

Local Agency	 Illinois Department of Transportation Construction Engineering Services Agreement For Federal Participation	C O N S U L T A N T	Consultant Crawford, Murphy and Tilly, Inc.
City of Aurora			Address 550 Commons Dr, Ste 116
County Kane			City Aurora
Section 13-00302-00-BR			State Illinois
Project No. BRM-4003(346)			Zip Code 60504
Job No. C-91-363-14			Contact Name/Phone/E-mail Address Kevin D. Nelson (630)820-1022 knelson@cmtengr.com
Contact Name/Phone/E-mail Address Chris Lirot, P.E.(630) 256-3200 clirot@aurora-il.org			

THIS AGREEMENT is made and entered into this _____ day of _____, 2017 between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the PROJECT described herein. 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.

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
In Responsible Charge	A full time LA employee authorized to administer inherently governmental PROJECT activities
Contractor	Company or Companies to which the construction contract was awarded

Project Description

Name Farnsworth Avenue Route FAP 0360 Length .01 mi Structure No. 045-6012 (Ex)
Termini over Indian Creek

Description: The project shall include the reconstruction of Farnsworth Avenue from Sheffer Road to Mountain St including the replacement of box culverts over Indian Creek . The project shall also include watermain and sewer modifications and improvements.

Agreement Provisions

I. THE ENGINEER AGREES,

1. To perform or be responsible for the performance of the engineering services for the LA, in connection with the PROJECT hereinbefore described and checked below:
 - a. Proportion concrete according to applicable STATE Bureau of Materials and Physical Research (BMPR) Quality Control/Quality Assurance (QC/QA) training documents or contract requirements and obtain samples and perform testing as noted below.
 - b. Proportion hot mix asphalt according to applicable STATE BMPR QC/QA training documents and obtain samples and perform testing as noted below.
 - c. For soils, to obtain samples and perform testing as noted below.
 - d. For aggregates, to obtain samples and perform testing as noted below.

NOTE: For 1a. through 1d. the ENGINEER is to obtain samples for testing according to the STATE BMPR "Project Procedures Guide", or as indicated in the specifications, or as attached herein by the LA; test according to the STATE BMPR "Manual of Test Procedures for Materials", submit STATE BMPR inspection reports; and verify compliance with contract specifications.

- e. Inspection of all materials when inspection is not provided at the sources by the STATE BMPR, and submit inspection reports to the LA and the STATE in accordance with the STATE BMPR "Project Procedures Guide" and the policies of the STATE.
 - f. For Quality Assurance services, provide personnel who have completed the appropriate STATE BMPR QC/QA trained technician classes.
 - g. Inspect, document and inform the LA employee In Responsible Charge of the adequacy of the establishment and maintenance of the traffic control.
 - h. Geometric control including all construction staking and construction layouts.
 - i. Quality control of the construction work in progress and the enforcement of the contract provisions in accordance with the STATE Construction Manual.
 - j. Measurement and computation of pay items.
 - k. 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.
 - l. Preparation and submission to the LA by the required form and number of copies, all partial and final payment estimates, change orders, records, documentation and reports required by the LA and the STATE.
 - m. Revision of contract drawings to reflect as built conditions.
 - n. Act as resident construction supervisor and coordinate with the LA employee In Responsible Charge.
2. Engineering services shall include all equipment, instruments, supplies, transportation and personnel required to perform the duties of the ENGINEER in connection with the AGREEMENT.
 3. To furnish the services as required herein within twenty-four hours of notification by the LA employee In Responsible Charge.
 4. To attend meetings and visit the site of the work at any reasonable time when requested to do so by representatives of the LA or STATE.
 5. That none of the services to be furnished by the ENGINEER shall be sublet, assigned or transferred to any other party or parties without the 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.
 6. The ENGINEER shall submit invoices, based on the ENGINEER's progress reports, to the LA employee In Responsible Charge, no more than once a month for partial payment on account for the ENGINEER's work completed to date. Such invoices shall represent the value, to the LA of the partially completed work, based on the sum of the actual costs incurred, plus a percentage (equal to the percentage of the construction engineering completed) of the fixed fee for the fully completed work.
 7. That the ENGINEER is qualified technically and is entirely conversant with the design standards and policies applicable to improvement of the SECTION; and that the ENGINEER has sufficient properly trained, organized and experienced personnel to perform the services enumerated herein.
 8. That the ENGINEER shall be responsible for the accuracy of the ENGINEER's work and correction of any errors, omissions or ambiguities due to the ENGINEER'S negligence which may occur either during prosecution or after acceptance by the LA. Should any damage to persons or property result from the ENGINEER's error, omission or negligent act, the ENGINEER shall indemnify the LA, the STATE and their employees from all accrued claims or liability and assume all restitution and repair costs arising from such negligence. The ENGINEER shall give immediate attention to any remedial changes so there will be minimal delay to the contractor and prepare such data as necessary to effectuate corrections, in consultation with and without further compensation from the LA.
 9. That the ENGINEER will comply with applicable federal statutes, state of Illinois statutes, and local laws or ordinances of the LA.
 10. 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) of this certification; 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.
11. To pay its subconsultants for satisfactory performance no later than 30 days from receipt of each payment from the LA.
 12. 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.
 13. To submit BLR 05613, Engineering Payment Report, to the STATE upon completion of the work called for in the AGREEMENT.
 14. To be prequalified with the STATE in Construction Inspection when the ENGINEER or the ENGINEER's assigned staff is named as resident construction supervisor. The onsite resident construction supervisor shall have a valid Documentation of Contract Quantities certification.
 15. Will provide, as required, project inspectors that have a valid Documentation of Contract Quantities certification.

