


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 Ave., Ste. 300
County Lake County – Division of Transportation		Preliminary Engineering Services Agreement For Non-Motor Fuel Tax Funds		City Itasca
Section 99-00260-01-WR				State IL

THIS AGREEMENT is made and entered into this _____ day of _____, 2016 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 14th Street Improvements Phase II Engineering

Route FAU1228 Length 2.40 Mi. 12500.00 FT (Structure No. _____)

Termini IL Route 131 to Sheridan Road

Description:

Pavement widening and reconstruction, drainage, traffic signals, lighting, pedestrian facilities

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. ***See the CECs**

The Total Not-to-Exceed Contract Amount shall be \$1262592.78

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 167 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 167 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:

By

Lake County

Clerk

(Seal)

County of Lake

(Municipality/Township/County)

of the

State of Illinois, acting by and through its

County Board

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

Engineering Firm

Street Address

City, State

By

Title

Exhibit A: Cost Estimate of Consultant Services (page 1 of 2)

Element of Work	Employee Classification	Man-hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by Others	In-House Direct Costs (IHDC)	Profit	Total
Early Coordination and Data Collection						\$ 94,787.42	\$ -	\$ -	\$ 94,787.42
	Senior Project Manager	6	\$ 70.00	\$ 420.00	\$ 560.74			\$ 142.21	\$ 1,122.95
	Project Manager	49	\$ 53.95	\$ 2,643.55	\$ 3,529.40			\$ 895.08	\$ 7,068.03
	Engineer IV	82	\$ 37.00	\$ 3,034.00	\$ 4,050.69			\$ 1,027.28	\$ 8,111.97
	Engineer III	20	\$ 31.50	\$ 630.00	\$ 841.11			\$ 213.31	\$ 1,684.42
	Engineer II	8	\$ 28.50	\$ 228.00	\$ 304.40			\$ 77.20	\$ 609.60
	Engineer I	28	\$ 28.00	\$ 784.00	\$ 1,046.72			\$ 265.45	\$ 2,096.17
	Water Resources Manager	9	\$ 70.00	\$ 630.00	\$ 841.11			\$ 213.31	\$ 1,684.42
	Senior Design Technician	0	\$ 39.50	\$ -	\$ -			\$ -	\$ -
Preliminary Engineering (65%)							\$ 1,041.60	\$ -	\$ 1,041.60
	Senior Project Manager	49	\$ 70.00	\$ 3,430.00	\$ 4,579.39			\$ 1,161.36	\$ 9,170.75
	Project Manager	297	\$ 53.95	\$ 16,023.15	\$ 21,392.51			\$ 5,425.27	\$ 42,840.93
	Engineer IV	955	\$ 37.00	\$ 35,335.00	\$ 47,175.76			\$ 11,964.06	\$ 94,474.82
	Engineer III	292	\$ 31.50	\$ 9,198.00	\$ 12,280.25			\$ 3,114.35	\$ 24,592.60
	Engineer II	276	\$ 28.50	\$ 7,866.00	\$ 10,501.90			\$ 2,663.35	\$ 21,031.24
	Engineer I	920	\$ 28.00	\$ 25,760.00	\$ 34,392.18			\$ 8,722.07	\$ 68,874.24
	Water Resources Manager	84	\$ 70.00	\$ 5,880.00	\$ 7,850.39			\$ 1,990.91	\$ 15,721.29
	Senior Design Technician	404	\$ 39.50	\$ 15,958.00	\$ 21,305.53			\$ 5,403.21	\$ 42,666.74
Right-of-Way Documents and Coordination						\$ 159,750.00	\$ 104,000.00	\$ -	\$ 263,750.00
	Senior Project Manager	28	\$ 70.00	\$ 1,960.00	\$ 2,616.80			\$ 663.64	\$ 5,240.43
	Project Manager	80	\$ 53.95	\$ 4,316.00	\$ 5,762.29			\$ 1,461.35	\$ 11,539.64
	Engineer IV	64	\$ 37.00	\$ 2,368.00	\$ 3,161.52			\$ 801.78	\$ 6,331.30
	Engineer III	0	\$ 31.50	\$ -	\$ -			\$ -	\$ -
	Engineer II	0	\$ 28.50	\$ -	\$ -			\$ -	\$ -
	Engineer I	80	\$ 28.00	\$ 2,240.00	\$ 2,990.62			\$ 758.44	\$ 5,989.06
	Water Resources Manager	0	\$ 70.00	\$ -	\$ -			\$ -	\$ -
	Senior Design Technician	0	\$ 39.50	\$ -	\$ -			\$ -	\$ -

Exhibit A: Cost Estimate of Consultant Services (page 2 of 2)

Element of Work	Employee Classification	Man-hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by Others	In-House Direct Costs (IHDC)	Profit	Total
Pre-Final (90%) Plans, Special Provisions and Estimates							\$ 1,639.20	\$ -	\$ 1,639.20
	Senior Project Manager	82	\$ 70.00	\$ 5,740.00	\$ 7,663.47			\$ 1,943.50	\$ 15,346.98
	Project Manager	272	\$ 53.95	\$ 14,674.40	\$ 19,591.79			\$ 4,968.60	\$ 39,234.79
	Engineer IV	974	\$ 37.00	\$ 36,038.00	\$ 48,114.33			\$ 12,202.09	\$ 96,354.42
	Engineer III	208	\$ 31.50	\$ 6,552.00	\$ 8,747.58			\$ 2,218.44	\$ 17,518.01
	Engineer II	200	\$ 28.50	\$ 5,700.00	\$ 7,610.07			\$ 1,929.96	\$ 15,240.03
	Engineer I	970	\$ 28.00	\$ 27,160.00	\$ 36,261.32			\$ 9,196.09	\$ 72,617.41
	Water Resources Manager	46	\$ 70.00	\$ 3,220.00	\$ 4,299.02			\$ 1,090.26	\$ 8,609.28
	Senior Design Technician	413	\$ 39.50	\$ 16,313.50	\$ 21,780.15			\$ 5,523.58	\$ 43,617.23
Final (100%) Plans, Special Provisions and Estimates						\$ -	\$ 1,639.20	\$ -	\$ 1,639.20
	Senior Project Manager	51	\$ 70.00	\$ 3,570.00	\$ 4,766.31			\$ 1,208.76	\$ 9,545.07
	Project Manager	90	\$ 53.95	\$ 4,855.50	\$ 6,482.58			\$ 1,644.02	\$ 12,982.10
	Engineer IV	307	\$ 37.00	\$ 11,359.00	\$ 15,165.40			\$ 3,846.04	\$ 30,370.44
	Engineer III	118	\$ 31.50	\$ 3,717.00	\$ 4,962.57			\$ 1,258.54	\$ 9,938.10
	Engineer II	116	\$ 28.50	\$ 3,306.00	\$ 4,413.84			\$ 1,119.38	\$ 8,839.22
	Engineer I	288	\$ 28.00	\$ 8,064.00	\$ 10,766.25			\$ 2,730.39	\$ 21,560.63
	Water Resources Manager	26	\$ 70.00	\$ 1,820.00	\$ 2,429.88			\$ 616.23	\$ 4,866.11
	Senior Design Technician	120	\$ 39.50	\$ 4,740.00	\$ 6,328.37			\$ 1,604.91	\$ 12,673.29
Project Administration, Coordination and Permits				\$ -	\$ -	\$ 34,122.76	\$ 2,357.00	\$ -	\$ 36,479.76
	Senior Project Manager	26	\$ 70.00	\$ 1,820.00	\$ 2,429.88			\$ 616.23	\$ 4,866.11
	Project Manager	151	\$ 53.95	\$ 8,146.45	\$ 10,876.33			\$ 2,758.30	\$ 21,781.08
	Engineer IV	212	\$ 37.00	\$ 7,844.00	\$ 10,472.52			\$ 2,655.90	\$ 20,972.42
	Engineer III	106	\$ 31.50	\$ 3,339.00	\$ 4,457.90			\$ 1,130.55	\$ 8,927.45
	Engineer II	86	\$ 28.50	\$ 2,451.00	\$ 3,272.33			\$ 829.88	\$ 6,553.21
	Engineer I	80	\$ 28.00	\$ 2,240.00	\$ 2,990.62			\$ 758.44	\$ 5,989.06
	Water Resources Manager	18	\$ 70.00	\$ 1,260.00	\$ 1,682.23			\$ 426.62	\$ 3,368.85
	Senior Design Technician	6	\$ 39.50	\$ 237.00	\$ 316.42			\$ 80.25	\$ 633.66
Totals		8697		\$ 322,870.55	\$ 431,064.47	\$ 288,660.18	\$ 110,677.00	\$ 109,320.58	\$ 1,262,592.78

EXHIBIT A-1

PHASE II SCOPE OF ENGINEERING SERVICES

14th Street Improvements
IL Route 131 to Sheridan Road

All work will be performed in accordance with the standards and guidelines of the Lake County Division of Transportation (LCDOT). Where applicable, work will also conform to the Illinois Department of Transportation (IDOT) Bureau of Local Roads and Streets (BLRS) and Bureau of Design and Environment (BDE) Manuals, and Lake County Forest Preserves (LCFP) design guidelines. In addition, all permitting will follow the requirements set forth by the Lake County Stormwater Management Commission and the Illinois Environmental Protection Agency.

1. EARLY COORDINATION AND DATA COLLECTION

- A. Initial Meetings with County and Cities** - We will hold a joint meeting with the LCDOT, LCFP and the Cities of Waukegan and North Chicago to discuss the Phase I work performed to date, project requirements, schedule, and coordination with IDOT and any others involved with the project. Upon concurrence of the schedule, we anticipate holding an additional kick-off meeting with IDOT Bureau of local Roads and Streets, Land Acquisition, and other stakeholders involved with the project.

Considering that 14th Street is currently under the jurisdiction of North Chicago and Waukegan, we will also discuss our approach to permitting any work that arises during the project development.

- B. IDOT Project Kick-Off Meeting** - We will conduct a joint meeting with IDOT, LCDOT and the Cities of Waukegan and North Chicago to discuss the project, further define IDOT's processing requirements, and gain everyone's acceptance of the project schedule and commitment to timely reviews.
- C. Lake County Stormwater Management Commission Kick-Off Meeting** – We will meet with LCSMC to discuss the project and confirm their permitting requirements prior to completing detailed drainage design. As noted in a previous meeting with LCSMC held during Phase I the project improvements may be able to fall under Countywide Permit #1.
- D. Obtain/Update and Review Record Data** - The Phase II Engineers will review the Phase I study information 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 and City 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.

This item also includes manhours for coordination between the Phase I and Phase II Engineers during the preliminary stages of the project since there will be an overlap between the start of Phase II and the completion of the Phase I study.

E. 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 drawings. See item 6-C for additional information about the scope of utility coordination.

F. Supplemental Topographic Survey – This item includes obtaining additional survey at locations where the original survey did not cover what is anticipated to be part of the Phase II engineering work. The anticipated locations include the south right-of-way west of Green Bay Road to Hillcrest Avenue and the resurfacing section of 14th Street from Jackson to Sheridan Road.

The original Phase I survey was performed by Jorgensen and Associates. This supplemental survey will also be performed by Jorgensen and Associates as a sub-consultant to Civiltech. We have included manhours for coordination between Civiltech and Jorgensen. A copy of Jorgensen's proposal is included in Attachment A.

G. 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 Preliminary Utility Company Coordination and visual observation in the field.

H. Pavement Cores – Geotechnical reports were prepared during the Phase I study by Midland Standard Engineering and Testing. The reports included soil borings for the roadway reconstruction, and pavement cores. Additional cores are required for the resurfacing section of the project between Jackson and Sheridan. This work will be performed by Midland Standard Engineering and Testing. We have included manhours for coordination between Civiltech and Midland and to attend one meeting with the County to discuss the geotechnical elements of the project, if required. A copy of Midland's proposal is included in Attachment B.

I. Wetland Studies – Two wetland delineation reports were prepared for the entire Phase I study area (dated October 13, 2013). The report will expire prior to the completion of the permitting for this project. The report will be updated for the project area by Barry Stuedemann of Stuedemann Environmental Consulting (SEC). A copy of SEC's proposal is included in Attachment C. We have included manhours for coordination between Civiltech and SEC and to prepare any required exhibits for the report. SEC will also provide permitting support as part of their scope of services.

J. Special Waste and CCDD Testing - Preliminary Environmental Site Assessments were performed during the Phase I study by SEC. Specifically, the findings section of the PESA indicates potential hazards were identified. A Preliminary Site Investigation (PSI) will include collection of soil samples for assessment of appropriate disposal practices including classification as CCDD for the project corridor. Samples will either be collected related to Potentially Impacted Properties (PIPs), which are essentially the same as the RECs identified in the PESAs (for LPC-663 Form) or for pH only along project areas where PIPs/RECs were not identified (for LPC-662 Form). This work will be performed by Huff & Huff as a subconsultant to Civiltech. A copy of their proposal is included in Attachment D. We have included manhours for

coordination between Civiltech and Huff & Huff.

- K. Utility Potholing** - This non-destructive type of excavating is quickly becoming recognized as a best practice when working in areas with underground utility congestion. The service will be conducted by Midland Standard Engineering and Testing as they work with facility owners and as a subcontractor for many utility companies. A copy of their proposal is included in Attachment E. Our goal will be to safely work around buried utilities and obstructions, allowing the Contractor to be more productive.

This is a contingency service to be used as needed, so that we can design to quickly, safely and cleanly excavate around utilities. Where potential conflicts exist we have had success first in asking that each utility provider identify and expose critical elements of their network and to provide us with horizontal and vertical information in an effort to resolve issues before they may arise in the field. This cooperative approach will be employed throughout the project. However, experience has shown that utility companies don't always have the knowledge or means to provide this level of detail.

