

COUNTY OF KANE

Christopher J. Lauzen
Kane County Board Chairman



Kane County Government Center
719 South Batavia Avenue
Geneva, IL 60134
P: (630) 232-5930
F: (630) 232-9188
clauzen@kanecoboard.org
www.countyofkane.org

RECEIVED

JUL 22 2013

KANE COUNTY BOARD

DOCUMENT VET SHEET

for
Christopher J. Lauzen
Chairman, Kane County Board

Name of Document: Professional Design Engineering Resolution No.: 13-230

Services Agreement with Crawford, Murphy & Tilly for Longmeadow

Parkway Bridge Corridor Section #13-00215-20-PV

Submitted by: Linda Haines

Dept. Head Signature: [Signature]

Date Submitted: June 19, 2013

Dept. Head Sign-off Date: July 2 2013

Examined by: Pat Jaeger
(Print name)

[Signature]
(Signature)

06-18-13
(Date)

Post on the Web: YES ☒ NO ☐ Atty. Initials [Signature]

Comments:

Chairman signed: YES ☒ NO ☐ 7/26/13
(Date)

Document returned to: forwarded
clerk's office for signature
(Name/Department) r Seal

STATE OF ILLINOIS

COUNTY OF KANE

RESOLUTION NO. 13 - 230

**APPROVING A PROFESSIONAL DESIGN ENGINEERING SERVICES AGREEMENT
WITH CRAWFORD, MURPHY AND TILLY, INC. FOR
LONGMEADOW PARKWAY BRIDGE CORRIDOR FROM EAST OF IL 31 TO IL 25 (SECTION C)
KANE COUNTY SECTION NO. 13-00215-20-PV**

WHEREAS, professional design engineering services are required for the proposed improvement of Longmeadow Parkway, Section C, east of Illinois Route 31 to east of Illinois Route 25 (herein referred to as the "Improvement"); and

WHEREAS, in order to accomplish the Improvement, it is necessary to retain the services of a professional engineering firm to provide Professional Design Engineering services; and

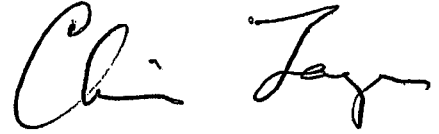
WHEREAS, Crawford, Murphy & Tilly, Inc., 550 North Commons Drive, Suite 116, Aurora, IL 60504 has experience and professional expertise in professional design engineering and is willing to perform the required services for an amount not to exceed Three Million Eight Hundred Sixty Five Thousand Forty One and 61/100 Dollars (\$3,865,041.61) as set forth in the proposed professional design engineering services agreement with Crawford, Murphy and Tilly, Inc. (a copy of which is on file with the County Clerk's Office).

NOW THEREFORE, BE IT RESOLVED by the Kane County Board that the Chairman thereof is hereby authorized to execute a professional design engineering services agreement with Crawford, Murphy and Tilly, Inc.

BE IT FURTHER RESOLVED that the Kane County Board appropriate the not to exceed sum of Two Million Seven Hundred Thousand Dollars (\$2,700,000.00) from Transportation Sales Tax Fund #305, Line Item #50140 (Engineering) and One Million One Hundred Sixty Five Thousand Forty One and 61/100 Dollars (\$1,165,041.61) from Transportation Capital Fund #540, Line Item #50140 (Engineering) for a total appropriation of Three Million Eight Hundred Sixty Five Thousand Forty One and 61/100 Dollars (\$3,865,041.61) to pay for said professional design engineering services for the Improvement.

Line Item	Line Item Description	Was personnel/item/service approved in original budget or a subsequent budget revision?	Are funds currently available for this personnel/item/service in the specific line item?	If funds are not currently available in the specified line item, where are the funds available?
305.520.527.50140	Engineering	Yes	Yes	
540.520.525.50140	Engineering	Yes	Yes	

Passed by the Kane County Board on July 9, 2013.



John A. Cunningham
Clerk, County Board
Kane County, Illinois

Christopher J. Lauzen
Chairman, County Board
Kane County, Illinois

Vote:

Yes	<u>22</u>
No	<u>0</u>
Voice	<u>0</u>
Abstentions	<u>0</u>

7LNGMDWSECCDSGBENGCMT.4LH

**AN AGREEMENT BETWEEN THE COUNTY OF KANE
AND CRAWFORD, MURPHY AND TILLY, INC.
FOR PROFESSIONAL DESIGN ENGINEERING SERVICES
KANE COUNTY SECTION NO. 13-00215-20-BR**

PURCHASE ORDER #2013-XXX

This AGREEMENT made this ___ day of July 2013 between COUNTY OF KANE, a body corporate and politic of the State of Illinois (hereinafter referred to as the "COUNTY"), and CRAWFORD, MURPHY, AND TILLY, INC, a Delaware corporation authorized to do business in the State of Illinois and an Illinois Licensed Professional Engineering and Land Survey firm with offices at 550 North Commons Drive, Suite 116, Aurora, Illinois, 60504 (hereinafter referred to as the "CONSULTANT"). The COUNTY and the CONSULTANT are sometimes hereinafter collectively referred to as the "PARTIES" and individually as a "PARTY".

WITNESSETH

WHEREAS, it is deemed to be in the best interest of the COUNTY and the motoring public to improve and maintain the various highways throughout Kane County; and,

WHEREAS, the COUNTY desires to improve Longmeadow Parkway and in conjunction therewith requires professional design engineering services for the design of Longmeadow Parkway – Section C located east of Illinois Route 31 to east of Illinois Route 25, as further described in attached exhibits, therefore (hereinafter referred to as the "PROJECT"); and

WHEREAS, in order to complete the PROJECT it is necessary to retain the services of a professional engineering firm to perform professional design engineering services; and,

WHEREAS, the CONSULTANT has experience and professional expertise in consulting design engineering services and is willing to perform said services for an amount not to exceed Three Million Eight Hundred Sixty-Five Thousand Forty-One Dollars and Sixty-One Cents (\$3,865,041.61); and

WHEREAS, the COUNTY has determined that it is in the COUNTY'S best interest to enter into this AGREEMENT with the CONSULTANT.

NOW, THEREFORE, in consideration of the above stated preambles, the mutual covenants and agreements herein set forth, the PARTIES do hereby mutually covenant, promise, agree and bind themselves as follows:

1.0 INCORPORATION

- 1.1 All of the preambles set forth hereinabove are incorporated into and made part of this AGREEMENT.

2.0 SCOPE OF SERVICES

- 2.1 Services for the PROJECT are to be provided by the CONSULTANT according to the specifications set forth in Exhibit "A" which is attached hereto and incorporated herein. The services are sometimes hereinafter also referred to as the "work".

3.0 NOTICE TO PROCEED

- 3.1 Authorization to proceed with the work described and as otherwise set forth in Exhibit "A" shall be given on behalf of the COUNTY by the Kane County Engineer, in the form of a written notice to proceed (hereinafter "Notice to Proceed"), following execution of this Agreement by the County Board Chairman of the COUNTY.

4.0 TECHNICAL SUBCONSULTANTS

- 4.1 The prior written approval of the Kane County Engineer shall be required before any technical sub-consultants are hired by the CONSULTANT to perform any of the work.
- 4.2 Any such sub-consultants shall be hired and supervised by the CONSULTANT and the CONSULTANT shall be solely responsible for any and all work performed by said sub-consultants in the same manner and with the same liability as if performed by the CONSULTANT.

5.0 TIME FOR PERFORMANCE

- 5.1 The CONSULTANT shall commence work on the PROJECT as directed in the Notice to Proceed. The COUNTY is not liable and will not pay the CONSULTANT for any work performed prior to the date of the Notice to Proceed or after termination of this AGREEMENT.
- 5.2 Within ten (10) days after the Notice to Proceed is mailed or otherwise transmitted to the CONSULTANT, the CONSULTANT shall submit a schedule for completion of the PROJECT. The schedule is subject to approval by the County Engineer.

6.0 COMPENSATION

- 6.1 The COUNTY shall only pay the CONSULTANT for work performed and shall pay only in accordance with the provisions of this AGREEMENT.
- 6.2 For work performed, the COUNTY shall pay the CONSULTANT based upon the hourly rates set forth in Exhibit "B", which is attached hereto and incorporated herein and which rates includes overhead and profit.

- 6.3 For direct expenses, the COUNTY shall pay the CONSULTANT for supplies and materials required for the completion of all work defined in the exhibit(s) attached hereto.
- 6.4 For direct expenses, the CONSULTANT shall include copies of receipts from suppliers for expendable materials with its invoice to the COUNTY. Computer charges will not be allowed as direct expenses.
- 6.5 Within 45 days of receipt, review and approval of properly documented invoices, the COUNTY shall pay or cause to be paid to the CONSULTANT partial payments of the compensation specified in this AGREEMENT. Payment will be made in the amount of sums earned less previous partial payments. However, the COUNTY reserves the right to hold back a sum equal to five percent (5%) of the total contract sum to ensure performance satisfactory to the Kane County Engineer.
- 6.6 Total payments to the CONSULTANT under the terms of this AGREEMENT shall not exceed Three Million Eight Hundred Sixty-Five Thousand Forty-One Dollars and Sixty-One Cents (\$3,865,041.61).
- 6.7 The CONSULTANT shall use the COUNTY'S Automatic Clearing house (ACH) payment program. The following link shall be used to complete the vendor agreement http://web.kane/purchasing/New_Vendor_Packet_REQUIRED.pdf.

7.0 DELIVERABLES.

- 7.1 The CONSULTANT shall provide the COUNTY, prior to the termination of this AGREEMENT, or at such time as the Kane County Engineer directs, any required deliverables related to work performed under this AGREEMENT.
- 7.2 Upon receipt, review and acceptance of all deliverables by the COUNTY (if required), final payment will be made to the CONSULTANT by the COUNTY.

8.0 CONSULTANT'S INSURANCE

- 8.1 The CONSULTANT and any sub-consultants shall, during the term of this AGREEMENT and as may be required thereafter, maintain, at its sole expense, insurance coverage including:
 - A. Worker's Compensation Insurance in the statutory amounts.
 - B. Employer's Liability Insurance in an amount not less than Five Hundred Thousand Dollars (\$500,000) each accident/injury and Five Hundred Thousand Dollars (\$500,000) each employee/disease.
 - C. Commercial General Liability Insurance, (including contractual liability) with limits of not less than One Million Dollars (\$1,000,000) per occurrence bodily injury/property damage combined single limit;

Two Million Dollars (\$2,000,000) excess liability coverage in the aggregate for injury/property damage combined single limit and Two Million Dollars (\$2,000,000) in the aggregate for products-completed operations.

D. Commercial Automobile Liability Insurance with minimum limits of at least One Million Dollars (\$1,000,000) for any one person and One Million Dollars (\$1,000,000) for any one occurrence of bodily injury or property damage.

E. Professional Errors and Omissions Insurance with a minimum limit of One Million Dollars (\$1,000,000).

8.2 It shall be the duty of the CONSULTANT to provide to the COUNTY copies of the CONSULTANT'S certificates of insurance before issuance of the Notice to Proceed. The certificate(s) of insurance shall indicate the County of Kane as the Certificate Holder and shall also indicate the Section Number and the Purchase Order Number set forth in the title to this Agreement. The CONSULTANT shall provide the COUNTY and maintain a certificate of insurance for its General Liability Policy which certificate shall include the COUNTY as additional named insured. The additional insured endorsement included on the CONSULTANT'S Commercial General Liability policy will provide the following:

A. That the coverage afforded the additional insured will be primary insurance for the additional insured with respect to claims arising out of operations performed by or on behalf of the CONSULTANT;

B. That if the additional insured has other insurance which is applicable to the loss, such other insurance will be only on an excess or contingent basis;

C. That the amount of the CONSULTANT'S liability under the insurance policy will not be reduced by the existence of such other insurance; and,

D. That the certificate of insurance shall contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, nor renewal refused until at least thirty (30) days prior written notice has been given to COUNTY.

The insurance required to be purchased and maintained by CONSULTANT shall be provided by an insurance company acceptable to the County with an AM Best rating of A- or better, and licensed to do business in the State of Illinois; and shall include at least the specified coverage and be written for not less than the limits of the liability specified herein or required by law or regulation whichever is greater. In no event shall any failure of the COUNTY to receive policies or certificates of insurance or to demand receipt of the same be construed as a waiver of the CONSULTANT'S obligation to obtain and keep in force the required insurance.

9.0 INDEMNIFICATION.

- 9.1 To the fullest extent permitted by law, the CONSULTANT shall indemnify and hold harmless the COUNTY, and its officials, directors, officers, agents, and employees from and against any and all claims, damages, losses, and expenses, including but not limited to court costs and reasonable attorney's fees, arising out of or resulting from performance of the work, provided that such claim, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of property but only to the extent caused in whole or in part by negligent acts or omissions of the CONSULTANT, a sub-consultant, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, excluding any proportionate amount of any claim, damage, loss or expense which is caused by the negligence of the COUNTY. Such obligation shall not be construed to negate, abridge or reduce other rights or obligations of indemnity, which would otherwise exist as to a PARTY or person described in this paragraph. In claims against the COUNTY and its officials, directors, officers, agents, and employees by an employee of the CONSULTANT, a sub-consultant, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this paragraph shall not be limited by a limitation on the amount or type of damages, compensation or benefits payable by or for the CONSULTANT or a sub-consultant under worker's or workmen's compensation acts, disability benefit acts or other employee benefit acts.
- 9.2 Nothing contained herein shall be construed as prohibiting the COUNTY, its officials, directors, officers, agents, and employees, from defending through the selection and use of their own agents, attorneys and experts, to defend any claims, actions or suits brought against them.
- 9.3 If any errors, omissions, intentional or negligent acts are made by the CONSULTANT or sub-consultant in any phase of the work, the correction of which requires additional field or office work, the CONSULTANT shall be required to perform such additional work as may be necessary to remedy same without undue delay and without charge to the COUNTY.
- 9.4 Acceptance of the work by the COUNTY will not relieve the CONSULTANT of the responsibility for the quality of the work, nor of the CONSULTANT'S liability for loss or damage to property or persons resulting therefrom.

10.0 SATISFACTORY PERFORMANCE.

- 10.1 The CONSULTANT'S and sub-consultant's standard of performance under the terms of this AGREEMENT shall be that which is to the satisfaction of the COUNTY and meets the quality and standards commonly accepted in the industry in the Chicago Metropolitan area.

11.0 CONFLICT OF INTEREST.

- 11.1 The CONSULTANT covenants that it has no conflicting public or private interest and shall not acquire directly or indirectly any such interest which would conflict in any manner with the performance of CONSULTANT'S services under this AGREEMENT.
- 11.2 The CONSULTANT, by its signature on this AGREEMENT, certifies that it has not been barred from being awarded a contract or subcontract under the Illinois Purchasing Act; and further certifies that it has not been barred from contracting with a unit of State or Local government as a result of a violation of Section 33E-3 or 33E-4 of the Illinois Criminal Code (Illinois Compiled Statutes, 1992, Chapter 720, paragraph 5/33E-3).

12.0 OWNERSHIP OF DOCUMENTS.

- 12.1 The CONSULTANT agrees that all survey data, reports, drafting, studies, specifications, estimates, maps and computations prepared by the CONSULTANT under the terms of this AGREEMENT shall be properly arranged, indexed and delivered to the COUNTY within ninety (90) days of written request therefor.
- 12.2 The documents and materials made or maintained under this AGREEMENT shall be and will remain the property of the COUNTY which shall have the right to use same without restriction or limitation and without compensation to the CONSULTANT other than as provided in this AGREEMENT.

13.0 COMPLIANCE WITH STATE AND OTHER LAWS – PREVAILING WAGE ACT.

- 13.1 The CONSULTANT and sub-consultants will comply with all State, Federal and Local statutes, ordinances and regulations; and will obtain all permits as are applicable.
- 13.2 The CONSULTANT and any sub-consultants shall not discriminate against any worker, job applicant, employee or any member of the public, because of race, creed, color, sex, age, handicap, or national origin, or otherwise commit an unfair employment practice.
- 13.3 The CONSULTANT and any sub-consultant(s) shall comply with all applicable State and Federal Prevailing Rate of Wage Laws, and shall take all steps necessary to remain in compliance therewith. (See Exhibit "C").
- 13.4 The CONSULTANT and any sub-consultant(s) shall comply with the Kane County Ethics Ordinance (Article II, Division 3, Section 2-211), (see Exhibit "D").

14.0 MODIFICATION OR AMENDMENT

- 14.1 The terms of this AGREEMENT may only be modified or amended by a written document duly executed by both PARTIES.

15.0 TERM OF THIS AGREEMENT.

- 15.1 The term of this AGREEMENT shall begin on the date this AGREEMENT is fully executed and shall continue in full force and effect until the earlier of the following occurs:

A. The PARTY'S termination of this AGREEMENT in accordance with the terms of Section 16.0; or

B. August 1, 2018.

- 15.2 In the event the required time is exceeded and/or anticipated personnel requirements are not adequate and remaining funds are not sufficient to complete the PROJECT, adjustments in total compensation to the CONSULTANT may be determined through negotiation between the COUNTY and the CONSULTANT. The COUNTY shall however, have no obligation to agree to any such adjustment.

- 15.3 The date of the first calendar day for this AGREEMENT shall be the date of receipt of the Notice to Proceed by the CONSULTANT from the COUNTY. In the event the PROJECT work is suspended as recorded on the "Report of Starting and Completion Date," the calendar days for this AGREEMENT will also be suspended for a like amount of time.

16.0 TERMINATION ON WRITTEN NOTICE.

- 16.1 Except as otherwise set forth in this AGREEMENT, the CONSULTANT shall have the right to terminate this AGREEMENT for cause upon serving sixty (60) days written notice upon the COUNTY.

- 16.2 The COUNTY may terminate this AGREEMENT at any time upon written notice to the CONSULTANT.

- 16.3 Upon termination of this AGREEMENT, the obligations of the PARTIES to this AGREEMENT shall cease, but they shall not be relieved of the duty to perform their obligations up to the date of termination. Notwithstanding anything in this AGREEMENT to the contrary however, the obligations of the CONSULTANT to indemnify and hold harmless the COUNTY as provided for in Section 9.0 of the AGREEMENT shall survive the termination of this AGREEMENT.

16.4 Upon termination of this AGREEMENT, all data, work products, reports and documents produced, as a result of this AGREEMENT shall become the property of the COUNTY.

17.0 ENTIRE AGREEMENT.

17.1 This AGREEMENT contains the entire AGREEMENT between the parties.

17.2 There are no other covenants, promises, conditions or understandings, either oral or written, other than those contained herein.

18.0 NON-ASSIGNMENT.

18.1 This AGREEMENT shall not be assigned by either PARTY without prior written approval by the other PARTY requesting the assignment.

19.0 SEVERABILITY.

19.1 In the event any provision of this AGREEMENT is held to be unenforceable for any reason, the enforceability thereof shall not affect the remainder of the AGREEMENT, which will remain in full force and effect and enforceability in accordance with its terms.

20.0 GOVERNING LAW.

20.1 This AGREEMENT shall be governed by the laws of the State of Illinois both as to interpretation and performance.

20.2 Venue for any dispute arising hereunder shall be in the Circuit Court of the Sixteenth Judicial Circuit, Kane County, Illinois.

21.0 NOTICE.

Any required notice shall be sent to the following addresses and party:

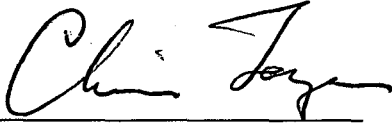
KANE COUNTY DIVISION OF TRANSPORTATION
41W011 Burlington Road
Saint Charles, Illinois 60175
Attn.: Carl Schoedel, P.E., Kane County Engineer

CRAWFORD, MURPHY, AND TILLY, INC.
550 North Commons Drive, Suite 116
Aurora, Illinois 60504
Attn.: Kelly Farley, P.E.

IN WITNESS WHEREOF, the parties set their hands and seals as of the date first written above.

COUNTY OF KANE

CRAWFORD, MURPHY AND TILLY, INC.



CHRISTOPHER J. LAUZEN
CHAIRMAN, KANE COUNTY BOARD

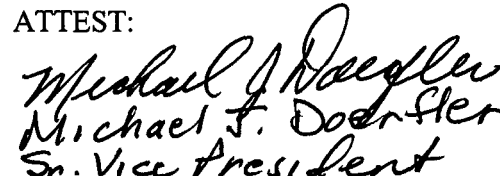


LOU DIXON, P.E.
SENIOR VICE PRESIDENT

ATTEST:

JOHN A. CUNNINGHAM
KANE COUNTY CLERK

ATTEST:



Michael J. Doerfler
Sr. Vice President
By:

(seal)

EXHIBIT “A”

CMT Phase I and Phase II Scope of Services

EXHIBIT “A”: SCOPE OF WORK

**Kane County Division of Transportation
Project Scope Description to Provide
Phase I (Preliminary) Updates and Phase II (Design) Engineering Services for
Longmeadow Parkway – Section C
Illinois Route 31 to Illinois Route 25
(Sta. 2186+32 to Sta. 2280+09)
Section Number: 13-00215-20-BR**

General Project Information

1. For contract preparation purposes, this project is anticipated to begin in July 2013 and be completed in December 2014.

2. Roadway limits:

Longmeadow Parkway:	9,377'	(Sta. 2186+32 to Sta. 2280+09)
Illinois Route 25:	2,600'	(Sta. 600+00 to Sta. 626+00)
Williams Road/Sandbloom Road:	700'	(Sta. 902+00 to Sta. 909+00)
Bolz Road/Angelina Place:	3,500'	(Sta. 500+00 to Sta. 533+00)
Bolz Connector Road:	<u>600'</u>	(Sta. 700+00 to Sta. 705+00)

Total Length: 16,777'

3. The Phase I Scope of Services include: Updates to Location Drainage Study (LDS), revisions to Hydraulic Analysis, revisions to Intersection Design Studies (IDS), updated Environmental Studies, pavement design, additional Geotechnical Investigations, revisions to Type, Size & Location (TS&L) for Fox River Bridge and Field Tile Investigations. Full field surveys are not included in scope/man-hours.
4. The Phase II Scope of Services includes three (3) plan submittals: Preliminary Plans, Pre-Final Plans (90%) and Final Plans (100%). All submittals will include specifications, cost estimates and estimate of time.
5. CMT **will not** prepare Right-of-way Plats, Permanent Easement Plats and Temporary Easement Plats as part of this project. (Legal efforts, property appraisals and negotiations are not part of this project scope.)
6. Estimated structural elements:
 - Bridge over Fox River
 - MSE abutment's
7. Signalized intersections:
 - Longmeadow Parkway/Bolz Connector Road
 - Longmeadow parkway/Illinois Route 25

PRELIMINARY INDEX OF SHEETS**# OF SHEETS**

Cover Sheet	1
Signature Sheet	1
Index of Sheets	1
General Notes & Commitments	2
Mix Requirements & Highway Standards	1
Utility Plan Relocation Matrix	1
Summary of Quantities	6
Schedule of Quantities	5
Typical Sections	5
General Site Plan	1
Alignment, Ties, and Benchmarks	4
Construction Staging and Maintenance of Traffic	45
Removal Plans	9
Roadway Plan and Profile – Longmeadow Parkway	7
Roadway Plan and Profile – Illinois Route 25	2
Roadway Plan and Profile – Bolz Road/Angelina Place	3
Roadway Plan and Profile - Williams Road/Sandbloom Road	1
Roadway Plan and Profile – Bolz Connector Road	1
Superelevation Details	3
Drainage Plan and Profile	13
Drainage Tables	4
Detention Pond Grading Plans	3
Tollway Plaza Plans and Details	43
Erosion and Sediment Control (Including SWPPP Sheets)	14
Grading Plan – Bridge Area	2
PCC Pavement Jointing Plans	10
Intersection Detail Plans	4
Traffic Signal Plans	8
Fiber Optic Layout Plan	7
Pavement Marking Plans	9
Landscaping Plans	9
Roadway Signing Plans	9
Lighting Plans – (Bridge structure and approaches only)	5
Fox River Bridge Plans (See Section 14 of scope for sheet breakdown)	94
Culvert Design (Not anticipated)	0
IDOT District One Details	10
Miscellaneous Details	4
Right-of-Way Plat of Highway Sheets (Prepared by Section A)	30
Cross Sections – Longmeadow Parkway	81
Cross Sections – Illinois Route 25	15
Cross Sections – Bolz Road/Angelina Place	23
Cross Sections - Williams Road/Sandbloom Road	5
Cross Sections – Bolz Connector Road	5

Total Sheets**506**

Phase I Engineering - Detailed Scope of Services

1. Data Collection

- a. Obtain, review and log the following information:
 - 1) Phase I Study Reports/files (Design Report, IDS's, LDS, TS&L, geotechnical report, hydraulic report, EIS and other environmental studies)
 - 2) Phase I correspondence
 - 3) Available roadway plans and development plans (to be obtained through IDOT, Kane County, Village of Barrington Hills and the Village of Carpentersville)
 - 4) Existing utility information (electric, natural gas, gas pipelines, transmission lines, telecommunication, cable TV, water, sewer).
 - 5) Available ROW and easement information and documents
 - 6) Property ownership / Tax Maps
 - 7) Soil Conservation Service Maps
 - 8) U.S.G.S. Maps
 - 9) NWI maps
 - 10) Aerial Photography/GIS (Provided by Kane County)
- b. Project site visits (Assume 2 people * 6 hours * 8 visits)
- c. Photo log

2. Field and Land Surveys (State Plane): Miscellaneous pick-up surveys will be required.

- a. Office setup and coordination
 - 1) Obtain and review locations of Vertical and Horizontal control points (to be provided by HLR – Section A Consultant)
- b. Preliminary Field Work
 - 1) Run traverse between control points to verify closure
 - 2) Run level circuit between bench marks to verify closure, horizontal control points, and set temporary bench marks
- c. Drainage Surveys (To be provided by HLR – Section A Consultant)
- d. Plot of Survey Data (Entire d. Task to be completed by HLR – Section A Consultant)
 - 1) Download and process survey data/points
 - 2) Create existing conditions plan view
 - 3) Create existing Digital Terrain Model (DTM) (Contours)
 - 4) Generate existing condition cross sections from proposed alignment
- e. Pick-up surveys
(Soil Boring Elevations and Field Tile Locations will be completed by HLR)
- f. Field verify and stake existing R.O.W. for Plat of Highways (Completed by HLR – Section A Consultant as needed)

3. Environmental

Work performed by our subconsultant Huff & Huff, Inc. A detailed scope of services and hours is included as Attachment A.