II. THE LA AGREES,

1. To furnish a full time LA employee to be In Responsible Charge authorized to administer inherently governmental PROJECT activities.
2. To furnish the necessary plans and specifications.
3. To notify the ENGINEER at least 24 hours in advance of the need for personnel or services.
4. To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT, on the basis of the following compensation formulas: *INCL. EXHIBIT 'A' & 'B'*

Cost Plus Fixed Fee Formulas

- $FF = 14.5\%[DL + R(DL) + OH(DL) + IHDC]$, or
- $FF = 14.5\%[(2.3 + R)DL + IHDC]$

Where: DL = Direct Labor
 IHDC = In House Direct Costs
 OH = Consultant Firm's Actual Overhead Factor
 R = Complexity Factor
 FF=Fixed Fee
 SBO = Services by Others

Total Compensation = DL +IHDC+OH+FF+SBO

- Specific Rate (Pay per element)
- Lump Sum _____

5. 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.

6. The recipient shall not discriminate on the basis 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.).

7. To submit approved form BC 775 (Exhibit C) and BC 776 (Exhibit D) with this AGREEMENT.

III. It is Mutually Agreed,

1. That the ENGINEER and the ENGINEER's subcontractors will maintain all books, documents, papers, accounting records and other evidence pertaining to cost incurred and to make such materials available at their respective offices at all reasonable times during the AGREEMENT period and for three years from the date of final payment under this AGREEMENT, for inspection by the STATE, Federal Highway Administration or any authorized representatives of the federal government and copies thereof shall be furnished if requested.
2. That all services are to be furnished as required by construction progress and as determined by the LA employee In Responsible Charge. The ENGINEER shall complete all services specified herein within a time considered reasonable to the LA, after the CONTRACTOR has completed the construction contract.
3. That all field notes, test records and reports shall be turned over to and become the property of the LA and that 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 this AGREEMENT may be terminated by the LA upon written notice to the ENGINEER, at the ENGINEER's last known address, with the understanding that should the AGREEMENT be terminated by the LA, the ENGINEER shall be paid for any services completed and any services partially completed. The percentage of the total services which have been rendered by the ENGINEER shall be mutually agreed by the parties hereto. The fixed fee stipulated in numbered paragraph 4d of Section II shall be multiplied by this percentage and added to the ENGINEER's actual costs to obtain the earned value of work performed. All field notes, test records and reports completed or partially completed at the time of termination shall become the property of, and be delivered to, the LA.
5. That any differences between the ENGINEER and the LA concerning the 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.
6. That in the event the engineering and inspection services to be furnished and performed by the LA (including personnel furnished by the ENGINEER) shall, in the opinion of the STATE be incompetent or inadequate, the STATE shall have the right to supplement the engineering and inspection force or to replace the engineers or inspectors employed on such work at the expense of the LA.

7. That the ENGINEER has not been retained or compensated to provide design and construction review services relating to the contractor's safety precautions, except as provided in numbered paragraph 1f of Section I.
8. 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 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, any employee who is convicted, as required by section S of the Drug Free Workplace Act.
 - (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.
9. 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 this AGREEMENT or such other remedy as the LA deems appropriate.

