


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		City Itasca		
Section		State IL		

**Preliminary Engineering
Services Agreement
For
Non-Motor Fuel Tax Funds**

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. Non-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 Quentin Road Reconstruction (FAU Route 2574)

Route CH 51 Length 1.8 Mi. 9,500 FT (Structure No. n/a)

Termini US Route 12 to IL Route 22

Description:

Improvements include the widening and reconstruction of Quentin Road from US Route 12 to IL Route 22. The improvements will stop short of the recent US Route 12 and IL Route 22 intersection modification projects and turn lane channelization.

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** ~~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 \$1,840,676.00

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 183 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 183 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's 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 triplicate counterparts, each of which shall be considered as an original by their duly authorized officers.

Executed by the LA:

ATTEST: _____ of the
County of Lake
~~(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: _____
By _____
Title Assistant Secretary

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

Note: Three (3) Original Executed Contracts – (2) LCDOT; (1) Consultant

Exhibit A-1

Phase II Scope of Engineering Services

Quentin Road Improvement
(US Route 12 to IL Route 22)

Lake County Division of Transportation | March 25, 2013

I. PROJECT UNDERSTANDING AND APPROACH

This project includes the proposed widening and reconstruction of approximately 1.8 miles (9,358 ft) of Quentin Road from US Route 12 (Rand Road) to Illinois Route 22 with limits extending through the Villages of Kildeer and Lake Zurich, Lake County, Illinois.

The purpose and need of the project is to provide a transportation system improvement that meets future travel demands in the corridor, increases travel safety, and enhances both bicycle and pedestrian mobility. Because travel demand on Quentin Road is in excess of the desirable capacity for a 2-lane roadway, the project will include capacity improvements (widening from two lanes to four lanes) and modernization of the two signalized intersections of West Cuba Road (595 ft) and East Cuba Road (408 ft).

The improvements along Quentin Road include a 12-foot median (left turn lane channelization at major cross streets and driveways), 12-foot travel lanes, Type B-6.24 concrete curb and gutter, and an enclosed drainage system.

A 10-foot sidepath is included along the east side and 5-foot sidewalk along the west side, both offset a minimum of 4.5 feet, beyond which 3:1 slopes are proposed to meet the existing ground.

There are two main intersections within the project limits, West Cuba and East Cuba. At these locations, the existing traffic signals will be completely removed and replaced with new signals. At both intersections, the traffic signals will be installed using 12-inch lenses, mast arms with additional signal heads for exclusive left- or right-turn lanes, and new controllers. Existing signals are incorporated into the Lake County PASSAGE program which sets the signal timing and phasing to accommodate traffic volumes, and the proposed signals will also be included into the Lake County PASSAGE program. Installation of emergency vehicle preemption devices will be coordinated with the local agencies. Pedestrian push-buttons will be provided across the south and west legs of the Quentin Road and West Cuba Road intersection, and the east and north legs of the East Cuba Road intersection in conjunction with marked crosswalks that are proposed in these locations. Temporary traffic signals will also be required at West Cuba Road and East Cuba Road intersections with Quentin Road during construction.

Retaining walls, noise abatement walls, box culverts and ground improvement areas are anticipated to be part of the proposed improvement. The retaining walls are proposed at various locations within the corridor to minimize impacts to wetlands, floodplains, trees, and adjacent property while traffic noise abatement measures (e.g. noise walls) were warranted and recommended for installation through various developed sections.

An enclosed drainage system will be implemented to more effectively collect roadway runoff and reduce potential for roadway flooding by providing storm water detention, water quality features, and compensatory storage. Existing culverts (i.e. major water crossings) underneath Quentin Road will be modified to include extensions with headwalls as necessary. It is anticipated that detention will be provided within existing ponds and inside oversized sewers. A storm water permit submittal will address release rates as outlined within the Lake County Stormwater Management Commission (LCSMC) Ordinance.

Best Management Practices (BMPs) will be incorporated into a Storm Water Pollution Prevention Plan (SWPPP) and a National Pollution Discharge Elimination System (NPDES) permit for the storm water discharge from the construction site. Water quality swales and ditches can be utilized where feasible, but due to the proximity of environmental resources and adjacent property mechanical devices may be warranted near the water crossings to reduce pollutant runoff.

Associated with the construction of a widened roadway and adjacent facilities, there will inevitably be a number of trees which will have to be removed. We propose to work with the Villages to develop a planting scheme which is low maintenance, native in character, and representative of the roadway corridor.

Private and public utilities own and operate facilities within the corridor. Adjustments, relocations, and design of several facilities will be completed by the respective utility company and coordinated through the LCDOT. However, it is anticipated that the relocation of some utilities, including water main and sanitary sewers, will require inter-governmental agreements between the County and Municipality to cover the associated engineering and construction costs. During the design phase of this project, Civiltech will work to design and resolve potential conflicts, acquire necessary Illinois Environmental Protection Agency (IEPA) permits, and provide assistance to the managing agencies. Roadway lighting will not be provided.

The proposed improvement requires the acquisition of right-of-way, permanent easements, and temporary easements. Forty parcels are anticipated to be effected by the improvements. We will obtain supplemental topographic survey and prepare the plats of highway for property appraisals and subsequent acquisitions.

A PESA was completed for this project that identified one site along the project with Recognized Environmental Conditions (RECs). Based upon available information related to a reported leaking underground storage tank (LUST) incident and the associated removal of the UST, the small volume of the UST (500 gal) and distance between the former UST and proposed improvement, we believe that the proposed work sufficiently avoids the area of moderate concern. Therefore, we do not believe a Preliminary Site Investigation (PSI) is necessary for assessing this area. Though as part of this project, we will perform limited soil assessment and management to characterize excavation spoils generated in accordance with regulatory requirements, using a Site Source Certification Form (LPC #662) pending soil pH testing. The acceptance of the LPC #662 certification is subject to acceptance by the permitted CCDD at which the soil is to be placed. For the one area of concern, we'll also sample and complete the uncontaminated Soil Certification Form (LPC #663), at the intersection of Quentin Road and IL Route 22, due to the presence of a Potentially Impacted Property (PIP) as identified in the PESA.

A wetland delineation report was prepared for the corridor dated September 28, 2009 and there are anticipated impacts. We will update of the expired wetland delineation report and complete wetland permitting submittals to the Lake County Stormwater Management Commission (LCSMC) and U.S. Army Corps of Engineers (USACE).

Construction staging will include maintenance of traffic design to provide for one lane in each direction using temporary pavement widening with left turn lanes provided at major cross streets and access to abutting properties using existing and temporary driveways.

II. SCOPE OF SERVICES

All work will be performed in accordance with the Lake County Division of Transportation standards and guidelines. Since this work will be federally funded, we will also complete our work in accordance with the Illinois Department of Transportation Bureau of Local Roads and Streets manual and local permitting requirements set forth by the Lake County Stormwater Management Commission, Standard Specifications for Sewer and Water, Illinois Environmental Protection Agency, and the United States Army Corps of Engineers.

1. Data Collection and Early Coordination

- A. **Initial Meeting with County** - We will meet with the Lake County Division of Transportation to further discuss the Phase I work performed to date, project requirements, schedule, land acquisition and coordination with IDOT and other stakeholders involved with the project.
- B. **Obtain/Update and Review Record Data** - The Phase II Engineers will review the Phase I project report in detail to ensure that the design of the proposed improvements is in accordance with the report. Furthermore, the report will be reviewed to ensure that any commitments made during the Phase I preliminary engineering stage of the project are followed through during Phase II design engineering. We will obtain and review available County data including, but not limited to, subdivision plans and plats, existing/proposed record drawings, geotechnical reports, right-of-way data, aerial photography and contour mapping, other existing plans, and utility atlases.
- C. **Preliminary Utility Company Coordination** - We will send letters to the utility companies within the project limits requesting copies of their utility atlases in order to confirm or update the information obtained during Phase I. Much of this information was obtained during the Phase I stages of the project, however it will need to be verified and/or updated during Phase II. The information will be incorporated into the project base drawing.

Of note, there has been discussion of an 18-inch gas main located along the west side of Quentin Road crossing over to the east side near Pine Lake Circle. We are working with Nicor to review atlas pages and have included time through our surveyor to research easements which may exist for this Illinois Gas Company or its predecessor Public Service Company of Northern Illinois. It is our goal that through a cooperative working relationship with Nicor they will conduct field work to accurately locate this facility. Upon receiving Nicor's test pit data and field documentation, we can then depict the facility within the design base files, through coordination with Nicor our design will include efforts to avoid the reconstruction or relocation of this large diameter gas main.

Utility company coordination efforts, may resultant in changes to the scope of design improvements presented herein this proposal (i.e. retaining wall locations and types, noise wall types and locations, storm sewer designs, roadway geometrics, etc.).

- D. **Topographic Survey** – This item includes obtaining additional survey at locations where the original survey did not cover what is anticipated to be part of our Phase II engineering work, including the compensatory storage and detention investigations to be completed along the west side of Quentin Road, across from High Knoll Court. We will obtain supplemental topographic survey using the nearest USGS/ FEMA benchmark for correlation of floodplain datum. The LCDOT alignment data/survey will be field verified and tied with control points. Jorgensen and Associates will gather this survey information as part of their right-of-way document work as a subconsultant to Civiltech.

- E. Soils Exploration** – This item includes obtaining additional roadway and structural borings and geotechnical analysis for retaining walls and poor soil areas located within the Quentin Road corridor. Midland Standard Engineering & Testing will obtain this soils information, and assemble a report that would provide soils information and foundation recommendations for these additional structures.

The Phase I portion of the project provided roadway borings and structure borings for retaining walls that retain more than 10-ft and required a TSL. There are also a number of shorter retaining walls, culverts and noise walls. It was determined during preparation of the project combined design report that borings for these structures would be taken as part of their design. There were also two areas of peat found within the roadway borings. Additional borings in these areas are required to better quantify the required ground improvement measures in the contract plans.

No structural geotechnical reports will be needed for the noise abatement walls, culverts or shorter retaining walls. A single complete document will be assembled with recommendations. We will also attend a soils design review meeting with LCDOT to discuss planned locations and results.

- F. Wetland Services** – This item includes an update of the expired September 28, 2009 wetland delineation report, and complete wetland permitting submittals to the Lake County Stormwater Management Commission (LCSMC) and U.S. Army Corps of Engineers (USACE). Cardno ENTRIX will execute these regulatory requirements as a subconsultant to Civiltech.

- G. Environmental Services** – This item includes Clean Construction Demolition Debris (CCDD) consulting to perform limited soil assessment and management consulting activities to characterize excavation spoils generated during the Quentin Road Improvements Project. True North Consultants will execute these regulatory requirements as a subconsultant to Civiltech.

True North will compile all field screening data and laboratory results in summary letter report format to document the investigation findings. The report will include field sampling locations, analytical tables, laboratory data, and any pertinent historical and regulatory information used to formulate and support the investigation findings. True North will prepare an LPC #662 for execution by the County (Site Owner or Operator) for portions of the project area that do not have any Potential Impacted Properties (PIPs) and soil pH results within the required pH range if the proposed CCDD facilities will accept. For portions of the project area with PIPs or if the proposed CCDD facilities will not accept an LPC #662, True North will execute an LPC #663 for soils that can be certified as uncontaminated and managed at a permitted CCDD facility. If necessary, True North will also work with Civiltech on securing disposal approval at a Subtitle D landfill.

- H. Field Review of Survey** – This item includes review of the existing 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 Utility Company Coordination and visual observation in the field.

- I. 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 and gain everyone’s acceptance of the project schedule and commitment to timely reviews. We will include the IDOT Bureau of Land Acquisition at this same meeting.

2. Preliminary (65%) 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. Information included on the base sheets will be field verified to confirm completeness and accuracy of topographic features.

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 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 and Subsurface Soil Remediation - We will complete a pavement design for the Quentin Road pavement. This work will be in accordance with the subsurface and geotechnical reports prepared as part of the Combined Design Report, the IDOT Bureau of Local Roads and Streets Manual, and County requirements.

As part of the previous subsurface soils and pavement investigation, several areas require soil remedial treatments to include removal of 6 inches of unsuitable subgrade material and replacement with an aggregate subgrade improvement.

- One area between Stations 57+50 and 60+00 may require up to 2 ft of undercut and replacement because of a 3.5 ft layer of topsoil encountered below existing pavement.
- While compressible peat and organic silt exists under the proposed roadway widening areas between Stations 49+75 to 51+75 (23 ft deep) and Stations 95+00 to 98+25 (11 ft deep).
 - o *Removal and replacement is not recommended at 23 ft below the existing roadway surface. Improving the ground by installing aggregate stone columns through the peat into an underlying layer of clay is instead recommended.*
 - o *Removal and replacement is recommended for the 11 ft undercut section, although a temporary sheeting or roadway stabilization may be warranted.*

D. Drainage Design – The proposed Quentin Road improvement will result in a significant increase in pavement area and the need to bring the roadway drainage system to current standards. This, combined with a limited number of suitable sites for off-road storm water detention and water quality BMP facilities, necessitates consideration of linear (within right-of-way) storm water management facilities as well as opportunities to work with the local agencies to find solutions to the roadway drainage problems by utilizing detention properties that are outside the public right-of-way.

Water draining to the creeks offers a number of options for achieving storm water storage and water quality best management practices. This portion of project contains several residential neighborhoods necessitating that the corridor provide the required detention volumes so that flood damages are not increased. We propose to investigate the use of sustainable facilities which could serve as underground storm water detention/groundwater recharge facilities. We would also investigate placement of permeable pavements for the sidewalk and sidepath over fabric-lined coarse rock trenches which would provide detention and groundwater recharge. Depending upon soil permeability, over-drains or under-drains would be provided to achieve the storm water detention requirements.

If sufficient storm water detention is not available after evaluating all options including storage outside the right-of-way, we would also consider use of in-line sewers or storm chambers. These innovative types of facilities are just now gaining acceptance as sustainable solutions to water quality and storm water management needs. There are few suitable sites for off-roadway storm water detention or water quality BMP facilities.

The project includes four major water crossings (culverts) which will require structural modifications and extensions:

Summary of Culverts

Culvert	Road	Sta	Creek / Tributary	Existing Size
A	Quentin	29+50	S. Fork Tributary B to Buffalo Creek	54" RCP
B	Quentin	37+50	Tributary B to Buffalo Creek	83" x 53" Elliptical RCP
C	Quentin	74+50	Buffalo Creek	78" RCP
D	Quentin	106+50	Kildeer Creek (S Branch to Indian Creek)	72"x48" Box Culvert

Hydraulic analyses and models developed for these culvert modifications were completed as part of the Combined Design Report and will be the basis of a summary report prepared for the LCSMC and the USACE permit applications.