- a. Wetland Delineation
- b. Wetland Permitting – Corp of Engineers
- c. Wetland Permitting - Kane County
- d. Mussel Surveys
- e. Preliminary Environmental Site Assessment (PESA)

- f. Preliminary Site Investigation (PSI)
- g. Clean Construction Demolition Debris (CCDD)
- h. EIS – Re-Evaluation
- i. Remedial Strategy – Former Fox Valley Rifle Range

4. Geotechnical Investigations and Reports:

Work performed by our subconsultant Wang Engineering, Inc. A detailed scope of services and hours is included as Attachment B.

- a. Desk Study and Site Visit
- b. Geotechnical Drilling
- c. Field Supervision
- d. Laboratory Testing
- e. Engineering Analysis, Recommendations and Reporting

5. Existing Drain Tile Investigation Plan

Work performed by our subconsultant Huddleston McBride Land Drainage Services, Co. A detailed scope of services and hours is included as Attachment C.

- a. Perform drain tile investigation
- b. Record mapping and report
- c. Review field tile investigation report
- d. Incorporate findings drainage study and construction plans

6. Finalize Drainage Plan

Work to be completed by our subconsultant Bollinger, Lach & Associates, Inc. A detailed scope of services and hours is included as Attachment D.

- a. Existing Drainage Plan and Proposed Drainage Plan Verification
- b. Detention Calculations
- c. Meet with Homeowners, Local Agencies to Discuss Offsite Storage
- d. Compensatory Storage Evaluation & Mitigation
- e. Existing & Proposed Outlet Analysis
- f. Hydraulic Report - Culvert (5)
- g. Ditch Design/Storm Sewer Design
- h. Inlet Spacing Calculations
- i. Coordination with Section B & D
- j. Basin Grading Plan
- k. Energy Dissipation Design
- l. Best Management Practices
- m. Drainage Report Preparation / Coordinate Submittals with Sections A, B, & D
- n. Update Bridge Hydraulic Report
- o. IDNR / OWR Floodway Permit
- p. Grading Plans for Areas Under Bridge

7. Bridge Alternative Study

- a. Structure Type and Cost Evaluation
 - 1) Perform Vertical Alignment Analysis
 - 2) Evaluate Superstructure, Main River and Approach Spans
 - 3) Evaluate Substructure, Main River and Approach Spans

- 4) Analyze bridge decking material to minimize icing and improve skid resistance
 - 5) Develop Structural Alternatives (Scope assumes 3)
 - 6) Determine efficiency, safety and cost comparison for each structural alternative
 - 7) Evaluate proposed TS&L structure versus each of the three alternatives
 - 8) Develop draft bridge constructability plan
 - 9) Provide technical memorandum with our findings and recommendations
- b. TS&L Drawings and Structure Report
- 1) Type, Size & Location (TS&L) Drawings and Structure Report will be prepared for the preferred alternative
 - 2) Bureau of Bridges and Structures (BBS) Review and Coordination

8. Intersection Design Study (IDS) (Review and Revise)

- a. Longmeadow Parkway/Bolz Connector Road
- 1) Review/Revise Optimum Phasing Analysis
 - 2) Review/Revise Capacity Analysis
 - 3) Update intersection geometry
 - 4) Confirm storage length for required turn lanes
 - 5) Evaluate vertical geometric constraints (centerline profile, driveway profiles)
 - 6) Evaluate sight distance requirements
 - 7) Review preliminary traffic signal layout plan
 - 8) Develop preliminary pavement marking layout
 - 9) Prepare and submit revised IDS drawings
 - 10) Address County/Village review comments
- b. Longmeadow Parkway/IL. Route 25
- 1) Review/Revise Optimum Phasing Analysis
 - 2) Review/Revise Capacity Analysis
 - 3) Update intersection geometry
 - 4) Confirm storage length for required turn lanes
 - 5) Evaluate vertical geometric constraints (centerline profile, driveway profiles)
 - 6) Evaluate sight distance requirements
 - 7) Review preliminary traffic signal layout plan
 - 8) Develop preliminary pavement marking layout
 - 9) Prepare and submit revised IDS drawings for submittal
 - 10) Coordination with IDOT Bureau of Programming regarding proposed intersection
 - 11) Address County/IDOT and Village review comments

9. Toll Facility Alternative Analysis

Work to be completed by our subconsultant Burns & McDonnell. A detailed scope of services and hours is included as Attachment E.

- a. Collection Options
- b. Toll Collection and Monitoring Equipment
- c. Toll Violation Monitoring and Equipment
- d. Electronic Communication Equipment
- e. Equipment Placement Plan

10. Preliminary Design Studies

- a. Develop and finalize horizontal alignment (Completed by HLR – Section A Consultant)
- b. Review existing vertical profile
- c. Develop vertical profiles alternatives for bridge alternatives and to help minimize earthwork costs.
- d. Finalize proposed geometry for intersections and corridor
- e. Perform pavement design
 - Longmeadow Parkway – Section C
 - Illinois Route 25
 - Bolz Road/Angelina Place
 - Williams Road/Sandbloom Road
 - Bolz Connector Road
- f. Develop and finalize roadway typical sections
- g. Perform barrier warrant analysis within corridor

11. Public Information Meetings (Assume 4 meetings)

- a. Identify location and schedule (Completed by HLR – Section A Consultant)
- b. Advertisements and mailings (Completed by HLR – Section A Consultant)
- c. Prepare displays, exhibits and handouts
- d. Attendance at meeting (2 people)
- e. Summarize public comments (Completed by HLR – Section A Consultant)
- f. Coordination with County staff and subconsultants regarding meetings
- g. Development of aerial model of preferred bridge alternative for presentations

Phase II Engineering - Detailed Scope of Services

12. Soil Erosion and Sediment Control

- a. Temporary and permanent erosion and sediment control for all construction zones.
- b. Erosion control detail design
- c. Prepare SWPPP
- d. Prepare Soil and Erosion Control Checklist-tech review form
- e. Submit NPDES
- f. Submit plan to Kane-DuPage Soil and Water Conservation District for approval

13. Preliminary Structural Plans

- a. Plan Development Outline - PDO
 - 1) Project Data
 - 2) Procedures for Quality Control and Quality Assurance
 - 3) Project Description
 - 4) Scope of Services
 - 5) Schedule
 - 6) Analysis and Design Procedures
 - 7) Constructability
 - 8) List of Non-conventional Details
 - 9) Foundation Type Assessment

- 10) Preliminary List of Plan Sheets
- 11) Preliminary List of General Notes
- 12) TSL Drawing and related attachments
- 13) Design Criteria: AASHTO Spec. Main Span & Approaches
- b. Preliminary Structure Drawings Deposition - TS&L
 - 1) Disposition of BBS Review Comments-Approach Span
 - 2) Disposition of BBS Review Comments-Main Span
 - 3) Hydraulics, Scour & Scour Countermeasures
- c. Geotechnical Engineering Services
 - 1) Disposition of BBS Review Comments-Geotechnical
 - 2) Consultation with Geotechnical Consultant in Design

14. Prefinal Structural Plans

a. Prefinal Structure Drawings - Main Span & Approaches	
General Plan & Elevation	4
General Notes & Bill of Material	2
Index of Bridge Drawings	1
Footing Layout	2
Slopedwall and Riprap Details	2
Embankment Grading and Details	2
Deck Elevation Plan, Deck Elevation Tables	12
Superstructure and Details	6
Parapet Details	4
Railing Details	2
Framing Plan	3
Framing Details	12
Camber Diagrams	3
Bearing Assembly and Details	3
West Abutment	2
West Abutment Wingwall Details	1
East Abutment	2
East Abutment MSE Walls	2
Expansion Joint Details	4
Drainage Scupper Details	2
Bar Splicer Assembly Details	1
Pier Details	10
Approach Slab Details	4
Soil Boring Logs	8
Total Sheets	94

- b. Bridge Deck Drainage Design
- c. Fabrication / Erection Considerations
- d. Aesthetic Considerations
- e. Schedule of Quantities

15. Final Structural Plans

- a. Develop Final Structure Plans
 - 1) Revisions per IDOT Bridge Office Reviews
 - 2) Revisions per KDOT Reviews
 - 3) Revisions per CMT Quality Assurance Reviews
- b. Final Schedule of Quantities

16. Roadway Plans

A detailed breakdown of proposed plan sheet count is presented on page 2 of this scope. Plan sheets will meet the requirement of both IDOT and Kane County. The following is a general description of sheet layout and content that will be presented.

- a. Plan Preparation
 - 1) Cover Sheet
 - 2) Signature Sheet
 - 3) Index of Sheets
 - 4) General Notes & Commitments
 - 5) Mixture Requirements & Highway Standards
 - 6) Utility Plan Relocation Matrix: Status of Utilities to be Adjusted – One sheet, CMT will complete a schedule table of possible utility conflicts and provide to others who will provide utility information and coordinate relocations.
 - 7) Summary of Quantities – Listing of all pay items
 - 8) Schedule of Quantities – Sheet will include select quantity calculation schedules for the following items:
 - a) Earthwork
 - b) Tree removal
 - c) Seeding
 - d) Erosion control
 - e) Paving
 - f) Removals
 - g) Storm sewer pipe, drainage structures & culverts
 - h) Pipe underdrains
 - i) Right-of-Way markers
 - j) Pavement marking/signing
 - k) Guardrail
 - l) Traffic Signals (Shown on traffic signal plans)
 - m) Street Lighting (Shown on street lighting plans)
 - n) Bridge items (Shown on structural plans)
 - 9) Typical Sections – Existing and proposed sections will be prepared for the mainline, side roads, and ramps.
 - a) Longmeadow Parkway
 - b) Illinois Route 25
 - c) Williams Road/Sandbloom Road
 - d) Bolz Road/Angelina Place
 - e) Bolz Connector Road
 - 10) General Site Plan – Overall layout of project
 - 11) Alignment Ties and Benchmarks (1" = 100') – Plan sheets will be prepared to show the centerline break points and curve information, horizontal control points

and vertical benchmarks. The design coordinates for each point will be provided along with station and offsets. Field survey swing ties and control points will also be included for re-establishing any lost or obliterated points.

- 12) Construction Staging and Maintenance of Traffic Control (1" = 50') – Staging and MOT sheets for Longmeadow Parkway, Illinois Route 25, Williams Road/Sandbloom Road, Bolz Road/Angelina Place and Bolz Connector Road.
 - a) A key map plan sheet showing the overall staging section shall be prepared.
 - b) Typical sections will be created to show stage construction details, including pavement widening/new construction and traffic/lane configurations.
 - c) Plan sheets will be developed at the same scale as the plan and profile sheets to show interim connections and drainage work required to construct the project in stages while maintaining traffic.
 - d) Plan and profile sheets along with any associated cross section sheets will be created for temporary crossovers or connections required to shift traffic to and from existing and proposed pavement.
- 13) Removal Plan (1" = 50')
- 14) Roadway Plan and Profile (1" = 50')
- 15) Superelevation Details: Sheets will be prepared to show superelevation tables for all horizontal curves.
- 16) Drainage Plan and Profile (1" = 50')
- 17) Drainage Tables
- 18) Detention Pond Grading Plans
- 19) Toll Plaza Plans and Details: A total of 43 sheets are anticipated. A breakdown of sheets is included in Attachment E.
- 20) Erosion and Sediment Control Plans (1" = 50')
- 21) Grading Plan (1" = 20'): Plans will include proposed contours for grading of the bridge.
- 22) PCC Pavement Jointing Plans (1" = 20')
- 23) Intersection Details – Detailed plans at will be prepared for each intersection.
- 24) Traffic Signal Details – A signal layout and cable diagram sheet will also be included for each installation. Sheets will be prepared per IDOT District One Traffic Signal Design Guideline Manual.
- 25) Fiber Optic Layout Plan (1" = 100')
- 26) Pavement Marking Plans (1" = 50')
- 27) Landscaping Plans (1" = 50')
- 28) Signing Plans – Sheets will show the plan view layout, sign panel details, and structural elements for sign supports. Mast arm signs are included as part of signing plans.
- 29) Lighting Plans (1" = 50'): Photometric calculations are included in the scope of services. (Fox River Bridge and immediate approaches)
- 30) Fox River Bridge Plans (Refer to Section 14.a for detail breakdown of sheets)
- 31) Culvert Design Plans (Not anticipated)
- 32) IDOT District One Details – All applicable standard details will be included in plans.
- 33) Miscellaneous Details – Details will be prepared for items not covered by IDOT or Kane County.
- 34) Cross Sections:
 - a) Cross sections will be prepared every 50 feet.
 - b) Cross sections shall also include the following information:
 - Existing and proposed right-of-way limits.

- Proposed profile elevation.
- Proposed ditch elevations.
- Ditch flow arrows.
- Existing utility information.
- Limits of stage construction.
- Excavation and embankment by construction stage.
- Limits of topsoil excavation and placement.
- Removal limits of unsuitable material.
- Sub base, shoulder and pavement structures.
- Grading for any temporary pavement.
- Pavement removal.

b. Break Out Construction Plans

This item includes the early break out of construction contracts (as required) for the purpose of early bidding. Items that may be broken out early include steel contract, IL 25/Longmeadow Parkway intersection, tree clearing or grading.

17. Specifications and Quantities

a. Specifications

- 1) Preliminary specifications for roadway items
- 2) Preliminary specifications for structural items
- 3) Preliminary specifications for toll plaza items
- 4) Prefinal specifications for roadway items
- 5) Prefinal specifications for structural items
- 6) Prefinal specifications for toll plaza items
- 7) Final specifications for roadway items
- 8) Final specifications for structural items
- 9) Final specifications for toll plaza items

b. Quantities - Computations for all pay items.

- 1) Preliminary quantities for roadway items
- 2) Preliminary quantities for structural items
- 3) Preliminary quantities for toll plaza items
- 4) Prefinal quantities for roadway items
- 5) Prefinal quantities for structural items
- 6) Prefinal quantities for toll plaza items
- 7) Final quantities for roadway items
- 8) Final quantities for structural items
- 9) Final quantities for toll plaza items

- c. An estimate of time will be prepared for the primary pay items and the anticipated construction staging method. (Prefinal and final plan submittal only)
- d. An engineer's estimate of probable cost will be prepared in unit price format for all proposed pay items. (Preliminary, prefinal and final submittals)

18. Construction Phase Services

- a. Attend pre-bid meeting
- b. Attend pre-construction meeting
- c. Respond to Request of Information (RFI's)
- d. Field visits during construction (assume 10)
- e. Shop drawing reviews

Project Management - Detailed Scope of Services

19. Progress Meetings/Field Meetings/Field Checks/Coordination

- a. Progress meetings with the Kane County Division of Transportation/Section A, B and D Consultants to review and discuss the project status. Includes one review meeting after each milestone submittal. (36 meetings assumed)
- b. Meetings with IDOT (8 meetings assumed)
- c. Meetings with Illinois Tollway (4 meetings assumed)
- d. Meetings with Village of Carpentersville (2 meetings assumed)
- e. Meetings with Village of Barrington Hills (2 meetings assumed)
- f. Meetings with Kane County Forest Preserve (6 meetings assumed)
- g. Internal Drainage Meetings (4 meetings assumed) and Coordination
- h. Internal Field Tile/Subsurface Meetings (2 meetings assumed) and Coordination
- i. Internal Tollway Facility Meetings (4 meetings assumed) and Coordination
- j. Internal Geotechnical Meetings (2 meetings assumed) and Coordination
- k. Internal Environmental Meetings (6 meetings assumed) and Coordination
- l. Coordination and two (2) meetings with each utility company. The following is a list of utility companies within the project limits:
 - 1) ComEd (Electrical)
 - 2) Nicor (Natural Gas)
 - 3) AT&T (Fiber/Telephone)
 - 4) Comcast
 - 5) Village of Carpentersville
 - 6) Village of Barrington Hills
- m. Field check and review by the project team after each of the milestone plan submittals
- n. Coordination with the Kane County Division of Transportation
- o. Coordination with IDOT Bridge Office during development of the structure plans.
- p. Coordination with IDOT Bureau of Local Roads – District One
- q. Coordination with IDOT Bureau of Programming – District One
- r. Coordination with Illinois Tollway
- s. Coordination with subconsultants
- t. Coordination with Sections A, B and D
- u. Coordination with Kane County Forest Preserve
- v. Preparation time prior to each external meeting. (1 hour/meeting assumed)
- w. Preparation of meeting minutes for each external meeting (only half of the monthly progress meetings). (2 hours/meeting assumed)
- x. CMT will participate in a Value Engineering (VE) Study Workshop (1). All reports required as part of the VE study will be prepared by the County's VE consultant. Scope/hours assumes three (3) people will be participating in the workshop for 4 days.

20. Quality Management Plan

- a. Preparation of Consultant Quality Assurance Plan (QAP)
- b. Quality Assurance Review of each milestone deliverable (TS&L's and PS&E's) shall be prepared and completed in accordance with the QAP.
- c. Constructability Review shall be completed on the preliminary and pre-final plans.
- d. The project principal shall monitor and conduct QAP implementation meetings with the PM to assure conformance with the approved plan.
- e. Disposition of Kane County/IDOT Review Comments

21. Administration/Project Management

- a. Scope of work reviews
- b. Create and maintain progress schedule
- c. Budget control
- d. Includes preparation of monthly progress reports and narratives
- e. Personnel planning, scheduling, budget control monitoring
- f. Internal project team meetings
- g. Project close out
- h. Project Invoicing/Review of subconsultant invoices

Note: Crawford, Murphy & Tilly, Inc.'s written scope of services also includes the written scope of services of all subconsultants to Crawford, Murphy & Tilly, Inc. contained herein and after.

EXHIBIT “B”

CMT Cost Estimate of Consultant Services (CECS)

"Exhibit B"

Route: Longmeadow Parkway - Section C
 Local Agency: Kane County Division of Transportation
 Section No.: 13-00215-20-BR

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

Overhead Rate (OH) 145.03%
 Complexity Factor '® 0.00
 Calendar Days 549

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]

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
Phase I Tasks									
1 Data Collection	308.0	\$37.12	\$11,432.86	\$16,581.08	\$0.00	\$281.60	\$4,102.85	\$32,398.40	0.84%
2 Field Surveys	276.0	\$36.07	\$9,955.05	\$14,437.81	\$0.00	\$281.60	\$3,577.80	\$28,252.26	0.73%
3 Environmental	252.0	\$38.31	\$9,654.06	\$14,001.29	\$163,575.74	\$0.00	\$3,430.03	\$190,661.11	4.93%
4 Geotechnical Investigations	96.0	\$38.40	\$3,686.69	\$5,346.80	\$437,204.05	\$0.00	\$1,309.86	\$447,547.39	11.58%
5 Drain Tile Investigations	90.0	\$38.29	\$3,446.00	\$4,997.74	\$11,340.00	\$0.00	\$1,224.34	\$21,008.08	0.54%
6 Finalize Drainage Plan	166.0	\$36.31	\$6,026.83	\$8,740.72	\$273,226.77	\$0.00	\$2,141.29	\$290,135.62	7.51%
7 Bridge Alternative Study	654.0	\$40.60	\$26,549.43	\$38,504.64	\$59,619.69	\$0.00	\$9,432.84	\$134,106.61	3.47%
8 Intersection Design Studies	70.0	\$37.01	\$2,590.94	\$3,757.64	\$27,881.69	\$0.00	\$920.54	\$35,150.81	0.91%
9 Toll Facility Alternative Analysis	64.0	\$39.59	\$2,534.02	\$3,675.09	\$182,156.37	\$0.00	\$900.32	\$189,265.81	4.90%
10 Preliminary Design Studies	444.0	\$36.51	\$16,208.87	\$23,507.72	\$0.00	\$0.00	\$5,758.90	\$45,475.49	1.18%
11 Public Information Meetings	625.0	\$39.16	\$24,477.29	\$35,499.41	\$0.00	\$2,140.80	\$9,007.04	\$71,124.54	1.84%
Phase II Tasks									
12 Soil Erosion and Sediment Control	278.0	\$36.97	\$10,277.84	\$14,905.96	\$0.00	\$0.00	\$3,651.65	\$28,835.45	0.75%
13 Preliminary Structural Plans	216.0	\$40.78	\$8,808.55	\$12,775.04	\$0.00	\$0.00	\$3,129.62	\$24,713.20	0.64%
14 Prefinal Structural Plans	8932.0	\$41.53	\$370,958.73	\$538,001.45	\$0.00	\$120.32	\$131,816.67	\$1,040,897.17	26.93%
15 Final Structural Plans	620.0	\$40.93	\$25,378.67	\$36,806.68	\$0.00	\$120.32	\$9,034.32	\$71,339.99	1.85%
16 Roadway Plans	5685.0	\$37.31	\$212,089.19	\$307,592.95	\$103,199.33	\$4,350.72	\$75,984.76	\$703,216.95	18.19%
17 Specifications & Quantities	1136.0	\$34.40	\$39,077.88	\$56,674.64	\$0.00	\$900.00	\$14,014.62	\$110,667.14	2.86%
18 Construction Phase Services	444.0	\$38.77	\$17,215.75	\$24,968.00	\$0.00	\$352.00	\$6,167.68	\$48,703.43	1.26%
Project Management Tasks									
19 Meetings and Coordination	1800.0	\$38.13	\$68,635.92	\$99,542.68	\$0.00	\$1,817.20	\$24,649.39	\$194,645.19	5.04%
20 Quality Assurance Plan	300.0	\$43.37	\$13,010.91	\$18,869.72	\$25,180.42	\$0.00	\$4,622.69	\$61,683.74	1.60%
21 Project Administration	730.0	\$46.49	\$33,936.94	\$49,218.74	\$0.00	\$0.00	\$12,057.57	\$95,213.26	2.46%
Totals	23186.0	\$39.50	\$915,952.41	\$1,328,405.78	\$1,283,384.06	\$10,364.56	\$326,934.80	\$3,865,041.61	100.00%

**Longmeadow Parkway - Section C
Kane County Division of Transportation**

Man Hour Estimate for Consulting Services (Total Project)

Crawford, Murphy, and Tilly, Inc.

