DRAFT

LOCAL AGENCY		CONSULTANT	
Municipality - - - -	Illinois Department of Transportation		Name Civiltech Engineering, Inc.
Township - - - -			Address 450 E. Devon Avenue Suite 300
County Lake County – Division of Transportation	**Preliminary Engineering Services Agreement For Non-Motor Fuel Tax Funds**		City Itasca
Section 14-00158-11-WR			State IL

THIS AGREEMENT is made and entered into this _____ day of _____, _____ between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. 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 Weiland Road Improvements (FAU Route 2665)

Route CH 51 Length 3.3 Mi. 17, 500 FT (Structure No. n/a)

Termini Lake Cook Road to IL Route 22

Description: Phase II engineering services for the Weiland Road improvement project, including roadway, drainage, retaining wall, traffic signal, and street lighting design, preparation of contract documents, special provisions, and cost estimates. Services will also include ROW acquisition services, environmental and geotechnical studies

Agreement Provisions

The Engineer Agrees,

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

j. ☒ Prepare the necessary environmental documents in accordance with the procedures adopted by the DEPARTMENT's Bureau of Local Roads & Streets.

k. ☐ Prepare the Project Development Report when required by the DEPARTMENT.

l. ☒ **Services as included and/or defined in the attached Scope of Services.**

2. That all reports, plans, plats and special provisions to be furnished by the ENGINEER pursuant to the AGREEMENT, will be in accordance with current standard specifications and policies **of the LA** ~~of the DEPARTMENT~~. It is being understood that all such reports, plats, plans and drafts shall, before being finally accepted, be subject to approval by the LA ~~and the DEPARTMENT~~.

3. To attend conferences at any reasonable time when requested to do so by representatives of the LA ~~or the Department~~.

4. In the event plans or surveys are found to be in error during construction of the SECTION and revisions of the plans or survey corrections are necessary, the ENGINEER agrees that the ENGINEER will perform such work without expense to the LA, even though final payment has been received by the ENGINEER. The ENGINEER shall give immediate attention to these changes so there will be a minimum delay to the CONTRACTOR.

5. That basic survey notes and sketches, charts, computations and other data prepared or obtained by the ENGINEER pursuant to this AGREEMENT will be made available, upon request, to the LA ~~or the DEPARTMENT~~ without cost and without restriction or limitations as to their use.

6. That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will show the ENGINEER's professional seal where such is required by law.

The LA Agrees,

1. To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT according to the following method indicated by a check mark:

   a. ☐ A sum of money equal to _____ percent of the awarded contract cost of the proposed improvement as approved by the DEPARTMENT.

   b. ☐ A sum of money equal to the percent of the awarded contract cost for the proposed improvement as approved by the DEPARTMENT based on the following schedule:

Schedule for Percentages Based on Awarded Contract Cost

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

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

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

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

   The Total Not-to-Exceed Contract Amount shall be $ 3,371,012.93

3. That payments due the ENGINEER for services rendered in accordance with this AGREEMENT will be made as soon as practicable after the services have been performed in accordance with the following schedule:

   a. Upon completion of detailed plans, special provisions, proposals and estimate of cost - being the work required by section 1 of the ENGINEER AGREES - to the satisfaction of the LA ~~and their approval by the DEPARTMENT~~, 90 percent of the total fee due under this AGREEMENT based on the approved estimate of cost.

   b. Upon award of the contract for the improvement by the LA ~~and its approval by the DEPARTMENT~~, 100 percent of the total fee due under the AGREEMENT based on the awarded contract cost, less any amounts paid under "a" above.

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

4. That, should the improvement be abandoned at any time after the ENGINEER has performed any part of the services provided for in sections 1 and 3 of the ENGINEER AGREES and prior to the completion of such services, the LA shall reimburse the ENGINEER for the ENGINEER's actual costs plus 183 percent incurred up to the time the ENGINEER is notified in writing of such abandonment -"actual cost" being defined as in paragraph 2 of the LA AGREES.

5. That, should the LA require changes in any of the detailed plans, specifications or estimates except for those required pursuant to paragraph 4 of the ENGINEER AGREES, ~~after they have been approved by the DEPARTMENT~~, the LA will pay the ENGINEER for such changes on the basis of actual cost plus 183 percent to cover profit, overhead and readiness to serve -"actual cost" being defined as in paragraph 2 of the LA AGREES. It is understood that "changes" as used in this paragraph shall in no way relieve the ENGINEER of the ENGINEER's responsibility to prepare a complete and adequate set of plans and specifications.

It is Mutually Agreed,

1. That any difference between the ENGINEER and the LA concerning their interpretation of the provisions of this Agreement shall be referred to a committee of disinterested parties consisting of one member appointed by the ENGINEER, one member appointed by the LA and a third member appointed by the two other members for disposition and that the committee's decision shall be final.

2. This AGREEMENT may be terminated by the LA upon giving notice in writing to the ENGINEER at the ENGINEER's last known post office address. Upon such termination, the ENGINEER shall cause to be delivered to the LA all surveys, permits, agreements, preliminary bridge design & hydraulic report, drawings, specifications, partial and completed estimates and data, if any from traffic studies and soil survey and subsurface investigations with the understanding that all such material becomes the property of the LA. The ENGINEER shall be paid for any services completed and any services partially completed in accordance with section 4 of the LA AGREES.

3. That if the contract for construction has not been awarded one year after the acceptance of the plans by the LA ~~and their approval by the DEPARTMENT~~, the LA will pay the ENGINEER the balance of the engineering fee due to make 100 percent of the total fees due under this AGREEMENT, based on the estimate of cost as prepared by the ENGINEER and approved by the LA ~~and the DEPARTMENT~~.

4. That the ENGINEER warrants that the ENGINEER has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this contract, and that the ENGINEER's has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For Breach or violation of this warranty the LA shall have the right to annul this contract without liability.

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

Executed by the LA:

County of Lake of the
(~~Municipality/Township~~/County)

ATTEST:

State of Illinois, acting by and through its

By _____

County Board

Lake County Clerk

By _____

(Seal)

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:

Civiltech Engineering, Inc
Engineering Firm
450 E. Devon Avenue, Suite 300
Street Address
Itasca, IL 60143
City, State

ATTEST:

By Robert J. Arhola

By _____

Title Vice President

Title President

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

CIVILTECH

Attachment A

Phase II Scope of Engineering Services

EXHIBIT A
PHASE II SCOPE OF ENGINEERING SERVICES

Weiland Road Improvements

Lake County Division of Transportation
Village of Buffalo Grove

January 6, 2014

I. PROJECT UNDERSTANDING

This project includes the proposed widening and reconstruction of approximately 3.3 miles (17,500 feet) of Weiland Road from Lake Cook Road to IL Route 22 within the Village of Buffalo Grove, Lake County, Illinois. Improvements also involve numerous intersecting roadways along the project corridor.

The purpose and need of the Weiland Road project will be reconstructing and widening to improve traffic safety, increase roadway capacity and operation, and to enhance system linkage in the project corridor. The intersection of Deerfield Parkway will be an omission while the components of this project include the Prairie Road Realingment (Aptakisic Road to N. Prairie Road), Weiland Road (Lake Cook Road to Deerfield Parkway), Weiland Road (Deerfield Parkway to Aptakisic Road), and Prairie Road (Miramar Lane to IL Route 22).

The Phase I design of the project is currently on-going and the preferred alternate has been selected. The Public Hearing is anticipated to occur in the Fall of 2013 and Design Approval is anticipated in the Spring of 2014. The scope of the Phase II work has been prepared based on the pre-final Combined Design Report, dated August 15, 2012. The Combined Design Report covers work along Weiland Road south of Woodstone Drive, however the design of those improvements are not part of this contract because they are included in the Lake Cook Road improvements being designed under another contract. An overall view of the improvements to be included in this contract can be seen in Attachment N.

An enclosed drainage system will implemented to more effectively collect roadway runoff and reduce potential for roadway flooding by providing storm water detention and water quality features. The storm sewer system will be designed for the 10-year storm. Detention will be required for the increased runoff associated with the additional impervious areas and is being provided in through detention ponds designed for the 100-year release rate and in oversized storm sewers designed for the 10-year release rate. This project is within Lake County, and is therefore subject to the requirements of the Lake County Stormwater Management Commission (LCSMC) Watershed Development Ordinance. Based on the draft Existing and Proposed Drainage Plans prepared as part of the Phase I study, the area predominately drains south to Aptakisic Creek while a portion of the project near Woodstone Drive will continue to outfall to the south toward Buffalo Creek, Cook County. Detention for this southern area is being accommodated within a separate Lake Cook Road corridor improvement project and preliminary coordination has indicated that LCSMC is acceptable once Cook County approves of the flow rate being accommodated.

Best Management Practices (BMPs) will be incorporated into a Storm Water Pollution Prevention Plan (SWPPP) and a National Pollution Discharge Elimination System (NPDES) permit for the storm water

discharge from the construction site. Water quality swales and ditches can be utilized where feasible, but due to the proximity of environmental resources and adjacent property mechanical devices may be warranted near the water crossings to reduce pollutant runoff.

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

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

There is one existing at-grade railroad crossing within the project limits, on Aptakisic Road east of Weiland Road. This railroad line is owned by Wisconsin Central Ltd. (Canadian National) and services both freight and Metra commuter trains. The crossing has a concrete surface with two tracks and automatic flashing light signals with gates. Modifications related to the pedestrian crossing have already been addressed to the ICC through a separate ICC petition and Agreement. However, the ultimate Aptakisic Road intersection and median improvements will need to be addressed through a second Agreement with the Canadian National. We'll review of the previous petition and agreements developed between the County, ICC, and the municipalities and our work will include the Canadian National (Permits, Agreements, and Approvals) railroad construction coordination, documentation (Right-Of-Entry Permits, Specifications, and Insurance), and the corresponding Buffalo Grove / LCDOT / IDOT coordination.

As part of this project, the traffic signals at the following locations will be removed, replaced/reconstructed, or introduced:

- Aptakisic Road and Prairie Road (removed)
  - Upon bagging the existing signal, this work includes the necessary traffic study, traffic counts, traffic signal warrant analysis, post-removal analysis with crash monitoring, public comments, and delay measures, and a final removal justification report.
- Weiland Road at Pauline Avenue (replaced)
- Weiland Road at Aptakisic Junior High Exit (replaced)
- Weiland Road at Aptakisic Road (replaced)
- Weiland Road at Thompson Boulevard (new)
- Weiland and IL Route 22 (cabinet modifications for interconnect work)

LCDOT interconnect systems will need to be maintained during construction of the project and we're aware of an existing system along Weiland Road between Deerfield Parkway and Aptakisic Road, and along Aptakisic Road in that vicinity. A proposed interconnect along Weiland Road is anticipated from Lake Cook Road to IL Route 22. All intersections will include video detection cameras and pan/tilt/zoom (PTZ) surveillance cameras incorporated into the County's Passage network. It is also assumed that a PTZ surveillance camera will be required at the intersection of IL Route 22/Weiland Road as a part of this project, for incorporation into the County's Passage network. Bluetooth roadside detectors can also be incorporated if requested.

The existing systems will be replaced as part of replacing the traffic signals and the railroad signals will remain connected. In accordance with IDOT's Complete Streets policy, the incorporation of bicycle and pedestrian facilities will be included as part of the project work and any existing gaps in the bike path and sidewalk network will be completed. Ramps will be provided at all intersections within the project area, in accordance with Americans with Disabilities Act (ADA) requirements.

Private and public utilities own and operate facilities within the project corridor. It is anticipated that extensive relocation work will be required to accommodate the widened roadways and new drainage systems. The relocation of the Village of Buffalo Grove's water main and sanitary sewer will be included as part of the roadway contract plans designed under this contract. This will require intergovernmental agreements between the County and the Village to cover the engineering and construction costs.

There is an existing continuous roadway lighting system within the project limits along the Weiland Road and Prairie Road corridor. As part of the proposed improvement, the impacted lighting will be replaced with a new lighting system to include temporary lighting for the staged construction..

The proposed improvement will require the acquisition of permanent right-of-way, permanent easements, and temporary easements from 54 parcels. This project will include the preparation of the necessary Plat of Highways, appraisals, review appraisals, negotiations, and relocation services necessary to acquire the right-of-way.

Based on the project funding, four separate construction contracts and construction cost estimates are anticipated. We will develop preliminary plans for the entire improvement within the scope of this project to a level that will allow the limits of proposed right-of-way and easements to be set. The preliminary plans will be submitted to all of the review agencies. Upon receiving any comments on the preliminary plans, the project will be split into construction contracts and the detailed design will be completed. The four projects are anticipated to consist of the following:

Contract 1 (2016) - Prairie Road Realignment (Aptakisic Road to N. Prairie Road),
Contract 2 (2017) - Weiland Road (Lake Cook Road to Deerfield Parkway),
Contract 3 (2018) - Weiland Road (Deerfield Parkway to Aptakisic Road), and
Contract 4 (2019) - Prairie Road (Miramar Lane to IL Route 22).

A tentative project schedule is included in Attachment O. This schedule shows the time required to get to the first construction contract. At the direction of the County, we can also review alternatives that combine parts of the four anticipated contracts if funding allows. Restrictions can be included in the plans that split the project similar to the contracts above. This option has the advantage that a single contractor will be awarded the project, thus eliminating any coordination issues between contractors if the four contracts overlap.

The construction of this project is being funded with the use of Federal funds with the local match from Lake County. Additional funding will likely be required from the Village of Buffalo Grove for the proposed utilities and lighting improvements. It is our understanding that the Illinois Commerce Commission may also have the ability to locally target railroad projects for additional funding such as the Weiland Road improvement. We will review other potential funding opportunities during the project development.

II. SCOPE OF SERVICES

All work will be performed in accordance with the standards and guidelines of the Lake County Division of Transportation (LCDOT), and the Illinois Department of Transportation (IDOT) Bureau of Local Roads and Streets (BLRS) Manual. In addition, all permitting will follow the requirements set forth by the Lake County Stormwater Management Commission (for areas north of Lake Cook Road), the Illinois Environmental Protection Agency, the Illinois Department of Natural Resources, and the United States Army Corps of Engineers.

1. Early Coordination and Data Collection

A. **Initial Meetings with County and Village** - We will hold a joint meeting with the LCDOT and the Village of Buffalo Grove 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.

B. **IDOT Project Kick-Off Meeting** - We will conduct a joint meeting with IDOT, LCDOT and the Village of Buffalo Grove 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 starting detailed drainage design. As noted in the Project Approach, this project is within Lake County, and is therefore subject to the requirements of the LCSMC Watershed Development Ordinance. We will confirm at the meeting that providing detention in Cook County will be acceptable to LCSMC.

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 Village 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.

   We are aware of the Northwest Suburban ERUV which was granted permission from various agencies to erect an ERUV in Buffalo Grove. We'll contact and coordinate with the current representative for the ERUV regarding the maintenance of this facility and include the boundary within the contract plans to reflect any modifications or maintenance required.

   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 and to reflect ERUV facilities.

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 drawing. This item also includes manhours related to attending coordination meetings with utilities and the LCDOT utility coordinator.

F. **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 Phase I survey was performed by Claassen White & Associates and by Jorgensen and Associates. Supplemental survey is required for the areas that were outside of the original survey limits, including the detention areas and various areas where the survey did not extend far enough beyond the existing right-of-way to encompass the proposed right-of-way or easements. This supplemental survey will 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 B.

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. **Geotechnical Studies** – 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 borings are required for the proposed detention areas, for the proposed noise wall, the proposed retaining walls, and borings for the proposed headwalls and box culvert being constructed to convey Aptakisic Creek. 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 findings of the report, if required. A copy of Midland's proposal is included in Attachment C.

I. **Wetland Studies** – Two wetland delineation reports were prepared for the entire Phase I study area (dated January 9, 2009 and January 22, 2010). These reports will expire prior to the completion of the permitting for this project. The reports will be updated for the project area by Barry Stuedemann of Stuedemann Environmental Consulting (SEC). Mr. Stuedemann prepared the original reports while at previous engineering firms. A copy of SEC's proposal is included in Attachment D. We have included manhours for coordination between Civiltech and SEC and to prepare any required exhibits for the report.

J. **Sewer Videotaping** – There are several sections of existing sanitary sewer and downstream storm sewer outfalls which are shown to remain under the proposed roadway. To ascertain the status of these critical

pipe systems we are planning to televise in order to establish their condition. If the existing storm sewers are in good condition they may also be used as a parallel system to provide flood relief during large storm events. The existing storm sewer will be televised by Visu-Sewer of Illinois, LLC and a copy of their detailed proposal is included in Attachment E. We have included manhours for coordination between Civiltech and Visu-Sewer and to review the recordings.

K. **Utility Daylighting** - 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 Badger Daylighting as they work with facility owners and as a subcontractor for many utility companies. 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 (3 days with street cores, spoils,and backfill). 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 Weiland Road project. However, experience has shown that utility companies don't always have the knowledge or means to provide this level of detail.

L. **Special Waste and CCDD Testing** - Preliminary Environmental Site Assessments were performed during the Phase I study by Cardno ENTRIX and ATC Associates, Inc. Specifically, the findings section of the PESA indicates potential hazards were identified at seven (7) properties that may directly affect the Weiland Road Project. In addition, ten (10) low risk hazards, which were not involved with regulated substances of significant quantity; were mentioned for awareness during the Weiland Road Project.

   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 and also for proposed detention basin locations. The detention basin sampling will be conducted by others (geotechnical work) with consultant coordinating for split samples for environmental CCDD purposes. 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). All other sites will be covered by a PSI to be performed by Huff & Huff as a subconsultant to Civiltech. A copy of their proposal is included in Attachment G. We have included manhours for coordination between Civiltech and Huff & Huff.

   Huff & Huff will also review the project area for any existing TACO agreements. We have included manhours to incorporate any quantity break-downs required to assign the removal of contaminated material to the appropriate agency or property owner, based on the TACO. The TACO document will also be included in the contract documents for use by the Resident Engineer.

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.

B. **Pavement Design** - We will complete pavement designs for the reconstruction of Weiland Road and intersecting roadways. The designs will be in accordance with the geotechnical report performed during Phase I, Lake County Requirements, and the IDOT BLRS Manual.

An economic analysis to determine the pavement type, concrete or hot mix asphalt, will be completed to include a pavement design life-cycle cost analysis. This process will assist the County in their evaluation of the total economic worth of a highway project segment by analyzing initial costs and discounted future cost, such as maintenance, reconstruction, rehabilitation, restoring, and resurfacing costs, over the life of the highway project segment.

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. 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 both in-line detention (over-sized sewers) and detention facilities alongside the Weiland Road corridor. The detention volumes calculated in Phase I will be verified based on the detailed design and grading plans developed for each detention basin. These facilities will serve as part of a water quality BMP system prior to releasing stormwater into Aptakisic Creek.

Floodway and floodplain follow Aptakisic Creek located just south of Marvin's Way, within the project limits. There are no practical alternatives to construction in the floodplain or floodway, however, retaining walls have been utilized to reduce the amount of fill in the floodplain and floodway. We will determine the volume of fill and design the proposed grading to compensate for this filling.

