


Local Agency Lake County Division of Transportation	<b>L O C A L  A G E N C Y</b>	 <b>Illinois Department of Transportation</b>  <b>Preliminary Engineering Services Agreement For Federal Participation</b>	<b>C O N S U L T A N T</b>	Consultant
County Lake				Civiltech Engineering, Inc.
Section 09-00135-11-BP				Address 450 E. Devon Avenue, Suite 300
Project No.				City Itasca
Job No.				State Illinois
Contact Name/Phone/E-mail Address Dan Helgren 847.377.7461 dhelgren@co.lake.il.us				Zip Code 60143
				Contact Name/Phone/E-mail Address Mary L. Young, P.E., PTOE 630.735.3943 myoung@civiltechinc.com

THIS AGREEMENT is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2010 between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the PROJECT. Federal-aid funds allotted to the LA by the state of Illinois under the general supervision of the Illinois Department of Transportation (STATE) will be used entirely or in part to finance engineering services as described under AGREEMENT PROVISIONS.

#### Project Description

Name Washington Street Bikepath Route \_\_\_\_\_ Length 3300 ft Structure No. \_\_\_\_\_  
Termini Atkinson Road to Lancer Lane

Description: This project includes Phase I Engineering Services for the construction of a bikepath along the south side of Washington Street from Atkinson Road to Lancer Lane.

#### Agreement Provisions

##### I. THE ENGINEER AGREES,

1. To perform or be responsible for the performance, in accordance with STATE approved design standards and policies, of engineering services for the LA for the proposed improvement herein described.
2. To attend any and all meetings and visit the site of the proposed improvement at any reasonable time when requested by representatives of the LA or STATE.
3. To complete the services herein described within 500 calendar days from the date of the Notice to Proceed from the LA, excluding from consideration periods of delay caused by circumstances beyond the control of the ENGINEER.
4. The classifications of the employees used in the work should be consistent with the employee classifications and estimated man-hours shown in EXHIBIT A. If higher-salaried personnel of the firm, including the Principal Engineer, perform services that are indicated in Exhibit A to be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the payroll rate for the work performed.
5. That the ENGINEER is qualified technically and is entirely conversant with the design standards and policies applicable for the PROJECT; and that the ENGINEER has sufficient properly trained, organized and experienced personnel to perform the services enumerated herein.
6. That the ENGINEER shall be responsible for the accuracy of the work and shall promptly make necessary revisions or corrections resulting from the ENGINEER's errors, omissions or negligent acts without additional compensation. Acceptance of work by the STATE will not relieve the ENGINEER of the responsibility to make subsequent correction of any such errors or omissions or for clarification of any ambiguities.
7. That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will affix the ENGINEER's professional seal when such seal is required by law. Plans for structures to be built as a part of the improvement will be prepared under the supervision of a registered structural engineer and will affix structural engineer seal when such seal is required by law. It will be the ENGINEER's responsibility to affix the proper seal as required by the Bureau of Local Roads and Streets manual published by the STATE.

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

pit and channel change agreements including prints of the corresponding plats and staking as required.

- Furnish the LA with all final reports in Portable Document Format (.pdf) in addition to paper copies.
- To perform all engineering services as outlined in the Scope of Services included as Exhibit A-1.

## II. THE LA AGREES,

1. To furnish the ENGINEER all presently available survey data and information
2. To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT, on the basis of the following compensation formulas: Total Not-to-Exceed Contract Amount shall be \$683,383

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

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

Specific Rate               (Pay per element)

Lump Sum                

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

With Retainage

a) The maximum retainage shall not exceed 10 percent of the Total Agreement Amount. The retainage shall be 10 percent of the sums earned and held until the LA approves the Project Development Report, and then reduced to zero.

Without Retainage

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

4. The recipient shall not discriminate on the basis of race, color, national origin or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR part 26. The recipient shall take all necessary and reasonable steps under 49 CFR part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR part 26 and as approved by DOT, is incorporated by reference in this AGREEMENT. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as violation of this AGREEMENT. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31U.S.C. 3801 et seq.).

## III. IT IS MUTALLY AGREED,

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

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

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

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

- a. Publishing a statement:
    - (1) Notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance, including cannabis, is prohibited in the grantee's or contractor's workplace.
    - (2) Specifying the actions that will be taken against employees for violations of such prohibition.
    - (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will:
      - (a) abide by the terms of the statement; and
      - (b) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
  - b. Establishing a drug free awareness program to inform employees about:
    - (1) The dangers of drug abuse in the workplace;
    - (2) The grantee's or contractor's policy of maintaining a drug free workplace;
    - (3) Any available drug counseling, rehabilitation and employee assistance program; and
    - (4) The penalties that may be imposed upon an employee for drug violations.
  - c. Providing a copy of the statement required by subparagraph (a) to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.
  - d. Notifying the contracting or granting agency within ten (10) days after receiving notice under part (B) of paragraph (3) of subsection (a) above from an employee or otherwise receiving actual notice of such conviction.
  - e. Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by,
  - f. Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.
  - g. Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.
10. The ENGINEER or subconsultant shall not discriminate on the basis of race, color, national origin or sex in the performance of this AGREEMENT. The ENGINEER shall carry out applicable requirements of 49 CFR part 26 in the administration of DOT assisted contracts. Failure by the ENGINEER to carry out these requirements is a material breach of this AGREEMENT, which may result in the termination of this AGREEMENT or such other remedy as the LA deems appropriate.

**Agreement Summary**

Civiltech Engineering, Inc.	Prime Consultant:	TIN Number	Agreement Amount
			\$156,888.52
Jorgensen & Associates, Inc.	Sub-Consultants:	TIN Number	Agreement Amount
Midland Standard Engineering & Testing, Inc.			\$16,731.24
ENTRIX, Inc.			\$4,675.00
			\$15,740.00
		Sub-Consultant Total:	\$37,146.24
		Prime Consultant Total:	\$156,888.52
		Total for all Work:	\$194,034.76

Executed by the LA:

Lake County  
(Municipality/Township/County)

ATTEST:

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

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

RECOMMENDED FOR EXECUTION

(SEAL)

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

Executed by the ENGINEER:

ATTEST:

By: \_\_\_\_\_  
Title: President

By: \_\_\_\_\_  
Title: Treasurer

**Exhibit A - Preliminary Engineering**

Route: Washington Street Bike Path  
 Local Agency: Lake County Division of Transportation  
 Section: 09-00135-11-BT  
 Project: \_\_\_\_\_  
 Job No: \_\_\_\_\_

*Firm's <b>approved rates</b> on file with IDOT's Bureau of Accounting and Auditing:	
Overhead Rate (OH)	1.5135
Complexity Factor (R)	0.000
Calendar Days	500

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) + 1.5(DL) + IHDC]  
 Cost Plus Fixed Fee 3       14.5%[(2.3 + R)DL + IHDC]  
 Specific Rate                        
 Lump Sum

See Exhibit A-1 for Scope of Services

See Exhibit A-2 for a detailed workhour estimate.

See Exhibit A-3 for detailed Services by Others and In-House Direct Costs.

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

Element of Work	Employee Classification	Man-hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by Others	In-House Direct Costs (IHDC)	Profit	Total
Early Coord. & Data Collection						\$ -	\$ 30.00	\$ 4.35	\$ 34.35
	Project Manager	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Project Engineer	28	\$ 38.00	\$ 1,064.00	\$ 1,610.36			\$ 387.78	\$ 3,062.15
	Chief Structural Engineer	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Structural Engineer	0	\$ 40.00	\$ -	\$ -			\$ -	\$ -
	Design Engineer	18	\$ 28.00	\$ 504.00	\$ 762.80			\$ 183.69	\$ 1,450.49
	Sr. Design Technician	20	\$ 30.00	\$ 600.00	\$ 908.10			\$ 218.67	\$ 1,726.77
	Administrative Assistant	0	\$ 16.00	\$ -	\$ -			\$ -	\$ -
Field Svy. & Prep. of Base Maps						\$ 16,731.24	\$ -	\$ -	\$ 16,731.24
	Project Manager	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Project Engineer	24	\$ 38.00	\$ 912.00	\$ 1,380.31			\$ 332.39	\$ 2,624.70
	Chief Structural Engineer	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Structural Engineer	0	\$ 40.00	\$ -	\$ -			\$ -	\$ -
	Design Engineer	0	\$ 28.00	\$ -	\$ -			\$ -	\$ -
	Sr. Design Technician	32	\$ 30.00	\$ 960.00	\$ 1,452.96			\$ 349.88	\$ 2,762.84
	Administrative Assistant	0	\$ 16.00	\$ -	\$ -			\$ -	\$ -
Alternate Geometric Studies						\$ -	\$ -	\$ -	\$ -
	Project Manager	12	\$ 60.00	\$ 720.00	\$ 1,089.72			\$ 262.41	\$ 2,072.13
	Project Engineer	46	\$ 38.00	\$ 1,748.00	\$ 2,645.60			\$ 637.07	\$ 5,030.67
	Chief Structural Engineer	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Structural Engineer	0	\$ 40.00	\$ -	\$ -			\$ -	\$ -
	Design Engineer	92	\$ 28.00	\$ 2,576.00	\$ 3,898.78			\$ 938.84	\$ 7,413.62
	Sr. Design Technician	20	\$ 30.00	\$ 600.00	\$ 908.10			\$ 218.67	\$ 1,726.77
	Administrative Assistant	4	\$ 16.00	\$ 64.00	\$ 96.86			\$ 23.33	\$ 184.19
Geotechnical Studies				\$ -	\$ -	\$ 4,675.00	\$ -	\$ -	\$ 4,675.00