Summary of Man Hours

Item		CMT Total Hours
Phase I Tasks		
1	Data Collection	308.0
2	Field Surveys	276.0
3	Environmental	252.0
4	Geotechnical Investigations	96.0
5	Drain Title Investigations	90.0
6	Finalize Drainage Plan	166.0
7	Bridge Alternative Study	654.0
8	Intersection Design Studies	70.0
9	Toll Facility Alternative Analysis	64.0
10	Preliminary Design Studies	444.0
11	Public Information Meetings	625.0
Phase II Tasks		
12	Soil Erosion and Sediment Control	278.0
13	Preliminary Structural Plans	216.0
14	Prefinal Structural Plans	8,932.0
15	Final Structural Plans	620.0
16	Roadway Plans	5,685.0
17	Specifications & Quantities	1,136.0
18	Construction Phase Services	444.0
Project Management Tasks		
19	Meetings and Coordination	1,800.0
20	Quality Assurance Plan	300.0
21	Project Administration	730.0
Total Project Hours:		23,186.0

**Longmeadow Parkway - Section C
Kane County Division of Transportation**

Man Hour Estimate for Consulting Services (Total Project)

Crawford, Murphy, and Tilly, Inc.

1	Data Collection	<u>CMT Hours</u>	
1.a	Obtain and Review Project Information	200	
1.b	Project Site Visit	96	
1.c	Photo Log	12	
	Sub - total		308
2	Field Surveys		
2.a	Office Set-up and Coordination	12	
2.b	Preliminary Field Work	24	
2.c	Drainage Surveys	0	
2.d	Plot of Survey Data	0	
2.e	Pick-up Surveys	240	
2.f	Field Verify R.O.W.	0	
	Sub - total		276
3	Environmental		
3.a	Wetland Delineation	8	
3.b	Wetland Permitting - ACOE	40	
3.c	Wetland Permitting - Kane County	24	
3.d	Mussel Surveys	6	
3.e	Preliminary Environmental Site Assessment	10	
3.f	Preliminary Site Investigations	12	
3.g	Clean Construction Demolition Debris (CCDD)	80	
3.h	EIS - Revaluation	60	
3.i	Remedial Strategy - Fox Valley Rifle Range	12	
	Sub - total		252
4	Geotechnical Investigations		
4.a	Desk Study and Site Visit	6	
4.b	Geotechnical Drilling	10	
4.c	Field Supervision	0	
4.d	Laboratory Testing	0	
4.e	Engineering Analysis, Recommendations and Reporting	80	
	Sub - total		96
5	Drain Tile Investigations		
5.a	Perform drain tile investigations	4	
5.b	Record mapping and reporting	6	
5.c	Review field tile investigation report	40	
5.d	Incorporate findings into drainage study and construction plans	40	
	Sub - total		90

**Longmeadow Parkway - Section C
Kane County Division of Transportation**

Man Hour Estimate for Consulting Services (Total Project)

Crawford, Murphy, and Tilly, Inc.

6	Finalize Drainage Plan		
6.a	Existing/proposed drainage plan review and verification	20	
6.b	Detention calculations	8	
6.c	Meeting with homeowners and local agencies to discuss offsite storage	8	
6.d	Compensatory storage evaluation and mitigation	8	
6.e	Existing/proposed outlet evaluation	6	
6.f	Hydraulic report	32	
6.g	Ditch design/storm sewer design	6	
6.h	Inlet spacing calculations	6	
6.i	Drainage coordination with sections B and D	6	
6.j	Basin grading plan	8	
6.k	Energy dissipation design	6	
6.l	Best management practices	8	
6.m	Drainage report preparation	10	
6.n	Update bridge hydraulic report	8	
6.o	IDNR/OWR Floodway Permit	20	
6.p	Grading plans for areas under bridge	6	
	Sub - total		166
7	Bridge Alternative Study		
7.a	Structure type and cost evaluation	410	
7.b	TS&L Drawings and Structure Report	244	
	Sub - total		654
8	Intersection Design Studies		
8.a	Longmeadow Parkway/Bolz Connector Road	20	
8.b	Longmeadow Parkway/IL. Route 25	50	
	Sub - total		70
9	Toll Facility Alternative Analysis		
9.a	Collection options	6	
9.b	Toll collection and monitoring equipment	6	
9.c	Toll violation monitoring and equipment	6	
9.d	Electronic communication equipment	6	
9.e	Equipment placement plan	40	
	Sub - total		64
10	Preliminary Design Studies		
10.a	Develop and finalize horizontal alignment	40	
10.b	Review existing vertical profile	16	
10.c	Develop vertical profiles alternatives with cost: bridge and earthwork	240	
10.d	Finalize proposed geometry for intersections and section c	16	
10.e	Perform pavement design	32	
10.f	Develop and finalize roadway typical sections	60	
10.g	Perform barrier warrant analysis within corridor	40	
	Sub - total		444

**Longmeadow Parkway - Section C
Kane County Division of Transportation**

Man Hour Estimate for Consulting Services (Total Project)

Crawford, Murphy, and Tilly, Inc.

11	Public Information Meetings		
11.a	Identify public meeting locations and schedule (Section A)	0	
11.b	Advertise and mailings (Section A)	0	
11.c	Prepare displays, exhibits and handouts	320	
11.d	Attendance at meetings	65	
11.e	Summarize public comments (Section A)	0	
11.f	Coordination with County staff and Section A regarding meetings	40	
11.g	Development of aerial model of preferred bridge alternative	200	
	Sub - total		625
12	Soil Erosion and Sediment Control		
12.a	Temporary and permanent erosion and sediment control concept	80	
12.b	Erosion control detail design	40	
12.c	Prepare SWPPP	50	
12.d	Prepare Soil and Erosion Control Check-list tech review form	24	
12.e	Submit NPDES	24	
12.f	Submit plan to Kane-DuPage Soil and Water Conservation District for approval	60	
	Sub - total		278
13	Preliminary Structural Plans		
13.a	Plan Development Outline - PDO		
	Project Data	16	
	Procedures for Quality Control and Quality Assurance	8	
	Project Description	8	
	Scope of Services	8	
	Schedule	8	
	Analysis and Design Procedures	8	
	Constructability	8	
	List of Non-conventional Details	8	
	Foundation Type Assessment	16	
	Preliminary List of Plan Sheets	16	
	Preliminary List of General Notes	8	
	TSL Drawing and related attachments	16	
	Design Criteria: AASHTO Spec. Main Span & Approaches	8	
13.b	Preliminary Structure Drawings		
	Disposition of BBS Review Comments-Approach Span	16	
	Disposition of BBS Review Comments-Main Span	16	
	Hydraulics, Scour & Scour Countermeasures	16	
13.c	Geotechnical Engineering Element		
	Disposition of BBS Review Comments-Geotechnical	16	
	Consultation with geotechnical consultant during design	16	
	Sub - total		216

Longmeadow Parkway - Section C
Kane County Division of Transportation

Man Hour Estimate for Consulting Services (Total Project)

Crawford, Murphy, and Tilly, Inc.

14 Prefinal Structural Plans

14.a	Prefinal Structure Drawings - Main Span & Approaches	<u>No. Sheets</u>	<u>Hours/Sheet</u>	<u>Total</u>
	General Plan & Elevation	4	96	384
	General Notes & Bill of Material	2	96	192
	Index of Bridge Drawings	1	40	40
	Footing Layout	2	96	192
	Slopedwall and Riprap Details	2	96	192
	Embankment Grading and Details	2	96	192
	Deck Elevation Plan, Deck Elevation Tables	12	96	1152
	Superstructure and Details	6	96	576
	Parapet Details	4	96	384
	Railing Details	2	96	192
	Framing Plan	3	96	288
	Framing Details	12	96	1152
	Camber Diagrams	3	96	288
	Bearing Assembly and Details	3	96	288
	West Abutment	2	96	192
	West Abutment Wingwall Details	1	96	96
	East Abutment	2	96	192
	East Abutment MSE Walls	2	96	192
	Expansion Joint Details	4	96	384
	Drainage Scupper Details	2	80	160
	Bar Splicer Assembly Details	1	16	16
	Pier Details	10	96	960
	Approach Slab Details	4	96	384
	Soil Boring Logs	8	40	320
		<hr/>	<hr/>	<hr/>
		94		8408
14.b	Bridge Deck Drainage Design			160
14.c	Fabrication / Erection Considerations			120
14.d	Aesthetic Considerations			120
14.e	Schedule of Quantities			124
	Sub - total			8932
15	Final Structural Plans			
15.a	Develop Final Structure Plans			
	Revisions per IDOT Bridge Office Reviews			120
	Revisions per KDOT Reviews			120
	Revisions per CMT Quality Assurance Reviews			340
15.d	Final Schedule of Quantities			40
	Sub - total			620

Longmeadow Parkway - Section C
Kane County Division of Transportation

Man Hour Estimate for Consulting Services (Total Project)

Crawford, Murphy, and Tilly, Inc.

16 Roadway Plans

16.a	Plan Sheet Preparation	<u>No. Sheets</u>	<u>Hours/Sheet</u>	<u>Total</u>
	Cover Sheet	1	8	8
	Signature Sheet	1	6	6
	Index of Sheets	1	6	6
	General Notes & Commitments	2	20	40
	Mix Requirements & Highway Standards	1	16	16
	Utility Plan Relocation Matrix	1	24	24
	Summary of Quantities	6	10	60
	Schedule of Quantities	5	24	120
	Typical Sections	5	32	160
	General Site Plan	1	30	30
	Alignment, Ties, and Benchmarks	4	20	80
	Construction Staging and Maintenance of Traffic	45	32	1440
	Removal Plans	9	16	144
	Roadway Plan and Profile – Longmeadow Parkway	7	32	224
	Roadway Plan and Profile – Il. Rt 25 (Included in subconsultants manhours)	2	0	0
	Roadway Plan and Profile – Bolz Road/Angelina Place	3	32	96
	Roadway Plan and Profile - Williams Road/Sandbloom Road	1	32	32
	Roadway Plan and Profile – Bolz Connector Road	1	32	32
	Superelevation Details	3	24	72
	Drainage Plan and Profile (Included in subconsultants manhours)	13	0	0
	Drainage Tables (Included in subconsultants manhours)	4	0	0
	Detention Pond Grading Plans (Included in subconsultants manhours)	3	0	0
	Tollway Plaza Plans and Details (Included in subconsultants manhours)	43	0	0
	Erosion and Sediment Control	14	30	420
	Grading Plan – Bridge Area	2	32	64
	PCC Pavement Jointing Plans	10	30	300
	Intersection Grading Plans (2 Intersections included in subs manhours)	2	30	60
	Traffic Signal Plans (Included in subconsultants manhours)	8	0	0
	Fiber Optic Layout Plan	7	20	140
	Pavement Marking Plans	9	28	252
	Landscaping Plans	9	26	234
	Roadway Signing Plans	9	28	252
	Lighting Plans – Bridge Structure Only (Includes photometric calculations)	5	66	330
	Fox River Bridge Plans (See Section 16 of scope for sheet breakdown)	94	0	0
	Culvert Design (Not anticipated)	0	0	0
	IDOT District One Details	10	2	20
	Miscellaneous Details	4	12	48
	Plat of Highways (Included in plan set - prepared by Section A consultant)	30	1	30
	Cross Sections – Longmeadow Parkway	81	5	405
	Cross Sections – Illinois Route 25	15	5	75
	Cross Sections – Bolz Road/Angelina Place	23	5	115
	Cross Sections - Williams Road/Sandbloom Road	5	5	25
	Cross Sections – Bolz Connector Road	5	5	25
		<u>504</u>		<u>5385</u>
16.b	Breakout Construction Plans			300
	Sub - total			5685

**Longmeadow Parkway - Section C
Kane County Division of Transportation**

Man Hour Estimate for Consulting Services (Total Project)

Crawford, Murphy, and Tilly, Inc.

17	Specifications & Quantities	
17.a	Specifications	
	Preliminary specifications for roadway items	60
	Preliminary specifications for structural items	60
	Prefinal specifications for roadway items	80
	Prefinal specifications for structural items	160
	Final specifications for roadway items	60
	Final specifications for structural items	60
17.b	Quantities	
	Preliminary quantities for roadway items	80
	Preliminary quantities for structural items	140
	Prefinal quantities for roadway items	60
	Prefinal quantities for structural items	120
	Final quantities for roadway items	40
	Final quantities for structural items	100
17.c	Estimate of Time	
	Roadway	12
	Bridge	24
17.d	Engineers Estimate of Probable Cost	
	Preliminary submittal	32
	Prefinal submittal	24
	Final submittal	24
	Sub - total	1136
18	Construction Phase Services	
18.a	Attend pre-bid meeting	12
18.b	Attend pre-construction meeting	12
18.c	Respond to RFI's	60
18.d	Field visits during construction	60
18.e	Shop drawing reviews	300
	Sub - total	444
19	Meetings and Coordination	
19.a	Progress meetings with KDOT and Section A, B and D Consultants	288
19.b	Meetings with IDOT	64
19.c	Meetings with Illinois Tollway	32
19.d	Meetings with Village of Carpentersville	16
19.e	Meetings with Village of Barrington Hills	16
19.f	Meetings with Kane County Forest Preserve	36
19.g	Drainage meetings/coordination with subconsultant	96
19.h	Field tile/subsurface drainage meetings/coordination with subconsultant	32
19.i	Tollway facility meetings/coordination with subconsultant	80
19.j	Geotechnical meetings/coordination with subconsultant	32
19.k	Environmental meetings/coordination with subconsultant	96
19.l	Coordination/meetings with utility companies	192
19.m	Field check after each of the milestone submittals	20
19.n	Coordination with Kane County DOT	160
19.o	Coordination with IDOT Bridge Office	36
19.p	Coordination with IDOT Bureau of Local Roads - District One	12
19.q	Coordination with Bureau of Programming - District One	8
19.r	Coordination with Illinois Tollway	8
19.s	Coordination with subconsultants	120
19.t	Coordination with Section A, B and D consultants	120
19.u	Coordination with Kane County Forest Preserve	30
19.v	Preparation time prior to meetings (Total of 70 meetings)	70
19.w	Prepare Meeting Minutes (Total of 70 meetings)	140
19.x	Participate in Value Engineering Workshop	96
	Sub - total	1800

**Longmeadow Parkway - Section C
Kane County Division of Transportation**

Man Hour Estimate for Consulting Services (Total Project)

Crawford, Murphy, and Tilly, Inc.

20	Quality Assurance Plan	
20.a	Prepare Quality Assurance Plan	36
20.b	Quality Assurance Reviews	160
20.c	Constructability Reviews (Included in subconsultants manhours)	0
20.d	Monitor QAP Compliance	24
20.e	Disposition of Review Comments	80
	Sub - total	300
21	Project Administration	
21.a	Scope of Work Reviews	94
21.b	Create and Maintain Progress Schedule	78
21.c	Budget Control	74
21.d	Monthly Progress Reports	56
21.e	Personnel Planning	120
21.f	Internal Team Meetings	200
21.g	Project Close Out	60
21.h	Project Invoicing	48
	Sub - total	730

AVERAGE HOURLY PROJECT RATES

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

DATE 05/30/13

SHEET 1 OF 4

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			Data Collection			Field Surveys			Environmental			Geotechnical Investigations			Drain Tile Investigations		
		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	74.57	0																	
Senior Project Engineer	56.36	1100	4.74%	2.67															
Project Engineer	44.35	9870	42.57%	18.88	100	32.47%	14.40				120	47.62%	21.12	40	41.67%	18.48	32	35.56%	15.77
Senior Engineer	34.20	8319	35.88%	12.27	110	35.71%	12.22	80	28.99%	9.91	100	39.68%	13.57	40	41.67%	14.25	50	55.56%	19.00
Senior Technical Manager	39.58	1248	5.38%	2.13	40	12.99%	5.14							8	8.33%	3.30	8	8.89%	3.52
Engineer	28.49	1502	6.48%	1.85	58	18.83%	5.36	16	5.80%	1.65	32	12.70%	3.62	8	8.33%	2.37			
Planner	24.06	0																	
Registered Land Surveyor	39.43	120	0.52%	0.20				120	43.48%	17.14									
Senior Technician	33.85	1027	4.43%	1.50				60	21.74%	7.36									
Technician	25.52	0																	
Technical Assistant	19.34	0																	
Clerical	19.41	0																	
TOTALS		23186	100%	\$39.50	308	100.00%	\$37.12	276	100%	\$36.07	252	100%	\$38.31	96	100%	\$38.40	90	100%	\$38.29

AVERAGE HOURLY PROJECT RATES

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

DATE 05/30/13

SHEET 2 **OF** 4

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Finalize Drainage Plan			Bridge Alternative Study			Intersection Design Studies			Toll Facility Alternative Analy			Preliminary Design Studies			Public Information Meetings		
		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	74.57																		
Senior Project Engineer	56.36				30	4.59%	2.59												
Project Engineer	44.35	46	27.71%	12.29	320	48.93%	21.70	20	28.57%	12.67	34	53.13%	23.56	100	22.52%	9.99	250	40.00%	17.74
Senior Engineer	34.20	80	48.19%	16.48	254	38.84%	13.28	24	34.29%	11.73	30	46.88%	16.03	260	58.56%	20.03	145	23.20%	7.94
Senior Technical Manager	39.58	10	6.02%	2.38	50	7.65%	3.03	8	11.43%	4.52				44	9.91%	3.92	150	24.00%	9.50
Engineer	28.49	30	18.07%	5.15				8	11.43%	3.26				40	9.01%	2.57	40	6.40%	1.82
Planner	24.06																		
Registered Land Surveyor	39.43																		
Senior Technician	33.85							10	14.29%	4.84							40	6.40%	2.17
Technician	25.52																		
Technical Assistant	19.34																		
Clerical	19.41																		
TOTALS		166	100%	\$36.31	654	100%	\$40.60	70	100%	\$37.01	64	100%	\$39.59	444	100%	\$36.51	625	100%	\$39.16

AVERAGE HOURLY PROJECT RATES

Crawford, Murphy & Tilly, Inc.

Figure 1

05/30/13

3 OF 4

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Soil Erosion and Sediment Contr			Preliminary Structural Plans			Prefinal Structural Plans			Final Structural Plans			Roadway Plans		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	74.57															
Senior Project Engineer	56.36							600	6.72%	3.79	80	12.90%	7.27	100	1.76%	0.99
Project Engineer	44.35	80	28.78%	12.76	140	64.81%	28.75	5000	55.98%	24.83	240	38.71%	17.17	1600	28.14%	12.48
Senior Engineer	34.20	144	51.80%	17.72	76	35.19%	12.03	2500	27.99%	9.57	200	32.26%	11.03	2800	49.25%	16.85
Senior Technical Manager	39.58	24	8.63%	3.42				300	3.36%	1.33				400	7.04%	2.78
Engineer	28.49	30	10.79%	3.07										500	8.80%	2.51
Planner	24.06															
Registered Land Surveyor	39.43															
Senior Technician	33.85							532	5.96%	2.02	100	16.13%	5.46	285	5.01%	1.70
Technician	25.52															
Technical Assistant	19.34															
Clerical	19.41															
TOTALS		278	100%	\$36.97	216	100%	\$40.78	8932	100%	\$41.53	620	100%	\$40.93	5685	100%	\$37.31

AVERAGE HOURLY PROJECT RATES

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

DATE 05/30/13

SHEET 4 OF 4

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Specifications & Quantities			Construction Phase Services			Meetings and Coordination			Quality Assurance Plan			Project Administration		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	74.57															
Senior Project Engineer	56.36							100	5.56%	3.13	60	20.00%	11.27	130	17.81%	10.04
Project Engineer	44.35	200	17.61%	7.81	200	45.05%	19.98	608	33.78%	14.98	140	46.67%	20.70	600	82.19%	36.45
Senior Engineer	34.20	550	48.42%	16.56	244	54.95%	18.80	532	29.56%	10.11	100	33.33%	11.40			
Senior Technical Manager	39.58	36	3.17%	1.25				170	9.44%	3.74						
Engineer	28.49	350	30.81%	8.78				390	21.67%	6.17						
Planner	24.06															
Registered Land Surveyor	39.43															
Senior Technician	33.85															
Technician	25.52															
Technical Assistant	19.34															
Clerical	19.41															
TOTALS		1136	100%	\$34.40	444	100%	\$38.77	1800	100%	\$38.13	300	100%	\$43.37	730	100%	\$46.49

**Longmeadow Parkway - Section C
Kane County Division of Transportation**

Development of Project Hourly Rates (IDOT Method)

Crawford, Murphy, and Tilly, Inc.

Item	2013 Actual Rate	2014 Projected @ 5.0% Increase	2015 Projected @ 5.0% Increase	2016 Projected @ 5.0% Increase	2017 Projected @ 5.0% Increase	2018 Projected @ 5.0% Increase
Average Hourly Rate as a Percent of 2013 Rate	100.0%	105.0%	110.3%	115.8%	121.6%	127.6%
Estimated Months of Contract in Given Year	6	12	0	0	0	0
% of Project Duration	33.33%	66.67%	0.00%	0.00%	0.00%	0.00%
Extension	0.333	0.700	0.000	0.000	0.000	0.000
Weighted Project Hourly Rate Multiplier	Note: Salary Adjustments are Given on January 1 of Each Year					1.0333

Project Duration: July 1, 2013 to December 31, 2014=

18 months

**Longmeadow Parkway - Section C
Kane County Division of Transportation**

**Computation of Prorated
Project Hourly Rates**

Crawford, Murphy, and Tilly, Inc.

Classification	Actual 2013 Average Hourly Rate	Weighted Hourly Rate Multiplier	Project Hourly Rates *
Principal	\$72.16	1.0333	\$74.57
Senior Project Engineer	\$54.54	1.0333	\$56.36
Project Engineer	\$42.92	1.0333	\$44.35
Senior Engineer	\$33.10	1.0333	\$34.20
Senior Technical Manager	\$38.30	1.0333	\$39.58
Engineer	\$27.57	1.0333	\$28.49
Planner	\$23.28	1.0333	\$24.06
Registered Land Surveyor	\$38.16	1.0333	\$39.43
Senior Technician	\$32.76	1.0333	\$33.85
Technician	\$24.70	1.0333	\$25.52
Technical Assistant	\$18.72	1.0333	\$19.34
Clerical	\$18.78	1.0333	\$19.41

* Rates to be applied to all project work tasks

Longmeadow Parkway - Section C
Kane County Division of Transportation

Estimate of Direct Costs
Crawford, Murphy, and Tilly, Inc.