All storm sewers will be designed for the 10-year storm and drainage calculations completed in accordance with the LCSMC's requirements. We will determine existing and proposed runoff coefficients, quantify floodplain encroachments and resultant compensatory storage, identify right-of-way requirements for ditches, drainage outlets and detention facilities, and complete inlet spacing to develop a proposed drainage design.

E. 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 will be developed for County review prior to the pre-final plan development. We will prepare a maintenance of traffic, construction staging design, and supporting memorandum for review and approval by the County.

F. Municipal Utilities and Infrastructure Design - It is anticipated that the relocation of facilities and utilities, including a sanitary force main serving the Villages of Kildeer and Lake Zurich , will require inter-governmental agreements between the County and Municipality to cover additional engineering and construction costs. During the design phase of this project, Civiltech will work to resolve potential conflicts, design, acquire necessary Illinois Environmental Protection Agency (IEPA) permits, and provide assistance to the managing agencies. We understand that there exists nearly 2,500 ft of the sanitary force main which is potentially in conflict and requires abandonment and relocation efforts.

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

- Cover Sheet (1 sheet)
- Index of Sheets and List of State/Local Standards (1 sheet)
- General Notes (2 sheets)
- Typical Sections (6 sheets)
- Plan and Profiles (24 sheets) 1"=20'
- Shared Use Path (6 sheets) 1"=20'

- Erosion Control and Landscaping - two stages (10 sheets) 1"=50'
- Drainage and Utility (24 sheets) 1"=20'
- Sanitary Sewer Force Main (6 sheets) 1"=20'
- Pavement Marking and Signing (5 sheets) 1"=50'
- Traffic Signal Plans (20 sheets)
 - o Delcan cabinet, fiber diagrams, and signal details not included in preliminary submittal
- Structural Drawings - TS&Ls and G P& Es (29 sheets)
 - o Complete details not included in preliminary submittal
- Cross Sections (100 sheets) 1"=10' H : 1"=5' V
 - o 50' interval, streets, shared use path, drives, high and low points, beginning of project, end of project, and culverts in accordance with Lake County Plan Preparation Guidelines

Preliminary Plans will be developed using the findings and recommendations of the approved Phase I combined design report and the design criteria contained in the Illinois Department of Transportation's Bureau of Local Roads and Streets (BLRS) manual and Lake County Division of Transportation standards and requirements. 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. At the County's direction, we can also submit preliminary plans to the Villages of Kildeer and Lake Zurich.

At several locations along the project alignment, the use of retaining walls has been shown in the project design report. The purpose of these walls is to minimize the amount of regrading necessary, to minimize the amount of right-of-way required, and to minimize the impacts to the flood plain and environmentally sensitive areas. Retaining walls are typically constructed with reinforced concrete to retain roadway fill areas but our experience has shown that in the case of these retaining walls, the use of an alternative type of construction may be a more practical design for the particular application to include sheet piling walls and mechanically stabilized earth walls. Type, size, and location drawings have been prepared for four walls that exceed 10 feet in height as measured from the top of wall to bottom of footing.

Summary of Retaining Walls for which TS&L's were Prepared

Wall	Road	Sta.	To Sta.	Side	Length (ft)	Max Ht.	Cut/Fill	Wall Type
A	Quentin	23+50	30+35	West	390	13.78	Fill	MSE Wall w/ Anchorage Slab with parapet & attached railing
B	Quentin	73+45	75+25	West	180	24.72	Fill	MSE Wall w/ Anchorage Slab & attached NAW
C	Quentin	29+10	30+40	East	130	13.82	Fill	MSE Wall w/ Cap & attached Bicycle Railing
D	Quentin	73+25	75+85	East	260	24.65	Fill	MSE Wall w/ Cap & attached Bicycle Railing
E	Cuba/ Quentin	248+34	48+95	North / West	328.42	9.43	Cut	Soldier Pile w/ CIP Facing & nearby NAW

The proposed structures will be designed and detailed in accordance with the AASHTO LRFD Bridge Design Specifications, 6th Edition, the 2012 IDOT Bridge Manual and the IDOT Standard Specifications. If required, proposed culverts will be designed for HL-93 design loading and will be built in 2 stages in order to maintain traffic on Quentin Road during construction. Form liner surfaces will be considered for the surfaces of the noise abatement walls, retaining walls and barriers.

General Plan and Elevation (GP&E) drawings will be developed for walls identified through the project design report to determine the feasibility and to compare the construction cost of different types of walls. The types of walls that would be included in the study are a reinforced concrete wall, a sheet piling wall, a mechanically stabilized earth wall, and a segmental concrete block wall. The following lists the walls which are anticipated to be included in the improvement.

Summary of Retaining Walls for which GP&E's will be Prepared

Wall	Road	Sta.	To Sta.	Side	Length (ft)	Max Ht.	Cut/Fill	Wall Type
F	Quentin	8+50	10+00	West	150	<5	Fill	Segmental Concrete Block Wall
G	Quentin	11+24	12+00	West	76	<5-ft	Cut	Segmental Concrete Block Wall
H	Quentin	12+90	14+00	West	110	<5	Fill	Segmental Concrete Block Wall
I	Quentin	20+50	21+40	East	90	<5	Cut	Segmental Concrete Block Wall or Sheeting
J	Quentin	42+00	44+00	East	200	<5	Fill	Segmental Concrete Block Wall
K	Quentin	49+75	52+75	West	300	<10	Fill	Segmental Concrete Block Wall or MSE Wall
L	Quentin	90+25	92+50	East	225	<5	Fill	Segmental Concrete Block Wall
M	Quentin	94+75	99+00	East	425	<10	Fill	Segmental Concrete Block Wall or MSE Wall
N	Quentin	96+25	102+25	West	600	<10	Cut & Fill	Segmental Concrete Block Wall or MSE Wall

Based on the traffic noise analysis and noise abatement evaluation conducted as part of the combined design report, highway traffic noise abatement measures are likely to be implemented. The noise barrier areas determined to meet the feasible and reasonable criteria are identified below.

Noise Abatement Wall Summary Table

Wall	Road	Sta.	To Sta.	Side	Length (ft)	Wall Type
A	Quentin	46+78	55+35	West	870	Post and Panel founded on drilled shafts
B	Quentin	57+50	76+00	West	1,850	Post and Panel founded on drilled shafts
C	Quentin	77+00	84+12	West	712	Post and Panel founded on drilled shafts
D	Quentin	85+42	90+20	West	480	Post and Panel founded on drilled shafts.

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 through the Lake County’s utility Coordinator for their records and, if necessary, IDOT’s Design Utility Coordinator.

H. Preliminary Design Review Meeting - We will coordinate a meeting in order to discuss the status of the project with the County and, if necessary the Villages of Kildeer and Lake Zurich. 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 status of the project’s soil report with the County. We will be prepared to discuss subsurface soils conditions, geotechnical conclusions, and recommendations for the foundation methods associated with retaining walls, pavement design, and construction techniques alongside Quentin Road.

These techniques include temporary soil retention systems, dewatering, improved subgrade with aggregate columns, porous granular embankment caps, and the use of settlement platforms to monitor consolidation of embankment materials. The presence of unsuitable soils and their remediation were identified through the project design report for two specific areas.

Identified Peat Areas within the Proposed Roadway Widening

Area	Location	Depth of Bottom of Peat/Unsuitable Soil Blow Existing Grade	Height of New Fill Required
A	49+75 to 51+75	23 feet	7.5 feet
B	95+00 to 98+25	11 feet	5 feet

J. Preliminary Aesthetic Features Coordination 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.

K. Preliminary Plan Field Review – This item includes review of the preliminary plans out in the field with Lake County design and construction representatives. The review would be in general terms (not page by page) to verify the completeness and accuracy of the design, features impacted by the proposed design, and to review as accurately as possible the locations of existing private utilities using a combination of the atlases obtained during our Utility Company Coordination and visual observation.

3. Right-of-Way Documents and Coordination

There are forty parcels with potential right-of-way takes, permanent easements, and temporary easements within the project limits. We anticipate appraisals, review appraisals, and negotiations to be necessary through the valuation and land acquisition process. 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.

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). Jorgensen & Associates will complete a portion of plat of highways within a remainder of their fee contained in the original phase I contract, and the remaining parcels are covered by this phase II engineering contract. 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).

This item also includes work involved with coordination between are 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 affected parcel. Also included are potential revisions to the plat of highways based upon negotiations for 5 parcels.

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 anticipate that the contract plans will contain the following drawings:

- Cover Sheet (1 sheet)
- Index of Sheets and List of State/Local Standards (1 sheet)
- General Notes (2 sheet)
- Summary of Quantities (4 sheets)
- Typical Sections (6 sheets)
- Schedule of Quantities (16 sheets)
- Alignment, Ties, and Highway Plats – by Jorgensen & Associates (33 sheets)
- Plan and Profile (24 sheets) 1"=20'
- Shared Use Path (6 sheets) 1"=20'
- Stages of Construction – 3 stages w/ sequences and typical sections (17 sheets)
- Erosion Control and Landscaping - two stages (10 sheets) 1"=50'
- Drainage and Utility (24 sheets) 1"=20'

- Sanitary Sewer Force Main (6 sheets) 1"=20'
- Stormwater Management Plan (2 sheets) 1"=20'
- Stormwater Landscape Restoration Plan (1 sheet – dual pane)
- Intersection Grading Plans (2 sheets)
- Pavement Marking and Signing (5 sheets) 1"=50'
- Traffic Signal Plans (31 sheets)
 - o Temporary Traffic Signal Plan - Quentin at West Cuba
 - o Temporary Cable Plan, Sequences - Quentin at West Cuba
 - o Traffic Signal Installation Plan - Quentin at West Cuba (2 sheets)
 - o Cable Plan, Sequences, Quantities - Quentin at West Cuba
 - o Temporary Traffic Signal Plan - Quentin at East Cuba
 - o Temporary Cable Plan, Sequences - Quentin at East Cuba
 - o Traffic Signal Installation Plan - Quentin at East Cuba (2 sheets)
 - o Cable Plan, Sequences, Quantities - Quentin at East Cuba
 - o Temporary Interconnect Plan - Quentin Road (2 sheets)
 - o Temporary Interconnect Detail
 - o Interconnect Plans - Quentin Road (4 sheets)
 - o Interconnect Schematic and Quantities (3 sheets)
 - o Cabinet Detail (Delcan)
 - o Fiber Diagram (Delcan)
 - o Internally Illuminated Street Name Sign Detail
 - o LCDOT Temporary Video Detection Details
 - o LCDOT Video Detection Details
 - o IDOT District 1 Traffic Signal Details (6 sheets)
- Structural Drawings (112 sheets)
 - o Culverts - A thru D (16 sheets)
 - o Retaining Walls - A thru N (68 sheets)
 - o Noise Abatement Walls - A thru D (20 sheets)
 - o Ground Improvement Soil Remediation Areas - A and B (8 sheets)
- IDOT Bureau of Design Construction Details (10 sheets)
- LCDOT Highway Standards and Construction Details (4 sheets)
- ADA Curb Ramp Details (6 sheets)
- Cross Sections (100 sheets) 1"=10' H : 1"=5' V

We estimate that the contract plans will contain a total of **423** sheets.

Our goal with the design of the proposed stormwater facilities will be to meet the needs of the roadway improvement, conform to the requirements of the Watershed Development Ordinance and be, at a minimum, aesthetically neutral. We propose to utilize the talents of our environmental consultants, our Landscape Architect (Ann Vigor), and past experience gained through the development of Best Management Practices and their related functions to develop a planting scheme which is low maintenance and native in character. Inclusion of appropriate vegetation, plantings, and trees within the plan will aid in addressing water quality issues.

At several locations along the project alignment, the use of retaining walls has been shown in the Project Design Report. A construction study performed as part of our preliminary engineering will determine the practical design for each particular location and our pre-final design efforts will include the necessary retaining walls, headwalls, and noise abatement wall drawings. We would also perform construction shop drawing review to ensure compliance with the contract documents and the design engineer's intent.

The pre-final contract documents will be submitted to the County, IDOT, and if necessary the Villages of Kildeer and Lake Zurich for review. 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 both the IDOT Utility Coordinator and Lake County's Utility Coordinator for their records.

- 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** – If necessary, 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.

Since this is a Federal Aid project, IDOT will be responsible for letting the project. Therefore, we will provide IDOT with one set of the original, mylar plans and bid documents, as well as the number of full and reduced size copies that they request. Unless requested otherwise, we will furnish the County with two copies of the final approved documents. We will also submit the final contract plans to the various utility companies.

- 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 and the Bureau of Local Roads and Streets to assist in the completion of the joint agreement 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, and preparation of status reports. In addition, this item includes coordination meetings with the County as well as 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.
- 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. We will coordinate with the County and the managing agencies to relocate their facilities out from under the new pavement and to resolve any potential conflicts. As discussed in Section 1.C, utility coordination efforts may result in changes to the scope of design improvements presented herein.

- D. Lake County Stormwater & US Army Corps of Engineers Permitting** – This project will require a permit submittal to Lake County Stormwater Management Commission to comply with their Watershed Development Ordinance. We will prepare and submit the permit application along with the required back-up documentation to satisfy the WDO requirements and obtain the necessary Watershed Development Permit (WDP). We will also obtain the appropriate USACE Chicago District Regional Permit (RP).

Per the Phase I combined design report, the Quentin Road project proposes to impact Isolated Waters of Lake County (IWLC) and Waters of the United States (WOUS). Therefore, Cardno ENTRIX has included mitigation banking services to coordinate all wetland impacts resulting from the Quentin Road Project with LCSMC, USACE, and an approved wetland banker. The scope of this work does not include the funding for the actual purchase within the selected wetland bank.

Work associated with updating the wetland field investigations, jurisdictional determinations, preliminary endangered species assessments, permit consultation and coordination involved with this project has been included in the scope of Wetland Sciences by Cardno Entrix, working as a subconsultant to Civiltech. (a copy of their proposal is included).

- E. IEPA /NPDES Permitting and Documentation** - The NPDES permits, Notification of Intent (NOI) along with a Stormwater Pollution Prevention Plan (SWPPP), 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. Pre-Construction Meeting Attendance** - We will attend the pre-construction meeting at IDOT, Bureau of Construction to answer any questions regarding the design and contract documents as well as a second meeting to be held at the Lake County DOT offices.
- G. Post-Approval Alignment Staking** - Upon approval of the roadway plans and alignment, we propose to have the proposed alignment staked with PK nails or iron pipes at the 100-foot stations, station equations and alignment control points, in accordance with the published Lake County Division of Transportation Surveying Procedures. This work is to be performed by Jorgensen Surveying, Inc. as a subconsultant to Civiltech Engineering.