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

Element of Work	Employee Classification	Man-hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by Others	In-House Direct Costs (IHDC)	Profit	Total
	Project Manager	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Project Engineer	6	\$ 38.00	\$ 228.00	\$ 345.08			\$ 83.10	\$ 656.17
	Chief Structural Engineer	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Structural Engineer	0	\$ 40.00	\$ -	\$ -			\$ -	\$ -
	Design Engineer	0	\$ 28.00	\$ -	\$ -			\$ -	\$ -
	Sr. Design Technician	0	\$ 30.00	\$ -	\$ -			\$ -	\$ -
	Administrative Assistant	0	\$ 16.00	\$ -	\$ -			\$ -	\$ -
Drainage Study				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Project Manager	4	\$ 60.00	\$ 240.00	\$ 363.24			\$ 87.47	\$ 690.71
	Project Engineer	108	\$ 38.00	\$ 4,104.00	\$ 6,211.44			\$ 1,495.73	\$ 11,811.14
	Chief Structural Engineer	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Structural Engineer	0	\$ 40.00	\$ -	\$ -			\$ -	\$ -
	Design Engineer	94	\$ 28.00	\$ 2,632.00	\$ 3,983.53			\$ 959.25	\$ 7,574.78
	Sr. Design Technician	38	\$ 30.00	\$ 1,140.00	\$ 1,725.39			\$ 415.48	\$ 3,280.87
	Administrative Assistant	4	\$ 16.00	\$ 64.00	\$ 96.86			\$ 23.33	\$ 184.19
Wetland Study				\$ -	\$ -	\$ 15,740.00	\$ -	\$ -	\$ 15,740.00
	Project Manager	4	\$ 60.00	\$ 240.00	\$ 363.24			\$ 87.47	\$ 690.71
	Project Engineer	8	\$ 38.00	\$ 304.00	\$ 460.10			\$ 110.80	\$ 874.90
	Chief Structural Engineer	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Structural Engineer	0	\$ 40.00	\$ -	\$ -			\$ -	\$ -
	Design Engineer	0	\$ 28.00	\$ -	\$ -			\$ -	\$ -
	Sr. Design Technician	0	\$ 30.00	\$ -	\$ -			\$ -	\$ -
	Administrative Assistant	0	\$ 16.00	\$ -	\$ -			\$ -	\$ -
Section 4(f) Evaluation (If necessary)				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Project Manager	6	\$ 60.00	\$ 360.00	\$ 544.86			\$ 131.20	\$ 1,036.06
	Project Engineer	18	\$ 38.00	\$ 684.00	\$ 1,035.23			\$ 249.29	\$ 1,968.52
	Chief Structural Engineer	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Structural Engineer	0	\$ 40.00	\$ -	\$ -			\$ -	\$ -
	Design Engineer	6	\$ 28.00	\$ 168.00	\$ 254.27			\$ 61.23	\$ 483.50
	Sr. Design Technician	16	\$ 30.00	\$ 480.00	\$ 726.48			\$ 174.94	\$ 1,381.42
	Administrative Assistant	4	\$ 16.00	\$ 64.00	\$ 96.86			\$ 23.33	\$ 184.19
Structural Studies				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Project Manager	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Project Engineer	0	\$ 38.00	\$ -	\$ -			\$ -	\$ -
	Chief Structural Engineer	24	\$ 60.00	\$ 1,440.00	\$ 2,179.44			\$ 524.82	\$ 4,144.26
	Structural Engineer	38	\$ 40.00	\$ 1,520.00	\$ 2,300.52			\$ 553.98	\$ 4,374.50
	Design Engineer	0	\$ 28.00	\$ -	\$ -			\$ -	\$ -
	Sr. Design Technician	34	\$ 30.00	\$ 1,020.00	\$ 1,543.77			\$ 371.75	\$ 2,935.52
	Administrative Assistant	0	\$ 16.00	\$ -	\$ -			\$ -	\$ -
Draft Project Development Report				\$ -	\$ -	\$ -	\$ 480.00	\$ 69.60	\$ 549.60
	Project Manager	14	\$ 60.00	\$ 840.00	\$ 1,271.34			\$ 306.14	\$ 2,417.48
	Project Engineer	48	\$ 38.00	\$ 1,824.00	\$ 2,760.62			\$ 664.77	\$ 5,249.39
	Chief Structural Engineer	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -

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

Element of Work	Employee Classification	Man-hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by Others	In-House Direct Costs (IHDC)	Profit	Total
	Structural Engineer	0	\$ 40.00	\$ -	\$ -			\$ -	\$ -
	Design Engineer	48	\$ 28.00	\$ 1,344.00	\$ 2,034.14			\$ 489.83	\$ 3,867.97
	Sr. Design Technician	16	\$ 30.00	\$ 480.00	\$ 726.48			\$ 174.94	\$ 1,381.42
	Administrative Assistant	8	\$ 16.00	\$ 128.00	\$ 193.73			\$ 46.65	\$ 368.38
Agency Coordination				\$ -	\$ -	\$ -	\$ 50.00	\$ 7.25	\$ 57.25
	Project Manager	16	\$ 60.00	\$ 960.00	\$ 1,452.96			\$ 349.88	\$ 2,762.84
	Project Engineer	18	\$ 38.00	\$ 684.00	\$ 1,035.23			\$ 249.29	\$ 1,968.52
	Chief Structural Engineer	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Structural Engineer	0	\$ 40.00	\$ -	\$ -			\$ -	\$ -
	Design Engineer	6	\$ 28.00	\$ 168.00	\$ 254.27			\$ 61.23	\$ 483.50
	Sr. Design Technician	16	\$ 30.00	\$ 480.00	\$ 726.48			\$ 174.94	\$ 1,381.42
	Administrative Assistant	0	\$ 16.00	\$ -	\$ -			\$ -	\$ -
Stakeholder Coordination and Public Involvement				\$ -	\$ -	\$ -	\$ 1,015.00	\$ 147.18	\$ 1,162.18
	Project Manager	48	\$ 60.00	\$ 2,880.00	\$ 4,358.88			\$ 1,049.64	\$ 8,288.52
	Project Engineer	80	\$ 38.00	\$ 3,040.00	\$ 4,601.04			\$ 1,107.95	\$ 8,748.99
	Chief Structural Engineer	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Structural Engineer	0	\$ 40.00	\$ -	\$ -			\$ -	\$ -
	Design Engineer	64	\$ 28.00	\$ 1,792.00	\$ 2,712.19			\$ 653.11	\$ 5,157.30
	Sr. Design Technician	108	\$ 30.00	\$ 3,240.00	\$ 4,903.74			\$ 1,180.84	\$ 9,324.58
	Administrative Assistant	0	\$ 16.00	\$ -	\$ -			\$ -	\$ -
Final Project Development Report				\$ -	\$ -	\$ -	\$ 360.00	\$ 52.20	\$ 412.20
	Project Manager	4	\$ 60.00	\$ 240.00	\$ 363.24			\$ 87.47	\$ 690.71
	Project Engineer	20	\$ 38.00	\$ 760.00	\$ 1,150.26			\$ 276.99	\$ 2,187.25
	Chief Structural Engineer	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Structural Engineer	0	\$ 40.00	\$ -	\$ -			\$ -	\$ -
	Design Engineer	38	\$ 28.00	\$ 1,064.00	\$ 1,610.36			\$ 387.78	\$ 3,062.15
	Sr. Design Technician	12	\$ 30.00	\$ 360.00	\$ 544.86			\$ 131.20	\$ 1,036.06
	Administrative Assistant	8	\$ 16.00	\$ 128.00	\$ 193.73			\$ 46.65	\$ 368.38
Supervision, Admin. & Proj. Coord.				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Project Manager	100	\$ 60.00	\$ 6,000.00	\$ 9,081.00			\$ 2,186.75	\$ 17,267.75
	Project Engineer	52	\$ 38.00	\$ 1,976.00	\$ 2,990.68			\$ 720.17	\$ 5,686.84
	Chief Structural Engineer	0	\$ 60.00	\$ -	\$ -			\$ -	\$ -
	Structural Engineer	0	\$ 40.00	\$ -	\$ -			\$ -	\$ -
	Design Engineer	20	\$ 28.00	\$ 560.00	\$ 847.56			\$ 204.10	\$ 1,611.66
	Sr. Design Technician	12	\$ 30.00	\$ 360.00	\$ 544.86			\$ 131.20	\$ 1,036.06
	Administrative Assistant	0	\$ 16.00	\$ -	\$ -			\$ -	\$ -
<b>Totals</b>		<b>1464</b>		<b>\$ 53,744.00</b>	<b>\$ 81,341.54</b>	<b>\$ 37,146.24</b>	<b>\$ 1,935.00</b>	<b>\$ 19,867.98</b>	<b>\$ 194,034.76</b>



## Lake County Division of Transportation

### Washington Street Bikepath Atkinson Road to Lancer Lane

#### SCOPE OF SERVICES

The Phase I engineering services for this project will include environmental and location-design studies needed to develop and refine geometric improvements, evaluate costs and impacts, and undertake coordination with jurisdictional agencies. The primary objective of the Phase I engineering study is to develop an improvement plan that fulfills all of the requirements for processing and funding of this project by the Lake County Division of Transportation, the Illinois Department of Transportation (IDOT) and the Federal Highway Administration (FHWA).

The Scope of Services assumes that this project will be processed as a Categorical Exclusion, Group II and result in the preparation of a Project Development Report. Specifically, the following services are anticipated as part of the Phase I Engineering for this project:

**Item 1 - Early Coordination and Data Collection** - This work item will include collecting available existing information as follows:

- A. Collect and review previous studies and existing roadway plans.
- B. Obtain public and private utility atlases.
- C. Obtain existing right-of-way data.
- D. Perform project area reconnaissance and prepare a photolog documenting existing conditions.
- E. Obtain recent digital aerial photography of study area at a scale of 1" = 50'
- F. Prepare and process Design Stage Clearinghouse Project Notifications.
- G. Investigate Hazardous Waste and prepare memorandum to IDOT.
- H. Prepare and process Environmental Survey Request forms. (Note: This does not include preparation of a PESA or PSI.)
- I. Prepare Job Number Request Form (#D1-PI0004) as per IDOT requirements.
- J. Prepare Initial Coordination Meeting Data Form (BLR 22410) as per IDOT requirements.

**Item 2 - Field Survey and Preparation of Base Maps** - In order to develop accurate construction costs a complete design topographic survey will be conducted as part of the Phase I study. This survey will include topographic information, cross sections and a drainage and utility survey.