1	Data Collection		
a	Travel: 8 trips x 64 mile x \$.55/mile	\$281.60	
	Sub - total		\$281.60
2	Field Surveys		
a	Travel: 8 trips x 64 mile x \$.55/mile	\$281.60	
	Sub - total		\$281.60
3	Environmental		
a	No Direct Costs		
	Sub - total		\$0.00
4	Geotechnical Investigations		
a	No Direct Costs		
	Sub - total		\$0.00
5	Drain Tile Investigations		
a	No Direct Costs	\$0.00	
	Sub - total		\$0.00
6	Finalize Drainage Plan		
a	No Direct Costs	\$0.00	
	Sub - total		\$0.00
7	Bridge Alternative Study		
a	No Direct Costs	\$0.00	
	Sub - total		\$0.00
8	Intersection Design Studies		
a	No Direct Costs	\$0.00	
	Sub - total		\$0.00

**Longmeadow Parkway - Section C
Kane County Division of Transportation**

Estimate of Direct Costs

9	Toll Facility Alternative Analysis		
a	No Direct Costs	\$0.00	
	Sub - total		\$0.00
10	Preliminary Design Studies		
a	No Direct Costs	\$0.00	
	Sub - total		\$0.00
11	Public Information Meetings		
a	Travel: 4 trips x 64 miles x \$.55/mile	\$140.80	
b	Exhibits/Boards	\$2,000.00	
c	Mailings (Handled by Section A)	\$0.00	
d	Advertisement in Newspaper (Handled by Section A)	\$0.00	
	Sub - total		\$2,140.80
12	Soil Erosion and Sediment Control		
a	No Direct Costs	\$0.00	
	Sub - total		\$0.00
13	Preliminary Structural Plans		
a	No Direct Costs	\$0.00	
	Sub - total		\$0.00
14	Prefinal Structural Plans		
a	Printing: Pre-final Plans		
	94 Sheets/set x 1 sets x 6 sf/sht x \$.12/sqft	\$67.68	
	94 Sheets/set x 4 sets (11"x17" sheets) x \$.14/sheet	\$52.64	
	Sub - total		\$120.32
15	Final Structural Plans		
a	Printing: Final Structural Plans		
	94 Sheets/set x 1 sets x 6 sf/sht x \$.12/sqft	\$67.68	
	94 Sheets/set x 4 sets (11"x17" sheets) x \$.14/sheet	\$52.64	
	Sub - total		\$120.32

Longmeadow Parkway - Section C
Kane County Division of Transportation

Estimate of Direct Costs

16	Roadway Plans		
a	Printing: Preliminary Plans		
	412 Sheets/set x 1 sets x 6 sf/sht x \$.12/sqft	\$296.64	
	412 Sheets/set x 20 sets (11"x17" sheets) x \$.14/sheet	\$1,153.60	
b	Printing: Prefinal Plans		
	412 Sheets/set x 1 sets x 6 sf/sht x \$.12/sqft	\$296.64	
	412 Sheets/set x 20 sets (11"x17" sheets) x \$.14/sheet	\$1,153.60	
c	Printing: Prefinal Plans		
	412 Sheets/set x 1 sets x 6 sf/sht x \$.12/sqft	\$296.64	
	412 Sheets/set x 20 sets (11"x17" sheets) x \$.14/sheet	\$1,153.60	
	Sub - total	\$4,350.72	
17	Specifications & Quantities		
a	Printing: Preliminary Submittal	\$300.00	
	300 Sheets/set x 10 sets (8 1/2" x 11" sheets) x \$.10/sheet		
b	Printing: Prefinal Submittal	\$300.00	
	300 Sheets/set x 10 sets (8 1/2" x 11" sheets) x \$.10/sheet		
c	Printing: Prefinal Submittal	\$300.00	
	300 Sheets/set x 10 sets (8 1/2" x 11" sheets) x \$.10/sheet		
	Sub - total	\$900.00	
18	Construction Phase Services		
a	Travel: 10 trips x 64 mile x \$.55/mile	\$352.00	
	Sub - total	\$352.00	
19	Meetings and Coordination		
a	Travel:		
	36 Meetings x 44 mile x \$.55/mile (KDOT)	\$871.20	
	8 Meetings x 68 mile x \$.55/mile (IDOT)	\$299.20	
	4 Meetings x 32 mile x \$.55/mile (Tollway)	\$70.40	
	2 Meetings x 64 mile x \$.55/mile (Barrington Hills)	\$70.40	
	2 Meetings x 64 mile x \$.55/mile (Carpentersville)	\$70.40	
	6 Meetings x 44 mile x \$.55/mile (Forest Preserve)	\$145.20	
	12 Meetings x 44 mile x \$.55/mile (Utility)	\$290.40	
	Sub - total	\$1,817.20	
20	Quality Assurance Plan		
a	No Direct Costs	\$0.00	
	Sub - total	\$0.00	
21	Project Administration		
a	No Direct Costs	\$0.00	
	Sub - total	\$0.00	

ATTACHMENT “A”

Huff & Huff, Inc.

Sub-Consultant Agreement

**Scope and Man-hours for
Environmental Services**

**ENVIRONMENTAL SCOPE OF SERVICES
SECTION C
LONGMEADOW PARKWAY
KANE COUNTY DIVISION OF TRANSPORTATION**

The following scope of services will be completed for the proposed construction of Longmeadow Parkway from Huntley Road to Illinois Route 62. The environmental tasks to be completed for Section C included the wetlands and wetland permitting for the entire project, special waste and Clean Construction Demolition Debris (CCDD) studies for the entire project, and the preparation of the Technical Memorandum for the re-evaluation of the original Fox River Bridges Environmental Impact Statement (EIS) and Record of Decision that was completed in 2001.

Task 1. Wetland Delineation

Wetland delineations were completed previously for the Bolz Road and Longmeadow project. The delineations for the EIS were completed in the 1990's and therefore no longer valid. More recent delineations were completed sometime in the 2000's. Huff & Huff (H&H) will review the previous delineation work. If it was conducted within the last five years, the report should be valid for the Corps of Engineers (COE); however, Kane County limits the age of wetland reports to three years. Therefore, to meet the County ordinance the wetland delineations will need to be updated if older than three years. The purpose of the delineation work for this project is to update the previous delineation to save time and effort.

A. Off-site Record/Document Review

The following records/documents will be reviewed prior to conducting the field investigation. The sources reviewed and to be used include:

- U.S. Geological Survey Topographic Maps
- National Wetlands Inventory Maps
- Kane County Wetland Inventory and ADID maps
- Kane County Soil Survey
- Hydric Soils of the United States
- FEMA Flood Insurance Rate Maps

B. On-Site Investigation (Field Inventory)

The on-site investigation will be conducted by our environmental staff experienced in Federal methods for conducting wetland delineations. Our staff will classify and define hydric soils, hydrophytic vegetation, and evidence of hydrology to determine if wetlands are present. If wetlands are present, they will be delineated and the wetland perimeters will be surveyed in the field by the Consultant using Global Positioning System (GPS).

A wetland delineation of the project site will be conducted that will meet the requirements of Executive Order 11990, "Protection of Wetlands;" Section 404 of the Federal Water Pollution Control Act as amended by the Clean Water Act (Corps of Engineers, Section 404 Permit) and the Illinois Environmental Protection Agency (IEPA Section 401 Guidelines) regulations. These regulations pertain to the placement of fill or alterations of drainage within wetlands of any type and apply to privately as well as publicly owned wetlands. The investigation will meet the requirements of these regulations by identifying the type, functions, and approximate boundaries of the involved wetlands. This methodology is the accepted method for the Kane County Stormwater Ordinance.

Wetlands found will be classified according to type using the "*Classification of Wetlands and Deep Water Habitats of the United States*" by Cowardin. Wetland boundaries will be defined using the *COE Midwest Region Manual* (COE, 2010). This includes a soil investigation to determine the presence or absence of hydric soils and an analysis of the dominant plant species. Field observations will be made on any evidence indicating the hydrology of the area and on water sources that are supporting these wetlands. Functions of these wetlands will be evaluated from field observations.

The project team will utilize the previous delineations to identify where wetlands have been identified in the past. These wetlands will be verified based on the previous delineation information. In the event new wetlands are identified, these will be formally delineated although it is considered unlikely new delineations will be needed. Prior to the fieldwork being initiated, H&H will request a copy of the previous delineation that was completed sometime in the 2000's.

Wetland boundaries will be staked in the field for survey teams from CMT. Wetland shapefiles will be developed from the survey to determine potential impacts.

The Kane County ordinance requires that all delineations be completed between June 1 and October 15 to obtain a thorough floristic quality assessment (FQA). Any delineation work completed outside these dates will be considered preliminary or a maximum buffer zone will be applied to the project.

C. Wetland Report

A wetland delineation report will be prepared summarizing the findings of the fieldwork. Based upon the wetland screening, five potential wetlands are located within the parcel proposed for development. Therefore, it is anticipated that this report will be needed.

Specific items to be included in the report are as follows:

- a) Map showing the wetland/WOUS boundaries and project boundaries
- b) Aerial photograph with the limits of delineated wetlands
- c) Floristic Quality Assessment
- d) Wetland data sheets
- e) Photographs of each wetland and data point

H&H will utilize the previous delineation report as a base for any additional reporting that will be completed.

During this timeframe, H&H will query the Illinois Department of Transportation (IDOT) to determine the status of the Wetland Impact Evaluation (WIE) forms that were submitted a few years back. This will indicate where the wetland review is in the IDOT process under the Interagency Wetland Policy Act (IWPA).

Task 2. Wetland Permitting Corps of Engineers

Consultant will coordinate the wetland permitting for the entire project. Permits for wetland impacts are issued through the Chicago District, COE in Kane County.

The permitting process for jurisdictional wetlands is initiated by the submittal of the Joint Application to the COE. The Joint Application Form will require a signature from the landowner. During the review of the permit and the Pre-Construction Notice (PCN), the COE may coordinate the process with the following agencies:

- U.S. Fish and Wildlife Service (FWS)
- Illinois Environmental Protection Agency (401 Water Quality Certification)
- Illinois Department of Natural Resources (IDNR)
- Illinois Department of Natural Resources/Office of Water Resources (IDNR/OWR)
- Illinois Historic Preservation Agency (IHPA)

A jurisdictional determination (JD) is required from the COE to determine whether the on-site wetlands are under the jurisdiction of the COE or whether they are considered isolated. JD forms will require signatures from the landowner.

The Chicago District of the COE has a regional permit program meant to simplify and expedite specific types of projects. Most regional permits have automatically authorized Section 401 Water Quality Certification (WQC) from the IEPA. Coordination with the IEPA for separate WQC is not anticipated. If the project does not qualify for a regional permit, an individual permit will be required. Individual permits require a public notice period as well as separate WQC from the IEPA. The individual permit process can take significantly more time than the regional permit process.

H&H will work with the project team to investigate alternatives that minimize wetland impacts to meet the RP thresholds. Based on the WIE forms that were previously, only one of the wetlands impacted appears to exceed this threshold. With modifications to the cross sections at this location, it is possible to minimize the impact and meet RP3 requirements.

The ability to obtain an RP for the project also includes the potential permanent and temporary impacts that may occur for construction of the bridge over the Fox River. H&H will work with

the project team to develop strategies to minimize potential temporary impacts such as causeways and cofferdams. The costs prepared assume that the project will qualify for a COE regional permit; however, a cost estimate has been included for an Individual Permit in the event that the project does not meet the thresholds of the Regional Permit Program. It is important to determine if the project will qualify for a regional permit as early in the process as possible.

Within the regional permit program, permits are classified as either Category I or Category II. Category I includes activities with minimal impacts requiring review by the COE. Category II includes activities with minimal impacts requiring more rigorous review by the COE and coordination with the resource agencies.

Coordination with the FWS for the Migratory Bird Treaty Act and Section 7 Consultation will occur during the COE permitting process, if necessary.

For the Individual Permit, additional tasks will be required for the permit submittal package. This includes the submittal of the project purpose and need, alternatives analysis, minimization measures and mitigation strategy. As part of the process, a Public Notice will be prepared for publication by the COE. Time is included for responding to comments from the Public Notice. Coordination meetings with the resources agencies are included during the 12 to 18 month long process (estimated time for approval). Up to six meetings may be required as the permit is under review.

Additional work is required to address the Individual Section 401 Water Quality Certification through the Illinois EPA. An anti-degradation analysis will be required and submitted to the Illinois EPA for review. The review times for this analysis are similar to the Section 404 permit of 12 to 18 months. Time will also be included to address comments received from the Section 401 Public Notice period. Three meetings are anticipated with the Illinois EPA.

Other issues that will be addressed during permitting include:

Mitigation

There are currently two options by which mitigation criteria can be met: 1) the use of a wetland bank, or 2) new wetland construction. In most cases, the COE prefers the use of wetland banks over new wetland construction.

Wetland banking is typically the best way to provide mitigation for wetland impacts. The creation of small isolated mitigated wetlands does not replace the functions of wetlands as well as a large scale wetland bank. In many cases, the regulatory community prefers the use of wetland banks to mitigate impacts. Banking is a viable mitigation option for this project.

If wetland mitigation is required, wetland banking may or may not be an option for this project, which will be discussed in the wetland report. Because the COE generally prefers the use of mitigation banks and the level of mitigation required, if any, is currently unknown, wetland mitigation design is not included in this proposal.

Endangered Species

Endangered species review is required through the U.S. Fish & Wildlife Service (FWS) and the Illinois Department of Natural Resources (IDNR). This scope does not include actual endangered species field surveys. Coordination with the IDNR is initiated through the submittal of the Ecological Compliance Assessment Tool (EcoCAT), requesting information on project threatened or endangered species. H&H will conduct the federal process for Section 7 consultation using FWS procedures outlined on their website.

This task will be completed to update previous clearances. Based on previous NEPA documentation, it is unlikely that threatened or endangered species will be encountered with the potential exception of mussels. Therefore much of the work for this issue will be updating the clearances. Mussel surveys are presented below.

Archeological and Historic Properties

Coordination with the IHPA will be conducted. Information in the form of a letter will be forwarded to the IHPA requesting a review of the project area. A Phase I archeological survey could be required by IHPA if portions of the project area are relatively undisturbed. Consultant will coordinate with Client to find a qualified firm if a certified Phase I archeologist is required for the project. A cost for such a study is not included in this proposal as the need is undetermined until IHPA responds. Based on previous NEPA documentation, it is unlikely that any archeological or historic resources will be encountered. Updates to previous clearances will be obtained as needed.

National Pollutant Discharge Elimination System (NPDES) Permitting

Client will be responsible for preparation of the NPDES permitting, plan preparation, and associated coordination. Consultant will not complete this item; however, as stated above, Consultant will complete the coordination with the IDNR and IHPA (associated with a Section 404 permit), which will need to be submitted by Client during the NPDES permitting process, prior to receiving an NPDES permit.

Other permits

Costs for the following permits are not included in this proposal. If these permits become necessary, a separate proposal can be submitted.

- Section 10 of the Rivers and Harbors Act is potentially required. This authorization is issued through the COE and will be reviewed concurrent with the Section 404 submittal.
- Section 401 of the Clean Water Act is automatically granted under most Regional Permits from the COE. If the project does not meet the guidelines of the Regional Permit Program, separate Section 401 WQC will be required. This proposal assumes the project will qualify for a regional permit.

Task 3. Wetland Permitting Kane County-

H&H will work with the KCDOT to obtain permits as required under the Kane County Stormwater Ordinance. The Kane County Stormwater Ordinance requires permits for impacts related to stormwater and wetlands. H&H will work with CMT to obtain the wetland authorizations through the County. CMT will obtain the necessary stormwater permits. This scope includes a boundary verification and pre-application meeting with Kane County.

Task 4. Kane DuPage Soil & Water Conservation District-

As part of the COE and County permitting processes, coordination with the Kane-DuPage Soil & Water Conservation District (SWCD) is required for erosion control approvals.

The COE and the County requires Soil Erosion and Sediment Control (SESC) signoff as part of their permit program. In Kane County, the SWCD reviews the SESC plans and conducts inspections of projects during construction. A copy of the SESC plans and a detailed SESC narrative will be prepared and submitted to the SWCD. Coordination will be initiated with the SWCD once permitting has been initiated and SESC plans are advanced by the engineering teams. There will be only one submittal for the entire project. Therefore, all SESC plans for all four sections will be compiled into the one submittal.

Task 5. Mussel Surveys -

The Longmeadow/Bolz Road extension project involves construction of a bridge spanning the Fox River. As work in the Fox River is anticipated, mussel surveys will most likely be required. Mussel surveys will be conducted in an area approximately 100 feet downstream and 50 feet upstream of the proposed bridge to determine if living mussels are present, and to relocate non-listed living mussels from the area of interest if they are present. If state listed species are encountered, an incidental take authorization will be requested and all mussels will be relocated to a safe substrate outside of the area of construction activity.

Due to the construction schedule, survey and potential relocation must be conducted prior to the initiation of construction.

The initial EIS did not indicate the presence of state listed mussels in the Fox River near Bolz Road; however, since that time, state listed mussel species have been found in the Fox River near Elgin. As a result, we anticipate that the IDNR will require these surveys as part of the ECOCAT coordination.

Mussel Project Description

Examination of the Illinois Natural History (INHS) database produced 348 records of mussels for the Fox River in Kane County. Recent records (2003-2011) indicate 22 species of mussels present in the Fox River. Four of the 22 mussel species are listed as state threatened species; the slippershell (*Alasmidonta viridis*), purple wartyback, (*Cyclonaias tuberculata*), spike, (*Elliptio dilatata*), and black sandshell (*Ligumia recta*). The rainbow mussel (*Villosa iris*) is a state

endangered species and was recorded from the Fox River in Kane County in 1987. The rainbow is probably no longer present in the Kane County Fox system except as relic shells. Table 1 presents the recent mussels of the Kane County Fox River.

The project area is located on the Fox River at Bolz in Carpentersville, Illinois. The approximate water depth here is four to seven feet. The river is approximately 230 feet wide at this location and is one of the narrowest sections between the Algonquin dam (upstream) and the Carpentersville dam (downstream). The substrate is expected to be sandy to sandy gravel with finer substrates in areas of less flow. The survey area will begin approximately 100 feet downstream from the centerline of the proposed bridge location and continue to 100 feet upstream of the proposed bridge. The approximate area of the survey plot is 60,000 square feet. Surveys will be conducted at selected 50 foot transects arranged parallel with the shoreline. Transects will be spaced to include all available habitat types. Twenty transects will be performed in order to establish the presence or absence of living mussels within the transects. 150 square feet will be hand searched and hand dug to a depth of 2-3 inches to detect living mussels at each transect for a total of 3,000 square feet of area searched. Three thousand square feet represents five percent of the total 60,000 square feet survey plot. Because of the presence of an upstream dam and a downstream dam encompassing approximately 5 river miles, mussel abundance is not expected to be high.

Phase II (enacted if necessary)

If living state listed mussels are encountered, the entire area under the proposed bridge will be examined over a period of three days and all living listed species will be relocated to an area upstream of the proposed bridge once an incidental take permit is issued. All living mussels will be handled according to IDNR guidelines. .

Diving Requirements

Huff & Huff, Inc. will supply certified SCUBA divers with equipment to conduct the surveys. Divers will rotate with a minimum of two in the water at a time. Due to the potential strong current and shallow depth, divers will need to be on tag lines. Two chains will be deployed for two divers to use. Attachment points will be from a shallow draft boat or from anchor points in to the river bottom. Divers will cover an area along each chain transect to include a minimum of three foot square transects, in order to assure complete coverage and adequate quality control. Divers will always have safety personnel on the surface.

Adequate marking controls will be utilized when moving the boat to the next transect. GPS marker buoys will delineate coverage area as the river width is traversed. It is anticipated that divers will hold onto the chain transect with one hand in order to control their own progress upstream.

Guidelines for handling Mussels

Mussels will be collected along the transects and brought to the surface for identification by a qualified biologist. Measurement and field aging of sensitive mussels will be accomplished.

Mussels will be replaced in the immediate area of collection, except for sensitive species, which will be hand placed as close as possible back to their original location.

Work will be accomplished under a scientific permit issued by the IDNR. Habitat information will be noted and incorporated into a final report. Visibility is expected to be poor. Substrates will be examined by passing hands through and over the surface layers of substrate to feel for buried mussels. Rocks and obstructions will be examined for mussels around them.

As mussels are collected, they will be accumulated in a mesh bag and kept submersed in water as much as possible to prevent thermal shock and desiccation. Mussels will be kept aboard the boat in a tub filled with ambient water and removed only for identification and measurement (if needed). Collection will continue until all transects are covered. The methodology is similar to those used by state and federal agencies.

- Returned specimens of all Federal and State T & E species will be hand placed into the substrate in a natural position (posterior end protruding above the bottom and pointing in the direction collected).
- Specimens will be held in mesh bags in the water or held in containers of water that is changed frequently enough so it maintains ambient river conditions.
- Specimens will be returned unharmed within approximately two hours following collection. Zebra mussels will be removed from all native mussel shells before they are released.
- All live specimens of T & E species taken will be photographed, measured (length and height) and, if possible, sexed and aged. No intrusive activities are permitted.
- No live specimens will be removed from the survey sites, except for specimens encountered in circumstances, which would reasonably be expected to result in stranding due to low or receding water. Such specimens may be moved to a location coordinated with and approved by the appropriate agency.
- Freshly dead specimens, if encountered, will be preserved according to standard museum practices for fleshy tissue preservation. Old dead shells may be retained without preservation. All dead specimens retained as voucher material will be sent to a public scientific or educational facility or museum in the state in which they were collected.
- Identifications will be verified using the *Field Guide to Freshwater Mussels of the Midwest* (Cummings and Mayer, 1992), and *Field Guide to Mussels of the Chicago Wilderness* (Klocek, Barghusen and Bland 2010)

Task 6. Preliminary Environmental Site Assessment (PESA)

H&H will prepare a Preliminary Environmental Site Assessment for the Longmeadow Project. IDOT completes PESAs for state right of way portions of the project; however, H&H will complete the PESA for the local roads portions. The process will follow general protocols associated with ASTM E1527-05, which is a standard environmental site assessment methodology and IDOT procedures. These protocols are consistent with the "Preliminary Site Assessment (PESA)" procedures outlined by the Illinois Department of Transportation (IDOT) in BDE #66-10A and the "Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Highway Projects." No soil sampling is included in this task.

A. Historical Research

The project corridors historical land use/ownership record will be developed from standard historical sources. Historical aerial photographs or historical maps, such as Sanborn Fire Insurance Maps, will be reviewed, as available. The review will identify land use over time and potential areas of environmental concern, such as areas of surface disturbance and outside storage.

B. Site Evaluation

Current environmental features and conditions of sites adjacent to the right-of-way/project area will be evaluated. A site walkover of potential right-of-way/project areas designated for excavation and/or acquisition will be conducted for first-hand evaluation of current environmental conditions within the project limits. All of the features and conditions listed above will be investigated and, as appropriate, documented in photographs. The land-use and housekeeping practices of adjacent properties also will be evaluated in accordance with ASTM protocols.

C. Records Review

A records review will be conducted to determine potential environmental concerns within the study area. It will include a search of standard state and federal environmental record databases in accordance with the specifications of ASTM standards. This search is based on the outline of the study area.

Specifically, Consultant will search each database to identify any potential sources requiring further investigation. As appropriate, Freedom of Information Act (FOIA) requests will be filed with the Illinois Environmental Protection Agency (IEPA) to obtain additional data pertaining to identified sites.

D. Report Preparation

A PESA report summarizing the results of the evaluation will be prepared. The following information will be included in this report:

- a) The project location and description
- b) Historical uses of corridor.
- c) The area geology and hydrology.

- d) The environmental status of sites adjacent to the corridor regarding chemical use and storage, underground and aboveground storage tanks, solid waste, special waste, and hazardous waste, wastewater, and PCBs.
- e) An analysis of the site inspection.
- g) A summary of the findings regarding any environmental concerns. This will include IDOT's per Memo 66-10 and identification of Potentially Impacted Properties (PIPs) per Subpart F, Section 1100, 35 IAC, related to Clean Construction Demolition Debris management.

Task 7. Preliminary Site Investigation (PSI)

H&H will utilize the findings of the original historic PESA and the findings of the PESA proposed within this scope of work to determine the number and location of borings. Borings will be advanced and soil samples collected for laboratory analysis to address sites identified as Recognized Environmental Conditions (RECs)/Potentially Impacted Properties (PIPs), areas of acquisition, and to address CCDD considerations.

The depths of the soil borings will be dependent upon design details to account for depths of proposed disturbance. Consultant will determine depths of planned borings prior to mobilization consistent with project plans as provided by Client, in conjunction with historic and updated PESA findings. It should be noted that Consultant plans to coordinate a significant amount of the soil boring work concurrent with geotechnical assessment, as a cost-savings measure. However, a small contingency is included to account for minor additional assessment or delineation that may be required, as determined after the geotechnical work is completed, in order to allow for the ability to conduct these supplemental soil borings, if necessary.

A. Analytical

Boring locations where petroleum products or other volatile organic compounds represent the primary concern, samples will be field screened with a photoionization detector (PID). The sample with the highest PID reading in each boring will be analyzed for:

- **Volatile Organic Compounds** (up to 10 samples) – VOCs are volatile compounds found in gasoline and related to various solvents;
- **Benzene, Toluene, Ethyl benzene, and Xylene (BTEX)** (up to 25 samples) – BTEX are volatile compounds found in gasoline and other volatile petroleum-based products; and
- **Polynuclear Aromatic Compounds (PNAs)** (up to 40 samples) – PNAs are semi-volatile compounds commonly formed during incomplete combustion of organic compounds. PNAs can be formed by the combustion of wood, coal, and petroleum products. They are also found in less refined, nonvolatile petroleum products and can be used to identify potential for diesel or fuel oil contamination in soil.