7. Construction Assistance

- A. Construction Shop Drawing Reviews** - As noted above, we will make the necessary construction shop drawing reviews, and follow through with the Resident Engineer and Contractor in regard to review comments to ensure compliance with the contract documents and the design engineer's intent. The services performed reflect those items requiring shop drawing submittals and design calculation submittals such as bicycle and parapet railings, segmental concrete block walls, noise abatement walls, and aggregate column ground improvements.

B. Construction Review and Meeting Attendance - When a problem occurs it is the construction engineer who will utilize their critical thinking, listening, learning, problem solving, monitoring and decision making skills to create and enact a solution. Civiltech will be a resource to the construction engineer for them to seek further clarification to confirm the interpretation of a detail, specification or note on the construction drawings or to secure a documented directive or clarification that is needed to continue work.

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 CFFF 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):	\$ 493,440
Phase II Engineering (overhead):	\$ 902,994
Phase II Engineering (direct costs):	\$ 444,242
	<u>\$1,840,676</u>

Cost Estimate of Consultant Services

Task No.	Task	Director of Design Services \$65.00	Project Manager \$47.00	Project Engineer \$36.50	Design Engineer II \$29.75	Design Engineer I \$26.50	Sr. Traffic Engineer \$44.50	Traffic Engineer \$33.50	Sr. Structural Engineer \$65.00	Structural Engineer \$44.00	Sr. Design Technician \$29.00	QA/QC \$65.00	Total Hours	% of Hours	Labor Cost
1	Data Collection and Early Coordination	24	64	122	50	52	15	16	21	12	62	0	438	3.5%	\$ 16,781.00
2	Preliminary (65%) Engineering	89	441	654	692	722	100	100	500	488	426	0	4212	33.3%	\$ 164,229.00
3	Right-of-Way Documents and Coordination	28	52	36	16	0	0	0	0	0	64	0	196	1.5%	\$ 7,910.00
4	Pre-Final (90%) Plans, Special Provisions and Estimates	113	374	564	672	654	103	141	579	1314	1641	24	6179	48.8%	\$ 236,739.00
5	Final (100%) Plans, Special Provisions and Estimates	47	70	155	140	140	48	43	124	188	140	20	1115	8.8%	\$ 45,146.00
6	Project Administration, Coordination and Permits	70	68	80	54	54	18	14	2	4	24	0	388	3.1%	\$ 15,975.50
7	Construction Assistance	10	18	6	0	0	4	0	30	64	0	0	132	1.0%	\$ 6,659.00
Total Cost															\$ 493,440
Multiplier*		2.83													\$ 1,396,434
Direct Costs and Sub Consultant Expense (See attached calculation)															\$ 444,242
Total Engineering Cost:													12660	100.0%	\$ 1,840,676

*Multiplier:
 1(Direct Labor)+OH + 0.145*(1+OH)
 IDOT Approved OH Rate = 147.53%

Manhours (page 1 of 3)

	Personnel & Hours											Total Hours	% of Hours	
	Director of Design Services	Project Manager	Project Engineer	Design Engineer II	Design Engineer I	Sr. Traffic Engineer	Traffic Engineer	Sr. Structural Engineer	Structural Engineer	Sr. Design Technician	QA/QC			
1 Data Collection and Early Coordination														
a. Initial Meeting with County	3	3	3					3					12	2.7%
b. Obtain/Update and Review Record Data	2	4	34	12	12	2	4	2		24			96	21.9%
c. Preliminary Utility Company Coordination	6	24	16	12	16	2	4						80	18.3%
d. Supplemental Survey (by Jorgensen and Associates) coordination only	4	6	6	4	4								24	5.5%
e. Supplemental Soils Exploration (by Midland Standard Eng. & Testing) coordination only	2	4	4	2				8	4				24	5.5%
f. Supplemental Wetland Services (by Cardno Entrix) coordination only	2	8	24	8	8					24			74	16.9%
g. Supplemental Environmental Services (by True North Consultants) coordination only	2	4	24	4	4					6			44	10.0%
h. Field Review of Survey		8	8	8	8	8	8	8	8	8			72	16.4%
i. IDOT Project Kick Off Meeting	3	3	3			3							12	2.7%
Sub-total Item 1	24	64	122	50	52	15	16	21	12	62	0	438	100.0%	
2 Preliminary (65%) Engineering														
a. Plan Base Sheet Preparation	2	8	24	24	24					30			112	2.7%
b. Review and Confirm Project Right-of-Way Requirements	8	24	32	18	18					24			124	2.9%
c. Pavement Design and Subsurface Soil Remediation	2	12	8	6	4								32	0.8%
d. Drainage Design														
Inlet Spacing and Storm Sewer Design	6	72	104	112	116					36			446	10.6%
Detention Alternative Analysis and Design	8	48	64	56	64					12			252	6.0%
Major Waterway Crossing Design	4	16	48	56	56					12			192	4.6%
Floodplain Encroachment Analysis and Compensatory Storage Design	2	12	20	32	36					12			114	2.7%
e. Maintenance of Traffic Concept	4	24	40	32	32					20			152	3.6%
f. Municipal Utilities and Infrastructure Design	2	4	12	16	16					8			58	1.4%
g. Preliminary Plans (65%)														
Cover Sheet (1 sheet)		2	2							2			6	0.1%
Index of Sheets and List of State and Local Standards (1 sheet)		2	2							2			6	0.1%
General Notes (2 sheets)		2	2							4			8	0.2%
Typical Sections (6 sheets)		4	8	12	12					16			52	1.2%
Plan and Profile (24 sheets)	16	48	56	72	72					48			312	7.4%
Shared Use Path (6 sheets)	4	12	20	20	32					16			104	2.5%
Erosion Control and Landscaping - two stages (10 sheets)	4	12	16	24	24					24			104	2.5%
Drainage and Utility (24 sheets)	8	64	80	80	96					64			392	9.3%
Sanitary Sewer Force Main (6 sheets)	2	20	40	32	32					24			150	3.6%
Pavement Marking and Signing (5 sheets)	1	3	8	12	16					8			48	1.1%
Traffic Signal Plans - prelim. only w/ no details (20 sheets)						100	100						200	4.7%
Structural Drawings - only TS&Ls and GP&Es w/ no details (29 sheets)													0	0.0%
Culvert GP&Es - A thru D (4 sheets)								56	56				112	1.8%
Retaining Wall TS&Ls - A thru E (5 sheets)								110	110				220	3.6%
Retaining Wall GP&Es - F thru N (11 sheets)								242	242				484	7.8%
Noise Abatement Walls - A thru D (9 sheets)								80	80				160	2.6%
Cross Sections - 50' intervals, streets, shared path, drives, and culverts (100 sheets)	4	32	48	80	72					64			300	7.1%
h. Preliminary Design Review Meeting	4	4	4					4					16	0.4%
i. Preliminary Soils Design Review Meeting	4	4	4					4					16	0.4%
j. Preliminary Aesthetic Features Coordination and Conceptual Design	4	4	4					4					16	0.4%
k. Preliminary Plan Field Review		8	8	8									24	0.6%
Sub-total Item 2	89	441	654	692	722	100	100	500	488	426	0	4212	92.6%	
3 Right-of-Way Documents and Coordination														
a. Sub-Consultant Coordination with Jorgensen & Assoc. and Santacruz Assoc.	20	36	24	12						40			132	67.3%
b. Right-of-Way Coordination Meetings	8	16	12	4						24			64	32.7%
Sub-total Item 3	28	52	36	16	0	0	0	0	0	64	0	196	100.0%	

Manhours (page 2 of 3)

	Personnel & Hours											Total Hours	% of Hours
	Director of Design Services	Project Manager	Project Engineer	Design Engineer II	Design Engineer I	Sr. Traffic Engineer	Traffic Engineer	Sr. Structural Engineer	Structural Engineer	Sr. Design Technician	QA/QC		
4 Pre-Final (90%) Plans, Special Provisions and Estimates													
a. Pre-Final Plans (90%)													
Cover Sheet (1 sheet)		1	1							2		4	0.1%
Index of Sheets and List of State and Local Standards (1 sheet)		2	2							3		7	0.1%
General Notes (2 sheets)	1	2	2							6		11	0.2%
Summary of Quantities (4 sheets)	1	2	4	6	6					6		25	0.4%
Typical Sections (6 sheets)	1	4	8	10	10					12		45	0.7%
Schedule of Quantities (16 sheets)		4	6	8	12					20		50	0.8%
Alignment, Ties, and Highway Plats - by Jorgensen and Associates (33 sheets)		1	1	2	2					6		12	0.2%
Plan and Profile (24 sheets)	12	56	96	96	72					64		396	6.4%
Shared Use Path (6 sheets)	4	12	16	16	32					16		96	1.6%
Stages of Construction - 3 stages w/ sequences and typical sections (17 sheets)	12	48	80	88	72					80		380	6.1%
Erosion Control and Landscaping - two stages (10 sheets)	2	12	24	32	36					24		130	2.1%
Drainage and Utility (24 sheets)	16	80	96	120	120					144		576	9.3%
Sanitary Sewer Force Main (6 sheets)	2	12	24	48	48					32		166	2.7%
Stormwater Management Plans (2 sheets)	4	12	16	20	20					16		88	1.4%
Stormwater Landscape Restoration Plan (1 sheet)	1	4	8	16	16					24		69	1.1%
Intersection Grading Plan (2 sheets)	2	6	12	32	32					24		108	1.7%
Pavement Marking and Signing (5 sheets)	2	4	8	16	24					16		70	1.1%
Traffic Signal Plans (31 sheets)													
Temporary Traffic Signal Plan - Quentin at West Cuba						6	12					18	0.3%
Temporary Cable Plan, Sequences - Quentin at West Cuba						2	4					6	0.1%
Traffic Signal Installation Plan - Quentin at West Cuba (2 sheets)						12	16					28	0.5%
Cable Plan, Sequences, Quantities - Quentin at West Cuba						4	6					10	0.2%
Temporary Traffic Signal Plan - Quentin at East Cuba						6	12					18	0.3%
Temporary Cable Plan, Sequences - Quentin at East Cuba						2	4					6	0.1%
Traffic Signal Installation Plan - Quentin at East Cuba (2 sheets)						12	16					28	0.5%
Cable Plan, Sequences, Quantities - Quentin at East Cuba						4	6					10	0.2%
Temporary Interconnect Plan - Quentin Road (2 sheets)						6	12					18	0.3%
Temporary Interconnect Detail						2	2					4	0.1%
Interconnect Plans - Quentin Road (4 sheets)						16	24					40	0.6%
Interconnect Schematic and Quantities (3 sheets)						6	12					18	0.3%
Cabinet Detail (Delcan)						1	1					2	0.0%
Fiber Diagram (Delcan)						1	1					2	0.0%
Internally Illuminated Street Name Sign Detail						1	1					2	0.0%
LCDOT Temporary Video Detection Details						1	1					2	0.0%
LCDOT Video Detection Details						1	1					2	0.0%
IDOT District 1 Traffic Signal Details (6 sheets)						1	1					2	0.0%
Structural Drawings (112 sheets)													
Culverts - A thru D (16 sheets)								100	228	184		512	8.3%
Retaining Walls - A thru N (68 sheets)								351	802	622		1775	28.7%
Noise Abatement Walls - A thru D (20 sheets)								86	182	128		396	6.4%
Ground Improvement Soil Remediation Areas - A and B (8 sheets)								32	72	48		152	2.5%
IDOT Bureau of Design Construction Details (10 sheets)		1	1	2						12		16	0.3%
LCDOT Highway Standards and Construction Details (4 sheets)	1	4	8	12	12					12		49	0.8%
ADA Ramp Details - 22 locations (6 sheets)	1	16	36	48	48					48		197	3.2%
Cross Sections - 50' intervals, streets, shared path, drives, and culverts (100 sheets)	4	24	48	80	72					72		300	4.9%
b. Pre-Final Special Provisions	8	28	20			1	1	2	6			66	1.1%
c. Pre-Final Quantity Calculations	6	28	32	20	20	4	8	8	24	20		170	2.8%
d. Pre-Final Estimates of Cost and Construction Time	2	4	8			2						16	0.3%
e. Pre-Final QA/QC Review	24					12					24	60	1.0%
f. Pre-Final Project Review Meeting w/ LCDOT	4	4	4									12	0.2%
g. Pre-Final Project Review Meeting w/ IDOT	3	3	3									9	0.1%
Subtotal Item 4	113	374	564	672	654	103	141	579	1314	1641	24	6179	100.0%

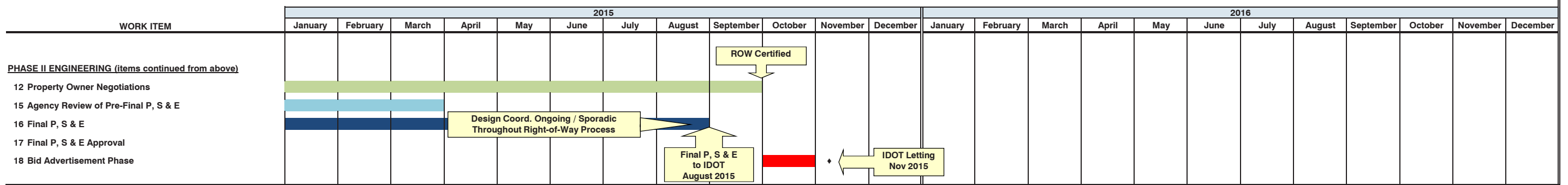
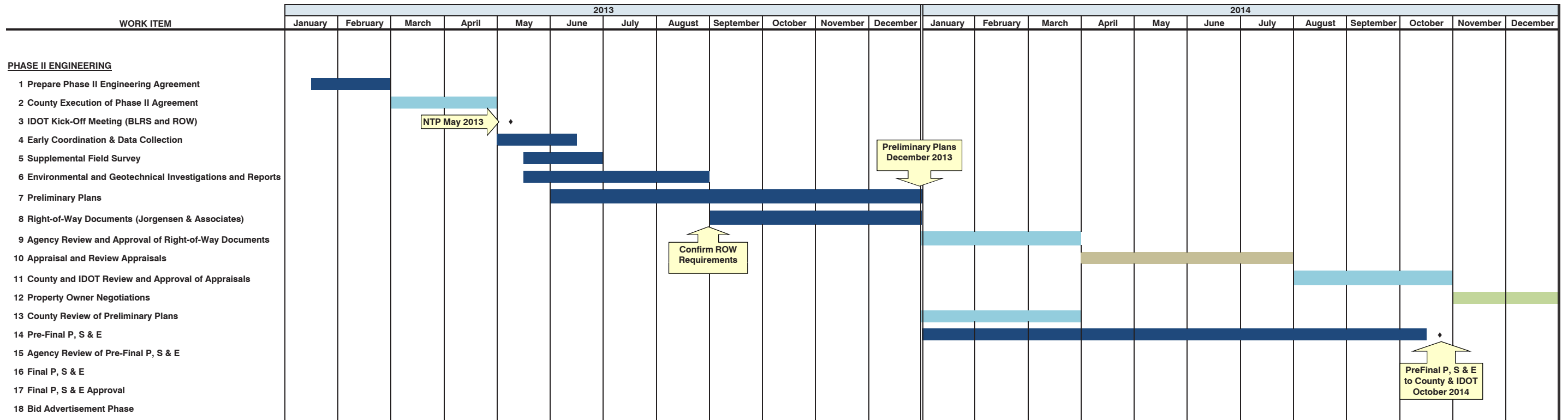
Manhours (page 3 of 3)