This work item will include the preparation of electronic base sheets including identification and location of all existing utilities within the project limits. Existing cross section information will be generated from the survey data and plotted on cross section sheets to aid in the development of a proposed bike path profile and completion of the drainage analysis.

A surveying subconsultant will perform the above tasks. We propose to use Jorgensen & Associates, Inc. as a subconsultant to perform the field survey. A copy of their detailed scope of work and proposal is attached to this Scope of Services as Attachment B.

**Item 3 - Alternate Geometric Studies** – A preliminary investigation of the proposed bike path alignment and profile will be conducted to determine impacts to the area. Geometrics will meet LCFPD, LCDOT, American Association of State Highway Transportation Officials (AASHTO) and IDOT design criteria or, where not feasible, justifications for design deviations will be developed. This work task will include the following:

- A. Preparation of preliminary horizontal geometrics on topographic base sheets for up to three alternatives for providing a continuous bike path along the south side of Washington Street.
- B. Define vertical bike path geometrics including preliminary analysis of proposed cross-sections for bike path.
- C. Identification of right-of-way acquisition and grading easement limits.
- D. Submittal of preliminary geometrics to LCDOT for review.
- E. Refine horizontal and vertical geometrics based upon review comments.

**Item 4 - Geotechnical Studies** – This work item will include the following tasks:

- A. Two structure borings for proposed extension of the existing retaining wall. (To be performed by subconsultant).
- B. Review Soils Report and prepare preliminary pavement design.
- C. Coordination with soils subconsultant.

A soils subconsultant will conduct task "A". We propose to use Midland Standard Engineering and Testing, Inc. as a subconsultant to perform the pavement coring and soils survey for this project. A copy of their detailed scope of work and proposal is attached to this Scope of Services as Attachment C.

**Item 5 - Drainage Study** – Although a formal Location Drainage Study will not be necessary as part of this project, an analysis of the existing drainage patterns and proposed improvements will be necessary. The following items will be performed as part of this task.

- A. Existing Drainage Plan
  - 1. Prepare General Location Drainage Map.
  - 2. Develop watershed divides and identify drainage features.
  - 3. Identify outlets and determine interpreted drainage divides.
  - 4. Determine base floodplain elevations (includes datum correlation).
  - 5. Develop Existing Drainage Plan.

- 
- B. Proposed Drainage Plan
1. Determine existing and proposed runoff coefficients.
  2. Identify and quantify floodplain encroachments.
  3. Investigate compensatory storage areas. (If required amount is greater than what is outlined in the agreement between LCDOT and Lake County Forest Preserve District).
  4. Develop preliminary storm sewer design.
  5. Identify R.O.W. requirements for ditches, drainage outlets and detention facilities.
  6. Develop Proposed Drainage Plan.

**Item 6 - Wetland Study** – ENTRIX will conduct a wetland investigation of the site, including an additional 100 feet outside the project corridor limits, as required by the Lake County Watershed Development Ordinance (LCWDO). This investigation will include the identification and/or delineation of on-site, adjoining, and adjacent wetlands, wetland buffer areas, riparian environment areas, and high quality aquatic resources. The scope of this task includes an off-site record/document review followed by an on-site investigation. Investigation activities include on-site testing for the presence of hydric soils, hydrophytic vegetation, and sufficient hydrology. These activities will follow the standards outlined in the 1987 Corps of Engineers Wetlands Delineation Manual and in the LCWDO.

When applicable, ENTRIX will flag Isolated Waters of Lake County and U.S. Army Corps of Engineers (USACE) jurisdictional wetland boundaries within the project corridor. ENTRIX understands that Civiltech will survey these flags and provide a CAD file to ENTRIX. ENTRIX will also estimate wetland boundaries within 100 feet of the project corridor, per LCWDO requirements. Both the surveyed wetland boundaries and the estimated wetland boundaries will be included in the final Wetland Delineation Report. Potential wetland mitigation alternatives will not be included in the Wetland Delineation Report.

- A. As part of this task, ENTRIX will submit an Ecological Compliance Assessment Tool (EcoCAT) request to the Illinois Department of Natural Resources (IDNR) for identification of state listed threatened or endangered (T&E) species and Natural Areas within, adjoining, or adjacent to the project corridor. ENTRIX will also request a consultation from the U.S. Fish and Wildlife Service for identification of federal listed T&E species within, adjoining, or adjacent to the project corridor.
- B. ENTRIX will submit to IDOT the Wetland Impact Evaluation (WIE) Form to comply with the Interagency Wetland Policy Act (IWPA) of 1989. Coordination will also occur with IDOT for concurrence with regard to the wetland delineation report and proposed wetland impacts.

A copy of their detailed scope of work and proposal is attached to this Scope of Services as Attachment D.

**Item 7 - Section 4(f) Evaluation (If necessary)** - If right-of-way acquisition is required from the Grayslake Community Park District (GLPD) for the implementation of this project, it may be necessary to complete a Section 4(f) Evaluation even if the GLPD is amenable to the acquisition of the property. It is assumed that the Section 4(f) Evaluation will consist of preparing the necessary documentation to result in a *de minimis* finding. This documentation would include the following items:

- A. Complete checklist and appendices.
- B. Prepare 4(f) exhibits.
- C. Address any public comments.
- D. Prepare materials for GLPD review
- E. Provide draft letter to GLPD for their signature.
- F. Submit documentation to IDOT/FHWA for approval.

*Note: This item will only be completed if required by IDOT/FHWA.*

**Item 8 - Structural Studies** - It is anticipated that the existing southern headwall/retaining wall for the Mill Creek culvert beneath Washington Street will need to be modified in order to accommodate the proposed bike path. Currently the ground slopes down at approximately 3:1 off of the 5-ft. shelf behind the back of curb on either end of the existing retaining wall. The ends of the wall will need to be extended or modified in order to provide the wider shelf behind the back of curb required for the bike path. The existing wall was constructed in 2003 and is a cast-in-place cantilever T-type wall founded on spread footings. The exposed surface of the existing wall is treated with a color stained formliner.

This work item will consist of completion of type, size and location (TS&L) drawings for the proposed retaining wall extension. The following tasks will be completed for this item:

- A. Preparation of TS&L drawings including coordinate geotechnical investigation with geotechnical subconsultant and selection of wall type
- B. Visit the existing wall to assess its condition and verify topographical survey
- C. Attend TS&L review meeting with LCDOT and IDOT.

The retaining wall modification will be detailed to match the appearance of the existing wall and will be designed in accordance with the AASHTO Standard Specifications for Highway Bridges and the IDOT Bridge Manual.

**Item 9 - Draft Project Development Report** - This work task will involve integration of project data and engineering studies into a Draft Project Development Report that meets IDOT requirements as contained in BLR Form 221 10. Specifically this work item will include the following:

- A. Prepare report exhibits, including a location map, a land use exhibit, existing and proposed typical sections.
- B. Prepare a detailed construction cost estimate for proposed improvements.

- C. Write, proofread and edit the Draft PDR.
- D. Print, bind and deliver Draft PDR.
- E. Attend review meeting with IDOT and LCDOT if required.

**Item 10 – Agency Coordination** - The efficiency and timeliness of executing a project often can hinge on the level and frequency of coordination with IDOT officials. In order to avoid delays and costly multiple design revisions, we believe it will be helpful to have short but regular coordination meetings with IDOT decision-makers to review the project's overall progress. These meetings would occur at the regular IDOT/FHWA coordination meetings. In addition to a kick-off meeting with the County, IDOT and the Lake County Council of Mayors Liaison, we propose to schedule up to 2 meetings with IDOT.

- A. Kick-off meeting with County, IDOT and Council.
- B. Meeting with Lake County Stormwater Management Commission (assume 1 meetings).
- C. Local Agency/IDOT/FHWA Meetings (assume 2 meetings).

All meetings include preparation for, attendance at and preparation of meeting minutes.

**Item 11 - Stakeholder Coordination and Public Involvement**- There are numerous stakeholders that have a vested interest in the implementation of this project besides the Lake County Division of Transportation. Early involvement of the stakeholders in projects of this nature will minimize delays in the project schedule by identifying and addressing any unforeseen concerns. It is recommended that the following coordination occur during the course of the project:

- A. Stakeholder Meetings – It is anticipated that 2 meetings will be held with each of the following agencies:
  - Village of Grayslake
  - Grayslake Park District
  - College of Lake County
  - Lake County Forest Preserve District

Each meeting will include the following items:

- 1. Preparation of meeting exhibits.
  - 2. Attendance at meetings.
  - 3. Preparation of meeting summaries.
- B. Public Hearing – At this time, it is uncertain as to whether or not a Public Hearing will be required for this project. Typically, a holding a formal hearing would not be required due to the small number of affected property owners. However, if it is determined that there are impacts to Section 4(f) properties, it will be necessary to hold a Public Hearing. Therefore, this item will include

everything required to conduct a formal public hearing in an Open House format.

1. Preparation of public hearing newspaper advertisements.
2. Preparation of public hearing brochure, comment forms and sign-in sheets.
3. Preparation of public hearing exhibits.
4. Dry run with County staff.
5. Revisions to presentation materials based on dry run.
6. Attendance at public hearing.
7. Preparation of meeting summary and disposition of comments.

**Item 12 - Final Project Development Report** - Based on the outcome of the draft report review and municipal input, the final Project Development Report will be prepared and printed. Design Approval would be requested from IDOT. This work item will include the following tasks:

- A. Revise draft PDR exhibits.
- B. Revise construction cost estimate for improvements.
- C. Revise draft PDR report, proofread and edit.
- D. Preparation of Design Variance Forms for the Bureau of Local Roads and Streets (BLR 22120).
- E. Print, bind and deliver final PDR Report.
- F. Preparation and publication of Design Approval legal notices.

**Item 13 - Supervision, Administration and Project Coordination** - This item includes project setup, monthly invoicing and preparation of status reports, client coordination and meetings as well as in-house coordination meetings. This item also includes implementation of Civiltech's Quality Control/Quality Assurance in-house review process.