2. PRELIMINARY (65%) ENGINEERING

- A. Plan Base Sheet Preparation** - We will plot existing topographic 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. All drawings will be in Microstation format following IDOT nomenclature.

It is our intent to utilize available aerial photography combined with field measurements and documentation to develop base sheets for the resurfacing section of the project between Jackson and Sheridan. We have included time under this item for our designers to perform these detailed field investigations.

- B. Pavement Design** – Pavement designs were initiated as part of the Phase I engineering. The designs will include 14th Street and the intersecting streets. The designs will be reviewed and finalized as part of the Phase II engineering. Resurfacing designs will also be completed for the section between Jackson and Sheridan.
- C. Drainage Design** – The Phase I study included the preparation of Existing and Proposed Drainage Plans. The approved PDP will be used as the starting point for the completion of the detailed drainage design. Inlet spacing will be performed in accordance with IDOT's Drainage Manual as well as Lake County requirements. The storm sewer mainline layout and sizing performed during Phase I will be verified and used to prepare the detailed plans.

This project will require detention using oversized storm sewers where the downstream outlets and storm sewer systems have limited capacity at locations indicated on the Phase 1 PDP. The required detention volumes and restrictor sizes calculated in Phase I will be verified based on the detailed design. Detailed calculations with existing and proposed release rates as well as restrictor details will be developed for the oversized storm sewers. Consideration will also be made for the incorporation of mechanical water quality devices at sensitive discharge locations.

The 14th Street improvements will require a permit application to the Lake County Stormwater Management Commission. With regards to the LCSMC requirements the proposed improvement may be eligible to fall under Countywide Permit Number 1. Our plan is to develop preliminary engineering plans for a pre-application meeting with the LCSMC to get their guidance on erosion control, wetland impacts, stormwater, water quality BMP's, and drainage design criteria for the projects compliance with the Watershed Development Ordinance.

- D. Lighting Design** – There are not continuous lighting systems within the project limits. There are ComEd lighting units scattered throughout the project mainly at cross streets. The proposed lighting of Lake County maintained lighting for the roundabout at 14th Street and Dugdale Road. The roundabout lighting will conform to County standards. The proposed lighting outside of the roundabout will be the responsibility of the City of North Chicago and Waukegan. Coordination of ownership and maintenance limits between the two cities will need to be determined, along with lighting equipment selection. Continuous lighting will be provided from east of the IL 131 (Green Bay Road) intersection to east of the Jackson Street intersection. The lighting will be designed to meet to IES, County and City guidelines for roadway, intersection and pedestrian paths. Intersection calculations will be provided for the signalized and roundabout intersections at Dugdale Road, Lewis Avenue and Jackson Street.

We will develop a preliminary design and layout of the proposed lighting along the roadway corridor. A preliminary design report will be prepared with all the photometric calculations, voltage drop calculations, preliminary pole layout, catalog cuts and other design documentation. The lighting plans will be included in the full plan set submittals.

Since there is no existing continuous lighting, no temporary lighting is expected to be required for this project.

- 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. We will prepare a staging and maintenance of traffic concept memorandum for review and approval by the County. Construction staging, maintenance of traffic concepts will be agreed to prior to the pre-final plan development which will include work associated with maintaining pedestrian access through the corridor. The staging of work over the winter may also be required, and maintenance of the roadways during this period will be coordinated with the Cities.
- F. 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. This item also 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.

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

- Cover Sheet
- Index of Sheets and List of State and Local Standards
- General Notes and List of Commitments"
- Existing Typical Sections
- Proposed Typical Sections
- Alignment, Ties, Benchmarks(1"=100')
- Roadway Removal Plan (1"=20' dual pane)
- Roadway Resurfacing Plans (1"=20' dual pane)
- Roadway Plan and Profile (1"=20')
- Stages of Construction - Sequences and Typical sections
- Maintenance of Traffic Plans (3 stages) (1"=50' dual pane)
- Erosion Control Plans (3 stages) (1"=50' dual pane)
- Drainage and Utilities 1"=20'
- Drainage Details, Restrictor Plate, Water Quality
- Intersection Details (1"=20')
- Roundabout Details (1"=20')
- Driveway Details (1"=10')
- Pedestrian Facility/PACE Shelter ADA Details (1"=10')
- Pavement Marking and Signing Plan (1"=50' dual pane)
- Landscaping Plan (1"=50' dual pane)
- Preliminary Traffic Signal Layout Plans
- Temporary Interconnect Plan 14th Street (Lewis to Jackson)
- Temporary Interconnect Plan Lewis Avenue (14th Street to 10th Street)
- Lighting Plan (1"=20' - dual pane)
- Cross Section - 50' interval (1"=10'H : 1"=5'V)

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

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

Traffic signal work for this project will include improvements at the intersections of 14th Street/IL Route 131 (Green Bay Road), 14th Street/Lewis Avenue and 14th Street/Jackson Street. The intersection of 14th Street/IL Route 131 will be modified to add a new pedestrian crossing across the east leg of the intersection. The intersection of 14th Street/Lewis Avenue will be modified to accommodate the proposed 3-lane cross section. The existing traffic signal at the intersection of 14th Street/Jackson Street is out-of-date and will be completely modernized. The intersection of 14th Street/IL Route 131 is under the jurisdiction of the Illinois Department of Transportation (IDOT) while the intersections of 14th Street/Lewis Avenue and 14th Street/Jackson Street are under the jurisdiction of Lake County Division of Transportation (LCDOT).

A new fiber optic interconnect will also be installed along 14th Street between the intersections of Lewis Avenue and Jackson Street. The new traffic signal at Jackson Street will be designed to meet the County's signal design standards including video detection cameras, a PTZ camera and LED internally illuminated street name signs. Our records indicate that the signal at 14th Street/Lewis Avenue is already integrated into the County's PASSAGE network, thus the new interconnect link will allow the signal at Jackson Street to be added into the network.

The intersections of 14th Street/IL Route 131 and 14th Street/Lewis Avenue have been recently modernized, therefore the improvements to these intersections will be designed with the goal of minimizing impacts to the existing equipment. However since 14th Street will be completely reconstructed, a temporary traffic signal is likely to be needed at the Lewis Street intersection for maintenance of traffic during construction. The existing interconnect north along Lewis Avenue to 10th Street will be maintained. We will coordinate with LCDOT to determine whether temporary aerial fiber optic cable or wireless interconnect will be the most appropriate form of temporary interconnect during construction.

- H. Preliminary Quantity Calculations and Estimate of Cost** - We will perform detailed quantity calculations at the preliminary stage of the plan development. Two sets of calculations will be performed by separate engineers in order to ensure the accuracy of the calculations. A Preliminary Estimate of Cost will be prepared in order to verify LCDOT budget numbers for the project.
- I. Preliminary Design Review Meetings** - We will coordinate meetings in order to discuss the status of the project and discuss the review of the preliminary plans. The meetings will be scheduled such that all parties will have had an opportunity to review the preliminary plans and provide comments. We anticipate two meetings, one with the LCDOT and a second with the Cities of Waukegan and North Chicago.

3. RIGHT-OF-WAY DOCUMENTS AND COORDINATION

Land Acquisition will be a significant component of this the Phase II contract, including 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. Land Acquisition Support and 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 (fee for this work is included under Civiltech's Phase I contract). We will provide Jorgensen & Associates electronic copies of the proposed alignment and right-of-way for use in preparing the Plat of Highways and tying down the centerline alignment. Jorgensen and Associates will also run a title search of the existing right-of-way to identify any encumbrances that may be existing.

Civiltech will provide the necessary valuation services. The fees included in the Direct Costs reflect that there will be parcels with differing levels of work required. We propose to use T Engineering Services for our review appraisals, to use Santacruz Land Acquisitions as the negotiator (Attachment F) for the land acquisition. As

part of the property owner negotiations, commitments will be documented for reference during later stages of the project.

Of note, appraisal and review appraisal fees included herein reflect conventional appraisals in accordance with IDOT Bureau of Land Acquisition requirements. Should the County determine that is possible to incorporate the use of waiver valuations for parcels with a value less than \$10,000, appraisal fees will be reduced, and review appraisals will not be required for those parcels. Please reference the Direct Cost and Subconsultant calculations for additional information.

This item also includes work involved with coordination between the Phase II design team and the appraisers and negotiators. This work typically includes providing the appraisers and negotiators with exhibits for use during meetings with the property owner, and providing information regarding the design and potential modifications to the same. However, the design for the relocation of any private property items is NOT included within the scope of this agreement. We will work with the appraisers and negotiators to ensure that all items within the takes or easements that need to be relocated by the property owner are accounted for in the compensation offered to them.

- B. Right-of-Way Coordination Meetings** - We will arrange and attend meetings with the County and/or property owners to facilitate the land acquisition process. This item also includes the development of meeting materials to aid in the presentation of information.

4. PRE-FINAL (90%) PLANS, SPECIAL PROVISIONS AND ESTIMATES

- A. Pre-Final Plans** - We will prepare pre-final contract plans based on comments received on the preliminary plans and in accordance with the approved Phase I report, the applicable sections of the BLRS manual, applicable IDOT Standards and in accordance with current County standards and practices. We anticipate that the contract plans will contain the following drawings:

- Cover Sheet
- Index of Sheets and List of State and Local Standards
- General Notes and List of Commitments
- Summary of Quantities
- Existing Typical Sections
- Proposed Typical Sections
- Schedule of Quantities
- Alignment, Ties, Benchmarks(1"=100')
- Roadway Removal Plan (1"=20' dual pane)
- Roadway Resurfacing Plans (1"=20' dual pane)
- Roadway Plan and Profile (1"=20')
- Roadway Details
- Stages of Construction - Sequences and Typical sections
- Maintenance of Traffic Plans (3 stages) (1"=50' dual pane)
- Erosion Control Plans (3 stages) (1"=50' dual pane)
- Drainage and Utilities 1"=20'
- Drainage Details, Restrictor Plate, Water Quality

- Intersection Details (1"=20')
- Roundabout Details (1"=20')
- Driveway Details (1"=10')
- Pedestrian Facility ADA Details (1"=10')
- Pavement Marking and Signing Plan (1"=50' dual pane)
- Landscaping Plan (1"=50' dual pane)
- Landscaping Plan Details
- Traffic Signal Plans
- Temporary Traffic Signal Plan (Lewis and Jackson)
- Temporary Cable Plan and Sequences (Lewis and Jackson)
- Traffic Signal Modification Plan (IL Route 131 and Lewis)
- Traffic Signal Modernization Plan (Jackson)
- Cable Plan and Sequences (131, Lewis and Jackson)
- Schedule of Quantities and Mast Arm Mounted Details
- Temporary Interconnect Plan
- Temporary Interconnect Schematic
- Interconnect Plan
- Interconnect Schematic
- IDOT District 1 Standard Traffic Signal Design Details
- Lighting Plans (21 sheets)
- Street Lighting General Notes, Legend, Bill of Material
- Street Lighting Plan (1"=20')
- Circuit Diagrams
- Lighting Controller Details
- Street Lighting Details
- Cross Section - 50' interval, streets, drives, high and low points (1"=10'H : 1"=5'V)
- IDOT Bureau Of Design Standards, BD's and TC's
- LCDOT Highway Standards

We estimate that the contract plans will contain a total of **279** sheets.

The cross sections will be prepared at 50-foot intervals and will include full sections at intersections of streets, high and low points along the roadway profile, beginning of project, and end of project limits. Half width cross sections will be prepared at driveways and access points.

The pre-final contract documents will be submitted to LCDOT, IDOT, PACE and the Cities of Waukegan and North Chicago. 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.

- 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 Water Main 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 Meetings** - Project review meetings will be held to address design issues and plan comments generated from the pre-final contract document review. We anticipate two meetings one with the LCDOT and a second with the Cities of Waukegan and North Chicago.

5. FINAL (100%) PLANS, SPECIAL PROVISIONS AND ESTIMATES – CONTRACT 1

- 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 calculation, and Microstation files. 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.

We will also submit the contract plans to IDOT, LCDOT, the Cities of Waukegan and North Chicago, and 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 to assist in the completion of any joint agreements for construction.

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

GHD, Inc. will also provide QA/QC reviews of the roundabout design as a sub-consultant to Civiltech. A copy of their proposal is included in Attachment G.

6. PROJECT ADMINISTRATION, COORDINATION AND PERMITS

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

B. Project Submittals - As noted above, we will make the necessary document submittals, and follow through with each agency in regards to their review comments or arrange a review meeting to discuss plan changes necessary to resolve conflicts if possible.

As part of the final deliverables to LCDOT, we will prepare a document that contains a directory of contents and a brief explanation (as warranted) of all files delivered. The final deliverable will include PDF's and Microstation (*.dgn) drawings.

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

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

We will also coordinate with ComEd regarding their providing of electricity for the traffic signal and lighting systems.

D. Local Agency Coordination (Waukegan and North Chicago) – The 14th Street project corridor runs along the border of Waukegan and North Chicago. Civiltech will assist the County with coordination efforts with these stakeholders regarding design elements, local utilities, agreements and communications. We anticipate local agency watermain relocation will be required as part of this project, however at the direction of the County we have not included manhours to design that work as part of this contract. Hours have been included to coordinate the inclusion of this work into our contract.

At the County's direction, we will also assist with Public Involvement meetings and activities related to educational campaigns for the roundabout operations and characteristics. GHD, Inc. has also included contingency fee in their proposal (Attachment G) should this work be authorized by the County.