Agreement Summary

Prime Consultant:	TIN Number	Agreement Amount
Crawford,Murphy and Tilly,Inc	37-0844662	\$404,328.36

Sub-Consultants:	TIN Number	Agreement Amount
Chicago Testing Laboratories		\$23,272.23
Sub-Consultant Total:		\$23,272.23
Prime Consultant Total:		\$401,634.65
Total for all Work:		\$427,600.59

Executed by the LA:

City of Aurora, Illinois
(Municipality/Township/County)

ATTEST:

By: _____

By: _____

Clerk

Title: _____

(SEAL)

Executed by the ENGINEER:

Crawford, Murphy and Tilly, Inc.

ATTEST:

By: 

By: 

Title: Senior Vice President

Title: Vice President and Senior Manager

"Exhibit A"

Location: FAP 360 Farnsworth Avenue (South of Mountain St to Sheffer Road)
 Local Agency: City of Aurora
 Section: 13-00302-00-BR
 Project No.: BRM-4003(346)
 Job No.: C-91-363-14
 Existing Structure No.: 045-6012
 Proposed Structure No.: 045-6027

*Firm's approved rates on file with DOT'S
 Bureau of Accounting and Auditing:
 Overhead Rate (OH) 164.09%
 Complexity Factor @ 0.00
 Calendar Days 365

Method of Compensation:
 14.5%[DL + R(DL) + OH(DL) + IHDC]
 14.5%[DL + R(DL) + 1.4(DL) + IHDC]
 14.5%[(2.3 + R)DL + IHDC]

Cost Estimate of Consultant's Services in Dollars

Element of Work	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by others	In-House Direct Costs (IHDC)	Profit	Total	% of Grand Total
1 Project Start-up	84.0	\$32.32	\$2,714.85	\$4,454.79	\$0.00	\$100.00	\$1,054.10	\$8,323.73	1.95%
2 Shop Drawing Reviews	248.0	\$36.91	\$9,153.90	\$15,020.63	\$0.00	\$0.00	\$3,505.31	\$27,679.83	6.47%
3 Initial Project Control/Layout Checking	128.0	\$33.57	\$4,296.88	\$7,050.76	\$0.00	\$600.00	\$1,732.41	\$13,680.05	3.20%
4 Construction Observation/Related Activities	3258.0	\$31.39	\$102,279.72	\$167,830.79	\$23,272.23	\$5,568.00	\$39,973.38	\$338,924.12	79.26%
5 Final Close Out and Inspections	192.0	\$30.43	\$5,842.50	\$9,586.95	\$0.00	\$400.00	\$2,295.27	\$18,124.72	4.24%
6 Project Administration	180.0	\$38.34	\$6,901.22	\$11,324.22	\$0.00	\$0.00	\$2,642.69	\$20,868.13	4.88%
Totals	4090.0	\$32.08	\$131,189.07	\$215,268.14	\$23,272.23	\$6,668.00	\$51,203.15	\$427,600.59	100.00%



Prime Consultant

Name Crawford, Murphy and Tilly,
 Address 550 N. Commons Dr, Ste 116
 Telephone 630-820-1022
 TIN Number _____

Project Information

Local Agency City of Aurora
 Section Number 13-00302-00-BR
 Project Number BRM-4003 (346)
 Job Number C-91-363-14

This form is to verify the amount paid to the Sub-consultant on the above captioned contract. Under penalty of law for perjury or falsification, the undersigned certifies that work was executed by the Sub-consultant for the amount listed below.

Sub-Consultant Name	TIN Number	Actual Payment from Prime
Chicago Testing Laboratories		
Sub-Consultant Total:		
Prime Consultant Total:		
Total for all Work Completed:		

 Signature and title of Prime Consultant

 Date

Note: The Department of Transportation is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under state and federal law. Disclosure of this information is REQUIRED and shall be deemed as concurring with the payment amount specified above.

For information about IDOTs collection and use of confidential information review the department's [Identity Protection Policy](#).