Lake County Division of Transportation

Washington Street Bike Path  
Atkinson Road to Lancer Lane

WORKHOUR ESTIMATE  
PHASE I ENGINEERING

Item No.	Task	Personnel & Hours						Total Hours	% of Hours
		Project Manager	Project Engineer	Sr. Structural Engineer	Structural Engineer	Design Engineer	Senior Design Technician		
<b>1</b>	<b>Early Coordination and Data Collection</b>								
A.	Collect and review previous studies and existing roadway plans.		4					4	6.1%
B.	Obtain public and private utility atlases.		2			4		6	9.1%
C.	Obtain existing right-of-way data.						2	2	3.0%
D.	Perform project area reconnaissance and prepare a photolog.		4			6	2	10	15.2%
E.	Obtain recent digital aerial photography of study area at a scale of 1"=50'		2					2	3.0%
F.	Prepare and process Design Stage Clearinghouse Project Notifications.		2					2	3.0%
G.	Investigate Hazardous Waste and prepare memorandum to IDOT.		6				2	8	12.1%
H.	Prepare and process Environmental Survey Request forms. (Note: This does not include preparation of a PESA or PSI.)		4			8	16	28	42.4%
I.	Prepare Job Number Request Form (#D1-PI0004) as per IDOT requirements.		2					2	3.0%
J.	Prepare Initial Coordination Meeting Data Form (BLR 22410) as per IDOT requirements.		2					2	3.0%
	<b>Sub-total Item 1</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>20</b>	<b>66</b>	<b>100.0%</b>
<b>2</b>	<b>Field Survey and Preparation of Base Maps</b>								
	Field survey will be conducted by Jorgensen & Associates, Inc. See Exhibit B for proposal.								
A.	Development of project base sheets.		4				32	36	64.3%
B.	Coordination with subconsultant.		20					20	35.7%
	<b>Sub-total Item 2</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>32</b>	<b>56</b>	<b>100.00%</b>
<b>3</b>	<b>Alternate Geometric Studies</b>								
A.	Preparation of preliminary horizontal geometrics on topographic base sheets for up to three alternatives.	4	12			32	4	52	29.9%
B.	Define vertical bike path geometrics including preliminary analysis of proposed cross-sections for the bike path.	4	20			40	16	80	46.0%
C.	Identification of right-of-way acquisition and grading easement limits.	2	8			16		26	14.9%
D.	Submittal of preliminary geometrics to LCDOT for review.	2	2				4	8	4.6%
E.	Refine horizontal and vertical geometrics based upon review comments.		4			4		8	4.6%
	<b>Sub-total Item 3</b>	<b>12</b>	<b>46</b>	<b>0</b>	<b>0</b>	<b>92</b>	<b>20</b>	<b>174</b>	<b>100.0%</b>
<b>4</b>	<b>Geotechnical Studies</b>								
A.	Two structure borings for proposed extension of the existing retaining wall. (By subconsultant, Midland Standard)								
B.	Review Soils Report.		2					2	33.3%
C.	Coordination with soils subconsultant.		4					4	66.7%
	<b>Sub-total Item 4</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>100.0%</b>
<b>5</b>	<b>Drainage Study</b>								
A.	Existing Drainage Plan.								
1.	Prepare General Location Drainage Map.		2				2	4	1.6%
2.	Develop watershed divides and identify drainage features.		2			4		6	2.4%
3.	Identify outlets and determine interpreted drainage divides.		4			8		12	4.8%
4.	Determine base floodplain elevations (includes datum correlation).		4			4		8	3.2%
5.	Develop Existing Drainage Plan.		32			16	16	64	25.8%

Lake County Division of Transportation

Washington Street Bike Path  
Atkinson Road to Lancer Lane

WORKHOUR ESTIMATE  
PHASE I ENGINEERING

Item No.	Task	Personnel & Hours						Total Hours	% of Hours	
		Project Manager	Project Engineer	Sr. Structural Engineer	Structural Engineer	Design Engineer	Senior Design Technician			Admin. Asst.
<b>B.</b>	<b>Proposed Drainage Plan.</b>									
	1. Determine existing and proposed runoff coefficients.		4			2		6	2.4%	
	2. Identify and quantify floodplain encroachments.		4			4		8	3.2%	
	3. Investigate compensatory storage areas. (If required amount is greater than what is outlined in the agreement between LCDOT and Lake County Forest Preserve District).	2	8			8		18	7.3%	
	4. Develop preliminary storm sewer design.		8			16		24	9.7%	
	5. Identify right-of-way requirements for ditches, drainage outlets, and detentions facilities.	2	8			12		22	8.9%	
	6. Develop Proposed Drainage Plan and submit to LCSMC.		32			20	20	4	76	30.6%
	<b>Sub-total Item 5</b>	<b>4</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>94</b>	<b>38</b>	<b>4</b>	<b>248</b>	<b>100.0%</b>
<b>6</b>	<b>Wetland Study</b>									
<b>A.</b>	The wetland investigations will be conducted by ENTRIX. See Exhibit C. This work item will include coordination only.	4	8						12	100.0%
	<b>Sub-total Item 6</b>	<b>4</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>100.0%</b>
<b>7</b>	<b>Section 4(f) Evaluation (If necessary)</b>									
<b>A.</b>	Complete checklist and appendices.	4	6						10	20.0%
<b>B.</b>	Prepare 4(f) exhibits.		4				16		20	40.0%
<b>C.</b>	Address any public comments.		4						4	8.0%
<b>D.</b>	Prepare materials for GLPD review.		2			4		2	8	16.0%
<b>E.</b>	Provide draft letter to GLPD for their signature.	2							2	4.0%
<b>F.</b>	Submit documentation to IDOT/FHWA for approval.		2			2		2	6	12.0%
	<b>Sub-total Item 7</b>	<b>6</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>16</b>	<b>4</b>	<b>50</b>	<b>100.0%</b>
<b>8</b>	<b>Structural Studies</b>									
<b>A.</b>	Preparation of TS&L drawings, coordination with subconsultant and selection of wall type.			16	38		30		84	87.5%
<b>B.</b>	Site visit to assess wall condition and verify topographic survey.			4			4		8	8.3%
<b>C.</b>	Attend TS&L review meeting with LCDOT and IDOT.			4					4	4.2%
	<b>Sub-total Item 8</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>38</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>96</b>	<b>100.0%</b>
<b>9</b>	<b>Draft Project Development Report</b>									
<b>A.</b>	Prepare report exhibits, including a location map, a land use exhibit, existing and proposed typical sections and a Maintenance of Traffic exhibit.		4			12	16		32	23.9%
<b>B.</b>	Prepare a detailed construction cost estimate for proposed improvements.	2	8			20			30	22.4%
<b>C.</b>	Write, proofread and edit the Draft Project Development Report.	8	32			16			56	41.8%
<b>D.</b>	Print, bind and deliver Draft Project Development Report.						8		8	6.0%
<b>E.</b>	Attend review meeting with IDOT and LCDOT if required.	4	4						8	6.0%
	<b>Sub-total Item 9</b>	<b>14</b>	<b>48</b>	<b>0</b>	<b>0</b>	<b>48</b>	<b>16</b>	<b>8</b>	<b>134</b>	<b>100.0%</b>
<b>10</b>	<b>Agency Coordination</b>									
<b>A.</b>	Kick-off meeting with County, IDOT, and Council.	4	4			2	4		14	25.0%
<b>B.</b>	Meeting with Lake County Stormwater Management Commission (assume 1 meeting).	4	6			4	4		18	32.1%
<b>C.</b>	Local Agency/IDOT/FHWA Meetings (assume 2 meetings).	8	8				8		24	42.9%
	<b>Sub-total Item 10</b>	<b>16</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>16</b>	<b>0</b>	<b>56</b>	<b>100.0%</b>



Lake County Division of Transportation

Washington Street Bike Path  
Atkinson Road to Lancer Lane

WORKHOUR ESTIMATE  
PHASE I ENGINEERING

Item No.	Task	Personnel & Hours						Total Hours	% of Hours	
		Project Manager	Project Engineer	Sr. Structural Engineer	Structural Engineer	Design Engineer	Senior Design Technician			Admin. Asst.
<b>11</b>	<b>Stakeholder Coordination and Public Involvement</b>									
A.	Stakeholder Meetings (assume 8 meetings).									
	1. Preparation of meeting exhibits.		8			32	32	72	24.0%	
	2. Attendance at meetings.	24	24					48	16.0%	
	3. Preparation of meeting summaries.	8	16					24	8.0%	
B.	Public Hearing									
	1. Preparation of public hearing newspaper advertisements.		2			2		4	1.3%	
	2. Preparation of public hearing brochure, comment forms, and sign-in sheets.	2	2			4	4	12	4.0%	
	3. Preparation of public hearing exhibits.	2	8			8	60	78	26.0%	
	4. Dry run with County staff.	4	4					8	2.7%	
	5. Revisions to presentation materials based on dry run.	2	4			4	12	22	7.3%	
	6. Attendance at public hearing.	6	6			6		18	6.0%	
	7. Preparation of public hearing transcript (by court reporter).		2					2	0.7%	
	8. Preparation of meeting summary and disposition of comments.		4			8		12	4.0%	
	<b>Sub-total Item 11</b>	<b>48</b>	<b>80</b>	<b>0</b>	<b>0</b>	<b>64</b>	<b>108</b>	<b>0</b>	<b>300</b>	<b>100.0%</b>
<b>12</b>	<b>Final Project Development Report</b>									
A.	Revise draft PDR exhibits.		4			10	12	26	31.7%	
B.	Revise construction cost estimate for improvements.	0	4			12		16	19.5%	
C.	Revise draft Project Report, proofread and edit.	4	8			12		24	29.3%	
D.	Preparation of Design Variance Forms for the Bureau of Local Roads and Streets (BLR 22120).		2			4		6	7.3%	
E.	Print, bind and deliver Final Project Development Report.						8	8	9.8%	
E.	Publish legal notice for "Design Approval Received".		2					2	2.4%	
	<b>Sub-total Item 12</b>	<b>4</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>12</b>	<b>8</b>	<b>82</b>	<b>100.0%</b>
<b>13</b>	<b>Supervision, Administration &amp; Project Coordination</b>									
A.	Project setup, monthly invoicing, status reports & schedule monitoring.	48						48	26.1%	
B.	Client Coordination (including 3 meetings)	40	40			8		88	47.8%	
C.	In-House coordination meetings.	12	12			12	12	48	26.1%	
	<b>Sub-total Item 13</b>	<b>100</b>	<b>52</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>12</b>	<b>0</b>	<b>184</b>	<b>100.0%</b>
	<b>Total Hours:</b>	<b>208</b>	<b>456</b>	<b>24</b>	<b>38</b>	<b>386</b>	<b>324</b>	<b>28</b>	<b>1464</b>	
	<b>% of Hours:</b>	<b>14.2%</b>	<b>31.1%</b>	<b>1.6%</b>	<b>2.6%</b>	<b>26.4%</b>	<b>22.1%</b>	<b>1.9%</b>	<b>100.0%</b>	