The Weiland Road corridor improvements will require a permit application to the Lake County Stormwater Management Commission and the US Army Corps of Engineers. Our plan is to develop preliminary engineering plans for a pre-application meeting with the LCSMC to get their guidance on floodplain management, erosion control, wetland impacts, stormwater, and design. To coordinate overall Weiland Road improvement projects we envision a single permit application to both LCSMC and the USACOE with a complete set of these Preliminary Engineering contract plans for staff review and permit. Our goal will be to secure permits for the project's overall floodplain and stormwater management, erosion control, wetland mitigation, and design. LCSMC and the USACOE may only issue conditional approval, and if necessary, a final set of plan documents would be provided to them for each of the four related breakout contracts prior to the issuance of their Green Card and Verification Letter (construction approval).

D. **Aptakisic Creek Box Culvert Replacement** – The existing 74-foot long CMP culvert that carries Aptakisic Creek under Weiland Road near station 86+00 will be replaced due to the widening of Weiland Road. It will be replaced with a 8-foot x 8-foot PCC box culvert. The proposed culvert will be 88-feet in length and will have headwalls on both ends of the culvert. The proposed culvert will be designed for HL-93 loading, has been designed to accommodate the 100-year flood, and does not result in any impacts upstream or to the Highland Weir which is not being modified. Hydraulic analyses and models developed for these culvert modifications were completed as part of the Combined Design Report and will be the basis of a summary report prepared for the LCSMC and the USACE permit applications.

E. **Municipal Utilities and Infrastructure Design** - It is anticipated that the proposed roadway widening may require relocation of Village water main and sanitary sewer. The following utilities are anticipated to require relocation:

- Village of Buffalo Grove water main – along the west of Weiland Road from Woodstone Drive to Pauline Avenue (1,200 feet).
- Village of Buffalo Grove Sanitary Sewer – along both sides of Weiland Road from Pauline Avenue to Newton Drive (1,300 feet). To ascertain the status of these critical pipe systems we are planning to televise their condition and if necessary develop plans to rehabilitate, relocate, or reconstruct.

No other municipal utilities requiring relocation have been identified in the Phase I report. The Village of Buffalo Grove atlases indicate that the sanitary sewer is a gravity main within the limits of the improvement. We have NOT included manhours to design the relocation or replacement of the existing lift stations.

F. **Lighting Design** – The proposed lighting improvement consists of installation of continuous lighting system along Weiland Road from Woodstone Drive to IL Route 22 ending short of IL Route 22 where there is existing lighting not affected by the improvement. There is existing lighting owned and maintained by the Village of Buffalo Grove along most of the corridor but pole spacing varies along the corridor. It will be difficult to preserve the existing lighting and therefore all the existing light poles, foundations and cabling within the project area will be replaced in order to layout the proposed lighting system according to the photometric calculation resulting from IDOT and IES standards. It is anticipated that we will work with the Village to develop a new lighting fixture to maximize the design spacing of the light poles and incorporate the Village's standard and aesthetic preference of the area. The existing poles would be used for temporary lighting or reused as part of the new system.

Photometric calculations will be developed for all locations of temporary and proposed lighting per the IDOT manual, "District 1 General Guidelines for Lighting Design" and IES RP-8. Calculations will be performed for the roadway segments, sidewalks, transitional areas and signalized intersections. The pole spacing and layouts at intersections will be determined. The photometric calculations, voltage drop calculations, design summary, and catalog cuts will be documented in a design report and submitted to IDOT, the Village and County for approval.

G. **Traffic Signal Design** – As part of this project, the traffic signals will be removed, replaced/ reconstructed, or introduced. They include the intersections of Aptakisic Road and Prairie Road (removed), Weiland Road at Pauline Avenue (replaced), Weiland Road at Aptakisic Junior High Exit (replaced), Weiland Road at Aptakisic Road (replaced), Weiland Road at Thompson Boulevard (new), and Weiland and IL Route 22 (cabinet modifications for interconnect work)

The initial signal system and layout will incorporate existing LCDOT interconnect systems to be maintained during construction of the project. The systems we're aware of include the Weiland Road between Deerfield Parkway and Aptakisic Road, and along Aptakisic Road in that same vicinity. A proposed interconnect along Weiland Road is anticipated from Lake Cook Road to IL Route 22.

All intersections will include video detection cameras and pan/tilt/zoom (PTZ) surveillance cameras for the County's Passage network. A PTZ surveillance camera will also be implemented at the existing IL Route 22/Weiland Road signalized intersection as a part of this project, for incorporation into the County's Passage network. Bluetooth roadside detectors will also be incorporated if requested.

H. **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 and detour routes will be agreed to prior to the pre-final plan development and includes work associated with maintaining detours for sidewalks, bike paths, and ERUV Boundaries affected by the improvements.

I. **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.

J. **Retaining Wall Type Studies** - Two retaining walls are also proposed to minimize the amount of regrading necessary, to minimize the amount of right-of-way required, and to minimize the impacts to the floodplain and environmentally sensitive areas. A noise wall is also proposed on the west side of Weiland Road north of Newton Drive.

As part of the General Plan and Elevation (GP&E) drawing preparation, the feasibility of different wall types will be assessed and their estimated construction costs will be compared. The types of walls that will be considered include: reinforced cast-in-place concrete T-type, sheet piling, soldier pile, mechanically stabilized earth, and segmental concrete block. The following table shows the walls which are anticipated to be included in the improvement:

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

Wall	Road	Approx. Stations	Length	Max Retained Height	Cut / Fill
A	Weiland Rd	130+50 to 132+58	208 ft	6 ft (Fill)	Sidewalk and widening roadway for right-turn lanes at Aptakisic
B	Prairie Rd Realignment	152+94 to160+30	736 ft	5.5 ft (Fill)	Weiland extension with a continuous shared-use path

Type, size, and location drawings are not required for these walls based on the height listed in the Combined Design Report (less than 10 foot measured from top of retained surface to bottom of footing, per 36-2.06(a) of the IDOT Bureau of Local Roads and Streets Manual).

K. **Noise Wall Type and Aesthetic Treatment Study** - Based on the traffic noise analysis and noise abatement evaluation conducted as part of the Phase I study, highway traffic noise abatement measures will be required at one location within the project along the west side of Weiland Road north of Newtown Drive. It is anticipated that the noise wall will consist of posts and panels founded on drilled shafts. The Phase 1 report did not include a final determination on the aesthetics of the noise wall. We have included manhours to solicit input from homeowners and tenants who are benefitted from the installation of noise walls regarding the desired color and surface texture of the walls that will face the private properties. We'll prepare exhibits showing options for the wall surface texture and color options. The exhibits will be presented to the residents directly adjacent to the proposed wall at an open house style meeting. Pre-final plans will be developed based on the option selected.

L. **Landscape Design** – The Phase I report indicates that trees removed as part of this project will be replaced on a 1:1 basis. A detailed tree survey, indicating tree species and condition, is NOT included as part of the scope of this work. Trees have been surveyed as part of the topographic survey for this project. This information will be used to determine the number of trees requiring replacement.

The proposed landscape design will be performed by Hitchcock Design Group (HDG) a firm that Civiltech has worked with on similar projects. A copy of their proposal is included in Attachment I. They will assist us in our development of a landscape plan including appropriate plan views, sections, elevations and other graphic images to illustrate the landscape improvements including: street and median tree plantings, a vegetated screen along Mirielle Subdivision, sound wall aesthetics, and detention basin plantings. The manhours indicated for this line item are for coordination between Civiltech and HDG.

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

- Cover Sheet (1 sheet)
- Index of Sheets and List of State and Local Standards (1 sheet)
- General Notes and List of Commitments (2 sheets)
- Existing Typical Sections(7 sheets)

- Proposed Typical Section and Typical Section Details (7 sheets)
- Alignment, Ties, Benchmarks and Highway Plats (51 sheets)
- Roadway Removal Plan 1"=20' (36 Sheets)
- Roadway Plan and Profile 1"=20' (36 sheets)
- Sidewalk and Shared-Use Plan 1"=20' (36 sheets)
- Stages of Construction – Sequences and Typical sections (4 sheets)
- Stages of Construction – 3 stages, 1"=50' (27 sheets – dual pane)
- Erosion Control Plan – 3 stages, 1"=50' (27 sheets -dual pane)
- Drainage and Utilities 1"=20' (36 sheets)
- Detention Basin Plan 1"=20' (3 sheets)
- Detention Basin Grading Plan and Details 1"=50' (6 sheets)
- Intersection Details 1"=20' (26 sheets)
- Driveway Details 1"=10' (23 sheets)
- Sidewalk ADA Ramp Details 1"=5' (25 sheets - dual pane)
- Water Main and Sanitary Sewer Plans and Details 1"=20' (6 sheets)
- SUE Plan - Investigation of Underground Facilities (3 sheets)
- Pavement Marking and Signing Plan 1"=50' (9 sheets - dual pane)
- Landscaping Plan 1"=50' (9 sheets – dual pane)
- Landscaping Plan Details (2 sheets)
- Detention Basin Planting Plan 1"=20' (3 sheets)
- Weiland Road Culvert and Headwalls for Aptakisic Creek (5 sheets)
- Noise Wall Plan and Profile 1"=50' (7 sheets)
- Retaining Wall General Plan and Elevation 1"=20' (14 sheets)
- Traffic Signal Removal Plan(1 sheet)
- Temporary Traffic Signal Layout (5 sheets)
- Temporary Interconnect Plan (5 sheets)
- Traffic Signal Layout (5 sheets)
- Interconnect Plan (5 sheets)
- Rectangular Rapid Flashing Beacon Plan (2 sheets)
- Lighting General Notes and Legend (1 sheet)
- Lighting Plan 1"=20' (19 sheets - dual pane)
- Temporary Lighting Plan 1" = 20' (19 sheets - dual pane)
- Cross Section - 50' interval, streets, drives, high and low points, beginning of project, end of project, and culverts in accordance with Lake County Plan Preparation Guidelines; 1'=5' H:V (96 sheets)

The Preliminary Plan submittal will serve as a progress submittal for review by the County and Village 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.

N. **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 Village of Buffalo Grove.

3. Right-of-Way Documents and Coordination

There are fifty-four (54) parcels with potential right-of-way takes, permanent easements, and temporary easements within the project limits. We anticipate appraisals, review appraisals, and negotiations to be necessary through the valuation and land acquisition process. All such services shall be performed in accordance with the policies of the County, and where applicable, the Illinois Department of Transportation Land Acquisition Policies and Procedures Manual and the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act.

A. **Subconsultant Coordination** - The preparation of the Plat of Highways and Legal Descriptions will be performed by Jorgensen & Associates, Inc. in accordance with the IDOT Plats of Highway Checklist (a copy of their proposal is included in Attachment B). We will provide Jorgensen & Associates electronic copies of the proposed alignment and right-of-way for use in preparing the Plat of Highways and tying down the centerline alignment.

Civiltech will provide the necessary valuation services. 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 Ltd. for our review appraisals, to use Santacruz Associates Ltd. as the negotiator for the land acquisition, and HDR, Inc. for relocation assistance related to properties being acquired and demolished (a copy of their proposals are included in attachments J, K, and L).

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.

We have also had the right of way sub consultants include a contingency fee to revise 5 parcels if required based on negotiations with the property owners.

B. **Right-of-Way Coordination Meeting** - We will arrange and attend two meetings with the County to discuss the proposed right-of-way acquisition, if required.

4. Pre-Final (90%) Plans, Special Provisions and Estimates – Contract 1 - Prairie Road Realignment (Aptakisic Road to N. Prairie Road)

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 (1 sheet)
- Index of Sheets and List of State and Local Standards (1 sheet)
- General Notes and List of Commitments (2 sheets)
- Summary of Quantities (4 sheets)
- Existing Typical Sections (2 sheets)
- Proposed Typical Sections (2 sheets)
- Schedule of Quantities (15 sheets)
- Alignment, Ties, Benchmarks and Highway Plats (16 sheets)
- Roadway Removal Plan 1"=20' (10 sheets)
- Roadway Plan and Profile 1"=20' (10 sheets)
- Roadway Details (2 sheets)
- Sidewalk and Shared-Use Plan 1"=20' (10 sheets)
- Stages of Construction – Sequences and Typical sections (1 sheets)
- Stages of Construction – 3 stages, 1"=50' (9 sheets)
- Erosion Control Plan – 3 stages, 1"=50' (9 sheets)
- Drainage and Utilities 1"=20' (10 sheets)
- Detention Basin Plan 1"=20' (2 sheets)
- Detention Basin Grading Plan and Details 1"=50' (4 sheets)
- Intersection Details 1"=20' (6 sheets)
- Driveway Details 1"=10' (6 sheets)
- Sidewalk ADA Ramp Details 1"=5' (5 sheets - dual pane)
- Pavement Marking and Signing Plan 1"=50' (3 sheets – dual pane)
- Landscaping Plan 1"=50' (3 sheets – dual pane)
- Landscaping Plan Details (2 sheets)
- Detention Basin Planting Plan 1"=20' (2 sheets)
- Structural Plan Wall B, Sta. 152+94 Lt, 736 ft (8 sheets)
  - General Plan and Elevation
  - Cast-in-Place Facing Elevations
  - Typical Wall Cross Section and Wall Details
  - Boring Logs
- Traffic Signals (13 sheets)
  - Traffic Signal Removal Plan – Aptakisic Rd/Prairie Rd
  - Temporary Traffic Signal Plan – Aptakisic Rd/Weiland Rd
  - Temporary Cable Plan – Aptakisic Rd/Weiland Rd
  - Temporary Sequnces – Aptakisic Rd/Weiland Rd
  - Temporary Interconnect Plan - Aptakisic Rd from Buffalo Grove Rd to Bond St
  - Temporary Interconnect Plan - Weiland Rd from Aptakisic Junior HS to Aptakisic Rd
  - Interconnect Plan – Prairie Rd from Aptakisic Rd to existing Prairie Rd
  - IDOT District 1 Standard Traffic Signal Design Details

- Lighting Plans (21 sheets)
  - Lighting General Notes, Legend & Schedule of Quantities
  - Temporary Lighting Plans 1"=20, dual pane
  - Temporary Circuit Diagrams
  - Temporary Details (controller, aerial connections, misc. electrical)
  - Lighting Plans 1"=20', dual pane
  - Proposed Circuit Diagrams
  - Lighting Controller Details
  - Lighting Details (controller, pole, foundations, misc. electrical)
- Cross Sections; 1'=5' H:V (24 sheets)
- IDOT Bureau Of Design Standards, BD's and TC's (6 Sheets)
- LCDOT Highway Standards (10 sheets)

We estimate that the contract plans will contain a total of 219 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 goal with the design of the proposed detention basins will be to meet the needs of the roadway improvement and, at a minimum, be aesthetically neutral. We propose to utilize the talents of our HDG Landscape Architects to develop a planting scheme which is low maintenance and native in character. Inclusion of appropriate hydrophytic vegetation in the plan will aid in addressing water quality issues.

The intersection of Aptakisic and Weiland Road will be constructed to the temporary geometric condition during Contract 1. However, lane shifts required for the staging of the Contract 3 may impact the alignment of lanes at this intersection. In order to reduce the construction cost of the project, a "permanent" temporary signal will be constructed during Contract 1 and then replaced with a full, permanent signal during Contract 3. We have included manhours to design the "permanent" temporary signal above and have included manhours to design the permanent traffic signal installation under the Pre-Final Plans portion of Contract 3.

For the purposes of estimating the effort required to prepare contract plans and specifications for the retaining walls, the following assumptions have been made:

1. Retaining walls are anticipated to be either cast-in-place concrete cantilever T-walls or soldier pile walls with cast-in-place concrete facing.
2. The proposed retaining walls will be designed and detailed in accordance with the AASHTO LRFD Bridge Design Specifications the 2012 IDOT Bridge Manual and the IDOT Standard Specifications for Road and Bridge Construction.
3. Aesthetic treatments for the retaining walls will be considered such as form liner surfaces, staining/ coloring, and protective coating.

The pre-final contract documents will be submitted to LCDOT, IDOT, and the Village of Buffalo Grove. 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 will be required, one with each of the reviewing agencies (LCDOT and the Village of Buffalo Grove).

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 Village of Buffalo Grove, 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.

6. Pre-Final (90%) Plans, Special Provisions and Estimates – Contract 2 - Weiland Road (Lake Cook Road to Deerfield Parkway)

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 BDE 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 (1 sheet)
- Index of Sheets and List of State and Local Standards (1 sheet)
- General Notes and List of Commitments (2 sheets)
- Summary of Quantities (4 sheets)
- Existing Typical Sections (2 sheets)
- Proposed Typical Sections (2 sheets)
- Schedule of Quantities (15 sheets)
- Alignment, Ties, Benchmarks and Highway Plats (16 sheets)
- Roadway Removal Plan 1"=20' (11 sheets)
- Roadway Plan and Profile 1"=20' (11 sheets)
- Roadway Details (2 sheets)
- Sidewalk and Shared-Use Plan 1"=20' (11 sheets)
- Stages of Construction – Sequences and Typical sections (1 sheets)
- Stages of Construction – 3 stages, 1"=50' (6 sheets)
- Erosion Control Plan – 3 stages, 1"=50' (6 sheets)
- Drainage and Utilities 1"=20' (11 sheets)
- Detention Basin Plan 1"=20' (1 sheets)
- Detention Basin Grading Plan and Details 1"=50' (2 sheets)
- Intersection Details 1"=20' (6 sheets)
- Driveway Details 1"=10' (7 sheets)
- Sidewalk ADA Ramp Details 1"=5' (8 sheets - dual pane)

- SUE Plan - Investigation of Underground Facilities (3 sheets)
- Water Main and Sanitary Sewer Plans and Details 1"=20' (6 sheets)
- Pavement Marking and Signing Plan 1"=50' (2 sheets – dual pane)
- Landscaping Plan 1"=50' (2 sheets – dual pane)
- Landscaping Plan Details (2 sheets)
- Detention Basin Planting Plan 1"=20' (1 sheets)
- Structural Plan - Noise Abatement Wall, Newton Drive North Lt, 600 ft (7 sheets)
  - General Plan and Elevation
  - Cast-in-Place Facing Elevations
  - Typical Wall Cross Section and Wall Details
  - Boring Logs
- Structural Plan - Culvert Headwalls for Aptakisic Creek, Sta. 86+00, 88 ft (5 sheets)
  - General Plan and Elevation
  - Cast-in-Place Facing Elevations
  - Typical Wall Cross Section and Wall Details
  - Boring Logs
- Traffic Signals (17 sheets)
  - Temporary Traffic Signal Installation and Removal Plan – Weiland Rd/Pauline Rd
  - Temporary Cable Plan and Sequences – Weiland Road/Pauline Road
  - Traffic Signal Modernization Plan – Weiland Road/Pauline Road
  - Cable Plan, Sequences and Schedule of Quantities – Weiland Road/Pauline Road
  - Rectangular Rapid Flashing Beacon Installation Plan – Weiland Road/Newtown Drive
  - Interconnect Plan – Weiland Road from Lake Cook Road to Deerfield Parkway
  - Interconnect Schematic
  - Mast Arm Mounted Street Name Sign detail sheet
  - LCDOT Splicing Diagram
  - LCDOT Cabinet Detail
  - LCDOT Video Detection Details
  - IDOT District 1 Standard Traffic Signal Design Details
- Lighting Plans (28 sheets)
  - Lighting General Notes, Legend & Schedule of Quantities
  - Temporary Lighting Plans 1"=20, dual pane
  - Temporary Circuit Diagrams
  - Temporary Details (controller, aerial connections, misc. electrical)
  - Lighting Plans 1"=20', dual pane
  - Proposed Circuit Diagrams
  - Lighting Controller Details
  - Lighting Details (controller, pole, foundations, misc. electrical)
- Cross Sections; 1'=5' H:V (28 sheets)
- IDOT Bureau Of Design Standards, BD's and TC's (6 Sheets)
- LCDOT Highway Standards (10 sheets)

We estimate that the contract plans will contain a total of 243 sheets.