EXHIBIT “C”:

**CMT Phase III Scope of Services
CMT Cost Estimate of Consultant Services
(CECS)**

"Exhibit C"

Location: FAP 360 Farnsworth Avenue (South of Mountain St to Sheffer Road)
 Local Agency: City of Aurora
 Section: 13-00302-00-BR
 Project No.: BRM-4003(346)
 Job No.: C-91-363-14
 Existing Structure No.: 045-6012
 Proposed Structure No.: 045-602Z

*Firm's approved rates on file with DOT'S
 Bureau of Accounting and Auditing:
 Overhead Rate (OH) 164.09%
 Complexity Factor @ 0.00
 Calendar Days 365

Method of Compensation:

- 14.5%[DL + R(DL) + OH(DL) + IHDC]
 14.5%[DL + R(DL) + 1.4(DL) + IHDC]
 14.5%[(2.3 + R)DL + IHDC]

Cost Estimate of Consultant's Services in Dollars

Element of Work	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by others	In-House Direct Costs (IHDC)	Profit	Total	% of Grand Total
1 Project Start-up	84.0	\$32.32	\$2,714.85	\$4,454.79	\$0.00	\$100.00	\$1,054.10	\$8,323.73	1.95%
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3 Initial Project Control/Layout Checking	128.0	\$33.57	\$4,296.88	\$7,050.76	\$0.00	\$600.00	\$1,732.41	\$13,680.05	3.20%
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6 Project Administration	180.0	\$38.34	\$6,901.22	\$11,324.22	\$0.00	\$0.00	\$2,642.69	\$20,868.13	4.88%
Totals	4090.0	\$32.08	\$131,189.07	\$215,268.14	\$23,272.23	\$6,668.00	\$51,203.15	\$427,600.59	100.00%

**Farnsworth Avenue Reconstruction
City of Aurora**

Man Hour Estimate for Consulting Services (Total Project)

Crawford, Murphy, and Tilly, Inc.

Summary of Man Hours

	Item		CMT Total Hours
1	Project Start-up		84.0
2	Shop Drawing Reviews		248.0
3	Initial Project Control/Layout Checking		128.0
4	Construction Observation/Related Activities		3,258.0
5	Final Close Out and Inspections		192.0
6	Project Administration		180.0
Total Project Hours:			4,090.0

			<u>CMT Hours</u>
1	Project Start-up		
	Project kick-off with all project stake holders	10	
	Attend and facilitate pre-construction meeting	10	
	Photographs of existing conditions / create photo log	8	
	Set up documentation/ field records	48	
	Incorporate design / plan revisions into project.	0	
	Evaluation/Confirmation of plan quantities	8	
	Sub - total		84
2	Shop Drawing Reviews		
	Review/forward bridge and retaining structure shop drawings to designer for detailed reviews		
	Substructure (Estimated 6 submittals @ 8 Hrs each)	48	
	Superstructure (Estimated 8 submittals @ 8 Hrs each)	64	
	Retaining walls and ground improvement (6 submittals @ 8 Hrs each)	48	
	Watermain and sanitarySewer (6 submittals @ 8 Hrs each)	48	
	Review of misc. catalog cut submittals	20	
	Review of contractors suggestions and requests/RFI's	20	
	Sub - total		248
3	Initial Project Control/Layout Checking		
	Verify initial project vertical and horizontal control	48	
	Periodic checking of contractor layout (assume 10 crew days)	80	
	Sub - total		128
4	Construction Observation/Related Activities		
	Liaison and contract control	40	
	On-site construction observation (estimated 340 days @ 8 hrs. per day)	2720	
	Material testing coordination with sub-consultant	40	
	Review of construction schedule	24	
	Weekly project meetings (60 meetings @ 4 hrs each)	240	
	Develop and maintain project records/IDOT Documentation and Reports	100	
	Prepare monthly progress reports (22 reports @ 2 hrs per report)	44	
	Prepare applications for payment (22 applications @ 1 hr. per application)	22	
	Preparation of change orders (Assume 7 CO's @ 4 hrs. each)	28	
	Sub - total		3258

Farnsworth Avenue Reconstruction
City of Aurora

Man Hour Estimate for Consulting Services (Total Project)

Crawford, Murphy, and Tilly, Inc.