Other field screening factors such as visual, or proximity to potential sources of known contamination to determine which samples will be analyzed to identify the presence of:

- **Select Total RCRA Metals** (up to 40 samples) – Federal environmental regulations identify eight (8) heavy metals as hazardous if present in a *solid waste* at concentrations above varying threshold concentrations. Select soil samples collected for this project will be analyzed for the presence of metals believed to be present and associated with the RECs (PIPs). Total lead is the only metal associated with LUST sites, no other metals will be analyzed for LUST sites. However, additional select metals may be warranted for CCDD considerations. These select samples will be analyzed for consideration as Clean Construction and Demolition Debris (CCDD).
- **TCLP Lead** (up to 20 samples) – The TCLP, or Toxicity Characteristic Leaching Procedure is designed to determine the mobility of both organic and inorganic analytes present in solid wastes. This analytical method will only be used if required to determine final disposition of spoils if a sample indicates elevated levels of metals which require further analysis for disposal.
- **Maximum Allowable Concentrations of Chemical Constituents** (up to 5 samples) The MAC list is specifically for determination of acceptability of spoils for final disposition at clean CCDD or soil-only facilities per 35 Ill. Adm. Code 1100.Subpart F. The intent is to focus sampling to match PIPs; however, this is included as a contingency for potential additional sampling
- **Soil pH** - In addition, up to 100 soil samples will be analyzed for pH to evaluate the acidic or alkaline characteristics of a liquid or solid. High concentrations of either acid or alkaline materials introduced into the environment can impair the effected environment. Soil pH is important in assessing metal concentrations relative to migration to groundwater according to TACO Tier 1 objectives and the CCDD MACs.

B. PSI Report Preparation

A report summarizing the results of the soil sample collection activities and analytical results will be prepared. This document will present information pertinent for the bidding documents regarding conditions of soils tested, handling and final disposition considerations.

Task 8. CCDD

This task includes time for assessment of analytical results with respect to final disposition at a CCDD or soil-only facility and for preparing the PE certification needed for CCDD under the new IEPA regulations, based upon analytical results obtained during the PSI portion of the project, as necessary.

It should be noted that, when appropriate, the LPC-662 Form shall be utilized for roadway segments where there are RECs or PIPs and therefore appropriate for an Owner signed form with only pH soil sampling necessary; or the LPC-663 Form will be utilized with Consultant signing and stamping the form (cases with RECs/PIPs identified and laboratory analytical completed to document soil conditions relative to REC/PIP).

Task 8. Meetings

This task will cover coordination meetings with CMT and Kane County DOT. We anticipate up to four coordination meetings for the project. This task also covers meetings with IDOT District 1, BDE, and FHWA on the EIS re-evaluation. A meeting will be needed at the beginning of the project to determine if a Technical Memorandum or an Environmental Assessment (EA) will be required and if a public hearing or other public involvement will be required. This task also covers meetings to go over their review/comments of the re-evaluation document. These meetings could include phone calls plus coordination meetings and a dry run for a possible public hearing or meeting.

H&H will participate in a Value Engineering (VE) Study Workshop. All reports required as part of the VE study will be prepared by the County's VE consultant. Scope/hours assumes one (1) person will be participating in the workshop for four days.

Task 9. EIS Re-Evaluation

As required by FHWA policy and the IDOT BDE manual, a re-evaluation of the EIS is required for any EIS that is older than three years, similar to the re-evaluation that was completed by McDonough and Associates for the Tolling option on Longmeadow in 2009. This will require the compilation of an Environmental Assessment or a Technical Memorandum (similar to the Tolling option) to review and document each of the environmental issues that were identified in the EIS.

A meeting will be conducted with the FHWA and BDE to obtain concurrence on the type of reporting that is necessary for the re-evaluation and whether a public hearing or other public meeting will be required. The FHWA approved a Technical Memorandum for the previous re-evaluation by McDonough. However, in 2012 the FHWA and BDE required a Environmental Assessment and a public hearing for the re-evaluation of Illinois Route 47. Therefore, preparation of an EA is included in this scope of services. Public involvement, if determined necessary, is covered in Task 13 of this scope.

Whether the re-evaluation is an EA or a Technical Memorandum the document will have to cover the following aspects of the project.

- The proposed action,
- The affected environment,
- The anticipated impacts, and

- The proposed mitigation measures.

Sufficient detail shall be provided to support a decision that a formal EIS supplement, or a new EIS, is or is not necessary.

Task 10. Remedial Strategy

This task is specifically related to consideration of remedial strategy related to the former Fox Valley Rifle Range site. H&H understands that this site previously had lead impacted soils in the areas of former rifle range activities which have subsequently been investigated and remediated. The remediation activities were conducted with oversight by the Illinois EPA within the voluntary Site Remediation Program (SRP). We understand that impacted areas were excavated, treated/stabilized, and moved into a remedial area and capped with a clay-content engineered barrier in an area that appears to be within an area of proposed excavation to accommodate the construction of this project.

Therefore, if this area cannot be avoided, remedial actions likely consisting of removal and disposal may become necessary. Complete review of existing SRP documents obtained through a FOIA request will be conducted and these documents shall be relied upon with respect to the location and dimensions of the existing capped, remedial area where lead impacted materials are currently located. H&H does not intend to conduct additional subsurface investigation or assessment of the materials within the existing remedial area. However, it is likely that additional characterization, for landfill profiling may become necessary, which would typically be included in the contractor bidding documents as a pay item.

Task 11. DC Coordination

Time under this task includes coordination with other design consultants on the remaining sections of the project. This coordination is required to manage activities on corridor wide tasks such as wetlands and CCDD.

Task 12. Project Management

Time under this task includes management activities related to coordination with IDOT District 1, BDE, and FHWA on the EIS re-evaluation, progress reports, budgets, and scheduling of activities.

Task 13. Public Involvement

FHWA and/or BDE may require a public hearing or other type of public meeting for the project. Huff and Huff would attend the meeting to help answer the public's questions and present information to them. CMT will handle any direct costs of a meeting such as printing, exhibits, renting of a meeting location, etc. If FHWA and BDE determine a public hearing/meeting is not required this task can be eliminated from the project.

CMT - Longmeadow Parkway

Trips - Company	84 miles	x	1	x \$	0.565	= \$	47.46
Tolls			6	x \$	1.00	= \$	6.00
Reproduction	10 sets	x	80	x \$	0.03	= \$	24.00
Color copies	10 sets	x	8	x \$	0.11	= \$	8.80
Photo sheets	10 sets	x	10	x \$	0.11	= \$	11.00
Task Total						\$	97.26

Trips - Company	84 miles	x	1	x \$	0.565	= \$	47.46
Tolls			6	x \$	1.00	= \$	6.00
Reproduction	6 sets	x	100	x \$	0.03	= \$	18.00
Color copies	6 sets	x	8	x \$	0.11	= \$	5.28
Photo sheets	6 sets	x	10	x \$	0.11	= \$	6.60
				Task Total		\$	83.34

Trips - Company	84 miles	x	1	x \$	0.565	= \$	47.46
Tolls			6	x \$	1.00	= \$	6.00
Reproduction	6 sets	x	100	x \$	0.03	= \$	18.00
Color copies	6 sets	x	8	x \$	0.11	= \$	5.28
Photo sheets	6 sets	x	10	x \$	0.11	= \$	6.60
Task Total						\$	83.34

Trips - Company	84 miles	x	1 x \$	0.565	= \$	47.46
Tolls			6 x \$	1.00	= \$	6.00
			Task Total		\$	53.46

Trips - Company	84 miles	x	1 x \$	0.565	= \$	47.46
Tolls			6 x \$	1.00	= \$	6.00
Reproduction	5 sets	x	12 x \$	0.03	= \$	1.80
Color copies	5 sets	x	6 x \$	0.11	= \$	3.30
Photo sheets	5 sets	x	10 x \$	0.11	= \$	5.50
Task Total					\$	64.06

Trips - Company	84 miles	x	1 x \$	0.565	= \$	47.46
Tolls			6 x \$	1.00	= \$	6.00
Reproduction	3 sets	x	300 x \$	0.03	= \$	27.00
Color copies	3 sets	x	20 x \$	0.11	= \$	6.60
Photo sheets	3 sets	x	3 x \$	0.11	= \$	0.99
			Task Total		\$	88.05

SUMMARY OF INHOUSE DIRECT COSTS

CMT - Longmeadow Parkway

									<u>DIRECT</u>
PSI									
Trips - Company	84 miles	x	10 x	\$	0.565	=	\$	474.60	
Tolls			60 x	\$	1.00	=	\$	60.00	
Reproduction	3 sets	x	400 x	\$	0.03	=	\$	36.00	
Color copies	3 sets	x	30 x	\$	0.10	=	\$	9.00	
Photo sheets	3 sets	x	3 x	\$	0.10	=	\$	0.90	
Task Total								\$	580.50
CCDD									
Trips - Company	84 miles	x	1 x	\$	0.565	=	\$	47.46	
Tolls			6 x	\$	1.00	=	\$	6.00	
Reproduction	6 sets	x	150 x	\$	0.03	=	\$	27.00	
Color copies	6 sets	x	10 x	\$	0.11	=	\$	6.60	
Photo sheets	6 sets	x	3 x	\$	0.11	=	\$	1.98	
Task Total								\$	89.04
Meetings									
Trips - Company	84 miles	x	10 x	\$	0.565	=	\$	474.60	
Tolls			24 x	\$	1.00	=	\$	24.00	
Task Total								\$	498.60
EIS Re-evaluation									
Reproduction	20 sets	x	60 x	\$	0.03	=	\$	36.00	
Color copies	20 sets	x	20 x	\$	0.11	=	\$	44.00	
CAD Plots			20 x	\$	1.85	=	\$	37.00	
Task Total								\$	117.00
Remedial Strategy									
Trips - Company	84 miles	x	1 x	\$	0.565	=	\$	47.46	
Tolls			6 x	\$	1.00	=	\$	6.00	
Task Total								\$	53.46
DC Coordination									
Trips - Company	84 miles	x	2 x	\$	0.565	=	\$	94.92	
Tolls			12 x	\$	1.00	=	\$	12.00	
Task Total								\$	106.92
Project Mgmt									
Task Total								\$	-
Individual 404 Permitting									
Trips - Company	50 miles	x	12 x	\$	0.565	=	\$	339.00	
Reproduction	12 sets	x	400 x	\$	0.03	=	\$	144.00	
Color copies	12 sets	x	20 x	\$	0.11	=	\$	26.40	
Photo sheets	12 sets	x	20 x	\$	0.11	=	\$	26.40	
Task Total								\$	535.80

SUMMARY OF INHOUSE DIRECT COSTS

CMT - Longmeadow Parkway

DIRECT

Anti-degradation analysis

Trips - Company	50 miles	x	4	x	\$	0.565	=	\$	113.00
Reproduction	12 sets	x	100	x	\$	0.03	=	\$	36.00
Color copies	12 sets	x	10	x	\$	0.11	=	\$	13.20
Photo sheets	12 sets	x	6	x	\$	0.11	=	\$	7.92
Task Total									\$ 170.12

Pollutant Loading

Trips - Company	50 miles	x	4	x	\$	0.565	=	\$	113.00
Reproduction	8 sets	x	200	x	\$	0.03	=	\$	48.00
Color copies	8 sets	x	10	x	\$	0.11	=	\$	8.80
Photo sheets	8 sets	x	8	x	\$	0.11	=	\$	7.04
Task Total									\$ 176.84

Public Hearing

Trips - Company	84 miles	x	2	x	\$	0.565	=	\$	94.92
			0	x	\$	-	=	\$	-
Task Total									\$ 94.92

GRAND TOTAL \$ 2,892.71

SUMMARY OF OUTSIDE DIRECT COSTS

CMT - Longmeadow Parkway

OUTSIDE

Wetland Delineation

Maps/Aerials

15 x \$ 10.00 = \$ 150.00

Federal Express

1 x \$ 20.00 = \$ 20.00

Task Total \$ 170.00

Wetland Permitting COE

Federal Express

2 x \$ 20.00 = \$ 40.00

Task Total \$ 40.00

Wetland Permitting KCDEM

Federal Express

2 x \$ 20.00 = \$ 40.00

Task Total \$ 40.00

SWCD Approval

Federal Express

1 x \$ 20.00 = \$ 20.00

Task Total \$ 20.00

Mussel Survey

Federal Express

1 x \$ 20.00 = \$ 20.00

Task Total \$ 20.00

PESA

Federal Express

2 x \$ 20.00 = \$ 40.00

Records Search

1 x \$ 950.00 = \$ 950.00

Task Total \$ 990.00

PSI

Federal Express

1 x \$ 20.00 = \$ 20.00

Task Total \$ 20.00

CCDD

Federal Express

2 x \$ 20.00 = \$ 40.00

Task Total \$ 40.00

Meetings

Task Total \$ -

EIS Re-evaluation

Federal Express

2 x \$ 20.00 = \$ 40.00

Task Total \$ 40.00

Remedial Strategy

Federal Express

1 x \$ 20.00 = \$ 20.00

Task Total \$ 20.00

SUMMARY OF OUTSIDE DIRECT COSTS

CMT - Longmeadow Parkway

OUTSIDE

DC Coordination

Task Total	\$	-
-------------------	-----------	----------

Project Mgmt

Task Total	\$	-
-------------------	-----------	----------

Individual 404 Permitting

Parking	4 x	\$ 30.00	=	\$ 120.00
Federal Express	8 x	\$ 20.00	=	\$ 160.00
		Task Total	\$	280.00

Anti-degradation analysis

Trips - Employee	400 miles	x	2 x	\$ 0.565	=	\$ 452.00
Federal Express			6 x	\$ 20.00	=	\$ 120.00
			Task Total	\$		572.00

Pollutant Loading

Federal Express	6 x	\$ 20.00	=	\$ 120.00
		Task Total	\$	120.00

Public Hearing

Task Total	\$	-
-------------------	-----------	----------

GRAND TOTAL	\$	2,372.00
--------------------	-----------	-----------------

SUMMARY OF SERVICES BY OTHERS

CMT - Longmeadow Parkway

OUTSIDE

PSI

Lab analysis BETX	25 x	\$ 60.00	=	\$ 1,500.00
Lab analysis VOC	10 x	\$ 126.00	=	\$ 1,260.00
Lab Analysis PNAs	40 x	\$110		\$ 4,400.00
Lab Analysis RCRS Metals	40 x	\$85.00		\$ 3,400.00
Lab Analysis pH	100 x	\$12.00		\$ 1,200.00
MAC List	5 x	\$1,500		\$ 7,500.00
TCLP Lead	20 x	\$75.00		\$ 1,500.00
Drillers - Days	2 x	\$1,500		\$ 3,000.00
Task Total				\$ 23,760.00

GRAND TOTAL \$ 23,760.00

P:\Proposal-2013\CMT\Longmeadow\CMT Longmeadow Rev.xls\COST EST



FIRM NAME Huff & Huff, Inc.
PRIME/SUPPLEMENT CMT

CONTRACT TERM 36 MONTHS
START DATE 8/1/2013
RAISE DATE 1/1/2014

**Payroll Escalation Table
Fixed Raises**

DATE 5/31/2013
PTB NO. _____

OVERHEAD RATE 137.58%
COMPLEXITY FACTOR 0
% OF RAISE 3.00%

ESCALATION PER YEAR

8/1/2013 - 1/1/2014
<u>5</u>
36

= 13.89%
= 1.0483

1/2/2014 - 1/1/2015
<u>12</u>
36

34.33%

1/2/2015 - 1/1/2016
<u>12</u>
36

35.36%

1/2/2016 - 8/1/2016
<u>7</u>
36

21.25%

The total escalation for this project would be:

4.83%



**Illinois Department
of Transportation**

Payroll Rates

FIRM NAME
PRIME/SUPPLEMENT
PTB NO.

Huff & Huff, Inc.

CMT

DATE 5/31/2013

ESCALATION FACTOR

4.83%

CLASSIFICATION	CURRENT RATE	ESCALATED RATE
Principal	\$65.84	\$69.02
Senior Project Manager	\$56.60	\$59.34
Senior Transp. Planner	\$37.91	\$39.74
Senior Engineer III	\$0.00	\$0.00
Senior Engineer II	\$35.64	\$37.36
Senior Engineer I	\$35.72	\$37.45
Senior Scientist IV	\$46.32	\$48.56
Senior Scientist III	\$36.05	\$37.79
Senior Scientist II	\$27.84	\$29.19
Senior Scientist I	\$0.00	\$0.00
Senior Geologist I	\$33.44	\$35.06
Transportation Planner	\$0.00	\$0.00
Project Engineer II	\$33.48	\$35.10
Project Engineer I	\$26.98	\$28.28
Project Scientist I	\$20.18	\$21.16
Project Geologist I	\$19.00	\$19.92
Project Associate	\$24.00	\$25.16
Senior CADD I	\$36.72	\$38.49
CADD II	\$26.78	\$28.07
CADD I	\$20.16	\$21.13
Admin. Manager I	\$32.52	\$34.09
Administrative IV	\$22.00	\$23.06
Administrative III	\$0.00	\$0.00
Administrative II	\$20.00	\$20.97
Administrative I	\$0.00	\$0.00
Interns	\$16.00	\$16.77
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00



**Illinois Department
of Transportation**

**Cost Estimate of
Consultant Services
(CPFF)**

Firm Huff & Huff, Inc.
Route Longmeadow Pkwy
Section _____
County Kane
Job No. _____
PTB & Item _____

Date 5/31/2013

Overhead Rate 137.58%

Complexity Factor 0

Item	Manhours	Payroll	Overhead & Fringe Benefits	In-House Direct Costs	Fixed Fee	Outside Direct Costs	Services By Others	Total	% of Grand Total
Wetland Delineations	67	1,691.71	2,327.46	97.26	602.82	170.00	0.00	4,889.25	2.99%
Wetland Permitting COE	54	1,313.52	1,807.14	83.34	469.19	40.00	0.00	3,713.18	2.27%
Wetland Permitting KCDEM	40	1,076.47	1,481.00	83.34	386.69	40.00	0.00	3,067.51	1.88%
SWCD Approval	64	1,997.15	2,747.68	53.46	702.76	20.00	0.00	5,521.06	3.38%
Mussel Survey	72	2,419.00	3,328.06	64.06	851.10	20.00	0.00	6,682.22	4.09%
PESA	76	2,744.78	3,776.27	88.05	967.95	990.00	0.00	8,567.05	5.24%
PSI	110	3,505.66	4,823.08	580.50	1,304.14	20.00	23,760.00	33,993.38	20.78%
CCDD	40	1,357.86	1,868.14	89.04	485.45	40.00	0.00	3,840.49	2.35%
Meetings	114	4,975.38	6,845.12	498.60	1,803.73	0.00	0.00	14,122.82	8.63%
EIS Re-evaluation	164	6,019.76	8,281.99	117.00	2,111.84	40.00	0.00	16,570.60	10.13%
Remedial Strategy	54	2,626.36	3,613.35	53.46	921.73	20.00	0.00	7,234.89	4.42%
DC Coordination	38	1,487.71	2,046.79	106.92	533.23	0.00	0.00	4,174.64	2.55%
Project Mgmt	26	1,185.37	1,630.83	0.00	412.51	0.00	0.00	3,228.71	1.97%
Individual 404 Permit**	166	6,471.30	8,903.22	535.80	2,329.70	280.00	0.00	18,520.02	11.32%
Antidegradation Analysis**	164	6,187.75	8,513.10	170.12	2,178.00	572.00	0.00	17,620.98	10.77%
Pollutant Loading**	76	3,213.34	4,420.92	176.84	1,143.88	120.00	0.00	9,074.98	5.55%
Public Hearing	20	971.17	1,336.14	94.92	351.73	0.00	0.00	2,753.96	1.68%
TOTALS	1345	49,244.29	67,750.29	2,892.71	17,556.45	2,372.00	23,760.00	163,575.74	100.00%

** Subtasks to Task 2, Wetland Permitting, COE. These subtasks will only be performed if necessary.



Route Longmeadow Pkwy
 Section _____
 County Kane
 Job No. _____
 PTB/Item _____

Consultant Huff & Huff, Inc.

Date 5/31/2013

Sheet 1 OF 3

Average Hourly Project Rates

Payroll Classification	Avg Hourly Rates	Total Project Rates			Wetland Delineations			Wetland Permitting COE			Wetland Permitting KCDEM			SWCD Approval			Musket Survey		
		Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg
Principal	69.02	94	6.99%	4.82															
Senior Project Manager	59.34	0																	
Senior Transp. Planner	39.74	72	5.35%	2.13															
Senior Engineer III		0																	
Senior Engineer II	37.36	0																	
Senior Engineer I	37.45	0																	
Senior Scientist IV	48.56	252	18.74%	9.10	3	4.48%	2.17	2	3.70%	1.80	6	15.00%	7.28	18	28.13%	13.66	10	13.89%	6.74
Senior Scientist III	37.79	32	2.38%	0.90				4	7.41%	2.80							28	38.89%	14.70
Senior Scientist II	29.19	274	20.37%	5.95	20	29.85%	8.71	4	7.41%	2.16	6	15.00%	4.38	16	25.00%	7.30	14	19.44%	5.67
Senior Scientist I		0																	
Senior Geologist I	35.06	128	9.52%	3.34															
Transportation Planner		0																	
Project Engineer II	35.10	120	8.92%	3.13															
Project Engineer I	28.28	102	7.58%	2.14															
Project Scientist I	21.16	140	10.41%	2.20	38	56.72%	12.00	40	74.07%	15.67	24	60.00%	12.69	24	37.50%	7.93	14	19.44%	4.11
Project Geologist I	19.92	0																	
Project Associate	25.16	0																	
Senior CADD I	38.49	40	2.97%	1.14															
CADD II	28.07	49	3.64%	1.02	4	5.97%	1.68	2	3.70%	1.04	2	5.00%	1.40	2	3.13%	0.88	2	2.78%	0.78
CADD I	21.13	0																	
Admin. Manager I	34.09	2	0.15%	0.05													2	2.78%	0.95
Administrative IV	23.06	40	2.97%	0.69	2	2.99%	0.69	2	3.70%	0.85	2	5.00%	1.15	4	6.25%	1.44	2	2.78%	0.64
Administrative III		0																	
Administrative II	20.97	0																	
Administrative I		0																	
Interns	16.77	0																	
		0																	
		0																	
		0																	
		0																	
TOTALS		1345	100%	\$36.61	67	100%	\$25.25	54	100%	\$24.32	40	100%	\$26.91	64	100%	\$31.21	72	100%	\$33.60



Route Longmeadow Pkwy
 Section _____
 County Kane
 Job No. _____
 PTB/Item _____

Consultant Huff & Huff, Inc.

Average Hourly Project Rates

Date 5/31/2013

Sheet 2 OF 3

Payroll Classification	Avg Hourly Rates	PESA			PSI			CCDD			Meetings			EIS Re-evaluation			Remedial Strategy		
		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	69.02	10	13.16%	9.08	4	3.64%	2.51	2	5.00%	3.45				8	4.88%	3.37	20	37.04%	25.56
Senior Project Manager	59.34																		
Senior Transp. Planner	39.74										24	21.05%	8.37	48	29.27%	11.63			
Senior Engineer III																			
Senior Engineer II	37.36																		
Senior Engineer I	37.45																		
Senior Scientist IV	48.56										72	63.16%	30.67	20	12.20%	5.92	4	7.41%	3.60
Senior Scientist III	37.79																		
Senior Scientist II	29.19										18	15.79%	4.61	48	29.27%	8.54			
Senior Scientist I																			
Senior Geologist I	35.06	25	32.89%	11.53	30	27.27%	9.56	20	50.00%	17.53							30	55.56%	19.48
Transportation Planner																			
Project Engineer II	35.10																		
Project Engineer I	28.28	28	36.84%	10.42	60	54.55%	15.43	14	35.00%	9.90									
Project Scientist I	21.16																		
Project Geologist I	19.92																		
Project Associate	25.16																		
Senior CADD I	38.49	3	3.95%	1.52	4	3.64%	1.40	1	2.50%	0.96				12	7.32%	2.82			
CADD II	28.07	8	10.53%	2.96	10	9.09%	2.55	3	7.50%	2.11				16	9.76%	2.74			
CADD I	21.13																		
Admin. Manager I	34.09																		
Administrative IV	23.06	2	2.63%	0.61	2	1.82%	0.42							12	7.32%	1.69			
Administrative III																			
Administrative II	20.97																		
Administrative I																			
Interns	16.77																		
TOTALS		76	100%	\$36.12	110	100%	\$31.87	40	100%	\$33.95	114	100%	\$43.64	164	100%	\$36.71	54	100%	\$48.64



Route	Longmeadow Pkwy
Section	
County	Kane
Job No.	
PTB/Item	

Consultant Huff & Huff, Inc.