B. **Pre-Final Special Provisions** – See Item 4B.

C. **Pre-Final Quantity Calculations** - See Item 4C.

D. **Pre-Final Estimate of Cost and Construction Time** - See Item 4D.

E. **Pre-Final QA/QC Review** - See Item 4E.

F. **Pre-Final Project Review Meetings** - See Item 4F.

7. Final (100%) Plans, Special Provisions and Estimates – Contract 2

A. **Final Plans** - See Item 5A.

B. **Final Special Provisions** - See Item 5B.

C. **Final Quantity Calculations** - See Item 5C.

D. **Final Estimate of Cost and Construction Time** - See Item 5D.

E. **Final QA/QC Review** - See Item 5E.

8. Pre-Final (90%) Plans, Special Provisions and Estimates – Contract 3 - Weiland Road (Deerfield Parkway to Aptakisic Road)

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 BDE 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 (1 sheet)
- Index of Sheets and List of State and Local Standards (1 sheet)
- General Notes and List of Commitments (2 sheets)
- Summary of Quantities (4 sheets)
- Existing Typical Sections (2 sheets)
- Proposed Typical Sections (2 sheets)
- Schedule of Quantities (15 sheets)
- Alignment, Ties, Benchmarks and Highway Plats (16 sheets)
- Roadway Removal Plan 1"=20' (10 sheets)
- Roadway Plan and Profile 1"=20' (10 sheets)
- Roadway Details (2 sheets)
- Sidewalk and Shared-Use Plan 1"=20' (10 sheets)
- Stages of Construction – Sequences and Typical sections (1 sheets)
- Stages of Construction – 3 stages, 1"=50' (6 sheets)
- Erosion Control Plan – 3 stages, 1"=50' (6 sheets)
- Drainage and Utilities 1"=20' (10 sheets)
- Intersection Details 1"=20' (10 sheets)

- Driveway Details 1"=10' (6 sheets)
- Sidewalk ADA Ramp Details 1"=5' (8 sheets - dual pane)
- Pavement Marking and Signing Plan 1"=50' (2 sheets – dual pane)
- Landscaping Plan 1"=50' (2 sheets – dual pane)
- Landscaping Plan Details (2 sheets)
- Structural Plan Wall A, Sta. 130+50 Lt, 208 ft (6 sheets)
  - General Plan and Elevation
  - Cast-in-Place Facing Elevations
  - Typical Wall Cross Section and Wall Details
  - Boring Logs
- Traffic Signals (22 sheets)
  - Temporary Traffic Signal Installation and Removal Plan – Weiland Ro/Aptakisic JHS
  - Temporary Cable Plan and Sequences – Weiland Rd/Aptakisic JHS
  - Traffic Signal Modernization Plan – Weiland Rd/Aptakisic JHS
  - Cable Plan, Sequences and Schedule of Quantities – Weiland Rd/Aptakisic JHS
  - Traffic Signal Modernization Plan – Weiland Rd/Thompson Blvd
  - Cable Plan, Sequences and Schedule of Quantities – Weiland Rd/Thompson Blvd
  - Traffic Signal Modernization Plan – Weiland Rd/Aptakisic Rd
  - Cable Plan, Sequences and Schedule of Quantities – Weiland Rd/Aptakisic Rd
  - Temporary Interconnect Plan - Weiland Rd from Deerfield Pkwy to Aptakisic Rd
  - Interconnect Plan – Weiland Rd from Deerfield Parkway to Aptakisic Rd
  - Interconnect Plan - Aptakisic Rd from Buffalo Grove Rd to Bond St
  - Interconnect Schematic
  - Mast Arm Mounted Street Name Sign detail
  - LCDOT Splicing Diagram
  - LCDOT Cabinet Detail
  - LCDOT Video Detection Details
  - IDOT District 1 Standard Traffic Signal Design Details (6 sheets)
- Lighting Plans (30 sheets)
  - Lighting General Notes, Legend & Schedule of Quantities
  - Temporary Lighting Plans 1"=20, dual pane
  - Temporary Circuit Diagrams
  - Temporary Details (controller, aerial connections, misc. electrical)
  - Lighting Plans 1"=20', dual pane
  - Proposed Circuit Diagrams
  - Lighting Controller Details
  - Lighting Details (controller, pole, foundations, misc. electrical)
- Cross Sections; 1'=5' H:V (28 sheets)
- IDOT Bureau Of Design Standards, BD's and TC's (6 Sheets)
- LCDOT Highway Standards (10 sheets)

We estimate that the contract plans will contain a total of 230 sheets.

B. **Pre-Final Special Provisions** – See Item 4B.

C. **Pre-Final Quantity Calculations** - See Item 4C.

D. **Pre-Final Estimate of Cost and Construction Time** - See Item 4D.

E. **Pre-Final QA/QC Review** - See Item 4E.

F. **Pre-Final Project Review Meetings** - See Item 4F.

9. Final (100%) Plans, Special Provisions and Estimates – Contract 3

A. **Final Plans** - See Item 5A.

B. **Final Special Provisions** - See Item 5B.

C. **Final Quantity Calculations** - See Item 5C.

D. **Final Estimate of Cost and Construction Time** - See Item 5D.

E. **Final QA/QC Review** - See Item 5E.

10. Pre-Final (90%) Plans, Special Provisions and Estimates – Contract 4 - Prairie Road (Miramar Lane to IL Route 22)

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 BDE 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 (1 sheet)
- Index of Sheets and List of State and Local Standards (1 sheet)
- General Notes and List of Commitments (2 sheets)
- Summary of Quantities (4 sheets)
- Existing Typical Sections (1 sheets)
- Proposed Typical Sections (1 sheets)
- Schedule of Quantities (15 sheets)
- Alignment, Ties, Benchmarks and Highway Plats (12 sheets)
- Roadway Removal Plan 1"=20' (5 sheets)
- Roadway Plan and Profile 1"=20' (5 sheets)
- Roadway Details (2 sheets)
- Sidewalk and Shared-Use Plan 1"=20' (5 sheets)
- Stages of Construction – Sequences and Typical sections (1 sheets)
- Stages of Construction – 3 stages, 1"=50' (6 sheets)
- Erosion Control Plan – 3 stages, 1"=50' (6 sheets)
- Drainage and Utilities 1"=20' (5 sheets)
- Intersection Details 1"=20' (4 sheets)

- Driveway Details 1"=10' (4 sheets)
- Sidewalk ADA Ramp Details 1"=5' (4 sheets - dual pane)
- Pavement Marking and Signing Plan 1"=50' (2 sheets – dual pane)
- Landscaping Plan 1"=50' (2 sheets – dual pane)
- Landscaping Plan Details (2 sheets)
- Traffic Signals (14 sheets)
  - Rectangular Rapid Flashing Beacon Installation Plan – Prairie Rd/Brandywyn Ln
  - Traffic Signal Modification Plan – IL Rte 22/Prairie Rd
  - Cable Plan, Sequences and Schedule of Quantities – IL Rte 22/Prairie Rd
  - Interconnect Plan – Prairie Rd from Aptakisic Rd to IL Rte 22
  - Interconnect Schematic
  - LCDOT Splicing Diagram
  - LCDOT Cabinet Detail
  - LCDOT Video Detection Details
  - IDOT District 1 Standard Traffic Signal Design Details
- Lighting Plans (16 sheets)
  - Lighting General Notes, Legend & Schedule of Quantities
  - Temporary Lighting Plans 1"=20, dual pane
  - Temporary Circuit Diagrams
  - Temporary Details (controller, aerial connections, misc. electrical)
  - Lighting Plans 1"=20', dual pane
  - Proposed Circuit Diagrams
  - Lighting Controller Details
  - Lighting Details (controller, pole, foundations, misc. electrical)
- Cross Sections; 1'=5' H:V (16 sheets)
- IDOT Bureau Of Design Standards, BD's and TC's (6 Sheets)
- LCDOT Highway Standards (10 sheets)

We estimate that the contract plans will contain a total of 152 sheets.

B. **Pre-Final Special Provisions** – See Item 4B.

C. **Pre-Final Quantity Calculations** - See Item 4C.

D. **Pre-Final Estimate of Cost and Construction Time** - See Item 4D.

E. **Pre-Final QA/QC Review** - See Item 4E.

F. **Pre-Final Project Review Meetings** - See Item 4F.

11. Final (100%) Plans, Special Provisions and Estimates – Contract 4

A. Final Plans - See Item 5A.

B. Final Special Provisions - See Item 5B.

C. **Final Quantity Calculations** - See Item 5C.

D. **Final Estimate of Cost and Construction Time** - See Item 5D.

E. **Final QA/QC Review** - See Item 5E.

12. 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. **ICC Petition, CN Railroad Agreements, Permitting, and Report Documentation** – There is one existing at-grade railroad crossing within the project limits, on Aptakisic Road east of Weiland Road. This railroad line is owned by Wisconsin Central Ltd. (Canadian National) and services both freight and Metra commuter trains. The crossing has a concrete surface with two tracks and automatic flashing light signals with gates. Modifications related to the pedestrian crossing have already been addressed to the ICC through a separate ICC Petition and Agreement. However, the ultimate Aptakisic Road intersection and median improvements will need to be addressed through a second Agreement with the Canadian National. We'll review of the previous petition and agreements developed between the County, ICC, and the municipalities and our work will include the Canadian National (Permits, Agreements, and Approvals) railroad construction coordination, documentation (Right-Of-Entry Permits, Specifications, and Insurance), and the corresponding Buffalo Grove / LCDOT / IDOT coordination.

D. **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 six times times (two preliminary and once per contract) 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.

E. **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 D).

To coordinate overall Weiland Road improvement projects we envision a permit application with a complete set of Preliminary Engineering contract plans for staff review and permit. Our goal will be to secure permits for the project's overall floodplain and stormwater management, erosion control, wetland mitigation, and design. Conditional permit approval may require that a final set of plan documents be provided for each of the four related breakout contracts prior to the issuance of a Green Card.

F. **Illinois Department of Natural Resources Permit** - This project will require a permit submittal to the IDNR for the Aptakisic Creek culvert. The permit preparation is included in the proposal from Stuedemann Environmental Consultants (Attachment D). We have included manhours to provide SEC with the relevant information from the Phase I drainage reports and from the Phase II detailed plans.

G. **United States Army Corps of Engineers** - This project will require a permit submittal to the USACE for the impacts to the Waters of the US. Similar to item E above, the permit preparation is included in the proposal from Stuedemann Environmental Consultants (Attachment D). We have included manhours to provide SEC with the relevant information from the Phase II detailed plans.

To coordinate overall Weiland Road improvement projects we envision a joint application with a complete set of Preliminary Engineering contract plans for staff review and permit. Our goal will be to secure permit for the project's overall floodplain and stormwater management, erosion control, wetland mitigation, and design. We would ask in our application that the USACOE permit approval cover the timeframe necessary to complete each of the four related breakout contracts.

H. **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. Separate permits will be required for each construction contract. All erosion control design will be in accordance with the latest IEPA, IDOT, and County requirements.

I. **Pre-Demolition Asbestos Services** - Terracon Consultants, Inc. will conduct pre-demolition asbestos-containing material (ACM) surveys and prepare the appropriate State of Illinois, Department of

Transportation, Bureau of Design & Environment and related Special Provision forms for the properties to be demolished within the Weiland Road project.

As a subconsultant to Civiltech and upon completion of all asbestos surveys, Terracon will prepare one special provision form for each identified condition Building Removal – Case I (Non-Friable and Friable Asbestos), Building Removal – Case II (Non-Friable Asbestos), Building Removal – Case III (Friable Asbestos), Building Removal – Case IV (No Asbestos). A copy of their proposal is included in Attachment H. We have included manhours for coordination between Civiltech and Terracon.

J. **Special Waste**- Preliminary Environmental Site Assessments were performed during the Phase I study and the reports indicate that there are sites with Recognized Environmental Concerns (REC's). A PSI will be performed by Huff & Huff as a subconsultant to Civiltech and we have included manhours to incorporate any quantity break-downs and special provisions required to assign the removal of contaminated material to the appropriate agency or property owner.

K. **CCDD Testing** – The construction of these improvements create waste material that the Contractor will likely want to dispose of as Clean Construction and Demolition Debris through appropriate disposal practices for the project corridor and also for proposed detention basin locations. 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). Huff & Huff will perform preliminary testing of material within the project limits for this purpose as a subconsultant to Civiltech and we included manhours for coordination between Civiltech and Huff & Huff to prepare the special provisions and forms to be included within the bid documents which follow the LCDOT guidelines for "pre-approved" disposal sites.

L. **IEPA Permitting** – It is anticipated that IEPA permits will be required for the relocation of the Village of Buffalo Grove's water main and sanitary sewer along Weiland Road. We will prepare the documentation required to obtain these permits.

M. **Bidding Assistance** - We will review any questions received from contractors during the bidding process and provide any necessary responses to clarify the documents. Manhours have been included to perform this work for all four construction contracts.

N. **Pre-Construction Meeting Attendance** - We will attend the pre-construction meeting at LCDOT to answer any questions regarding the design and contract documents. Manhours have been included to perform this work for all four construction contracts.

13. Construction Assistance

A. **Construction Shop Drawing Reviews** - We will make the necessary construction shop drawing reviews for the two structures over Buffalo Creek, the retaining walls and noise walls, traffic signals, and street lighting, and follow through with the Resident Engineer and Contractor in regard to review comments to ensure compliance with the contract documents and the design engineer's intent.

B. **Construction Review and Meeting Attendance** - When a problem occurs it is the construction engineer who will utilize their critical thinking, listening, learning, problem solving, monitoring and

decision making skills to create and enact a solution. Civiltech will be a resource to the construction engineer for them to seek further clarification to confirm the interpretation of a detail, specification or note on the construction drawings or to secure a documented directive or clarification that is needed to continue work. Manhours have been included to perform this work for all construction contracts.

C. **Traffic Signal Removal Analysis** - This item would also include the traffic study to determine if the existing traffic signal at the intersection of existing Prairie Road/Aptakisic Road could be removed. The data collection would begin once the realignment of Prairie Road is complete, and the existing traffic signal at existing Prairie Road/Aptakisic Road has been turned off.

- Traffic Count – Traffic counts would be collected at the intersection using a video county unit (VCU).
- Traffic Signal Warrant Analysis – Traffic data would be used to complete a Traffic Signal Warrant Analysis to determine if the existing traffic signal remains warranted.
- Post-Removal Analysis – For a minimum of 90 days after signal has turned off, the signing and striping and traffic operations will be monitored at the intersection. The signal equipment will remain bagged in place during this period. The monitoring includes:
  - Crash Monitoring – Any crashes occurring will be recorded and logged for use in a post-removal crash analysis. This monitoring will occur for the entire 90-day period, with emphasis placed on any crashes occurring more than one month after the signal turn-off.
  - Evaluating Public Comments – Any public comments received during the study period will be logged for consideration in the post-removal analysis.
  - Delay Measurements - Vehicle delays on the minor approaches will be measured at the intersection during the A.M. and P.M. peak hours 30 days after the signal turnoff. This is to allow drivers adequate time to adjust to the new control condition.
- Removal Justification Report – The results of the post-removal analysis will be summarized and presented in a Technical Memorandum, with a recommendation on the removal or re-activation of the traffic signal. The report will be submitted to the LCDOT and IDOT for review.

III. FEE CALCULATION

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

Professional Engineering Services fees:

Phase II Engineering (labor):	$927,373.00
Phase II Engineering (overhead):	$1,368,153.39
Phase II Engineering (direct costs and services by others):	$1,075,486.55
	$3,371,012.93

Cost Estimate of Consultant Services (Page 1 of 4)

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						$ 333,353.94	$ -	$ -	$ 333,353.94
	Director of Design Services	18	$ 65.00	$ 1,170.00	$ 1,726.10			$ 419.93	$ 3,316.04
	Project Manager	92	$ 47.00	$ 4,324.00	$ 6,379.20			$ 1,551.96	$ 12,255.16
	Project Engineer	150	$ 38.00	$ 5,700.00	$ 8,409.21			$ 2,045.84	$ 16,155.05
	Design Engineer	121	$ 31.00	$ 3,751.00	$ 5,533.85			$ 1,346.30	$ 10,631.15
	Drainage Engineer	100	$ 33.00	$ 3,300.00	$ 4,868.49			$ 1,184.43	$ 9,352.92
	Lighting Engineer	36	$ 38.00	$ 1,368.00	$ 2,018.21			$ 491.00	$ 3,877.21
	Structual Engineer	26	$ 42.00	$ 1,092.00	$ 1,611.03			$ 391.94	$ 3,094.97
	Traffic Engineer	36	$ 34.50	$ 1,242.00	$ 1,832.32			$ 445.78	$ 3,520.10
	Design Technician	72	$ 29.00	$ 2,088.00	$ 3,080.43			$ 749.42	$ 5,917.85
	QA/QC	0	$ 65.00	$ -	$ -			$ -	$ -
Preliminary Engineering (65%)						$ 16,523.43	$ 1,368.00	$ -	$ 17,891.43
	Director of Design Services	186	$ 65.00	$ 12,090.00	$ 17,836.38			$ 4,339.32	$ 34,265.70
	Project Manager	1129	$ 47.00	$ 53,063.00	$ 78,283.84			$ 19,045.29	$ 150,392.14
	Project Engineer	2127	$ 38.00	$ 80,826.00	$ 119,242.60			$ 29,009.95	$ 229,078.54
	Design Engineer	2035	$ 31.00	$ 63,085.00	$ 93,069.30			$ 22,642.37	$ 178,796.67
	Drainage Engineer	1341	$ 33.00	$ 44,253.00	$ 65,286.45			$ 15,883.22	$ 125,422.67
	Lighting Engineer	423	$ 38.00	$ 16,074.00	$ 23,713.97			$ 5,769.26	$ 45,557.23
	Structual Engineer	332	$ 42.00	$ 13,944.00	$ 20,571.58			$ 5,004.76	$ 39,520.34
	Traffic Engineer	500	$ 34.50	$ 17,250.00	$ 25,448.93			$ 6,191.34	$ 48,890.27
	Design Technician	1478	$ 29.00	$ 42,862.00	$ 63,234.31			$ 15,383.96	$ 121,480.27
	QA/QC	0	$ 65.00	$ -	$ -			$ -	$ -
Right-of-Way Documents and Coordination						$ 238,050.00	$ 127,500.00	$ -	$ 365,550.00
	Director of Design Services	28	$ 65.00	$ 1,820.00	$ 2,685.05			$ 653.23	$ 5,158.28
	Project Manager	76	$ 47.00	$ 3,572.00	$ 5,269.77			$ 1,282.06	$ 10,123.83
	Project Engineer	108	$ 38.00	$ 4,104.00	$ 6,054.63			$ 1,473.00	$ 11,631.63
	Design Engineer	80	$ 31.00	$ 2,480.00	$ 3,658.74			$ 890.12	$ 7,028.86
	Drainage Engineer	6	$ 33.00	$ 198.00	$ 292.11			$ 71.07	$ 561.18
	Lighting Engineer	0	$ 38.00	$ -	$ -			$ -	$ -
	Structual Engineer	4	$ 42.00	$ 168.00	$ 247.85			$ 60.30	$ 476.15
	Traffic Engineer	0	$ 34.50	$ -	$ -			$ -	$ -
	Design Technician	40	$ 29.00	$ 1,160.00	$ 1,711.35			$ 416.35	$ 3,287.69
	QA/QC	0	$ 65.00	$ -	$ -			$ -	$ -

