins Road, Suite 300
Section 05-00193-04-BR		City Chicago
Project No. BRM-8003 (791)		State IL
Job No. D-91-180-07		Zip Code 60631
Contact Name/Phone/E-mail Address Helena Sullivan, 847-377-7508 hsullivan@lakecountyil.gov		Contact Name/Phone/E-mail Address Robert Israel, 773-693-6030 rpisrael@mactec.com

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 PROJECT. Federal-aid funds allotted to the LA by the state of Illinois under the general supervision of the Illinois Department of Transportation (STATE) will be used entirely or in part to finance engineering services as described under AGREEMENT PROVISIONS.

#### Project Description

Name Arlington Heights Road Bridge NB Route FAU 2626 Length 42 feet Structure No. 049-3040  
Termini At Buffalo Creek

Description: Supplemental Phase II Engineering for bridge beam replacement and deck replacement, to include additional bridge inspections and reports, bike path detour plans and bike railing detail.

#### Agreement Provisions

##### I. THE ENGINEER AGREES,

1. To perform or be responsible for the performance, in accordance with STATE approved design standards and policies, of engineering services for the LA for the proposed improvement herein described.
2. To attend any and all meetings and visit the site of the proposed improvement at any reasonable time when requested by representatives of the LA or STATE.
3. To complete the services herein described within 30 calendar days from the date of the Notice to Proceed from the LA, excluding from consideration periods of delay caused by circumstances beyond the control of the ENGINEER.
4. The classifications of the employees used in the work should be consistent with the employee classifications and estimated man-hours shown in EXHIBIT A. If higher-salaried personnel of the firm, including the Principal Engineer, perform services that are indicated in Exhibit A to be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the payroll rate for the work performed.
5. That the ENGINEER is qualified technically and is entirely conversant with the design standards and policies applicable for the PROJECT; and that the ENGINEER has sufficient properly trained, organized and experienced personnel to perform the services enumerated herein.
6. That the ENGINEER shall be responsible for the accuracy of the work and shall promptly make necessary revisions or corrections resulting from the ENGINEER's errors, omissions or negligent acts without additional compensation. Acceptance of work by the STATE will not relieve the ENGINEER of the responsibility to make subsequent correction of any such errors or omissions or for clarification of any ambiguities.
7. That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will affix the ENGINEER's professional seal when such seal is required by law. Plans for structures to be built as a part of the improvement will be prepared under the supervision of a registered structural engineer and will affix structural engineer seal when such seal is required by law. It will be the ENGINEER's responsibility to affix the proper seal as required by the Bureau of Local Roads and Streets manual published by the STATE.
8. That the ENGINEER will comply with applicable federal statutes, state of Illinois statutes, and local laws or ordinances of the LA.

