


Municipality	L O C A L A G E N C Y	 Illinois Department of Transportation	C O N S U L T A N T	Name Civiltech Engineering, Inc.
Township				Address 450 E Devon Avenue Suite 300
County Lake County – Division of Transportation		Preliminary Engineering Services Agreement For Motor Fuel Tax Funds		City Itasca
Section				State IL

THIS AGREEMENT is made and entered into this _____ day of _____, _____ between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. Motor Fuel Tax Funds, allotted to the LA by the State of Illinois under the general supervision of the State Department of Transportation, hereinafter called the "DEPARTMENT", will be used entirely or in part to finance ENGINEERING services as described under AGREEMENT PROVISIONS.

Section Description

Name Petite Lake Road Reconstruction

Route CH51 Length 0.42 Mi. 2200.00 FT (Structure No. n/a)

Termini IL Route 59 to Fairfield Road

Description:

Improvements include the reconstruction of Petite Lake Road from IL Route 59 east to Fairfield Road. The improvements will stop short of IDOT's planned IL Route 59 intersection modification project and its assoc

Agreement Provisions

The Engineer Agrees,

1. To perform or be responsible for the performance of the following engineering services for the LA, in connection with the proposed improvements herein before described, and checked below:
 - a. ☒ Make such detailed surveys as are necessary for the preparation of detailed roadway plans
 - b. ☐ Make stream and flood plain hydraulic surveys and gather high water data, and flood histories for the preparation of detailed bridge plans.
 - c. ☒ Make or cause to be made such soil surveys or subsurface investigations including borings and soil profiles and analyses thereof as may be required to furnish sufficient data for the design of the proposed improvement. Such investigations are to be made in accordance with the current requirements of the DEPARTMENT.
 - d. ☒ Make or cause to be made such traffic studies and counts and special intersection studies as may be required to furnish sufficient data for the design of the proposed improvement.
 - e. ☒ Prepare Army Corps of Engineers Permit, **Lake County Stormwater Management Commission Permit**, Department of Natural Resources-Office of Water Resources Permit, Bridge waterway sketch, and/or Channel Change sketch, Utility plan and locations, and Railroad Crossing work agreements.
 - f. ☐ Prepare Preliminary Bridge design and Hydraulic Report, (including economic analysis of bridge or culvert types) and high water effects on roadway overflows and bridge approaches.
 - g. ☒ Make complete general and detailed plans, special provisions, proposals and estimates of cost and furnish the LA with **one (1) copy of each document in both hardcopy and electronic format**. Additional copies of any or all documents, if required, shall be furnished to the LA by the ENGINEER at the ENGINEER's actual cost for reproduction.
 - h. ☒ Furnish the LA with survey and drafts in **duplicate** of all necessary right-of-way dedications, construction easement and borrow pit and channel change agreements including prints of the corresponding plats and staking as required.
 - i. ☒ Assist the LA in the tabulation and interpretation of the contractors' proposals.

- j. ☒ Prepare the necessary environmental documents in accordance with the procedures adopted by the DEPARTMENT's Bureau of Local Roads & Streets.
 - k. ☐ Prepare the Project Development Report when required by the DEPARTMENT.
 - l. ☒ **Services as included and/or defined in the attached Scope of Services.**
2. That all reports, plans, plats and special provisions to be furnished by the ENGINEER pursuant to the AGREEMENT, will be in accordance with current standard specifications and policies **of the LA and** of the DEPARTMENT. It is being understood that all such reports, plats, plans and drafts shall, before being finally accepted, be subject to approval by the LA and the DEPARTMENT.
 3. To attend conferences at any reasonable time when requested to do so by representatives of the LA or the Department.
 4. In the event plans or surveys are found to be in error during construction of the SECTION and revisions of the plans or survey corrections are necessary, the ENGINEER agrees that the ENGINEER will perform such work without expense to the LA, even though final payment has been received by the ENGINEER. The ENGINEER shall give immediate attention to these changes so there will be a minimum delay to the CONTRACTOR.
 5. That basic survey notes and sketches, charts, computations and other data prepared or obtained by the ENGINEER pursuant to this AGREEMENT will be made available, upon request, to the LA or the DEPARTMENT without cost and without restriction or limitations as to their use.
 6. That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will show the ENGINEER's professional seal where such is required by law.

The LA Agrees,

1. ~~To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT according to the following method indicated by a check mark:~~
 - a. ☐ A sum of money equal to _____ percent of the awarded contract cost of the proposed improvement as approved by the DEPARTMENT.
 - b. ☐ A sum of money equal to the percent of the awarded contract cost for the proposed improvement as approved by the DEPARTMENT based on the following schedule:

~~Schedule for Percentages Based on Awarded Contract Cost~~

Awarded Cost		Percentage Fees	
Under	\$50,000	_____	(see note)
		_____	%
		_____	%
		_____	%

~~Note: Not necessarily a percentage. Could use per diem, cost-plus or lump sum.~~

2. To pay for all services rendered in accordance with this AGREEMENT at the actual cost of performing such work plus _____ percent to cover profit, overhead and readiness to serve - "actual cost" being defined as material cost plus payrolls, insurance, social security and retirement deductions. Traveling and other out-of-pocket expenses will be reimbursed to the ENGINEER at the ENGINEER's actual cost. Subject to the approval of the LA, the ENGINEER may sublet all or part of the services provided in section 1 of the ENGINEER AGREES. If the ENGINEER sublets all or part of this work, the LA will pay the cost to the ENGINEER plus an additional service charge of up to five (5) percent.

"Cost to Engineer" to be verified by furnishing the LA and the DEPARTMENT copies of invoices from the party doing the work. The classifications of the employees used in the work should be consistent with the employee classifications for the services performed. If the personnel of the firm, including the Principal Engineer, perform routine services that should normally be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the work performed.

The Total Not-to-Exceed Contract Amount shall be \$312,726.00

3. That payments due the ENGINEER for services rendered in accordance with this AGREEMENT will be made as soon as practicable after the services have been performed in accordance with the following schedule:
 - a. Upon completion of detailed plans, special provisions, proposals and estimate of cost - being the work required by section 1 of the ENGINEER AGREES - to the satisfaction of the LA and their approval by the DEPARTMENT, 90 percent of the total fee due under this AGREEMENT based on the approved estimate of cost.
 - b. Upon award of the contract for the improvement by the LA and its approval by the DEPARTMENT, 100 percent of the total fee due under the AGREEMENT based on the awarded contract cost, less any amounts paid under "a" above.

By Mutual agreement, partial payments, ~~not to exceed 90 percent of the amount earned~~, may be made from time to time as the work progresses.

4. That, should the improvement be abandoned at any time after the ENGINEER has performed any part of the services provided for in sections 1 and 3 of the ENGINEER AGREES and prior to the completion of such services, the LA shall reimburse the ENGINEER for the ENGINEER's actual costs plus 191 percent incurred up to the time the ENGINEER is notified in writing of such abandonment -"actual cost" being defined as in paragraph 2 of the LA AGREES.
5. That, should the LA require changes in any of the detailed plans, specifications or estimates except for those required pursuant to paragraph 4 of the ENGINEER AGREES, after they have been approved by the DEPARTMENT, the LA will pay the ENGINEER for such changes on the basis of actual cost plus 191 percent to cover profit, overhead and readiness to serve -"actual cost" being defined as in paragraph 2 of the LA AGREES. It is understood that "changes" as used in this paragraph shall in no way relieve the ENGINEER of the ENGINEER's responsibility to prepare a complete and adequate set of plans and specifications.

It is Mutually Agreed,

1. That any difference between the ENGINEER and the LA concerning their interpretation of the provisions of this Agreement shall be referred to a committee of disinterested parties consisting of one member appointed by the ENGINEER, one member appointed by the LA and a third member appointed by the two other members for disposition and that the committee's decision shall be final.
2. 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 surveys, permits, agreements, preliminary bridge design & hydraulic report, drawings, specifications, partial and completed estimates and data, if any from traffic studies and soil survey and subsurface investigations with the understanding that all such material becomes the property of the LA. The ENGINEER shall be paid for any services completed and any services partially completed in accordance with section 4 of the LA AGREES.
3. That if the contract for construction has not been awarded one year after the acceptance of the plans by the LA and their approval by the DEPARTMENT, the LA will pay the ENGINEER the balance of the engineering fee due to make 100 percent of the total fees due under this AGREEMENT, based on the estimate of cost as prepared by the ENGINEER and approved by the LA and the DEPARTMENT.
4. That the ENGINEER warrants that the ENGINEER has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this contract, and that the ENGINEER has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For Breach or violation of this warranty the LA shall have the right to annul this contract without liability.

IN WITNESS WHEREOF, the parties have caused the AGREEMENT to be executed in quintuplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

ATTEST: County of Lake of the
(Municipality/Township/County)
State of Illinois, acting by and through its
County Board
By _____
Lake County Clerk
(Seal)
By _____
Title Chairman of the County Board
RECOMMENDED FOR EXECUTION

Paula J. Trigg, P.E.
Director of Transportation/County Engineer
Lake County

Executed by the ENGINEER:

ATTEST: Civiltech Engineering, Inc.
Engineering Firm
450 E Devon Avenue, Suite 300
Street Address
Itasca, IL 60143
City, State
By _____
By _____
Title Assistant Secretary
Title Vice President

<p>Approved</p> <p>_____</p> <p>Date</p> <p>Department of Transportation</p> <p>_____</p> <p>Regional Engineer</p> <p>County Engineer</p> <p>On behalf of IDOT pursuant to Agreement of Understanding dated January 22, 2003</p>

Note: Five (5) Original Executed Contracts – (2) LCDOT; (2) IDOT District 1, Local Roads; (1) Consultant

**PROFESSIONAL DESIGN ENGINEERING SERVICES PROPOSAL
PHASE II ENGINEERING**

**Petite Lake Road Reconstruction
IL Route 59 to Fairfield Road**

**Lake County Division of Transportation
September 7, 2012**

I. PROJECT UNDERSTANDING AND APPROACH

All work will be performed in accordance with the applicable parts of the Lake County Division of Transportation (LCDOT) standards and guidelines, the Illinois Department of Transportation Bureau of Local Roads and Streets (BLRS) Manual, and any applicable portions of the Bureau of Design and Environment (BDE) Manual. In addition, all permitting will follow the requirements set forth by the Lake County Stormwater Management Commission (LCSMC), Illinois Environmental Protection Agency (IEPA), and the United States Army Corps of Engineers (USACE).

Although a formal Phase I Engineering Study is not required for this project, several Phase I elements are still necessary for a Permit project. These include traffic and safety analyses as well as some environmental studies.

This project involves the reconstruction of Petite Lake Road from IL Route 59 on its current alignment east to the recently constructed Fairfield Road intersection. The new roadway section is anticipated to be 2 lanes, preferably with shoulders and an open drainage system. Should right-of-way limit the ability to design an open roadway section, then curb and gutter will be used instead. The project will also include the construction of a bike path within the right-of-way corridor in accordance with the long term plan for the connecting IDOT, Lake Villa, and Lake County Forest Preserve District Trails. Right-of-way is expected to be required from eight parcels. This project is anticipated to be constructed wholly with local funding, and we do not anticipate any work within the IL Route 59 right-of-way which would require a permit from IDOT.