Method of Compensation:

Cost Plus Fixed Fee 1	☒	14.5%[DL + R(DL) + OH(DL) + IHDC]
Cost Plus Fixed Fee 2	☐	14.5%[DL + R(DL) + 1.5(DL) + IHDC]
Cost Plus Fixed Fee 3	☐	14.5%[(2.3 + R)DL + IHDC]
Specific Rate	☐	
Lump Sum	☐	

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

Overhead Rate (OH)	1.4753
Complexity Factor (R)	0.000
Calendar Days	1460

Cost Estimate of Consultant Services (Page 2 of 4)

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 - Contract 1						$ -	$ 1,651.20	$ -	$ 1,651.20
	Director of Design Services	57	$ 65.00	$ 3,705.00	$ 5,465.99			$ 1,329.79	$ 10,500.78
	Project Manager	269	$ 47.00	$ 12,643.00	$ 18,652.22			$ 4,537.81	$ 35,833.02
	Project Engineer	628	$ 38.00	$ 23,864.00	$ 35,206.56			$ 8,565.23	$ 67,635.79
	Design Engineer	530	$ 31.00	$ 16,430.00	$ 24,239.18			$ 5,897.03	$ 46,566.21
	Drainage Engineer	386	$ 33.00	$ 12,738.00	$ 18,792.37			$ 4,571.90	$ 36,102.28
	Lighting Engineer	171	$ 38.00	$ 6,498.00	$ 9,586.50			$ 2,332.25	$ 18,416.75
	Structual Engineer	159	$ 42.00	$ 6,678.00	$ 9,852.05			$ 2,396.86	$ 18,926.91
	Traffic Engineer	159	$ 34.50	$ 5,485.50	$ 8,092.76			$ 1,968.85	$ 15,547.11
	Design Technician	412	$ 29.00	$ 11,948.00	$ 17,626.88			$ 4,288.36	$ 33,863.24
	QA/QC	16	$ 65.00	$ 1,040.00	$ 1,534.31			$ 373.28	$ 2,947.59
Final (100%) Plans, Special Provisions and Estimates - Contract 1						$ -	$ 825.60	$ -	$ 825.60
	Director of Design Services	15	$ 65.00	$ 975.00	$ 1,438.42			$ 349.95	$ 2,763.36
	Project Manager	62	$ 47.00	$ 2,914.00	$ 4,299.02			$ 1,045.89	$ 8,258.91
	Project Engineer	137	$ 38.00	$ 5,206.00	$ 7,680.41			$ 1,868.53	$ 14,754.94
	Design Engineer	108	$ 31.00	$ 3,348.00	$ 4,939.30			$ 1,201.66	$ 9,488.96
	Drainage Engineer	86	$ 33.00	$ 2,838.00	$ 4,186.90			$ 1,018.61	$ 8,043.51
	Lighting Engineer	40	$ 38.00	$ 1,520.00	$ 2,242.46			$ 545.56	$ 4,308.01
	Structual Engineer	36	$ 42.00	$ 1,512.00	$ 2,230.65			$ 542.68	$ 4,285.34
	Traffic Engineer	41	$ 34.50	$ 1,414.50	$ 2,086.81			$ 507.69	$ 4,009.00
	Design Technician	66	$ 29.00	$ 1,914.00	$ 2,823.72		-	$ 686.97	$ 5,424.69
	QA/QC	8	$ 65.00	$ 520.00	$ 767.16			$ 186.64	$ 1,473.79
Pre-Final (90%) Plans, Special Provisions and Estimates - Contract 2						$ -	$ 1,766.40	$ -	$ 1,766.40
	Director of Design Services	60	$ 65.00	$ 3,900.00	$ 5,753.67			$ 1,399.78	$ 11,053.45
	Project Manager	276	$ 47.00	$ 12,972.00	$ 19,137.59			$ 4,655.89	$ 36,765.48
	Project Engineer	650	$ 38.00	$ 24,700.00	$ 36,439.91			$ 8,865.29	$ 70,005.20
	Design Engineer	618	$ 31.00	$ 19,158.00	$ 28,263.80			$ 6,876.16	$ 54,297.96
	Drainage Engineer	436	$ 33.00	$ 14,388.00	$ 21,226.62			$ 5,164.12	$ 40,778.74
	Lighting Engineer	227	$ 38.00	$ 8,626.00	$ 12,725.94			$ 3,096.03	$ 24,447.97
	Structual Engineer	237	$ 42.00	$ 9,954.00	$ 14,685.14			$ 3,572.67	$ 28,211.81
	Traffic Engineer	199	$ 34.50	$ 6,865.50	$ 10,128.67			$ 2,464.15	$ 19,458.33
	Design Technician	472	$ 29.00	$ 13,688.00	$ 20,193.91			$ 4,912.88	$ 38,794.78
	QA/QC	16	$ 65.00	$ 1,040.00	$ 1,534.31			$ 373.28	$ 2,947.59
Final (100%) Plans, Special Provisions and Estimates - Contract 2						$ -	$ 883.20	$ -	$ 883.20
	Director of Design Services	15	$ 65.00	$ 975.00	$ 1,438.42			$ 349.95	$ 2,763.36
	Project Manager	63	$ 47.00	$ 2,961.00	$ 4,368.36			$ 1,062.76	$ 8,392.12
	Project Engineer	140	$ 38.00	$ 5,320.00	$ 7,848.60			$ 1,909.45	$ 15,078.04
	Design Engineer	121	$ 31.00	$ 3,751.00	$ 5,533.85			$ 1,346.30	$ 10,631.15
	Drainage Engineer	94	$ 33.00	$ 3,102.00	$ 4,576.38			$ 1,113.37	$ 8,791.75
	Lighting Engineer	49	$ 38.00	$ 1,862.00	$ 2,747.01			$ 668.31	$ 5,277.31
	Structual Engineer	48	$ 42.00	$ 2,016.00	$ 2,974.20			$ 723.58	$ 5,713.78
	Traffic Engineer	47	$ 34.50	$ 1,621.50	$ 2,392.20			$ 581.99	$ 4,595.69
	Design Technician	75	$ 29.00	$ 2,175.00	$ 3,208.78			$ 780.65	$ 6,164.43
	QA/QC	8	$ 65.00	$ 520.00	$ 767.16			$ 186.64	$ 1,473.79

Cost Estimate of Consultant Services (Page 3 of 4)

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 - Contract 3						$ -	$ 1,704.00	$ -	$ 1,704.00
	Director of Design Services	57	$ 65.00	$ 3,705.00	$ 5,465.99			$ 1,329.79	$ 10,500.78
	Project Manager	253	$ 47.00	$ 11,891.00	$ 17,542.79			$ 4,267.90	$ 33,701.69
	Project Engineer	592	$ 38.00	$ 22,496.00	$ 33,188.35			$ 8,074.23	$ 63,758.58
	Design Engineer	500	$ 31.00	$ 15,500.00	$ 22,867.15			$ 5,563.24	$ 43,930.39
	Drainage Engineer	346	$ 33.00	$ 11,418.00	$ 16,844.98			$ 4,098.13	$ 32,361.11
	Lighting Engineer	247	$ 38.00	$ 9,386.00	$ 13,847.17			$ 3,368.81	$ 26,601.97
	Structual Engineer	145	$ 42.00	$ 6,090.00	$ 8,984.58			$ 2,185.81	$ 17,260.39
	Traffic Engineer	267	$ 34.50	$ 9,211.50	$ 13,589.73			$ 3,306.18	$ 26,107.40
	Design Technician	392	$ 29.00	$ 11,368.00	$ 16,771.21			$ 4,080.19	$ 32,219.40
	QA/QC	16	$ 65.00	$ 1,040.00	$ 1,534.31			$ 373.28	$ 2,947.59
Final (100%) Plans, Special Provisions and Estimates - Contract 3						$ -	$ 852.00	$ -	$ 852.00
	Director of Design Services	15	$ 65.00	$ 975.00	$ 1,438.42			$ 349.95	$ 2,763.36
	Project Manager	59	$ 47.00	$ 2,773.00	$ 4,091.01			$ 995.28	$ 7,859.29
	Project Engineer	131	$ 38.00	$ 4,978.00	$ 7,344.04			$ 1,786.70	$ 14,108.74
	Design Engineer	103	$ 31.00	$ 3,193.00	$ 4,710.63			$ 1,146.03	$ 9,049.66
	Drainage Engineer	80	$ 33.00	$ 2,640.00	$ 3,894.79			$ 947.54	$ 7,482.34
	Lighting Engineer	52	$ 38.00	$ 1,976.00	$ 2,915.19			$ 709.22	$ 5,600.42
	Structual Engineer	34	$ 42.00	$ 1,428.00	$ 2,106.73			$ 512.54	$ 4,047.26
	Traffic Engineer	58	$ 34.50	$ 2,001.00	$ 2,952.08			$ 718.20	$ 5,671.27
	Design Technician	63	$ 29.00	$ -	$ -			$ -	$ -
	QA/QC	8	$ 65.00	$ 520.00	$ 767.16			$ 186.64	$ 1,473.79
Pre-Final (90%) Plans, Special Provisions and Estimates - Contract 4						$ -	$ 1,329.60	$ -	$ 1,329.60
	Director of Design Services	48	$ 65.00	$ 3,120.00	$ 4,602.94			$ 1,119.83	$ 8,842.76
	Project Manager	201	$ 47.00	$ 9,447.00	$ 13,937.16			$ 3,390.70	$ 26,774.86
	Project Engineer	428	$ 38.00	$ 16,264.00	$ 23,994.28			$ 5,837.45	$ 46,095.73
	Design Engineer	386	$ 31.00	$ 11,966.00	$ 17,653.44			$ 4,294.82	$ 33,914.26
	Drainage Engineer	198	$ 33.00	$ 6,534.00	$ 9,639.61			$ 2,345.17	$ 18,518.78
	Lighting Engineer	159	$ 38.00	$ 6,042.00	$ 8,913.76			$ 2,168.59	$ 17,124.35
	Structual Engineer	0	$ 42.00	$ -	$ -			$ -	$ -
	Traffic Engineer	149	$ 34.50	$ 5,140.50	$ 7,583.78			$ 1,845.02	$ 14,569.30
	Design Technician	222	$ 29.00	$ 6,438.00	$ 9,497.98			$ 2,310.72	$ 18,246.70
	QA/QC	16	$ 65.00	$ 1,040.00	$ 1,534.31			$ 373.28	$ 2,947.59
Final (100%) Plans, Special Provisions and Estimates - Contract 4						$ -	$ 664.80	$ -	$ 664.80
	Director of Design Services	14	$ 65.00	$ 910.00	$ 1,342.52			$ 326.62	$ 2,579.14
	Project Manager	52	$ 47.00	$ 2,444.00	$ 3,605.63			$ 877.20	$ 6,926.83
	Project Engineer	107	$ 38.00	$ 4,066.00	$ 5,998.57			$ 1,459.36	$ 11,523.93
	Design Engineer	86	$ 31.00	$ 2,666.00	$ 3,933.15			$ 956.88	$ 7,556.03
	Drainage Engineer	58	$ 33.00	$ 1,914.00	$ 2,823.72			$ 686.97	$ 5,424.69
	Lighting Engineer	38	$ 38.00	$ 1,444.00	$ 2,130.33			$ 518.28	$ 4,092.61
	Structual Engineer	0	$ 42.00	$ -	$ -			$ -	$ -
	Traffic Engineer	40	$ 34.50	$ 1,380.00	$ 2,035.91			$ 495.31	$ 3,911.22
	Design Technician	38	$ 29.00	$ 1,102.00	$ 1,625.78			$ 395.53	$ 3,123.31
	QA/QC	8	$ 65.00	$ 520.00	$ 767.16			$ 186.64	$ 1,473.79

Cost Estimate of Consultant Services (Page 4 of 4)

Element of Work	Employee Classification	Man-hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by Others	In-House Direct Costs (IHDC)	Profit	Total
Project Administration, Coordination and Permits				$ -	$ -	$ -	$ 2,363.05	$ -	$ 2,363.05
	Director of Design Services	62	$ 65.00	$ 4,030.00	$ 5,945.46			$ 1,446.44	$ 11,421.90
	Project Manager	294	$ 47.00	$ 13,818.00	$ 20,385.70			$ 4,959.54	$ 39,163.23
	Project Engineer	446	$ 38.00	$ 16,948.00	$ 25,003.38			$ 6,082.95	$ 48,034.34
	Design Engineer	310	$ 31.00	$ 9,610.00	$ 14,177.63			$ 3,449.21	$ 27,236.84
	Drainage Engineer	184	$ 33.00	$ 6,072.00	$ 8,958.02			$ 2,179.35	$ 17,209.37
	Lighting Engineer	28	$ 38.00	$ 1,064.00	$ 1,569.72			$ 381.89	$ 3,015.61
	Structual Engineer	16	$ 42.00	$ 672.00	$ 991.40			$ 241.19	$ 1,904.59
	Traffic Engineer	40	$ 34.50	$ 1,380.00	$ 2,035.91			$ 495.31	$ 3,911.22
	Design Technician	160	$ 29.00	$ 4,640.00	$ 6,845.39			$ 1,665.38	$ 13,150.77
	QA/QC	0	$ 65.00	$ -	$ -			$ -	$ -
Construction Assistance				$ -	$ -	$ 13,800.00	$ -	$ -	$ 13,800.00
	Director of Design Services	18	$ 65.00	$ 1,170.00	$ 1,726.10			$ 419.93	$ 3,316.04
	Project Manager	100	$ 47.00	$ 4,700.00	$ 6,933.91			$ 1,686.92	$ 13,320.83
	Project Engineer	92	$ 38.00	$ 3,496.00	$ 5,157.65			$ 1,254.78	$ 9,908.43
	Design Engineer	36	$ 31.00	$ 1,116.00	$ 1,646.43			$ 400.55	$ 3,162.99
	Drainage Engineer	16	$ 33.00	$ 528.00	$ 778.96			$ 189.51	$ 1,496.47
	Lighting Engineer	16	$ 38.00	$ 608.00	$ 896.98			$ 218.22	$ 1,723.20
	Structual Engineer	96	$ 42.00	$ 4,032.00	$ 5,948.41			$ 1,447.16	$ 11,427.57
	Traffic Engineer	136	$ 34.50	$ 4,692.00	$ 6,922.11			$ 1,684.05	$ 13,298.15
	Design Technician	0	$ 29.00	$ -	$ -			$ -	$ -
	QA/QC	0	$ 65.00	$ -	$ -			$ -	$ -
Totals		**25497**		**$ 927,373.00**	**$ 1,368,153.39**	**$ 601,727.37**	**$ 140,907.85**	**$ 332,851.33**	**$ 3,371,012.93**

Workhours (Page 1 of 6)