E. PACE Coordination – Our work will include the design of bus shelter pads, and shelters will be installed by others as part of a separate project. The design of these shelters will need to meet the PACE design guidelines, and based on our experience it will be advantageous to meet with PACE up front to discuss each of the shelter pad locations as part of the Preliminary design. This item includes ongoing PACE coordination throughout the design.

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

It is anticipated that wetland impacts will be unavoidable and that mitigation will be required through the purchase of wetland credits. The scope of this work does not include the funding for the actual purchase within the selected wetland bank. The wetland portion of the permitting process will be performed by Stuedemann Environmental Consultants (a copy of their proposal is included in Attachment C).

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

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

I. Pre-Construction Meeting Attendance - We will attend the pre-construction meeting at LCDOT to answer any questions regarding the design and contract documents.

J. Shop Drawing Review – Civiltech will review shop drawings as required during the construction phase.

Exhibit A-2: Manhour Calculations (page 1 of 3)

Item No.	Task	Personnel & Hours								Total Hours	% of Hours
		Director of Design Services	Project Manager	Engineer IV	Engineer III	Engineer II	Engineer I	Water Resources Manager	Senior Design Technician		
1	Early Coordination and Data Collection										
A.	Initial Meetings with County and Village	3	3	5						11	5.4%
B.	IDOT Project Kick-Off Meeting	3	3	5						11	5.4%
C.	ILCSMC Pre-Application Meeting		3	5				3		11	5.4%
D.	Obtain/Update and Review Record Data		12	12	8	8	8	4		52	25.7%
E.	Preliminary Utility Company Coordination		1	2	4					7	3.5%
F.	Supplemental Topographic Survey (by Jorgensen and Associates) - coordination only		4	8						12	5.9%
G.	Field Review of Survey		8	20	8		20			56	27.7%
H.	Pavement Cores - Resurfacing Section (by MSET) - coordination only		1	1						2	1.0%
I.	Wetland Studies (by SEC) - coordination only		4	8				2		14	6.9%
J.	Special Waste and CCDD Testing (by Huff & Huff) - coordination only		8	8						16	7.9%
K.	Utility Potholing (by MSET) - coordination only		2	8						10	5.0%
Sub-total Item 1		6	49	82	20	8	28	9	0	202	100.0%
2	Preliminary Engineering (65%)										
A.	Plan Base Sheet Preparation		8	40	12	12	40		24	136	4.2%
B.	Pavement Design		1	1			3			5	0.2%
C.	Drainage Design	4	24	60	120	120		40		368	11.2%
D.	Lighting Design with Design Calculations		16	120						136	4.2%
E.	Maintenance of Traffic Concept	2	16	40			48		20	126	3.8%
F.	Review and Confirm Project Right-of-Way Requirements	4	24	40	16		56			140	4.3%
G.	Preliminary Plans (65%)										
	Sheet Count										
	Cover Sheet			1			1			2	0.1%
	Index of Sheets and List of State and Local Standards			1			2			3	0.1%
	General Notes and List of Commitments		1	2			4			7	0.2%
	Existing Typical Sections		1	2			8		4	15	0.5%
	Proposed Typical Sections		1	4			12		4	21	0.6%
	Alignment, Ties, Benchmarks (1"=100')		2	6			8		4	20	0.6%
	Roadway Removal Plan (1"=20' dual pane)		3	12			24		24	63	1.9%
	Roadway Resurfacing Plans (1"=20' dual pane)	2	4	20			24		16	76	2.3%
	Roadway Plan and Profile (1"=20')	15	4	80			120		60	304	9.3%
	Stages of Construction - Sequences and Typical sections	4	1	8			12		4	29	0.9%
	Maintenance of Traffic Plans (3 stages) (1"=50' dual pane)	15	2	48	12	12	60		40	190	5.8%
	Erosion Control Plans (3 stages) (1"=50' dual pane)	12	2	12			32		16	62	1.9%
	Drainage and Utilities 1"=20'	15	4	60	100	100		40	24	344	10.5%
	Drainage Details, Restrictor Plate, Water Quality	2	2	4	16	16		4		42	1.3%
	Intersection Details (1"=20')	3	1	24			56		12	101	3.1%
	Roundabout Details (1"=20')	4	2	40			60		8	122	3.7%
	Driveway Details (1"=10')	25	1	48			72		8	141	4.3%
	Pedestrian Facility/PACE Shelter ADA Details (1"=10')	15	2	42			80		24	160	4.9%
	Pavement Marking and Signing Plan (1"=50' dual pane)	5	2	8			16		4	30	0.9%
	Landscaping Plan (1"=50' dual pane)	5	2	8			12		4	26	0.8%
	Preliminary Traffic Signal Layout Plans	1		16					8	24	0.7%
	Temporary Interconnect Plan 14th Street (Lewis to Jackson)	1		8					4	12	0.4%
	Temporary Interconnect Plan Lewis Avenue (14th Street to 10th Street)	1		8					4	12	0.4%
	Lighting Plan (1"=20' - dual pane)	11	8	60					8	76	2.3%
	Cross Section - 50' interval, streets, drives, high and low points (1"=10'H : 1"=5'V)	58	8	72			120		80	320	9.8%
H.	Preliminary Quantity Calculations and Estimate of Cost		2	50	16	16	50			138	4.2%
I.	Preliminary Design Review Meeting		8	10						26	0.8%
Sub-total Item 2		49	297	955	292	276	920	84	404	3277	100.0%
3	Right-of-Way Documents and Coordination										
A.	Land Acquisition Support and Coordination	16	60	40			40			156	61.9%
B.	Right-of-Way Coordination Meetings	12	20	24			40			96	38.1%
Sub-total Item 3		28	80	64	0	0	80	0	0	252	100.0%

Exhibit A-2: Manhour Calculations (page 2 of 3)

			Personnel & Hours									
			Director of Design Services	Project Manager	Engineer IV	Engineer III	Engineer II	Engineer I	Water Resources Manager	Senior Design Technician	Total Hours	% of Hours
Item No.	Task											
4	Pre-Final (90%) Plans, Special Provisions and Estimates											
A.	Pre-Final Plans	Sheet Count										
	Cover Sheet	1			1			1			2	0.1%
	Index of Sheets and List of State and Local Standards	1			1			2			3	0.1%
	General Notes and List of Commitments	3		1	1			4			6	0.2%
	Summary of Quantities	4		1	3			6		2	12	0.4%
	Existing Typical Sections	3		1	1			3		1	6	0.2%
	Proposed Typical Sections	3		1	4			4		2	11	0.3%
	Schedule of Quantities	12		2	16			24		8	50	1.6%
	Alignment, Ties, Benchmarks(1"=100')	2		1	4			6		4	15	0.5%
	Roadway Removal Plan (1"=20' dual pane)	10		10	16			20		20	66	2.1%
	Roadway Resurfacing Plans (1"=20' dual pane)	2	4	16	24			32		16	92	2.9%
	Roadway Plan and Profile (1"=20')	15	4	40	96			140		48	328	10.4%
	Roadway Details	2		1	2			4		2	9	0.3%
	Stages of Construction - Sequences and Typical sections	4	1	4	8			16		8	37	1.2%
	Maintenance of Traffic Plans (3 stages) (1"=50' dual pane)	15	2	24	40			80		60	206	6.5%
	Erosion Control Plans (3 stages) (1"=50' dual pane)	12		2	8			20		12	42	1.3%
	Drainage and Utilities 1"=20'	15	4	16	20	160	160		40	24	424	13.4%
	Drainage Details, Restrictor Plate, Water Quality	2		4	4	16	16		4		44	1.4%
	Intersection Details (1"=20')	3	2	8	32			72		16	130	4.1%
	Roundabout Details (1"=20')	4	2	16	40			80		20	158	5.0%
	Driveway Details (1"=10')	25	2	12	48			96		24	182	5.8%
	Pedestrian Facility ADA Details (1"=10')	15	2	12	48			96		24	182	5.8%
	Pavement Marking and Signing Plan (1"=50' dual pane)	5		1	8			12		8	29	0.9%
	Landscaping Plan (1"=50' dual pane)	5		1	8			12		8	29	0.9%
	Landscaping Plan Details	2		1	2			4		3	10	0.3%
	Traffic Signal Plans											
	Temporary Traffic Signal Plan (Lewis and Jackson)	2			48						48	1.5%
	Temporary Cable Plan and Sequences (Lewis and Jackson)	2			16						16	0.5%
	Traffic Signal Modification Plan (IL Route 131 and Lewis)	2			32						32	1.0%
	Traffic Signal Modernization Plan (Jackson)	1			32						32	1.0%
	Cable Plan and Sequences (131, Lewis and Jackson)	3			24						24	0.8%
	Schedule of Quantities and Mast Arm Mounted Details	1			4						4	0.1%
	Temporary Interconnect Plan	1			12						12	0.4%
	Temporary Interconnect Schematic	1			4						4	0.1%
	Interconnect Plan	1			16						16	0.5%
	Interconnect Schematic	1			8						8	0.3%
	IDOT District 1 Standard Traffic Signal Design Details	3			2						2	0.1%
	Lighting Plans (21 sheets)										0	0.0%
	Street Lighting General Notes, Legend, Bill of Material	1		1	2					1	4	0.1%
	Street Lighting Plan (1"=20')	11		16	60					12	88	2.8%
	Circuit Diagrams	2		4	16					4	24	0.8%
	Lighting Controller Details	2		4	12					4	20	0.6%
	Street Lighting Details	6		2	24					2	28	0.9%
	Cross Section - 50' interval, streets, drives, high and low points (1"=10'H : 1"=5'V)	58	8	40	120			160		80	408	12.9%
	IDOT Bureau Of Design Standards, BD's and TC's	6		1	2			4			7	0.2%
	LCDOT Highway Standards	10		1	2			4			7	0.2%
B.	Pre-Final Special Provisions		2	16	32	8		12	2		72	2.3%
C.	Pre-Final Quantity Calculations				56	24	24	56			160	5.1%
D.	Pre-Final Estimates of Cost and Construction Time		1	4	5						10	0.3%
E.	Pre-Final QA/QC Review		40								40	1.3%
F.	Pre-Final Project Review Meeting		8	8	10						26	0.8%
Sub-total Item 4			82	272	974	208	200	970	46	413	3165	100.0%

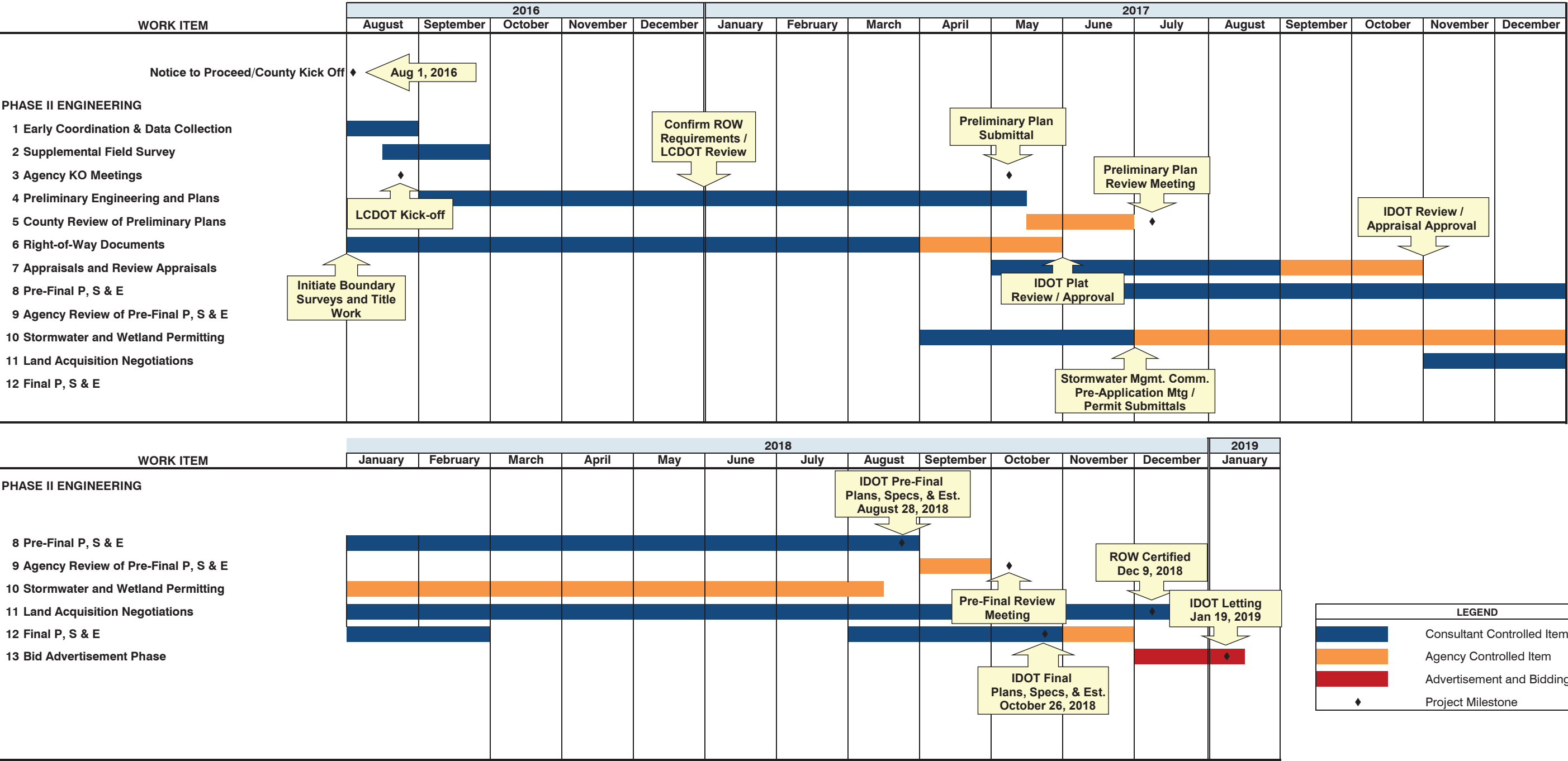
Exhibit A-2: Manhour Calculations (page 3 of 3)