Since Petite Lake Road is being reconstructed with only a bike path within the corridor we do not anticipate any storm water management or detention requirements through LCSMC. However, there is a 36-inch reinforced concrete pipe culvert which may need to be extended. It is our assumption that should the roadway culvert require an extension, it would include only a standard concrete end section and the supporting culvert hydraulic / hydrologic models without a full location drainage study.

The County desires the implementation of a reconstructed Petite Lake Road to conform to IDOT's anticipated corridor improvements along IL Route 59. Specifically, the horizontal and vertical geometrics associated with the new traffic signal installation at the intersection of IL Route 59 and Petite Lake Road include the reconstruction of approach channelization along Petite Lake Road (approx. 800ft) to satisfy IDOT standards for Intersection Sight Distance (ISD) and Stopping Sight Distance (SSD). It is anticipated that the Petite Lake Road Reconstruction limits will match and be coordinated through the Lake County Div. of Transportation and the Illinois Department of Transportation.

II. SCOPE OF SERVICES PHASE II ENGINEERING

1. Data Collection and Early Coordination

A. Obtain and Review Record Data - The Phase II Engineers will review in detail any design work completed to date by the Illinois Department of Transportation to ensure that the design of the proposed improvements are not in conflict. We will also review any commitments made by the LCDOT through their initial coordination efforts with IDOT, Lake Villa Township, and the Lake County Forest Preserve District to ensure that they are followed through during our Phase II design engineering. We will obtain and review available County data including, but not limited to, traffic data, subdivision plans and plats, existing/proposed record drawings, drainage permits and reports, geotechnical reports, right-of-way data, aerial photography and contour mapping, or other existing studies, plans, and utility atlases.

B. Initial Meeting with County and LCSMC - We will hold a joint meeting with LCDOT and LCSMC to discuss the proposed improvements and any anticipated wetland or storm water issues associated with the project and our design approach. We will confirm permitting requirements and outline our proposed submittal schedule.

C. Preliminary Utility Company Coordination - We will send letters to the utility companies within the project limits requesting copies of their utility atlases. The information collected will be incorporated into the project base drawing, and used for further coordination as outlined at the pre-final P, S & E stage.

D. Topographic Survey – This item includes obtaining full design topographic survey information along the proposed Petite Lake Road corridor. We will coordinate through IDOT and their consultant (Globetrotters Engineering) to obtain existing survey for the IL Route 59 corridor and Petite Lake Road limits as required to complete the anticipated intersection improvements. The IDOT survey data collected will then be correlated to provide a single and complete base topographic drawing. Jorgensen and Associates will complete this task as a subconsultant to Civiltech. A copy of their proposal is included in Exhibit B.

E. Geotechnical Studies – We propose to use Midland Standard Engineering & Testing, Inc. as a subconsultant to perform the pavement coring and highway soils survey for this project. This item will include an initial meeting with the County to discuss locations of the proposed pavement cores and borings. We have included manhours for coordination between Civiltech and Midland and to attend the meeting with the County. A copy of Midland's proposal is included in Exhibit C.

F. Environmental Documentation and Coordination – Potential wetlands have been identified within the project corridor and therefore, a wetland delineation report will need to be submitted as part of the environmental review process. This work will be performed by Cardno Entrix as a subconsultant while Civiltech assists them with the completion of exhibits associated with their wetland delineation report. A copy of their proposal is included in Exhibit D.

It is not anticipated that a Preliminary Environmental Site Assessment will be required, nor that a drain tile survey will be required as any drain tiles present based on the County's experience will be maintained or connected to the proposed drainage system.

G. Field Review of Survey – This item includes a review of the topographic survey and performing a “plan-in-hand” field check of the project site to verify the completeness and accuracy of the survey. We will also photo document the site and prepare a detailed inventory of existing signage and any other topographic features which may impact or be impacted by the proposed design. At this time we will also establish as accurately as possible, the locations of existing private utilities in the field using a combination of the atlases obtained during our Preliminary Utility Company Coordination and visual observation in the field.

H. IDOT Project Kick-off Meeting - Once we have had the initial meeting with the County and a project schedule has been set, we will conduct a joint meeting with the Illinois Department of Transportation to discuss the project, further define IDOT’s IL Route 59 project schedule, and to gain everyone’s acceptance of the project schedule and commitments.

2. Preliminary Engineering

A. Plan Base Sheet Preparation- We will plot existing topographic aerial/survey information and develop plan base sheets at a scale of 1" = 20' and 1"=50' for use in the development of contract plans. Any updated existing utility information that has been obtained during the data collection phase and survey phase will also be plotted on the base sheets.

B. Review and Confirm Project Right-of-Way Requirements - We will review the proposed roadway alignment and horizontal and vertical geometrics with respect to the existing right-of-way. Additionally, the preliminary cross sections and drainage requirements will be analyzed in detail by the Phase II design team in order to confirm the proposed right-of-way required. This work will be performed early in the design phase so that the right-of-way acquisition process can begin as soon as possible to ensure that the project remains on schedule.

C. Pavement Design - We will complete a pavement design for Petite Lake Road. This work will be in accordance with the geotechnical report, County requirements, and the IDOT BLRS Manual.

D. Alternative Geometric Studies – We will develop preliminary geometrics along the proposed corridor. Our initial goal will be to design the Petite Lake Road with shoulders and an open drainage system. Cross sections will be developed and reviewed to determine the feasibility of an open section with a bike path on one side within the available right-of-way. A closed section with curb & gutter will also be developed should the open section become problematic.

E. Drainage Design – All drainage calculations will be completed in accordance with the Lake County Stormwater Management Commission’s requirements. We will complete the design of roadway ditches, culvert crossings, storm sewer, inlet spacing and detention. No floodplain impacts are anticipated nor do we anticipate any detention requirements to be warranted, but there is a 36-inch reinforced concrete pipe culvert which may need to be extended.

F. Maintenance of Traffic Concept - We envision the construction staging and maintenance of traffic as a critical component to be addressed and resolved as part of the preliminary engineering. Construction staging, maintenance of traffic concepts and detour routes will be agreed to prior to the pre-final plan development. We will prepare a maintenance of traffic and construction staging concept design and memorandum for review and approval by the County.

G. Preliminary Plans (65%) - We will prepare preliminary plans containing the following

drawings:

- Cover Sheet and Index of Sheets (1 sheet)
- General Notes (2 sheets)
- Existing Typical Sections (1 sheet)
- Proposed Typical Sections (1 sheet)
- Erosion Control and Landscaping (1"=50") - 2 stages (2 sheets – dual pane)
- Maintenance of Traffic Plans - 2 stages w/ seq. , sections, and detour (4 sheets)
- Roadway Plan and Profile (1"=20') (4 sheets)
- Drainage and Utilities (1"=20') (4 sheets)
- Pavement Markings and Signing Plan (1"=50') (1 sheet – dual pane)
- Cross Sections (1"=10'H: 1"=5'V) (18 sheets)
- Project Specific Construction Details (2 sheets)
- LCDOT and IDOT Standard Construction Details (25 sheets)

The Preliminary Plan preparation and submittal will serve as a progress submittal for review by the County staff, in an effort to identify and address any significant design issues prior to completing pre-final plans. We will communicate with the County throughout the design process to resolve any current design issues.

In an effort to alert the various utility companies of possible conflicts and to advise them of the overall project schedule, we will submit a utility plan set for their review. It is our intention that this submittal will allow the utility companies to review the plans to determine where additional information is needed concerning the location of their facilities. Utility plan submittals will be coordinated with Lake County's Utility Coordinator for their records.

H. Preliminary Design Review Meeting - We will coordinate a meeting in order to discuss the status of the project with the County. The meeting will be scheduled such that all parties will have had an opportunity to review the preliminary plans and provide comments.

I. Preliminary Soils Design Review Meeting - We will coordinate a meeting to discuss the project's soil report and strategies with the County. We will be prepared to discuss subsurface soils conditions, geotechnical conclusions, recommendations for the foundation methods, pavement design, and the presence of unsuitable soils and their remediation.

J. Aesthetic Features Coordination Meeting and Conceptual Design - We will coordinate a meeting to discuss the proposed aesthetic features for mitigating potential tree removal or associated with potential plantings, landscaping, retaining walls, or headwalls with the County.

- 3. Right-of-Way Documents and Coordination** - There are eight parcels with potential right-of-way takes and temporary easements within the project limits. Appraisals, review appraisals, and negotiations will be required for all parcels.

A. Subconsultant Coordination - The preparation of the Plat of Highways and Legal Descriptions will be performed by Jorgensen & Associates, Inc. in accordance with the IDOT Plats of Highway Checklist (a copy of their proposal is included in Attachment A). We will provide Jorgensen & Associates electronic copies of the proposed alignment and right-of-way for use in preparing the Plat of Highways and tying down the centerline alignment. Civiltech will provide the necessary valuation services. We propose to use T Engineering Services Ltd. for our review appraisals, and to use Santacruz Associates Ltd. as the negotiator for the land acquisition (a copy of their

proposals are included in Exhibit E and Exhibit F). All such services shall be performed in accordance with the policies of the County, and where applicable, the Illinois Department of Transportation Land Acquisition Policies and Procedures Manual and the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act.

This item includes work involved with coordination between the Phase II design team and the appraisers and negotiators. This work typically includes providing the appraisers and negotiators with exhibits for use during meetings with the property owner, and providing information regarding the design and potential modifications to the same.

B. Right-of-Way Coordination Meeting – If necessary, we will arrange and attend two meetings with the County to discuss the proposed right-of-way acquisition.

4. Pre-Final (90%) Plans, Special Provisions and Estimates

A. Pre-Final Plans - The development of Pre-Final Contract Plans and documents will proceed throughout the County's review of the Preliminary Plan Submittal. We will prepare pre-final contract plans based on comments received on the preliminary plans and in accordance with the applicable sections of the BLRS manual, any applicable sections of the BDE manual, and applicable IDOT Standards and in accordance with current County standards and practices. We anticipate that the contract plans will contain the following drawings:

- Cover Sheet and Index of Sheets (1 sheet)
- General Notes (2 sheets)
- Summary of Quantities (2 sheets)
- Schedule of Quantities (12 sheets)
- Typical Sections - Existing (1 sheet)
- Typical Sections - Proposed (1 sheet)
- Plat of Highways – by Jorgensen & Associates (8 sheets)
- Erosion Control and Landscaping (1"=50") - 2 stages (2 sheets – dual pane)
- Maintenance of Traffic Plans - 2 stages w/ seq. , sections, and detour (4 sheets)
- Plan and Profile (1"=20') (4 sheets)
- Drainage and Utilities (1"=20') (4 sheets)
- Pavement Markings and Signing Plan (1"=50") (1 sheet – dual pane)
- Cross Sections (1"=10'H: 1"=5'V) (18 sheets)
- Project Specific Construction Details (2 sheets)
- LCDOT and IDOT Standard Construction Details (25 sheets)

We estimate that the contract plans will contain a total of **87** sheets.

The cross sections will be prepared at 50-foot intervals and will include full sections at intersections of streets, high and low points along the roadway profile, beginning of project, and end of project limits. Half width cross sections will be prepared at driveways and access points. This work will be in accordance with Lake County Division of Transportation Plan Preparation Guidelines.

The pre-final contract documents will be submitted to the County and to IDOT for their coordination with planned improvements along IL Route 59. We will also submit the contract plans to the various utility companies. This submittal will sufficiently define the conflicts so that the utility companies can, at a minimum, perform the necessary engineering for any required

utility relocations. This allows relocations to be performed in advance of the actual construction. Civiltech will perform the necessary coordination with the utility companies and follow up as needed on each of our submittals. This will attempt to ensure that no utility company is ignoring the project. Depending on the complexity of the utility involvement it may be necessary to conduct periodic coordination meetings. Utility plan submittals will be coordinated with Lake County's Utility Coordinator.