Item No.	Task	Personnel & Hours: Director of Design Services	Project Manager	Project Engineer	Design Engineer	Drainage Engineer	Lighting Engineer	Structual Engineer	Traffic Engineer	Design Technician	QA/QC	Total Hours	% of Hours
1	**Early Coordination and Data Collection**												
A.	Initial Meeting with County and Village	8	8	8		4	4	4	4			40	6.1%
B.	IDOT Project Kick-Off Meeting	3	6	6	3							18	2.8%
C.	LCSMC Kick-Off Meeting	3	6	6	4	4						23	3.5%
D.	Obtain/Update and Review Record Data	2	20	64	64	40	12		12			214	32.9%
E.	Preliminary Utility Company Coordination	2	12	20	16	8	8		8	4		78	12.0%
F.	Topographic Survey (by Jorgensen and Associates) - coordination only		8	8	4					4		24	3.7%
G.	Perform Project Field Check and Survey Reconnaissance - includes photolog		16	16	16	12	12	12	12	16		112	17.2%
H.	Geotechnical Studies (by Midland Standard Eng. & Testing) - coordination only		6	6	4	4		8		4		32	4.9%
I.	Wetland Studies (by Stuedemann Environmental Consulting) - coordination only		4	4	4	4				24		40	6.1%
J.	Sewer Videotaping (by Visu-Sewer of Illinois) - coordination only		2	4	2	8				8		24	3.7%
K.	Utility Daylighting (by Badger Daylighting) - coordination only		2	4	2	8		2		8		26	4.0%
L.	Special Waste and CCDD Testing (by Huff & Huff) - coordination only		2	4	2	8				4		20	3.1%
	Sub-total Item 1	**18**	**92**	**150**	**121**	**100**	**36**	**26**	**36**	**72**	**0**	**651**	**100.0%**
2	**Preliminary Engineering (65%)**												
A.	Plan Base Sheet Preparation		4	24	40	32	8	8	8	64		188	2.0%
B.	Pavement Design	2	8	32	32							74	0.8%
C.	Drainage Design	24	120	240	240	320						944	9.9%
D.	Aptakisic Creek Box Culvert Replacement	4	16	24	16	40		24		12		136	1.4%
E.	Municipal Utilities and Infrastructure Design	4	12	40	32					12		100	1.0%
F.	Lighting Design with Design Calculations	2	6	4	4		160					176	1.8%
G.	Traffic Signal Design	2	2	3	3	3	3		40	8		64	0.7%
H.	Maintenance of Traffic Concept	16	64	64	48	24		16	16	64		312	3.3%
I.	Review and Confirm Project Right-of-Way Requirements	8	16	48	32					16		120	1.3%
J.	Retaining Wall Type Studies		4	4	4			24		16		52	0.5%
K.	Noise Wall Type and Aesthetic Treatment Study	4	6	6	6			16		12		50	0.5%
L.	Landscape Design	2	12	8	8	8				12		50	0.5%
M.	Preliminary Plans (65%)												
	Cover Sheet (1 sheet)		1	2						4		7	0.1%
	Index of Sheets and List of State and Local Standards (1 sheet)		2	2	3					2		9	0.1%
	General Notes and List of Commitments (2 sheets)		4	4	6					4		18	0.2%
	Existing Typical Sections(7 sheets)	4	16	32	32					16		100	1.0%
	Proposed Typical Section and Typical Section Details (7 sheets)	4	16	32	32					16		100	1.0%
	Alignment, Ties, Benchmarks and Highway Plats (51 sheets)	4	8	8	8					20		48	0.5%
	Roadway Removal lan 1"=20' (36 Sheets)	12	56	80	80	16				108		352	3.7%
	Roadway Plan and Prfile 1"=20' (36 sheets)	12	280	400	400	32				120		1244	13.0%
	Sidewalk and Shared-Use Plan1 "=20' (36 sheets)	8	64	80	80	16				80		328	3.4%
	Stages of Construction - Sequences and Typical sections (4 sheets)	4	12	32	40	4	4	4	4	32		136	1.4%
	Stages of Construction - 3 stages,1"=50' (27 sheets - dual pane)	4	48	88	88	32	8	8	8	40		324	3.4%
	Erosion Control Plan - 3 stages,1"=50' (27 sheets -dual pane)	4	24	48	56	56				40		228	2.4%
	Drainage and Utilits 1"=20' (36 sheets)	12	80	200	200	560				160		1212	12.7%
	Detention Basin Plan 1=20' (3 sheets)	4	12	24	24	60				24		148	1.5%
	Detention Basin Grading Plan and Details=50' (6 sheets)	2	8	16	12	24				16		78	0.8%
	Intersection Detail1"=20' (26 sheets)	4	24	120	96					120		364	3.8%
	Driveway Details "=10' (23 sheets)	2	12	48	56					56		174	1.8%
	Sidewalk ADA Ramp Details"=5' (25 sheets - dual pane)	2	12	40	64					64		182	1.9%
	Water Main and Sanitary Sewer Plans and Details"=20' (6 sheets)	2	8	32	32					24		98	1.0%
	SUE Plan - Investigation of Underground Facilities (3 sheets)	2	6	36	24	8		8		36		120	1.3%
	Pavement Marking and Signing Plan 1"=50' (9 sheets - dual pane)	2	4	16	24				8	16		70	0.7%
	Landscaping Plan"=50' (9 sheets - dual pane)		8	16	12	12				12		60	0.6%
	Landscaping Plan Details (2 sheets)		2	6	4	4				6		22	0.2%
	Detention Basin Planting Plan 1"=20' (3 sheets)		4	8	4	8				4		28	0.3%
	Weiland Road Culvert and Headwalls for Aptakisic Creek (5 sheets)	2	8	12	4	24		80		16		146	1.5%
	Noise Wall Plan and Profile 1"=50' (7 sheets)	2	8	16	4			40		8		78	0.8%
	Retaining Wall General Plan and Elevation"=20' (14 sheets)	2	6	12	4			96		16		136	1.4%
	Traffic Signal Removal Plan (1 sheet)		2	4	2				16	4		28	0.3%
	Temporary Traffic Signal Layout (5 sheets)		2	4	2	4			96	12		120	1.3%
	Temporary Interconnect Plan (5 sheets)		2	4	2				48	12		68	0.7%
	Traffic Signal Layout (5 sheets)		2	4	2	4			96	12		120	1.3%
	Interconnect Plan (5 sheets)		2	4	2				120	8		136	1.4%
	Rectangular Rapid Flashing Beacon Plan (2 sheets)		2	4	2	2			32	8		50	0.5%
	Lighting General Notes and Legend (1 sheet)		2	2	1		8			2		15	0.2%
	Lighting Plan 1"=20' (19 sheets - dual pane)		2	8	4		112			16		142	1.5%
	Temporary Lighting Plan"= 20' (19 sheets - dual pane)		2	8	4		112			16		142	1.5%
	Cross Section - 50' interval, streets, drives, high and low points (96 sheets)	12	96	160	160	48	8	8	8	112		612	6.4%
N.	Preliminary Design Review Meeting	12	12	18								42	0.4%
	Sub-total Item 2	**186**	**1129**	**2127**	**2035**	**1341**	**423**	**332**	**500**	**1478**	**0**	**9551**	**100.0%**

Workhours (Page 2 of 6)

Item No.	Task	Personnel & Hours: Director of Design Services	Project Manager	Project Engineer	Design Engineer	Drainage Engineer	Lighting Engineer	Structual Engineer	Traffic Engineer	Design Technician	QA/QC	Total Hours	% of Hours
3	**Right-of-Way Documents and Coordination**												
A.	Subconsultant Coordination	16	32	32	24							104	30.4%
	Confirmation of right-of-way acquisition and easement limits	2	12	32	32	6		4				88	25.7%
	Prepare right-of-way exhibits and plan coordination through property negotiations	2	24	32	24					40		122	35.7%
B.	Right-of-Way Coordination Meetings	8	8	12								28	8.2%
	Sub-total Item 3	**28**	**76**	**108**	**80**	**6**	**0**	**4**	**0**	**40**	**0**	**342**	**100.0%**
4	**Pre-Final (90%) Plans, Special Provisions and Estimates - Contract 1**												
A.	Pre-Final Plans												
	Cover Sheet (1 sheet)		1	1						1		3	0.1%
	Index of Sheets and List of State and Local Standards (1 sheet)		1	1						1		3	0.1%
	General Notes and List of Commitments (2 sheets)		2	2	3					2		9	0.3%
	Summary of Quantities (4 sheets)		2	4	4					4		14	0.5%
	Existing Typical Sections (2 sheets)	1	2	4	6					6		19	0.7%
	Proposed Typical Sections (2 sheets)	1	2	4	6					6		19	0.7%
	Schedule of Quantities (15 sheets)		4	12	12					12		40	1.4%
	Alignment, Ties, Benchmarks and Highway Plats (16 sheets)		2	4	4	2				12		24	0.9%
	Roadway Removal Plan 1"=20' (10 sheets)	4	16	64	32	24				24		164	5.9%
	Roadway Plan and Profile 1"=20' (10 sheets)	4	32	96	96	32				32		292	10.5%
	Roadway Details (2 sheets)		8	12	8					12		40	1.4%
	Sidewalk and Shared-Use Plan 1"=20' (10 sheets)	2	12	24	24	8				16		86	3.1%
	Stages of Construction – Sequences and Typical sections (1 sheets)	1	4	8	8	4	1	1	1	8		36	1.3%
	Stages of Construction – 3 stages, 1"=50' (9 sheets)	2	12	36	32	12	2	2	2	12		112	4.0%
	Erosion Control Plan – 3 stages, 1"=50' (9 sheets)	2	8	16	24	12				12		74	2.7%
	Drainage and Utilities 1"=20' (10 sheets)	4	16	40	40	216				80		396	14.2%
	Detention Basin Plan 1"=20' (2 sheets)	2	6	12	8	16				12		56	2.0%
	Detention Basin Grading Plan and Details 1"=50' (4 sheets)		4	8	8	8				12		40	1.4%
	Intersection Details 1"=20' (6 sheets)	2	12	32	40					32		118	4.2%
	Driveway Details 1"=10' (6 sheets)	2	4	24	24					16		70	2.5%
	Sidewalk ADA Ramp Details 1"=5' (5 sheets - dual pane)		4	8	12					16		40	1.4%
	Pavement Marking and Signing Plan 1"=50' (3 sheets – dual pane)		2	6	6				2	8		24	0.9%
	Landscaping Plan 1"=50' (3 sheets – dual pane)		4	8	4	4				4		24	0.9%
	Landscaping Plan Details (2 sheets)		2	8	6	4				4		24	0.9%
	Detention Basin Planting Plan 1"=20' (2 sheets)		2	8	6	4				4		24	0.9%
	Structural Plan Wall-B, Sta. 152+94 Lt, 736 ft (8 sheets)												
	General Plan and Elevation							36				36	1.3%
	Cast-in-Place Facing Elevations							32				32	1.1%
	Typical Wall Cross Section and Wall Details							56				56	2.0%
	Boring Logs							4				4	0.1%
	Traffic Signals (13 sheets)												
	Traffic Signal Removal Plan – Aptakisic Rd/Prairie Rd								16			16	0.6%
	Temporary Traffic Signal Plan – Aptakisic Rd/Weiland Rd								24			24	0.9%
	Temporary Cable Plan – Aptakisic Rd/Weiland Rd								8			8	0.3%
	Temporary Sequnces – Aptakisic Rd/Weiland Rd								16			16	0.6%
	Temporary Interconnect Plan - Aptakisic Rd from Buffalo Grove Rd to Bond St								12			12	0.4%
	Temporary Interconnect Plan - Weiland Rd from Aptakisic Junior HS to Aptakisic Rd								12			12	0.4%
	Interconnect Plan – Prairie Rd from Aptakisic Rd to existing Prairie Rd								16			16	0.6%
	IDOT District 1 Standard Traffic Signal Design Details								2			2	0.1%
	Lighting Plans (21 sheets)												
	Lighting General Notes, Legend & Schedule of Quantities						2					2	0.1%
	Temporary Lighting Plans 1"=20', dual pane						20					20	0.7%
	Temporary Circuit Diagrams						20					20	0.7%
	Temporary Details (controller, aerial connections, misc. electrical)						20					20	0.7%
	Lighting Plans 1"=20', dual pane						24					24	0.9%
	Proposed Circuit Diagrams						24					24	0.9%
	Lighting Controller Details						16					16	0.6%
	Lighting Details (controller, pole, foundations, misc. electrical)						16					16	0.6%
	Cross Sections, 1'=5' H:V (24 sheets)	2	6	16	16					40		80	2.9%
	IDOT Bureau Of Design Standards, BD's and TC's (6 Sheets)		1	2	1					12		16	0.6%
	LCDOT Highway Standards (10 sheets)		2	8	4					4		18	0.6%
B.	Pre-Final Special Provisions	2	40	40	4	4	6	4	8			108	3.9%
C.	Pre-Final Quantity Calculations		16	80	80	24	8	16	24			248	8.9%
D.	Pre-Final Estimates of Cost and Construction Time	2	16	8		2	2	2	4			36	1.3%
E.	Pre-Final QA/QC Review	8	8	8	8	6	6	2	8	8	16	78	2.8%
F.	Pre-Final Project Review Meeting	16	16	24	4	4	4	4	4			76	2.7%
	Sub-total Item 4	**57**	**269**	**628**	**530**	**386**	**171**	**159**	**159**	**412**	**16**	**2787**	**100.0%**

Workhours (Page 3 of 6)

Item No.	Task	Personnel & Hours: Director of Design Services	Project Manager	Project Engineer	Design Engineer	Drainage Engineer	Lighting Engineer	Structual Engineer	Traffic Engineer	Design Technician	QA/QC	Total Hours	% of Hours
5	**Final (100%) Plans, Special Provisions and Estimates - Contract 1**												
A.	Final Plans (100%)	9	41	95	80	58	26	24	24	62		419	69.9%
B.	Final Special Provisions	2	12	12			8	6	8			48	8.0%
C.	Final Quantity Calculations		4	24	24	24	4	4	4			88	14.7%
D.	Final Estimates of Cost and Construction Time		1	2					1			4	0.7%
E.	Final QA/QC Review	4	4	4	4	2	2	4	4	8		40	6.7%
	Sub-total Item 5	**15**	**62**	**137**	**108**	**86**	**40**	**36**	**41**	**66**	**8**	**599**	**100.0%**
6	**Pre-Final (90%) Plans, Special Provisions and Estimates - Contract 2**												
A.	Pre-Final Plans												
	Cover Sheet (1 sheet)		1	1						1		3	0.1%
	Index of Sheets and List of State and Local Standards (1 sheet)		1	1						1		3	0.1%
	General Notes and List of Commitments (2 sheets)		2	2	3					2		9	0.3%
	Summary of Quantities (4 sheets)		2	4	4					4		14	0.4%
	Existing Typical Sections (2 sheets)	1	2	4	6					6		19	0.6%
	Proposed Typical Sections (2 sheets)	1	2	4	6					6		19	0.6%
	Schedule of Quantities (15 sheets)		4	12	12					12		40	1.3%
	Alignment, Ties, Benchmarks and Highway Plats (16 sheets)		2	4	4	2				12		24	0.8%
	Roadway Removal Plan 1"=20' (11 sheets)	4	16	64	48	24				24		180	5.6%
	Roadway Plan and Profile 1"=20' (11 sheets)	4	32	112	112	32				32		324	10.2%
	Roadway Details (2 sheets)		8	12	8					12		40	1.3%
	Sidewalk and Shared-Use Plan 1"=20' (11 sheets)	2	12	24	24	8				24		94	2.9%
	Stages of Construction – Sequences and Typical sections (1 sheets)	1	4	8	8	4	1	1	1	8		36	1.1%
	Stages of Construction – 3 stages, 1"=50' (6 sheets)	2	8	24	24	8	2	2	2	8		80	2.5%
	Erosion Control Plan – 3 stages, 1"=50' (6 sheets)	2	4	8	12	12				12		50	1.6%
	Drainage and Utilities 1"=20' (11 sheets)	4	16	56	56	224				88		444	13.9%
	Detention Basin Plan 1"=20' (1 sheets)	1	3	6	4	8				6		28	0.9%
	Detention Basin Grading Plan and Details 1"=50' (2 sheets)		2	4	4	4				6		20	0.6%
	Intersection Details 1"=20' (6 sheets)	2	12	32	40					32		118	3.7%
	Driveway Details 1"=10' (7 sheets)	2	4	24	32					32		94	2.9%
	Sidewalk ADA Ramp Details 1"=5' (8 sheets - dual pane)		8	12	16					24		60	1.9%
	SUE Plan - Investigation of Underground Facilities (3 sheets)		8	16	32	32		4	4	12		108	3.4%
	Water Main and Sanitary Sewer Plans and Details 1"=20' (6 sheets)	2	8	16	32	32				24		114	3.6%
	Pavement Marking and Signing Plan 1"=50' (2 sheets – dual pane)		2	4	4				2	6		18	0.6%
	Landscaping Plan 1"=50' (2 sheets – dual pane)		2	4	2	2				2		12	0.4%
	Landscaping Plan Details (2 sheets)		2	4	2	2				2		12	0.4%
	Detention Basin Planting Plan 1"=20' (1 sheets)		2	4	2	2				2		12	0.4%
	Structural Plan - Noise Abatement Wall, Newton Drive North Lt. 600 ft (7 sheets)												
	General Plan and Elevation							36				36	1.1%
	Cast-in-Place Facing Elevations							28				28	0.9%
	Typical Wall Cross Section and Wall Details							16				16	0.5%
	Boring Logs							6				6	0.2%
	Structural Plan - Culvert Headwalls for Aptakisic Creek, Sta. 86+00, 88 ft (5 sheets)												
	General Plan and Elevation							40				40	1.3%
	Cast-in-Place Facing Elevations							32				32	1.0%
	Typical Wall Cross Section and Wall Details							40				40	1.3%
	Boring Logs							4				4	0.1%
	Traffic Signals (17 sheets)												
	Temporary Traffic Signal Installation and Removal Plan – Weiland Rd/Pauline Rd								24			24	0.8%
	Temporary Cable Plan and Sequences – Weiland Road/Pauline Road								16			16	0.5%
	Traffic Signal Modernization Plan – Weiland Road/Pauline Road								28			28	0.9%
	Cable Plan, Sequences and Schedule of Quantities – Weiland Road/Pauline Road								16			16	0.5%
	Rectangular Rapid Flashing Beacon Installation Plan – Weiland Road/Newtown Drive								16			16	0.5%
	Interconnect Plan – Weiland Road from Lake Cook Road to Deerfield Parkway								28			28	0.9%
	Interconnect Schematic								6			6	0.2%
	Mast Arm Mounted Street Name Sign detail sheet								2			2	0.1%
	LCDOT Splicing Diagram								1			1	0.0%
	LCDOT Cabinet Detail								1			1	0.0%
	LCDOT Video Detection Details								2			2	0.1%
	IDOT District 1 Standard Traffic Signal Design Details								2			2	0.1%
	Lighting Plans (28 sheets)												
	Lighting General Notes, Legend & Schedule of Quantities						2					2	0.1%
	Temporary Lighting Plans 1"=20, dual pane						36					36	1.1%
	Temporary Circuit Diagrams						24					24	0.8%
	Temporary Details (controller, aerial connections, misc. electrical)						32					32	1.0%
	Lighting Plans 1"=20', dual pane						32					32	1.0%
	Proposed Circuit Diagrams						32					32	1.0%

Workhours (Page 4 of 6)