Item No.	Task	Personnel & Hours								Total Hours	% of Hours
		Director of Design Services	Project Manager	Engineer IV	Engineer III	Engineer II	Engineer I	Water Resources Manager	Senior Design Technician		
5	Final (100%) Plans, Special Provisions and Estimates										
A.	Final Plans (100%)	24	80	240	100	100	240	24	120	928	83.2%
B.	Final Special Provisions	2	8	24	2		8	2		46	4.1%
C.	Final Quantity Calculations			40	16	16	40			112	10.0%
D.	Final Estimates of Cost and Construction Time	1	2	3						6	0.5%
E.	Final QA/QC Review	24								24	2.2%
Sub-total Item 5		51	90	307	118	116	288	26	120	1116	100.0%
6	Project Administration, Coordination and Permits										
A.	Project Administration	12	24	8						44	6.4%
B.	Project Submittals		6	12	6	6	12		6	48	7.0%
C.	Utility Company Coordination	2	24	56	12	12	24			130	19.0%
D.	Local Agency Coordination (Waukegan and North Chicago)	4	32	40			40			116	16.9%
E.	PACE Coordination	3	24	24						51	7.4%
F.	Lake County Stormwater Permitting and Documentation	2	8	16	80	60		16		182	26.6%
G.	NPDES Permitting and Documentation		1	4	8	8	4	2		27	3.9%
H.	Bidding Assistance	3	12	8						23	3.4%
I.	Pre-Construction Meeting Attendance		4	4						8	1.2%
J.	Shop Drawing Review		16	40						56	8.2%
Sub-total Item 6		26	151	212	106	86	80	18	6	685	100.0%
Total Hours:		242	939	2594	744	686	2366	183	943	8697	
% of Hours:		2.8%	10.8%	29.8%	8.6%	7.9%	27.2%	2.1%	10.8%	100.0%	

Exhibit A-3: Direct Costs and Subs

			Direct Cost	Subconsultant Expense
Item 1 Topographical Survey and Right-of-Way Documents				
Subconsultant Expense - Jorgensen & Associates, Inc.				
Subconsultant Proposal Supplemental Survey				\$10,216.23
Subconsultant Proposal ROW Documents (In Phase I contract, this is for parcel revisions only)				\$4,115.10
Item 2 Special Waste and C.C.D.D. Testing and Certification				
Subconsultant Expense - Huff and Huff				
Subconsultant Proposal				\$19,546.09
Item 3 Wetland Permitting				
Subconsultant Expense - Studemann Environmental Consulting, LLC				
Subconsultant Proposal				\$13,430.00
Item 4 Roundabout QA/QC and Public Involvement				
Subconsultant Expense - GHD				
Subconsultant Proposal				\$34,122.76
Item 5 Pavement Cores and Utility Potholing				
Subconsultant Expense - Midland Standard Engineering and Testing				
Pavement Coring				\$1,970.00
Utility Potholing (Contingency Service)				\$45,510.00
Item 6 Land Acquisition Services				
Appraisals/Review Appraisals **				
	5 parcels @	\$1,800/\$750	Appraisals \$9,000.00	Review Appraisals \$3,750.00
	35 parcels @	\$2,500/\$1,000	\$87,500.00	\$35,000.00
	5 parcels @ (revisions)	\$1,500.00	\$7,500.00	
Appraisal Services to be provided in-house by David. W. White and reviews by "T" Engineering				
**Should the County decide to have Civiltech prepare waiver valuations for the 5 parcels that are anticipated to be less than \$10,000 in value, the appraisals will be \$1,200 instead of \$1,800 with no reviews required.				
Negotiations				
Subconsultant Expense - Santacruz Associates				\$121,000.00
Subconsultant Qualifications				
Item 7 Project Deliverables, Reproduction, Postage, and Permitting				
Mileage (Deliverables)				
20	project site @	40 miles @	\$0.540	\$432.00
25	meetings @	50 miles @	\$0.540	\$675.00
Reproduction (Plan Sets and Project Specification Books)				
217	sheets @	Preliminary (20 half size)	\$0.24	\$1,041.60
279	sheets @	Pre-Final (20 half size)	\$0.24	\$1,339.20
15	books @	Pre-Final	\$20.00	\$300.00
279	sheets @	Final (20 half size)	\$0.24	\$1,339.20
15	books @	Final	\$20.00	\$300.00
Postage				
50	packages @	Overnight/Shipping	\$25.00	\$1,250.00
TOTAL:			\$6,677.00	\$392,660.18

Exhibit A-4: Schedule



Attachment A

Jorgensen and Associates

Supplemental Survey and Right-of-Way Documents

Route: 14th Street
Section: Green Bay Rd. to Sheridan Rd.
County: Lake
Job No.:

Exhibit "A"

Payroll Burden & Fringe Costs

	<u>% of Direct Productive Payroll</u>
Federal Insurance Contributions Act _____	11.44%
State Unemployment Compensation _____	3.31%
Federal Unemployment Compensation _____	0.12%
Workmen's Compensation Insurance _____	0.79%
Paid Holidays, Vacation, Sick Leave, Personal Leave _____	10.42%
Bonus _____	6.56%
Pension _____	0.86%
Group Insurance _____	<u>36.40%</u>
Total Payroll Burden & Fringe Costs	69.90%

Route: 14th Street
 Section: Green Bay Rd. to Sheridan Rd.
 County: Lake
 Job No.:

Exhibit "B"

Overhead and Indirect Costs

	<u>% of Direct Productive Payroll</u>
Business Insurance _____	5.22%
Depreciation _____	9.51%
Indirect wages and salaries _____	37.85%
Reproductive and printing costs _____	0.05%
Office Supplies _____	3.09%
Computer Costs _____	5.60%
Professional Fees _____	3.48%
Telephone _____	2.47%
Fees, license & dues _____	0.81%
Repairs and maintenance _____	0.87%
Business space rent _____	4.27%
Facilities - capital _____	0.48%
Travel - Meals _____	0.05%
Survey Supplies _____	1.32%
Automobile/travel expense _____	2.43%
Recruiting _____	0.37%
Miscellaneous Expense _____	0.54%
State Income Tax _____	0.66%
Postage _____	0.15%
Educational & Professional Registrations _____	0.29%
Total Overhead	79.51%

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME Jorgensen & Associates, Inc.
PRIME/SUPPLEMENT Prime

DATE 05/02/16
PTB NO. _____

CONTRACT TERM 12 MONTHS
START DATE 6/1/2016
RAISE DATE 12/1/2016

OVERHEAD RATE 149.41%
COMPLEXITY FACTOR _____
% OF RAISE 3.00%

ESCALATION PER YEAR

6/1/2016 - 12/1/2016

12/2/2016 - 6/1/2017

6
12

6
12

= 50.00%

51.50%

= 1.0150

The total escalation for this project would be:

1.50%

05/02/16

FIRM NAME**PRIME/SUPPLEMENT**

Prime

PSB NO.

ESCALATION FACTOR

1.50%

[illegible]

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

FIRM
PSB
PRIME/SUPPLEMENT

Jorgensen & Associates, Inc.

Prime

**OVERHEAD RATE
COMPLEXITY FACTOR**

1.4941

0

DATE _____

05/02/16

[illegible]

DBE 0.00%

AVERAGE HOURLY PROJECT RATES

FIRM Jorgensen & Associates, Inc.
 PSB
 PRIME/SUPPLEMENT Prime

DATE 05/02/16

SHEET 1 OF 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			(1) Field-Topography Survey			(2) Office-Compile Field Data			(3) Office-Create Existing Topography Base Sheets			(4) Office-Create T.I.N. & Contours			(5) Coordination Meetings		
		Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg
Principal/Officer	44.00	2	1.45%	0.64													2	100.00%	44.00
Supervisor, P.L.S.	42.00	6	4.35%	1.83				1	11.11%	4.67	4	16.67%	7.00	1	20.00%	8.40			
Survey Party Chief, S.I.T.	25.75	49	35.51%	9.14	49	50.00%	12.88												
Instrument Operator	20.25	49	35.51%	7.19	49	50.00%	10.13												
Cadd Supervisor	30.00	32	23.19%	6.96				8	88.89%	26.67	20	83.33%	25.00	4	80.00%	24.00			
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TOTALS		138	100%	\$25.75	98	100.00%	\$23.00	9	100%	\$31.33	24	100%	\$32.00	5	100%	\$32.40	2	100%	\$44.00

Route: 14th Street
 Section: Green Bay Rd. to Sheridan Rd.
 County: Lake
 Job No.:

**Manhour Breakdown
 Supplemental Topographic Survey Estimate**

Green Bay Road	$\pm 1,040' = \pm 0.197$ mile
Dugdale Road	$\pm 1,700' = \pm 0.322$ mile
Lewis Avenue	$\pm 1,000' = \pm 0.189$ mile
Jackson Street	$\pm 1,000' = \pm 0.189$ mile
14 th Street	$\pm 8,400' = \pm 1.591$ miles
 Total Length	 $\pm 13,140' = \pm 2.489$ miles

1. Field – Topographic Survey

a. Measure traverse & level circuit 4 hours x 2 men =	8 MH
b. Locate existing topography 45 hours x 2 men =	<u>90 MH</u>
Sub-total Item #1	98 MH

2. Office - Compile Field Data

a. Compute traverse & level circuit 1 hour x 1 man =	1 MH
b. Edit & compile topographic survey 8 hours x 1 man =	<u>8 MH</u>
Sub-total Item #2	9 MH

3. Office - Create Existing Topography Base Sheets

a. Layout and drafting 20 hours x 1 man =	20 MH
b. Check topographic survey 4 hours x 1 man =	<u>4 MH</u>
Sub-total Item #3	24 MH

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

a. Compute contours

4 hours x 1 man =

4 MH

b. Check contours

1 hour x 1 man =

1 MH

Sub-total Item #4

5 MH

5. Coordination Meetings

1 meeting @ 2 hours =

2 MH

Total All Items

138 MH

Route: 14th Street
Section: Green Bay Rd. to Sheridan Rd.
County: Lake
Job No.:

**Breakdown of
In House Direct Costs**

Item

1. Field - Topographic Survey

a. Trips to project site - 5 ea.
± 40 miles/trip x 5 trips = ± 200 miles
± 200 miles @ \$0.54/mile = \$ 108.00

5. Coordination Meetings

a. Meetings at Civiltech office - 1 ea.
± 70 miles/trip x 1 trip = ± 70 miles
± 70 miles @ \$0.54/mile = \$ 37.80

Total All Items \$ 145.80



JORGENSEN & ASSOCIATES, INC.
LAND SURVEYORS
Est. 1990

May 2, 2016

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

Re: 14th Street 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\North Chicago\14th Street\Contingent Parcels\Letter

Route: 14th Street
Section: Green Bay Rd. to Sheridan Rd.
County: Lake
Job No.:

Exhibit "A"

Payroll Burden & Fringe Costs

	<u>% of Direct Productive Payroll</u>
Federal Insurance Contributions Act _____	11.44%
State Unemployment Compensation _____	3.31%
Federal Unemployment Compensation _____	0.12%
Workmen's Compensation Insurance _____	0.79%
Paid Holidays, Vacation, Sick Leave, Personal Leave _____	10.42%
Bonus _____	6.56%
Pension _____	0.86%
Group Insurance _____	<u>36.40%</u>
Total Payroll Burden & Fringe Costs	69.90%

Route: 14th Street
Section: Green Bay Rd. to Sheridan Rd.
County: Lake
Job No.:

Exhibit "B"

Overhead and Indirect Costs

	<u>% of Direct Productive Payroll</u>
Business Insurance _____	5.22%
Depreciation _____	9.51%
Indirect wages and salaries _____	37.85%
Reproductive and printing costs _____	0.05%
Office Supplies _____	3.09%
Computer Costs _____	5.60%
Professional Fees _____	3.48%
Telephone _____	2.47%
Fees, license & dues _____	0.81%
Repairs and maintenance _____	0.87%
Business space rent _____	4.27%
Facilities - capital _____	0.48%
Travel - Meals _____	0.05%
Survey Supplies _____	1.32%
Automobile/travel expense _____	2.43%
Recruiting _____	0.37%
Miscellaneous Expense _____	0.54%
State Income Tax _____	0.66%
Postage _____	0.15%
Educational & Professional Registrations _____	<u>0.29%</u>
Total Overhead	79.51%

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME Jorgensen & Associates, Inc.
PRIME/SUPPLEMENT Prime

DATE 05/02/16
PTB NO. _____

CONTRACT TERM 12 MONTHS
START DATE 6/1/2016
RAISE DATE 12/1/2016

OVERHEAD RATE 149.41%
COMPLEXITY FACTOR _____
% OF RAISE 3.00%

ESCALATION PER YEAR

6/1/2016 - 12/1/2016

12/2/2016 - 6/1/2017

6
12

6
12

= 50.00%

51.50%

= 1.0150

The total escalation for this project would be:

1.50%

PAYROLL RATES

FIRM NAME
PRIME/SUPPLEMENT
PSB NO.