	Personnel & Hours											Total Hours	% of Hours
	Director of Design Services	Project Manager	Project Engineer	Design Engineer II	Design Engineer I	Sr. Traffic Engineer	Traffic Engineer	Sr. Structural Engineer	Structural Engineer	Sr. Design Technician	QA/QC		
5 Final (100%) Plans, Special Provisions and Estimates													
a. Final Plans (100%)	16	40	120	120	120	40	40	120	176	120		912	81.8%
b. Final Special Provisions	4	12	16			1	1	2	4			40	3.6%
c. Final Quantity Calculations	4	12	16	20	20	2	2	2	8	20		106	9.5%
d. Final Estimates of Cost and Construction Time	3	6	3			1						13	1.2%
e. Final QA/QC Review	20					4					20	44	3.9%
Sub-total Item 5	47	70	155	140	140	48	43	124	188	140	20	1115	100.0%
6 Project Administration, Coordination and Permits													
a. Project Administration	36	12				12						60	15.5%
b. Project Submittals	4	6	6	6	6	4	8	2	4	6		52	13.4%
c. Utility Company Coordination	12	24	40	32	32	2	6					148	38.1%
d. Lake County Stormwater & US Army Corps of Engineers Permitting	8	12	16	10	10					10		66	17.0%
e. IEPA/NPDES Permitting and Documentation	2	6	12	6	6					6		38	9.8%
f. Pre-Construction Meeting Attendance	6	6	6									18	4.6%
g. Post-Approval Alignment Staking (by Jorgensen and Associates) coordination only	2	2								2		6	1.5%
Sub-total Item 6	70	68	80	54	54	18	14	2	4	24	0	388	100.0%
7 Construction Assistance													
a. Construction Shop Drawing - Design Reviews (Railings, Retaining Walls, and Noise Walls)	4	12				4		24	64			108	81.8%
b. Construction Review and Meeting Attendance	6	6	6					6				24	18.2%
Sub-total Item 7	10	18	6	0	0	4	0	30	64	0	0	132	100.0%
Total Hours:	381	1087	1617	1624	1622	288	314	1256	2070	2357	44	12660	
% of Hours:	3.0%	8.6%	12.8%	12.8%	12.8%	2.3%	2.5%	9.9%	16.4%	18.6%	0.3%	100.0%	

Direct Costs

ITEM 1 - Printing		
Preliminary Plans		
Preliminary Plans		
Villages 2 sets X 224 sheets/set X \$0.60/sheet (22"x34")	\$	268.80
County 2 sets X 224 sheets/set X \$0.60/sheet (22"x34")	\$	268.80
County 2 sets X 224 sheets/set X \$0.15/sheet (11"x17")	\$	67.20
Utility Co. 10 sets X 224 sheets/set X \$0.60/sheet (22"x34")	\$	1,344.00
Pre-Final Plans		
Villages 2 sets X 423 sheets/set X \$0.60/sheet (22"x34")	\$	507.60
County 2 sets X 423 sheets/set X \$0.60/sheet (22"x24")	\$	507.60
County 2 sets X 423 sheets/set X \$0.15/sheet (11"x17")	\$	126.90
IDOT 8 sets X 423 sheets/set X \$0.60/sheet (22"x34")	\$	2,030.40
IDOT 8 sets X 423 sheets/set X \$0.15/sheet (11"x17")	\$	507.60
Utility Co. 10 sets X 423 sheets/set X \$0.60/sheet (22"x34")	\$	2,538.00
Pre-Final Specification Books		
Villages, County, and IDOT 12 books X \$50/book	\$	600.00
Final Plans		
Villages 2 sets X 423 sheets/set X \$0.60/sheet (22"x34")	\$	507.60
Villages 2 sets X 423 sheets/set X \$0.15/sheet (11"x17")	\$	126.90
County 2 sets X 423 sheets/set X \$0.60/sheet (22"x34")	\$	507.60
County 2 sets X 423 sheets/set X \$0.15/sheet (11"x17")	\$	126.90
Utility Co. 10 sets X 423 sheets/set X \$0.60/sheet (22"x34")	\$	2,538.00
Mylar Plots (Cover, Plats, SOQ) 2 sets X 36 sheets/set X \$7.50/sheet	\$	540.00
Final Specification Books		
Villages, County, and IDOT 12 books X \$50/book	\$	600.00
Total Item 1		\$13,713.90
ITEM 2 - Shipping		
40 overnight shipping items X \$30/each		
Total Item 2		\$1,200.00
ITEM 3 - Vehicle Expense		
Mileage		
Total Item 3		\$750.00
ITEM 4 - Topographic Survey		
Jorgensen and Associates		
Total Item 4		\$23,885.72
ITEM 5 - Geotechnical Investigation		
Midland Standard Testing & Engineering		
Total Item 5		\$41,295.00
ITEM 6 - Wetland Permitting		
Cardno ENTRIX		
Wetland Delineation Report		\$8,962.00
USACE and LCSMC Permit Submittal		\$5,468.00
USACE and LCSMC Permit Submittal Re-Submittal		\$3,906.00
Total Item 6		\$18,336.00
ITEM 7 - Clean Construction Demolition Debris (CCDD) Consulting		
True North Consultants, Inc.		
Total Item 7		\$6,855.00
ITEM 8 - Planting and Landscape Architecture Design Consulting		
Ann Viger, RLA		
Total Item 8		\$6,200.00
ITEM 9 - Right-of-Way (Plats, Appraisals, Reviews, Negotiations)		
Plats (Jorgensen Associates)		
17 Parcels (Fee Simple, PE, and TE) - being completed by Phase 1	\$	-
23 Parcels (Fee Simple, PE, and TE)	\$	92,668.67
5 Parcels (Contingency)	\$	3,088.15
Appraisals (Civiltech)		
40 parcels X \$2,000/parcel	\$	80,000.00
5 Parcels (Contingency)	\$	10,000.00
Review Appraisals (T Engineering LTD)		
40 parcels X \$800/parcel	\$	32,000.00
5 Parcels (Contingency)	\$	4,000.00
Negotiations (Santacruz Associates)		
40 parcels X (\$2,200/parcel Negotiations + \$250/parcel Title Services)	\$	98,000.00
5 Parcels (Contingency)	\$	12,250.00
Total Item 9		\$332,006.82
TOTAL DIRECT COSTS:		\$444,242.44

Schedule



- ♦ Indicates Project Milestone
- Indicates Consultant Work Time
- Indicates Agency Review Time
- Advertisement and Bidding Phase
- Indicates Appraisal Work Time
- Indicates Land Negotiation Time

Notes:
 1. Utility Coordination Ongoing throughout Phase II engineering.
 2. Permit submittals at Pre-Final P, S & E stage.



JORGENSEN & ASSOCIATES, INC.
CONSTRUCTION and LAND SURVEYORS
Est. 1990

March 25, 2013

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

Re: Quentin Road Phase II Survey Proposal

Dear Mr. Magner:

Enclosed, please find our proposal to prepare a supplemental topographic survey and our revised Phase II proposal to prepare a statutory plat of highways with legal descriptions and to establish the existing gas main easements for the referenced project.

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

Respectfully submitted,
Jorgensen & Associates, Inc.

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

CHJ/pt

Enclosures

E:\Civiltech\Lake\Quentin Rd\Phase II\LTR

Route: F.A.P. 364 (Quentin Road)
Section: Cuba Road West to Illinois Route 22
County: Lake
Job No.:

PHASE II

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	28.50
Instrument Operator, Cadd Operator, assignable Clerical and Secretarial Labor	14.00	20.00

Route: F.A.P. 364 (Quentin Road)
Section: Cuba Road West to Illinois Route 22
County: Lake
Job No.:

PHASE II

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: F.A.P. 364 (Quentin Road)
Section: Cuba Road West to Illinois Route 22
County: Lake
Job No.:

PHASE II

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 _____	<u>0.96%</u>
Total Overhead	89.78%

Route: F.A.P. 364 (Quentin Road)
Section: U.S. Route 12 to Illinois Route 22
County: Lake
Job No.:

PHASE II

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: F.A.P. 364 (Quentin Road)
Section: U.S. Route 12 to Illinois Route 22
County: Lake
Job No.:

PHASE II

Exhibit "D"

Average Hourly Rate Calculation

Sheet 2 of 2

Principal/Officer	2 hours	@ \$42.00/hour	=	\$ 84.00
Supervisor, P.L.S.	18 hours	@ \$40.00/hour	=	\$ 720.00
Survey Party Chief, S.I.T.	128 hours	@ \$22.00/hour	=	\$ 2,816.00
Instrument Operator	128 hours	@ \$18.25/hour	=	\$ 2,336.00
Cadd Supervisor	<u>73 hours</u>	@ \$27.50/hour	=	<u>\$ 2,007.50</u>
	349 hours			\$ 7,963.50

$$\text{Average Hourly Rate} = \frac{\$7,963.50}{349} = \$22.82/\text{hour}$$

Route: F.A.P. 364 (Quentin Road)
 Section: U.S. 12 to Illinois 22
 Project:
 County: Lake
 Job No.:

COST ESTIMATE OF CONSULTANT'S SERVICES

Consultant: Jorgensen & Associates, Inc.
 Date: November 28, 2012
 Description: Supplemental 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 - Supplemental Topographic Survey	256	\$5,152.00	\$8,228.26	\$440.00	\$13,820.26	\$1,781.99	N/A	\$15,602.25	65.32%
2) Office - Compile Field Data	33	\$970.00	\$1,549.19	\$0.00	\$2,519.19	\$323.50	N/A	\$2,842.68	11.90%
3) Office - Create Existing Topography Base Sheets	47	\$1,417.50	\$2,263.89	\$0.00	\$3,681.39	\$472.74	N/A	\$4,154.13	17.39%
4) Office - Create T.I.N. & Contours	11	\$340.00	\$543.01	\$0.00	\$883.01	\$113.39	N/A	\$996.40	4.17%
5) Coordination Meetings	2	\$84.00	\$134.16	\$38.50	\$256.66	\$33.60	N/A	\$290.25	1.22%
TOTALS	349	\$7,963.50	\$12,718.51	\$478.50	\$21,160.51	\$2,725.21	\$0.00	\$23,885.72	100.00%

Route: F.A.P. 364 (Quentin Road)
Section: U.S. Route 12 to Illinois Route 22
County: Lake
Job No.:

PHASE II

**Manhour Breakdown
Supplemental Topographic Survey Estimate**

1. Field – Supplemental Topographic Survey		
a. Measure traverse & level circuit		
16 hours x 2 men =		32 MH
b. Locate existing topography		
112 hours x 2 men =		<u>224 MH</u>
	Sub-total Item #1	256 MH
2. Office - Compile Field Data		
a. Compute traverse & level circuit		
5 hours x 1 man =		5 MH
b. Edit & compile topographic survey		
28 hours x 1 man =		<u>28 MH</u>
	Sub-total Item #2	33 MH
3. Office - Create Existing Topography Base Sheets		
a. Layout and drafting		
37 hours x 1 man =		37 MH
b. Check topographic survey		
10 hours x 1 man =		<u>10 MH</u>
	Sub-total Item #3	47 MH

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

a. Compute contours

8 hours x 1 man =

8 MH

b. Check contours

3 hours x 1 man =

3 MH

Sub-total Item #4 11 MH

5. Coordination Meetings

1 meeting @ 2 hours =

2 MH

Total All Items 349 MH

Route: F.A.P. 364 (Quentin Road)
Section: U.S. Route 12 to Illinois Route 22
County: Lake
Job No.:

PHASE II

Manhour Breakdown By Item

<u>Item</u>	<u>Classification</u>	<u>Manhours</u>
1. Field – Supplemental Topographic Survey	Survey Party Chief, S.I.T. Instrument Operator	128 128
2. Office - Compile Field Data	Supervisor, P.L.S. Cadd Supervisor	5 28
3. Office – Create Existing Topography Base Sheets	Supervisor, P.L.S. Cadd Supervisor	10 37
4. Office - Create T.I.N. and Contours	Supervisor, P.L.S. Cadd Supervisor	3 8
5. Coordination Meetings	Principal/Officer	2

Route: F.A.P. 364 (Quentin Road)
Section: U.S. Route 12 to Illinois Route 22
County: Lake
Job No.:

PHASE II

**Breakdown of
In House Direct Costs**

Item

1. Field - Topographic Survey

a. Trips to project site - 16 ea.
± 50 miles/trip x 16 trips = ± 800 miles
± 800 miles @ \$0.55/mile = \$ 440.00

5. Coordination Meetings

a. Meetings at Civiltech office - 1 ea.
± 70 miles/trip x 1 trip = ± 70 miles
± 70 miles @ \$0.55/mile = \$ 38.50

Total All Items \$ 478.50

Route: F.A.P. 364 (Quentin Road)
Section: Cuba Road West to Illinois Route 22
County: Lake
Job No.:

PHASE II

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	\$ 17.75

Route: F.A.P. 364 (Quentin Road)
Section: Cuba Road West to Illinois Route 22
County: Lake
Job No.:

PHASE II

Exhibit "D"

Average Hourly Rate Calculation

Sheet 2 of 2

Principal/Officer	2 hours	@ \$42.00/hour	=	\$ 84.00
Supervisor, P.L.S.	253 hours	@ \$40.00/hour	=	\$ 10,120.00
Survey Party Chief, S.I.T.	228 hours	@ \$22.00/hour	=	\$ 5,016.00
Survey Party Chief	12 hours	@ \$22.00/hour	=	\$ 264.00
Instrument Operator	228 hours	@ \$18.25/hour	=	\$ 4,161.00
Instrument Operator	12 hours	@ \$18.25/hour	=	\$ 219.00
Cadd Supervisor	317 hours	@ \$27.50/hour	=	\$ 8,717.50
Secretarial	<u>4 hours</u>	@ \$17.75/hour	=	<u>\$ 71.00</u>
	1,056 hours			\$ 28,652.50

$$\text{Average Hourly Rate} = \frac{\$28,652.50}{1,056} = \$27.13/\text{hour}$$

Route: F.A.P. 364 (Quentin Road)
 Section: Cuba Road West to Illinois 22
 Project:
 County: Lake
 Job No.:

COST ESTIMATE OF CONSULTANT'S SERVICES

Consultant: Jorgensen & Associates, Inc.
 Date: March 25, 2013
 No. of Parcels: 23 (Phase 2)
 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	6	\$155.25	\$247.95	\$96.50	\$499.70	\$65.77	\$7,360.00	\$7,925.47	8.55%
2) Survey Reconnaissance	34	\$684.25	\$1,092.82	\$55.00	\$1,832.07	\$236.17	N/A	\$2,068.24	2.23%
3) Project Survey Plan	3	\$82.50	\$131.76	\$0.00	\$214.26	\$27.51	N/A	\$241.77	0.26%
4) First Submittal Plat of Highways and Descriptions	290	\$8,825.00	\$14,094.41	\$110.00	\$23,029.41	\$2,959.09	N/A	\$25,988.50	28.04%
5) Survey (Field)	446	\$8,975.75	\$14,335.17	\$742.50	\$24,053.42	\$3,101.08	N/A	\$27,154.50	29.30%
6) Survey (Office)	97	\$3,692.50	\$5,897.29	\$0.00	\$9,589.79	\$1,231.45	N/A	\$10,821.24	11.68%
7) Final Submittal Plat of Highways and Descriptions	55	\$1,695.75	\$2,708.28	\$127.50	\$4,531.53	\$584.02	N/A	\$5,115.55	5.52%
8) Coordination Meetings	2	\$84.00	\$134.16	\$38.50	\$256.66	\$33.60	N/A	\$290.25	0.31%
9) QC/QA	123	\$4,457.50	\$7,119.07	\$0.00	\$11,576.57	\$1,486.58	N/A	\$13,063.15	14.10%
TOTALS	1056	\$28,652.50	\$45,760.91	\$1,170.00	\$75,583.41	\$9,725.26	\$7,360.00	\$92,668.67	100.00%

Route: F.A.P. 364 (Quentin Road)
 Section: Cuba Road West to Illinois Route 22
 County: Lake
 Job No.:

PHASE II

**Manhour Breakdown
 Land Acquisition Estimate**

Length of Project

Cuba Road East	±	400'	=	± 0.076 mile
Quentin Road	±	<u>6,900'</u>	=	<u>+ 1.307 miles</u>
 Total Length	 ±	 7,300'	 =	 ± 1.383 miles

23 Parcels: 5 Fee Simple; 3 Fee Simple, Permanent Easement & Temporary Easement; 1 Fee Simple, Permanent Easement & Temporary Easement-A & B; 1 Fee Simple-A & B, Permanent Easement-A & B & Temporary Easement-A, B, C & D; 1 Fee Simple, Permanent Easement & Temporary Easement-A, B,C,D, E, F & G; 9 Fee Simple & Temporary Easement; 2 Permanent Easement; 1 Temporary Easement Only

1. Pre-Survey Phase
 Research available records

a.	Title Co.)	5 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 6 MH

2.	Reconnaissance Survey		
	17 hours x 2 men =		34 MH
3.	Project Survey Plan	$\pm 2,640'$ /sheet-3 sheets	
a.	Alignment info)	
)	
b.	Existing R.O.W. info)	
)	
c.	Land line data)	
d.	Subdivision data)	1.0 hr./sht. x 5 = <u>3 MH</u>
			Sub-total Item #3 3 MH
4.	First Submittal Plat of Highways & Descriptions		
a.	Ownership info)	
)	
b.	Total holding boundaries)	
)	
c.	Total holding area listing)	12 MH
)	
d.	Private survey info)	
)	
e.	Deed calculated closures)	
f.	Layout and drafting	$\pm 600'$ /sht. ± 12 sheets	
	192 hours x 1 man =		192 MH
	Alignment & Tie sheets	3 hours/sheet x 1 =	3 MH
	Total Holding sheets	3 hours/sheet x 9 =	27 MH
g.	Legal descriptions	56 descriptions	<u>56 MH</u>
			Sub-total Item #4 290 MH

5.	Survey (Field)		
a.	Monument center line alignments at 100 foot intervals		
	Cuba Road East - 400' - 2 hrs. x 2 men =		4 MH
	Quentin Road - 6,900' - 12 hrs. x 4 men =		48 MH
b.	Reference center line alignments		
	3 hours x 2 men =		6 MH
c.	Measure existing property & section lines		
	43 hours x 2 men =		86 MH
d.	Appraisal topography		
	33 hours x 2 men =		66 MH
e.	Monument & reference proposed right of way		
	118 hours x 2 men =		<u>236 MH</u>
		Sub-total Item #5	446 MH
6.	Survey (Office)		
a.	Compute traverse		
	8 hours x 1 man =		8 MH
b.	Compute existing property & section lines		
	43 hours x 1 man =		43 MH
c.	Compile appraisal topography		
	7 hours x 1 man =		7 MH
d.	Compute center line alignments		
	1 hour x 1 man =		1 MH
e.	Compute proposed right of way		
	22 hours x 1 man =		22 MH
f.	Compute existing gas main easements		
	16 hours x 1 man =		<u>16 MH</u>
		Sub-total Item #6	97 MH

7.	Final Submittal Plat of Highways & Descriptions	
a.	Final drafting ± 22 sheets 32 hours x 1 man =	32 MH
b.	Final descriptions 56 descriptions	14 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	55 MH
8.	Coordination Meetings	
	1 meeting @ 2 hours =	2 MH
9.	QC/QA	
a.	Check preliminary plats 22 sheets	67 MH
b.	Check preliminary legal descriptions 56 legal descriptions	30 MH
c.	Check final plats 22 sheets	19 MH
d.	Check final legal descriptions 56 legal descriptions	<u>7 MH</u>
	Total All Items	1,056 MH

(4)

Route: F.A.P. 364 (Quentin Road)
 Section: Cuba Road West to Illinois Route 22
 County: Lake
 Job No.:

PHASE II

Manhour Breakdown By Item

<u>Item</u>	<u>Classification</u>	<u>Manhours</u>
1) Pre-Survey	Cadd Supervisor	5
	Secretarial	1
2) Survey	Survey Party Chief, S.I.T.	17
Reconnaissance	Instrument Operator	17
3) Project Survey Plan	Cadd Supervisor	3
4) First Submittal Plat of Highways & Descriptions	Supervisor, P.L.S.	68
	Cadd Supervisor	222
5) Survey (Field)	Survey Party Chief, S.I.T.	211
	Survey Party Chief	12
	Instrument Operator	211
	Instrument Operator	12
6) Survey (Office)	Supervisor, P.L.S.	82
	Cadd Supervisor	15
7) Final Submittal Plat of Highway & Descriptions	Supervisor, P.L.S.	17
	Cadd Supervisor	35
	Secretarial	3
8) Coordination Meetings	Principal/Officer	2
9) QC/QA	Surveyor, P.L.S.	86
	Cadd Supervisor	37

Route: F.A.P. 364 (Quentin Road)
Section: Cuba Road West to Illinois Route 22
County: Lake
Job No.:

PHASE II

**Breakdown of
In House Direct Costs**

Item

1. Pre-Survey Phase

- a. Trips 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 \$ 80.00

Sub-total Item #1 \$ 96.50

2. Reconnaissance Survey

- a. Trips to project site – 2 ea.
± 50 miles/trip x 2 trips = ± 100 miles
± 100 miles @ \$0.55/mile = \$ 55.00

4. First Submittal Plat of Highways & Descriptions

- a. Plat of Highways Mylars
22 sheets @ \$5.00/sheet = \$ 110.00

5. Survey (Field)

- a. Trips to project site - 27 ea.
± 50 miles/trip x 27 trips = ± 1,350 miles
± 1,350 miles @ \$0.55/mile = \$ 742.50

7. Final Submittal Plat of Highways & Descriptions

a. Trips to Recorder's office - 1 ea. ± 30 miles/trip x 1 trip = ± 30 miles ± 30 miles @ \$0.55/mile =	\$ 16.50
b. Record Monuments 2 Monument Records @ \$39 each =	\$ 78.00
c. Deliver Final Papers to I.D.O.T. ± 60 miles/trip x 1 trip = ± 60 miles ± 60 miles @ \$0.55/mile =	<u>\$ 33.00</u>
Sub-total Item #7	\$ 127.50

8. Coordination Meetings

a. Meetings at Civiltech's office – 1 ea. ± 70 miles/trip x 1 trip = ± 70 miles ± 70 miles @ \$0.55/mile =	<u>\$ 38.50</u>
Total All Items	\$ 1,170.00

Route: F.A.P. 364 (Quentin Road)
Section: Cuba Road West to Illinois Route 22
County: Lake
Job No.:

PHASE II

**Breakdown of
Services By Others**

Item

1. Pre-Survey Phase

- | | |
|-------------------------------------------------------------------------------|-------------|
| a. Commitment for Title Insurance Letters
23 Commitments @ \$320.00 each = | \$ 7,360.00 |
|-------------------------------------------------------------------------------|-------------|



JORGENSEN & ASSOCIATES, INC.
CONSTRUCTION and LAND SURVEYORS

Est. 1990

December 5, 2012

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

Re: Quentin Road Land Acquisition Survey Proposal

Dear Mr. Magner:

Enclosed, please find our proposal for potential revisions to the plat of highways based on negotiations for 5 fee simple parcels.

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\Quentin Rd\Contingent Parcel\LTR

Route: Quentin Road
Section: U.S. Route 12 to Illinois Route 22
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	28.50
Instrument Operator, Cadd Operator, assignable Clerical and Secretarial Labor	14.00	20.00

Route: Quentin Road
Section: U.S. Route 12 to Illinois Route 22
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: Quentin Road
 Section: U.S. Route 12 to Illinois Route 22
 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 _____	<u>0.96%</u>
Total Overhead	89.78%

Route: Quentin Road
Section: U.S. Route 12 to Illinois Route 22
County: Lake
Job No.:

Exhibit "D"

Classification Types & Rates

Sheet 1 of 2

- A. Supervisor, P.L.S.
- B. Survey Party Chief, S.I.T.
- C. Instrument Operator
- D. Cadd Supervisor

Classification Rates used for Calculation of Fee

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

Route: Quentin Road
Section: U.S. Route 12 to Illinois Route 22
County: Lake
Job No.:

Exhibit "D"

Average Hourly Rate Calculation

Sheet 2 of 2

Supervisor, P.L.S.	9 hours @ \$40.00/hour	=	\$ 360.00
Survey Party Chief, S.I.T.	9 hours @ \$22.00/hour	=	\$ 198.00
Instrument Operator	9 hours @ \$18.25/hour	=	\$ 164.25
Cadd Supervisor	<u>11 hours</u> @ \$27.50/hour	=	<u>\$ 302.50</u>
	38 hours		\$ 1,024.75

$$\text{Average Hourly Rate} = \frac{\$1,024.75}{38} = \$26.97/\text{hour}$$

Route: Quentin Road
 Section: U.S. 12 to Illinois 22
 Project:
 County: Lake
 Job No.:

COST ESTIMATE OF CONSULTANT'S SERVICES

Consultant: Jorgensen & Associates, Inc.
 Date: December 5, 2012
 No. of Parcels: 5 Fee Simple
 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	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A	\$0.00	0.00%
2) Survey Reconnaissance	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A	\$0.00	0.00%
3) Project Survey Plan	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A	\$0.00	0.00%
4) First Submittal Plat of Highways and Descriptions	8	\$245.00	\$391.29	\$0.00	\$636.29	\$81.71	N/A	\$718.00	23.25%
5) Survey (Field)	18	\$362.25	\$578.55	\$27.50	\$968.30	\$124.80	N/A	\$1,093.10	35.40%
6) Survey (Office)	3	\$120.00	\$191.65	\$0.00	\$311.65	\$40.02	N/A	\$351.67	11.39%
7) Final Submittal Plat of Highways and Descriptions	4	\$122.50	\$195.64	\$46.75	\$364.89	\$47.63	N/A	\$412.53	13.36%
8) Coordination Meetings	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	N/A	\$0.00	0.00%
9) QC/QA	5	\$175.00	\$279.49	\$0.00	\$454.49	\$58.36	N/A	\$512.86	16.61%
TOTALS	38	\$1,024.75	\$1,636.63	\$74.25	\$2,735.63	\$352.52	\$0.00	\$3,088.15	100.00%

Route: Quentin Road
 Section: U.S. Route 12 to Illinois Route 22
 County: Lake
 Job No.:

**Manhour Breakdown
 Land Acquisition Estimate**

Potential Revisions to the Plat of Highways based on Negotiations

5 Parcels: 5 Fee Simple

1.	Pre-Survey Phase		
	Research available records		
	a. Title Co.)	
)	
	b. Recorder's Office)	
)	
	c. LCDOT)	
)	
	d. Utilities)	
)	
	e. Private Surveyors)	
)	
	f. Land Owners)	<u>0 MH</u>
			Sub-total Item # 1
			0 MH
2.	Reconnaissance Survey		0 MH
3.	Project Survey Plan		
	a. Alignment info)	
)	
	b. Existing R.O.W. info)	
)	
	c. Land line data)	
)	
	d. Subdivision data)	<u>0 MH</u>
			Sub-total Item #3
			0 MH

4. First Submittal Plat of Highways & Descriptions

a.	Ownership info)	
)	
b.	Total holding boundaries)	
)	
c.	Total holding area listing)	
)	
d.	Private survey info)	
)	
e.	Deed calculated closures)	
)	
f.	Layout and drafting	$\pm 600'/\text{sht.} \pm 2 \text{ sheets}$	
		$3 \text{ hrs./sheet} \times 2 =$	6 MH
g.	Legal descriptions	5 descriptions	<u>2 MH</u>
		Sub-total Item #4	8 MH

5. Survey (Field)

a.	Center line alignments & ties		
b.	Measure existing property boundaries & subdivision lines		
c.	Appraisal topography		
d.	Monument & tie proposed right of way		
	9 hours x 2 men =		<u>18 MH</u>
		Sub-total Item #5	18 MH

6.	Survey (Office)		
	a.	Compute traverse	
	b.	Compute existing property boundaries & subdivision lines	
	c.	Compile appraisal topography	
	d.	Compute center line alignments	
	e.	Compute proposed right of way & easements	
		3 hours x 1 man =	<u>3 MH</u>
		Sub-total Item #6	3 MH
7.	Final Submittal Plat of Highways & Descriptions		
	a.	Final drafting \pm 2 sheets	
		2 hours x 1 man =	2 MH
	b.	Final descriptions 5 descriptions	1 MH
	c.	Assembly of final papers	<u>1 MH</u>
		Sub-total Item #7	4 MH
8.	Coordination Meetings		0 MH
9.	QC/QA		
	a.	Check preliminary plats	
		2 sheets	2 MH
	b.	Check preliminary legal descriptions	
		5 legal descriptions	1 MH
	c.	Check final plats	
		2 sheets	1 MH
	d.	Check final legal descriptions	
		5 legal descriptions	<u>1 MH</u>
		Total All Items	38 MH

(3)

Route: Quentin Road
Section: U.S. Route 12 to Illinois Route 22
County: Lake
Job No.:

Manhour Breakdown By Item

<u>Item</u>	<u>Classification</u>	<u>Manhours</u>
1) Pre-Survey		
2) Survey Reconnaissance		
3) Project Survey Plan		
4) First Submittal Plat of Highways & Descriptions	Supervisor, P.L.S. Cadd Supervisor	2 16
5) Survey (Field)	Survey Party Chief, S.I.T. Instrument Operator	9 9
6) Survey (Office)	Supervisor, P.L.S.	3
7) Final Submittal Plat of Highway & Descriptions	Supervisor, P.L.S. Cadd Supervisor	1 3
8) Coordination Meetings		
9) QC/QA	Surveyor, P.L.S. Cadd Supervisor	3 2

Route: Quentin Road
Section: U.S. Route 12 to Illinois Route 22
County: Lake
Job No.:

**Breakdown of
In House Direct Costs**

Item

5. Survey (Field)

a. Trips to project site – 1 ea.
± 50 miles/trip x 1 trip = ± 50 miles
± 50 miles @ \$0.55/mile = \$ 27.50

7. Final Submittal Plat of Highways

a. Deliver Final Papers to L.C.D.O.T. office
± 25 miles/trip x 1 trip = ± 25 miles
± 25 miles @ \$0.55/mile = \$ 13.75

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

Total All Items \$ 74.25



www.mset.com

MIDLAND STANDARD ENGINEERING & TESTING, INC.