9. The undersigned certifies neither the ENGINEER nor I have:
- a. employed or retained for commission, percentage, brokerage, contingent fee or other considerations, any firm or person (other than a bona fide employee working solely for me or the above ENGINEER) to solicit or secure this AGREEMENT,
  - b. agreed, as an express or implied condition for obtaining this AGREEMENT, to employ or retain the services of any firm or person in connection with carrying out the AGREEMENT or
  - c. paid, or agreed to pay any firm, organization or person (other than a bona fide employee working solely for me or the above ENGINEER) any fee, contribution, donation or consideration of any kind for, or in connection with, procuring or carrying out the AGREEMENT.
  - d. are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency,
  - e. have not within a three-year period preceding the AGREEMENT been convicted of or had a civil judgment rendered against them for commission of fraud or criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) 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,
  - f. are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (e) and
  - g. have not within a three-year period preceding this AGREEMENT had one or more public transactions (Federal, State or local) terminated for cause or default.
10. To pay its subconsultants for satisfactory performance no later than 30 days from receipt of each payment from the LA.
11. To submit all invoices to the LA within one year of the completion of the work called for in this AGREEMENT or any subsequent Amendment or Supplement.
12. To submit BLR 05613, Engineering Payment Report, to the STATE upon completion of the project (Exhibit B).
13. Scope of Services to be provided by the ENGINEER:
- Make such detailed surveys as are necessary for the planning and design of the PROJECT.
  - Make stream and flood plain hydraulic surveys and gather both existing bridge upstream and downstream high water data and flood flow histories.
  - Prepare applications for U.S. Army Corps of Engineers Permit, Illinois Department of Natural Resources Office of Water Resources Permit and Illinois Environmental Protection Agency Section 404 Water Quality Certification.
  - Design and/or approve cofferdams and superstructure shop drawings.
  - Prepare Bridge Condition Report and Preliminary Bridge Design and Hydraulic Report, (including economic analysis of bridge or culvert types and high water effects on roadway overflows and bridge approaches).
  - Prepare the necessary environmental and planning documents including the Project Development Report, Environmental Class of Action Determination or Environmental Assessment, State Clearinghouse, Substate Clearinghouse and all necessary environmental clearances.
  - Make such soil surveys or subsurface investigations including borings and soil profiles as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations to be made in accordance with the current Standard Specifications for Road and Bridge Construction, Bureau of Local Roads and Streets Administrative Policies, Federal-Aid Procedures for Local Highway Improvements or any other applicable requirements of the STATE.
  - Analyze and evaluate the soil surveys and structure borings to determine the roadway structural design and bridge foundation.
  - Prepare preliminary roadway and drainage structure plans and meet with representatives of the LA and STATE at the site of the improvement for review of plans prior to the establishment of final vertical and horizontal alignment, location and size of drainage structures, and compliance with applicable design requirements and policies.
  - 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.
  - Complete the general and detailed plans, special provisions and estimate of cost. Contract plans shall be prepared in accordance with the guidelines contained in the Bureau of Local Roads and Streets manual. The special provisions and detailed estimate of cost shall be furnished in quadruplicate.
  - Furnish the LA with survey and drafts in quadruplicate 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.

II. THE LA AGREES,

- 1. To furnish the ENGINEER all presently available survey data and information
- 2. To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT, on the basis of the following compensation formulas:

Cost Plus Fixed Fee       CPFF = 14.5%[DL + R(DL) + OH(DL) + IHDC], or  
                                   CPFF = 14.5%[DL + R(DL) + 1.4(DL) + IHDC], or  
                                   CPFF = 14.5%[(2.3 + R)DL + IHDC]

Where:      DL = Direct Labor  
                   IHDC = In House Direct Costs  
                   OH = Consultant Firm's Actual Overhead Factor  
                   R = Complexity Factor

Specific      Rate       (Pay per element)  
 Lump      Sum       \_\_\_\_\_

- 3. To pay the ENGINEER using one of the following methods as required by 49 CFR part 26 and 605 ILCS 5/5-409:

With Retainage

- a) **For the first 50% of completed work**, and upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LA, monthly payments for the work performed shall be due and payable to the ENGINEER, such payments to be equal to 90% of the value of the partially completed work minus all previous partial payments made to the ENGINEER.
- b) **After 50% of the work is completed**, and upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LA, monthly payments covering work performed shall be due and payable to the ENGINEER, such payments to be equal to 95% of the value of the partially completed work minus all previous partial payments made to the ENGINEER.
- c) **Final Payment** – Upon approval of the work by the LA but not later than 60 days after the work is completed and reports have been made and accepted by the LA and the STATE, a sum of money equal to the basic fee as determined in this AGREEMENT less the total of the amounts of partial payments previously paid to the ENGINEER shall be due and payable to the ENGINEER.

Without Retainage

- a) **For progressive payments** – Upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LA, monthly payments for the work performed shall be due and payable to the ENGINEER, such payments to be equal to the value of the partially completed work minus all previous partial payments made to the ENGINEER.
  - b) **Final Payment** – Upon approval of the work by the LA but not later than 60 days after the work is completed and reports have been made and accepted by the LA and STATE, a sum of money equal to the basic fee as determined in this AGREEMENT less the total of the amounts of partial payments previously paid to the ENGINEER shall be due and payable to the ENGINEER.
- 4. The recipient shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR part 26. The recipient shall take all necessary and reasonable steps under 49 CFR part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR part 26 and as approved by DOT, is incorporated by reference in this agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as violation of this agreement. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31U.S.C. 3801 et seq.).