Lake County Division of Transportation

Washington Street Bike Path  
Atkinson Road to Lancer Lane

PHASE I ENGINEERING  
DIRECT COSTS AND SUBCONSULTANT SERVICES

				Direct Cost	Subconsultant Expense
<b>Item 1</b>	<b>Data Collection</b>				
<b>Mileage</b>					
	1 trip @	60 miles @	\$0.500	\$30.00	
<b>Item 2</b>	<b>Field Survey</b>				
Subconsultant Expense - Jorgensen & Associates, Inc. See Attachment B					\$16,731.24
<b>Item 4</b>	<b>Geotechnical Studies</b>				
Subconsultant Expense - Midland Standard Engineering & Testing, Inc. See Attachment C					\$4,675.00
<b>Item 6</b>	<b>Wetland Study</b>				
Subconsultant Expense - ENTRIX, Inc. See Attachment D					\$15,740.00
<b>Item 9</b>	<b>Draft Project Report</b>				
<b>Printing (Assume 6 copies)</b>					
	150 sheets @	\$0.50		\$75.00	
	300 sheets @	\$0.15		\$45.00	
<b>Postage</b>					
	2 packages @	\$30.00		\$60.00	
<b>Legal Notices</b>					
	3 each	\$100.00		\$300.00	
<b>Item 10</b>	<b>Agency Coordination</b>				
<b>Mileage</b>					
	3 trips @	20 miles @	\$0.500	\$30.00	
	1 trips @	40 miles @	\$0.500	\$20.00	
<b>Item 11</b>	<b>Stakeholder Coordination &amp; Public Involvement</b>				
<b>Mileage</b>					
	9 trips @	60 miles @	\$0.500	\$270.00	
	1 trips @	40 miles @	\$0.500	\$20.00	
<b>Court Reporter</b>					
	1 Lump Sum	\$500.00		\$500.00	
<b>Printing</b>					
	100 sheets @	\$0.25		\$25.00	
<b>Legal Notices</b>					
	2 each	\$100.00		\$200.00	
<b>Item 12</b>	<b>Final Project Report</b>				
<b>Printing (Assume 5 copies)</b>					
	125 sheets @	\$0.50		\$62.50	
	250 sheets @	\$0.15		\$37.50	
<b>Postage</b>					
	2 packages @	\$30.00		\$60.00	
<b>Legal Notices</b>					
	2 each	\$100.00		\$200.00	
<b>TOTAL:</b>				<b>\$1,935.00</b>	<b>\$37,146.24</b>

**EXHIBIT B**

**Subconsultant Proposal  
Jorgensen & Associates, Inc.**

Draft



**JORGENSEN & ASSOCIATES, INC.**  
**CONSTRUCTION and LAND SURVEYORS**

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Est. 1990

June 24, 2010

Mr. Joel E. Christell, P.E.  
Civiltech Engineering, Inc.  
450 East Devon Avenue  
Suite 300  
Itasca, Illinois 60143

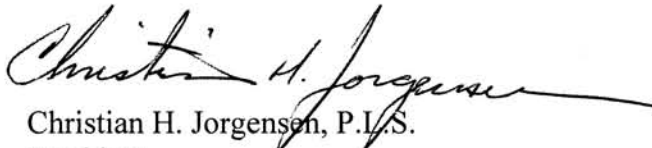
Re: Washington Street Bike Path Survey Proposal

Dear Mr. Christell:

Enclosed, please find our proposal to prepare a topographic survey for the referenced project.

I would like to thank you for considering Jorgensen & Associates for this project. We look forward to continuing our working relationship with your firm. Should you have any questions, comments or require any further information concerning our proposal, please feel free to call me at (847)356-3371.

Respectfully submitted,  
Jorgensen & Associates, Inc.

  
Christian H. Jorgensen, P.L.S.  
President

CHJ/pt

Enclosures

E:\Civilted\Lake\WashingtonS&LTR

Route: Washington Street  
Section: Atkinson Road to Lancer Lane  
County: Lake  
Job No.:

**Exhibit "A"**

**Hourly Rate Range - Consultant's Regular Staff**

<u>Classification</u>	<u>From</u>	<u>To</u>
Principal, Manager, P.L.S.	38.00	40.00
Supervisor, Project Surveyor	37.00	39.00
Cadd Supervisor, Survey Party Chief	21.00	26.00
Instrument Operator, Cadd Operator, assignable Clerical and Secretarial Labor	14.00	18.00

Route: Washington Street  
Section: Atkinson Road to Lancer Lane  
County: Lake  
Job No.:

**Exhibit "B"**

**Payroll Burden & Fringe Costs**

	<u>% of Direct Productive Payroll</u>
Federal Insurance Contributions Act_____	11.36%
State Unemployment Compensation_____	0.34%
Federal Unemployment Compensation_____	0.22%
Workmen's Compensation Insurance_____	0.77%
Paid Holidays, Vacation, Sick Leave, Personal Leave_____	8.68%
Bonus_____	2.77%
Pension_____	0.69%
Group Insurance_____	<u>25.56%</u>
Total Payroll Burden & Fringe Costs	50.39%

Route: Washington Street  
 Section: Atkinson Road to Lancer Lane  
 County: Lake  
 Job No.:

**Exhibit "C"**

Overhead and Indirect Costs

	<u>% of Direct Productive Payroll</u>
Taxes except Federal Income_____	0.54%
Business Insurance, except key-man insurance, insurance including accident, liability and valuable papers_____	3.06%
Depreciation and amortization_____	8.25%
Administrative, unassignable staff time, recruiting, training and education, severance, negotiating new business, and office accounting, clerical and secretarial wages and salaries_____	35.49%
Reproductive and printing costs_____	0.12%
Office and Survey supplies_____	5.30%
Computer costs_____	0.52%
Professional services including specialists, legal, auditing, etc._____	1.36%
Employees travel expenses not assigned to clients and excluding costs outside Illinois_____	(0.01%)
Telephone, telegraph and postage_____	1.54%
Recruiting and relocating expense_____	0.00%
Fees, licenses, dues, publications (technical and professional)_____	1.38%
Utilities and maintenance_____	0.70%
Business space rent_____	5.12%
Facilities - Capital_____	1.07%
Miscellaneous expense_____	0.79%
Equipment rental_____	0.96%
Bank charges_____	0.00%
Postage_____	<u>0.49%</u>
Total Overhead	66.68%

Route: Washington Street  
Section: Atkinson Road to Lancer Lane  
County: Lake  
Job No.:

**Exhibit "D"**

Classification Types & Rates

Sheet 1 of 2

- A. Principal/Officer
- B. Supervisor, P.L.S.
- C. Survey Party Chief
- D. Instrument Operator
- E. Cadd Supervisor

Classification Rates used for Calculation of Fee

<b>A. Principal/Officer .....</b>	<b>\$ 40.00</b>
<b>B. Supervisor, P.L.S. ....</b>	<b>\$ 38.00</b>
<b>C. Survey Party Chief .....</b>	<b>\$ 21.50</b>
<b>D. Instrument Operator .....</b>	<b>\$ 17.00</b>
<b>E. Cadd Supervisor .....</b>	<b>\$ 25.50</b>



Route: Washington Street  
Section: Atkinson Road to Lancer Lane  
County: Lake  
Job No.:

**TOPOGRAPHIC SURVEY**  
**Exhibit "D"**

Average Hourly Rate Calculation

Sheet 2 of 2

Principal/Officer	2 hours @ \$40.00/hour =	\$ 80.00
Supervisor, P.L.S.	27 hours @ \$38.00/hour =	\$ 1,026.00
Survey Party Chief	94 hours @ \$21.50/hour =	\$ 2,021.00
Instrument Operator	94 hours @ \$17.00/hour =	\$ 1,598.00
Cadd Supervisor	<u>74 hours @ \$25.50/hour =</u>	<u>\$ 1,887.00</u>
	291 hours	\$ 6,612.00

$$\text{Average Hourly Rate} = \frac{\$6,612.00}{291} = \$22.72/\text{hour}$$

Route: Washington Street  
 Section: Atkinson Road to Lancer Lane  
 Project:  
 County: Lake  
 Job No.:

COST ESTIMATE OF CONSULTANT'S SERVICES

Consultant: Jorgensen & Associates, Inc.  
 Date: June 24, 2010  
 Description: Topographic Survey  
 Cost Plus Fixed Fee = 14.5%[(2.3 + R)DL + IHDC]

Item	Number of Man Hours (A)	Payroll (B)	Overhead & Fringe Benefits (C)	In-House Direct Costs (D)	Sub-Total (E)	Profit (F)	Services By Others	Total	Percent of Grand Total
1) Field - Topographic Survey	188	\$3,619.00	\$4,236.76	\$71.50	\$7,927.26	\$1,217.30	N/A	\$9,144.57	54.66%
2) Office - Compile Field Data	35	\$1,105.00	\$1,293.62	\$45.00	\$2,443.62	\$375.04	N/A	\$2,818.67	16.85%
3) Office - Create Existing Topography Base Sheets	58	\$1,579.00	\$1,848.54	\$0.00	\$3,427.54	\$526.60	N/A	\$3,954.13	23.63%
4) Office - Create T.I.N. & Contours	8	\$229.00	\$268.09	\$0.00	\$497.09	\$76.37	N/A	\$573.46	3.43%
5) Coordination Meetings	2	\$80.00	\$93.66	\$35.00	\$208.66	\$31.76	N/A	\$240.41	1.44%
<b>TOTALS</b>	<b>291</b>	<b>\$6,612.00</b>	<b>\$7,740.67</b>	<b>\$151.50</b>	<b>\$14,504.17</b>	<b>\$2,227.07</b>	<b>\$0.00</b>	<b>\$16,731.24</b>	<b>100.00%</b>