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

January 11, 2013

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

Re: Proposal for Subsurface Exploration and Analysis
Quentin Road, Pine Street to Route 22
Sound Wall, Retaining Walls, and Ground Improvement
Lake County, Illinois

Dear Mr. Hatlestad:

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 includes the following items for subsurface exploration;

- Two Box Culvert Replacement/Extensions
- Two Sections of Ground Improvement to Strengthen Weak Soil Deposits
- Four Locations of Retaining Wall, Less than 10 feet High
- Four locations of Noise Abatement Wall

Method of Performance - Field Work and Laboratory Testing

The soil borings will involve drilling test holes that incorporate standard penetration tests and split- spoon sampling at 2-1/2 foot intervals. A total of forty-seven (47) soil borings will be drilled to depths of ten (10) to thirty (30) feet below the ground surface, in accordance with the schedule included in the RFP. The borings will be performed in compliance with the current State of Illinois, Geotechnical Manual. In our proposal, we have assumed that the final locations and elevations will be determined by the design section engineer or will be referenced to centerline stationing provided by the DSE.

Laboratory testing will include moisture content determinations, consistency (penetrometer value), determination on cohesive soil samples and classification tests as required to identify major subgrade soil types.

Method of Performance - Analysis and Report

The structure boring information will be presented on borings logs. 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, foundation types to be considered, excavation, and earth pressure recommendations for the various retaining wall types to be considered for the project. 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 and as utility clearance becomes available. We plan on mobilizing and doing all the borings concurrently. The final reports are expected to be complete with in 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 and 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 **\$ 41,295.00**.

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.
Principal Engineer

WJW

Enclosure: Attachments 1.1, 1.2, and General Conditions

**ATTACHMENT 1.1
SCHEDULE OF SERVICES AND FEES**

Quentin Road - Noise Walls & Ground Improvement
Lake County, Illinois

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Cost</u>	<u>Extention</u>
<u>Field Services</u>			
Mobilization of Drilling equipment, lump sum	1	\$500.00	\$500.00
Soil boring with soil sampling,/l.f.	915	\$21.00	\$19,215.00
Shelby Tube Sample, each		\$35.00	
Traffic Control, Signs, per day	9	\$450.00	\$4,050.00
		Field Services Total:	\$23,765.00
<u>Laboratory Services</u>			
Moisture Content Determinations, ea	365	\$6.00	\$2,190.00
Grain Size Analysis, Hydrometer, ea.	2	\$90.00	\$180.00
Atterberg Limit Test, ea.	2	\$80.00	\$160.00
		Laboratory Services Total:	\$2,530.00
<u>Engineering Services for Geotechnical Report Including:</u>			
Layout Coordination			
Utility Clearance and Permits			
Field Supervision During Drilling			
Preparation of Soil Boring Logs			
Analysis and Recommendations			
Report Preparation and Consultation			
		Estimated Cost (@ Unit Rates Listed on Attachment 1.2)	\$15,000.00
		TOTAL:	\$41,295.00

ATTACHMENT 1.2
ENGINEERING SERVICES

Quentin Road - Noise Walls & Ground Improvement
Lake County, Illinois

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

	<u>Estimated Quantity</u>	<u>Rate/Hour</u>	<u>Extentsion</u>
Principal Engineer, per hr.	12	\$155.00	\$1,860.00
Project Engineer, per hr.	20	\$125.00	\$2,500.00
Staff Engineer, per hr.	32	\$90.00	\$2,880.00
Field Engineer, per hr.	76	\$90.00	\$6,840.00
Technician, per hour	8	\$80.00	\$640.00
Draftsman/Word Processing, per hr.	4	\$70.00	\$280.00
			<hr/> \$15,000.00

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.

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.

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.



November 29, 2012

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

**Subject: Proposal to Provide Phase II Wetland Science Services
Quentin Road Improvements, U.S. Route 12 to IL Route 22
Lake Zurich, Kildeer, and Unincorporated Lake County, Illinois**

Cardno ENTRIX

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

Dear Mr. Magner:

Cardno ENTRIX is pleased to present Civiltech Engineering, Inc. (Civiltech) with this proposal to conduct wetland science services for the Phase II Engineering Design of the Quentin Road Improvements, U.S. Route 12 to IL Route 22 (Quentin Road Project) project located in Lake Zurich, Kildeer, and Unincorporated Lake County, Illinois. The wetland science services included herein coincide with Phase II transportation engineering related services and include update of the expired ENTRIX, Inc. Quentin Road Improvements, U.S. Route 12 to IL Route 22 Wetland Delineation Report dated September 28, 2009 (ENTRIX Wetland Report), and the wetland permitting submittals to the Lake County Stormwater Management Commission (LCSMC) and the U.S. Army Corps of Engineers (USACE). 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 the Lake County Division of Transportation (LCDOT) has retained Civiltech to perform Phase II transportation engineering services for the Quentin Road Project. The Project Corridor for the Quentin Road Project consists of all areas within the Quentin Road existing and proposed right-of-way (ROW) between Boschome Drive and IL Route 22, and includes an additional 100 feet beyond the ROW in accordance with the Lake County Watershed Development Ordinance (WDO). The proposed improvements include the reconstruction and widening of Quentin Road from north of U.S. Route 12 near Boschome Drive to IL Route 22, construction of a 10-foot shared-use path on the east side of Quentin Road, and construction of a 5-foot sidewalk on the west side of Quentin Road.

Cardno ENTRIX services presented in this proposal are in accordance with the regulatory requirements promulgated by the July 10, 2012, edition of the Lake County WDO and the USACE Joint Application Process. These services are based on the wetland provisions presented in the Lake County WDO to obtain the necessary Watershed Development Permit (WDP), and the USACE Regional Supplement to the Corps of Engineers Wetland Delineation

Manual: Midwest Region (Version 2.0) dated August 2010 (Wetland Manual Supplement) to obtain the appropriate USACE Chicago District Regional Permit (RP).

Cardno ENTRIX has based this proposal on the following:

- 1) Civiltech and Cardno ENTRIX e-mail correspondence dated November 17, 2012; and
- 2) ENTRIX Wetland Report.

Per the ENTRIX Wetland Report, Cardno ENTRIX understands that the Quentin Road Project proposes to impact Isolated Waters of Lake County (IWLC) and Waters of the United States (WOUS). Therefore, Cardno ENTRIX has included mitigation banking services to coordinate all wetland impacts resulting from the Quentin Road Project with LCSMC, USACE, and an approved wetland banker.

Based on the information provided, Cardno ENTRIX understands that Civiltech has requested the following wetland science and permitting services for the Quentin Road Project proposal to include:

- Task 1 - Wetland Delineation Report Update;
- Task 2 - LCSMC and USACE Permit Coordination and Submittals; and
- Task 3 - LCSMC and USACE Permit Re-Submittals (optional, per submittal).

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

- 1) The ENTRIX Wetland Report has been completed in compliance with the current WDO and USACE requirements;
- 2) Other wetland science services, such as state and federal threatened and endangered species coordination, have already been completed and are available for the LCSMC and the USACE permit submittals;
- 3) There are no Lake County Advanced Identification (ADID) wetlands or high-quality aquatic resources (HQAR) within, adjoining, or adjacent to the Project Corridor;
- 4) Cardno ENTRIX has assumed that wetland mitigation will be required by the LCSMC and the USACE, and that wetland banking is the desired and approved method for mitigation. Cardno ENTRIX also assumes that wetland mitigation banks are available, and that Civiltech and LCDOT are responsible for all wetland banking mitigation fees;
- 5) Cardno ENTRIX has not included wetland mitigation design, plan preparation, monitoring, or management in this proposal;
- 6) Cardno ENTRIX assumes that the Quentin Road Project 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; and
- 7) Cardno ENTRIX has assumed that no other environmental concerns are present within the Project Corridor that would impede the LCSMC and the USACE permit process, such as the presence of state and federal threatened and endangered species, protected historical and cultural sites, and environmental due diligence.

SCOPE OF WORK

Task 1 - Wetland Delineation Report Update

Cardno ENTRIX proposed to prepare a Wetland Delineation Report Update based on the ENTRIX Wetland Report. This updated report will reference findings from the ENTRIX Wetland Report. Cardno ENTRIX will coordinate with Civiltech, LCSMC, and USACE to ensure that the requirements of the WDO and the Wetland Manual Supplement are met in preparation of the Wetland Delineation Report Update.

As part of this task, Cardno ENTRIX will conduct a wetland investigation of the Project Corridor, which will include the re-identification of all potential on-site and adjacent IWLC, WOUS, wetland buffer areas, riparian environment areas, HQARs, and floodplains. A total of twenty-four (24) potential wetland investigation Sites were identified in the preliminary resource review of the ENTRIX Wetland Report. Of the twenty-four (24) Sites: eight (8) were found to be potential USACE jurisdictional WOUS or wetlands, including Sites 2, 3, 4, 5, 13, 14, 21, and 22; eight (8) were found to be potential IWLC, including Sites 8, 9, 11A, 16, 17, 18, 19, and 20; two (2) were found to be outside the Project Corridor, including Sites 7B and 11B; and six (6) were found to be non-wetlands; including Sites 1, 6, 7A, 10, 12, and 15. Proposed investigation activities will include on-site testing for the presence of hydric soils, hydrophytic vegetation, and sufficient hydrology in the twenty-two (22) sites located within the Project Corridor. These activities will follow the standards outlined in the WDO and Wetland Manual Supplement. Cardno ENTRIX's Lake County Certified Wetland Specialist will conduct these on-site investigation activities.

Cardno ENTRIX will summarize all findings from this investigation in the Wetland Delineation Report Update. Cardno ENTRIX will utilize Civiltech CAD services to prepare an overall site map depicting the wetlands located within the Project Corridor. That figure will be included in the Wetland Delineation Report Update as Figure 2. Cardno ENTRIX will provide a draft of the report to Civiltech in Adobe .pdf file format for review and comment. Cardno ENTRIX will finalize the Wetland Delineation Report Update upon receipt of Civiltech's comments and will provide three (3) copies and an Adobe .pdf file of the final Wetland Delineation Report Update to Civiltech.

Task 2 - LCSMC and USACE Permit Coordination and Submittals

As part of this task, Cardno ENTRIX will prepare and submit all applicable wetland related permit materials for the Quentin Road Project to LCSMC and USACE. Cardno ENTRIX understands these permits to specifically include the wetland provisions portion of the WDP submittal to LCSMC and the Joint Application submittal to USACE. All permit submittals will be prepared and submitted by Cardno ENTRIX's Lake County Certified Wetland Specialist.

Cardno ENTRIX proposes to include as part of this task, an on-site meeting and/or a pre-application meeting with Civiltech, USACE, and LCSMC. Cardno ENTRIX will prepare the permit applications and will request information, signatures, and fees necessary for a complete initial WDP to LCSMC and Joint Application submittal to USACE. 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 LCSMC and USACE after the initial permit submittals until WDP and USACE comments or approval are received, or for up to 120 days from the time of submittal.

Wetland mitigation banking coordination with LCSMC, the USACE, 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 and/or LCDOT.

Task 3 - LCSMC and USACE Permit Re-Submittal (optional, per submittal)

Cardno ENTRIX proposes that the services under this task include coordination with Civiltech, LCSMC, and USACE with regard to wetland permit comments received from LCSMC and the USACE as a result of the initial permit submittal. The services under this task 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 LCSMC and the USACE as necessary. Re-submittal fees are the responsibility of the Civiltech and/or LCDOT.

PROJECT TEAM

Cardno ENTRIX proposes to manage this project out of the Barrington, Illinois office with personnel who have significant experience in conducting wetland science services. 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 this effort, including Cardno ERI staff that will assist Mr. Stuedemann in completing the proposed tasks outlined in this scope of work.

PROJECT SCHEDULE

Cardno ENTRIX will proceed with the scope of work presented in this proposal immediately upon authorization from Civiltech. Final floristic quality assessment and wetland delineation work, however, must be completed during the Lake County growing season, from May 15th to October 1st, as required by the LCWDO. The duration of Cardno ENTRIX's services is subject to the responses, concerns, and requests of Civiltech, the concerning agencies, and the assumptions outlined in the above scope of work.

PROJECT COSTS

Cardno ENTRIX estimates the cost to complete the tasks outlined in this proposal as maximum "not-to-exceed" fees of:

Task 1 - Wetland Delineation Report Update:	\$ 8,962
Task 2 - LCSMC and USACE Permit Coordination and Submittals:	\$ 5,468
<i>Total for Tasks 1 and 2:</i>	<i>\$ 14,430</i>
Task 3 - LCSMC and USACE Permit Re-Submittal (optional, per submittal):	\$ 3,906

An itemization of these costs is presented in Table 1, Cost Estimate for Consulting Services. Cardno ENTRIX will not proceed with this 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.

Reid T. Magner, P.E.
Civiltech Engineering, Inc.
November 29, 2012



PROPOSAL ACCEPTANCE

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

Sincerely,

A handwritten signature in black ink that reads 'Baron H. Stuedemann' with a long horizontal flourish extending to the right.