Date 5/31/2013

Sheet. 2 OF 3

BDE 025 (Rev. 2/06)
PRINTED 5/31/2013, 11:19 AM
PAGE 5

ATTACHMENT “B”

Wang Engineering, Inc.

Sub-Consultant Agreement

**Scope and Man-hours for
Geotechnical Investigations and Reports**

May 23, 2013

Mr. Kelly D. Farley, P.E.
Senior Project Manager
Crawford, Murphy & Tilly, Inc.
550 N. Commons Drive, Suite 116
Aurora, Illinois 60504

Re: Geotechnical Engineering Services
Longmeadow Parkway Corridor
Huntley Road to IL 62
Section C, E of IL 31 to IL 25
Kane County
Wang P130522

Dear Mr. Farley:

Wang Engineering Inc. (Wang) is pleased to present this proposal for geotechnical engineering services to support the design of the Longmeadow Parkway Corridor between Huntley Road and IL 62 in Kane County, Illinois.

SCOPE OF WORK

Our project understanding is based on information provided by Kane County, our previous work along the Corridor, and discussions with Crawford, Murphy & Tilly, Inc. (CMT). The design work along the corridor includes four sections, A through D, but the entire geotechnical work will be coordinated with CMT, who will act as DSE for Section C. We understand the geotechnical scope of work includes (a) completion of the soil survey for the entire corridor; (b) subsurface investigation and drainage recommendations for detention basins; (c) completion of new and revised Structure Geotechnical Reports for bridge, retaining wall, and box culvert structures; (d) evaluation of existing subgrade in cut areas for disposal to CCDD sites; and (e) determination of existing pavement structure within the corridor area. A detail presentation of the above scope of work and proposed geotechnical approach is included in the attached tables.

The objectives of the geotechnical engineering services will be to define general subsurface soil and groundwater conditions, develop parameters for foundation and subgrade soil stability and deformation analyses, and provide geotechnical recommendations for roadway and foundation design and construction. Wang proposes the following tasks:

Desk Study and Site Visit: As per IDOT's "All Geotechnical Manual Users Memorandum 05.2" (AGMU 05.2, September 26, 2005, Sections 5.3.5.2 and 5.3.5.3) and "Geotechnical Manual" (1999), Wang will study and analyze existing roadway and foundation drawings, bridge condition or inspection reports, boring logs, and subsurface geological information to check for factors that might impact the proposed engineering works. Ground surface features, potential construction limitations and impacts on nearby structures, evidence of distress or deformation in the existing pavements and foundations, and signs of approach settlement will be examined during our site visit.

Geotechnical Drilling, Coring, and Sampling: Wang will provide equipment, labor, and associated materials to drill and sample roadway and structure borings and take full-depth pavement cores. Boring locations, spacing, and termination depths are detailed in the attached tables. We estimate the proposed subsurface investigation program will be completed in 72 working days. The borings will be drilled using both truck- and ATV-mounted rigs. The locations accessible with a truck-mounted rig may require shoulder closures; loading and unloading the ATV may also require traffic control.

Full-depth pavement cores will be collected with a 4-inch diameter, diamond-impregnated core barrel. The borings will be advanced with hollow stem augers. Soil samples will be collected with split barrel samplers according to AASHTO T 206, "Penetration Test and Split-Barrel Sampling of Soils." If necessary, undisturbed soil samples will be collected according to AASHTO T 207, "Thin Walled Tube Sampling of Soils." Soil samples will be collected at 2.5-foot intervals to 30 feet bgs and at 5.0-foot intervals thereafter in the structure borings. The bedrock will be sampled in 5-foot long core runs. Roadway borings will be sampled continuously. Structure boreholes will be grouted after completion. The roadway and CCDD boreholes will be backfilled with soil cuttings. Where necessary the cored through pavement will be patched, and the surface will be restored as close as possible to the original condition.

Field Supervision: Prior to the start of the investigation, Wang will coordinate the location of utilities with respect to the proposed boring locations. A Wang field geologist or engineer will monitor drilling activities, maintain field notes, log samples, measure groundwater elevations, and prepare soil and cores samples for transport to our laboratory. The field engineer will also perform penetrometer and Rimac unconfined compressive strength tests on cohesive soil samples and observe and record the SPT values on 6 inches of penetration. The as-drilled boring/coring northing and easting locations will be measured using a hand held GPS. We will use leveling survey to determine boring elevations.

Laboratory Testing: Soil samples will be transported to our AMRL-certified laboratory. Soil testing will include moisture content, Atterberg limits, and particle size analysis tests. Consolidated-undrained triaxial compression and one-dimensional consolidation analyses will be performed as needed. Compressive strength tests will be performed on bedrock samples.

Engineering Analyses, Recommendations, and Reporting: Wang will prepare Structure Geotechnical Reports (SGRs) for every structure that will require a TSL plan. Less formal geotechnical letter reports will be prepared for structures that will not require TSL plans. IDOT typical Roadway Geotechnical Reports (RGRs) will be prepared for each of the four sections. The geotechnical reports will include a site location map, a description of the subsurface investigation methods, a soil boring location plan, boring logs, laboratory test results, and an assessment of the site soil and water conditions. Analyses for foundation type, pile capacity and settlement evaluations, recommendations for foundation design and construction, seismic site classification, slope and global stability analyses, as well as criteria and procedures for temporary excavation, dewatering, backfilling, and compaction will be provided. The SGRs will be prepared per IDOT's AGMU 05.2 and other IDOT resources as applicable. LRFD foundation analyses will follow IDOT's Bridge Manual (2012). We assume draft SGRs will be submitted for review to the Central Geotechnical Unit of IDOT's Bureau of Bridges and Structures; final SGRs will address issues raised by reviewers.

SCHEDULING

Wang will start the project expediently upon prior written authorization to proceed. We estimate the site visit will require two working days. The subsurface investigation will require about 74 to 78 working days. The laboratory testing program will be completed within three weeks after the subsurface investigation. Draft SGRs will be submitted for review within three weeks after receiving preliminary TSL plans. Final SGRs will be issued two weeks after receiving comments from the Bureau of Bridges and Structures. The RGRs will be completed in four weeks after receiving plan and profile drawings.

ESTIMATED COST AND ASSUMPTIONS

Wang will provide these services according to the attached cost estimate. Our cost estimate has been prepared assuming the following conditions:

- Wang will perform the geotechnical work in accordance with the IDOT 1999 Geotechnical Manual; 2012 Bridge Manual; 2012 Standard Specifications for Road and Bridge Construction; 2005 Subgrade Stability Manual; and IDOT Geotechnical Special Provisions, Geotechnical Design Guides, and All Geotechnical Manual User Memos (AGMU Memos) existing as of May 2013;
- If necessary, Wang will inform property owners about our work on their lands. Permits and fees for accessing private properties will be not be Wang's responsibility, and cost related to permitting and coordination is not included in this proposal;
- Our drill operators will be paid prevailing wages;
- Fees related to accessing difficult drilling locations, such as tree clearing, earth moving, and crane rental are not included in our proposal;
- Other additional insurance, beyond our standard coverage, is not included in the cost estimate; if required, it will be considered a reimbursement item; and
- No hazardous materials or contaminated soils will be encountered.

Wang Engineering, Inc. appreciates the opportunity to present this proposal. If you have questions, or if you require additional information, please contact us at (630) 953-9928.

Sincerely,

Wang Engineering, Inc.

A handwritten signature in black ink, appearing to read 'Corina T. Farez', enclosed within a rectangular border.

Corina T. Farez, P.E., P.G.
Vice President

A handwritten signature in black ink, appearing to read 'Liviu-Mircea Iordache', written in a cursive style.

Liviu-Mircea Iordache, P.G.
Geotechnical Department Manager

Wang Proposal No.: P130521
Date Prepared: 5/23/2013

[illegible]

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME Wang Engineering, Inc.
PRIME/SUPPLEMENT Prime

DATE 05/23/13
PTB NO. NA

CONTRACT TERM 24 MONTHS
START DATE 8/15/2013
RAISE DATE 1/1/2014

OVERHEAD RATE 149.13%
COMPLEXITY FACTOR 0
% OF RAISE 3.00%

ESCALATION PER YEAR

<u>8/15/2013 - 1/1/2014</u>	<u>1/2/2014 - 1/1/2015</u>	<u>1/2/2015 - 8/1/2015</u>	<u></u>	<u></u>
<u>5</u>	<u>12</u>	<u>7</u>	<u></u>	<u></u>
<u>24</u>	<u>24</u>	<u>24</u>	<u></u>	<u></u>
= 20.83%	51.50%	30.94%		
= 1.0328				
The total escalation for this project would be:		3.28%		

PAYROLL RATES

FIRM NAME
PRIME/SUPPLEMENT
PSB NO.

Wang Engineering, Inc. DATE
Prime
NA

05/23/13

ESCALATION FACTOR 3.28%

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Principal in Charge	\$ 66.33	\$68.50
Project Manager	\$ 52.92	\$54.65
Senior Engineer	\$ 52.92	\$54.65
Project Engineer/Project Geologist	\$ 32.02	\$33.07
Assistant Engineer/Assistant Geologist	\$ 22.66	\$23.40
Laboratory Technician	\$ 17.31	\$17.88
Administrative Assistant	\$ 27.96	\$28.88
Seasonal Intern	\$ 11.00	\$11.36
QC/QA Reviewer	\$ 24.04	\$24.83
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00

Subconsultants

FIRM NAME Wang Engineering, Inc.
PRIME/SUPPLEMENT Prime
PSB NO. NA

DATE 05/23/13

NAME	Direct Labor Total	Contribution to Prime Consultant
------	--------------------	----------------------------------

0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00

Total 0.00 0.00

Cost Plus Fixed Fee 1	<input checked="" type="checkbox"/>	14.5% [DL + R(DL) + OH(DL) + IHDC]
Cost Plus Fixed Fee 2	<input type="checkbox"/>	14.5% [DL + R(DL) + 1.4(DL) + IHDC]
Cost Plus Fixed Fee 3	<input type="checkbox"/>	14.5% [(2.3 + R)DL + IHDC]
Specific Rate	<input type="checkbox"/>	
Lump Sum	<input type="checkbox"/>	

**COST PLUS FIXED FEE
COST ESTIMATE OF CONSULTANT SERVICES**

0

Printed 5/23/2013 4:34 PM

AVERAGE HOURLY PROJECT RATES

FIRM
PSB
PRIME/SUPPLEMENT

Wang Engineering, Inc.
NA
Prime

DATE 05/23/13

SHEET 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			Desk Study			Site Visit			Boring Layout and Utility			Field Supervision / Drilling			Laboratory		
		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 in Charge	68.50	25	1.24%	0.85	2	11.11%	7.61												
Project Manager	54.65	121	5.99%	0.00															
Senior Engineer	54.65	132	6.53%	3.57	2	11.11%	6.07												
Project Engineer/Project Geologis	33.07	1060	52.45%	17.34	8	44.44%	14.70	8	50.00%	16.53	36	50.00%	16.53	390	54.17%	17.91	10	20.00%	6.61
Assistant Engineer/Assistant Geo	23.40	578	28.60%	6.69	6	33.33%	7.80	8	50.00%	11.70	36	50.00%	11.70	330	45.83%	10.73			
Laboratory Technician	17.88	40	1.98%	0.35													40	80.00%	14.30
Administrative Assistant	28.88	25	1.24%	0.36															
Seasonal Intern	11.36	0																	
QC/QA Reviewer	24.83	40	1.98%	0.49															
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
TOTALS		2021	100%	\$29.66	18	100.00%	\$36.18	16	100%	\$28.24	72	100%	\$28.24	720	100%	\$28.64	50	100%	\$20.92

Wang Engineering, Inc.
NA
Prime

SHEET 2 OF 5

Printed 5/23/2013 4:34 PM

Longmeadow Parkway
Kane County

Date: 05/23/2013
Wang No.: P130522

Task Description	Units	Unit Price	Extended Cost
DRILLING, SAMPLING & INSITU TESTING			
Drilling Coordination	12.0 Hours	\$92.00 /Hour	\$1,104.00
Utilities Clearance, Site Access, Permitting	32.0 Hours	\$92.00 /Hour	\$2,944.00
Mobilization (Truck-mounted Drill Rig)	4	\$725.00 /Each	\$2,900.00
Drilling Crew Daily Travel & Support Vehicle	19 Days	\$150.00 /Day	\$2,850.00
Stand-by Hourly Rate - Truck-mounted Drill Rig (Two-Man Crew & Equipment)	0.0 Hours	\$300.00 /Hour	\$0.00
Mobilization (ATV-mounted Drill Rig)	4	\$1,200.00 /Each	\$4,800.00
ATV-mounted Drill Rig Daily Charge	53 Days	\$280.00 /Day	\$14,840.00
Drilling Crew Daily Travel & Support Vehicle	53 Days	\$150.00 /Day	\$7,950.00
Stand-by Hourly Rate - ATV-Mounted Drill Rig (Two-Man Crew & Equipment)	0.0 Hours	\$325.00 /Hour	\$0.00
Portable Water Tank	11 Days	\$140.00 /Day	\$1,540.00
Lighting for Night Field Activities	0 Nights	\$110.00 /Night	\$0.00

Drilling and Sampling

Structure Borings

*Drilling including split spoon sampling at 2.5-foot intervals to 30 feet and at 5-foot intervals thereafter
(SPT, Penetrometer, Rimac, Visual Classification Included)*

Between 0 and 75 Feet

Normal Working Hours	2175.0 Feet	\$29.00 /Foot	\$63,075.00
Restricted Hours (6 Hours)	0.0 Feet	\$33.00 /Foot	\$0.00
Night Work	0.0 Feet	\$31.00 /Foot	\$0.00

Between 75 and 100 Feet

Normal Working Hours	30.0 Feet	\$31.00 /Foot	\$930.00
Restricted Hours (6 Hours)	0.0 Feet	\$37.00 /Foot	\$0.00
Night Work	0.0 Feet	\$32.00 /Foot	\$0.00

Between 100 and 125 Feet

Normal Working Hours	0.0 Feet	\$37.00 /Foot	\$0.00
Restricted Hours (6 Hours)	0.0 Feet	\$48.00 /Foot	\$0.00
Night Work	0.0 Feet	\$43.00 /Foot	\$0.00

Between 125 and 150 Feet

Normal Working Hours	0.0 Feet	\$43.00 /Foot	\$0.00
Restricted Hours (6 Hours)	0.0 Feet	\$54.00 /Foot	\$0.00
Night Work	0.0 Feet	\$51.00 /Foot	\$0.00

Additional Split-Spoon Sample	0.0 Samples	\$42.00 /Sample	\$0.00
-------------------------------	-------------	-----------------	--------

Roadway, Detention, and CCDD Borings

*Drilling including continuous split spoon sampling to 10 feet and 2.5 feet interval after
(SPT, Penetrometer, Visual Classification Included)*

Continuous Sampling

Normal Hours	1505.0 Feet	\$29.50 /Foot	\$44,397.50
Restricted Hours (6 Hours)	0.0 Feet	\$32.50 /Foot	\$0.00
Night Hours	0.0 Feet	\$31.50 /Foot	\$0.00

Shelby Tube Borings

Blind drilling and Shelby tube sampling at selected depths

Drill without sampling

Normal Working Hours	0.0 Feet	\$19.00 /Foot	\$0.00
Restricted Hours (6 Hours)	0.0 Feet	\$24.00 /Foot	\$0.00
Night Work	0.0 Feet	\$20.00 /Foot	\$0.00

Shelby Tube Samples

Normal Working Hours	0 Samples	\$57.00 /Sample	\$0.00
Restricted Hours (6 Hours)	10 Samples	\$66.00 /Sample	\$660.00
Night Work	0 Samples	\$62.00 /Sample	\$0.00

Rock Coring

Rock Coring Setup	11 Setups	\$325.00 /Setup	\$3,575.00
-------------------	-----------	-----------------	------------

Set Casing Below 40 Feet

Normal Working Hours	465.0 Feet	\$12.50 /Foot	\$5,812.50
Restricted Hours (6 Hours)	0.0 Feet	\$14.50 /Foot	\$0.00
Night Work	0.0 Feet	\$13.50 /Foot	\$0.00

Rock Coring

Normal Working Hours	135.0 Feet	\$56.00 /Foot	\$7,560.00
Restricted Hours (6 Hours)	0.0 Feet	\$69.00 /Foot	\$0.00
Night Work	0.0 Feet	\$62.00 /Foot	\$0.00

Longmeadow Parkway
Kane County

Date: 05/23/2013
Wang No.: P130522

Task Description	Units	Unit Price	Extended Cost
<u>Drilling & Sampling - Hourly</u>			
Two Man Drilling Crew - normal working hours	0.0 Hours	\$325.00 /Hour	\$0.00
Two Man Drilling Crew - overtime (2 hours per day)	0.0 Hours	\$400.00 /Hour	\$0.00
<u>Pavement/ Deck Coring & Testing</u>			
<i>For 2-inch, 4-inch, and 6-inch diameter cores</i>			
Pavement/Deck Coring (Two-Man Crew and Equipment)			
Normal Working Hours	0.0 Hours	\$260.00 /Hour	\$0.00
Restricted Hours (6 Hours)	0.0 Hours	\$300.00 /Hour	\$0.00
Night Work	0.0 Hours	\$280.00 /Hour	\$0.00
Asbestos Content Testing			
On Deck Cores	0 Tests	\$155.00 /Test	\$0.00
<u>Hand Augering (Two-Man Crew and Equipment)</u>			
<i>Hand augering and soil sampling to 10 feet</i>			
Hand Augering			
Normal Working Hours	8.0 Hours	\$260.00 /Hour	\$2,080.00
Restricted Hours (6 Hours)	0.0 Hours	\$300.00 /Hour	\$0.00
Night Work	0.0 Hours	\$280.00 /Hour	\$0.00
<u>Piezometer/Monitoring Well Installation</u>			
2.0-inch Wells			
2" x 5' PVC Screen, .010 slot, sch 40	0 Pipes	\$27.50 /Pipe	\$0.00
2" x 10' PVC Screen, .010 slot, sch 40	0 Pipes	\$33.00 /Pipe	\$0.00
2" x 5' PVC Riser, sch 40	0 Pipes	\$17.50 /Pipe	\$0.00
2" x 10' PVC Riser, sch 40	0 Pipes	\$24.00 /Pipe	\$0.00
2" PVC Female Points	0 Points	\$8.50 /Point	\$0.00
2" PVC Slip Caps	0 Caps	\$1.50 /Cap	\$0.00
4" Manhole Cast Iron w/Twist Lock Lid	0 Lids	\$47.00 /Lid	\$0.00
2" x 5' Green Steel Standups	0 Standups	\$76.00 /Standup	\$0.00
4.0-inch Wells			
4" x 5' PVC Screen, .010 slot, sch 40	0 Pipes	\$44.50 /Pipe	\$0.00
4" x 10' PVC Screen, .010 slot, sch 40	0 Pipes	\$62.00 /Pipe	\$0.00
4" x 5' PVC Riser, sch 40	0 Pipes	\$33.00 /Pipe	\$0.00
4" x 10' PVC Riser, sch 40	0 Pipes	\$48.00 /Pipe	\$0.00
4" PVC Female Points	0 Points	\$13.00 /Point	\$0.00
4" PVC Slip Caps	0 Caps	\$13.00 /Cap	\$0.00
6.0-inch Wells			
6" x 5' PVC Screen, .010 slot, sch 40	0 Pipes	\$104.00 /Pipe	\$0.00
6" x 10' PVC Screen, .010 slot, sch 40	0 Pipes	\$153.00 /Pipe	\$0.00
6" x 5' PVC Riser, sch 40	0 Pipes	\$81.00 /Pipe	\$0.00
6" x 10' PVC Riser, sch 40	0 Pipes	\$127.00 /Pipe	\$0.00
6" PVC Female Points	0 Points	\$44.00 /Point	\$0.00
6" PVC Slip Caps	0 Caps	\$15.00 /Cap	\$0.00
Other Items			
#1B008 Masterlock, 130D	0 Locks	\$5.25 /Lock	\$0.00
55 gallon DOT Containment Drums	0 Drums	\$31.50 /Drum	\$0.00
Concrete--Quickcrete 5000	0 Bags	\$15.00 /Bag	\$0.00
3/8" Coated Bentonite Pellets, 5 Gal Bucket	0 Buckets	\$51.00 /Bucket	\$0.00
10/20 Silica Sand, 50 lb plastic bag	0 Bags	\$6.00 /Bag	\$0.00
<u>Labor - Hourly</u>			
Two Man Drilling Crew - normal working hours	Hours	\$325.00 /Hour	\$0.00
Two Man Drilling Crew - overtime (2 hours per day)	Hours	\$400.00 /Hour	\$0.00

Longmeadow Parkway
Kane County

Date: 05/23/2013
Wang No.: P130522

Task Description	Units	Unit Price	Extended Cost
<u>Barge Drilling on a Navigable Waterway</u>			
<i>Price may vary depending on size and extent of waterway</i>			
Barge and Crane Mobilization	0 Each	\$ 6,500.00 /Each	\$0.00
Barge and Crane Daily Charge	0 Days	\$ 5,000.00 /Day	\$0.00
Barge and Crane Demobilization	0 Each	\$ 6,500.00 /Each	\$0.00
<u>Specialized Insitu Testing</u>			
Pressuremeter Testing			
Mobilization	0	\$500.00 /Each	\$0.00
Testing	0 Days	\$2,000.00 /Day	\$0.00
Vane Shear	0 Tests	\$300.00 /Test	\$0.00
Dilatometer Testing	0 Tests	\$750.00 /Test	\$0.00
Piezometric Cone Penetrometer			
Mobilization (Truck Mounted CPT)	0	\$200.00 /Each	\$0.00
CPTU	0.0 Feet	\$20.00 /Foot	\$0.00
Seismic Wave Measurement	0 Tests	\$150.00 /Test	\$0.00
Pore Pressure Dissipation Test	0 Tests	\$500.00 /Test	\$0.00
Photoionization Detector (PID)	0 Days	\$180.00 /Day	\$0.00
Water Infiltration/Percolation Test			
Double Ring Infiltrometer Test (ASTM D3385)	0 Tests	\$900.00 /Test	\$0.00
Single Ring Infiltrometer Test (Chicago Stormwater Ordinanc	0 Tests	\$500.00 /Test	\$0.00
Note: Drilling crew will be billed as standby for the duration of pressuremeter, vane shear, and dilatometer testing			
<u>Borehole Abandonment and Surface Restoration</u>			
Backfilling Borehole (only structure Borings)			
Normal Working Hours	2280.0 Feet	\$8.50 /Foot	\$19,380.00
Restricted Hours (6 Hours)	0.0 Feet	\$9.50 /Foot	\$0.00
Night Work	0.0 Feet	\$9.00 /Foot	\$0.00
Pavement/Deck Patching			
Asphalt	67 Patches	\$15.50 /Each	\$1,038.50
Concrete	0 Patches	\$15.50 /Each	\$0.00
Patching of Full Deck Coring	0 Patches	\$300.00 /Each	\$0.00
Soil Cutting Removal	0.0 Hours	\$300.00 /Hour	\$0.00
Note: Roadway, Detention, and CCDD Borings will be backfilled with soil cuttings			
<u>Boring Location Accessibility</u>			
Private Utility Determination	At Cost		\$0.00
Tree Clearance	At Cost	Allowance	\$1,000.00
Guardrail Removal and Replacement	At Cost		\$0.00
Dozer / Equipment Rental	At Cost		\$0.00
<u>Railroad Fees</u>			
Permitting	At Cost		\$0.00
Railroad Protective Insurance	At Cost		\$0.00
Railroad Flagman	At Cost		\$0.00
<u>State/County/Municipal Fees</u>			
Pavement Opening Permit	At Cost		\$0.00
Insurance and Bonding	At Cost		\$0.00
<u>Surveying of Boring Locations</u>			
Mapping-grade Trimble 6000 Series GPS	48.0 Hours	\$200.00 /Hour	\$9,600.00
			\$ 198,036.50