Route: Washington Street  
 Section: Atkinson Road to Lancer Lane  
 County: Lake  
 Job No.:

**Manhour Breakdown  
 Topographic Survey Estimate**

Washington Street                    + 3,400' = 0.644 mile

Total Length                        ± 3,400' = 0.644 mile

1. Field – Topographic Survey

- a. Measure traverse, level circuit & G.P.S. survey  
 9 hours x 2 men = 18 MH
- b. Locate existing R.O.W. lines  
 21 hours x 2 men = 42 MH
- c. Locate existing topography & wetlands  
 64 hours x 2 men = 128 MH

Sub-total Item #1    188 MH

2. Office - Compile Field Data

- a. Compute traverse, level circuit & G.P.S. survey  
 5 hours x 1 man = 5 MH
- b. Research records  
 3 hours x 1 man = 3 MH
- c. Compute existing R.O.W. lines  
 12 hours x 1 man = 12 MH
- d. Edit & compile topographic survey  
 15 hours x 1 man = 15 MH

Sub-total Item #2    35 MH

3. Office - Create Existing Topography Base Sheets

- a. Layout and drafting  
50 hours x 1 man = 50 MH
- b. Check topographic survey  
8 hours x 1 man = 8 MH

Sub-total Item #3 58 MH

4. Office - Create T.I.N. & Contours

- a. Compute contours  
6 hours x 1 man = 6 MH
- b. Check contours  
2 hours x 1 man = 2 MH

Sub-total Item #4 8 MH

5. Coordination Meetings  
1 meeting @ 2 hrs. =

2 MH

Total All Items 291 MH

Draft

Route: Washington Street  
Section: Atkinson Road to Lancer Lane  
County: Lake  
Job No.:

### Manhour Breakdown By Item

<u>Item</u>	<u>Classification</u>	<u>Manhours</u>
1. Field – Topography Survey	Survey Party Chief Instrument Operator	94 94
2. Office - Compile Field Data	Supervisor, P.L.S. Cadd Supervisor	17 18
3. Office – Create Existing Topography Base Sheets	Supervisor, P.L.S. Cadd Supervisor	8 50
4. Office - Create T.I.N. and Contours	Supervisor, P.L.S. Cadd Supervisor	2 6
5. Coordination Meetings	Principal/Officer	2

Route: Washington Street  
Section: Atkinson Road to Lancer Lane  
County: Lake  
Job No.:

**Breakdown of  
In House Direct Costs**

Item

1. Field - Topographic Survey

a. Trips to project site - 11 ea.  
± 13 miles/trip x 11 trips = ± 143 miles  
± 143 miles @ \$0.50/mile = \$ 71.50

2. Office - Compile Field Data

a. Trips to County Recorder - 1 ea.  
± 30 miles/trip x 1 trip = ± 30 miles  
± 30 miles @ \$0.50/mile = \$ 15.00

b. Miscellaneous Records = \$ 30.00

Sub-total Item #2 \$ 45.00

5. Coordination Meetings

a. Meetings at Civiltech office - 1 ea.  
± 70 miles/trip x 1 trip = ± 70 miles  
± 70 miles @ \$0.50/mile = \$ 35.00

Total All Items \$ 151.50

**EXHIBIT C**

**Subconsultant Proposal**

**Midland Standard Engineering & Testing**

Draft

**MIDLAND STANDARD ENGINEERING & TESTING, INC.**  
558 Plate Drive, Unit 6 East Dundee, Illinois 60118  
(847) 844-1895 f(847) 847-3875

June 23, 2010

Mr. Gregory J. Hatlestad, P. E., S. E.  
**Civiltech Engineering, Inc.**  
450 E. Devon Avenue, Suite 300  
Itasca, Illinois 60143

Re: Proposal for Structure Geotechnical Report  
**Washington Street Bike Path at Mill Creek**  
Proposed Retaining Wall Extension  
Lake County, Illinois

Dear Mr. Hatlestad:

We are pleased to have the opportunity to submit the following proposal for performance of a soil exploration and analysis for the proposed improvements.

Project Description and Scope of Work

The proposed project consists of a subsurface soil investigation to determine subsurface condition at the proposed retaining wall location. The anticipated wall type for the extension will match the existing reinforced concrete cantilevered 'T' wall.

Method of Performance - Field Work

The subsurface soil exploration for the proposed improvements will be accomplished by performing two (2) soil borings to a depth of thirty (30) feet below the existing ground surface. The soil borings will involve drilling test holes that incorporate standard penetration tests and split-spoon sampling at 2-1/2 to 5 foot intervals, in accordance with the current IDOT Geotechnical Manual.

Method of Performance - Analysis and Report

We propose to mobilize a drill rig to the site after notice to proceed, layout, and utility clearance. We will provide a Field Engineer at the site to layout the borings and during the drilling to observe the exploration, perform field tests and measurements, prepare field reports, and maintain contact with our office. In this way, the program can be adjusted as it progresses and more is known about the site. Results of our fieldwork and a preliminary analysis will be available as the work is completed. A formal report would be provided shortly thereafter.

Our testing program will include laboratory tests to determine the classification, strength, water content, and other physical properties of the soils.



The results of our field exploration and lab tests will be used in the engineering analysis and the formulation of our recommendations. The report will include foundation recommendations for support of the proposed structure, a global stability analysis of the wall will be performed, an embankment settlement estimate will be performed, and soil related construction procedures will be outlined. The results of our work will be presented in a written IDOT Structure Geotechnical Report, prepared by a Registered Professional Engineer. Three (3) copies of the report will be provided.

### Fees

We propose to provide this work at the unit rates quoted on the attached Schedule of Services and Fees, Attachments 1.1 through 1.2. These estimated quantities and unit rates are based on information as outlined in this proposal and experience on past projects. On the basis of the above information, we estimate that these services can be provided for a fee of: **\$ 4,675.00**. We will not exceed this amount with out your permission.

### General

If you have any question regarding this proposal of costs, do not hesitate to call. We are looking forward to working with you on this potion of the project.

Respectfully Submitted,  
MIDLAND STANDARD ENGINEERING & TESTING, INC.



William J. Wyzgala, P.E.  
Principal Engineer

WJW/rlm

Enclosure: Attachments 1.1, 1.2, and General Conditions

**ATTACHMENT 1.1  
SCHEDULE OF SERVICES AND FEES**

**WASHINGTON STREET AT MILL CREEK - RETAINING WALL EXTENSION  
LAKE COUNTY, ILLINOIS**

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Cost</u>	<u>Extention</u>
<u>Field Services</u>			
Mobilization of Drilling equipment, lump sum	1	\$400.00	\$400.00
Soil boring with soil sampling,/l.f.	60	\$22.00	\$1,320.00
Field Engineer/Geologist for Sample Logging & Supervision during Drilling, per hour	8	\$85.00	\$680.00
		<b>Field Services Total:</b>	<b>\$2,400.00</b>
<u>Laboratory Services</u>			
Moisture Content Determinations, ea	25	\$6.00	\$150.00
Particle Size Analysis of Soils by Combined Analysis (ASTM D 422), each	1	\$95.00	\$95.00
Atterberg Limits Determination (ASTM D 4318), each	1	\$75.00	\$75.00
Consolidation Properties of Soils (2-1/2" Dia. Specimen), ea.	1	\$400.00	\$400.00
		<b>Laboratory Services Total:</b>	<b>\$720.00</b>
<u>Engineering Services for Structure Geotechnical Report Including:</u>			
Layout Coordination			
Utility Clearance and Permits			
Preparation of Soil Boring Logs			
Analysis and Recommendations			
Global Stability Analysis for Wall			
Settlement Analysis for Emb. Widening			
Ground Water Discussion			
Report Preparation and Consultation			
		<b>Estimated Cost (@ Unit Rates Listed on Attachment 1.2)</b>	<b>\$1,555.00</b>
		<b>TOTAL:</b>	<b>\$4,675.00</b>

**ATTACHMENT 1.2**  
**ENGINEERING SERVICES**  
**WASHINGTON STREET AT MILL CREEK - RETAINING WALL EXTENSION**  
**LAKE COUNTY, ILLINOIS**

Our fees for Engineering Services will be based on the actual number of hours required to complete the work, and will be determined on a Unit Rate Basis at these rates for each of classification personnel:

	<u>Estimated Quantity</u>	<u>Rate/Hour</u>	<u>Extentsion</u>
Principal Engineer, per hr.	0	\$155.00	
Project Engineer, per hr.	4	\$125.00	\$500.00
Staff Engineer, per hr.	8	\$85.00	\$680.00
Field Engineer, per hr.	3	\$85.00	\$255.00
Technician, per hour		\$80.00	
Draftsman/Word Processing, per hr.	2	\$60.00	\$120.00
			<hr/> <b>\$1,555.00</b>

**MIDLAND STANDARD ENGINEERING & TESTING, INC.****FEE AND RATE SCHEDULE  
GENERAL CONDITIONS****ENGINEERING AND ASSOCIATED SERVICES**

Fees for our services will be based upon the time worked on the project at the following rates:

	Rate Per Hour
Project Engineer	
Project Mgr./Sr. Engineer, P.E.	
Project Engineer, P.E.	
Sr. Staff/Field Engineer	
Field Engineer	See attached
Eng. Technician	proposal
Sr. Technician	for rates
Technician	
CAD Draftsman	
Draftsman	
Word Processing	

**OVERTIME RATES:** Applicable to all classifications below Staff Eng. - O.T. Rates are 1.40 times straight time

**WE RESERVE THE RIGHT TO SUSPEND OR TERMINATE WORK UNDER ORAL AGREEMENT UPON FAILURE OF THE CLIENT TO PAY INVOICES AS DUE.**

**INSURANCE**

We maintain Workman's Compensation Insurance and Employer's Liability Insurance in conformance with state law. In addition, we maintain Comprehensive General Liability Insurance and Automobile Liability Insurance with bodily injury (limit \$1,000,000 each occurrence, \$1,000,000 aggregate) and property damage (limit \$1,000,000 each occurrence, \$1,000,000 aggregate).