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
 PHASE II WETLAND SCIENCE SERVICES
 QUENTIN ROAD INTERSECTION IMPROVEMENTS
 U.S. Route 12 to IL Route 22

Prepared for Civiltech Engineering, Inc.
 Prepared by Cardno ENTRIX

November 29, 2012

QUENTIN ROAD PROJECT PHASE II WETLAND SCIENCE SERVICES WORK ITEM DESCRIPTION	PROJECT MANAGER	STAFF SCIENTIST	PROJECT COORDINATOR	TOTAL HOURS	TOTAL LABOR RELATED COSTS	TOTAL DIRECT COSTS*	NOT-TO- EXCEED COSTS
Task 1 - Wetland Delineation Report Update	14	40	6	60	\$8,562	\$400	\$8,962
Task 2 - LCSMC and USACE Permit Coordination and Submittals	16	8	6	30	\$5,118	\$350	\$5,468
TOTAL FOR TASKS 1 AND 2:	30	48	12	90	\$13,680	\$750	\$14,430
Task 3 - LCSMC and USACE Permit Re-Submittals (optional, per submittal)	12	4	4	20	\$3,556	\$350	\$3,906

* Mileage = \$275; Deliveries = \$375; Copies = \$450



CONSULTANT TASK ORDER

Task Order No.: 1

Date: November 29, 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

**Phase II Wetland Science Services
Quentin Road Improvements, U.S. Route 12 to IL Route 22**

This Task Order No. 1 is issued pursuant to our Agreement dated November 29, 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 Update

BILLING PROCEDURES: Monthly

TOTAL COST (NOT TO EXCEED): \$8,962 (Maximum Not-to-Exceed)

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

Completion Date: December 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: November 29, 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

**Phase II Wetland Science Services
Quentin Road Improvements, U.S. Route 12 to IL Route 22**

This Task Order No. 2 is issued pursuant to our Agreement dated November 29, 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: LCSMC/USACE Permit Coordination and Submittals

BILLING PROCEDURES: Monthly

TOTAL COST (NOT TO EXCEED): \$5,468 (Maximum Not-to-Exceed)

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

Completion Date: December 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: November 29, 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

Phase II Wetland Science Services Quentin Road Improvements, U.S. Route 12 to IL Route 22

This Task Order No. 3 is issued pursuant to our Agreement dated November 29, 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: LCSMC/USACE Permit Re-Submittals

BILLING PROCEDURES: Monthly

TOTAL COST (NOT TO EXCEED): \$3,906 (Maximum Not-to-Exceed)

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

Completion Date: December 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: _____

November 27, 2012

Mr. Reid T. Magner, P.E.
Civiltech Engineering, Inc.
450 East Devon Avenue, Suite 300
Itasca, Illinois 60134

**Re: Clean Construction Demolition Debris (CCDD) Consulting
Quentin Road Improvements
Lake Zurich, Kildeer and Unincorporated Lake County, Illinois
Proposal #TI2-I32**

True North Consultants, Inc. (True North) is pleased to provide this proposal to perform limited soil assessment and management consulting activities to characterize excavation spoils generated during the Quentin Road Improvements Project. The project area includes all areas within the Quentin Road existing and proposed right-of-way (ROW) between approximately 100 feet north of West Boschome Road to approximately 100 feet south of Illinois Route 22 in Lake Zurich, Kildeer and Unincorporated Lake County, Illinois. (Project Area). The following sections of this proposal present background information, scope of services, estimated costs, schedule, and limitations.

BACKGROUND

True North is providing the following scope of work to perform limited soil assessment and reporting activities to characterize soils for potential off-site management at a permitted CCDD facility. The improvement project will include soil excavation for the installation of utilities, retaining walls and roadway. Based on True North's review of the provided April 6, 2012 Preliminary Environmental Site Assessment (PESA), it appears that a large portion of the Project Area could be certified as "uncontaminated soil", in accordance with regulatory requirements, using an LPC #662 Site Source Certification Form (LPC #662) pending soil pH testing. The acceptance of the LPC #662 certification is subject to acceptance by the permitted CCDD at which the soil is to be placed. One (1) area of concern requires sampling and LPC #663 Uncontaminated Soil Certification (LPC #663) near the intersection of Quentin Road and IL Route 22 due to the presence of a Potentially Impacted Property (PIP) at this intersection as identified in the PESA. This proposal is based on discussions with Civiltech Engineering, Inc. (Civiltech), the provided limited specifications, review of the limited PESA and experience with similar projects.



SCOPE OF SERVICES

Task: Soil Characterization Sampling

All Site activities will be performed by True North personnel in conformance with standards set forth by the Illinois Environmental Protection Agency (IEPA) 35 Illinois Administrative Code (IAC) 742, “Tiered Approach to Corrective Action Objectives (TACO)”, United States Environmental Protection Agency (USEPA) SW-846, “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, ASTM E1903-97 standard, “Standard for Environmental Site Assessments: Phase II Environmental Site Assessment Process”, Occupational Health & Safety Administration (OSHA) 1910 and 1926 Standards and 35 IAC 1100, “Clean Construction or Demolition Debris Fill Operations (CCDD).”

True North will subcontract an environmental drilling contractor to perform environmental drilling services. The environmental drilling contractor will provide appropriate traffic control measures during all drilling activities and will be responsible for all utility locates prior to drilling activities. A track-mounted geoprobe drill rig unit will be utilized to advance up to twelve (12) soil borings. True North has determined that soil borings will be advanced within the existing and proposed ROWs of Quentin Road based on input from Civiltech. The number of soil borings is based on an estimated volume of soil to be generated for management and the location of PIPs identified within the PESA. The soil borings will range in depth from approximately 6 to 10 feet below ground surface (bgs.)

True North will collect and screen representative soil samples from the Site. True North personnel will continuously screen representative soil samples with a calibrated photoionization detector (PID) with a 10.6eV lamp to determine the presence of photoionizable vapors that are potentially indicative of the presence of VOC compounds in the soil.

True North will collect one soil sample from each boring to determine if the soils are impacted by COCs above the Maximum Allowable Concentrations (MACs) listed in the CCDD regulations. Since a permitted Clean Construction Demolition Debris (CCDD) facility has not been selected for potential management of uncontaminated soils, True North has prepared a sampling plan that will meet the requirements of at least four (4) potential facilities that are close to Bensenville.

- Prairie Materials Sales Yard 92 #0890255034 - 1151 Penney Rd, East Dundee, 60118
- Bluff City Materials Gifford East CCDD #0314125046 – 1395 Gifford Road, Elgin 60120
- Thelen Sand & Gravel #1114200001 - 28955 E IL Rt 173, Antioch, 60002
- Petersen Sand & Gravel CCDD #1110600018 - 914 W Rte 120, Lakemoor, 60050

Based on the above facilities, samples shall be collected for volatile organic compound (VOCs), benzene, ethylbenzene, toluene and total xylenes (BETX), semi-volatile organic compounds (SVOCs), poly-nuclear aromatic hydrocarbons (PNAs), Resource Conservation Recovery Act (RCRA) Metals, polychlorinated biphenyls (PCBs) and pH. One sample will be collected from each boring location for laboratory analysis for the aforementioned compounds based on the location of the sample within the project area. True North will confirm whether only pH soil sampling can be utilized for the portion of the Project Area where no PIPs were identified.

The following table summarizes the CCDD characterization analytical parameters:

Compound or Group of Compounds	USEPA Analytical	Method Identification Matrix
Volatile Organic Compounds (VOCs) & Benzene, Ethylbenzene, Toluene & Total Xylenes (BETX)	5035/8260	Soil
Semi-Volatile Organic Compounds (SVOCs) & Polynuclear Aromatic Hydrocarbons (PNAs)	8270	Soil
Resource Conservation Recovery Act (RCRA) Metals	6020	Soil
Polychlorinated Biphenyls (PCBs)	8081	Soil
pH	9045C	Soil

Additionally, True North will submit soil samples to the laboratory for potential waste characterization laboratory analysis to be held for future analysis, if necessary. The characterization samples will be comprised of soils that are collected from within representative sample locations in each project area.

Upon receipt of all analytical results, True North will discuss the final destination of soils with Civiltech. Should the results of preliminary soil sampling results identify soils that requirement alternative management as a non-hazardous, non-special waste at a permitted Subtitle D facility, True North will release the held samples for laboratory analysis.

Based on the location of the project, three (3) facilities are options for management of soils as a non-hazardous, non-special waste.

- Veolia Landfill, Zion, Illinois
- Hillside Landfill, Hillside, Illinois
- Orchard Hills Landfill, Davis Junction, Illinois

Waste characterization analysis requirements for these facilities would be Resource Conservation Recovery Act (RCRA) Code “R” List and polychlorinated biphenyls (PCBs) or a modified Code “R”.

*Task 2: Project Reporting*

True North shall compile all field screening data and laboratory results in summary letter report format to document the investigation findings. The summary letter report shall include field sampling locations, analytical tables, laboratory data, and any pertinent historical and regulatory information used to formulate and support the investigation findings. True North will prepare an LPC #662 for execution by the Site owner or operator for portions of the Project Area that do not have any PIPs and soil pH results within the required pH range if the proposed CCDD facilities will accept. For portions of the Project Area with PIPs or if the proposed CCDD facilities will not accept an LPC #662, True North will execute an LPC #663 for soils that can be certified as uncontaminated and managed at a permitted CCDD facility. True North will also work with Civiltech on securing disposal approval at a Subtitle D landfill if necessary.

PROJECT COSTS

True North proposes to conduct the above scope of work in accordance with the following estimated not-to-exceed costs:

Service	Quantity	Units	Rate	Total
<i>Task 1: Soil Characterization Sampling and Profiling</i>				
Sampling Labor	12 (est.)	Hourly	\$90	\$1,080
Sampling Equipment, Field Supplies, Vehicle	1	Day	\$285	\$285
Environmental Drilling Contractor (non prevailing wage) ¹	1	Lump Sum	\$1,950	\$1,950
Soil Characterization Analytical – BETX ²	2 (est.)	Sample	\$60	\$120
Soil Characterization Analytical – VOCs ²	4	Sample	\$140	\$640
Soil Characterization Analytical – SVOCs ²	2	Sample	\$225	\$450
Soil Characterization Analytical – PNAs ²	2	Sample	\$125	\$250
Soil Characterization Analytical – RCRA Metals ²	4	Sample	\$85	\$340
Soil Characterization Analytical – pH ²	12	Sample	\$15	\$180
Soil Characterization Analytical – PCBs ²	2	Sample	\$80	\$160
Soil Characterization Analytical – TCLP RCRA Metals ^{2v} (if necessary CCDD determination)	3 (est.)	Sample	\$150	if necessary
Composite Non-Hazardous Non-Special Waste Analytical ² (if necessary for landfill disposal) – Laraway Landfill	1	Sample	\$1,000	if necessary
Composite Non-Hazardous Non-Special Waste Analytical ² (if necessary for landfill disposal) – Hillside Landfill	1	Sample	\$700	if necessary
<i>Task 2: Project Reporting</i>				
LPC #662 (if applicable)	1	Report	\$500	if applicable
LPC #663	1	Report	\$1,000	\$1,000
Project Consulting/Meetings/Correspondences	4 (est.)	Hourly	\$100	\$400



Total	\$6,855
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(est.) = Estimated

¹ *Environmental Drilling Contractor Rate for Prevailing Wage - \$2,500*

² *Rush TAT surcharges are 100% for 48 hours and 75% for 72 hours*

Should the Client request a change in the scope-of-work, or should circumstances render the current estimate invalid, a new estimate will be prepared and mutually agreed to in writing before further work proceeds. Written authorization to proceed will form a binding contract and indicates your acceptance of our Terms and Conditions. Any changes to our Terms and Conditions must be agreed to in writing by both parties prior to your authorization to proceed.

SCHEDULE

True North can initiate soil management activities within one week of executing this proposal. True North has assumed one day to complete sampling activities. Laboratory analytical results will be available within seven (7) days of sampling activities unless expedited. True North will provide the LPC #662 (if applicable) and LPC #663 certifications within a week of receiving laboratory analytical.

LIMITATIONS AND QUALIFICATIONS

The Client and their respective subcontractors shall be responsible for complying with the terms of health and safety plans, Federal, and State requirements applicable to this project.

True North cannot guarantee that all permitted CCDD facilities will accept the proposed analytical sampling. Certain CCDD facilities may require additional soil analysis beyond the scope of this proposal. True North is not responsible for the costs to collect samples for additional analysis beyond this proposal.

Civiltech will provide True North with utility plans and assist True North with ensuring all utility locations are complete prior to Site mobilization.

True North cannot guarantee that all screened and sampled soils removed from the Site shall meet the requirements per the CCDD operation for final placement. The Owner shall be responsible for disposal of all soils rejected from the CCDD operation as a special waste at a permitted landfill.

True North shall not be responsible for the health and safety of Civiltech or Owner employees, subcontractors, or agents thereof while performing on-Site activities.

This proposal is valid for a period of 45 days from the date of this proposal. In the event that authorization is received after 45 days from the date of this proposal, True North reserves the



right to resubmit a new cost estimate for approval to reflect any additional costs associated with the proposed scope of work, if necessary.

TERMS OF AGREEMENT

If this proposal meets with your approval, please sign the attached service agreement and return it to our office via mail, fax or e-mail. This agreement for professional services represents a contract between True North Consultants, Inc. and the Client. Our Terms and Conditions are hereby incorporated as part of this agreement.

True North appreciates the opportunity to offer this proposal for project planning and soil management and consulting services. If you have any questions, please contact me at 224-387-6125.

Regards,

TRUE NORTH CONSULTANTS, INC.

Brian S. Mihelich, CHMM
Senior Vice President

True North Proposal # T12-132 is hereby accepted and the conditions attached and outlined herein agreed to:

CLIENT	TRUE NORTH CONSULTANTS, INC.
By:	By: Brian S. Mihelich
Signature:	Signature:
Date:	Date: November 27, 2012

SCHEDULE OF TERMS & CONDITIONS

1.0 PROPOSAL ACCEPTANCE

The following terms and conditions ("Terms") shall apply to and are an integral part of the attached proposal between True North Consultants, Inc. (True North) and the Client named in the attached proposal ("Client"). Client's acceptance of the proposal includes acceptance of the Terms and any terms and conditions proposed by the Client will be deemed to materially alter the Terms and are hereby objected to and rejected by True North. Acceptance of this proposal, including acceptance of the Terms, shall occur upon the notification of True North by Client, in writing or orally, to commence performance in accordance with the proposal and the Terms.

2.0 WARRANTY

The Client recognizes that subsurface conditions may vary from those observed at locations where borings, surveys or explorations are made, and that site conditions may change with time. Data, interpretation, and recommendations by True North will be based solely on information available to True North. True North is responsible for those data, interpretations, and recommendations, but will not be responsible for other parties' interpretations or use of the information developed. Client acknowledges that whenever a Project involves hazardous or toxic materials and/or investigations of chemicals in the environment, there are inherent uncertainties involved (such as limitations on laboratory analytical methods, variations in subsurface conditions and the like) that may adversely affect the results of the Project, even though the services are performed with skill and care. True North shall perform the services consistent with that level of care and skill ordinarily exercised by other professional consultants under similar circumstances at the same time the services are performed. No other warranty, expressed or implied, is made.