Longmeadow Parkway
Kane County

Date: 05/23/2013
Wang No.: P130522

Task Description			Units	Unit Price	Extended Cost
LABORATORY TESTING					
<u>Soil Index Tests</u>					
T265	D2216	Water Content	1157 Tests	\$7.50 /Test	\$8,677.50
--	D7263	Unit Weight (Density)	0 Tests	\$32.00 /Test	\$0.00
T100	D854	Specific Gravity	0 Tests	\$59.00 /Test	\$0.00
--	--	Void Ratio, Porosity, and Saturation	0 Tests	\$96.00 /Test	\$0.00
--	D4972	pH of Soil	0 Tests	\$52.00 /Test	\$0.00
T267	D2974	Organic Content by LOI	0 Tests	\$54.00 /Test	\$0.00
T194	--	Organic Content by Wet Combustion	15 Tests	\$119.00 /Test	\$1,785.00
<u>Particle Size Distribution</u>					
T88	D422	Sieve Analysis	0 Tests	\$69.00 /Test	\$0.00
T88	D422	Hydrometer Analysis	0 Tests	\$74.00 /Test	\$0.00
T88	D422	Combined Sieve and Hydrometer	30 Tests	\$111.00 /Test	\$3,330.00
--	D1140	Percent Finer than No. 200 Sieve	0 Tests	\$46.00 /Test	\$0.00
<u>Atterberg Limits</u>					
T89, T90	D4318	Liquid and Plastic Limits	30 Tests	\$69.00 /Test	\$2,070.00
T92	D427	Shrinkage Factors	0 Tests	\$82.00 /Test	\$0.00
<u>Classification of Soils</u>					
--	D2488	Visual Manual	0 Samples	\$16.50 /Sample	\$0.00
--	D2487	Unified Soil Classification System	0 Samples	\$175.00 /Sample	\$0.00
M145	--	AASHTO Classification	0 Samples	\$175.00 /Sample	\$0.00
--	--	USDA Classification	0 Samples	\$111.00 /Sample	\$0.00
<u>Soil Settlement, Swelling, and Collapse Potential</u>					
T216	D2435	One-Dimensional Consolidation	3 Tests	\$500.00 /Test	\$1,500.00
--	D4546	One-Dimensional Swell	0 Tests	\$490.00 /Test	\$0.00
--	D5333	Collapse Potential	0 Tests	\$270.00 /Test	\$0.00
<u>Shear Strength of Soil</u>					
		Hand Penetrometer	0 Tests	\$4.00 /Test	\$0.00
		Rimac Unconfined Compressive Strength	0 Tests	\$12.90 /Test	\$0.00
T208	D2166	Unconfined Compressive Strength	0 Tests	\$72.00 /Test	\$0.00
T236	D3080	Direct Shear of Soils (3 points)	0 Tests	\$640.00 /Test	\$0.00
T296	D2850	UU Triaxial Compression (3 points)	0 Tests	\$300.00 /Test	\$0.00
T297	D4767	CU Triaxial Compression (3 points)	0 Tests	\$930.00 /Test	\$0.00
T297	D4767	CD Triaxial Compression (3 points)	0 Tests	\$930.00 /Test	\$0.00
	D7012	Compressive Strength of Rock Core	6 Tests	\$129.00 /Test	\$774.00
<u>Laboratory Compaction Tests</u>					
T99	D698	Moisture-Density of Soils (Standard Effort)	0 Tests	\$175.00 /Test	\$0.00
T180	D1557	Moisture-Density of Soils (Modified Effort)	0 Tests	\$185.00 /Test	\$0.00
T193	--	Illinois Bearing Ratio (1 point)	0 Tests	\$450.00 /Test	\$0.00
T193	D1883	California Bearing Ratio (3 points)	0 Tests	\$850.00 /Test	\$0.00
<u>Coefficient of Permeability</u>					
T215	D2434	Hydraulic Conductivity (Constant Head)	0 Tests	\$400.00 /Test	\$0.00
--	D5084	Hydraulic Conductivity (Flexible Wall)	0 Tests	\$420.00 /Test	\$0.00
<u>Additional Sample Preparation Procedures</u>					
		Removal of Organic Matter	0 Samples	\$77.00 /Sample	\$0.00
		Extrusion & Preservation of Undisturbed Samples	10 Samples	\$23.00 /Sample	\$230.00
		Logging & Classification of Undisturbed Samples	0 Samples	\$57.00 /Sample	\$0.00
		Remolding and Trimming of Samples	0 Samples	\$54.00 /Sample	\$0.00
<u>Planting Soil Mix Testing</u>					
		<i>Chemical Analyses & Mitigation Recommendations (300 g sample required)</i>			
		pH, CEC, Soluble Salts, OM, P, K, Other Nutrients	0 Tests	\$100.00 /Test	\$0.00
		Residual Chemicals , Herbicides Full Screen	0 Tests	\$600.00 /Test	\$0.00
		<i>Mechanical Analyses & Mitigation Recommendations (1,000 g sample required)</i>			
T88	D422	Combined Sieve and Hydrometer	0 Tests	\$111.00 /Test	\$0.00
\$ 18,366.50					

Longmeadow Parkway
Kane County

Date: 05/23/2013
Wang No.: P130522

Task Description	Units	Unit Price	Extended Cost
TRAFFIC CONTROL			
<i>Traffic Control</i>			
Shoulder Closure (1/2 mile)			
Daytime	9.0 No.	\$825.00 /Each	\$7,425.00
Night time	0.0 No.	\$925.00 /Each	\$0.00
Lane Closure (1 lane) (1/2 mile)			
Daytime	14.0 No.	\$1,340.00 /Each	\$18,760.00
Night time	0.0 No.	\$1,450.00 /Each	\$0.00
Lane Closure (2 lane)			
Daytime	0.0 No.	\$1,400.00 /Each	\$0.00
Night time	0.0 No.	\$1,550.00 /Each	\$0.00
Each additional 1/2 mile of closure	0.0 No.	\$120.00 /Each	\$0.00
Roadway Flagmen			
2-man crew; Daytime only	0.0 Days	\$1,750.00 /Day	\$0.00
			\$ 26,185.00
FIELD VEHICLES & MILEAGE			
<i>Field Vehicle</i>			
Field Vehicle Mileage (>100 Miles per Day)	0.0 Miles	\$0.565 /Mile	\$0.00
Field Vehicle Daily (<100 Miles per Day)	88 Days	\$45.00 /Day	\$3,960.00
Tolls	0 Tolls	\$1.00 /Toll	\$0.00
			\$ 3,960.00
OUT-OF-TOWN EXPENSES			
<i>Lodging</i>	0 Days	\$93.00 /Day	\$0.00
<i>Per Diem</i>	0 Days	\$47.00 /Day	\$0.00
			\$ -
REPORT REPRODUCTION			
<i>Report Reproduction</i>			
Copies, Black & White, 8.5" X 11"	1500 No	\$0.20 /Each	\$300.00
Copies, Color, 8.5" X 11"	100 No	\$2.50 /Each	\$250.00
Copies, Reproduction or Reduction, 24" X 36"	0 No	\$10.00 /Each	\$0.00
			\$ 550.00
SUMMARY			
DRILLING, SAMPLING & INSITU TESTING			\$ 198,036.50
LABORATORY TESTING			\$18,366.50
TRAFFIC CONTROL			\$26,185.00
BARGE			\$0.00
FIELD VEHICLES & MILEAGE			\$3,960.00
OUT-OF-TOWN EXPENSES			\$0.00
REPORT REPRODUCTION			\$550.00
			\$ 247,098.00

ATTACHMENT “C”

Huddleston-McBride Land Drainage Services, Co.

Sub-Consultant Agreement

**Scope and Man-hours for
Conducting the Field Tile Investigations**



• 116 W. Main St., No. 208, St. Charles, Il., 60174
• **9504 East Fowler Rd., Rochelle, Il., 61068**
Phone 815-562-6007 Fax 815-562-6557
T. Huddleston mobile 815-757-6007
Email: huddmac@aol.com

PROPOSAL

Kelly Farley
Crawford, Murphy & Tilly
550 N. Commons Drive, Suite 116
Aurora, Il., 60504

DATE : May 16, 2013
PROP : 13156
TERMS: NET 15 DAYS

>> **RE: LAND DRAINAGE INVESTIGATION SERVICES PROPOSAL**

LOCATION: Proposed Longmeadow Parkway Roadway Section C

> Dear Sir,

Thank you for the opportunity to submit the attached Mainline Drain Tile Investigation Letter of Agreement for your consideration.

Following is a brief summary outlining investigation services which shall be completed in accordance with Kane County Subdivision Ordinance [Art.II,div.3,Sec.19-32.,(b),2i] and Kane County Stormwater Ordinance no. 00-312 (2002), [Art. 2, div202, (d) (2) page 18] for the subject property located at Sections no. 2, 3, 10 and 11, Dundee Township, Kane Co. Il.

This investigation will be limited to the mapping of all mainline and sub-main collectors, and will include local lateral / feeder drain tiles only when encountered at slit trench locations. Huddleston McBride Drainage Co. shall not be responsible for crop damage, all excavated investigation trenches will be backfilled and slightly mounded to allow for natural settlement.

I. SCOPE OF WORK

FIELD INVESTIGATION PROCEDURES:

Field reconnaissance and record research¹ work will be completed in efforts to identify all areas which are typical to installation of existing drain tile. Existing features such as soils, watertable, topographical elevations, surface channels, depressions, wetlands and natural drainage ingress and egress locations are considered.

Following field review, investigation areas are staked and slit trenched to verify existence of drain tile. All existing drain tiles encountered during the investigation procedure are logged on field mapping and repaired to their original state according to U.S.D.A., Natural Resource Conservation Service construction repair practices. Following specific point locations, drain tile routes are located by surface probing or electronic detection and field staked at 50' intervals including cut stakes for invert elevations where requested. Any existing drain tile not encountered during slit trenching procedure will remain unknown.

¹Huddleston McBride Land Drainage Co. has maintained and will access an extensive record system of Kane County Existing Agricultural Drain Tile Historic Mapping Records. This mapping system has been based upon geographic parcel location including record information from Huddleston-McBride Land Drainage Co.(1975) , Coopridge Farm Drainage Co. (1930), Elbridge F. Ball & Sons, (drainage engr.) Survey notes (1940), Countryside Drainage (2009). These record files include historic farm parcel notes, active / inactive drainage district maps and documents, conservation resource mapping, agricultural drain tile contractor records, aerial photo delineation, S.C.S./ N.R.C.S design notes and soil maps, typical drain tile investigation reports, record construction drawings, and land owner sketch drawings.

RECORD MAPPING AND REPORT:

Record mapping shall be performed according to typical civil engineering mapping standards. It will be the responsibility of the developer to furnish one ACAD (version 2004 or 2013, .dwg) computer data file of the investigation area including mapped topography, easements, right-of-ways, wetland delineation areas and property boundary limits.

All existing drain tile routes will be located in the field by GPS location systems (*+/-1m., Illinois State Plane East NAD83*) and recorded on final plans. Our field staking process will include pipe invert cut stakes at all perimeter locations, strategic interior locations and 50' interval pin flagging along tile routes for electronic survey location by the project engineer if deemed necessary. It will be the responsibility of the project engineer to survey drain tile location/elevation staking pertinent to final improvement design.

Final drain tile mapping will be computer drafted on a base map including recent color digital aerial photography, topography and project limits. Mapped information will include the location of all existing drain tile routes and applicable drainage findings encountered during the field investigation process. A field report shall be attached to the plan containing evaluation information including size, flow, system effectiveness, restrictive siltation, pipe invert to ground surface depth, pipe type / quality, system classification and specific field notes.

After completion of the investigation report it will be our responsibility to obtain final existing drain tile investigation mapping and report approval and acceptance by Kane County Department of Water Resources and applicable engineering review agencies.

II. COST OF SERVICES:

The complete costs of investigation services including all equipment and manlabor, furnish of repair materials, field staking and mapping will be a lump sum fee as follows:

<u>TOTAL COST FOR INVESTIGATION SERVICES.....</u>	\$ 11,340.00
--	---------------------

III. PAYMENT OF FEES:

An invoice will be presented following the completion of the work and will be due and payable thirty (30) days after the invoice date. Any late payments made will be subject to the interest rate of 1 ½% per month on the entire principal amount of the money owed for the period from the date it becomes due and payable through the period of time in which it is paid.

IV. LIMITS OF LIABILITY:

In the event a breach or a suit for non-payment of fees arises in connection with any services rendered on the part of Huddleston McBride Land Drainage Co., then purchaser will pay all reasonable costs and attorneys fees associated with any action taken to enforce any rights arising under this agreement.

Kelly Farley, P.E.
Crawford, Murphy & Tilly
May 16, 2013
Page 3 of 3

Huddleston McBride Land Drainage Co.

Any breach on the part of either party shall be limited to liability in an amount not to exceed the contract price of services associated with this drain tile investigation proposal.

Should the terms of this letter of agreement meet with your approval, please execute below and return one original.

Thank you for considering our proposal, we look forward to an opportunity to assist you with the development of this parcel.

Respectfully submitted,

HUDDLESTON McBRIDE LAND DRAINAGE CO.

Thomas L. Huddleston III

T. L. Huddleston III,

ABOVE LETTER OF AGREEMENT ACCEPTED THIS _____ DAY _____ 2013.

BY: _____
PRINTED NAME / TITLE

SIGNATURE

ATTACHMENT “D”

Bollinger, Lach & Associates, Inc.

Sub-Consultant Agreement

Scope and Man-hours



Scope of Services

Drainage Calculations

Existing Drainage Plan and Proposed Drainage Plan Verification

It is anticipated that drainage calculations and design of the entire stormwater management system (sewers, ditches, basins, etc.) will differ considerably from the Phase I Location Drainage Study (LDS). BLA will verify all existing and proposed drainage areas as established in the LDS along Longmeadow Parkway, Old Bolz Road, and Illinois Route 25. Based on these tributary drainage areas, detention calculations will be made and basins sized and designed accordingly.

Detention Calculations

BLA will verify detention requirements after review of the LDS. Detention basins will be located and sized accordingly. The proposed basins are located at approximate STA 2207+00 (LT), STA 2217+00 (LT), and at approximate STA 2239+00 (RT). BLA will assume that the Section B consultant will design the basin located at approximate STA 2173+00 (RT) as it is needed for improvements within their section. These basins are preliminary and may increase or decrease in amount or size depending on discussions with the KDOT; if a basin proposed herein is not determined to be feasible, online detention and ditch storage will be designed to accommodate the proposed improvements.

Meet with Homeowners, Local Agencies to Discuss Offsite Storage

It is anticipated that additional basins may be designed within Section C just prior to outlet into the Fox River. These locations may be subject to agreements with third parties to which BLA will attend project meetings to coordinate.

Compensatory Storage Evaluation & Mitigation

Floodplain encroachments will be calculated for the final bridge design configuration. The compensatory storage facility shall be located adjacent to the Fox River and the volume shall be verified with cross sections. Compensatory storage shall be provided in compliance with the Kane County and IDNR requirements.

Existing & Proposed Outlet Analysis

Each outlet will be analyzed using TR-20 or similarly accepted stormwater modeling software for obtaining a Kane County Stormwater Management Permit as well as a permit from IDOT for improvements along Illinois Route 25. This outlet analysis will determine capacity, existing release rate being discharged into the system, and then analyze the proposed stormwater improvements to determine if restricted flow is necessary. This flow restriction will consist of an orifice plate/baffle wall or similar acceptable method of restrictor with supporting design calculations. The 100-Year flood event will be identified and designs made to accommodate flow over land when possible into a basin. Should the basin not be a feasible alternative, the storm sewer will be designed to accommodate the flooding event if a suitable overland flow route cannot be determined.



Hydraulic Report - Culvert (5)

It is anticipated that five box culverts will be designed with this project. Two of these five anticipated culverts are at STA 2184+15 (24"), and 2190+50 (24"). These culverts may vary in size or location dependent on design alternatives; the hydraulic modeling and reports will be prepared regardless of size or location. The remaining three of these culverts are anticipated on the east side of the Fox River beneath the bridge in the vicinity of Sandbloom Road. The final location shall be determined during final design.

Ditch Design / Storm Sewer Design

Ditch design and storm sewer accommodating the roadway runoff will be designed for this project. Storm sewer design shall be prepared in a permit-ready format. Hydraulic Grade Line calculations shall be provided for proposed storm sewer systems. This design will be consistent with Kane County standards and the Illinois Drainage Manual for Illinois Route 25. The final location and size of the stormwater conveyance system will be determined in the final design.

Inlet Spacing Calculations

The inlet spacing per lineal foot of curb & gutter and lateral and longitudinal drainage structure design calculations will be prepared for the proposed roadway. The calculations will be incorporated into the storm sewer system design.

Coordination with Section B & D

Drainage and grading plans will be coordinated with the improvement plans for adjacent sections. Designs will be modified where applicable to maintain drainage patterns and convey stormwater to the appropriate detention facilities. Stormwater conveyance systems shall be designed to accept runoff from adjacent sections where applicable.

Basin Grading Plan

Grading plans for stormwater management facilities will also be incorporated into the plan set as part of BLA's proposed scope of work. These grading plans will be detailed with contour lines at 1-foot intervals and tie into existing contours as provided by the project surveyor. These grading plans will be configured to meet all stormwater detention requirements for the tributary area(s).

Energy Dissipation Design

Energy dissipation will be designed at storm sewer outlets and at areas of concentrated flows. These areas will include ditch sections, emergency spillways, inlets and outlets of culverts, and compensatory storage areas.

Best Management Practices

BMP's will be incorporated into the design of the stormwater conveyance system, detention ponds and compensatory storage areas. It is anticipated that water quality facilities will be provided at prior to discharge into the Fox River. The location and configuration of these features will be determined in the final design. Plant lists and seed mixtures will be provided as part of the BMP design.

Drainage Report Preparation / Coordinate Submittals with Sections A, B, & D



BLA will prepare a stormwater management permit application in tabular format for submittal to Kane County. Report preparation and calculations necessary for submittal to IDOT for Illinois Route 25 are included in this task.

Update Bridge Hydraulic Report

The HEC-RAS floodplain and floodway calculations will be updated to evaluate the bridge design alternatives. The revised calculations will reflect changes to the bridge pier size and locations, variations in the proposed profile, bridge length and encroachments into the floodplain. The calculations will be used to evaluate the impacts resulting from the various design alternatives. The bridge hydraulic report will be updated upon selection of a final design alternative. Update of the bridge hydraulic report will include revision of the Waterway Information Table and the Scour Calculations. Compensatory storage calculations will be based on the final design alternative. The results of the revised Bridge Hydraulic Report will be used to update the TS & L.

IDNR / OWR Floodway Permit

BLA will complete an IDNR/OWR Floodway permit application. The permit application will include all calculations, exhibits, and supporting documentation necessary to obtain a permit.

Grading Plans for Areas Under Bridge

It is anticipated that a separate grading plan will be required for the areas under the proposed bridge on the east and west banks of the Fox River. BLA will prepare a grading plan detailing the final grades for the areas beneath the bridge and transitions into existing grades at the limits of construction.

Bridge Alternative Study

a. Structure Type and Cost Evaluation

1) Perform Vertical Alignment Analysis

This task will in general involve balancing earthwork cost with bridge costs for different vertical profiles. Three different profiles will be evaluated, including the one from Phase I. This will primarily look at reducing the amount of cut in the approach roadways, versus the structure costs. Other impacts such as ROW, adjacent roadways and constructability will also be evaluated. Computations, cost estimates recommendations will be presented in a tech memo/short report. This analysis will be submitted separately to KDOT for concurrence on the recommended profile. The selected profile will be used for the structure type evaluations below.

2) Evaluate Superstructure, Main River and Approach Spans

Alternative superstructure types and span configurations will be evaluated. In addition to girder evaluation, this work will include evaluation of fabrication, transportation and erection of the various girder alternatives. Sketches and a narrative will be



prepared for the alternatives.

3) Evaluate Substructure, Main River and Approach Spans

This task will include the evaluation of various pier and abutments types. This will focus mainly on the piers, and will include consideration of function, economics and aesthetics. Sketches and a narrative will be prepared for the alternatives.

4) Analyze bridge decking material to minimize icing and improve skid resistance

This task will include the evaluation various overlays and finishing techniques to minimize icing and improve skid resistance. Initial cost, performance and expected life will be included in the evaluation. Recommendations will be provided.

5) Develop Structural Alternatives (Scope assumes 3)

Structural alternatives will be prepared using various combinations from the superstructure and substructure evaluations. Cofferdam requirements will be include as necessary. The selected profile from item 1 above will be used for the alternatives. Sketches and a narrative will be prepared for the alternatives.

6) Determine efficiency, safety and cost comparison for each structural alternative

A matrix will be developed which graphically compares each structural alternative, side by side, to the numeric values assigned for each evaluation criterion. The matrix will be used as a tool to rank each of the three alternatives.

7) Evaluate the Phase I TS&L structure versus each of the three alternatives

The structure shown on the Phase I TS&L will be compared with each of the three structural alternatives. A narrative for the comparisons will be provided along with recommendations.

8) Develop draft bridge constructability plan

This task will include evaluation of constructability for the recommended alternative. All phases of construction will be considered. Experienced construction engineers will be included in development of the plan. We will also seek the input of contractors, particularly on fabrication, transportation and erection issues.

9) Provide technical memorandum with our findings and recommendations

All facets of the Bridge Alternative Study will be presented in a technical memorandum, or in a short report.



b. TS&L Drawings and PBDHR

1) Type, Size & Location (TS&L) Drawings and Preliminary Bridge Design and Hydraulic Report (PBDHR)

BLA will prepare a TS&L, PBDHR and assemble supporting documents for the preferred alternative. Sheets will include General Plan; Superstructure Cross Sections, Pier Sketches and Section Thru West Abutment; East Abutment MSE Wall Plan & Elevation; East Abutment Section Thru Abutment and section Thru Wingwall, Ground Improvement Details. It is assumed that much of the General Plan from Phase I can be verified and reused (except for the bridge), the other TS&L sheets will be redone or revised.

Coordination with project geotechnical engineer will include providing substructure loads for their use, providing revised pile cap elevations, evaluating pier foundation alternatives (pile type and capacity), obtaining bearing capacity for east abutment, ground improvement alternatives for the east abutment MSE walls, and east MSE abutment global slope stability analysis.

2) Local Bridge Unit Review and Coordination

TS&L, PBDHR, Scour Critical Evaluation coding Report, Structural Geotechnical Report and supporting documents will be submitted for review and approval.

PAYROLL RATES

FIRM NAME
PRIME/SUPPLEMENT
PSB NO.