Within the limits of said insurance, we agree to hold the client harmless from and against loss, damage, injury or liability arising directly from the negligent acts or omissions of ourselves, our employees, agents, subcontractors and their employees and agents. If the client placed greater responsibilities upon us or requires further insurance coverage, we if specifically so directed will take out additional insurance (if procurable) to protect us, at the clients' expense. But we shall not be responsible for property damage from any cause, including fire and explosion, beyond the amounts and coverage of our insurance.

**REIMBURSABLE EXPENSES**

The following items are reimbursable to the extent of actual expenses:

1. Transportation, lodging and subsistence for out of town travel
2. Long distance telephone, telegraph and cable charges.
3. Special mailings and shipping charges.
4. Special materials and equipment unique to the project.
5. Automobile travel on projects.
6. Computer charges.

**LIMITATION OF PROFESSIONAL LIABILITY**

The Client recognizes the inherent risks connected with construction. In performing our professional services, we will use that degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of our profession practicing in the same or similar locality. No other warranty, express or implied, is made or intended by the proposal for consulting service or by furnishing oral or written reports of the findings made. It is agreed that the Client will limit any and all liability, claim for damages, cost of defense or expenses to be levied against us on account of any design defect, error, omission, or professional negligence to a sum not to exceed \$2,000,000, or the amount of our fees, which ever is greater.

**TEST BORINGS AND FIELD INVESTIGATIONS**

On projects requiring test borings, test pits, or other explorations, we may obtain the services of reputable subcontractors to perform such work.

**SPECIAL RATES**

Per Diem or other special rates can be established for specific projects when conditions indicate the desirability of such rates.

**INCREASES**

Fee schedule increases made by our firm on an over-all client basis will be applied to work on all projects as they become effective. At least 30 days advance notice of such increases will be given.

**INVOICES**

Progress invoices will be submitted to the client monthly and a final bill will be submitted upon completion of the services. Invoices will show charges for different personnel and expense classifications. A more detailed separation of charges and data will be provided at clients request, but each invoice is due on presentation and is past due thirty (30) days from invoice date. Client agrees to pay a finance charge of 1 1/2% per month, or the maximum rate allowed by law on past due accounts.

The client's obligation to pay for the work contracted is in no way dependent upon the clients ability to obtain financing, zoning, approval of governmental or regulatory agents, or upon the client's successful completion of the project.

**ACCESS TO SITES**

Unless otherwise agreed, the Client will furnish us with right-of-access to the site in order to conduct the planned exploration. We will take responsible precautions to minimize damage to the site due to our operations, but have not included in the fee the cost of restoration of any damage resulting from the operations. If the Client desires, we will restore any damage to the site and add the cost of restoration to the fee.

**EXHIBIT D**

**Subconsultant Proposal**

**ENTRIX, Inc.**

Draft

June 25, 2010

Mr. Joel E. Christell, P.E.  
Project Manager  
Civiltech Engineering, Inc.  
450 East Devon Ave., Suite 300  
Itasca, IL 60143

**Re: Proposal to Provide Phase I Wetland Science Services  
Washington Street Bikepath, Atkinson Road to Lancer Lane  
Grayslake, Lake County, Illinois**

Dear Mr. Christell:

ENTRIX, Inc. (ENTRIX) is pleased to present Civiltech Engineering, Inc. (Civiltech) with this proposal to conduct Phase I wetland science services for the Washington Street Bikepath, Atkinson Road to Lancer Lane project (Washington Street Bikepath Project) located in Grayslake, Lake County, Illinois. The wetland related services presented herein coincide with Phase I transportation engineering related services and include the preparation of a Wetland Delineation Report, preliminary threatened and endangered (T&E) species consultation with the Illinois Department of Natural Resources (IDNR) and the U.S. Fish and Wildlife Service (USFWS), and submittal of the Illinois Department of Transportation (IDOT) Wetland Impact Evaluation (WIE) form to IDOT. ENTRIX's understanding and proposed services for the Washington Street Bikepath Project are presented under the following sections: project understanding, scope of work, project team, project schedule, and project costs.

**PROJECT UNDERSTANDING**

ENTRIX understands that Civiltech has been retained by the Lake County Division of Transportation (LCDOT) to provide Phase I transportation engineering services for the Washington Street Bikepath Project. This proposed bikepath project is described in the LCDOT Project Scoping Report and includes construction of a 10-foot wide, hot-mix asphalt path south of Washington Street from Atkinson Road to Lancer Lane. The total project length is approximately 3,300 feet. The Project Corridor includes all areas within the Washington Street roadway right-of-way (ROW) between Atkinson Road and Lancer Lane, as well as an additional 100 feet outside the ROW.

The services presented in this proposal are in accordance with the regulatory requirements promulgated by the November 18, 2008, edition of the Lake County Watershed Development Ordinance (LCWDO), the IDOT Phase I transportation wetland impact consultation process, and the U.S. Army Corps of Engineers' (USACE) Interim Regional Supplement to the Corps of

Engineers Wetland Delineation Manual: Midwest Region (Supplemental Wetland Manual) dated September 2008.

ENTRIX understands that Civiltech has requested the following wetland science services for the Washington Street Bikepath Project proposal to include:

- Task 1 - Wetland Delineation Report;
- Task 2 - Preliminary State and Federal Threatened and Endangered (T&E) Species Consultation; and
- Task 3 - IDOT Phase I Wetland Coordination.

In preparing this proposal, ENTRIX has made the following assumptions:

- 1) There are no Lake County Advanced Identification (ADID) wetlands or high-quality aquatic resources (HQAR) within, adjoining, or adjacent to the Project Corridor;
- 2) Wetland permit services, including permit submittals to the USACE and LCSMC have not been requested at this time and are not included in this scope of services;
- 3) Wetland, wetland buffer, and riparian environment mitigation design and/or monitoring are not included in this scope of work; and
- 4) Wetland mitigation banking coordination is not included in this scope of work.

## **SCOPE OF WORK**

### **Task 1 – Wetland Delineation Report**

As required by the LCWDO, ENTRIX will conduct a wetland investigation of the Project Corridor, which includes the additional 100 feet outside the ROW limits. This investigation will include the identification and delineation of on-site and adjacent wetlands, wetland buffer areas, riparian environment areas, and high quality aquatic resources. The scope of this task includes an off-site record/document review followed by an on-site investigation. Investigation activities include on-site testing for the presence of hydric soils, hydrophytic vegetation, and sufficient hydrology. A floristic quality assessment will be conducted for each identified wetland, as required by the LCWDO. All wetland investigation activities will follow the standards outlined in the Supplemental Wetland Manual and the LCWDO. ENTRIX's Lake County Certified Wetland Specialist will lead these field investigation activities.

When applicable, ENTRIX will flag Isolated Waters of Lake County and USACE jurisdictional wetland limits within the roadway ROW. ENTRIX will also estimate wetland boundaries within 100 feet of the roadway ROW, per LCWDO requirements. Both the surveyed wetland boundaries and the estimated wetland boundaries will be included in the final Wetland

Delineation Report. ENTRIX will coordinate with Civiltech and their surveyors to ensure that all wetland and soil pit flags are surveyed for use in the design process. ENTRIX requests that this wetland survey information be provided in AutoCAD format to ENTRIX for development of the wetland plan figure of the final Wetland Delineation Report. Four (4) copies of the Wetland Delineation Report and a .pdf format file will be forwarded to Civiltech for review and distribution.

### **Task 2 – Preliminary State and Federal T&E Species Consultation**

As required by the IDOT Phase I wetland coordination process, and for guidance in the bikepath design development, ENTRIX will submit an Ecological Compliance Assessment Tool (EcoCAT) request to the Illinois Department of Natural Resources (IDNR) for identification of state listed T&E species and Natural Areas within, adjoining, or adjacent to the Project Corridor. ENTRIX will also prepare the preliminary Section 7 consultation memorandum to the U.S. Fish and Wildlife Service for identification of federally listed T&E species within, adjoining, or adjacent to the site. These documents will be included in the WIE submittal to IDOT.

### **Task 3 – IDOT Phase I Wetland Coordination**

ENTRIX understands that the Washington Street Bikepath Project is an IDOT pass-through funded project. Therefore, the scope of services for this task is based on IDOT Wetland Procedures for Local Agencies. That document was created to comply with the Interagency Wetland Policy Act (IWPA) of 1989 and the Implementing Procedures for the Interagency Wetland Policy Act. ENTRIX will submit to IDOT the WIE forms for all proposed wetland impacts as determined by Civiltech. ENTRIX will coordinate with IDOT for concurrence with regard to the wetland delineation report and proposed wetland impacts.

## **PROJECT TEAM**

ENTRIX proposes to manage this project out of the Barrington, Illinois, office with personnel who have significant experience in wetland science and permitting. Mr. Barry Stuedemann, P.E., PWS, will serve as the Lake County Certified Wetland Specialist and Project Manager, and Ms. Sara Fischer will serve as the Staff Scientist. ENTRIX's Barrington office has several qualified personnel that will assist Mr. Stuedemann and Ms. Fischer in completing the proposed tasks outlined in this scope of work.

## **PROJECT SCHEDULE**

Work will commence on the services presented in this proposal immediately upon receipt of authorization to proceed from Civiltech. As required by the LCWDO, final floristic quality assessment and wetland delineation work, however, must be completed during the Lake County growing season, which is from May 15<sup>th</sup> to October 1<sup>st</sup>. The duration of ENTRIX's services is subject to the responses, concerns, and requests of Civiltech, the concerning agencies, and the assumptions outlined in the above scope of work.