Jorgensen & Associates, Inc.
Prime

DATE **05/02/16**

ESCALATION FACTOR 1.50%

[illegible]

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

FIRM
PSB
PRIME/SUPPLEMENT

Jorgensen & Associates, Inc.
Prime

**OVERHEAD RATE
COMPLEXITY FACTOR**

1.4941
0

DATE 05/02/16

[illegible]

DBE 0.00%

AVERAGE HOURLY PROJECT RATES

FIRM	<u>Jorgensen & Associates, Inc.</u>
PSB	<u></u>
PRIME/SUPPLEMENT	<u>Prime</u>

DATE 05/02/16

SHEET **1** **OF** **1**

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			(4) First Submittal Plat of Hwys. & Descriptions	(5) Survey (Field)			(6) Survey (Office)			(7) Final Submittal Plat of Hwys. & Descriptions			(9) QC/QA				
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg			
Supervisor, P.L.S.	42.00	12	25.53%	10.72	3	20.00%	8.40				5	100.00%	42.00	1	25.00%	10.50	3	60.00%	25.20
Survey Party Chief, S.I.T.	25.75	9	19.15%	4.93				9	50.00%	12.88									
Instrument Operator	20.25	9	19.15%	3.88				9	50.00%	10.13									
Cadd Supervisor	30.00	17	36.17%	10.85	12	80.00%	24.00							3	75.00%	22.50	2	40.00%	12.00
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Route: 14th Street
Section: Green Bay Rd. to Sheridan Rd.
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	$\pm 600'/\text{sht.} \pm 2 \text{ sheets}$ $6 \text{ hrs./sheet} \times 2 =$	12 MH
g.	Legal descriptions	5 descriptions	<u>3 MH</u>
Sub-total Item #4			15 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 5 hours x 1 man =	<u>5 MH</u>
	Sub-total Item #6	5 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	47 MH

(3)

Route: 14th Street
Section: Green Bay Rd. to Sheridan Rd.
County: Lake
Job No.:

**Breakdown of
In House Direct Costs**

Item

5. Survey (Field)

a. Trips to project site – 1 ea.
± 40 miles/trip x 1 trip = ± 40 miles
± 40 miles @ \$0.54/mile = \$ 21.60

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 @ \$0.54/mile = \$ 13.50

b. Deliver Final Papers to I.D.O.T.
± 60 miles/trip x 1 trip = ± 60 miles
± 60 miles @ \$0.54/mile = \$ 32.40

Total All Items \$ 67.50

Attachment B

Midland Standard Engineering and Testing, Inc.

Pavement Cores



www.mset.com

MIDLAND STANDARD ENGINEERING & TESTING, INC.

558 Plate Drive, Unit 6 East Dundee, Illinois 60118

(847) 844-1895 f(847) 844-3875

April 25, 2016

Mr. Jonathan Vana, P.E.
Civiltech Engineering, Inc.
450 E. Devon Avenue, Suite 300
Itasca, Illinois 60143

Re: Proposal for Roadway Pavement Cores and Recommendations
14th Street, Jackson Street to Sheridan Road
Waukegan, Illinois

Dear Mr. Vana:

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

Project Description and Scope of Work

The project consists of pavement resurfacing on 14th Street, from Jackson Street to Sheridan Road in Waukegan, Illinois, an approximate length of 1,950 feet. The proposed exploration program consists of performing five (5) pavement cores with shallow subgrade soil probes to determine the existing pavement section and subgrade conditions.

Method of Performance

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

Timing & Fee

We will begin on work after notice to proceed. We plan on mobilizing and doing all the cores concurrently. A summary report with recommendations would be prepared shortly after the fieldwork is completed.

We propose to provide this work at the unit rates quoted on the attached Schedule of Services and Fees, Attachment 1. 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 **\$ 1,970.00.**

Thank you for the opportunity to be of service. 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
Attachment 1 – Schedule of Services and Fees

**ATTACHMENT 1
SCHEDULE OF SERVICES AND FEES**

14th Street, from Jackson Street to Sheridan Road
Waukegan, Illinois

<u>Item</u>	<u>Estimated Quantity</u>	<u>Unit Cost</u>	<u>Extension</u>
<u>Field Services</u>			
Mobilization of Coring equipment, traffic control and personnel, lump sum	1	\$200.00	\$200.00
Pavement Core with Shallow Subgrade Soil Probe, each	5	\$175.00	\$875.00
Field Services Total:			\$1,075.00
 <u>Laboratory Services</u>			
Moisture Content Determinations, ea	5	\$6.00	\$30.00
Laboratory Services Total:			\$30.00
 <u>Engineering Services for Pavement Survey Including:</u>			
Layout Coordination w/Design Engineer			
Utility Clearance and Permits			
Preparation of Pavement Core Logs			
Visual Pavement Survey, and Recommendations and Options for Pavement Rehabilitation			
Summary Report Preparation, Consultation			
Principal Engineer, per hr.	1	\$145.00	\$145.00
Project Engineer, per hr.		\$130.00	\$0.00
Staff Engineer, per hr.	4	\$100.00	\$400.00
Field Engineer, per hr.	3	\$95.00	\$285.00
Technician, per hr.		\$75.00	\$0.00
Word Processing, per hr.	0.5	\$70.00	\$35.00
Estimated Cost:			\$865.00
TOTAL:			\$1,970.00

Attachment C

Stuedemann Environmental Consulting, LLC

Wetlands



May 26, 2016

Mr. Jonathan R. Vana, P.E.
President and Director of Design Services
Civiltech Engineering, Inc.
450 East Devon Avenue, Suite 300
Itasca, IL 60143

**SUBJECT: Proposal to Provide Phase II Wetland Science Services
14th Street Improvements, IL Route 131 to Jackson Street
North Chicago and Waukegan, Lake County, Illinois**

Dear Mr. Vana:

Stuedemann Environmental Consulting, LLC (SEC) is pleased to present Civiltech Engineering, Inc. (Civiltech) with this proposal to provide wetland science services for Phase II of the Lake County Division of Transportation's (LCDOT), 14th Street Improvements, IL Route 131 to Jackson Street Project (14th Street Phase II Project) located in North Chicago and Waukegan, Lake County, Illinois. Services presented herein coincide with the 14th Street Phase II Project transportation engineering related services provided by Civiltech to LCDOT, and include: wetland delineation report update; and wetland science related permitting services. SEC presents this proposal in the following sections: project understanding, scope of work, project team, project schedule, project costs, and proposal acceptance.

PROJECT UNDERSTANDING

SEC understands that Civiltech has been retained by LCDOT to perform transportation related design services for roadway and bike path improvements for the 14th Street Phase II Project. The Project Corridor is presented in the 14th Street Phase I Study and consists of approximately 7,950 feet of 14th Street that begins at Hillcrest Avenue and extends east to Victoria Street. This Project Corridor also includes north and south legs at the IL Route 131 (Green Bay Road), Dugdale Road, Lewis Avenue, and Jackson Street intersections. Additional areas of the Project Corridor include 100 feet outside the 14th Street right-of-way (ROW) as required by the October 13th, 2015, edition of the *Lake County Watershed Development Ordinance* (WDO).

As part of the 14th Street Phase I Study, SEC prepared the following reports for Civiltech and LCDOT: Wetland Delineation Report dated October 13, 2013; Preliminary Environmental Site Assessment (PESA) Report dated July 31, 2015; and the Tree Survey Report dated October 16, 2015. For the 14th Street Phase II Project, Civiltech has solicited SEC to perform wetland science services necessary for: compliance with biological and wetland clearances from the Illinois Department of Transportation (IDOT); regulatory permitting with Lake County Stormwater Management Commission (LCSMC); and if needed, regulatory permitting with the U.S. Army Corps of Engineers (USACE) Chicago District. To obtain these permits, SEC's proposed scope of work includes the coordination, collection, and preparation of

the applicable wetland related documentation for permit submittals to IDOT, LCSMC, and the USACE, as needed.

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

1. All coordination, documentation, and correspondence from the 14th Street Phase I Study will be available for use by SEC in the 14th Street Phase II Project submittals;
2. The October 25, 2013, Wetland Delineation Report prepared by SEC for the 14th Street Phase I Study will expire prior to permitting for the 14th Street Phase II Project and will require an update as presented in this proposal;
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. The 14th Street Phase II Project is an IDOT federally funded pass-through project; therefore, the scope of work for this proposal includes IDOT related compliance and coordination;
5. Screening for state listed endangered and threatened species will be conducted internally by IDOT and will be available to SEC for permitting purposes;
6. Habitat, species, or biological surveys are not included in this scope of work;
7. All impacts to wetlands will require mitigation, per the Illinois Interagency Wetlands Policy Act (IWPA) of 1989;
8. Wetland mitigation banking coordination is included in this proposal;
9. Wetland mitigation design is not included in this proposal; and
10. There are no additional environmental concerns within the Project Corridor that are not referenced in this proposal that would impede the LCSMC, IDOT, and USACE coordination and permitting process, such as the presence of state and federal endangered and threatened species, and protected historical and cultural sites.

SCOPE OF WORK

SEC proposes to complete the requested services in two tasks as follows:

Task 1: Wetland Delineation Report Update

As part of this task, SEC will prepare a Wetland Delineation Report Update to the original October 25, 2013, Wetland Delineation Report. SEC will coordinate with the USACE and LCSMC to ensure that the requirements of the USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0), (Supplemental Wetland Manual) and the WDO are met in the preparation of the Wetland Delineation Report Update. As part of this task, SEC will conduct a wetland investigation of the Project Corridor, which will include the re-identification of all potential on-site and adjacent "waters of the U.S." (WOUS), Isolated Waters of Lake County (IWLC), wetland buffer areas, riparian environment areas, HQARs, and floodplains. Investigation activities include on-site testing for the presence of hydric soils, hydrophytic vegetation, and sufficient hydrology. These activities will follow the standards outlined in the Supplemental Wetland Manual and the WDO. SEC proposes that Civiltech and their surveyor replace missing wetland flags from the original October 25, 2013, Wetland Delineation Report prior to SEC's on-site investigation activities proposed under this scope of work. Any modifications to these wetland flags by SEC as part of the wetland delineation update process will

require survey by Civiltech and their surveyor for inclusion in the Wetland Delineation Report Update. SEC's Lake County Certified Wetland Specialist will conduct all on-site investigation activities.

SEC will summarize all findings from the investigation in the Wetland Delineation Report Update. SEC will provide a draft of the report to Civiltech in Adobe PDF file format for review and comment. SEC will finalize the Wetland Delineation Report Update upon receipt of Civiltech's comments and will provide an Adobe PDF file of the final Wetland Delineation Report Update to Civiltech.

Task 2: USACE and LCSMC Permit Coordination

SEC proposes to prepare and submit all applicable wetland related permit materials for the 14th Street Phase II Project to the USACE, LCSMC, and Civiltech. SEC understands these permits to specifically include the wetland provisions portion of the LCWDO Watershed Development Permit (WDP) submittal to LCSMC and if needed, the Joint Application submittal to USACE. SEC will prepare the permit applications and will request information, signatures, and fees necessary for a complete initial submittal. SEC also proposes to include as part of this task, a pre-application meeting with the USACE, LCDOT, LCSMC, and Civiltech. All permit submittals will be prepared and submitted by SEC's Lake County Certified Wetland Specialist. Permitting fees have not been included in this proposal and are the responsibility of Civiltech and LCDOT. SEC will communicate with the USACE and LCSMC after the initial permit submittals until USACE and LCSMC comments or approvals are received.

Wetland mitigation banking coordination with the USACE, LCSMC, and an appropriate wetland banker is included in this task. However, wetland mitigation design, plan preparation, monitoring, and management are not included in this scope of work. Should the LCSMC require mitigation other than mitigation banking, SEC will coordinate with Civiltech regarding 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 LCDOT.

PROJECT TEAM

SEC proposes to manage this project out of our Geneva, Illinois office with a support network of scientists who have experience in conducting wetland science services in Lake County. Mr. Barry Stuedemann, P.E., P.W.S. will serve as the Professional Wetland Scientist.

PROJECT SCHEDULE

SEC will proceed with the scope of work presented in this proposal immediately upon authorization from Civiltech. Specific schedules for each task are unknown at this time and will be coordinated with Civiltech throughout the duration of the 14th Street Phase II Project. Wetland field investigations and the final floristic quality assessment (FQA) are best completed during the Lake County growing season, from May 7th to October 10th. FQAs can be conducted outside this growing season at the discretion of the Professional Wetland Scientist. The schedule to complete each task is influenced by the responses, concerns, and requests of Civiltech and the pertaining agencies.

PROJECT COSTS

SEC estimates the cost to complete tasks outlined in this proposal to be a maximum "not-to-exceed" fee of \$13,430. An itemization of these costs is presented in Table 1, Cost Estimate for Consulting Services.

Mr. Jonathan R. Vana, P.E.
14th Street Phase II Project
North Chicago and Waukegan, Lake County, IL

The following is a summary of these costs:

SCOPE OF WORK		COSTS
Task 1:	Wetland Delineation Report Update	\$6,428
Task 2:	USACE and LCSMC Permit Coordination	\$7,002
Total:		\$13,430

PROPOSAL ACCEPTANCE

To indicate your acceptance of this proposal, please notify me by mail or e-mail. If you would like to authorize services by task, please indicate which tasks you are authorizing. SEC will assume the mail or e-mail correspondence as your signature and date for our authorization to proceed with the tasks presented in this proposal.

SEC appreciates this opportunity to provide wetland science services to Civiltech. If you have any questions, please do not hesitate to contact me at your convenience.