5	Final Close Out and Inspections		
	Coordinate and conduct pre-final inspection	12	
	Coordinate and conduct final inspection	12	
	Perform bridge inspections/notifications as required by IDOT	16	
	Prepare final construction records and material certification	40	
	Prepare and submit record drawings	72	
	Assemble, copy, and deliver final job box to IDOT	40	
	Sub - total		192
6	Project Administration		
	Resource Planning and Project Administration	180	
	Sub - total		180

**Farnsworth Avenue Reconstruction
City of Aurora
Estimate of Direct Costs
Crawford, Murphy, and Tilly, Inc.**

1	Project Start-up		
	Photo Log	\$100.00	
	Sub - total		\$100.00
2	Shop Drawing Reviews		
	No Direct Costs	\$0.00	
	Sub - total		\$0.00
3	Initial Project Control/Layout Checking		
	Survey Vehicle Days: 12 days @ \$50/day	\$600.00	
	Sub - total		\$600.00
4	Construction Observation/Related Activities		
	Company Construction Vehicle (320 Days@\$12/day)	\$3,840.00	
	Company Construction Vehicle Mileage (320 Days @ \$0.54/mile x 10 miles/day)	\$1,728.00	
	Sub - total		\$5,568.00
5	Final Close Out and Inspections		
	Printing: Project Closeout Box - 4 Copies @ \$100/box	400	
	Sub - total		\$400.00
6	Project Administration		
	No Direct Costs	\$0.00	
	Sub - total		\$0.00

AVERAGE HOURLY PROJECT RATES

FIRM Crawford, Murphy & Tilly, Inc.
PSB _____
PRIME/SUPPLEMENT _____

DATE 09/30/16

SHEET 1 OF 2

PAYROLL CLASSIFICATION	TOTAL PROJECT RATES			Project Start-up			Shop Drawing Reviews			Initial Project Control/Layout			Construction Observation/Related			Final Close Out and Inspector		
	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	0																	
Senior Project Engineer	68	1.66%	1.04	6	7.14%	4.48	10	4.03%	2.53			30	0.92%	0.58	2	1.04%	0.65	
Project Engineer	48	1.17%	0.56				48	19.35%	9.29									
Senior Engineer	1036	25.33%	9.41	20	23.81%	8.85	80	32.26%	11.99	10	7.81%	2.90	760	23.33%	8.67	36	18.75%	6.97
Senior Technical Manager	0																	
Engineer	2648	64.74%	19.12	38	45.24%	13.36	110	44.35%	13.10	32	25.00%	7.38	2318	71.15%	21.01	130	67.71%	20.00
Planner	0																	
Registered Land Surveyor	44	1.08%	0.47							44	34.38%	14.95						
Senior Technician	0																	
Technician II	160	3.91%	0.99	8	9.52%	2.42				42	32.81%	8.33	110	3.38%	0.86			
Technician I	0																	
Clerical	86	2.10%	0.47	12	14.29%	3.21							40	1.23%	0.28	24	12.50%	2.81
TOTALS	4090	100%	\$32.08	84	100.00%	\$32.32	248	100%	\$36.91	128	100%	\$33.57	3258	100%	\$31.39	192	100%	\$30.43

AVERAGE HOURLY PROJECT RATES

FIRM Crawford, Murphy & Tilly, Inc.
PSB
PRIME/SUPPLEMENT

DATE 09/30/16

SHEET 2 OF 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Project Administration			Wgt			Wgt			Wgt						
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg				
Principal	70.00																
Senior Project Engineer	62.71	20	11.11%	6.97													
Project Engineer	48.02																
Senior Engineer	37.17	130	72.22%	26.84													
Senior Technical Manager	41.74																
Engineer	29.53	20	11.11%	3.28													
Planner	24.44																
Registered Land Surveyor	43.49																
Senior Technician	35.51																
Technician II	25.39																
Technician I	19.59																
Clerical	22.49	10	5.56%	1.25													
TOTALS		180	100%	\$38.34	0	0%	\$0.00	0	0%	\$0.00	0	0%	\$0.00	0	0%	\$0.00	\$0.00

**Farnsworth Avenue Reconstruction
City of Aurora**

Development of Project Hourly Rates (IDOT Method)

Crawford, Murphy, and Tilly, Inc.

Item	2016 Actual Rate	2017 Projected @ 3.0% Increase	2018 Projected @ 3.0% Increase	2019 Projected @ 3.0% Increase	2020 Projected @ 3.0% Increase	2021 Projected @ 3.0% Increase	
Average Hourly Rate as a Percent of 2016 Rate	100.0%	103.0%	106.1%	109.3%	112.6%	115.9%	
Estimated Months of Contract in Given Year	0	8	8	0	0	0	
% of Project Duration	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	
Extension	0.000	0.515	0.530	0.000	0.000	0.000	
Weighted Project Hourly Rate Multiplier	Note: Salary Adjustments are Given on January 1 of Each Year						1.0455

Project Duration: May 1, 2017 to August 31, 2018=

16 months

**Farnsworth Avenue Reconstruction
City of Aurora**

**Computation of Prorated
Project Hourly Rates**

Crawford, Murphy, and Tilly, Inc.