B. Pre-Final Special Provisions - We will prepare special provisions that supplement or amend the special provisions contained in the latest edition of the Standard Specifications for Road and Bridge Construction adopted by the Illinois Department of Transportation and the latest edition of the Standard Specifications for Sewer and Watermain Construction in Illinois. Applicable County special provisions will be utilized to supplement the Standard Specifications. In addition, we will include the latest IDOT Recurring Special Provisions Check Sheet. The most recent set of IDOT's Bureau of Design and Environment Special Provisions and District 1 Special Provisions will be reviewed and included in the special provisions where applicable.

C. Pre-Final Quantity Calculations - We will perform detailed quantity calculations at the pre-final stage of the plan development. Two sets of calculations will be performed by separate engineers in order to ensure the accuracy of the calculations.

D. Pre-Final Estimate of Cost and Construction Time - We will use the quantities of work in order to calculate an Engineer's Estimate of Cost and Time. Estimates will be based on recent bid tab information for projects of similar scope and magnitude.

E. Pre-Final QA/QC Review - Prior to submission of the pre-final plans for review, we will perform an internal Quality Assurance / Quality Control review of the work completed. The review will be performed by a professional engineer independent of the design team. The review will consider constructability issues as well as identification of missing pay items, quantities of work, and special provisions required. The design team will also perform a "plan-in-hand" field check to confirm the existing conditions and design.

F. Pre-Final Project Review Meeting with LCDOT - A project review meeting will be held with the County to address design issues and plan comments generated from the pre-final contract document review.

G. Pre-Final Project Review Meeting with IDOT - A project review meeting will be held with the County and IDOT to address design issues and plan comments generated from the pre-final contract document review.

5. Final (100%) Plans, Special Provisions and Estimates

A. Final Plans - After completion of all agency reviews and resolution of any other agency or utility company concerns, the contract plans will be finalized. In order to assist the Resident Engineer (RE) we will furnish the County, as part of our deliverables, detailed information including all design, quantity calculations, and microstation files in LCDOT format. We will also prepare a technical memorandum to the RE highlighting any key issues, commitments, or special concerns that arose during the design stage of the project.

LCDOT will be responsible for letting the project. Therefore, we will provide LCDOT with pdf's of the plans and bid documents per the LCDOT Bid Package Format Submittal guidelines dated

9/24/09, as well as the number of full and reduced size copies that they request. We will also submit the contract plans to the various utility companies and to IDOT for final permit issuance.

B. Final Special Provisions - All comments received pertaining to the pre-final special provisions and bid documents will be addressed and a disposition will be included in the final bid documents. The status and schedule of all utility relocations, as of the date of the final plans, will be included in the bid documents.

C. Final Quantity Calculations - The quantities will be updated based on changes made to the plans after the pre-final stage.

D. Final Estimate of Cost and Construction Time - The estimates will be updated based on the revised quantities. Cost breakdowns for different funding sources will be provided to the County to assist in the completion of any joint agreements for construction.

E. Final QA/QC Review - Prior to the final submittal, a second QA/QC review of the plans and special provisions will be performed.

6. Project Administration, Coordination and Permits

A. Project Administration - This item includes project setup, monthly invoicing, preparation of status reports, and internal project team coordination meetings.

B. Project Submittals - As noted above, we will make the necessary document submittals, and follow through with each agency in regards to their review comments or arrange a review meeting to discuss plan changes necessary to resolve conflicts if possible. Specifically, IDOT for their coordination with planned improvements along IL Route 59.

C. Utility Company Coordination - As noted above, we will analyze the project for potential impacts to existing utilities. We will provide the utility companies with a list of areas of potential conflict so that additional information, such as horizontal locates or depth borings can be obtained where necessary to further define the extent of conflicts. We will first attempt to address utility conflicts through design modifications while considering the impact those changes will have on the overall improvement. It is anticipated that utility relocation work will be necessary to construct the proposed roadway improvements.

Based on the amount and complexity of the required utility relocation, it may be necessary to have periodic coordination meetings with the utility companies. We have included hours to meet four times with the utility companies. In addition, we will review the permit submittals from the utility companies to ensure that all of the conflicts have been resolved and that the plans are compatible with the proposed construction.

D. Lake County Stormwater Permitting and Documentation - This project will require a permit submittal to Lake County Stormwater Management Commission in compliance with the Countywide Stormwater and Floodplain Ordinance. We will prepare and submit the permit application along with the required back-up documentation.

If wetland impacts are unavoidable, mitigation will be required through the purchase of wetland credits. The scope of this work does not include the funding for the actual purchase within the selected wetland bank. The wetland portion of the permitting process will be performed by

Cardno ENTRIX (a copy of their proposal is included in Exhibit D).

E. NPDES Permitting and Documentation - The NPDES permit, along with a Stormwater Pollution Prevention Plan, will also be prepared for inclusion in the contract documents for final execution by the successful bidder. All erosion control design will be in accordance with the latest IEPA, IDOT, and County requirements.

F. Bidding Assistance - We will review any questions received from contractors during the bidding process and provide any necessary responses to clarify the documents.

G. Pre-Construction Meeting Attendance - We will attend the pre-construction meeting at LCDOT to answer any questions regarding the design and contract documents. We will also provide responses to any questions from contractors during the bidding process, if necessary.

III. FEE CALCULATION

In order to calculate our "not-to-exceed" fee for our projects, we estimate the number of manhours to complete the items outlined in the Scope of Services section of this proposal. These hours are used in conjunction with hourly rates of the personnel completing the tasks and our IDOT approved multiplier based on CPFF Method 1 (BLR 05610) to include overhead and profit. All sub-consultant expenses and direct costs are billed at cost without markup. Please reference the separate Phase II engineering fee calculations included herewith for further details on the development of the following "not-to-exceed" fees for the Phase II Professional Engineering Services fees:

Phase II Engineering (labor):	\$65,869
Phase II Engineering (overhead):	\$125,810
Phase II Engineering (direct costs):	<u>\$121,047</u>
	\$312,726

Petite Lake Road Reconstruction
Lake County Division of Transportation

COST ESTIMATE OF CONSULTANT SERVICES

	Personnel & Hours							Total Hours	% of Hours	Labor Cost	
	Director of Design Services	Project Manager	Project Engineer	Design Engineer II	Design Engineer I	Sr. Design Technician	QC/QA Engineer				
1 Data Collection and Early Coordination	\$63.00	\$45.25	\$35.50	\$28.50	\$18.00	\$28.50	\$63.00				
	5	19	21	15	3	4	0	67	3.4%	\$2,515.75	
2 Preliminary (65%) Engineering	30	91	156	186	84	212	0	759	38.2%	\$24,400.75	
3 Right-of-Way Documents and Coordination	6	16	14	6	6	6	0	54	2.7%	\$2,049.00	
4 Pre-Final (90%) Plans, Special Provisions and Estimates	32	90	175	211	79	187	8	782	38.3%	\$25,570.00	
5 Final (100%) Plans, Special Provisions and Estimates	8	18	30	26	20	16	6	124	6.2%	\$4,318.50	
6 Project Administration, Coordination and Permits	13	45	50	46	28	20	0	202	10.2%	\$7,015.25	
Total Cost										\$65,869	
Multiplier*	2.91									\$191,680	
Direct Costs and Sub Consultant Expense (See attached calculation)										\$121,047	
								Total Engineering Cost:	1988	100.0%	\$312,726

*Multiplier
1(Direct Labor)+OH + 0.145*(1+OH)
IDOT Approved OH Rate = 154.35%

Petite Lake Road Reconstruction
Lake County Division of Transportation
WORKHOUR ESTIMATE

Task No.	Task	Personnel & Hours							Total Hours	% of Hours
		Director of Design Services	Project Manager	Project Engineer	Design Engineer II	Design Engineer I	Sr. Design Technician	QC/QA Engineer		
1	Data Collection and Early Coordination									
	A. Obtain/Update and Review Record Data		2	2	2	2	2		10	14.9%
	B. Initial Meeting with County and LCSMC	3	3	4					10	14.9%
	C. Preliminary Utility Company Coordination		1	1	2				4	6.0%
	D. Topographic Survey		1	1	1		2		5	7.5%
	E. Geotechnical Studies		1	1	1	1			4	6.0%
	F. Environmental Documentation and Coordination		1	1	1				3	4.5%
	G. Field Review of Survey		8	8	8				24	35.8%
	H. IDOT Project Kick-off Meeting	2	2	3					7	10.4%
	Sub-total Item 1	5	19	21	15	3	4	0	67	100.0%
2	Preliminary (65%) Engineering									
	A. Plan Base Sheet Preparation		2	2	4	4	12		24	3.2%
	B. Review and Confirm Project Right-of-Way Requirements	2		6	8				16	2.1%
	C. Pavement Design		2	3	3				8	1.1%
	D. Alternate Geometric Studies	2	6	12	12		16		48	6.3%
	E. Drainage Design	4	12	24	32	24	16		112	14.8%
	F. Maintenance of Traffic Concept	2	4	6	6	2	4		24	3.2%
	G. Preliminary Plans									
	Cover Sheet and Index of Sheets (1 sheet)			1	1		4		6	0.8%
	General Notes (2 sheets)		2	4	4		4		14	1.8%
	Typical Sections - Existing (1 sheet)		2	4	6		4		16	2.1%
	Typical Sections - Proposed (1 sheet)		4	6	6		4		20	2.6%
	Erosion Control and Landscaping - 2 stages (2 sheets - dual pane)	2	4	8	10	8	16		48	6.3%
	Maintenance of Traffic Concept Plans - 2 stages w/ seq., sections, & detour (4 sheets)	2	6	12	16	8	12		56	7.4%
	Plan and Profile (4 sheets)	2	12	16	20	8	20		78	10.3%
	Drainage and Utilities (4 sheets)	3	16	20	28	8	24		99	13.0%
	Pavement Markings and Signing Plan (1 sheet - dual pane)		2	6	8	8	8		32	4.2%
	Cross Sections (18 sheets)		4	10	16	12	24		68	9.0%
	Project Specific Construction Details (2 sheets)	2	2	2	4	2	12		20	2.6%
	LODOT and IDOT Standard Construction Details (25 sheets)	3	3	4	2	2	24		32	4.2%
	Preliminary Design Review Meeting	3	3	4					10	1.3%
	Preliminary Soils Design Review Meeting	3	3	4					10	1.3%
	Aesthetic Features Coordination Meeting and Conceptual Design	3	3	4			8		18	2.4%
	Sub-total Item 2	30	91	156	186	84	212	0	759	100.0%
3	Right-of-Way Documents and Coordination									
	A. Subconsultant Coordination	2	12	8	6	6	6		40	74.1%
	B. Right-of-Way Coordination Meeting	4	4	6	6	6	6	0	14	25.9%
	Sub-total Item 3	6	16	14	6	6	6	0	54	100.0%

Petite Lake Road Reconstruction
Lake County Division of Transportation
WORKHOUR ESTIMATE