Sincerely,



Baron H. Stuedemann, P.E., P.W.S.
Technical Director | Managing Member
Stuedemann Environmental Consulting, LLC
Mobile: 630-664-4550
E-Mail: bstuedemann@stuedenv.com

TABLE 1
Cost Estimate for Consulting Services
PHASE II WETLAND SCIENCE SERVICES
14th STREET IMPROVEMENTS, IL ROUTE 131 TO JACKSON STREET
NORTH CHICAGO AND WAUKEGAN, LAKE COUNTY, IL
Prepared for Civiltech Engineering, Inc.
Prepared by Stuedemann Environmental Consulting, LLC
May 26, 2016

14th STREET PHASE II PROJECT WETLAND SCIENCE SERVICES TASK DESCRIPTION	Project Manager \$64.00	Project Coordinator \$24.00	Total Hours	Direct Labor (DL)	Overhead of 150% OH(DL)	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Other Direct Costs	Not-to- Exceed Costs
Task 1: Wetland Delineation Report Update	32	2	34	\$2,096	\$3,144	\$374	\$814	\$0	\$6,428
Task 2: USACE and LCSMC Permit Coordination	36	2	38	\$2,352	\$3,528	\$235	\$887	\$0	\$7,002
TOTAL:	68	4	72	\$4,448	\$6,672	\$609	\$1,701	\$0	\$13,430

DL (Direct Labor) = Hours x Hourly Rate
R (Complexity Factor) = 0
OH (Overhead Rate) = 150%
IHDC (In-House Direct Costs) = See Table Below for Itemization
FF (Fixed Fee) = 14.5% [DL + R(DL) + OH(DL) + IHDC]
Other Direct Costs = Testing, Drilling, and Hauling are not included in these costs.

14th STREET PHASE II PROJECT WETLAND SCIENCE SERVICES TASK DESCRIPTION	Mileage (\$0.54/mile)		Delivery (\$25/package)		Copies (\$0.60/page)		In-House Direct Costs (IHDC)
	Miles	\$	Packages	\$	Pages	\$	
Task 1: Wetland Delineation Report Update	480	\$259	1	\$25	150	\$90	\$374
Task 2: USACE and LCSMC Permit Coordination	120	\$65	2	\$50	200	\$120	\$235
TOTAL:	600	\$324	3	\$75	350	\$210	\$609

Mileage (miles) = 120 miles Round Trip to/from Site
Delivery (packages) = UPS, FedEx, or USPS
Copies (pages) = Average Cost for Black and White, Color, 8" x 11.5", and 11" x 17"

Attachment D

Huff and Huff, Inc.

Special Waste and CCDD



A Subsidiary of GZA



GEOTECHNICAL

ENVIRONMENTAL

ECOLOGICAL

WATER

CONSTRUCTION
MANAGEMENT

915 Harger Road
Suite 330
Oak Brook, IL 60523
T: 630.684.9100
F: 630.684.9120
www.huffnhuff.com
www.gza.com

April 27, 2016

Jonathan R. Vana, P.E.
President / Director of Design Services
Civiltech Engineering, Inc.
450 E. Devon Ave, Suite 300
Itasca, Illinois 60143

Re: Environmental Services – Preliminary Site Investigation (PSI) and Soil Management (CCDD)

14th Street – North Chicago and Waukegan, Lake County, Illinois

Proposal No.: 81.PT00028.17

Dear Mr. Vana:

Huff & Huff, Inc. (H&H) a subsidiary of GZA GeoEnvironmental, Inc. (Consultant) is pleased to submit this proposal to Civiltech Engineering, Inc. (Client) to conduct a Preliminary Site Investigation (PSI) including assessment for off-site disposal of spoils at a Clean Construction and Demolition Debris (CCDD) facility for the referenced project. This proposal presents our project approach, the scope of services, cost, and schedule for completing the project.

1. INTRODUCTION

This Scope-of-Services pertains to the conducting a PSI for the 14th Street Project, with limits between Illinois Route 131 to Jackson Street, in North Chicago and Waukegan, Lake County, Illinois. Consultant has been provided with a copy of the following documents:

- Local Roads Preliminary Environmental Site Assessment (PESA) dated July 31, 2015; and
- IDOT jurisdiction PESA dated November 23, 2015.

The scope of the PSI for the local roads portion of the project (Consultant will not be conducting PSI activities within IDOT jurisdiction as part of this scope) is based on the findings of the July 31, 2015 PESA in which seven (7) sites were identified as having Recognized Environmental Conditions (RECs) within or adjacent to the project corridor. Due to the age of the PESA and anticipated schedule, Consultant has included scope to perform an updated database search for inclusion in the PSI report.

2. SCOPE OF SERVICES

Task 1 – Preliminary Site Investigation (PSI)

Consultant utilized the findings of the PESA to determine the scope presented below.

A. Soil Borings and Sampling

It is anticipated that a single day of field effort will be required with up to 14 borings completed, assumed with the aid of traffic control services and up to 2-days of field effort. The borings will be advanced and soil samples collected for laboratory analysis to address sites identified as RECs / Potentially Impacted Properties (PIPs) for soil disposal considerations, specifically at locations identified for proposed excavation. The depths of the soil borings will



be dependent upon design details to account for depths of proposed disturbance. Consultant will determine depths of planned borings prior to mobilization consistent with project plans as provided by Client, in conjunction with PESA findings. Currently it is estimated that borings will be advanced to depths ranging from approximately 4 to 12 feet below ground surface.

B. Analytical

Laboratory analysis of soil samples is proposed to be consistent with constituents of concern (COCs) as determined from the PESA as presented below.

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

- **Volatile Organic Compounds** (up to 2 samples) – VOCs are volatile compounds found in gasoline and related to various solvents;
- **Benzene, toluene, ethylbenzene, and total xylenes (BTEX) as well as methyl-tert-butyl-ether (MTBE)** (up to 8 samples) – BTEX / MTBE are volatile compounds found in gasoline;
- **Polynuclear Aromatic Compounds (PNAs) and pH** (up to 8 samples) – PNAs are semi-volatile compounds commonly formed during incomplete combustion of organic compounds. PNAs can be formed by the combustion of wood, coal, and petroleum products. They are also found in less refined, nonvolatile petroleum products and can be used to identify potential for diesel or fuel oil contamination in soil.

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

- **RCRA Metals, total and SPLP methods** (up to 5 samples) – Federal environmental regulations identify eight (8) heavy metals as hazardous if present in a *solid waste* at concentrations above varying threshold concentrations. Samples will be analyzed for select RCRA Metals, some of which may require further SPLP for consideration as CCDD (3 sample).

In addition, up to twelve (20) soil samples will be analyzed for soil pH.

C. PSI Report Preparation

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

D. CCDD (LPC-Form) Documentation

The soil sample results will be compared to the Maximum Allowable Concentrations (MACs) associated with CCDD facility acceptance, including the soil pH range of 6.25 to 9.0. If results achieve the MAC values, Consultant will prepare the LPC-663 document that will be signed/stamped by the Consultant. This proposal assumes the potential for requiring a separate form for each area to account for this currently unknown situation.

Any locations that do not achieve the MACs (including soil pH range) will be identified as exclusion zones, not acceptable for CCDD facility disposal.



Task 2 - QA/QC

Time will be allotted to conduct QA/QC reviews of the deliverables related to the PESA and PSI reports and CCDD documentation tasks.

Task 3 – Project Management

This task covers items necessary to manage the project, scheduling, and coordination with the prime consultant.

3. PROJECT COSTS

The estimated manhours and project costs are tabulated in the attached tables.

4. TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES

© 2008 by GZA GeoEnvironmental, Inc.

Civiltech Engineering, Inc.:
Proposal No 81.PT00028.17:
Site: 14th Street, North Chicago and Waukegan, IL

These Terms and Conditions, together with Consultant's Proposal, make up the Agreement between with Civiltech Engineering, Inc. named above.

1. Services. H&H will perform the services set forth in its Proposal and any amendments or change orders authorized by you. Any request or direction from you that would require extra work or additional time for performance or would result in an increase in H&H's costs will be the subject of a negotiated amendment or change order.

2. Standard of Care. H&H will perform the services with the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services at the same time under similar conditions in the same or similar locality. **NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTY OF MARKETABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS MADE OR INTENDED BY H&H'S PROPOSAL OR BY ANY OF H&H'S ORAL OR WRITTEN REPORTS.**

3. **Payment.**

- a. Except as otherwise stated in the Proposal, you will compensate H&H for the services at the rates set forth in the applicable Proposal, amendment or change order; reimburse its expenses, which will include a communication fee calculated as a percentage of labor invoiced; and pay any sales or similar taxes thereon.
- b. Any retainer specified in H&H's Proposal shall be due prior to the start of services and will be applied to the final invoice for services.
- c. H&H will submit invoices periodically, and payment will be due within 20 days from invoice date. Overdue payments will bear interest at 1½ percent per month or, if lower, the maximum lawful rate. H&H may terminate its services upon 10 days' written notice anytime your payment is overdue on this or any other project and you will pay for all services through termination, plus termination costs. You will reimburse H&H's costs of collecting overdue invoices, including reasonable attorneys' fees.



4. Your Responsibilities.

- a. Except as otherwise agreed, you will secure the approvals, permits, licenses and consents necessary for performance of the services. If you are the owner or operator of the Site, you will provide H&H with all documents, plans, information concerning underground structures (including but not limited to utilities, conduits, pipes, and tanks), information related to hazardous materials or other environmental or geotechnical conditions at the site and other information that may be pertinent to the services or, if you are not the owner or operator of the Site, you agree to make reasonable efforts to obtain these same documents and provide them to H&H. Unless otherwise indicated in writing, H&H will be entitled to rely on documents and information you provide.
- b. If you use the services of a construction contractor at the Site, you agree to use best and reasonable efforts to include in your agreement(s) with the construction contractor provisions obligating the latter:
 - (i) to indemnify, defend and hold harmless, to the fullest extent permitted by law, you and H&H, its officers, employees and principals, for or on account of any claims, liabilities, costs and expenses, including attorneys' fees, arising out of or relating to the design or implementation of construction means, methods, procedures, techniques, and sequences of construction, including safety precautions or programs, of the contractor, or any of its subcontractors or any engineer engaged by it;
 - (ii) to name you and H&H as additional insureds under general liability and builder's risk insurance coverages maintained by the contractor, or any of its subcontractors; and
 - (iii) to require that all of its subcontractors agree and be bound to the obligations set forth in (i) and (ii) above.
- c. In the event that you are unable to secure such provisions in the agreement(s) with the construction contractor, you shall promptly notify H&H and H&H shall have the opportunity to negotiate with you reasonable substitute risk allocation and insurance indemnities and protections.

5. Right of Entry. You grant H&H and its subcontractor(s) permission to enter the site to perform the services. If you do not own the site, you represent and warrant that the owner has granted permission for H&H to enter the site and perform the services; you will provide reasonable verification on request; and you will indemnify H&H for any claims by the site owner related to alleged trespass by H&H or its subcontractors.

6. Reliance. The services, information, and other data furnished by you shall be at your expense, and H&H may rely upon all information and data that you furnish, including the accuracy and completeness thereof. You acknowledge that the quality of the services provided by H&H is directly related to the accuracy and completeness of the information and data that you furnish to H&H. **H&H's REPORTS ARE PREPARED FOR AND MADE AVAILABLE FOR YOUR SOLE USE. YOU ACKNOWLEDGE AND AGREE THAT USE OF OR RELIANCE UPON THE REPORT OR THE FINDINGS IN THE REPORT BY ANY OTHER PARTY, OR FOR ANY OTHER PROJECT OR PURPOSE, SHALL BE AT YOUR OR SUCH OTHER PARTY'S SOLE RISK AND WITHOUT ANY LIABILITY TO H&H.**

7. H&H Professionals. H&H employees or consultants may act as licensed, certified or registered professionals (including but not limited to Professional Engineers, Licensed Site or Environmental Professionals, or Certified Industrial Hygienists, collectively referred to in this section as "H&H Professionals") whose duties may include the rendering of independent professional opinions. You acknowledge that a federal, state or local agency or other third party may audit the services of H&H or other contractor/consultant(s), which audit may require additional services, even though H&H and such H&H Professionals have each performed such services in accordance with the standard of care set forth herein. You agree to compensate H&H for all services performed in response to such an audit, or to meet additional requirements resulting from such an audit, at the rates set forth in the applicable Proposal, amendment or change order.

8. Hazardous Materials; H&H "Not a Generator". Before any hazardous or contaminated materials are removed from the site, you will sign manifests naming you as the generator of the waste (or, if you are not the generator, you will



arrange for the generator to sign). You will select the treatment or disposal facility to which any waste is taken. H&H will not be the generator or owner of, nor will it possess, take title to, or assume legal liability for any hazardous or contaminated materials at or removed from the site. H&H will not have responsibility for or control of the site or of operations or activities at the site other than its own. H&H will not undertake, arrange for or control the handling, treatment, storage, removal, shipment, transportation or disposal of any hazardous or contaminated materials at or removed from the site, other than any laboratory samples it collects or tests. You agree to defend, indemnify and hold H&H harmless for any costs or liability incurred by H&H in defense of or in payment for any legal actions in which it is alleged that H&H is the owner, generator, treater, storer or disposer of hazardous waste.

9. Limits on H&H's Responsibility. H&H will not be responsible for the acts or omissions of contractors or others at the site, except for its own subcontractors and employees. H&H will not supervise, direct or assume control over or the authority to stop any contractor's work, nor shall H&H's professional activities or the presence of H&H or its employees and subcontractors be construed to imply that H&H has authority over or responsibility for the means, methods, techniques, sequences or procedures of construction, for work site health or safety precautions or programs, or for any failure of contractors to comply with contracts, plans, specifications or laws. Any opinions by H&H of probable costs of labor, materials, equipment or services to be furnished by others are strictly estimates and are not a guarantee that actual costs will be consistent with the estimates.