Bollinger, Lach & Associates, Inc.
Subconsultant
Longmeadow Parkway - DATE

05/28/13

ESCALATION FACTOR 2.00%

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Principal	\$70.00	\$70.00
Project Manager	\$46.15	\$47.07
Design Engineer	\$26.84	\$27.38
CADD Technician I	\$27.00	\$27.54
CADD Technician II	\$32.00	\$32.64
Director of Structural Eng	\$57.69	\$58.84
Structural Engineer	\$33.65	\$34.32
Survey Project Manager	\$39.18	\$39.96
Party Chief I	\$25.00	\$25.50
Senior Resident Engineer	\$52.96	\$54.02
Director of Construction Engineering	\$70.00	\$70.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00
		\$0.00

BLA Manhours
Longmeadow Parkway (FAP 361) Section C
Route 31 to Route 25
Project: DPC-M-0019(008)
Section: 01-00286-00-EG
Contract #
Drainage Manhours Attachment

Task	Longmeadow Parkway	IL RTE 25	Total
EDP & PDP Drainage Area Verification & Tributary Area Concurrence	78	24	102
Detention Calculations (Basins, Ditches, On-Line)	232	32	264
Meetings w/Homeowners, Local Agencies to discuss Offsite Storage	40	0	40
Compensatory Storage Evaluation & Mitigation	88	0	88
Existing / Proposed Outlet Analysis (TR-20 Modeling, HEC-RAS, HY-8)	272	48	320
Hydraulic Report - Culverts (5) @ 40/Ea	200	0	200
Ditch Design	72	0	72
Storm Sewer Design	168	40	208
Inlet Spacing Calculations	124	20	144
Coordination w/Section B & Section D Consultant (Ditch Lines, Detention Requirements, Match Storm Sewers)	32	0	32
Basin Grading Plan(s)	44	0	44
Energy Dissipation Device (Rock Dam/Riprap/Etc.) Design	40	0	40
Best Management Plans & 3-Yr Maintenance Plan	40	0	40
Drainage Report Preparation / Permit Submittal Coordinate Sections A, B, & D	164	0	164
Update Bridge Hydraulic Report & Scour Calculations (4 Alternatives)	372	0	372
IDNR / OWR Floodway Permit Submittal	80	0	80
Grading Plan for Areas Under Bridge	64	0	64
		Subtotal MH	2274
Drainage Plans			524
		Total	2798

<u>ITEM</u>	<u># OF SHEETS</u>	<u>MH PER SHEET</u>	<u>TOTAL MH'S</u>
Drainage and Utilities (50 Scale)	13	36	468
Drainage Tables	4	8	32
Detention Pond Grading Plan	3	8	24
			524

Longmeadow Parkway	2170+00 - 2273+00	10300	1500 / sheet	6.87	7
IL Rte 25	601+00 - 623+00	2200	1500 / sheet	1.47	2
Bolz Road	500+00 - 534+00	3400	1500 / sheet	2.27	3
Sandbloom Road	902+00 - 909+0	700	1500 / sheet	0.47	1
					13

BLA Manhours
Longmeadow Parkway (FAP 361) Section C

E. of Randall Road thru IL Rte. 31

Section: 13-00215-10-PV

BLA Manhours Attachment

Direct Costs

	<u># of</u> <u>Sets</u>	<u>Size</u>	<u># of</u> <u>Sheets</u>	<u>Rate per Sheet</u>	<u>Total</u>
<u>PERMIT SUBMITTALS</u>					
Stormwater Binders	36	Binder	1	\$9.00	\$324.00
Stormwater Reports	36	8.5"x11"	150	\$0.10	\$540.00
Stormwater Reports	36	11"x17"	20	\$0.25	\$180.00
Full Size Exhibits/Cross Sections	36	22"x34"	20	\$2.00	<u>\$1,440.00</u>
Permit Report Total					\$2,484.00

Kane County

3 Submittals, 6 copies per submittal (4-Kane County; 1-KDOT; 1-CMT) = 18

IDOT

3 Submittals, 6 copies per submittal (4-IDOT; 1-KDOT; 1-CMT) = 18

TS&L Submittal

TS&L	4	11"x17"	4	\$0.25	\$4.00
PBDHR	4	8.5"x11"	2	\$0.10	\$0.80
SGR	4	8.5"x11"	90	\$0.10	\$36.00

Study Report

4 8.5"x11"	10	\$0.10	\$4.00
4 11"x17"	20	\$0.25	<u>\$20.00</u>
			\$64.80

AVERAGE HOURLY PROJECT RATES

FIRM
PSB
PRIME/SUPPLEMENT

Bollinger, Lach & Associates, Inc.
Longmeadow Parkway - Section C
Subconsultant

DATE 05/28/13SHEET 1 OF 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			Drainage Study			Drainage Plans			Bridge Alternative Study			Constructability Review			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	70.00	449	13.30%	9.31	341	15.00%	10.50	78	14.89%	10.42	20	4.02%	2.81	10	12.50%	8.75			
Project Manager	47.07	1707	50.56%	23.80	1592	70.01%	32.96	105	20.04%	9.43				10	12.50%	5.88			
Design Engineer	27.38	472	13.98%	3.83	341	15.00%	4.11	131	25.00%	6.84									
CADD Technician I	27.54	210	6.22%	1.71				210	40.08%	11.04									
Director of Structural Eng	58.84	244	7.23%	4.25							234	46.99%	27.65	10	12.50%	7.36			
Structural Engineer	34.32	120	3.55%	1.22							110	22.09%	7.58	10	12.50%	4.29			
CADD Technician II	32.64	118	3.50%	1.14							118	23.69%	7.73						
Survey Project Manager	39.96	0																	
Party Chief I	25.50	0																	
Senior Resident Engineer	54.02	28	0.83%	0.45							8	1.61%	0.87	20	25.00%	13.50			
Director of Construction Eng	70.00	28	0.83%	0.58							8	1.61%	1.12	20	25.00%	17.50			
TOTALS		3376	100%	\$46.29	2274	100%	\$47.56	524	100%	\$37.73	498	100%	\$47.77	80	100%	\$57.28	0	0%	\$0.00

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME
PRIME/SUPPLEMENT

Bollinger, Lach & Associates, Inc.
Subconsultant

DATE 05/28/13
PTB NO. Longmeadow Parkway - Section C

CONTRACT TERM 18 MONTHS
START DATE 7/1/2013
RAISE DATE 1/1/2014

OVERHEAD RATE 113.35%
COMPLEXITY FACTOR 0
% OF RAISE 3.00%

ESCALATION PER YEAR

7/1/2013 - 1/1/2014

1/2/2014 - 1/1/2015

6
18

12
18

= 33.33%
= 1.0200

68.67%

2.00%

The total escalation for this project would be:

ATTACHMENT “E”

Burns & McDonnell

Sub-Consultant Agreement

Scope and Man-hours

**Kane County Division of Transportation
Longmeadow Parkway
Section C**

**Original Submittal: May 17, 2013
Revised Submittal: May 23, 2013**



Index

Scope of Work

Work Hours Breakdown

Direct Cost Summary

Burns & McDonnell CECS Forms

Scope of Work

Longmeadow Parkway (Section C) – BMcD Scope

Scope of Work

Burns & McDonnell is preparing a scope of work for the Conceptual Study and contract documents for the toll collection facilities, IDS finalization, and miscellaneous elements on the Longmeadow Parkway Project. The documents will be developed in accordance with Kane County, IDOT and Illinois Tollway standards and details.

Project Limits and Schedule:

The limits for this project may be modified during the course of the project. For the purpose of this proposal the limits extend along the current alignment of the Longmeadow Parkway from east of IL 31, to IL 25.

The project is expected to start at the end of July 2013 and will extend for 18 months until January 2015.

Toll Facility Alternative Analysis:

Conceptual Study

A conceptual study will be prepared outlining the operation and infrastructure needs for the electronic toll collection and toll violation systems. The study will be coordinated closely with the County and Illinois Tollway to ensure design meets both organizations' needs. The study will include:

- **Introduction** – Discuss the background and assumptions for the Study/design.
- **Collection Options** – Summarize vehicle rates and if congestion pricing will be utilized for the Longmeadow Parkway.
- **Toll Collection and Monitoring Equipment** – Coordinate and evaluate the type of structural and electronic equipment that will be used for the Longmeadow Parkway Toll System.
- **Toll Violation Monitoring and Equipment** – Coordinate and evaluate the type of structural, pavement and electronic equipment that will be used for the Longmeadow Parkway Toll System.
- **Electronic Communication Equipment** – Determine if a wireless or hardwire communication system will be used to connect to the Illinois Tollway system.
- **Equipment Placement Plan** – Develop alternatives for locating the electronic equipment, access for maintenance and pavement marking and signing needs.

BMcD will lead meetings with the County, Tollway and equipment suppliers to make certain appropriate equipment is being used for the Longmeadow Parkway Project. A conceptual level cost opinion of the collection and violation systems will be included as part of the study.

Toll Collection Lighting Concept

A concept report will be prepared for roadway lighting at the Toll Collection Area along the Longmeadow Parkway. The concept report will include photometrics, voltage drop, and pole/fixture spacing meeting Tollway and County requirements. The report will include a summary of equipment and hardware that will be used for the design.

Contract Plans and Documents

The task will cover the production of contract documents, QA/QC and cost opinions.

The toll equipment plans will be produced in English units and will be submitted to Kane County for an IDOT Local Roads letting at the Preliminary, Pre-Final and Final stages of completeness for review and comments. The Pre-Final and Final submittals will include special provisions. All submittals will include a detailed breakdown of quantities and cost opinion. The specifications will conform to the current KDOT and Tollway Standards. It is assumed that a wireless communication system will be used provide toll and

Longmeadow Scope Outline

(continued)



violation data to the Tollway and that Tollway Standard drawings will be able to be utilized with minor modifications. The contract plans will be arranged as follows:

Contract Package

• Roadway Lighting Plan.....	1-sheet
• Roadway Lighting Details	4-sheets
• Collection Zone Pavement Details.....	1-sheet
• Monotube Structure Detail.....	1-sheet
• Gantry Foundation Plan and Details	1-sheet
• Control Building Foundation Plan.....	1-sheet
• Cable Conduit Schedule and Notes for Toll Equipment Wiring Diagrams	1-sheet
• Guide Drawing.....	1-sheet
• Electrical Site Plan.....	1-sheet
• Toll Equipment Wiring Diagram	1-sheet
• Single Line Diagram and Utility Power Cable/Conduit Schedule.....	1-sheet
• Control Building Equipment Layout	1-sheet
• Control Building Lighting Plan and Details	1-sheet
• Control Building Grounding Details.....	1-sheet
• Grounding Schematic.....	1-sheet
• Control Building Details	1-sheet
• UPS Single Line and Wiring Diagram.....	1-sheet
• Panelboard Schedules for MDP, UPS-1 and UPS-2	1-sheet
• Panelboard Schedules for TP-1 and TP-2.....	1-sheet
• Electrical Underground Plan.....	1-sheet
• I-Pass Only lane island Plan and Details	1-sheet
• Remote Cabinet Plan.....	1-sheet
• Terminal Strip Layout, Remote Data Terminal Cabinet.....	1-sheet
• Loop and Treadle Installation Details.....	1-sheet
• Plaza Lane Control Signal	1-sheet
• Plaza Watchdog Video and I-Pass Plans.....	1-sheet
• Miscellaneous Schematic Diagrams	1-sheet
• Traffic Light Details IPO Lane	1-sheet
• Video Watchdog Camera Details.....	1-sheet
• Miscellaneous Details	1-sheet
• Plaza Monotube Details	1-sheet
• TSIC Terminal Block Layout	1-sheet
• TSIC in Control Building Details	1-sheet
• R3 Rack in Control Building Details	1-sheet
• Wireless Communication Foundation Plan.....	1-sheet
• Wireless Communication Electrical Schematic Plan.....	2-sheets
• Wireless Communication Tower Plan and Details	2-sheets
• Tolling Signing Plans and Details (6 signs).....	3-sheets
• Tolling Signing Foundation Plan and Structural Details	3-sheets

Longmeadow Scope Outline

(continued)



Total Drawings: 43 sheets

- *Specifications/Special Provision* - The specifications will conform to the current KDOT and Tollway Standards.
- *Quantities and Cost Estimate* - Quantities tabulations and a cost estimate will be performed at each submittal based on the current plans. The estimate will be calculated using unit prices agreed to by the KDOT and BMcD.
- *Disposition of Comments* – BMcD will prepare a disposition of comments to the County Preliminary and Pre-Final review comments.
- *QA/QC* – A QA/QC Plan was submitted as part of the PMP and will be followed throughout the project. The contract documents will be QA/QC'ed in accordance with the QA/QC Plan.

Phase III Support/RFI Responses

Burns & McDonnell understands that minimal support is expected during Phase III by the Phase II consultant. Burns & McDonnell will provide limited hours to attend a Pre-Con Meeting and to respond to RFI's during construction.

Bolz Road/Longmeadow IDS:

Burns & McDonnell will finalize the IDS for submission with the PDR by the Section A consultant. The IDS will require coordination with both KDOT and IDOT.

IL 25/Longmeadow Study IDS:

Burns & McDonnell will study and prepare a technical memorandum on safety and cost saving improvements to the IL 25 and Longmeadow Parkway intersection. These improvements may include adding refuge islands to improve pedestrian safety and traffic signal costs.

An IDS will also be prepared for submission with the PDR by the Section A consultant. The IDS will require coordination with both KDOT and IDOT.

Roadway Plan Drawings:

The task will cover the production of contract documents, QA/QC and cost opinions for the plan drawings detailed under this section.

The plans will be produced in English units and will be submitted to Kane County for an IDOT Local Roads letting at the Preliminary, Pre-Final and Final stages of completeness for review and comments. The Pre-Final and Final submittals will include special provisions, quantities and cost opinion for the traffic signal equipment. The specifications will conform to the current KDOT and IDOT Standards. The contract plans will include the follows:

Contract Package

- Roadway Plan and Profile along IL 25 2-sheets

Longmeadow Scope Outline

(continued)



-
- Traffic Signal Plans (IL 25) 4-sheets
 - Traffic Signal Plans (Bolz Road) 4-sheets
 - Intersection Grading Plan (IL 25) 1-sheet
 - Intersection Grading Plan (Bolz Road) 1-sheet

Total Drawings: 12 sheets

- *Specifications/Special Provision* - The traffic signal specifications will conform to the current KDOT and IDOT Standards.
- *Quantities and Cost Estimate* – Traffic Signal quantities tabulations and a cost estimate will be performed at each submittal based on the current plans. The estimate will be calculated using unit prices agreed to by the KDOT and BMcD.
- *Disposition of Comments* – BMcD will prepare a disposition of comments to the County Preliminary and Pre-Final review comments.
- *QA/QC* – A QA/QC Plan was submitted as part of this negotiation package and will be followed throughout the project. All correspondence and technical memos will be checked and reviewed prior to leaving our office. Additionally, the contract documents will be QA/QC'ed in accordance with the QA/QC Plan.

QA/QC for Bridge Structure:

A QA/QC Plan was submitted as part of the PMP and will be followed for BMcD's review of the Structural Plan Drawings. The Peer Review will be conducted prior to the Pre-Final and Final submittals of the Fox River Bridge Drawings.

J:\TRN Practice\Kane County\Proposals\2013 SOfs\Longmeadow Parkway\Longmeadow Section C\Negotiations\LM-C_Scope_05-24-2013.doc

Work Hours Breakdown

**Kane County
Longmeadow Parkway - Section C
Estimate of Labor Expenses**



Personnel & Hours

Classification Level	Rate*	Project Principal	Project Manager	Project Engineer	Engineer	CADD	Admin	
		17	15	13	11	10	8	
Phase III Support/RFI Responses								
Pre-Con Meeting			4	4				8
RFI Responses			16	32	16			64
Sub-Total:		0	68	534	664	24	48	1338
2 Bolz Road/Longmeadow IDS								
IDS Preparation and Coordination				40	40			80
Sub-Total:		0	0	40	40	0	0	80
3 IL 25/Longmeadow Study and IDS								
Evaluation and Technical Memo				8	12			20
IDS Preparation and Coordination				40	40			80
Sub-Total:		0	0	48	52	0	0	100
4 Roadway Plan Drawings								
Roadway Plan and Profile along IL 25	2			32	32			64
Traffic Signal Plans - IL 25	4			40	80			120
Traffic Signal Plans - Bolz Road	4			40	80			120
Intersection Grading Plan - IL 25	1			6	24			30
Intersection Grading Plan - Bolz Road	1			6	24			30
Specifications/Special Provisions				4				4
Quantities and Cost Estimate					4			4
Disposition of Comments				8				8
QA/QC				20				20
Sub-Total:		0	0	156	244	0	0	400
5 QA/QC Bridge Structure								
QA/QC Bridge over Fox River			40	40				80
Sub-Total:		0	40	40	0	0	0	80
Grand Total:		0	108	618	1010	24	48	1938
% of Hours		0.0%	5.4%	40.9%	50.1%	1.2%	2.4%	100%

Direct Cost Summary

Kane County
Longmeadow Parkway - Section C (Tolling Only)
Direct Cost Breakdown



Direct Costs				
ITEM	QUANTITY	Allowance	UNIT COST	COST
Tolling Concept Study				
Meetings - Mileage (8 Trips)	480	\$.50/mile	\$0.50	\$240.00
8.5 x 11 Black and White	2000	\$0.12/page	\$0.12	\$240.00
8.5 x 11 Color	400	\$1.25/page	\$1.25	\$500.00
11 x 17 Black and White	400	\$0.23/page	\$0.23	\$92.00
11 x 17 Color	100	\$1.88/page	\$1.88	\$188.00
Contract Plans and Documents				
8.5 x 11 Black and White	3500	\$0.12/page	\$0.12	\$420.00
11 x 17 Black and White	1810	\$0.23/page	\$0.23	\$416.30
Black and White Plotter	1740	\$0.31/sq ft	\$0.31	\$539.40
Post Construction				
Mileage (2 Trips)	120	\$.50/mile	\$0.50	\$60.00
8.5 x 11 Black and White	300	\$0.12/page	\$0.12	\$36.00
11 x 17 Black and White	100	\$0.23/page	\$0.23	\$23.00
Administration				
8.5 x 11 Black and White	200	\$0.12/page	\$0.12	\$24.00
FedEx (deliverables)	5	Actual Cost	\$30.00	\$150.00
Postage (project correspondence)	20	Actual Cost	\$10.00	\$200.00
TOTAL DIRECT COSTS:				\$3,128.70

Burns &McDonnell - CECS Form

DF-824-034
REV 12/04
05/28/13

OVERHEAD RATE	2.1368
COMPLEXITY FACTOR	0

DF-824-034
REV 12/04
05/28/13

DBE 0.00%

AVERAGE HOURLY PROJECT RATES

IRM Burns and McDonnell
TB Longmeadow
RIME/SUPPLEMENT Prime

DATE 05/24/13

SHEET 1 OF

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			Toll Fac. Alt. Analysis			Bolz Road IDS			IL 25 Study and IDS			Roadway Plan Drawings			QA/QC Structures		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Level 6 - Assist. Adm	11.78	0																	
Level 7 - Assist. Civil	17.30	0																	
Level 8 - Assist. Civil	22.80	48	2.40%	0.55	48	3.59%	0.82												
Level 9 - Assist. Civil	27.97	0																	
Level 10 - Civil Eng.	29.45	24	1.20%	0.35	24	1.79%	0.53												
Level 11 - Civil Eng.	34.60	1000	50.05%	17.32	664	49.63%	17.17	40	50.00%	17.30	52	52.00%	17.99	244	61.00%	21.11			
Level 12 - Sen. Civil	37.09	0																	
Level 13 - Sen. Civil	44.04	818	40.94%	18.03	534	39.91%	17.58	40	50.00%	22.02	48	48.00%	21.14	156	39.00%	17.18	40	50.00%	22.02
Level 14 - Assoc. En	49.79	0																	
Level 15 - Assoc. En	53.68	108	5.41%	2.90	68	5.08%	2.73										40	50.00%	26.84
Level 17 - Assoc. VP	70.00	0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
		0																	
TOTALS		1998	100%	\$39.15	1338	100%	\$38.82	80	100%	\$39.32	100	100%	\$39.13	400	100%	\$38.28	80	100%	\$48.86

EXHIBIT "C"

PREVAILING WAGE RATES

It is the policy of the State of Illinois as declared in the Illinois Prevailing Wage Act (820 ILCS 130/1 *et seq.*) "that a wage of no less than the general prevailing hourly rate as paid for work of a similar character in the locality in which the work is performed, shall be paid to all laborers, workers and mechanics employed by or on behalf of any and all public bodies engaged in public works".

The CONSULTANT agrees to pay, when applicable, the current Illinois Department of Labor Prevailing Wage Rates for all County of Kane projects. Current prevailing wage rates are available from the Illinois Department of Labor at their website: <http://www.state.il.us/agency/idol/rates/rates.HTM>.

Prevailing wage rates are subject to revision monthly. The CONSULTANT acknowledges its responsibility, for payment of any applicable future adjustment thereof.

The CONSULTANT further acknowledges its responsibility to notify any sub-consultant of the applicability of the Prevailing Wage Act.

When applicable, the CONSULTANT agrees to provide the Kane County Division of Transportation "certified payrolls" as required by the Prevailing Wage Act

Crawford, Murphy & Tilly, Inc.
Company Name

Brian A. Hall
Signature of Officer of Company

So Vice President
Title

7/11/13
Date

EXHIBIT "D"

CONTRACTOR DISCLOSURE ACKNOWLEDGEMENT KANE COUNTY CODE, ARTICLE III, DIVISION 3, SECTION 2-211

1. Prior to award, every contractor or vendor who is seeking or who has obtained contracts or change orders to contracts or two (2) or more individual contracts with Kane County resulting in an amount greater than Fifteen Thousand Dollars (\$15,000) shall disclose to the Kane County Purchasing Department, in writing all cumulative campaign contributions, (which includes multiple candidates) made within the previous twelve (12) months of awarding of the contract made by that contractor, union, or vendor to any current officer or countywide elected officer whose office the contract to be awarded will benefit. Disclosure shall be updated annually during the term of a multi-year contract and prior to any change order or renewal requiring Board level approval. For purposes of this disclosure requirement, "contractor or vendor" shall include owners, officers, managers, insurance brokers, lobbyists, agents, consultants, bond counsel and underwriters counsel, subcontractors, corporations, partnerships, associations, business trusts, estates, trustees, and/or beneficiaries under the control of the contracting person, and political action committees to which the contracting person has made contributions.
2. All contractors and vendors who have obtained or are seeking contracts with Kane County must disclose the following information which shall be certified and attached to the application or document. Penalties for knowingly violating disclosure requirements will potentially result in immediate cancellation of the contract, and possible disbarment from future County contracts:
 - A. Name, address and percentage of ownership interest of each individual or entity having a legal or a beneficial interest of more than five percent (5%) in the applicant. Any entity required by law to file a statement providing substantially the information required by this paragraph with any other government agency may file a duplicate of such statement;
 - B. Names and contact information of their lobbyists, agents and representatives and all individuals who are or will be having contact with County employees or officials in relation to the contract or bid. This information disclosure must be updated when any changes to the information occurs.
 - C. Whenever any interest required to be disclosed in paragraph (a) above is held by an agent or agents, or a nominee or nominees, the principals for whom such agents or nominees hold such interest shall also be disclosed. The application of a spouse or any other party, if constructively controlled by another person, or legal entity as set forth above, shall state the name and address and percentage of beneficial interest of such person or entity possessing such constructive control and the relationship under which such control is being or may be exercised. Whenever a stock or beneficial interest is held by a corporation or other legal entity, such shareholder or beneficiary shall also make disclosure as required by paragraph (a) above.
 - D. A statement under oath that the applicant has withheld no disclosures as to economic interests in the undertaking nor reserved any information, data or plan as to the

intended use or purpose for which it seeks County Board or other county agency action.

3. All disclosures and information shall be current as of the date upon which the application is presented and shall be maintained current until such time as Kane County shall take action on the application. Furthermore, this information shall be maintained in a database by the Purchasing Department, and made available for public viewing.
4. Notwithstanding any of the above provisions, the County Purchasing Department with respect to contracts awarded may require any such additional information from any applicant which is reasonably intended to achieve full disclosure relevant to the application for action by the County Board or any other County agency.
5. Any failure to comply with the provisions of this section shall render any ordinance, ordinance amendment, County Board approval or other County action in behalf of the applicant failing to comply voidable at the option of the County Board or other County agency involved upon the recommendation of the County Board Chairman or the majority of the County Board.
6. Contractor Disclosure information shall be sent to the Kane County Purchasing Department and the Kane County Division of Transportation at the following address, or via email, prior to Transportation Committee of the Kane County Board:

Kane County Government Center
Purchasing Department, Bldg A
719 S. Batavia Ave. Geneva, IL 60134
purchasing@countyofkane.org

Kane County Division of Transportation
Linda Haines
41W011 Burlington Road
St. Charles, IL 60175
haineslinda@countyofkane.org

Company Name:	Crawford, Murphy and Tilly, Inc.
Contact Person:	Lou Dixon, P.E.
Address:	550 North Commons Drive, Suite 116
City:	Aurora
State:	Illinois
Zip Code:	60504
Phone:	(630) 820-1022