Item No.	Task	Personnel & Hours										Total Hours	% of Hours
		Director of Design Services	Project Manager	Project Engineer	Design Engineer	Drainage Engineer	Lighting Engineer	Structual Engineer	Traffic Engineer	Design Technician	QA/QC		
	Lighting Controller Details						16					16	0.5%
	Lighting Details (controller, pole, foundations, misc. electrical)						16					16	0.5%
	Cross Sections, 1"=5' H:V (28 sheets)	4	8	16	20					48		96	3.0%
	IDOT Bureau Of Design Standards, BD's and TC's (6 Sheets)		1	2	1					12		16	0.5%
	LCDOT Highway Standards (10 sheets)		2	6	4					4		16	0.5%
B.	Pre-Final Special Provisions	2	40	40	4	4	8	4	8			110	3.4%
C.	Pre-Final Quantity Calculations		16	80	80	24	12	16	24			252	7.9%
D.	Pre-Final Estimates of Cost and Construction Time	2	16	8		2	2	2	4			36	1.1%
E.	Pre-Final QA/QC Review	8	8	8	8	6	8	2	8	8	16	80	2.5%
F.	Pre-Final Project Review Meeting	16	16	24	4	4	4	4	4			76	2.4%
	Sub-total Item 6	**60**	**276**	**650**	**618**	**436**	**227**	**237**	**199**	**472**	**16**	**3191**	**100.0%**
7	**Final (100%) Plans, Special Provisions and Estimates - Contract 2**												
A.	Final Plans (100%)	9	42	98	93	66	35	36	30	71		480	72.7%
B.	Final Special Provisions	2	12	12			8	6	8			48	7.3%
C.	Final Quantity Calculations		4	24	24	24	4	4	4			88	13.3%
D.	Final Estimates of Cost and Construction Time		1	2					1			4	0.6%
E.	Final QA/QC Review	4	4	4	4	4	2	2	4	4	8	40	6.1%
	Sub-total Item 7	**15**	**63**	**140**	**121**	**94**	**49**	**48**	**47**	**75**	**8**	**660**	**100.0%**
Item No.	Task												
8	**Pre-Final (90%) Plans, Special Provisions and Estimates - Contract 3**												
A.	Pre-Final Plans												
	Cover Sheet (1 sheet)		1	1						1		3	0.1%
	Index of Sheets and List of State and Local Standards (1 sheet)		1	1						1		3	0.1%
	General Notes and List of Commitments (2 sheets)		2	2	3					2		9	0.3%
	Summary of Quantities (4 sheets)		2	4	4					4		14	0.5%
	Existing Typical Sections (2 sheets)	1	2	4	6					6		19	0.7%
	Proposed Typical Sections (2 sheets)	1	2	4	6					6		19	0.7%
	Schedule of Quantities (15 sheets)		4	12	12					12		40	1.4%
	Alignment, Ties, Benchmarks and Highway Plats (16 sheets)		2	4	4	2				12		24	0.9%
	Roadway Removal Plan 1"=20' (10 sheets)	4	16	64	32	24				24		164	5.8%
	Roadway Plan and Profile 1"=20' (10 sheets)	4	32	96	96	32				32		292	10.4%
	Roadway Details (2 sheets)		8	12	8					12		40	1.4%
	Sidewalk and Shared-Use Plan 1"=20' (10 sheets)	2	12	24	24	8				16		86	3.1%
	Stages of Construction – Sequences and Typical sections (1 sheets)	1	4	8	8	4	1	1	1	8		36	1.3%
	Stages of Construction – 3 stages, 1"=50' (6 sheets)	2	8	24	24	8	2	2	2	8		80	2.8%
	Erosion Control Plan – 3 stages, 1"=50' (6 sheets)	2	4	12	16	8				8		50	1.8%
	Drainage and Utilities 1"=20' (10 sheets) - include RR pipe jacking details	4	16	40	40	216				80		396	14.1%
	Intersection Details 1"=20' (10 sheets)	2	16	48	48					48		162	5.8%
	Driveway Details 1"=10' (6 sheets)	2	4	24	24					16		70	2.5%
	Sidewalk ADA Ramp Details 1"=5' (8 sheets - dual pane)		4	12	16					16		48	1.7%
	Pavement Marking and Signing Plan 1"=50' (2 sheets – dual pane)		2	4	4				2	4		16	0.6%
	Landscaping Plan 1"=50' (2 sheets – dual pane)		2	4	2	2				2		12	0.4%
	Landscaping Plan Details (2 sheets)		2	4	2	2				2		12	0.4%
	Structural Plan Wall A, Sta. 130+50 Lt, 208 ft (6 sheets)												
	General Plan and Elevation							36				36	1.3%
	Cast-in-Place Facing Elevations							32				32	1.1%
	Typical Wall Cross Section and Wall Details							40				40	1.4%
	Boring Logs							6				6	0.2%
	Traffic Signals (22 sheets)												
	Temporary Traffic Signal Installation and Removal Plan – Weiland Rd/Aptakisic JHS								24			24	0.9%
	Temporary Cable Plan and Sequences – Weiland Rd/Aptakisic JHS								8			8	0.3%
	Traffic Signal Modernization Plan – Weiland Rd/Aptakisic JHS								24			24	0.9%
	Cable Plan, Sequences and Schedule of Quantities – Weiland Rd/Aptakisic JHS								10			10	0.4%
	Traffic Signal Modernization Plan – Weiland Rd/Thompson Blvd								24			24	0.9%
	Cable Plan, Sequences and Schedule of Quantities – Weiland Rd/Thompson Blvd								10			10	0.4%
	Traffic Signal Modernization Plan – Weiland Rd/Aptakisic Rd								24			24	0.9%
	Cable Plan, Sequences and Schedule of Quantities – Weiland Rd/Aptakisic Rd								10			10	0.4%
	Temporary Interconnect Plan - Weiland Rd from Deerfield Pkwy to Aptakisic Rd								10			10	0.4%
	Interconnect Plan – Weiland Rd from Deerfield Parkway to Aptakisic Rd								24			24	0.9%
	Interconnect Plan - Aptakisic Rd from Buffalo Grove Rd to Bond St								24			24	0.9%
	Interconnect Schematic								4			4	0.1%
	Mast Arm Mounted Street Name Sign detail								4			4	0.1%
	LCDOT Splicing Diagram								1			1	0.0%
	LCDOT Cabinet Detail								1			1	0.0%
	LCDOT Video Detection Details								2			2	0.1%

Workhours (Page 5 of 6)

Item No.	Task	Personnel & Hours: Director of Design Services	Project Manager	Project Engineer	Design Engineer	Drainage Engineer	Lighting Engineer	Structual Engineer	Traffic Engineer	Design Technician	QA/QC	Total Hours	% of Hours
	IDOT District 1 Standard Traffic Signal Design Details (6 sheets)								2			2	0.1%
	Lighting Plans (30 sheets)												
	Lighting General Notes, Legend & Schedule of Quantities						2					2	0.1%
	Temporary Lighting Plans 1"=20, dual pane						36					36	1.3%
	Temporary Circuit Diagrams						32					32	1.1%
	Temporary Details (controller, aerial connections, misc. electrical)						36					36	1.3%
	Lighting Plans 1"=20', dual pane						40					40	1.4%
	Proposed Circuit Diagrams						32					32	1.1%
	Lighting Controller Details						16					16	0.6%
	Lighting Details (controller, pole, foundations, misc. electrical)						16					16	0.6%
	Cross Sections, 1"=5' H:V (28 sheets)	4	8	16	20					48		96	3.4%
	IDOT Bureau Of Design Standards, BD's and TC's (6 Sheets)		1	2	1					12		16	0.6%
	LCDOT Highway Standards (10 sheets)		2	6	4					4		16	0.6%
B.	Pre-Final Special Provisions	2	40	40	4	4	8	4	8			110	3.9%
C.	Pre-Final Quantity Calculations		16	80	80	24	12	16	32			260	9.2%
D.	Pre-Final Estimates of Cost and Construction Time	2	16	8		2	2	2	4			36	1.3%
E.	Pre-Final QA/QC Review	8	8	8	8	6	8	2	8	8	16	80	2.8%
F.	Pre-Final Project Review Meeting	16	16	24	4	4	4	4	4			76	2.7%
	Sub-total Item 8	**57**	**253**	**592**	**500**	**346**	**247**	**145**	**267**	**392**	**16**	**2815**	**100.0%**
9	**Final (100%) Plans, Special Provisions and Estimates - Contract 3**												
A.	Final Plans (100%)	9	38	89	75	52	38	22	41	59		423	70.1%
B.	Final Special Provisions	2	12	12			8	6	8			48	8.0%
C.	Final Quantity Calculations		4	24	24	24	4	4	4			88	14.6%
D.	Final Estimates of Cost and Construction Time		1	2					1			4	0.7%
E.	Final QA/QC Review	4	4	4	4	4	2	2	4	4	8	40	6.7%
	Sub-total Item 9	**15**	**59**	**131**	**103**	**80**	**52**	**34**	**58**	**63**	**8**	**603**	**100.0%**
10	**Pre-Final (90%) Plans, Special Provisions and Estimates - Contract 4**												
A.	Pre-Final Plans												
	Cover Sheet (1 sheet)		1	1						1		3	0.2%
	Index of Sheets and List of State and Local Standards (1 sheet)		1	1						1		3	0.2%
	General Notes and List of Commitments (2 sheets)		2	2	3					2		9	0.5%
	Summary of Quantities (4 sheets)		2	4	4					4		14	0.8%
	Existing Typical Sections (1 sheets)	1	2	2	3					2		10	0.6%
	Proposed Typical Sections (1 sheets)	1	2	2	3					2		10	0.6%
	Schedule of Quantities (15 sheets)		4	12	12					12		40	2.2%
	Alignment, Ties, Benchmarks and Highway Plats (12 sheets)		2	4	4	2				8		20	1.1%
	Roadway Removal Plan 1"=20' (5 sheets)	2	8	24	24	8				12		78	4.3%
	Roadway Plan and Profile 1"=20' (5 sheets)	2	12	40	72	8				12		146	8.1%
	Roadway Details (2 sheets)		8	12	8					12		40	2.2%
	Sidewalk and Shared-Use Plan 1"=20' (5 sheets)	1	6	10	16	4				8		45	2.5%
	Stages of Construction – Sequences and Typical sections (1 sheets)	1	4	8	8	4	1		1	8		35	1.9%
	Stages of Construction – 3 stages, 1"=50' (6 sheets)	2	8	24	24	8	2		2	8		78	4.3%
	Erosion Control Plan – 3 stages, 1"=50' (6 sheets)	2	4	12	16	8				8		50	2.8%
	Drainage and Utilities 1"=20' (5 sheets)	2	12	24	16	112				32		198	11.0%
	Intersection Details 1"=20' (4 sheets)	2	6	32	24					16		80	4.4%
	Driveway Details 1"=10' (4 sheets)	2	4	16	16					8		46	2.5%
	Sidewalk ADA Ramp Details 1"=5' (4 sheets - dual pane)		4	6	12					10		32	1.8%
	Pavement Marking and Signing Plan 1"=50' (2 sheets – dual pane)		2	4	4				2	4		16	0.9%
	Landscaping Plan 1"=50' (2 sheets – dual pane)		2	4	2	2				2		12	0.7%
	Landscaping Plan Details (2 sheets)		2	4	2	2				2		12	0.7%
	Traffic Signals (14 sheets)												
	Rectangular Rapid Flashing Beacon Installation Plan – Prairie Rd/Brandywyn Ln								24			24	1.3%
	Traffic Signal Modification Plan – IL Rte 22/Prairie Rd								24			24	1.3%
	Cable Plan, Sequences and Schedule of Quantities – IL Rte 22/Prairie Rd								16			16	0.9%
	Interconnect Plan – Prairie Rd from Aptakisic Rd to IL Rte 22								32			32	1.8%
	Interconnect Schematic								6			6	0.3%
	LCDOT Splicing Diagram								1			1	0.1%
	LCDOT Cabinet Detail								1			1	0.1%
	LCDOT Video Detection Details								2			2	0.1%
	IDOT District 1 Standard Traffic Signal Design Details								2			2	0.1%
	Lighting Plans (16 sheets)												
	Lighting General Notes, Legend & Schedule of Quantities						2					2	0.1%
	Temporary Lighting Plans 1"=20, dual pane						20					20	1.1%
	Temporary Circuit Diagrams						16					16	0.9%
	Temporary Details (controller, aerial connections, misc. electrical)						16					16	0.9%

Workhours (Page 6 of 6)

Item No.	Task	Personnel & Hours: Director of Design Services	Project Manager	Project Engineer	Design Engineer	Drainage Engineer	Lighting Engineer	Structual Engineer	Traffic Engineer	Design Technician	QA/QC	Total Hours	% of Hours
	Lighting Plans 1"=20', dual pane						20					20	1.1%
	Proposed Circuit Diagrams						16					16	0.9%
	Lighting Controller Details						16					16	0.9%
	Lighting Details (controller, pole, foundations, misc. electrical)						16					16	0.9%
	Cross Sections; 1"=5' H:V (16 sheets)	2	4	12	12					24		54	3.0%
	IDOT Bureau Of Design Standards, BD's and TC's (6 Sheets)		1	2	1					12		16	0.9%
	LCDOT Highway Standards (10 sheets)		2	6	4					4		16	0.9%
B.	Pre-Final Special Provisions	2	40	40	4	4	8		8			106	5.9%
C.	Pre-Final Quantity Calculations		16	80	80	24	12		12			224	12.4%
D.	Pre-Final Estimates of Cost and Construction Time	2	16	8		2	2		4			34	1.9%
E.	Pre-Final QA/QC Review	8	8	8	8	6	8		8	8	16	78	4.3%
F.	Pre-Final Project Review Meeting	16	16	24	4	4	4		4			72	4.0%
	Sub-total Item 10	**48**	**201**	**428**	**386**	**198**	**159**	**0**	**149**	**222**	**16**	**1807**	**100.0%**
11	**Final (100%) Plans, Special Provisions and Estimates - Contract 4**												
A.	Final Plans (100%)	8	31	65	58	30	24		23	34		273	61.9%
B.	Final Special Provisions	2	12	12			8		8			42	9.5%
C.	Final Quantity Calculations		4	24	24	24	4		4			84	19.0%
D.	Final Estimates of Cost and Construction Time		1	2					1			4	0.9%
E.	Final QA/QC Review	4	4	4	4	4	2		4	4	8	38	8.6%
	Sub-total Item 11	**14**	**52**	**107**	**86**	**58**	**38**	**0**	**40**	**38**	**8**	**441**	**100.0%**
12	**Project Administration, Coordination and Permits**												
A.	Project Administration	24	60	24	24							132	8.6%
B.	Project Submittals		16	48	40	16	12	16	24	40		212	13.8%
C.	ICC Petition, CN Railroad Agreements, Permitting, and Report Documentation												
	Petition Filing (by County) - Review, Expert Testimony, and Assistance	1	4	4	4							13	0.8%
	CN Railroad Agreements (by County) - Exhibits, Dcouments, and Assistance	1	8	8	2					8		27	1.8%
	ICC / CN Permittign and Approvals - Right-of-Entry, Insurance, and Licensure	1	2	2	4							9	0.6%
	Railroad Crossing Report and Documentation	1	8	12						12		33	2.1%
D.	Utility Company Coordination	4	60	120	60	8	16		16			284	18.4%
E.	Lake County Stormwater Permitting and Documentation	4	32	80	80	72				40		308	20.0%
F.	Illinois Department of Natural Resources Permit	2	24	32	24	32				24		138	9.0%
G.	United States Army Corps of Engineers Permit	2	16	24	16	16				16		90	5.8%
H.	NPDES Permitting and Documentation	2	12	24	40	40						118	7.7%
I.	Pre-Demolition Asbestos Services (by Terracon) - coordination only		4	8	4					4		20	1.3%
J.	Special Waste		4	8	4					4		20	1.3%
K.	CCDD Testing		4	8	4					4		20	1.3%
L.	IEPA Permitting		4	8	4					4		20	1.3%
M.	Bidding Assistance	8	24	24						4		60	3.9%
N.	Pre-Construction Meeting Attendance	12	12	12								36	2.3%
	Sub-total Item 12	**62**	**294**	**446**	**310**	**184**	**28**	**16**	**40**	**160**	**0**	**1540**	**100.0%**
13	**Construction Assistance**												
A.	Construction Shop Drawing Reviews		4	4				64	16			88	17.3%
B.	Construction Review and Meeting Attendance	16	80	80	32	16	16	32				272	53.3%
C.	Traffic Signal Removal Analysis	2	16	8	4				120			150	29.4%
	Sub-total Item 13	**18**	**100**	**92**	**36**	**16**	**16**	**96**	**136**	**0**	**0**	**510**	**100.0%**
	Total Hours:	**593**	**2926**	**5736**	**5034**	**3331**	**1486**	**1133**	**1672**	**3490**	**96**	**25497**	
	% of Hours:	**2.3%**	**11.5%**	**22.5%**	**19.7%**	**13.1%**	**5.8%**	**4.4%**	**6.6%**	**13.7%**	**0.4%**	**100.0%**	

Direct Costs (Page 1 of 2)

		Direct Cost	Expense
Item 1	**Topographical Survey**		
Subconsultant Expense - Jorgensen & Associates, Inc.			
See Attachment B: Subconsultant Qualifications			$226,243.32
Item 2	**Geotechnical Studies**		
Subconsultant Expense - Midland Standard Engineering & Testing, Inc.			
See Attachment C: Subconsultant Qualifications			$26,810.00
Item 3	**Wetland Studies**		
Subconsultant Expense - Studemann Environmental Consulting, LLC			
See Attachment D: Subconsultant Qualifications			$19,920.00
Item 4	**Sewer Videotaping**		
Subconsultant Expense - Visu-Sewer of Illinois, LLC			
See Attachment E: Subconsultant Qualifications (allowance: 2 days jet only, 3 days jet/vac)			$16,720.00
Item 5	**Utility Daylighting (contingency service)**		
Subconsultant Expense - Badger Daylighting Corp.			
See Attachment F: Subconsultant Qualifications (allowance: 3 days with street cores, spoils,and backfill)			$11,565.00
Item 6	**Special Waste and CCDD Testing**		
Subconsultant Expense - Huff & Huff, Inc.			
See Attachment G: Subconsultant Qualifications			$32,095.62
Item 7	**Pre-Demolition Asbestos-Containing Material Survey**		
Subconsultant Expense - Terracon Consultants, Inc.			
See Attachment H: Subconsultant Qualifications			$13,800.00
Item 8	**Landscape Design**		
Subconsultant Expense - Hitchcock Design Group			
See Attachment I: Subconsultant Qualifications			$16,523.43
Item 9	**Right-of-Way Appraisals, Review, Negotiations, and Relocations**		
Plats			
Subconsultant Expense - Jorgensen & Associates, Inc.			
See Attachment B: Subconsultant Qualifications (Included within Item 1 Topographical Survey)			
Appraisals			
In-House (Civiltech Services)	3 parcels @	$3,500.00	$10,500.00
	10 parcels @	$2,500.00	$25,000.00
	20 parcels @	$2,200.00	$44,000.00
	6 parcels @	$2,000.00	$12,000.00
	15 parcels @	$1,800.00	$27,000.00
	5 parcels @ (revisions)	$1,800.00	$9,000.00
Reviews			
Subconsultant Expense - "T" Engineering Services, Ltd.			$44,250.00
See Attachment J: Subconsultant Qualifications			
Negotiations			
Subconsultant Expense - Santacruz Associates			$154,800.00
See Attachment K: Subconsultant Qualifications			
Relocations			
Subconsultant Expense - HDR, Inc.			$39,000.00
See Attachment L: Subconsultant Qualifications			

Direct Costs (Page 2 of 2)

				Direct Cost	Expense
Item 10	**Project Deliverables, Reproduction, Postage, and Permitting**				
Mileage (Deliverables)					
20	project site @	36 miles @	$0.565	$406.80	
25	meetings @	50 miles @	$0.565	$706.25	
Reproduction (Plan Sets and Project Specification Books)					
570	sheets @	Preliminary (10 half size)	$0.24	$1,368.00	
219	sheets @	Pre-Final Contract 1 (20 half size)	$0.24	$1,051.20	
20	books @	Pre-Final Contract 1	$30.00	$600.00	
219	sheets @	Final Contract 1 (10 half size)	$0.24	$525.60	
10	books @	Final Contract 1	$30.00	$300.00	
243	sheets @	Pre-Final Contract 2 (20 half size)	$0.24	$1,166.40	
20	books @	Pre-Final Contract 2	$30.00	$600.00	
243	sheets @	Final Contract 2 (10 half size)	$0.24	$583.20	
10	books @	Final Contract 2	$30.00	$300.00	
230	sheets @	Pre-Final Contract 3 (20 half size)	$0.24	$1,104.00	
20	books @	Pre-Final Contract 3	$30.00	$600.00	
230	sheets @	Final Contract 3 (10 half size)	$0.24	$552.00	
10	books @	Final Contract 3	$30.00	$300.00	
152	sheets @	Pre-Final Contract 4 (20 half size)	$0.24	$729.60	
20	books @	Pre-Final Contract 4	$30.00	$600.00	
152	sheets @	Final Contract 4 (10 half size)	$0.24	$364.80	
10	books @	Final Contract 4	$30.00	$300.00	
Postage					
50	packages @	Overnight/Shipping	$25.00	$1,250.00	
TOTAL:				**$140,907.85**	**$601,727.37**

CIVILTECH

Attachment B

Subconsultant Proposal

Jorgensen & Associates, Inc.

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

August 30, 2013

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

Re: Village of Buffalo Grove - Weiland Road Survey Proposal

Dear Mr. Magner:

Enclosed, please find our proposal to prepare a supplemental topographic survey, a statutory plat of highways with legal descriptions and potential revisions to the plat of highways based on negotiations for the referenced project.

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

Respectfully submitted,
Jorgensen & Associates, Inc.