10. Changed Conditions.

- a. You recognize the uncertainties relating to the furnishing of professional services, which often require a phased or exploratory approach, with the need for additional services becoming apparent during the initial services. You also recognize that actual conditions encountered may vary significantly from those anticipated, that laws and regulations are subject to change, and that the requirements of regulatory authorities are often unpredictable.
- b. If changed or unanticipated conditions or delays make additional services necessary or result in additional costs or time for performance, H&H will notify you and the parties will negotiate appropriate changes to the scope of services, compensation and schedule.
- c. If no agreement can be reached, H&H will be entitled to terminate its services and to be equitably compensated for the services already performed. H&H will not be responsible for delays or failures to perform due to weather, labor disputes, intervention by or inability to get approvals from public authorities, acts or omissions on your part or any other causes beyond H&H's reasonable control, and you will compensate H&H for any resulting increase in its costs.

11. Documents and Information. All documents, data, calculations and work papers prepared or furnished by H&H are instruments of service and will remain H&H's property. Designs, reports, data and other work product delivered to you are for your use only, for the limited purposes disclosed to H&H. Any delayed use, use at another site, use on another project, or use by a third party will be at the user's sole risk, and without any liability to H&H. Any technology, methodology or technical information learned or developed by H&H will remain its property. Provided H&H is not in default under this Agreement, H&H's designs will not be used to complete this project by others, except by written agreement relating to use, liability and compensation.

12. Electronic Media. In accepting and utilizing any drawings, reports and data on any form of electronic media generated by H&H, you covenant and agree that all such electronic files are instruments of service of H&H, who shall be deemed the author, and shall retain all common law, statutory law and other rights, including copyrights. In the event of a conflict between the signed documents prepared by H&H and electronic files, the signed documents shall govern. You agree not to reuse these electronic files, in whole or in part, for any purpose or project other than the project that is the



subject of this Agreement. Any transfer of these electronic files to others or reuse or modifications to such files by you without the prior written consent of H&H will be at the user's sole risk and without any liability to H&H.

13. Confidentiality; Subpoenas. Information about this Agreement and H&H's services and information you provide to H&H regarding your business and the site, other than information available to the public and information acquired from third parties, will be maintained in confidence and will not be disclosed to others without your consent, except as H&H reasonably believes is necessary: (a) to perform its services; (b) to comply with professional standards to protect public health, safety and the environment; and (c) to comply with laws and court orders. H&H will make reasonable efforts to give you prior notice of any disclosure under (b) or (c) above. You will reimburse H&H for responding to any subpoena or governmental inquiry or audit related to the services, at the rates set forth in the applicable Proposal, amendment or change order.

14. Insurance. During performance of the services, H&H will maintain workers compensation, commercial general liability, automobile liability, and professional liability insurance. H&H will furnish you certificates of such insurance on request.

15. Indemnification. You agree to hold harmless, indemnify, and defend H&H and its affiliates and subcontractors and their employees, officers, directors and agents (collectively referred to in this paragraph as "H&H") against all claims, suits, fines and penalties, including mandated cleanup costs and attorneys' fees and other costs of settlement and defense, which claims, suits, fines, penalties or costs arise out of or are related to this Agreement or the services, except to the extent they are caused by H&H's negligence or willful misconduct.

16. Limitation of Remedies.

- a. To the fullest extent permitted by law and notwithstanding anything else in this Agreement to the contrary, the aggregate liability of H&H and its affiliates and subcontractors and their employees, officers, directors and agents (collectively referred to in this paragraph as "H&H") for all claims arising out of this Agreement or the services is limited to \$50,000 or, if greater, 10% of the compensation received by H&H under this Agreement.
- b. You may elect to increase the limit of liability by paying an additional fee, such fee to be negotiated prior to the execution of this Agreement.
- c. Any claim will be deemed waived unless received by H&H within one year of substantial completion of the services.
- d. H&H will not be liable for lost profits, loss of use of property, delays, or other special, indirect, incidental, consequential, punitive, exemplary or multiple damages.
- e. H&H will not be liable to you or the site owner for injuries or deaths suffered by H&H's or its subcontractors' employees.
- f. You will look solely to H&H for your remedy for any claim arising out of or relating to this Agreement, including any claim arising out of or relating to alleged negligence or errors or omissions of any H&H principal, officer, employee or agent.

17. Disputes.

- a. All disputes between you and H&H shall be subject to non-binding mediation.
- b. Either party may demand mediation by serving a written notice stating the essential nature of the dispute, the amount of time or money claimed, and requiring that the matter be mediated within forty-five (45) days of service of notice.



April 27, 2016

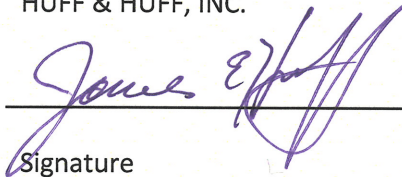
- c. The mediation shall be administered by the American Arbitration Association in accordance with its most recent Construction Mediation Rules, or by such other person or organization as the parties may agree upon.
- d. No action or suit may be commenced unless mediation has occurred but did not resolve the dispute, or unless a statute of limitation period would expire if suit were not filed prior to such forty-five (45) days after service of notice.

18. Miscellaneous.

- a. Illinois law shall govern this Agreement.
- b. The above terms and conditions regarding Limitation of Remedies and Indemnification shall survive the completion of the services under this Agreement and the termination of the contract for any cause.
- c. Any amendment to these Terms and Conditions must be in writing and signed by both parties.
- d. Having received these Terms and Conditions, your oral authorization to commence services, your actions, or your use of the Report or Work Product constitutes your acceptance of them.
- e. This Agreement supersedes any contract terms, purchase orders or other documents issued by you.
- f. Neither party may assign or transfer this Agreement or any rights or duties hereunder without the written consent of the other party.
- g. Your failure or the failure of your successors or assigns to receive payment or reimbursement from any other party for any reason whatsoever shall not absolve you, your successors or assigns of any obligation to pay any sum to H&H under this agreement.
- h. These Terms and Conditions shall govern over any inconsistent terms in H&H's Proposal.
- i. The provisions of this Agreement are severable; if any provision is unenforceable it shall be appropriately limited and given effect to the extent it is enforceable.
- j. The covenants and agreements contained in this Agreement shall apply to, inure to the benefit of and be binding upon the parties hereto and upon their respective successors and assigns.

BOTH PARTIES HERETO WARRANT AND REPRESENT that they have full right, power, and authority to execute this Contract. IN WITNESS THEREOF, the parties hereto have executed this Agreement as of the day and year first specified above.

CONSULTANT
HUFF & HUFF, INC.


Signature

James E. Huff, P.E.

Typed Name

Principal

Officer's Title

April 27, 2016

Date

CLIENT
CIVILTECH ENGINEERING, INC.

Signature

Typed Name

Officer's Title

Date



**Payroll Escalation Table
Fixed Raises**

FIRM NAME Huff & Huff, Inc.
PRIME/SUPPLEMENT Civiltech Engineering, Inc.

DATE 4/26/2016
PTB NO. _____

CONTRACT TERM 12 MONTHS
START DATE 5/1/2016
RAISE DATE 3/1/2017

OVERHEAD RATE 171.26%
COMPLEXITY FACTOR 0
% OF RAISE 3.00%

ESCALATION PER YEAR

5/1/2016 - 3/1/2017

3/2/2017 - 5/1/2017

10
12

2
12

= 83.33%

17.17%

= 1.0050

The total escalation for this project would be:

0.50%



Payroll Rates

FIRM NAME	Huff & Huff, Inc.
PRIME/SUPPLEMENT	<u>Civiltech Engineering, Inc.</u>
PTB NO.	

DATE 4/26/2016

ESCALATION FACTOR **0.50%**

[illegible]



**Illinois Department
of Transportation**

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

Firm Huff & Huff, Inc.
Route 14th Street
Section US Rte 131 to Jackson St.
County Lake
Job No. _____
PTB & Item _____

Date 4/26/2016

Overhead Rate 171.26%

Complexity Factor 0

Item	Manhours	Payroll	Overhead & Fringe Benefits	In-House Direct Costs	Fixed Fee	Outside Direct Costs	Services By Others	Total	% of Grand Total
PSI/CCDD	70	2,253.15	3,858.74	440.20	950.05	3,410.00	7,200.00	18,112.15	92.66%
QA/QC	5	260.63	446.36	0.00	102.51	0.00	0.00	809.50	4.14%
Project Management	5	201.05	344.32	0.00	79.08	0.00	0.00	624.45	3.19%
TOTALS	80	2,714.83	4,649.42	440.20	1,131.64	3,410.00	7,200.00	19,546.09	100.00%

Method of Compensation:

- ☒ 14.5%[DL + R(DL) + OH(DL) + IHDC]
☐ 14.5%[DL + R(DL) + 1.4(DL) + IHDC]
☐ 14.5%[(2.3 + R)DL + IHDC]
☐ Specific Rate
☐ Lump Sum

Average Hourly Project Rates

Route 14th Street
Section US Rte 131 to Jackson St.
County Lake
Job No.
PTB/Item

Consultant Huff & Huff, Inc.

Date 4/26/2016

Sheet 1 **OF** 1

Payroll Classification	Avg Hourly Rates	Total Project Rates			PSI/CCDD			QA/QC			Project Management								
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	70.00	2	2.50%	1.75				2	40.00%	28.00									
Senior Geotechnical Cons.	58.37	0																	
Senior Consultant	58.24	0																	
Senior Geologist PM	48.86	0																	
Geologist PM	30.79	0																	
Senior Engineering PM	46.64	0																	
Engineering PM	38.51	0																	
Assistant PM Engineer II	37.27	0																	
Assistant PM Engineer I	31.82	60	75.00%	23.86	60	85.71%	27.27												
Engineer 1	29.71	0																	
Senior Scientist PM	40.21	10	12.50%	5.03	2	2.86%	1.15	3	60.00%	24.13	5	100.00%	40.21						
Scientist PM I	40.02	0																	
Assistant PM Scientist	25.64	0																	
Senior Technical Scientist	34.17	0																	
Environmental Scientist E1	23.86	0																	
Senior Planning PM	45.27	0																	
Planning PM	32.80	0																	
Senior Technical Specialist	43.09	2	2.50%	1.08	2	2.86%	1.23												
Senior CADD Specialist	31.36	4	5.00%	1.57	4	5.71%	1.79												
Administrative Managers	37.31	0																	
Sr. Administrative Assistant	26.01	2	2.50%	0.65	2	2.86%	0.74												
Administrative Assistant	21.27	0																	
Senior PM II (on call)	57.98	0																	
Senior PM I (on call)	39.08	0																	
Engineering Intern	18.09	0																	
Intern	15.58	0																	
		0																	
		0																	
		0																	
		0																	
TOTALS		80	100%	\$33.94	70	100%	\$32.19	5	100%	\$52.13	5	100%	\$40.21	0	0%	\$0.00	0	0%	\$0.00

HUFF & HUFF, INC.
SUMMARY OF INHOUSE DIRECT COSTS
 Project: CivTch 14th Street PSI CCDD

										<u>DIRECT</u>
Task 1 - PSI/CCDD										
Trips - Company	100 miles	x	2	x	\$	0.54	=	\$	108.00	
Tolls			14	x	\$	1.50	=	\$	21.00	
Reproduction	3 sets	x	200	x	\$	0.03	=	\$	18.00	
Color copies	3 sets	x	20	x	\$	0.11	=	\$	6.60	
Photo sheets	3 sets	x	20	x	\$	0.11	=	\$	6.60	
field kit	1 day	x	2	x	\$	30.00	=	\$	60.00	
PID	1 day	x	2	x	\$	100.00	=	\$	200.00	
pH meter	1 day	x	2	x	\$	10.00	=	\$	20.00	
Task Total									\$	440.20
Task 2 - QA/QC										
				0	x	\$	-	=	\$	-
Task Total									\$	-
Task 3 - Project Management										
				0	x	\$	-	=	\$	-
Task Total									\$	-
GRAND TOTAL										\$ 440.20

HUFF & HUFF, INC.
SUMMARY OF OUTSIDE DIRECT COSTS
Project: CivTch 14th Street PSI CCDD

OUTSIDE

Task 1 - PSI/CCDD

Analytical									
VOC w/5035	1 ea	x	2 x	\$	138.00	=	\$	276.00	
BTEX+Mtbe	1 ea	x	8 x	\$	88.00	=	\$	704.00	
PNAs	1 ea	x	8 x	\$	105.00	=	\$	840.00	
RCRA total	1 ea	x	5 x	\$	85.00	=	\$	425.00	
RCRA tclp/splp	1 ea	x	3 x	\$	165.00	=	\$	495.00	
pH	1 ea	x	20 x	\$	20.00	=	\$	400.00	
Federal Express			1 x	\$	20.00	=	\$	20.00	
Records Search			1 x	\$	250.00	=	\$	250.00	
			0 x	\$	-	=	\$	-	
			Task Total				\$	3,410.00	

Task 2 - QA/QC

	0 x	\$	-	=	\$	-
		Task Total			\$	-

Task 3 - Project Management

	0 x	\$	-	=	\$	-
		Task Total			\$	-

GRAND TOTAL \$ 3,410.00

HUFF & HUFF, INC.
SUMMARY OF SERVICES BY OTHERS
Project: CivTch 14th Street PSI CCDD

				<u>OUTSIDE</u>
<i>Task 1 - PSI/CCDD</i>				
Driller (day)	2	x	\$ 1,800.00	= \$ 3,600.00
Traffic Control (day)	2	x	\$ 1,800.00	= \$ 3,600.00
<hr/>	0	x	\$ -	= \$ -
			Task Total	\$ 7,200.00
<i>Task 2 - QA/QC</i>				
<hr/>	0	x	\$ -	= \$ -
			Task Total	\$ -
<i>Task 3 - Project Management</i>				
<hr/>	0	x	\$ -	= \$ -
			Task Total	\$ -
<hr/>				
			GRAND TOTAL	\$ 7,200.00

\\Gzachicago\finance\PROPOSALS\Proposal-FY2017\Civiltech\81.PT00028.17 Civtch 14th St PSI CCDD IDOT CECS C

Attachment E

Midland Standard Engineering and Testing, Inc.