Task No.	Task	Personnel & Hours							Total Hours	% of Hours
		Director of Design Services	Project Manager	Project Engineer	Design Engineer II	Design Engineer I	Sr. Design Technician	QC/QA Engineer		
4	Pre-Final (90%) Plans, Special Provisions and Estimates									
	A. Pre-Final Plans									
	Cover Sheet and Index of Sheets (1 sheet)			1	1				2	0.3%
	General Notes (2 sheets)			1	1		1		3	0.4%
	Summary of Quantities (2 sheets)		2	6	6		4		18	2.3%
	Schedule of Quantities (12 sheets)		4	16	24	8	12		64	8.2%
	Typical Sections - Existing (1 sheet)		1	2	4		2		9	1.2%
	Typical Sections - Proposed (1 sheet)		1	4	8		4		17	2.2%
	Plat of Highways (8 sheets) - (coordination only)		1	1	1		6		9	1.2%
	Erosion Control and Landscaping - 2 stages (2 sheets - dual pane)	2	8	12	16		12		50	6.4%
	Maintenance of Traffic Plans - 2 stages w/ sed., sections, & detour (4 sheets)	2	12	24	32		32		102	13.0%
	Plan and Profile (4 sheets)	2	12	16	20	12	20		82	10.5%
	Drainage and Utilities (4 sheets)	3	16	20	28	12	24		103	13.2%
	Pavement Markings and Signing Plan (1 sheet - dual pane)		4	6	8	6	8		32	4.1%
	Cross Sections (18 sheets)	2	4	16	24	12	24		82	10.5%
	Project Specific Construction Details (2 sheets)		1	2	2	5	10		20	2.6%
	LCDOT and IDOT Standard Construction Details (25 sheets)		2	4	4	4	16		32	4.1%
	Pre-Final Special Provisions	4	8	16	12	4	4		44	5.6%
	C. Pre-Final Quantity Calculations	2	6	16	16	12	12		64	8.2%
	D. Pre-Final Estimate of Cost and Construction Time	1	2	4	4	2			13	1.7%
5	Final (100%) Plans, Special Provisions and Estimates									
	A. Final Plans	1	8	16	16	16	16		73	58.9%
	B. Final Special Provisions		6	8	4				18	14.5%
	C. Final Quantity Calculations	1	2	4	4	4			15	12.1%
	D. Final Estimate of Cost and Construction Time		2	2	2				6	4.8%
	E. Final QA/QC Review	6						6	12	9.7%
	Sub-total Item 5	8	18	30	26	20	16	6	124	100.0%
6	Project Administration, Coordination and Permits									
	A. Project Administration	4	12						16	7.9%
	B. Project Submittals	2	4	8	8	6	4		32	15.8%
	C. Utility Company Coordination		10	16	16	6			48	23.8%
	D. Lake County Stormwater Permitting and Documentation	2	6	12	12	12	16		60	29.7%
	E. NPDES Permitting and Documentation		4	8	8	4			24	11.9%
	F. Bidding Assistance	2	6	6	2				16	7.9%
	G. Pre-Construction Meeting Attendance	3	3						6	3.0%
	Sub-total Item 6	13	45	50	46	28	20	0	202	100.0%
Total Hours:		94	279	446	490	220	445	14	1988	
% of Hours:		4.7%	14.0%	22.4%	24.6%	11.1%	22.4%	0.7%	100.0%	

Petite Lake Road Reconstruction
Lake County Division of Transportation

DIRECT COSTS AND SUBCONSULTANT SERVICES

DIRECT COSTS		
ITEM 1 - Printing		
<i>Preliminary Plans</i>		
LCDOT 1 set X 65 sheets/set X \$0.60/sheet (Full size)		\$39.00
LCDOT 3 sets X 65 sheets/set X \$0.15/sheet (Half size)		\$29.25
<i>Pre-Final Plans</i>		
LCDOT 1 set X 87 sheets/set X \$0.60/sheet (Full size)		\$52.20
LCDOT 3 sets X 87 sheets/set X \$0.15/sheet (Half size)		\$39.15
IDOT 1 set X 87 sheets/set X \$0.15/sheet (Half size)		\$39.15
Utility Co's 12 sets X 87 sheets/set X \$0.60/sheet (Full size)		\$626.40
<i>Pre-Final Specification Books</i>		
LCDOT 3 books X \$25/book		\$75.00
<i>Final Plans</i>		
LCDOT 1 set X 87 sheets/set X \$0.60/sheet (Full size)		\$52.20
LCDOT 3 sets X 87 sheets/set X \$0.15/sheet (Half size)		\$39.15
IDOT 1 set X 87 sheets/set X \$0.15/sheet (Half size)		\$39.15
Utility Co's 12 sets X 87 sheets/set X \$0.60/sheet (Full size)		\$626.40
<i>Final Specification Books</i>		
LCDOT 3 book X \$25/book		\$75.00
	Total Item 1	\$1,732.05
ITEM 2 - Shipping		
25 overnight shipping items X \$25/each		
	Total Item 2	\$625.00
ITEM 3 - Vehicle Expense		
Mileage		
	Total Item 3	\$500.00
ITEM 4 - Topographic Survey		
Jorgensen and Associates		
	Total Item 4	\$11,100.63
ITEM 5 - Geotechnical Investigation		
Midland Standard Testing & Engineering		
	Total Item 5	\$7,700.00
ITEM 6 - Wetland Permitting		
Cardno ENTRIX		
Wetland Delineation Report		\$9,970.00
USACE and LCSMC Permit Submittal		\$5,845.00
USACE and LCSMC Permit Submittal Re-Submittal		\$3,980.00
	Total Item 6	\$19,795.00
ITEM 7 - Right-of-Way Negotiations and Appraisals		
<i>ROW Documents (Jorgensen Associates)</i>		
8 Fee Simple and Temporary Easements	\$	31,594.13
<i>Appraisals (Civiltech)</i>		
8 parcels X \$2,200/parcel	\$	17,600.00
<i>Review Appraisals (T Engineering LTD)</i>		
8 parcels X \$1,000/parcel	\$	8,000.00
<i>Negotiations (Santacruz Associates)</i>		
8 parcels X (\$2,300/parcel Negotiations + \$500/parcel Title Services)	\$	22,400.00
	Total Item 7	\$79,594.13
TOTAL DIRECT COSTS:		\$121,046.81



JORGENSEN & ASSOCIATES, INC.
CONSTRUCTION and LAND SURVEYORS

Est. 1990

August 31, 2012

Mr. Reid T. Magner, P.E.
Civiltech Engineering, Inc.
450 E. Devon Avenue
Suite 300
Itasca, Illinois 60143

Re: Petite Lake Road Survey Proposal

Dear Mr. Magner:

Enclosed, please find our proposal to prepare a statutory plat of highways with legal descriptions and 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 a 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:\Civiltech\Lake\Petite Lake Rd\LTR

Route: Petite Lake Road
Section: Illinois Route 59 to Fairfield Road
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.	40.00	42.00
Supervisor, Project Surveyor	38.00	40.00
Cadd Supervisor, Survey Party Chief, S.I.T., Survey Party Chief	21.50	27.50
Instrument Operator, Cadd Operator, assignable Clerical and Secretarial Labor	14.00	19.00

Route: Petite Lake Road
Section: @ Illinois Route 59 to Fairfield Road
County: Lake
Job No.:

Exhibit "B"

Payroll Burden & Fringe Costs

	<u>% of Direct Productive Payroll</u>
Federal Insurance Contributions Act _____	11.71%
State Unemployment Compensation _____	1.81%
Federal Unemployment Compensation _____	0.16%
Workmen's Compensation Insurance _____	1.88%
Paid Holidays, Vacation, Sick Leave, Personal Leave _____	12.20%
Bonus _____	5.05%
Pension _____	0.87%
Group Insurance _____	<u>36.25%</u>
Total Payroll Burden & Fringe Costs	69.93%

Route: Petite Lake Road
 Section: @ Illinois Route 59 to Fairfield Road
 County: Lake
 Job No.:

Exhibit "C"

Overhead and Indirect Costs

	<u>% of Direct Productive Payroll</u>
Business Insurance _____	4.70%
Depreciation _____	14.08%
Indirect wages and salaries _____	42.12%
Reproductive and printing costs _____	0.19%
Office Supplies _____	3.93%
Computer Costs _____	1.27%
Professional Fees _____	1.64%
Telephone _____	2.06%
Fees, license & dues _____	1.14%
Repairs and maintenance _____	0.50%
Business space rent _____	5.37%
Facilities - capital _____	0.88%
Travel - Meals _____	0.09%
Survey Supplies _____	3.02%
Automobile/travel expense _____	5.39%
Equipment Rental _____	1.00%
Miscellaneous Expense _____	0.70%
State Income Tax _____	0.50%
Postage _____	0.24%
Educational & Professional Registrations _____	0.96%
Total Overhead	89.78%

Route: Petite Lake Road
Section: Illinois Route 59 to Fairfield Road
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, S.I.T.
- D. Instrument Operator
- E. Cadd Supervisor

Classification Rates used for Calculation of Fee

A. Principal/Officer	\$ 42.00
B. Supervisor, P.L.S.	\$ 40.00
C. Survey Party Chief, S.I.T.	\$ 22.00
D. Instrument Operator	\$ 18.25
E. Cadd Supervisor	\$ 27.50

Route: Petite Lake Road
Section: Illinois Route 59 to Fairfield Road
County: Lake
Job No.:

Exhibit "D"

Average Hourly Rate Calculation

Sheet 2 of 2

Principal/Officer	2 hours @ \$42.00/hour	=	\$ 84.00
Supervisor, P.L.S.	9 hours @ \$40.00/hour	=	\$ 360.00
Survey Party Chief, S.I.T.	55 hours @ \$22.00/hour	=	\$ 1,210.00
Instrument Operator	55 hours @ \$18.25/hour	=	\$ 1,003.75
Cadd Supervisor	<u>40 hours @ \$27.50/hour</u>	=	<u>\$ 1,100.00</u>
	161 hours		\$ 3,757.75

$$\text{Average Hourly Rate} = \frac{\$3,757.75}{161} = \$23.34/\text{hour}$$

Route: Petite Lake Road
 Section: Illinois Route 59 to Fairfield Road
 Project: Lake
 County: Lake
 Job No.:

COST ESTIMATE OF CONSULTANT'S SERVICES

Consultant: Jorgensen & Associates, Inc.
 Date: August 31, 2012
 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	110	\$2,213.75	\$3,535.58	\$38.50	\$5,787.83	\$743.87	N/A	\$6,531.70	58.84%
2) Office - Compile Field Data	15	\$450.00	\$718.70	\$0.00	\$1,168.70	\$150.08	N/A	\$1,318.77	11.88%
3) Office - Create Existing Topography Base Sheets	29	\$860.00	\$1,373.51	\$0.00	\$2,233.51	\$286.81	N/A	\$2,520.32	22.70%
4) Office - Create T.I.N. & Contours	5	\$150.00	\$239.57	\$0.00	\$389.57	\$50.03	N/A	\$439.59	3.96%
5) Coordination Meetings	2	\$84.00	\$134.16	\$38.50	\$256.66	\$33.60	N/A	\$290.25	2.61%
TOTALS	161	\$3,757.75	\$6,001.50	\$77.00	\$9,836.25	\$1,264.37	\$0.00	\$11,100.63	100.00%

Route: Petite Lake Road
Section: Illinois Route 59 to Fairfield Road
County: Lake
Job No.:

**Manhour Breakdown
Topographic Survey Estimate**

Petite Lake Road $\pm 1,710' = \pm 0.324 \text{ mile}$

Total Length $\pm 1,710' = \pm 0.324 \text{ mile}$

1. Field – Topographic Survey

a. Establish horizontal & vertical control points
8 hours x 2 men = 16 MH

b. Locate existing topography
47 hours x 2 men = 94 MH

Sub-total Item #1 110 MH

2. Office - Compile Field Data

a. Compute control points
3 hours x 1 man = 3 MH

b. Edit & compile topographic survey
12 hours x 1 man = 12 MH

Sub-total Item #2 15 MH

3. Office - Create Existing Topography Base Sheets

a. Layout and drafting
24 hours x 1 man = 24 MH

b. Check topographic survey
5 hours x 1 man = 5 MH

Sub-total Item #3 29 MH

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

a. Compute contours

4 hours x 1 man =

4 MH

b. Check contours

1 hour x 1 man =

1 MH

Sub-total Item #4

5 MH

5. Coordination Meetings

1 meeting @ 2 hours =

2 MH

Total All Items

161 MH

Route: Petite Lake Road
Section: Illinois Route 59 to Fairfield road
County: Lake
Job No.:

Manhour Breakdown By Item

<u>Item</u>	<u>Classification</u>	<u>Manhours</u>
1. Field – Topography Survey	Survey Party Chief, S.I.T. Instrument Operator	55 55
2. Office - Compile Field Data	Supervisor, P.L.S. Cadd Supervisor	3 12
3. Office – Create Existing Topography Base Sheets	Supervisor, P.L.S. Cadd Supervisor	5 24
4. Office - Create T.I.N. and Contours	Supervisor, P.L.S. Cadd Supervisor	1 4
5. Coordination Meetings	Principal/Officer	2

Route: Petite Lake Road
Section: Illinois Route 59 to Fairfield Road
County: Lake
Job No.:

**Breakdown of
In House Direct Costs**

Item

1. Field - Topographic Survey

a. Trips to project site - 7 ea.
 $\pm 10 \text{ miles/trip} \times 7 \text{ trips} = \pm 70 \text{ miles}$
 $\pm 70 \text{ miles @ } \$0.55/\text{mile} =$ \$ 38.50

5. Coordination Meetings

a. Meetings at Civiltech's office - 1 ea.
 $\pm 70 \text{ miles/trip} \times 1 \text{ trip} = \pm 70 \text{ miles}$
 $\pm 70 \text{ miles @ } \$0.55/\text{mile} =$ \$ 38.50

Total All Items \$ 77.00

Route: Petite Lake Road
Section: @ Illinois Route 59 to Fairfield Road
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, S.I.T.
- D. Instrument Operator
- E. Cadd Supervisor
- F. Secretarial

Classification Rates used for Calculation of Fee

A. Principal/Officer	\$ 42.00
B. Supervisor, P.L.S.	\$ 40.00
C. Survey Party Chief, S.I.T.	\$ 22.00
D. Instrument Operator	\$ 18.25
E. Cadd Supervisor	\$ 27.50
F. Secretarial	\$ 17.00

Route: Petite Lake Road
Section: @ Illinois Route 59 to Fairfield Road
County: Lake
Job No.:

Exhibit "D"

Average Hourly Rate Calculation

Sheet 2 of 2

Principal/Officer	2 hours @ \$42.00/hour	=	\$ 84.00
Supervisor, P.L.S.	80 hours @ \$40.00/hour	=	\$ 3,200.00
Survey Party Chief, S.I.T.	103 hours @ \$22.00/hour	=	\$ 2,266.00
Instrument Operator	103 hours @ \$18.25/hour	=	\$ 1,879.75
Cadd Supervisor	83 hours @ \$27.50/hour	=	\$ 2,282.50
Secretarial	<u>4 hours @ \$17.00/hour</u>	=	<u>\$ 68.00</u>
	375 hours		\$ 9,780.25

Average Hourly Rate = $\frac{\$9,780.25}{375} = \$26.08/\text{hour}$

Route: Petite Lake Road		COST ESTIMATE OF CONSULTANT'S SERVICES								
Section: Illinois Route 59 to Fairfield Rd.		Consultant: Jorgensen & Associates, Inc.								
Project: Lake		Date: August 31, 2012								
County: Lake		No. of Parcels: 8								
Job No.:		Cost Plus Fixed Fee = 14.5% [(2.3 + R)DL + 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) Pre-Survey Phase	4	\$99.50	\$158.91	\$46.50	\$304.91	\$39.93	\$2,560.00	\$2,904.84	9.19%	
2) Survey Reconnaissance	14	\$281.75	\$449.98	\$0.00	\$731.73	\$93.96	N/A	\$825.70	2.61%	
3) Project Survey Plan	1	\$27.50	\$43.92	\$0.00	\$71.42	\$9.17	N/A	\$80.59	0.26%	
4) First Submittal Plat of Highways and Descriptions	64	\$1,885.00	\$3,010.53	\$30.00	\$4,925.53	\$633.00	N/A	\$5,558.53	17.59%	
5) Survey (Field)	192	\$3,864.00	\$6,171.19	\$99.00	\$10,134.19	\$1,303.00	N/A	\$11,437.19	36.20%	
6) Survey (Office)	52	\$1,955.00	\$3,122.33	\$0.00	\$5,077.33	\$651.99	N/A	\$5,729.32	18.13%	
7) Final Submittal Plat of Highways and Descriptions	19	\$553.50	\$883.99	\$111.00	\$1,548.49	\$200.69	N/A	\$1,749.18	5.54%	
8) Coordination Meetings	2	\$84.00	\$134.16	\$38.50	\$256.66	\$33.60	N/A	\$290.25	0.92%	
9) QC/QA	27	\$1,030.00	\$1,645.01	\$0.00	\$2,675.01	\$343.51	N/A	\$3,018.52	9.55%	
TOTALS		375	\$9,780.25	\$15,620.04	\$325.00	\$25,725.29	\$3,308.84	\$2,560.00	\$31,594.13	100.00%

Route: Petite Lake Road
Section: @ Illinois Route 59 to Fairfield Road
County: Lake
Job No.:

**Manhour Breakdown
Land Acquisition Estimate**

Length of Project

Petite Lake Road = $\pm 1,710' = \pm 0.324$ mile

Total Length = $\pm 1,710' = \pm 0.324$ mile

8 Parcels: 8 Fee Simple

1. Pre-Survey Phase
Research available records

a.	Title Co.)	3 MH
)	
b.	Recorder's Office)	
)	
c.	I.D.O.T.)	
)	
d.	Utilities)	
)	
e.	Private Surveyors)	
)	
f.	Land Owners)	<u>1 MH</u>

Sub-total Item # 1 4 MH

2. Reconnaissance Survey

7 hours x 2 men = 14 MH

3.	Project Survey Plan	$\pm 2,640'$ /sheet-1 sheet	
a.	Alignment info)	
)	
b.	Existing R.O.W. info)	
)	
c.	Land line data)	
d.	Subdivision data)	1.0 hr./sht. x 1 = <u>1 MH</u>
		Sub-total Item #3	1 MH
4.	First Submittal Plat of Highways & Descriptions		
a.	Ownership info)	
)	
b.	Total holding boundaries)	
)	
c.	Total holding area listing)	2 MH
)	
d.	Private survey info)	
)	
e.	Deed calculated closures)	
f.	Layout and drafting	$\pm 450'$ /sht. ± 4 sheets	
	48 hours x 1 man =		48 MH
	Total Holding sheets	4 hours/sheet x 1 =	4 MH
	Alignment & Tie sheets	2 hours/sheet x 1 =	2 MH
g.	Legal descriptions	8 descriptions	<u>8 MH</u>
		Sub-total Item #4	64 MH

5.	Survey (Field)	
a.	Monument center line alignments at 100 foot intervals Petite Lake Road - 1,710' - 4 hrs. x 2 men =	8 MH
b.	Reference center line alignments 2 hours x 2 men =	4 MH
c.	Measure existing R.O.W., property & section lines 60 hours x 2 men =	120 MH
d.	Appraisal topography 18 hours x 2 men =	36 MH
e.	Monument & reference proposed right of way 12 hours x 2 men =	<u>24 MH</u>
	Sub-total Item #5	192 MH
6.	Survey (Office)	
a.	Compute traverse 6 hours x 1 man =	6 MH
b.	Compute existing R.O.W., property & section lines 40 hours x 1 man =	40 MH
c.	Compile appraisal topography 4 hours x 1 man =	4 MH
d.	Compute center line alignment 1 hour x 1 man =	1 MH
e.	Compute proposed right of way 1 hour x 1 man =	<u>1 MH</u>
	Sub-total Item #6	52 MH

7.	Final Submittal Plat of Highways & Descriptions	
a.	Final drafting \pm 6 sheets 8 hours x 1 man =	8 MH
b.	Final descriptions 8 descriptions	2 MH
c.	Prepare & record Monument Records 2 Monument Records @ 3 hours each =	6 MH
d.	Assembly of final papers	<u>3 MH</u>
	Sub-total Item #7	19 MH
8.	Coordination Meetings	
	1 meeting @ 2 hours =	2 MH
9.	QC/QA	
a.	Check preliminary plats 6 sheets	19 MH
b.	Check preliminary legal descriptions 8 legal descriptions	3 MH
c.	Check final plats 6 sheets	4 MH
d.	Check final legal descriptions 8 legal descriptions	<u>1 MH</u>
	Total All Items	375 MH

Route: Petite Lake Road
 Section: @ Illinois Route 59 to Fairfield Road
 County: Lake
 Job No.:

Manhour Breakdown By Item

<u>Item</u>	<u>Classification</u>	<u>Manhours</u>
1) Pre-Survey	Cadd Supervisor	3
	Secretarial	1
2) Survey Reconnaissance	Survey Party Chief, S.I.T.	7
	Instrument Operator	7
3) Project Survey Plan	Cadd Supervisor	1
4) First Submittal Plat of Highways & Descriptions	Supervisor, P.L.S.	10
	Cadd Supervisor	54
5) Survey (Field)	Survey Party Chief, S.I.T.	96
	Instrument Operator	96
6) Survey (Office)	Supervisor, P.L.S.	42
	Cadd Supervisor	10
7) Final Submittal Plat of Highway & Descriptions	Supervisor, P.L.S.	5
	Cadd Supervisor	11
	Secretarial	3
8) Coordination Meetings	Principal/Officer	2
9) QC/QA	Surveyor, P.L.S.	23
	Cadd Supervisor	4

Route: Petite Lake Road
Section: @ Illinois Route 59 to Fairfield Road
County: Lake
Job No.:

**Breakdown of
In House Direct Costs**

Item

1. Pre-Survey Phase

a. Trip to Recorder's Office - 1 ea.
± 30 miles/trip x 1 trip = ± 30 miles
± 30 miles @ \$0.55/mile = \$ 16.50

b. Records from Recorder's Office \$ 30.00

Sub-total Item #1 \$ 46.50

4. First Submittal Plat of Highways & Descriptions

a. Plat of Highways Mylars
6 sheets @ \$5.00/sheet = \$ 30.00

5. Survey (Field)

a. Trips to project site - 12 ea.
± 15 miles/trip x 12 trips = ± 180 miles
± 180 miles @ \$0.55/mile = \$ 99.00

7. Final Submittal Plat of Highways & Descriptions

a. Record Monuments
2 Monument Records @ \$39 each = \$ 78.00

b. Deliver Final Papers to I.D.O.T.
± 60 miles/trip x 1 trip = ± 60 miles
± 60 miles @ \$0.55/mile = \$ 33.00

Sub-total Item #7 \$ 111.00

8. Coordination Meetings

a. Meetings at Civiltech's office – 1 ea.