III. IT IS MUTALLY AGREED,

- 1. That no work shall be commenced by the ENGINEER prior to issuance by the LA of a written Notice to Proceed.
- 2. That tracings, plans, specifications, estimates, maps and other documents prepared by the ENGINEER in accordance with this AGREEMENT shall be delivered to and become the property of the LA and that basic survey notes, sketches, charts and other data prepared or obtained in accordance with this AGREEMENT shall be made available, upon request, to the LA or to the STATE, without restriction or limitation as to their use.
- 3. That all reports, plans, estimates and special provisions furnished by the ENGINEER shall be in accordance with the current Standard Specifications for Road and Bridge Construction, Bureau of Local Roads and Streets Administrative Policies, Federal-Aid Procedures for Local Highway Improvements or any other applicable requirements of the STATE, it being understood that all such furnished documents shall be approved by the LA and the STATE before final acceptance. During the performance of the engineering services herein provided for, the ENGINEER shall be responsible for any loss or damage to the documents herein enumerated while they are in the ENGINEER's possession and any such loss or damage shall be restored at the ENGINEER's expense.

4. That none of the services to be furnished by the ENGINEER shall be sublet, assigned or transferred to any other party or parties without written consent of the LA. The consent to sublet, assign or otherwise transfer any portion of the services to be furnished by the ENGINEER shall not be construed to relieve the ENGINEER of any responsibility for the fulfillment of this agreement.
5. To maintain, for a minimum of 3 years after the completion of the contract, adequate books, records and supporting documents to verify the amounts, recipients and uses of all disbursements of funds passing in conjunction with the contract; the contract and all books, records and supporting documents related to the contract shall be available for review and audit by the Auditor General and the STATE; and to provide full access to all relevant materials. Failure to maintain the books, records and supporting documents required by this section shall establish a presumption in favor of the STATE for the recovery of any funds paid by the STATE under the contract for which adequate books, records and supporting documentation are not available to support their purported disbursement.
6. The payment by the LA in accordance with numbered paragraph 3 of Section II will be considered payment in full for all services rendered in accordance with this AGREEMENT whether or not they be actually enumerated in this AGREEMENT.
7. That the ENGINEER shall be responsible for any and all damages to property or persons arising out of an error, omission and/or negligent act in the prosecution of the ENGINEER's work and shall indemnify and save harmless the LA, the STATE, and their officers, agents and employees from all suits, claims, actions or damages of any nature whatsoever resulting there from. These indemnities shall not be limited by the listing of any insurance policy.
8. 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 drawings, plats, surveys, reports, permits, agreements, soils and foundation analysis, provisions, specifications, partial and completed estimates and data, if any from soil survey and subsurface investigation with the understanding that all such material becomes the property of the LA. The LA will be responsible for reimbursement of all eligible expenses to date of the written notice of termination.
9. This certification is required by the Drug Free Workplace Act (30ILCS 580). The Drug Free Workplace Act requires that no grantee or contractor shall receive a grant or be considered for the purpose of being awarded a contract for the procurement of any property or service from the State unless that grantee or contractor will provide a drug free workplace. False certification or violation of the certification may result in sanctions including, but not limited to, suspension of contract or grant payments, termination of a contract or grant and debarment of the contracting or grant opportunities with the State for at least one (1) year but no more than five (5) years.

For the purpose of this certification, "grantee" or "contractor" means a corporation, partnership or other entity with twenty-five (25) or more employees at the time of issuing the grant, or a department, division or other unit thereof, directly responsible for the specific performance under a contract or grant of \$5,000 or more from the State, as defined in the Act.