Classification	Actual 2016 Average Hourly Rate	Weighted Hourly Rate Multiplier	Project Hourly Rates *
Principal	\$75.62	1.0455	\$70.00
Senior Project Engineer	\$59.98	1.0455	\$62.71
Project Engineer	\$45.93	1.0455	\$48.02
Senior Engineer	\$35.55	1.0455	\$37.17
Senior Technical Manager	\$39.93	1.0455	\$41.74
Engineer	\$28.25	1.0455	\$29.53
Planner	\$23.38	1.0455	\$24.44
Registered Land Surveyor	\$41.60	1.0455	\$43.49
Senior Technician	\$33.97	1.0455	\$35.51
Technician II	\$24.29	1.0455	\$25.39
Technician I	\$18.74	1.0455	\$19.59
Clerical	\$21.51	1.0455	\$22.49

* Rates to be applied to all project work tasks

EXHIBIT "D":

BC 775



Local Public Agency Resident Construction Supervisor/ In Responsible Charge

Region1/District 1
Regional Engineer
Department of Transportation
201 West Center Ct
Schaumburg, Illinois 60196-1096

County Kane
Municipality City of Aurora
Section 13-00302-00-BR
Route FAP 0360
Contract No.
Job No. C-91-363-14
Project BRM-4003(346)

- I recommend the following individual as a local public agency employee qualified to be resident construction supervisor and to be in responsible charge of this construction project.
I certify that I am in responsible charge as defined by the department of this construction project. Since the local public agency does not have a local public agency employee qualified to be the resident construction supervisor, I am recommending a consulting engineer to serve as resident construction supervisor.

2/2/17 Date
Chris E. Fint ROAD & BRIDGE COORDINATOR Signature and Title (for the Local Public Agency)

Michael J. Wittkop
Applicants Name (Type or Print)

The following describes my educational background, experience and other qualifications to be resident construction supervisor of this construction project for the Local Public Agency.

For Consultants: I certify that my firm is prequalified in Construction Inspection and my Documentation of Contract Quantities certificate number is 14-0144.

1/27/2017
Date

[Signature]
Signature of Applicant

Project Manager
Job Title of Applicant

Based on the above information and my knowledge of the applicant's experience and training, it is my opinion that the applicant is qualified to serve as the resident construction supervisor on this construction project.

Approved
Date
Regional Engineer

cc: Engineer of Local Roads and Streets, Central Bureau of Local Roads and Streets
Engineer of Construction, Central Bureau of Construction
Resident Construction Supervisor
Local Public Agency



Years Experience: 13

Education:
BS Engineering, University of Iowa,
2003

Professional Registration:
Professional Engineer - IL
Certified Professional in Erosion and
Sediment Control

Supplemental Training:
FHWA - Safety Inspection of In-
Service Bridges
ICORS
IDOT Local Agency
Contract Coordination
IDOT Documentation
of Contract Quantities
Evaluation and Rehabilitation
of Pavements
Water Distribution Design
and Modeling
IDOT Understanding
Contract Specifications

Michael Wittkop, P.E., CPESC Transportation Engineer

Mike has been with CMT since 2004 performing design and construction resident engineering services for municipal and state clients. Project experiences range from utilities to roadways and complex bridges.

Project Experience

Illinois Tollway

Jane Addams Memorial Tollway (I-90) Rehabilitation

Design Liaison with construction management team, and Quality Assurance Manager during design of the reconstruction and add lane of five miles on the Jane Addams Memorial Tollway (I-90) from Oakton Street to IL Route 53 (Section I-11-4016).

Illinois Department of Transportation

Single Point Interchange Between I-57, IL 13 and Morgan Avenue - Phase II

Design Engineer for the preparation of contract plans and specifications for the Phase II construction of a single point interchange between I-57, IL 13 and Morgan Avenue in Marion. Responsibilities include maintenance of traffic plans and typical sections.

City of Rockford, IL

Morgan Street Bridge Reconstruction

Resident Engineer for the \$29 million reconstruction of the Morgan Street Bridge over the Rock River located in downtown Rockford. The 3,400-foot corridor improvement included roadway and intersection improvements including the first roundabout in Rockford. The bridge reconstruction consisted of a 504-foot three-span steel structure with a 370-foot tied arch center span.