± 70 miles/trip x 1 trip = ± 70 miles

± 70 miles @ \$0.55/mile =

\$ 38.50

Total All Items

\$ 325.00

Route: Petite Lake Road
Section: @ Illinois Route 59 to Fairfield Road
County: Lake
Job No.:

**Breakdown of
Services By Others**

Item

1. Pre-Survey Phase

a. Commitment for Title Insurance Letters	
8 Commitments @ \$320.00 each =	\$ 2,560.00



www.mset.com

MIDLAND STANDARD ENGINEERING & TESTING, INC.

558 Plate Drive, Unit 6 East Dundee, Illinois
(847) 844-1895 f(847) 844-3875

August 31, 2012

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

Re: Proposal for Roadway Soil Survey
Petite Lake Road
IL Route 59 to Fairfield Road
Lake County, Illinois

Dear Mr. Magner:

We are pleased to have the opportunity to submit the following proposal for the performance of a soil exploration on the referenced project.

Project Description and Scope of Work

The project from a geotechnical standpoint includes the following items;

Performance of a subgrade soil investigation and analysis for pavement widening on approximately 1800 lineal feet of Petite Lake Road. For these improvements, a total of six (6) roadway subgrade borings at 300-foot intervals to determine existing subgrade soil and three (3) pavement cores to determine the existing pavement sections, are planned.

Structure soil borings and foundation recommendations for the lengthening of a 36" diameter cross drainage culvert, on Petite Lake Road. For this improvement, two (2) structure soil boring to a depth of twenty-five (25) feet are planned.

Method of Performance - Field Work

The pavement subgrade and structure borings will involve drilling test holes that incorporate standard penetration tests and split-spoon sampling at 2-1/2 foot intervals. The borings will be performed in compliance with the current State of Illinois, Geotechnical Manual.

The pavement cores will be made with a 4-inch diameter core barrel/electric drill setup to sample all pavement components. A sample of the subgrade soil will be obtained with hand auguring equipment at each core location. The pavement section and subgrade soil information at the core location will be presented on a data sheet in tabular form.

In our proposal, we have assumed that the final locations and elevations will be determined by the design engineer or will be referenced to centerline stationing provided by the DE.

Method of Performance - Analysis and Report

The roadway profile borings will be presented on plan and profile drawings, with the base sheets provided by the DSE. The structure boring data will be given on typed boring logs. The pavement core data will be summarized in a table. The results of this field exploration and laboratory testing would be used in an analysis and formulation of our recommendations. Major subject areas for our analysis, recommendations and report would consist of stating the subsurface soil and ground water conditions, a tabulation of the existing pavement section, and a review of subgrade conditions with recommendations for treatment areas and foundation recommendations for the structure. A written report summarizing and presenting the data and recommendations will be prepared by a Registered Professional Engineer.

Timing

We will begin on work after notice to proceed. We plan on mobilizing and doing all the borings concurrently. The final report is expected to be complete within five to six weeks after notice to proceed.

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 \$ 7,700.00.

General

MSET is acquainted with the local subsurface conditions and has participated in the planning, development and execution of numerous highway soil explorations in this area. We are looking forward to working with you on this project.

Respectfully submitted,

MIDLAND STANDARD ENGINEERING & TESTING, INC.



William J. Wyzgala, P.E.

Project Engineer

WJW

Enclosure: Attachments 1.1, 1.2, and General Conditions

**ATTACHMENT 1.1
SCHEDULE OF SERVICES AND FEES**

PETITE LAKE ROAD, IL ROUTE 59 TO FAIRFIELD ROAD
LAKE COUNTY, ILLINOIS

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Cost</u>	<u>Extension</u>
<u>Field Services</u>			
Mobilization of Drilling equipment, traffic control and personnel, lump sum	1	\$450.00	\$450.00
Roadway profile borings with Split Spoon Sampling, per foot	60	\$18.00	\$1,080.00
Structure Soil Boring with Split Spoon Sampling, per foot	50	\$22.00	\$1,100.00
Pavement Core, each	3	\$160.00	\$480.00
Traffic Control, Signs, Flagmen, per day	1	\$660.00	\$660.00
Field Services Total:			\$3,770.00
<u>Laboratory Services</u>			
Moisture Content Determinations, ea	46	\$6.00	\$276.00
Atterberg Limit Determination, ea.	1	\$80.00	\$80.00
Hydrometer/Grain Size Analysis, ea.	1	\$90.00	\$90.00
Laboratory Services Total:			\$446.00
<u>Engineering Services for Soil Survey Including:</u>			
Layout Coordination w/Design Engineer			
Utility Clearance and Permits			
Engineering Supervision of Soil Borings			
Preparation of Soil Profile Drawings			
Analysis and Recommendations for Earthwork			
Structure Foundation Recommendations			
Report Preparation, Consultation			
Estimated Cost (@ Unit Rates Listed on Attachment 1.2)			\$3,484.00
TOTAL:			\$7,700.00

**ATTACHMENT 1.2
ENGINEERING SERVICES**

**PETITE LAKE ROAD, IL ROUTE 59 TO FAIRFIELD ROAD
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 classification of personnel:

	<u>Units</u>	<u>Rate/Hour</u>	<u>Extension</u>
Principal Engineer, per hr.	0.5	\$148.00	\$74.00
Project Engineer, per hr.	6	\$125.00	\$750.00
Staff Engineer, per hr.	12	\$100.00	\$1,200.00
Field Engineer, per hr.	12	\$95.00	\$1,140.00
Technician, per hr.	0	\$75.00	\$0.00
CAD Drafting, per hour	4	\$80.00	\$320.00
			<hr/> \$3,484.00

EFFECTIVE JANUARY, 2011

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 \$50,000, 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.

August 31, 2012

Cardno ENTRIX

Reid T. Magner, P.E.
Project Manager
Civiltech Engineering, Inc.
450 East Devon Avenue, Suite 300
Itasca, IL 60143

1000 Hart Road
Suite 130
Barrington, IL 60010
USA

Phone 847 277 2850
Toll-free 800 368 7511
Fax 847 381 6679
www.cardno.com

www.cardnoentrix.com

**Subject: Proposal to Provide Wetland Science Services
Petite Lake Road Reconstruction, IL Route 59 to Fairfield Road
Unincorporated Lake County, Illinois**

Dear Mr. Magner:

Cardno ENTRIX is pleased to present Civiltech Engineering, Inc. (Civiltech) with this proposal to provide environmental services for the Lake County Division of Transportation (LCDOT) Petite Lake Road Reconstruction, IL Route 59 to Fairfield Road project (Petite Lake Road Project) located in Unincorporated Lake County, Illinois. Services presented herein coincide with the Petite Lake Road Project transportation engineering related services proposed by Civiltech to LCDOT. Cardno ENTRIX presents this proposal in the following sections: project description, scope of work, project team, project schedule, project costs, and proposal acceptance.

PROJECT DESCRIPTION

Cardno ENTRIX understands that Civiltech is submitting a proposal to LCDOT to provide transportation engineering services for the reconstruction of Petite Lake Road from IL Route 59 to Fairfield Road. These proposed improvements include reconstruction of approximately 2,500 linear feet of roadway from IL Route 59 to Fairfield Road in Unincorporated Lake County. The project corridor was presented to Cardno ENTRIX by Civiltech on August 29, 2012, through e-mail correspondence with aerial attachments. The Project Corridor for the wetland science services presented in this proposal includes this project area, plus an additional 100 feet per Lake County Watershed Development Ordinance (LCWDO) requirements.

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

1. Cardno ENTRIX understands that the Petite Lake Road Project is not an Illinois Department of Transportation (IDOT) federally funded pass-through project. Therefore, the scope of services for this proposal does not include IDOT related coordination;
2. There are no cultivated lands within the Project Corridor, and therefore, no farmed wetland investigations are required or proposed;
3. There are no Lake County Advanced Identification (ADID) wetlands or high-quality aquatic resources (HQR) within, adjoining, or adjacent to the Project Corridor;

4. There are no additional environmental concerns within the Project Corridor that are not referenced in this proposal that would impede the U.S. Army Corps of Engineers (USACE) and Lake County Stormwater Management Commission (LCSMC) permit process, such as the presence of state and federal threatened and endangered (T&E) species, protected historical and cultural sites, and environmental due diligence;
5. Permitting will fall under the USACE Regional Permit Program (RPP). Individual Permit (IP) coordination services are not included in this scope of work. Should an IP be required, Cardno ENTRIX will contact Civiltech to discuss further permit requirements;
6. USACE and LCSMC required wetland mitigation will be coordinated through a wetland mitigation bank. Cardno ENTRIX also assumes that the appropriate wetland mitigation banks are available, and that Civiltech and LCDOT are responsible for all wetland banking mitigation fees; and
7. Wetland mitigation design, plan preparation, monitoring, and management are not included in this proposal.

SCOPE OF WORK

Cardno ENTRIX proposes to complete the requested wetland science services in two tasks, with a third optional task for permit resubmittals as needed. Cardno ENTRIX has based this proposal on the Petite Lake Road Project information provided by Civiltech on August 29, 2012.

Task 1 – Wetland Delineation Report

Cardno ENTRIX proposes to conduct a wetland delineation for areas within the Project Corridor in accordance with the requirements presented in the July 10, 2012, Lake County Watershed Development Ordinance (LCWDO) and the August 2010 USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region, Version 2.0 (Supplemental Manual). This proposed wetland delineation includes all areas within the Project Corridor and any additional areas within 100 feet of proposed roadway ROW, per requirements of the LCWDO. This additional investigation area ensures that all potential Lake County ADID wetlands and their 100 foot buffer areas are identified within the proposed roadway ROW of the Petite Lake Road Project.

Proposed wetland survey services include the identification and delineation of all on-site wetlands, documentation of all adjacent wetlands, determination and delineation of wetland buffer areas, and determination of high quality aquatic resources (HQR). The scope of this task includes an off-site record/document review followed by an on-site investigation. Field investigation activities include on-site testing for the presence of hydric soils, hydrophytic vegetation, and sufficient hydrology. A floristic quality assessment (FQA) will be conducted for each identified wetland, as required by the LCWDO. All wetland investigation activities will follow the standards outlined in the LCWDO and the Supplemental Manual. Cardno ENTRIX's Lake County Certified Wetland Specialist will lead all wetland field investigation activities.

Where appropriate, Cardno ENTRIX will flag USACE "waters of the U.S." (WOUS) and LCSMC Isolated Waters of Lake County (IWLC) jurisdictional wetland limits within the Project Corridor. Cardno ENTRIX will coordinate with Civiltech and their surveyors to ensure that all wetland and soil pit flags are surveyed. Cardno ENTRIX proposes that this wetland survey information be provided by Civiltech in AutoCAD format for inclusion in the Wetland Delineation Report.

As part of this task, Cardno 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. Cardno ENTRIX will also prepare the preliminary Section 7 consultation memorandum to the U.S. Fish and Wildlife Service (USFWS) for identification of federally listed T&E species within, adjoining, or adjacent to the Project Corridor.

Four copies of the final Wetland Delineation Report and a .pdf format file will be forwarded to Civiltech for review and distribution.