## PROJECT COSTS

ENTRIX estimates the cost to complete the tasks outlined in this proposal to be the following maximum “not-to-exceed” fees:

Task 1 - Wetland Delineation Report:	\$9,940
Task 2 - Preliminary State and Federal T&E Species Consultation:	\$3,240
Task 3 - IDOT Phase I Wetland Coordination:	\$2,560
<b>Total:</b>	<b>\$15,740</b>

An itemization of these costs is presented in *Table 1, Cost Estimate for Consulting Services*. ENTRIX will not proceed without written authorization from Civiltech. ENTRIX will bill Civiltech on a time and material basis in accordance with the Client Agreement between ENTRIX and Civiltech dated February 18, 2008, and will not exceed the estimated costs presented in this proposal without written authorization from Civiltech.

To indicate your acceptance of this proposal, please sign the attached Task Order(s) and fax back to our office at (847) 381-6679 as our authorization to proceed. ENTRIX appreciates this opportunity to present wetland science services to Civiltech. If you have any questions, please do not hesitate to contact me at (847) 277-2850.

Sincerely,  
ENTRIX, Inc.



Baron H. Stuedemann, P.E., PWS  
Senior Consultant/Lake County CWS #029

cc: Mary L. Young, P.E., PTOE, Civiltech

**TABLE 1**  
**Cost Estimate of Consulting Services**

**WETLAND SCIENCE SERVICES**  
**WASHINGTON STREET BIKEPATH PROJECT, ATKINSON ROAD TO LANCER LANE**  
**Lake County Division of Transportation**

Prepared for Civiltech Engineering, Inc.  
 Prepared by ENTRIX, Inc.

June 25, 2010

WETLAND SCIENCE SERVICES WASHINGTON STREET BIKEPATH PROJECT TASK ITEM DESCRIPTION	PROJECT MANAGER <i>80.0</i>	STAFF SCIENTIST <i>\$100.</i>	PROJECT ASSISTANT <i>\$7</i>	TOTAL HOURS	TOTAL LABOR COSTS	TOTAL DIRECT COSTS*	"NOT-TO- EXCEED" COSTS
Task 1 - Wetland Delineation Report	28	40	8	76	\$9,640	\$300	\$9,940
Task 2 - Preliminary State and Federal T&E Species Consultation	8	16	2	26	\$3,190	\$50	\$3,240
Task 3 - IDOT Phase I Wetland Coordination	12	2	2	16	\$2,510	\$50	\$2,560
<b>TOTAL:</b>	<b>48</b>	<b>58</b>	<b>12</b>	<b>118</b>	<b>\$15,340</b>	<b>\$400</b>	<b>\$15,740</b>

\* Mileage = \$150; Deliveries = \$150; Copies = \$100

## TASK ORDER

Task Order No.: 1  
 Date: 06/25/10  
 ENTRIX Project No.: \_\_\_\_\_

Civiltech Engineering, Inc.  
 450 East Devon Avenue, Suite 300  
 Itasca, Illinois 60134

Attn: Mr. Joel E. Christell, P.E.

**Wetland Delineation Report**  
**Washington Street Bikepath, Atkinson Road to Lancer Lane**  
**Lake County Division of Transportation, Illinois**

This Task Order No. 1 is issued pursuant to our Agreement dated June 25, 2010 and unless otherwise specified herein, the performance of services hereunder and the payment therefore shall be subject to the terms and conditions of said Agreement. The services authorized hereunder are described below.

**DESCRIPTION OF SERVICES:** Wetland Delineation Report

**BILLING PROCEDURES:** Monthly

**ESTIMATED TOTAL COST:** \$9,940 (maximum not-to-exceed)

**ESTIMATE OF TIME SCHEDULE:** Starting Date: Upon Authorization  
 Completion Date: TBD

**CONSULTANT'S REPRESENTATIVE:** Mr. Baron H. Stuedemann, P.E., PWS

**CLIENT'S REPRESENTATIVE:** Mr. Joel E. Christell, P.E.

ACCEPTED:

**ENTRIX, Inc.**

**Civiltech Engineering, Inc.**

By: \_\_\_\_\_ By: \_\_\_\_\_  
 Title: \_\_\_\_\_ Title: \_\_\_\_\_  
 Date: \_\_\_\_\_ Date: \_\_\_\_\_

## TASK ORDER

Task Order No.: 2  
 Date: 06/25/10  
 ENTRIX Project No.: \_\_\_\_\_

Civiltech Engineering, Inc.  
 450 East Devon Avenue, Suite 300  
 Itasca, Illinois 60134

Attn: Mr. Joel E. Christell, P.E.

**Preliminary State and Federal T&E Species Consultation  
 Washington Street Bikepath, Atkinson Road to Lancer Lane  
 Lake County Division of Transportation, Illinois**

This Task Order No. 2 is issued pursuant to our Agreement dated June 25, 2010 and unless otherwise specified herein, the performance of services hereunder and the payment therefore shall be subject to the terms and conditions of said Agreement. The services authorized hereunder are described below.

<b>DESCRIPTION OF SERVICES:</b>	<u>Preliminary State and Federal T&amp;E Species Consultation</u>
<b>BILLING PROCEDURES:</b>	<u>Monthly</u>
<b>ESTIMATED TOTAL COST:</b>	<u>\$3,240 (maximum not-to-exceed)</u>
<b>ESTIMATE OF TIME SCHEDULE:</b>	Starting Date: <u>Upon Authorization</u> Completion Date: <u>TBD</u>
<b>CONSULTANT'S REPRESENTATIVE:</b>	<u>Mr. Baron H. Stuedemann, P.E., PWS</u>
<b>CLIENT'S REPRESENTATIVE:</b>	<u>Mr. Joel E. Christell, P.E.</u>

ACCEPTED:

**ENTRIX, Inc.**

**Civiltech Engineering, Inc.**

By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____

## TASK ORDER

Task Order No.: 3  
 Date: 06/25/10  
 ENTRIX Project No.: \_\_\_\_\_

Civiltech Engineering, Inc.  
 450 East Devon Avenue, Suite 300  
 Itasca, Illinois 60134

Attn: Mr. Joel E. Christell, P.E.

**IDOT Phase I Wetland Coordination**  
**Washington Street Bikepath, Atkinson Road to Lancer Lane**  
**Lake County Division of Transportation, Illinois**

This Task Order No. 3 is issued pursuant to our Agreement dated June 25, 2010 and unless otherwise specified herein, the performance of services hereunder and the payment therefore shall be subject to the terms and conditions of said Agreement. The services authorized hereunder are described below.

**DESCRIPTION OF SERVICES:** IDOT Phase I Wetland Coordination  
**BILLING PROCEDURES:** Monthly  
**ESTIMATED TOTAL COST:** \$2,560 (maximum not-to-exceed)  
**ESTIMATE OF TIME SCHEDULE:** Starting Date: Upon Authorization  
 Completion Date: TBD  
**CONSULTANT'S REPRESENTATIVE:** Mr. Baron H. Stuedemann, P.E., PWS  
**CLIENT'S REPRESENTATIVE:** Mr. Joel E. Christell, P.E.

ACCEPTED:

**ENTRIX, Inc.**

**Civiltech Engineering, Inc.**

By: \_\_\_\_\_ By: \_\_\_\_\_  
 Title: \_\_\_\_\_ Title: \_\_\_\_\_  
 Date: \_\_\_\_\_ Date: \_\_\_\_\_

**EXHIBIT E**

**Project Schedule**

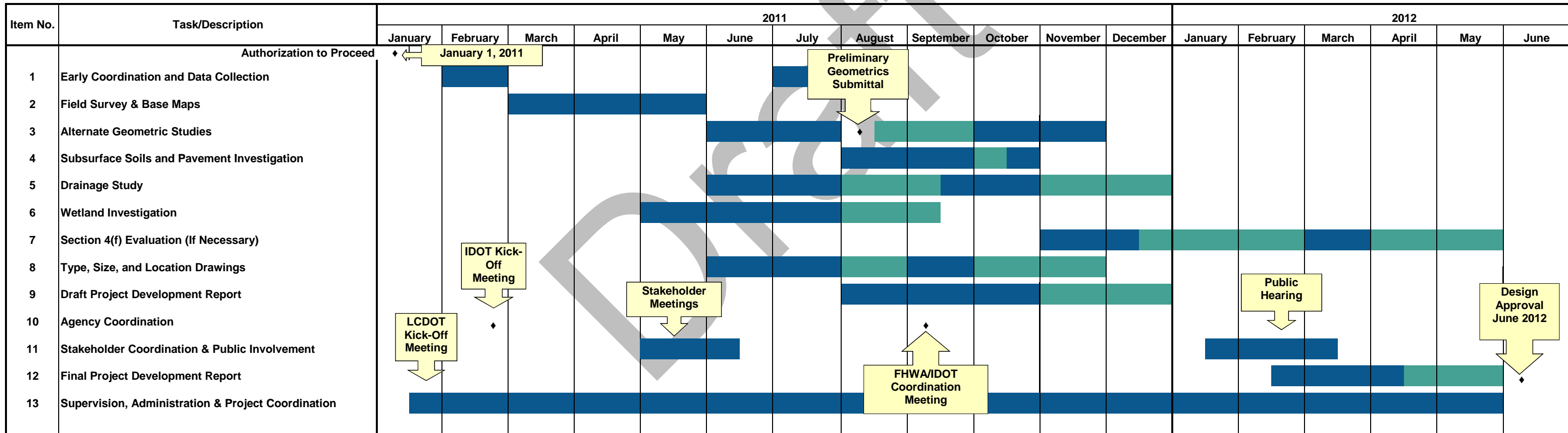
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Lake County Division of Transportation

**Washington Street Bike Path  
Atkinson Road to Lancer Lane  
Section No. 09-00135-11-BT**

**PROPOSED SCHEDULE TO COMPLETE**

Consultant: 



 Indicates Consultant Work Time Remaining  
 Indicates AGENCY(IES) Review Times