The contractor/grantee certifies and agrees that it will provide a drug free workplace by:

- a. Publishing a statement:
  - (1) Notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance, including cannabis, is prohibited in the grantee's or contractor's workplace.
  - (2) Specifying the actions that will be taken against employees for violations of such prohibition.
  - (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will:
    - (a) abide by the terms of the statement; and
    - (b) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
- b. Establishing a drug free awareness program to inform employees about:
  - (1) The dangers of drug abuse in the workplace;
  - (2) The grantee's or contractor's policy of maintaining a drug free workplace;
  - (3) Any available drug counseling, rehabilitation and employee assistance program; and
  - (4) The penalties that may be imposed upon an employee for drug violations.
- c. Providing a copy of the statement required by subparagraph (a) to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.
- d. Notifying the contracting or granting agency within ten (10) days after receiving notice under part (B) of paragraph (3) of subsection (a) above from an employee or otherwise receiving actual notice of such conviction.
- e. Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by,
- f. Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.
- g. Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

10. The ENGINEER or subconsultant shall not discriminate on the basis of race, color, national origin or sex in the performance of this AGREEMENT. The ENGINEER shall carry out applicable requirements of 49 CFR part 26 in the administration of DOT assisted contracts. Failure by the ENGINEER to carry out these requirements is a material breach of this AGREEMENT, which may result in the termination of this AGREEMENT or such other remedy as the LA deems appropriate.

Agreement Summary

Prime Consultant:	TIN Number	Agreement Amount
MACTEC Engineering and Consulting Inc.	68-0146861	\$8,376
Sub-Consultants:	TIN Number	Agreement Amount
Sub-Consultant Total:		
Prime Consultant Total:		\$8,376
Total for all Work:		\$8,376

Executed by the LA:

Lake County  
(Municipality/Township/County)

ATTEST:

By: \_\_\_\_\_  
Lake County Clerk

By: \_\_\_\_\_  
Title: Chairman of the County Board

RECOMMENDED FOR EXECUTION

(SEAL)

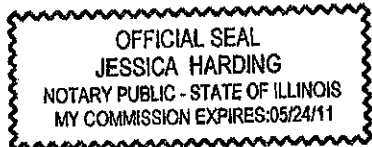
\_\_\_\_\_  
Martin G. Buehler, P.E.  
Director of Transportation/County Engineer  
Lake County

Executed by the ENGINEER:

ATTEST:

By: Jessica Harding  
Title: Notary public

[Signature]  
By: Robert P. Israel  
Title: Senior Principal Engineer



**Exhibit A - Preliminary Engineering**

Route: FAU 2626  
 Local Agency: Lake County  
 (Municipality/Township/County)  
 Section: 05-0 0193-04-BR  
 Project: BRM-8003(791)  
 Job No.: D-91-180-07

**\*Firm's approved rates on file with IDOT'S  
 Bureau of Accounting and Auditing:**

Overhead Rate (OH) 155.84 %  
 Complexity Factor (R) 0.00  
 Calendar Days \_\_\_\_\_

Method of Compensation:  
 Cost Plus Fixed Fee 1  14.5%[DL + R(DL) + OH(DL) + IHDC]  
 Cost Plus Fixed Fee 2  14.5%[DL + R(DL) + 1.4(DL) + IHDC]  
 Cost Plus Fixed Fee 3  14.5%[(2.3 + R)DL + IHDC]  
 Specific Rate   
 Lump Sum

**Cost Estimate of Consultant's Services in Dollars**

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by Others	In-House Direct Costs (IHDC)	Profit	Total
STRUCTURAL - BRIDGE	Varies	32	\$50.53	\$1,617.04	\$2,520.00	0 0		\$599.87	\$4,736.91
TRAFFIC MAINTENANCE	Varies	24	\$44.37	\$1,064.88	\$1,659.51	0 0		\$395.04	\$3,119.43
BIKE/PEDESTRIAN PATH	Varies	4	\$44.33	\$177.32	\$276.34			\$65.78	\$519.44
<b>Totals</b>		<b>60</b>		<b>\$2,859.24</b>	<b>\$4,455.84</b>	<b>0</b>	<b>0</b>	<b>\$1,060.69</b>	<b>\$8,376</b>

Cost Estimate of  
Consultant Services

PHASE II ENGINEERING - Supplemental Services  
 Firm: MACTEC ENGINEERING AND CONSULTING  
 Route: Arlington Heights Road Bridge over Buffalo Creek (NB)  
 Section: 05-00193-04-BR  
 County: Lake  
 Job No.: D-91-180-07  
 BRM-8003 (791)