Task 2 – USACE and LCSMC Permit Submittal

As part of this task, Cardno ENTRIX will prepare and submit all applicable wetland related permit materials for the Petite Lake Road Project to the USACE, LCSMC, and Civiltech. Cardno ENTRIX understands these permits to specifically include the wetland provisions portion of the LCWDO Watershed Development Permit (WDP) submittal to LCSMC and the Joint Application submittal to USACE. Cardno ENTRIX will prepare the permit applications and will request information, signatures, and fees necessary for a complete initial submittal. Cardno ENTRIX also proposes to include as part of this task, a pre-application meeting with the USACE, LCSMC, and Civiltech. All permit submittals will be prepared and submitted by Cardno ENTRIX's Lake County Certified Wetland Specialist. Permitting fees have not been included in this proposal and are the responsibility of Civiltech and/or LCDOT. However, Cardno ENTRIX will discuss any appropriate fees with Civiltech prior to all permit submittals. Cardno ENTRIX will communicate with the USACE and LCSMC after the initial permit submittals until USACE and WDP comments or approvals are received, or for up to 120 days from the time of submittal.

Wetland mitigation banking coordination with the USACE, LCSMC, and an appropriate wetland banker is included in this task. However, wetland mitigation design, plan preparation, monitoring, and management are not included in this scope of work. Should the LCSMC require mitigation other than mitigation banking, Cardno ENTRIX will coordinate with Civiltech with regard to the mitigation requirements necessary to obtain the appropriate wetland mitigation related permits. All fees associated with obtaining wetland banking credits are not included in this scope of work and are the responsibility of Civiltech or LCDOT.

Task 3 – USACE and LCSMC Permit Re-submittal (Optional)

Cardno ENTRIX proposes as part of this task to include coordination with the USACE, LCSMC, and Civiltech with regard to wetland permit comments received from the USACE and LCSMC as a result of the initial permit submittal under Task 2. The services under this Task 3 include permit coordination and submittal for one subsequent re-submittal. Cardno ENTRIX will not proceed with subsequent wetland permit submittals unless authorized by Civiltech. Cardno ENTRIX will coordinate with the appropriate agencies, and prepare and submit the appropriate permit applications to the USACE and LCSMC as necessary. Re-submittal fees are the responsibility of the Civiltech or LCDOT.

PROJECT TEAM

Cardno ENTRIX proposes to manage this project out of the Barrington, Illinois office with personnel who have experience in conducting environmental and wetland science services in Lake County. Mr. Barry Stuedemann, P.E., PWS, will serve as Project Manager and Lake County Certified Wetland Specialist. Cardno ENTRIX has many qualified environmental professionals available to support Mr. Stuedemann in this effort, including Cardno JFNew staff.

PROJECT SCHEDULE

Cardno ENTRIX will proceed with the scope of work presented in this proposal immediately upon authorization from Civiltech. Cardno ENTRIX, however, will only proceed for the specific tasks authorized by Civiltech. Specific schedules for each task are unknown at this time and will be coordinated with Civiltech throughout the duration of the Petite Lake Road Project. Wetland field investigations, wetland field meetings with the USACE and LCSMC, and the final floristic quality assessment work must be completed during the Lake County growing season, from

May 15th to October 1st, as required by the LCWDO. The schedule to complete each task is influenced by the responses, concerns, and requests of Civiltech and the concerning agencies.

PROJECT COSTS

Cardno ENTRIX estimates the cost to complete tasks outlined in this proposal to be a maximum "not-to-exceed" fee of \$19,795. An itemization of these costs is presented in Table 1, Cost Estimate for Consulting Services.

A summary of these costs are as follows:

Task	Costs
Task 1 – Wetland Delineation Report	\$9,970
Task 2 – USACE and LCSMC Permit Submittal	\$5,845
Task 3 – USACE and LCSMC Permit Re-submittal	\$3,980
Total:	\$19,795

Cardno ENTRIX will not proceed with any task without written authorization from Civiltech. Cardno 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.

PROPOSAL ACCEPTANCE

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

Sincerely,



Baron H. Stuedemann, P.E., PWS
Senior Consultant / Wetlands Specialist
for Cardno ENTRIX
Direct Line: 847-277-2866
Email: baron.stuedemann@cardno.com

TABLE 1
Cost Estimate for Consulting Services
WETLAND SCIENCE SERVICES
PETITE LAKE ROAD RECONSTRUCTION PROJECT
IL Route 59 to Fairfield Road
Prepared for Civiltech Engineering, Inc.
Prepared by Cardno ENTRIX

August 31, 2012

PETITE LAKE ROAD PROJECT ENVIRONMENTAL SERVICES WORK ITEM DESCRIPTION	PROJECT MANAGER	PROJECT SCIENTIST	STAFF SCIENTIST	PROJECT COORD.	TOTAL HOURS	TOTAL LABOR COSTS	TOTAL DIRECT COSTS*	NOT-TO- EXCEED COSTS
Task 1 - Wetland Delineation Report	12	40	24	8	84	\$9,520	\$450	\$9,970
Task 2 - USACE and LCSMC Permit Submittal	12	16	8	6	42	\$5,570	\$275	\$5,845
Task 3 - USACE and LCSMC Permit Re-submittal	4	16	8	6	34	\$3,730	\$250	\$3,980
TOTAL:	28	72	40	20	160	\$18,820	\$975	\$19,795

* Mileage = \$400; Deliveries = \$300; Copies = \$275.



CONSULTANT TASK ORDER

Task Order No.: 1

Date: August 31, 2012

Cardno ENTRIX Project No.: _____

Civiltech Engineering, Inc.
450 East Devon Avenue, Suite 300
Itasca, IL 60143

Attn: Reid T. Magner, P.E.
Project Manager

Petite Lake Road Reconstruction, IL Route 59 to Fairfield Road

This Task Order No. 1 is issued pursuant to our Agreement dated August 31, 2012 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

TOTAL COST (NOT TO EXCEED): \$9,970 (Maximum Not-to-Exceed)

ESTIMATE OF TIME SCHEDULE: Starting Date: September 1, 2012

Completion Date: August 31, 2013

CARDNO ENTRIX'S REPRESENTATIVE: Baron H. Stuedemann, P.E., PWS

CONSULTANT'S REPRESENTATIVE: Reid T. Magner, P.E.

ACCEPTED:

Cardno ENTRIX

Civiltech Engineering, Inc.

By: _____ By: _____

Title: _____ Title: _____

Date: _____ Date: _____



CONSULTANT TASK ORDER

Task Order No.: 2

Date: August 31, 2012

Cardno ENTRIX Project No.: _____

Civiltech Engineering, Inc.
450 East Devon Avenue, Suite 300
Itasca, IL 60143

Attn: Reid T. Magner, P.E.
Project Manager

Petite Lake Road Reconstruction, IL Route 59 to Fairfield Road

This Task Order No. 2 is issued pursuant to our Agreement dated August 31, 2012 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: USACE and LCSMC Permit Submittal

BILLING PROCEDURES: Monthly

TOTAL COST (NOT TO EXCEED): \$5,845 (Maximum Not-to-Exceed)

ESTIMATE OF TIME SCHEDULE: Starting Date: September 1, 2012

Completion Date: August 31, 2013

CARDNO ENTRIX'S REPRESENTATIVE: Baron H. Stuedemann, P.E., PWS

CONSULTANT'S REPRESENTATIVE: Reid T. Magner, P.E.

ACCEPTED:

Cardno ENTRIX Civiltech Engineering, Inc.

By: _____ By: _____

Title: _____ Title: _____

Date: _____ Date: _____



CONSULTANT TASK ORDER

Task Order No.: 3

Date: August 31, 2012

Cardno ENTRIX Project No.: _____

Civiltech Engineering, Inc.
450 East Devon Avenue, Suite 300
Itasca, IL 60143

Attn: Reid T. Magner, P.E.
Project Manager

Petite Lake Road Reconstruction, IL Route 59 to Fairfield Road

This Task Order No. 3 is issued pursuant to our Agreement dated August 31, 2012 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: USACE and LCSMC Permit Re-submittal (optional)

BILLING PROCEDURES: Monthly

TOTAL COST (NOT TO EXCEED): \$3,980 (Maximum Not-to-Exceed)

ESTIMATE OF TIME SCHEDULE: Starting Date: September 1, 2012

Completion Date: August 31, 2013

CARDNO ENTRIX'S REPRESENTATIVE: Baron H. Stuedemann, P.E., PWS

CONSULTANT'S REPRESENTATIVE: Reid T. Magner, P.E.

ACCEPTED:

Cardno ENTRIX Civiltech Engineering, Inc.

By: _____ By: _____

Title: _____ Title: _____

Date: _____ Date: _____



"T" Engineering Services, Ltd.
real estate appraisers

August 29, 2012

Mr. Reid T. Magner, P.E.
Civiltech Engineering, Inc.
450 E. Devon Ave., Suite 300
Itasca, Illinois 60143

*Subject: Proposal for Review Appraisal Services
Petite Lake Road Reconstruction (IL Route 59 to
Fairfield Road)*

Dear Mr. Magner:

We have experience in working for governmental agencies and participation in eminent domain proceedings: appraisal reviews, depositions, court testimony etc.; and have the ability to work closely with attorneys. We have familiarity with the Petite Lake Road area, development patterns, and trends. Also we have the ability to work concurrently on numerous projects.

We propose to review appraisal reports on the subject project at \$1,000 per parcel (8 parcels total) with the client being Civiltech Engineering, Inc. The appraisal reviews will be completed within two weeks after receiving the subject appraisal reports.

Respectfully submitted,

Keith T. Tadrowski
President

PROPOSAL FOR LAND ACQUISITION SERVICES

Lake County Division of
Transportation
Civiltech Engineering



Petite Lake Road
IL 59 to Fairfield Road

Santacruz Associates

2650 Valor Drive
Glenview, IL 60026
847.251.5800

1

EXECUTIVE SUMMARY

Having extensive experience with right of way projects, we understand the importance of keeping on schedule. On-time lettings gives **LPA**, the Local Public Agency ("LPA") the best use of its resources and strengthens the efficiencies in the implementation of its roadway improvement program. To achieve your goals, it is critical that your land acquisition consultant understands the importance and addresses three critical issues in your acquisition of right of way:

- Deliver the right of way on-time to meet the letting
- Manage the acquisition risks, including the cost of condemnation litigation
- Compliance with the Uniform Relocation Assistance and Real Property Act of 1970, as amended (Uniform Act), IDOT land acquisition policies and procedures and FWA policies.

CRITICAL ISSUE 1: DELIVER THE RIGHT-OF-WAY ON-TIME TO MEET LETTING

Delivery of right of way on-time keeps the project on its letting schedule. We understand that nothing is more important to the LPA. We also know that keeping the land acquisition on-time and within budget is a measurement of success for the LPA. When a project does not meet its letting schedule, we know it can impact the budget for the LPA, causing scheduling conflicts with potential contractors and also affect other economic factors which govern the delivery of the overall roadway improvement program for the LPA.

Santacruz Associates is an industry leading right of way professional organization with years of experience working on land acquisition projects with the understanding of what needs to be done to complete an acquisition on time.

Santacruz Associates will work with the staff for the LPA and/or **Consultant**, Engineer for the LPA, ("Consultant") to develop a land acquisition plan for the **PROJECT** (the "Project") to assure that the goals are met. With years of right of way acquisition work, we have a large database of real estate representatives for corporate acquisitions to cut down the time spent in the initial steps of locating the real estate representative for each property.