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

CHJ/pt

Enclosures

E:\Civiltech\Lake\Weiland Rd\LTR

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Exhibit "A"

Hourly Rate Range - Consultant's Regular Staff

Classification	From	To
Principal, Manager, P.L.S.	40.00	42.00
Supervisor, Project Surveyor	38.00	40.00
Cadd Supervisor, Survey Party Chief, S.I.T., Survey Party Chief	21.50	28.50
Instrument Operator, Cadd Operator, assignable Clerical and Secretarial Labor	14.00	20.00

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Exhibit "B"

Payroll Burden & Fringe Costs

	% of Direct Productive Payroll
Federal Insurance Contributions Act	11.84%
State Unemployment Compensation	3.59%
Federal Unemployment Compensation	0.12%
Workmen's Compensation Insurance	0.94%
Paid Holidays, Vacation, Sick Leave, Personal Leave	8.78%
Bonus	4.59%
Pension	0.83%
Group Insurance	36.56%
Total Payroll Burden & Fringe Costs	67.25%

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Exhibit "C"

Overhead and Indirect Costs

	% of Direct Productive Payroll
Business Insurance	3.23%
Depreciation	10.17%
Indirect wages and salaries	46.70%
Reproductive and printing costs	0.05%
Office Supplies	3.04%
Computer Costs	0.66%
Professional Fees	1.60%
Telephone	2.11%
Fees, license & dues	1.09%
Repairs and maintenance	0.52%
Business space rent	5.18%
Facilities - capital	0.44%
Travel - Meals	0.03%
Survey Supplies	2.09%
Automobile/travel expense	4.79%
Equipment Rental	0.97%
Miscellaneous Expense	0.81%
State Income Tax	0.62%
Postage	0.26%
Educational & Professional Registrations	0.10%
Total Overhead	84.46%

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Exhibit "D"

Classification Types & Rates

Sheet 1 of 2

A. Principal/Officer

B. Supervisor, P.L.S.

C. Survey Party Chief, S.I.T.

D. Instrument Operator

E. Cadd Supervisor

Classification Rates used for Calculation of Fee

A. Principal/Officer ..... $ 42.00
B. Supervisor, P.L.S. ..... $ 40.00
C. Survey Party Chief, S.I.T. ..... $ 22.75
D. Instrument Operator ..... $ 18.75
E. Cadd Supervisor ..... $ 28.50

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Exhibit "D"

Average Hourly Rate Calculation

Sheet 2 of 2

Principal/Officer	2 hours	@	$42.00/hour	=	$ 84.00
Supervisor, P.L.S.	20 hours	@	$40.00/hour	=	$ 800.00
Survey Party Chief, S.I.T.	182 hours	@	$22.75/hour	=	$ 4,140.50
Instrument Operator	182 hours	@	$18.75/hour	=	$ 3,412.50
Cadd Supervisor	120 hours	@	$28.50/hour	=	$ 3,420.00
	506 hours				$ 11,857.00

Average Hourly Rate = $\frac{\$11,857.00}{506}$ = $23.43/hour

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
Project:
County: Lake
Job No.:

COST ESTIMATE OF CONSULTANT'S SERVICES

Consultant: Jorgensen & Associates, Inc.
Date: August 30, 2013
Description: Supplemental Topographic Survey
Cost Plus Fixed Fee = 14.5%[(2.3 + R)DL + IHDC]

Item	Number of Man Hours (A)	Payroll (B)	Overhead & Fringe Benefits (C)	In-House Direct Costs (D)	Sub-Total (E)	Profit (F)	Services By Others	Total	Percent of Grand Total
1) Field - Topographic Survey	364	$7,553.00	$11,458.66	$632.50	$19,644.16	$2,610.64	N/A	$22,254.79	64.38%
2) Office - Compile Field Data	53	$1,568.00	$2,378.81	$0.00	$3,946.81	$522.93	N/A	$4,469.74	12.93%
3) Office - Create Existing Topography Base Sheets	76	$2,304.00	$3,495.40	$0.00	$5,799.40	$768.38	N/A	$6,567.78	19.00%
4) Office - Create T.I.N. & Contours	11	$348.00	$527.95	$0.00	$875.95	$116.06	N/A	$992.01	2.87%
5) Coordination Meetings	2	$84.00	$127.44	$38.50	$249.94	$33.60	N/A	$283.53	0.82%
TOTALS	506	$11,857.00	$17,988.25	$671.00	$30,516.25	$4,051.60	$0.00	$34,567.86	100.00%

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Manhour Breakdown
Supplemental Topographic Survey Estimate

1. Field – Supplemental Topographic Survey

   a. Measure traverse & level circuit
      17 hours x 2 men = 34 MH

   b. Locate existing topography
      165 hours x 2 men = 330 MH

   Sub-total Item #1 364 MH

2. Office - Compile Field Data

   a. Compute traverse & level circuit
      5 hours x 1 man = 5 MH

   b. Edit & compile topographic survey
      48 hours x 1 man = 48 MH

   Sub-total Item #2 53 MH

3. Office - Create Existing Topography Base Sheets

   a. Layout and drafting
      64 hours x 1 man = 64 MH

   b. Check topographic survey
      12 hours x 1 man = 12 MH

   Sub-total Item #3 76 MH

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

   a. Compute contours
      8 hours x 1 man = 8 MH

   b. Check contours
      3 hours x 1 man = 3 MH

Sub-total Item #4 11 MH

5. Coordination Meetings
   1 meeting @ 2 hours = 2 MH

Total All Items 506 MH

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Manhour Breakdown By Item

Item	Classification	Manhours
1. Field – Supplemental Topographic Survey	Survey Party Chief, S.I.T. Instrument Operator	182 182
2. Office - Compile Field Data	Supervisor, P.L.S. Cadd Supervisor	5 48
3. Office – Create Existing Topography Base Sheets	Supervisor, P.L.S. Cadd Supervisor	12 64
4. Office - Create T.I.N. and Contours	Supervisor, P.L.S. Cadd Supervisor	3 8
5. Coordination Meetings	Principal/Officer	2

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Breakdown of
In House Direct Costs

Item

1. Field - Topographic Survey

    a. Trips to project site - 23 ea.
    ± 50 miles/trip x 23 trips = ± 1,150 miles
    ± 1,150 miles @ $0.55/mile = $ 632.50

5. Coordination Meetings

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

Total All Items $ 671.00

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Exhibit "D"

Classification Types & Rates

Sheet 1 of 2

A. Principal/Officer

B. Supervisor, P.L.S.

C. Survey Party Chief, S.I.T.

D. Instrument Operator

E. Cadd Supervisor

F. Secretarial

Classification Rates used for Calculation of Fee

A. Principal/Officer	**$ 42.00**
B. Supervisor, P.L.S.	**$ 40.00**
C. Survey Party Chief, S.I.T.	**$ 22.75**
D. Instrument Operator	**$ 18.75**
E. Cadd Supervisor	**$ 28.50**
F. Secretarial	**$ 17.75**

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Exhibit "D"

Average Hourly Rate Calculation

Sheet 2 of 2

Principal/Officer	2 hours	@	$42.00/hour	=	$ 84.00
Supervisor, P.L.S.	465 hours	@	$40.00/hour	=	$ 18,600.00
Survey Party Chief, S.I.T.	454 hours	@	$22.75/hour	=	$ 10,328.50
Survey Party Chief	46 hours	@	$22.75/hour	=	$ 1,046.50
Instrument Operator	454 hours	@	$18.75/hour	=	$ 8,512.50
Instrument Operator	46 hours	@	$18.75/hour	=	$ 862.50
Cadd Supervisor	692 hours	@	$28.50/hour	=	$ 19,722.00
Secretarial	6 hours	@	$17.75/hour	=	$ 106.50
	2,165 hours				$ 59,262.50

Average Hourly Rate = $\frac{\$59,262.50}{2,165}$ = $27.37/hour

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
Project:
County: Lake
Job No.:

COST ESTIMATE OF CONSULTANT'S SERVICES

Consultant: Jorgensen & Associates, Inc.
Date: August 30, 2013
No. of Parcels: 54
Cost Plus Fixed Fee = 14.5% [(2.3 + R)DL + IHDC]

Item	Number of Man Hours (A)	Payroll (B)	Overhead & Fringe Benefits (C)	In-house Direct Costs (D)	Sub-Total (E)	Profit (F)	Services By Others	Total	Percent of Grand Total
1) Pre-Survey Phase	6	$138.75	$210.50	$36.50	$385.75	$51.57	$17,280.00	$17,717.31	9.39%
2) Survey Reconnaissance	70	$1,452.50	$2,203.59	$110.00	$3,766.09	$500.36	N/A	$4,266.45	2.26%
3) Project Survey Plan	7	$199.50	$302.66	$0.00	$502.16	$66.53	N/A	$568.69	0.30%
4) First Submittal Plat of Highways and Descriptions	639	$19,465.00	$29,530.35	$255.00	$49,250.35	$6,528.55	N/A	$55,778.90	29.57%
5) Survey (Field)	930	$19,297.50	$29,276.24	$1,430.00	$50,003.74	$6,643.07	N/A	$56,646.80	30.03%
6) Survey (Office)	180	$6,774.50	$10,277.59	$0.00	$17,052.09	$2,259.30	N/A	$19,311.39	10.24%
7) Final Submittal Plat of Highways and Descriptions	92	$2,900.25	$4,399.97	$219.25	$7,519.47	$999.02	N/A	$8,518.49	4.52%
8) Coordination Meetings	2	$84.00	$127.44	$38.50	$249.94	$33.60	N/A	$283.53	0.15%
9) QC/QA	239	$8,950.50	$13,578.80	$0.00	$22,529.30	$2,984.99	N/A	$25,514.30	13.53%
TOTALS	2165	$59,262.50	$89,907.14	$2,089.25	$151,258.89	$20,066.99	$17,280.00	$188,605.87	100.00%

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Manhour Breakdown
Land Acquisition Estimate

Length of Project

Prairie Road	± 979'	= ± 0.185 mile
Aptakisic Road	± 2,200'	= ± 0.417 mile
Weiland Road	± 14,300'	= ± 2.708 miles
Total Length	± 17,479'	= ± 3.310 miles

54 Parcels: 12 Fee Simple; 21 Fee Simple & Temporary Easement; 2 Fee Simple & Temporary Easement-A & B; 1 Permanent Easement & Temporary Easement; 1 Permanent Easement; 2 Temporary Easement-A & B; 15 Temporary Easement Only

1. Pre-Survey Phase
Research available records

a.	Title Co.	)	3 MH
b.	Recorder's Office	)	
c.	I.D.O.T.	)	
d.	Utilities	)	
e.	Private Surveyors	)	
f.	Land Owners	)	3 MH
		Sub-total Item # 1	6 MH

2. Reconnaissance Survey

35 hours x 2 men = 70 MH

3.	Project Survey Plan		± 2,640'/sheet-7 sheets	
	a. Alignment info b. Existing R.O.W. info c. Land line data d. Subdivision data	)	1.0 hr./sht. x 7 =	7 MH
			Sub-total Item #3	7 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	)		27 MH
	f. Layout and drafting 464 hours x 1 man =	± 600'/sht. ± 29 sheets		464 MH
	Alignment & Tie sheets	3 hours/sheet x 2 =		6 MH
	Total Holding sheets	3 hours/sheet x 20 =		60 MH
	g. Legal descriptions	82 descriptions		82 MH
			Sub-total Item #4	639 MH

5. Survey (Field)

a. Monument center line alignments at 100 foot intervals

Prairie Road	- 979'	- 2 hrs. x 4 men =	8 MH
Aptakisic Road	- 2,200'	- 6 hrs. x 4 men =	24 MH
Weiland Road	- 14,300'	- 38 hrs. x 4 men =	152 MH

b. Reference center line alignments
33 hours x 2 men = 66 MH

c. Measure existing property & section lines
108 hours x 2 men = 216 MH

d. Appraisal topography
147 hours x 2 men = 294 MH

e. Monument & reference proposed right of way
85 hours x 2 men = 170 MH

Sub-total Item #5 930 MH

6. Survey (Office)

a. Compute traverse
19 hours x 1 man = 19 MH

b. Compute existing property & section lines
96 hours x 1 man = 96 MH

c. Compile appraisal topography
37 hours x 1 man = 37 MH

d. Compute center line alignments
4 hours x 1 man = 4 MH

e. Compute proposed right of way
24 hours x 1 man = 24 MH

Sub-total Item #6 180 MH

7.	Final Submittal Plat of Highways & Descriptions		
	a. Final drafting ± 51 sheets 56 hours x 1 man =		56 MH
	b. Final descriptions 82 descriptions		21 MH
	c. Prepare & record Monument Records 4 Monument Records @ 3 hours each =		12 MH
	d. Assembly of final papers		3 MH
		Sub-total Item #7	92 MH
8.	Coordination Meetings		
	1 meeting @ 2 hours =		2 MH
9.	QC/QA		
	a. Check preliminary plats 51 sheets		148 MH
	b. Check preliminary legal descriptions 82 legal descriptions		43 MH
	c. Check final plats 51 sheets		38 MH
	d. Check final legal descriptions 82 legal descriptions		10 MH
		Total All Items	2,165 MH

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Manhour Breakdown By Item

Item	Classification	Manhours
1) Pre-Survey	Cadd Supervisor	3
	Secretarial	3
2) Survey Reconnaissance	Survey Party Chief, S.I.T.	35
	Instrument Operator	35
3) Project Survey Plan	Cadd Supervisor	7
4) First Submittal Plat of Highways & Descriptions	Supervisor, P.L.S.	109
	Cadd Supervisor	530
5) Survey (Field)	Survey Party Chief, S.I.T.	419
	Survey Party Chief	46
	Instrument Operator	419
	Instrument Operator	46
6) Survey (Office)	Supervisor, P.L.S.	143
	Cadd Supervisor	37
7) Final Submittal Plat of Highway & Descriptions	Supervisor, P.L.S.	27
	Cadd Supervisor	62
	Secretarial	3
8) Coordination Meetings	Principal/Officer	2
9) QC/QA	Surveyor, P.L.S.	186
	Cadd Supervisor	53

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Breakdown of
In House Direct Costs

Item		
1. Pre-Survey Phase		
a. Trips to Recorder's Office - 1 ea. ± 30 miles/trip x 1 trip = ± 30 miles ± 30 miles @ $0.55/mile =		$ 16.50
b. Records from Recorder's Office		$ 20.00
	Sub-total Item #1	$ 36.50
2. Reconnaissance Survey		
a. Trips to project site – 4 ea. ± 50 miles/trip x 4 trips = ± 200 miles ± 200 miles @ $0.55/mile =		$ 110.00
4. First Submittal Plat of Highways & Descriptions		
a. Plat of Highways Mylars 51 sheets @ $5.00/sheet =		$ 255.00
5. Survey (Field)		
a. Trips to project site - 52 ea. ± 50 miles/trip x 52 trips = ± 2,600 miles ± 2,600 miles @ $0.55/mile =		$ 1,430.00

7. Final Submittal Plat of Highways & Descriptions

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

b. Record Monuments
4 Monument Records @ $39 each = $ 156.00

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

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

Sub-total Item #7 $ 219.25

8. Coordination Meetings

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

Total All Items $ 2,089.25

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Breakdown of
Services By Others

Item

1. Pre-Survey Phase

    a. Commitment for Title Insurance Letters
    54 Commitments @ $320.00 each = $ 17,280.00

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Exhibit "D"

Classification Types & Rates

Sheet 1 of 2

A. Supervisor, P.L.S.

B. Survey Party Chief, S.I.T.

C. Instrument Operator

D. Cadd Supervisor

Classification Rates used for Calculation of Fee

A. Supervisor, P.L.S. ..... $ 40.00
B. Survey Party Chief, S.I.T. ..... $ 22.75
C. Instrument Operator ..... $ 18.75
D. Cadd Supervisor ..... $ 28.50

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Exhibit "D"

Average Hourly Rate Calculation

Sheet 2 of 2

Supervisor, P.L.S.	9 hours	@	$40.00/hour	=	$ 360.00
Survey Party Chief, S.I.T.	9 hours	@	$22.75/hour	=	$ 204.75
Instrument Operator	9 hours	@	$18.75/hour	=	$ 168.75
Cadd Supervisor	11 hours	@	$28.50/hour	=	$ 313.50
	38 hours				$ 1,047.00

$$\text{Average Hourly Rate} = \frac{\$1,047.00}{38} = \$27.55/\text{hour}$$

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
Project:
County: Lake
Job No.:

COST ESTIMATE OF CONSULTANT'S SERVICES

Consultant: Jorgensen & Associates, Inc.
Date: August 30, 2013
No. of Parcels: 5 Fee Simple
Cost Plus Fixed Fee = 14.5% [(2.3 + R)DL + IHDC]

Item	Number of Man Hours (A)	Payroll (B)	Overhead & Fringe Benefits (C)	In-house Direct Costs (D)	Sub-Total (E)	Profit (F)	Services By Others	Total	Percent of Grand Total
1) Pre-Survey Phase	0	$0.00	$0.00	$0.00	$0.00	$0.00	N/A	$0.00	0.00%
2) Survey Reconnaissance	0	$0.00	$0.00	$0.00	$0.00	$0.00	N/A	$0.00	0.00%
3) Project Survey Plan	0	$0.00	$0.00	$0.00	$0.00	$0.00	N/A	$0.00	0.00%
4) First Submittal Plat of Highways and Descriptions	8	$251.00	$380.79	$0.00	$631.79	$83.71	N/A	$715.50	23.31%
5) Survey (Field)	18	$373.50	$566.64	$27.50	$967.64	$128.55	N/A	$1,096.19	35.71%
6) Survey (Office)	3	$120.00	$182.05	$0.00	$302.05	$40.02	N/A	$342.07	11.14%
7) Final Submittal Plat of Highways and Descriptions	4	$125.50	$190.40	$46.75	$362.65	$48.63	N/A	$411.28	13.40%
8) Coordination Meetings	0	$0.00	$0.00	$0.00	$0.00	$0.00	N/A	$0.00	0.00%
9) QC/QA	5	$177.00	$268.53	$0.00	$445.53	$59.03	N/A	$504.56	16.44%
TOTALS	38	$1,047.00	$1,588.40	$74.25	$2,709.65	$359.94	$0.00	$3,069.59	100.00%

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Manhour Breakdown
Land Acquisition Estimate

Potential Revisions to the Plat of Highways based on Negotiations

5 Parcels: 5 Fee Simple

1. Pre-Survey Phase
   Research available records

a.	Title Co.	)		
		)		
b.	Recorder's Office	)		
		)		
c.	LCDOT	)		
		)		
d.	Utilities	)		
		)		
e.	Private Surveyors	)		
f.	Land Owners	)		0 MH
			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	)		0 MH
			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	± 600'/sht. ± 2 sheets 3 hrs./sheet x 2 =	6 MH
g.	Legal descriptions	5 descriptions	2 MH
		Sub-total Item #4	8 MH

5. Survey (Field)

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

6. Survey (Office)

a. Compute traverse

b. Compute existing property boundaries & subdivision lines

c. Compile appraisal topography

d. Compute center line alignments

e. Compute proposed right of way & easements
3 hours x 1 man = 3 MH

Sub-total Item #6 3 MH

7. Final Submittal Plat of Highways & Descriptions

a. Final drafting ± 2 sheets
2 hours x 1 man = 2 MH

b. Final descriptions 5 descriptions 1 MH

c. Assembly of final papers 1 MH

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 1 MH

Total All Items 38 MH

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Manhour Breakdown By Item

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

Route: Weiland Road
Section: Lake-Cook Road to IL Route 22
County: Lake
Job No.:

Breakdown of
In House Direct Costs

Item	
5. Survey (Field)	
a. Trips to project site – 1 ea. ± 50 miles/trip x 1 trip = ± 50 miles ± 50 miles @ $0.55/mile =	$ 27.50
7. Final Submittal Plat of Highways	
a. Deliver Final Papers to L.C.D.O.T. office ± 25 miles/trip x 1 trip = ± 25 miles ± 25 miles @ $0.55/mile =	$ 13.75
b. Deliver Final Papers to I.D.O.T. ± 60 miles/trip x 1 trip = ± 60 miles ± 60 miles @ $0.55/mile =	$ 33.00
Total All Items	$ 74.25

CIVILTECH

Attachment C

Subconsultant Proposal

Midland Standard Engineering and Testing, Inc.