Village of Oak Brook, IL

2015 Bridge Rehabilitation Program

Resident Engineer for bridge inspection, rehabilitation design and construction phase services for three bridges over I-88 on York Road and Windsor Drive.

Kane County Division of Transportation, IL

LaFox Road over Mill Creek

Resident Engineer for the reconstruction of LaFox Road. The project included staged construction of storm sewer, culvert, bridge and roadway elements. The project included

coordination with various environmental agencies due to the presence of fens and an endangered species.

Lake County Division of Transportation, IL

Cedar Lake Road at Monaville Road

Design Engineer for the intersection reconstruction to a roundabout. Primary roles included maintenance of traffic alternative analysis and design.

Village of Plainfield, IL

Meadow Lane Extension

Project Engineer during design and Resident Engineer during construction. The project, which included roadway and storm sewer improvements, created a connection between two off-set residential subdivision streets. The project also included the construction of a triple 7-foot x 10-foot box culvert, and Illinois Department of Natural Resources and US Army Corps of Engineers permitting of the stream crossing.

Hazelcrest Drive Reconstruction

Project Engineer for the design of the Phase II plans for construction. Project included water main, storm sewer and roadway reconstruction including Illinois Department of Natural Resources and US Army Corps of Engineers permitting of a stream crossing.

City of Lockport, IL

Washington Street Reconstruction

Project Engineer for the design of the Phase II plans for construction. The project included construction of water main, storm sewer and roadway reconstruction. The project required coordination with neighboring construction projects as well as local schools.

City of Elgin, IL

Spartan Drive Extension

Resident Engineer for the construction of a new roadway, extensive earthwork, storm sewer, water main, lighting, storm water detention and wetland mitigation. This project required extensive coordination with the US Army Corps of Engineers to achieve protection and revitalization of wetlands.

Michael Wittkop, P.E., CPESC

Transportation Engineer

Village of University Park, IL Various Motor Fuel Tax Projects

Project Engineer during the evaluation and design, and Resident Engineer during project construction. These annual projects included various roadway rehabilitations throughout the village. Project included data collection, evaluation of construction/repair method, construction observation and inspection.

Dralle Road Reconstruction

Resident Engineer for the reconstruction of Dralle Road. The project included the construction of storm sewer, roadway lighting, earthwork and roadway construction. The project required coordination with neighboring developers as well as a petroleum pipeline utility within the construction limits.

City of Aurora, IL

Wood Street Bridge over Burlington Northern Railroad and Indian Creek

Resident Engineer for the demolition of an existing bridge and construction of a new bridge over four sets of railroad tracks and a creek. The project included the construction of water main, storm sewer, retaining walls, stone columns and a three-span welded plate girder bridge. The project required coordination with Illinois Department of Transportation, the city of Aurora and Burlington Northern Santa Fe Railway.

Deep Well No. 28

Field Representative for the construction of a 1400-foot deep well including testing and disinfection.

Water Treatment Plant Filter Rehabilitation

Field Engineer for the rehabilitation of water treatment filters. The project included the conditional evaluation, rehabilitation and replacement of filter media for eight concrete filters within the existing water treatment plant.

City of Naperville, IL

Franklin Street Water Main

Project Engineer for the design of Phase II plans for the construction of a water main extension and rehabilitation.

Naperville Road Water Main Replacement

Project Engineer for the design of Phase II plans for construction. The project included a water main replacement crossing the Ronald Reagan (I-88) Tollway. The project was coordinated with the Illinois Tollway and the DuPage County Department of Transportation.

Chicago Rockford International Airport, IL

Northwest Cargo Apron and Sitework

Engineer for the construction of a new cargo apron. The project included construction sanitary sewer, storm sewer, earthwork and concrete apron pavement.

Kishwaukee Road Widening

Engineer for the widening of Kishwaukee Road for the addition of a turn lane for accessing development of the Chicago Rockford International Airport from a county roadway.

Metra, Chicago, IL

Lakes Station Metra Parking Lot

Project Engineer for the drainage design and detention analysis for design submittals.

Experience Prior to Joining CMT:

Geotechnical Field Technician for a geotechnical engineering firm. Projects included water main, sewer, roadway and building construction. Performed laboratory testing of soil samples, operated nuclear density gauge for soil and asphalt applications, prepared concrete cylinders and performed slump, air compression tests on concrete.