Utility Potholing

UNIT RATE PROPOSAL

4/19/16

To: Mr. Jonathan R. Vana, P. E.
Civiltech Engineering, Inc.
450 E. Devon Avenue, Suite 300
Itasca, Illinois 60143
(630) 773-3900

From: William Wyzgala, P.E.
**Midland Standard
Engineering & Testing, Inc.**
558 Plate Drive Unit 6
East Dundee, Illinois 60118
(847) 844-1895 f (847) 844-3875

Pot-Hole Excavations for Utility Depth
14th Street Improvements, IL Route 131 to Jackson Street - Lake County, Illinois

Proposed work consists of performing utility excavations, some with pavement cores, 18" in diameter with reinstatement of the core plug, at various street and parkway locations. We have estimated 6 to 8 work days to perform the coring & excavations. We have assumed prevailing wage applies to the project. The scope of the project is not defined, only anticipated. The estimated budget for the anticipated work is shown below.

FIELD SERVICES	UNIT PRICE	EST QTY	BUDGET EXTENSION
Utility Clearance Site Meetings, per hour	\$100.00	16	\$1,600.00
Crew & Equipment for Pavement Cores, 18" Diameter Hole, and Reinstatement of Core Plug, per Approved Utilicor Procedures, per day	\$2,900.00	6	\$17,400.00
Crew & Equipment to Excavate to Expose Existing Utility Crossing, Measure Depth & Photo Log, per day	\$2,500.00	8	\$20,000.00
Backfill Excavation with Pea Gravel, per cubic yard	\$37.50	20	\$750.00
Traffic Control, Signs, Flagmen, per day	\$720.00	8	\$5,760.00

Additional:

Additonal charges apply for nights and week end work.
All work is assumed to be in public ROW. Costs for access permits is extra.
Owner to provide a suitable dump site for spoils.
Additional charges may apply for special equipment for large obstructions or
installation of hole casing for unstable ground conditions.

PROJECT TOTAL
\$45,510.00

Accepted: _____ Date: _____

Attachment F

Santacruz Land Acquisitions

Negotiations

PROPOSAL FOR LAND ACQUISITION SERVICES

Lake County Division of Transportation

Civiltech Engineering, Inc.



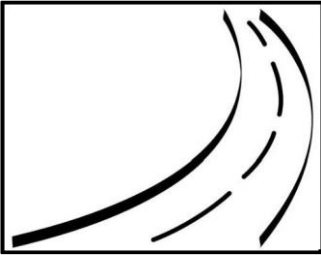
14th Street

IL 131 to Jackson Street

**Santacruz Land
Acquisitions**

2650 Valor Drive • Glenview, IL 60026
www.santacruz-associates.com

Contact:
J. Steve Santacruz
847-868-9620
jsteve@santacruz-associates.com



EXECUTIVE SUMMARY

Having extensive experience with right of way projects, we understand the importance of keeping on schedule. On-time lettings gives the 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 the 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 LPA. We also know that keeping the land acquisition on-time and within budget is a measurement of success for LPA. When a project does not meet its letting schedule, we know it can impact the budget for LPA, causing scheduling conflicts with potential contractors and also affect other economic factors which govern the delivery of the overall roadway improvement program for LPA.

Santacruz Land Acquisitions 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 Land Acquisitions will work with the staff for LPA and Civiltech Engineering, Inc., Engineer for LPA, (“Consultant”) to develop a land acquisition plan for the reconstruction of 14th Street from IL Route 131 to Jackson Street (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 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 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.

Santacruz Land Acquisitions is made up 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). Santacruz Land Acquisitions is familiar with IDOT’s land acquisition guidelines, policies and procedures.

WHY SANTACRUZ LAND ACQUISITIONS?

As you review our proposal, you will see that Santacruz Land Acquisitions 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 Land Acquisitions is a DBE with IDOT and an MBE with Cook County and the City of Chicago. Santacruz Land Acquisitions is also certified in the Business Enterprise Program with the State of Illinois Central Management Services.

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 LPA with its land acquisition needs

Santacruz Land Acquisitions shall be entitled to the compensation as shown on the attached schedule. Our cost proposal, based on **forty (40)** projected parcels of right-of-way, is as follows:

As directed, Santacruz Land Acquisitions shall invoice 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 Land

Acquisitions shall include **\$500.00** per parcel for these charges. Santacruz Land Acquisitions shall pay any such fees and charges in excess of the **\$500.00** per parcel allowance for which Santacruz Land Acquisitions shall be entitled to additional compensation in the amount of any such payments pursuant to a separate work order issued.

Santacruz Land Acquisitions will attend and/or participate in up to **four (4)** hours of meetings and conference calls for consultations on the project. This will include, without limitation, kick-off meetings, planning discussions, project strategy development and review of parcels with acquisition challenges.

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 **\$121,000.00** as follows:

Land Acquisition Services	\$100,000.00
Consultation/Meeting Services	\$1,000.00
Direct Billable Expenses	\$20,000.00



TECHNICAL APPROACH

Santacruz Land Acquisitions shall perform all necessary services in the negotiation of the acquisition of necessary properties required for the completion of the Project. All services shall be performed at the direction of 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 Land Acquisitions will review the highway construction plans with LPA and/or the Consultant to understand the nature and purpose of the project.

Santacruz Land Acquisitions agrees to perform the services as set forth herein as well as furnish and deliver to 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 Land Acquisitions 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 LPA.

Task 2: Kick-off Meeting

As requested, Santacruz Land Acquisitions will meet with 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

LPA or Consultant will provide Santacruz Land Acquisitions 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, LPA or Consultant will also provide 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 Land Acquisitions after approval by LPA of the amount of just compensation to be offered to the property owner.

The Negotiator assigned by Santacruz Land Acquisitions will not have any authority to determine administrative settlements. The Negotiator will consult with LPA for approval of any counter offers and upon acceptance by LPA of any such counter offer, Santacruz Land Acquisitions 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 Land Acquisitions 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 LPA. Santacruz Land Acquisitions will direct any questions to LPA or Consultant resulting from its review of the plans, plats, appraisals and title commitments so that Santacruz Land Acquisitions is prepared for any issues raised by the property owner during negotiations.

Before contacting the owner of a parcel, Santacruz Land Acquisitions will prepare and send the introductory letter to the property owner on 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 Land Acquisitions and a representative of LPA.

Santacruz Land Acquisitions 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 Land Acquisitions 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 Land Acquisitions will send the offer package by certified mail so that a receipt of delivery can be established.

Santacruz Land Acquisitions 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 Land Acquisitions will exceed the minimum number of contacts in an attempt to make all reasonable efforts to reach a settlement before recommending that 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 Land Acquisitions 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 Land Acquisitions 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 Land Acquisitions will cease negotiations on certain

parcels until corrected information or further instruction is provided to Santacruz Land Acquisitions.

Upon successful negotiations with the property owner, Santacruz Land Acquisitions 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 Land Acquisitions 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 LPA.

In the event that Santacruz Land Acquisitions, 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 Land Acquisitions shall prepare and submit to 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 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 LPA so that it may complete the acquisition of the property through condemnation. In such case, at the request of 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 experience and talent of the right of way professionals that make up the team for Santacruz Land Acquisitions will, to a large extent, be the basis for the success of keeping this Project on-time and within budget. J. Steve Santacruz brings over twenty years of right of way acquisition experience to lead this team as its project manager. He has worked on thousands of acquisition parcels for ISTHA, IDOT, Cook, Kane, Lake, and Will Counties. 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 Land Acquisitions include Robin Weber, a real estate paralegal with over twenty years of experience in closing residential and commercial real estate transactions, and Jonathan Abplanalp, a District 1 fee negotiator.

PRIOR EXPERIENCE

Santacruz Land Acquisitions was founded in 1992 as Santacruz Associates Ltd. and has grown to be one of the most dependable right of way negotiation firms in IDOT's District 1. Since it opened, Santacruz Land Acquisitions has been providing comprehensive right of way solutions, including negotiation activities and the coordination of the valuations of parcels for various public agencies.

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 Land Acquisitions 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.



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	\$2,500.00
---	------------

Consultation & Witness Services

Rate for each ½ day in pretrial conference or in court for Negotiator	\$1,000.00
---	------------

Hourly rate for consultation not otherwise specifically provided for herein	\$250.00
---	----------

Title Services (if applicable)

Later date commitment – In addition to actual recording costs + Administrative fee	\$25.00
---	---------

Title insurance policies – In addition to actual recording costs + 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 fees + Administrative fee	\$25.00
--	---------

Attachment G

GHD, Inc.

Roundabout QC/QA and Public Involvement



May 18, 2016

Jonathan Vana, PE
President
Civiltech Engineering, Inc.
450 E. Devon Ave, Suite 300
Itasca, IL 60143

Dear Jonathan,

**RE: 14th St. & Dugdale Rd - Phase II
Final Design and Review
GHD Proposal Number 16263**

Thank you for your invitation to submit a proposal to provide QA/QC for the roundabout design during the Phase II process and assist in public involvement for the proposed roundabout at 14th Street and Dugdale Road in Lake County, IL. As you know, The Protection Engineering Group, Inc. (GHD Inc.) is accustomed to assisting local consultants in the above mentioned services.

Below is the scope that we will follow subject to your approval:

Administration and QA/QC

- 30% Design Review - Review and optimize horizontal geometrics completed during the Phase I process.
- 30% to 60% Design Review – Conduct incremental reviews of each of the following items provided by Civiltech Engineering. We will provide red-line mark-ups, review comments, and conduct web-conference meetings as necessary.
 - Vertical geometrics (Typical sections, profiles and spot elevations)
 - Pavement marking
 - Signing
 - Traffic maintenance/construction staging
 - Landscaping
 - Lighting
- 90% Design Review - Final plan sheet review
- Meetings – Web-meetings and teleconference calls are estimated in our proposed fees.
- Prepare monthly progress reports and invoices.

Public Coordination

- Attendance at the following meetings:
 - Stakeholder meetings with the City (2 meetings – 1 person)
 - Public Meeting/Hearing and dry run (2 meetings – 1 person)
 - Roundabout Educational meetings with the community (2 meetings – 1 person)

If-Authorized

- Create public outreach tools that can be used for public meeting and/or the County's roundabout webpage (see roundaboutresources.org for examples):
 - Roundabout myths and fact sheets
 - Talking points for City staff and stakeholders
 - Educational "How-to" brochures and flyers
 - HO scale (1:87, railroad) roll plot – stakeholders can navigate roundabout with scale model vehicles that GHD will provide to the City (fire truck, semi, ambulance, SUV, delivery truck, and passenger car)
 - Educational "How-to" animation – step by step animation of driving through a roundabout. We will present two options for the County to consider and complete the chosen option for the County to use on their website. The animations are for demonstration purposes and will not be set up to demonstrate actual or projected traffic conditions (e.g. peak hour traffic volumes, truck percentages, etc.).
 - GHD will develop a new 3D animation that will simulate turning movements and proper roundabout navigation.
 - GHD will create a project-specific animation in Adobe Flash© format, similar to the animation for the four-leg, single lane roundabout on our Roundabout Resources website (see <http://www.roundaboutresources.org/four-leg,-single-lane.html>).
 - Educational and sample videos

Staffing and Schedule

Our available resources include nine professional engineers, all specialized in roundabout design. Jedidiah Munroe, PE will manage the project and act as the point of contact for analysis and design tasks. Mark Lenters, Principal, will provide the quality assurance review to ensure that the roundabout design solution meets Lake County's objectives to improve operations for this location.

Professional Fees and Authorization

We propose services based on an actual cost not to exceed **\$18,570.54** for the Phase II final design with the above proposed scope of work, and an if-authorized cost not to exceed of **\$15,552.22** for additional outreach tools. A detailed outline of hours is attached.

We look forward to working with you on this project. If this agreement is acceptable, please sign and return one (1) copy of the attached GHD Standard Term. We look forward to your approval to proceed.

Sincerely

The Protection Engineering Group, Inc. a subsidiary of GHD Inc.

A handwritten signature in black ink, reading "Jedidiah Munroe".

Jedidiah Munroe, PE
Project Manager
608-216-2055

A handwritten signature in blue ink, reading "Mark Lenters".

Mark Lenters
Principal
608-216-2059

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME GHD Inc
PRIME/SUPPLEMENT Supplement

DATE 05/18/16
PTB NO. _____

CONTRACT TERM 12 MONTHS
START DATE 8/1/2016
RAISE DATE _____

OVERHEAD RATE 185.16%
COMPLEXITY FACTOR 0
% OF RAISE 3.00%

ESCALATION PER YEAR

8/1/2016 - 12/31/2016

1/1/2017 - 7/31/2017

5
12

7
12

= 41.67%
= 1.0175

60.08%

The total escalation for this project would be:

1.75%

PAYROLL RATES

FIRM NAME GHD Inc DATE 05/18/16
PRIME/SUPPLEMENT Supplement
PSB NO. _____

ESCALATION FACTOR 1.75%

CLASSIFICATION	CURRENT RATE	CALCULATED RATE
Service Group Manager	\$70.00	\$70.00
Project Manager	\$42.23	\$42.97
Design Engineer	\$35.66	\$36.28
Project Engineer	\$25.96	\$26.41
Graphic Artist	\$23.50	\$23.91

DF-824-039
REV 12/04

DATE 05/18/16

DBE 0.00%

SHEET **1** **OF** **1**

Printed 5/18/2016 9:39 AM