These efficiencies lead to ways in which we minimize our time with an acquisition and translate to your project staying on schedule.

CRITICAL ISSUE 2: MANAGE THE ACQUISITION RISKS

Equally important as the scheduled letting is the acquisition budget for the Project. Cost overruns can jeopardize a project from moving forward. Because real estate costs can represent a significant portion of the budget for a transportation project, we will suggest ways to minimize impacts and reduce costs in challenging acquisitions. We will also work with the LPA to minimize the condemnation referrals that impact the budget for this Project. By the same token, we will quickly identify parcels in the very beginning of the process that have title issues that can only be resolved through condemnation.

Through experience, we know that a portion of the parcels will need to be acquired through condemnation. As such, your land acquisition consultant needs to have knowledge of the legal requirements necessary to position an agency for condemnation. We possess that knowledge and have experience providing "expert witness" testimony in these matters.

We are skilled right of way professionals with a vast background in real estate and civil engineering with respect to transportation projects which gives us the ability to recognize issues and resolve them before they create delays.

CRITICAL ISSUE 3: COMPLIANCE WITH GOVERNMENT REGULATIONS

All land acquisition services must be performed in accordance with the Uniform Relocation Assistance and Real Property Act of 1970, as amended (Uniform Act). In addition, we are familiar with IDOT's land acquisition guidelines, policies and procedures.

WHY SANTACRUZ ASSOCIATES?

As you review our proposal, you will see that Santacruz Associates has the versatility, experience and qualifications to deliver the land acquisition needs for your project. What sets us apart is:

- Years of successful on-time delivery of right of way land acquisition services to various other agencies
- Diverse set of real estate acquisition disciplines including backgrounds in law and civil engineering
- Title review experience, including familiarity with all types of recorded documents affecting real estate and knowledge on how to clear title
- Experience in reviewing plats and legal descriptions, as well as an ability to review and understand roadway construction plans
- Expertise with the Uniform Relocation Assistance and Real Property Act of 1970, as amended (Uniform Act), Illinois Eminent Domain Act (735 ILCS 30), IDOT Land Acquisition Guidelines.
- Familiarity with IDOT policies and procedures related to land acquisition and appraisals.

We provide extensive experience complying with federal and state laws and maximizing the team's knowledge of the land acquisition policies of IDOT.

ADDITIONAL COMPONENT OF OUR PROPOSAL: BEP UTILIZATION

Santacruz Associates is a BEP with Central Management Services, a DBE with IDOT and an MBE with Cook County and the City of Chicago.

SUMMARY

With a long history of successful delivery of a variety of right of way projects on-time, within budget and to our client's satisfaction, we look forward to the opportunity to assist the LPA with its land acquisition needs

COMPENSATION

Santacruz Associates shall be entitled to the compensation as shown on the attached schedule. Our cost proposal, based on **eight (8)** projected parcels of right-of-way, is as follows:

NEGOTIATIONS: **\$18,400.00.**

Santacruz Associates shall invoice the LPA or Consultant for any fees and charges related to the acquisitions including, without limitation, (i) the cost of the later date title commitments, (ii) the cost of title insurance policies obtained on the parcels to be acquired, (iii) the cost of recording any necessary documents to complete the conveyance and obtain clear title, (iv) lender's fees related to the processing of any partial releases needed to provide clear title, and (v) land trustee processing fees. Santacruz Associates shall include **\$500.00** per parcel for these charges. Santacruz Associates shall pay any such fees and charges in excess of the **\$500.00** per parcel allowance for which Santacruz Associates shall be entitled to additional compensation in the amount of any such payments pursuant to a separate work order issued.

Based on the projected total number of parcels of right-of-way to be acquired for the Project, the land acquisition negotiation services provided herein are offered a cost not to exceed of **\$22,400.00** as follows:

Land Acquisition Services	\$18,400.00
Direct Billable Expenses	\$4,000.00

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TECHNICAL APPROACH

Santacruz Associates shall perform all necessary services in the preparation of appraisals and review appraisals and the negotiation of the acquisition of necessary properties required for the completion of the Project. All services shall be performed at the direction of the LPA and Consultant in accordance with the policies and procedures of IDOT, as applicable, the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 ("Uniform Act"), as amended (49 CFR Part 24), the Illinois Eminent Domain Act (735 ILCS 30) ("Eminent Domain Act") and the Illinois Code of Civil Procedure ("Code of Civil Procedure").

Santacruz Associates will review the highway construction plans with the LPA and/or the Consultant to understand the nature and purpose of the project.

Santacruz Associates agrees to perform the services as set forth herein as well as furnish and deliver to the LPA the final reports accompanied by all necessary documents needed for recordation and/or necessary for eminent domain proceedings. **The process described in this section has been the roadmap to many successful right of way projects for Santacruz Associates helping us help you keep your projects on-time and within budget.**

LAND ACQUISITION CRITICAL PATH STEPS – "OUR ROAD MAP"

Task 1: Notice to Proceed

Our services start within one week (or sooner, if requested) of an authorization to proceed from the LPA.

Task 2: Kick-off Meeting

Santacruz Associates will meet with the LPA and/or Consultant to discuss the Project, identify issues and develop any necessary strategies to assure the timely completion of the Project.

Task 3: Delivery and Review of Project Information

The LPA or Consultant will provide Santacruz Associates with plats of highway, legal descriptions, the most recent title commitments and any other pertinent information regarding the property owner for each parcel assigned for acquisition. In addition, the LPA or Consultant will also provide us with a set of project plans, including, (i) plan and profile, (ii) drainage and utilities, (iii) pavement markings and (iv) cross sections.

Task 4: Negotiation and Acquisition

All negotiations and acquisition services shall be provided by Santacruz Associates after approval by the LPA of the amount of just compensation to be offered to the property owner.

The Negotiator will not have any authority to determine administrative settlements. The Negotiator will consult with the LPA for approval of any counter offers and upon acceptance by the LPA of any such counter offer, Santacruz Associates will prepare the necessary documentation for administrative settlement.

Prior to the start of negotiations, the Negotiator will review the plats of highway and appraisals for each parcel before the start of negotiations with a property owner to understand the valuation and impact to the property. Santacruz Associates will also inspect the title commitment provided for each parcel to determine the liens and encumbrances that will need to be addressed in order to complete the acquisition process for the Authority. Santacruz Associates will direct any questions to the LPA or Consultant resulting from its review of the plans, plats, appraisals and title commitments so that Santacruz Associates is prepared for any issues raised by the property owner during negotiations.

Before contacting the owner of a parcel, Santacruz Associates will prepare and send the introductory letter to the property owner on the LPA's letterhead. This letter will provide a general

statement of the Project, identify the property and the legal property owner, and briefly state the right of requirements necessary from the parcel. This letter shall also contain contact information for Santacruz Associates and a representative of the LPA.

Santacruz Associates will prepare an offer package for presentation to the owner at the first meeting. The offer package shall contain the Basis for Computing Total Approved Compensation and Offer to Purchase (in the format approved by IDOT), a copy of the plat of highway with the acquisition areas highlighted and a copy of the legal descriptions of the parcels to be acquired. If, after repeated efforts to contact the property owner to schedule a meeting to present the offer, Santacruz Associates is unable to make contact with the property owner, or if the property owner is located out of town, or at the request of the property owner to have the offer package mailed, Santacruz Associates will send the offer package by certified mail so that a receipt of delivery can be established.

Santacruz Associates will personally contact the property owner a minimum of three times before making a determination that the acquisition of the parcel cannot be successfully negotiated. In most cases, Santacruz Associates will exceed the minimum number of contacts in an attempt to make all reasonable efforts to reach a settlement before recommending that the LPA commence condemnation proceedings. All contacts and efforts to make contact with the property owner shall be documented in the negotiator's report maintained by Santacruz Associates for each parcel.

If, during its discussions with the property owner, errors in the plans are discovered or the property owner requests design changes, Santacruz Associates will immediately notify LPA or Consultant with this information. At any time during negotiations for situations involving design changes, errors in plans or for any other reason, if requested by LPA or Consultant, Santacruz

Associates will cease negotiations on certain parcels until corrected information or further instruction is provided to Santacruz Associates.

Upon successful negotiations with the property owner, Santacruz Associates will prepare all necessary conveyance documents in the forms provided by and approved by IDOT in order to complete the acquisition and obtain title approval for the property. Santacruz Associates will submit the completed parcel file with original conveyance documents, any documents necessary for title clearance, the Negotiator's Log documenting all negotiation activities, copies of all correspondence with the property owner, title commitments, plats, and all other documentation as required by the LPA.

In the event that Santacruz Associates, after having made every reasonable effort to contact and negotiate with the owner of a parcel, is unable to obtain a settlement on the approved appraisal amount, Santacruz Associates shall prepare and submit to the LPA a completed parcel file with its recommendation to acquire the parcel by means of condemnation. In addition, the file will include the Negotiator's Log, copies of all correspondence with the property owner, title commitments, plats, and all other documentation as required by the LPA.

We understand that appearances in court and/or pretrial conferences, which may include depositions, and preparation for litigation or pre-trial conferences may be required by the LPA so that it may complete the acquisition of the property through condemnation. In such case, at the request of the LPA or its trial counsel, we shall make any such appearances or complete such preparation work in order to assist with this process. Such requests will be pursuant to a separate work order.

PERSONNEL

The experienced and talented team of right of way professionals at Santacruz Associates will be led by J. Steve Santacruz. Steve has worked on thousands of acquisition parcels for ISTHA, IDOT, Cook, Kane, Lake, and Will Counties. He has also worked for numerous township and municipalities. Steve has a reputation in the right of community of being able to handle the most complex of land acquisition transactions.

The internal support team members for Santacruz Associates include Robin Weber, a real estate paralegal with over twenty years experience in closing residential and commercial real estate transactions, and Jonathan Abplanalp, an negotiator working towards approval as a District 1 fee negotiator.

PRIOR EXPERIENCE

Santacruz Associates was founded in 1992 and has grown to be one of the most dependable right of way negotiation firms in IDOT's District 1. Since it opened, Santacruz Associates has been providing comprehensive right of way solutions, including negotiation activities and the coordination of the valuations of parcels for various public agencies. Having developed its own proprietary database overlay, we have developed great efficiencies that allow us to handle hundreds of parcels at one time keeping deadlines organized for each of our different clients.

We bring an array of services and broad disciplines in real estate which give us a distinct advantage in handling even the most complex of your land acquisition projects.

Santacruz Associates has delivered real estate solutions for its public agencies balancing risk management and letting dates on some of the largest and most intricate projects in the State.

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EXHIBITS

a. Pricing Schedule

Compensation for Services

Negotiation Services

Negotiation and acquisition services for Right of Way including, without limitation, documentation of conveyance of property interest	\$2,300.00
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Witness Services

Rate for each ½ day in pretrial conference or in court for Negotiator	\$1,000.00
Hourly rate for consultation not otherwise specifically provided for herein	\$250.00

Title Services (if applicable)

Later date commitment	\$50.00
+ Administrative fee	\$25.00
Title insurance policies	\$75.00
+ Additional costs of	\$3.50 per thousand
+ Administrative fee	\$25.00
Recording of Documents – In addition to actual recording costs	
+ Administrative fee	\$25.00
Copies of recorded documents – In addition to actual copying costs	
+ Research fee	\$50.00
+ Administrative fee	\$25.00