Date: 01/07/11  
 Complexity Factor: 0  
 Overhead and Fringe Rate: 155.84%

Item	(A) Manhours	(B) Payroll	(C) Overhead & Fringe Benefits	(D) Other Direct Costs	(E) Fixed Fee	(F) Services By Others	(B+C+D+E+ F) Total	% of Grand Total
1 STRUCTURAL - BRIDGE INSPECTIONS	32	\$1,617.04	\$2,520.00		\$599.87		\$4,737	56.6%
2 TRAFFIC MAINTENANCE - BIKE PATH DETOUR PLANS	24	\$1,064.88	\$1,659.51		\$395.04		\$3,119	37.2%
3 BIKE/PEDESTRIAN PATH PROTECTIVE FENCE	4	\$177.32	\$276.34		\$65.78		\$519	6.2%
4	0	\$0.00	\$0.00		\$0.00		\$0	0.0%
								0.0%

TOTALS	60	\$2,859	\$4,456	\$0	\$1,061	\$0	\$8,376	100%
--------	----	---------	---------	-----	---------	-----	---------	------

PHASE II ENGINEERING - Supplemental Services  
 Arlington Heights Road Bridge over Buffalo Creek (NB)  
 05-00193-04-BR

CONSULTANT ESTIMATE OF MANHOURS

Item Number	Work Item	Sr. Princ.. Eng	Princ. Eng	Senior Eng	Proj. Eng	Staff Eng	Senior Tech.	Tech.	Admin.	MEC Item Total
1.0	STRUCTURAL - BRIDGE INSPECTIONS		24	8						32
	SUBTOTAL:	0	24	8	0	0	0	0	0	32
2.0	TRAFFIC MAINTENANCE - BIKE PATH DETOUR PLANS		6	12	6					24
	SUBTOTAL:	0	6	12	6	0	0	0	0	24
3.0	BIKE/PEDESTRIAN PATH PROTECTIVE FENCE AND CONNECTIONS TO SIDEWALK			4			0			4
	SUBTOTAL:	0	0	4	0	0	0	0	0	4
	SUBTOTAL:	0	0	0	0	0	0	0	0	0



**MACTEC ENGINEERING AND CONSULTING  
AVERAGE HOURLY PROJECT RATES**

ROUTE: Arlington Heights Road Bridge over Buffalo Creek (NB)  
 SECTION: 05-00193-04-BR  
 COUNTY: Lake  
 JOB NO.: D-91-180-07

DATE: 01/07/11

SHEET 1 OF 1

PAYROLL CLASSIFICATION	HOURLY RATES	STRUCTURAL - BRIDGE INSPECTIONS			TRAFFIC MAINTENANCE - BIKE PATH DETOUR PLANS			BIKEPEDESTRIAN PATH PROTECTIVE FENCE			TOTALS		
		HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE	HOURS	% PART.	WGTD RATE
SENIOR PRINCIPAL ENGINEER	\$ 70.00	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00%	0.00
PRINCIPAL ENGINEER	\$ 52.60	24	75.00	39.45	6	25.00	13.15	0	0.00	0.00	30	50.00%	26.30
SENIOR ENGINEER	\$ 44.33	8	25.00	11.08	12	50.00	22.17	4	100.00	44.33	24	40.00%	17.73
PROJECT ENGINEER	\$ 36.22	0	0.00	0.00	6	25.00	9.06	0	0.00	0.00	6	10.00%	3.62
STAFF ENGINEER	\$ 27.32	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00%	0.00
SENIOR TECHNICIAN	\$ 25.66	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00%	0.00
TECHNICIAN	\$ 19.25	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00%	0.00
ADMINISTRATIVE	\$ 20.58	0	0.00	0.00	0	0.00	0.00	0	0.00	0.00	0	0.00%	0.00
<b>TOTALS</b>		<b>32</b>	<b>100.00</b>	<b>50.53</b>	<b>24</b>	<b>100.00</b>	<b>44.37</b>	<b>4</b>	<b>100.00</b>	<b>44.33</b>	<b>60</b>	<b>100%</b>	<b>47.65</b>