3.0 SUBCONTRACTED AND OTHER SERVICES

- 3.1 True North will select reputable subcontractors for test borings and/or other explorations or services based on oral or written competitive prices. The contractor's invoices shall be billed in accordance with our proposal. Nothing in this paragraph shall require that services or equipment be obtained through competitive bidding or be available from multiple sources.
- 3.2 On occasion, True North engages the specialized services of individual consultants or other companies to participate in a project. When considered necessary, the cost of such services will be billed in accordance with our proposal.

4.0 SITE ACCESS AND SITE CONDITIONS

Client will grant or obtain free access to the site for all equipment and personnel for True North to perform the work set forth in this Agreement. The Client will notify any and all possessors of the project site that Client has granted True North free access to the site. True North will take reasonable precautions to limit damage to the site, but it is understood by Client that, in the normal course of work, some damage may occur and the correction of such damage is not part of this Agreement unless so specified in the Proposal. The Client is responsible for the accuracy of locations for all subterranean structures and utilities. True North will take reasonable precautions to avoid known subterranean structures, and the Client waives any claim against True North, and agrees to defend, indemnify, and hold True North harmless from any claim or liability for injury or loss, including costs of defense, arising from damage done to subterranean structures and utilities not identified or accurately located. In addition, Client agrees to compensate True North for any time spent or expenses incurred by True North in defense of any such claim with compensation to be based upon True North's prevailing fee schedule/expense reimbursement policy.

5.0 BILLING AND PAYMENT

Invoices shall generally be submitted every four weeks for services performed during the previous four weeks. Payment shall be due within 30 days of invoice date. If Client objects to all or any portion of

any invoice, Client will so notify True North in writing within fourteen (14) calendar days of invoice receipt, identify the cause of disagreement, and pay within thirty (30) days that portion of the invoice, if any, not in dispute. The parties will immediately make every effort to settle the disputed portion of the invoice. In the absence of written notification described above, the balance as stated on the invoice will be paid. Invoices are delinquent if payment has not been received within thirty (30) days from date of invoice. Client will pay an additional charge of 1-1/2 (1.5) percent per month (or the maximum percentage allowed by law, whichever is lower) on any delinquent amount, excepting any portion of the invoiced amount in dispute and resolved in favor of Client. Payment thereafter will first be applied to accrued interest and then to the principal unpaid amount. All time spent and expenses incurred (including any attorney's fees) in connection with collection of any delinquent amount will be paid by the Client to True North per True North's current fee schedules. In the event Client fails to pay True North within thirty (30) days after invoices are rendered, Client agrees that True North has the right to suspend this Agreement, without incurring liability to Client, after giving seven (7) days written notice to Client.

6.0 DOCUMENTS AND ELECTRONIC FILES

- 6.1 Written Documents: Any letters, reports, or documents prepared by us for Client, are the instruments of our consulting and engineering services. These services provided by us are solely for Client's use for the project and site described in our proposal. Any documents prepared by us for the client shall not, in whole or in part, be disseminated or conveyed to another party, nor used by another party in whole or in part, without prior written consent from True North. The Client shall, to the fullest extent permitted by law, waive any claim against True North, and indemnify, defend, and hold True North harmless for any claim or liability for injury or loss allegedly arising from any third-party reliance on True North's instruments of service without True North's specific authorization to do so.
- 6.2 Electronic Files: The Client hereby grants permission for True North to use information and data provided by the Client, including electronic records produced or provided by the Client in the completion of the project. The Client also grants permission to True North to release True North documents electronically to Consultants, Contractors, and Vendors as required in the execution of the project.

7.0 INSURANCE

True North maintains Workmen's Compensation Insurance as required by State law and General Liability Insurance for bodily injury and property damage with an aggregate limit of \$1,000,000 per occurrence. True North will furnish certificates of such insurance upon request. In the event the Client desires additional coverage of this type, True North will, upon the Client's written request, obtain additional insurance (if possible) at the Client's expense. Our liability to the Client for bodily injury or property damage arising out of work performed for the Client for which legal liability may be found to rest upon us, other than for professional errors or omissions, shall be limited to our General Liability Insurance coverage.

8.0 ALLOCATION OF RISK

- 8.1 Limitation of Liability: Client agrees to limit True North's liability to Client, and to any other person or entity, for any claim arising from, or alleged to arise from any acts, errors or omissions in the performance of services under this Agreement whether such claim sounds in negligence, breach of contract, strict liability, or other legal theory, except for willful misconduct or gross negligence and including any legal fees or costs awarded under this Agreement, to an aggregate limit of the amount of fees paid to True North under this Agreement, or \$50,000, whichever is greater. If Client prefers not to limit our professional liability to this sum, we shall waive this limitation upon Client's written request, provided that Client agrees to pay for this

SCHEDULE OF TERMS & CONDITIONS

waiver at a negotiated fee. Client's request for this option must be made at the time Client accepts our proposal. In the event Client makes a claim against us for any act arising out of the performance of our professional services, and fails to prove such claim, then Client agrees to pay all legal and other costs incurred by us in defense of such claim.

- 8.2 Waiver of Consequential Damages: True North and Client agree to waive any claim against each other for consequential damages.
- 8.3 Indemnification: True North shall indemnify and hold harmless Client from and against any and all claims, damages, or liability arising from the negligent performance of services under this Agreement by True North, including injuries to employees of True North. Client shall defend, indemnify, and hold harmless True North from and against any and all claims, damages, or liability arising from or related to Hazardous Materials existing at the Project Site prior to the commencement of True North's services under this Agreement, unless caused by the sole negligence or willful misconduct of True North.
- 8.4 Continuing Agreement: The obligations of this section shall survive notwithstanding termination of this agreement. In the event that Client requests that True North provide additional services, Client's obligations under this section shall apply to such additional services as if such additional services had to be performed as part of this Agreement.

9.0 CHANGES

- 9.1 Unforeseen Site Conditions: Client reserves the right to make reasonable changes in the work to be performed after acceptance of this Agreement. Client understands that unforeseen site conditions may require changes in the Scope of Work to be performed.
- 9.2 Unauthorized Changes: If changes are made in True North's work products by Client or persons other than True North, and these changes affect our work, any and all liability against True North arising out of such changes is waived and you assume full responsibility for such changes unless you have given us prior notice and have received from us written consent for such changes.
- 9.3 Client Requested Changes: Upon receipt of a change requested by Client, True North will obtain price quotations from our subcontractors and shall provide Client with a quotation of the cost of having the change performed, and any increase in contract time caused by the change. Client shall authorize the requested change by amending the contract price and contract time.

10.0 NOTIFICATION OF HAZARDS

It is Client's duty to notify True North of any information Client has with respect to the existence or suspected existence of Biological Pollutants, Hazardous Materials, oil, or asbestos in the environment, including but not limited to the air, soil, and water at the site. Client will advise True North immediately of any information which Client receives regarding the existence of any such Hazardous Materials or conditions at the site which might present a threat to human health and safety or the environment or impact True North's work products.

11.0 BIOLOGICAL POLLUTANTS

True North's scope of work, unless specifically outlined in our written scope of services, does not include the investigation or detection of the presence of any Biological Pollutants in or around any structure. Client agrees that True North will have no liability for any claim regarding bodily injury or property damage alleged to arise from or be caused by the presence of or exposure to any Biological Pollutants, in or around any structure. In addition, Client will defend, indemnify, and hold harmless Consultant from any third party claim for damages alleged to arise from or be caused by the presence of or exposure to Biological Pollutants in or around any structure, except for damages arising from or caused by True North's sole negligence.

12.0 DELAYS, SITE CONTROL, CONFIDENTIALITY AND DISCLOSURE

True North does not assume, by virtue of performing work on or near the site, the responsibility or liability for any aspect or condition of the site that may now or later exist to be discovered. In particular, we do not assume the responsibility to report to any governmental or regulatory agency the existence of any conditions of the site that may present a threat to human health, safety or the environment. True North will not intentionally divulge information regarding the proposal, our services or the report, and which is not in the public domain, except to Client or those whom Client designates. Notwithstanding the foregoing, you understand that we will comply with judicial orders and applicable laws and regulations regarding the reporting to the appropriate public agencies of potential dangers to the public health, safety or the environment.

13.0 RCRA COMPLIANCE

Nothing contained in this Agreement shall be construed or interpreted as requiring True North to assume the status of a generator, storer, treater, transporter, or disposal facility within the meaning of the Resource Conservation and Recovery Act of 1976, as amended, or within the meaning of any similar Federal, State, or local regulation or law.

14.0 DELAYS

Delays not the fault of True North or contractors shall result in an extension of the schedule equivalent to the length of delay. If such delays result in additional costs to True North, the total project cost shall be equitably adjusted by the amount of such additional costs.

15.0 DISPUTE RESOLUTIONS

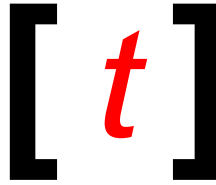
Any claims or disputes between the Client and True North arising out of the services provided by True North or out of this Agreement shall be submitted to non-binding mediation as a condition precedent to arbitration or the institution of legal or equitable proceedings by either party. The Client and True North agree to include a similar mediation agreement with all contractors, subconsultants, subcontractors, suppliers and fabricators, providing for mediation as the primary method of dispute resolution among all parties. The laws of the State of Illinois will govern the validity of this Agreement, its interpretation and performance.

16.0 MISCELLANEOUS

- 16.1 Controlling Law: The law of the State of Illinois will govern the validity of these Terms, their interpretation and performance, as well as the contract entered into between the parties to which these Terms relate. If any part of this Agreement shall be held illegal, unenforceable, void, or voidable by any court of competent jurisdiction, each of the remainder of the provisions shall nevertheless remain in full force and effect as a separate contract and shall in no way be affected, impaired, or invalidated.
- 16.2 Severability/Integration/Modification: This Agreement, including attachments incorporated herein by reference, represents the entire Agreement and understanding between the parties, and any negotiations, proposals, or oral agreements are intended to be integrated herein and to be superseded by this Agreement. This Agreement may not be modified or altered, except by an Agreement in writing and signed by authorized representatives of both parties hereto, which specifically refers to this Agreement.
- 16.3 Waste Manifests: If during remedial construction activities waste manifests are required, Client shall provide an authorized person to sign manifests or agrees to provide True North with a written limited power of attorney to sign manifests.

END OF TERMS AND CONDITIONS

REVISED April 5, 2011



"T" Engineering Services, Ltd.
real estate appraisers

December 4, 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
Quentin Road (US Route 12 to IL Route 22)*

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 Quentin 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 \$800 per parcel (40 parcels total) with the client being Civiltech Engineering, Inc. The appraisal reviews will be completed within two weeks after receiving the subject appraisal reports.

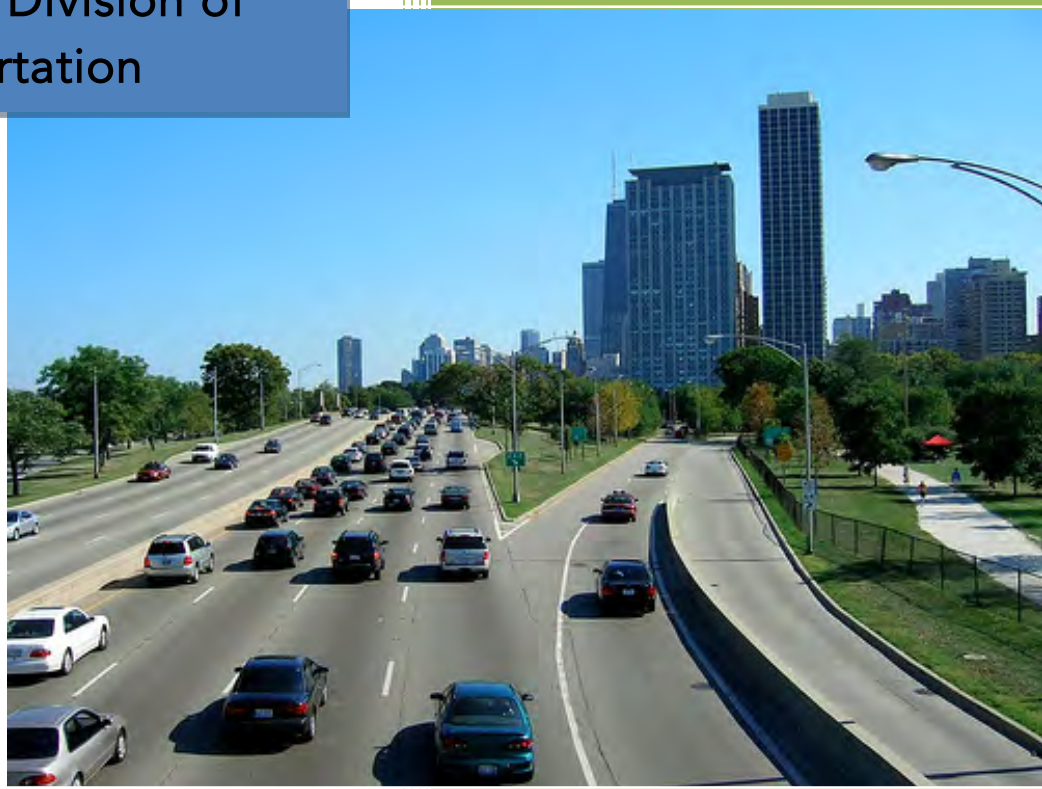
Respectfully submitted,

Keith T. Tadrowski
President

PROPOSAL FOR LAND ACQUISITION SERVICES

Civiltech Engineering

Lake County Division of
Transportation



Quentin Road
from US 12 to IL 22

Santacruz Associates

2650 Valor Drive
Glenview, IL 60026
847.251.5800

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EXECUTIVE SUMMARY

Having extensive experience with right of way projects, we understand the importance of keeping on schedule. On-time lettings gives Lake County Division of Transportation, 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 Civiltech Engineering, Engineer for the LPA, (“Consultant”) to develop a land acquisition plan for the reconstruction of Quentin Road from US 12 to IL 22 (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

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 **\$110,250.00** as follows:

COMPENSATION

Land Acquisition Services	\$94,500.00
Direct Billable Expenses	\$11,250.00

Santacruz Associates shall be entitled to the compensation as shown on the attached schedule. Our cost proposal, based on **forty-five (45)** projected parcels of right-of-way, is as follows:

NEGOTIATIONS: \$99,000.00.

As directed, 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 **\$250.00** per parcel for these charges. Santacruz Associates shall pay any such fees and charges in excess of the **\$250.00** 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.

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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	\$2,200.00
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Witness Services

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