MSET

www.mset.com

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

August 30, 2013

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

Re: Proposal for Subsurface Exploration and Analysis
Weiland Road – Sound & Retaining Walls, Culvert Extension, and Storm Basins
Lake County, Illinois

Dear Mr. Magner:

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

Project Description and Scope of Work
The project includes the following items for subsurface exploration;

A. Detention Basin North of Pauline – Four (4) Borings
B. Noise Wall North of Newton Drive – Six (6) Borings
C. Culvert Headwalls South of Marvins Way – Two (2) Borings
D. Retaining Wall South of Old Weiland Road – Three (3) Borings
E. Detention Ponds (2) North of Aptakisic Road – Five (5) Borings
F. Retaining Wall East of Prairie Road – Seven (7) Borings

Method of Performance - Field Work and Laboratory Testing
The soil borings will involve drilling test holes that incorporate standard penetration tests and split-spoon sampling at 2-1/2 foot intervals. A total of twenty-seven (27) soil borings will be drilled to depths of fifteen (15) to twenty-five (25) feet below the ground surface, in accordance with the schedule included in the RFP. The borings will be performed in compliance with the current State of Illinois, Geotechnical Manual. In our proposal, we have assumed that the final locations and elevations will be determined by the design section engineer or will be referenced to centerline stationing provided by the DSE.

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

Method of Performance - Analysis and Report

The structure boring information will be presented on borings logs. The results of this field exploration and laboratory testing would be used in an analysis and formulation of our recommendations. Major subject areas for our analysis, recommendations and report would consist of stating the subsurface soil and ground water conditions, foundation types to be considered, excavation, and earth pressure recommendations for the various retaining wall types to be considered for the project. A written SGR reports summarizing and presenting the data and recommendations will be prepared by a Registered Professional Engineer.

Timing & Access

We will begin on work after notice to proceed and as utility clearance becomes available. We have anticipated that the detention basin borings will require permission access the property and for us to clear small trees and brush for access paths to the boring locations. We plan on mobilizing and doing all the borings concurrently. The final reports are expected to be complete with in six weeks after notice to proceed.

Fees

We propose to provide this work at the unit rates quoted on the attached Schedule of Services and Fees, Attachments 1.1 and 1.2. These estimated quantities and unit rates are based on information as outlined in this proposal and experience on past projects. On the basis of the above information, we estimate that these services can be provided for a fee of **$ 26,810.00**.

General

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

Respectfully submitted,
MIDLAND STANDARD ENGINEERING & TESTING, INC.

William J. Wyzgala, P.E.
Principal Engineer

WJW

Enclosure: Attachments 1.1, 1.2, and General Conditions

ATTACHMENT 1.1
SCHEDULE OF SERVICES AND FEES

Weiland Road - Basins, Culvert, & Walls
Lake County, Illinois

Item	Estimated Quantity	Unit Cost	Extention
Field Services			
Mobilization of Drilling equipment, lump sum	1	$500.00	$500.00
Soil boring with soil sampling,/l.f.	560	$21.00	$11,760.00
Shelby Tube Sample, each	2	$35.00	$70.00
		Field Services Total:	**$12,330.00**
Laboratory Services			
Moisture Content Determinations, ea	230	$6.00	$1,380.00
Grain Size Analysis, Hydrometer, ea.	2	$90.00	$180.00
Atterberg Limit Test, ea.	2	$80.00	$160.00
		Laboratory Services Total:	**$1,720.00**

Engineering Services for SGR Geotechnical Report Including:

Layout Coordination
Utility Clearance and Permits
Field Supervision During Drilling
Preparation of Soil Boring Logs
Analysis and Recommendations
Report Preparation and Consultation

Estimated Cost (@ Unit Rates Listed on Attachment 1.2) **$12,760.00**

TOTAL: **$26,810.00**

ATTACHMENT 1.2

ENGINEERING SERVICES

Weiland Road - Basins, Culvert, & Walls
Lake County, Illinois

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

	Estimated Quantity	Rate/Hour	Extentsion
Principal Engineer, per hr.	8	$155.00	$1,240.00
Project Engineer, per hr.	20	$125.00	$2,500.00
Staff Engineer, per hr.	30	$90.00	$2,700.00
Field Engineer, per hr.	60	$90.00	$5,400.00
Technician, per hour	8	$80.00	$640.00
Draftsman/Word Processing, per hr.	4	$70.00	$280.00
			$12,760.00

MIDLAND STANDARD ENGINEERING & TESTING, INC.

FEE AND RATE SCHEDULE
GENERAL CONDITIONS

ENGINEERING AND ASSOCIATED SERVICES

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

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

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

REIMBURSABLE EXPENSES

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

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

TEST BORINGS AND FIELD INVESTIGATIONS

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

SPECIAL RATES

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

INCREASES

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

ACCESS TO SITES

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

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

INSURANCE

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

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

LIMITATION OF PROFESSIONAL LIABILITY

The Client recognizes the inherent risks connected with construction. In performing our professional services, we will use that degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of our profession practicing in the same or similar locality. No other warranty, express or implied, is made or intended by the proposal for consulting service or by furnishing oral or written reports of the findings made. It is agreed that the Client will limit any and all liability, claim for damages, cost of defense or expenses to be levied against us on account of any design defect, error, omission, or professional negligence to a sum not to exceed $50,000, or the amount of our fees, which ever is greater.

INVOICES

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

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

CIVILTECH

Attachment D

Subconsultant Proposal

Stuedemann Environmental Consulting

STUEDEMANN
ENVIRONMENTAL CONSULTING

September 5, 2013

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

SUBJECT: Proposal to Provide Phase II Wetland Science Services
Weiland Road Improvements, Lake Cook Road to IL Route 22
Buffalo Grove, Lake County, Illinois

Dear Mr. Magner :

Stuedemann Environmental Consulting, LLC (SEC) is pleased to present Civiltech Engineering, Inc. (Civiltech) with this proposal to provide wetland science services for the Phase II engineering design of the Weiland Road Improvements, Lake Cook Road to IL Route 22 (Weiland Road Project) project located in Buffalo Grove, Prairie View, and Lincolnshire, in Lake County, Illinois. Services presented herein coincide with the Phase II transportation engineering related services provided by Civiltech to the Lake County Division of Transportation (LCDOT), and include a wetland delineation update and wetland permit submittals to the Lake County Stormwater Management Commission (LCSMC) and joint application submittals to the U.S. Army Corps of Engineers (USACE) Chicago District. 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 the LCDOT has retained Civiltech to perform Phase II transportation engineering services for the Weiland Road Project. Proposed improvements include widening of Weiland Road from Lake Cook Road to Aptakisic Road, realignment of Prairie Road from Aptakisic Road to Miramar Lane, and widening of Prairie Road from Miramar Lane to IL Route 22. Based on funding availability, these improvements have been divided into four construction stages:

Stage 1: Prairie Road Realignment, Aptakisic Road to Prairie Road at Miramar Lane
Stage 2: Weiland Road Improvements, Lake Cook to Deerfield Parkway
Stage 3: Weiland Road Improvements, Deerfield Parkway to Aptakisic Road
Stage 4: Prairie Road Improvements, Miramar Lane to IL Route 22

The total length of the Weiland Road Project is approximately 3.1 miles. The Project Corridor includes all areas identified in the Phase I services of the Weiland Road Project. This includes areas within the Weiland Road and Prairie Road roadway right-of-way (ROW), and an additional 100 feet beyond the

ROW as required by the July 10, 2012, edition of the *Lake County Watershed Development Ordinance* (LCWDO).

SEC understands that Civiltech is seeking wetland science consulting services for the Phase II transportation engineering design of the Weiland Road Project. These services include an update of the January 9, 2009, Weiland Road Phase I Study Wetland Delineation Report prepared by Roux Associates, Inc. (Roux Report). Services presented in this proposal are in accordance with the regulatory requirements promulgated in the LCWDO and the April 1, 2012, edition of the USACE Chicago District Regional Permit Program (RPP).

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

1. Authorization for access to areas within the Project Corridor to conduct field investigations will be provided to SEC by Civiltech and LCDOT;
2. All state and federal endangered and threatened species consultations have been terminated and are not included in this scope of work;
3. No Lake County Advanced Identification (ADID) wetlands or High-Quality Aquatic Resources (HQAR) are within, adjoining, or adjacent to the Project Corridor;
4. Wetland mitigation banking coordination is included in this scope of work, however, wetland mitigation design, plan preparation, monitoring, and management services are not included in this scope of work;
5. Missing wetland delineation flags that were previously surveyed will be replaced by Civiltech's surveyor for SEC review and regulatory boundary verification;
6. AutoCAD files used for the Roux Report will be provided to SEC for editing and inclusion in the Wetland Delineation Report Update;
7. Permit submittal fees are not included in this proposal and are the responsibility of LCDOT and Civiltech; and
8. Permitting procedures for the RPP will be followed; however, if an Individual Permit (IP) is required, SEC will notify Civiltech to discuss permitting requirements, alternatives, and services.

SCOPE OF WORK

SEC proposes to complete the Weiland Road Project wetland science services in four tasks:

Task 1: Wetland Delineation Report Update
Task 2: Initial USACE and LCSMC Permit Submittal
Task 3: Staged USACE and LCSMC Permit Support
Task 4: USACE and LCSMC Permit Re-submittal

Task 1: Wetland Delineation Report Update

As part of this task, SEC will prepare a Wetland Delineation Report Update of the Roux Report. This report includes all four construction stages of the Weiland Road Project. 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 LCWDO 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 LCWDO. SEC's Lake County Certified Wetland Specialist will conduct these on-site investigation activities.

SEC will summarize all findings from this 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 three (3) copies and an Adobe PDF file of the final Wetland Delineation Report Update to Civiltech.

Task 2: Initial USACE and LCSMC Permit Submittal

SEC will submit the Wetland Delineation Report Update to the USACE for concurrence and jurisdictional determination of WOUS, including wetlands, and to LCSMC for preliminary jurisdictional determination (PJD) and boundary verification (BV) of IWLC. Any fees required for these submittals have not been included in this scope of services and are the responsibility of LCDOT and Civiltech. SEC will attend a pre-application meeting with the USACE, LCSMC, LCDOT, and Civiltech. SEC understands that this meeting will include pre-application discussions regarding all four constructions stages of the Weiland Road Project.

SEC will prepare and submit all applicable wetland related permit materials for all four construction stages of the Weiland Road Project to Civiltech for inclusion in the permit submittals to the USACE and LCSMC. SEC understands these permits to specifically include the wetland provisions portion of the RPP Joint Application submittal to USACE and the LCWDO Watershed Development Permit (WDP) submittal to LCSMC. SEC understands that the Weiland Road Project will likely fall under the RPP, and that Civiltech may stage this submittal based on construction funding as it becomes available. All permit submittals will be prepared and submitted by SEC's Lake County Certified Wetland Specialist.

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

Task 3: Staged USACE and LCSMC Permit Support

SEC will assist Civiltech through the Weiland Road Project permitting process with the USACE and LCSMC for each additional stage permit submittal as funding becomes available. This task includes a pre-application meeting and consultation for each construction stage submittal. SEC will coordinate with Civiltech and the appropriate agencies to ensure that application materials are current and complete for

each submittal to the USACE and LCSMC. Submittal fees are the responsibility of the LCDOT and Civiltech.

Task 4: USACE and LCSMC Permit Re-submittal

SEC will coordinate with the USACE, LCSMC, Civiltech, and appropriate agencies with regard to wetland permit comments received from the USACE and LCSMC permit submittals. Services under this task include permit coordination and submittal for one subsequent re-submittal. SEC will coordinate with the appropriate agencies, and prepare and submit the appropriate permit applications to the USACE and LCSMC as necessary. Re-submittal fees are the responsibility of the LCDOT and Civiltech.

PROJECT TEAM

SEC proposes to manage this project out of Geneva, Illinois with an experienced support network of scientists who have significant experience with wetland science services in Lake County. Mr. Barry Stuedemann, P.E., P.W.S., will serve as Project Manager and Lake County Certified Wetland Specialist for the Weiland Road Project.

PROJECT SCHEDULE

SEC will proceed with the scope of work presented in this proposal 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 Weiland Road Project. Wetland field investigations, wetland field meetings with the USACE and LCSMC, and the final floristic quality assessment work must be completed during the Lake County growing season, from May 15th to October 1st, as required by the LCWDO. The schedule to complete each task is influenced by the responses, concerns, and requests of Civiltech and the concerning agencies.

PROJECT COSTS

SEC estimates the cost to complete tasks outlined in this proposal to be a maximum "not-to-exceed" fee of $19,920. An itemization of these costs is presented in Table 1, Cost Estimate for Consulting Services. A summary of these costs is as follows:

	SCOPE OF WORK	COSTS
Task 1:	Wetland Delineation Report Update	$7,280
Task 2:	Initial USACE and LCSMC Permit Submittal	$7,920
Task 3:	Staged USACE and LCSMC Permit Support	$1,380
Task 4:	USACE and LCSMC Permit Re-submittal	$3,340
Total:		**$19,920**

SEC will not proceed with any task without written authorization from Civiltech. SEC will bill Civiltech on a time and materials basis and will not exceed the estimated costs presented in this proposal without written authorization from Civiltech.

PROPOSAL ACCEPTANCE

To indicate your acceptance of this proposal, please sign and date below, and return to me by mail or e-mail. If you would like to authorize services by task, please indicate which tasks you are authorizing at this time. SEC will assume this signature and date as 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

Reid T. Magner, P.E.
Project Manager
Civiltech Engineering, Inc.
Phone: 630-773-3900
E-Mail: rmagner@civiltechinc.com

TABLE 1
Cost Estimate for Consulting Services

WETLAND SCIENCE SERVICES
WEILAND ROAD IMPROVEMENTS, LAKE COOK ROAD TO IL ROUTE 22
BUFFALO GROVE, LAKE COUNTY, IL

Prepared for Civiltech Engineering, Inc.
Prepared by Stuedemann Environmental Consulting, LLC

September 5, 2013

WEILAND ROAD PROJECT WETLAND SCIENCE SERVICES TASK DESCRIPTION	Project Manager	Project Coordinator	Total Hours	Total Labor Costs	Total Direct Costs*	Not-to-Exceed Costs
Task 1 - Wetland Delineation Report Update	40	8	48	$6,880	$400	$7,280
Task 2 - Initial USACE and LCSMC Permit Submittal	44	8	52	$7,520	$400	$7,920
Task 3 - Staged USACE and LCSMC Permit Support	8	0	8	$1,280	$100	$1,380
Task 4 - USACE and LCSMC Permit Re-submittal	16	8	24	$3,040	$300	$3,340
TOTAL:	**108**	**24**	**132**	**$18,720**	**$1,200**	**$19,920**

* Mileage = $400; Deliveries = $200; Copies = $600

CIVILTECH

Attachment E

Subconsultant Proposal

Visu-Sewer of Illinois, LLC

Visu-Sewer
Inspect. Maintain. Rehabilitate.

Proposal

To: Reid Magner, PE
Civiltech Engineering, Inc.
450 E. Devon Ave.
Itasca, IL 60143

Phone 630-773-3900 Fax 630-773-3975

From: Tom Woods
Cell 708-595-6336

Date: 9/20/2013

Project: Televise various sewer lines on Weiland Rd.

Visu-Sewer of Illinois is pleased to provide the following quotation to televise 4700± linear feet of varying diameter storm and sanitary sewer lines in six locations along Weiland Ave. in Buffalo Grove. Following the maps you supplied, we count something like 24± separate segments. The pipe sizes range from 8" sanitary to 33" storm. Access to these lines is fairly good, with the notable exception of the 30" storm that crosses the proposed road and flows in to a marsh.

This is primarily a CCTV project to assess the condition of the lines to ascertain whether any need replacing/rehabilitating during the roadway project. For most of the project we propose to have a jet truck on site to clean the lines ahead of the televising to allow us to see as close to 360° of the pipe as possible. We think we will need our combination jet/vac truck for the larger lines, especially the storm line that drains in to the marsh. This combination truck has the ability to vac debris out to the line, and a more powerful pump/motor to facilitate cleaning larger lines.

Because of the variety of sewer line diameters, the likelihood of differences in debris loads, the large number of line segments and multiple locations, we feel that the only way we can responsibly quote the entirety of this work is on a T&M basis. There is no good way to account for the varying probable production rates to allow us to calculate prices on per linear foot basis.

Our hourly rate for our jet only/TV crew is $380, or a $3040 eight-hour day. We estimate we will need three days for this crew. Our hourly rate for our combination jet/vac and TV crew is $475, or a $3800 day. We estimate we will need two days for this crew.

Here are a few assumptions, considerations and other notes.

1) Our traffic control will be limited to signs, cones and the flashing lights and directional arrows on the truck. If there are IDOT, county or other requirements for more extensive traffic control such as arrow boards, flaggers or lane closures, Visu-Sewer can arrange and coordinate that, and all costs for extra personnel and equipment will be passed on to you.
2) We assume we will be able to use hydrants along the route to fill our cleaning trucks at no charge. We will be happy to get a meter from the village to help them account for the water. If we need to pay for this water, we will pass the charges along to you. All our trucks have fixed air gaps, and our operators know to exercise the valves slowly.
3) If we end up sucking up debris from the storm lines we will dispose of that debris at a certified landfill at a cost of $65 per ton. We will decant the water we clean with back in to the system.

4) On the 30" line that empties in to the marsh, we will be prepared to build a temporary coffer dam and pump the water in the line over that dam to empty out the pipe to allow us to televise. We assume that you will handle any wetland permits and permissions necessary for this work. We are only thinking of a rather simple sandbag coffer dam. If we need to build something more sophisticated to comply with DNR or village requirements, we will need to discuss additional charges for equipment and personnel. We will make every attempt to schedule the televising of this line after a prolonged period of dry weather to minimize the coffer dam work necessary.
5) Civiltech will identify all structures and lines in all the locations. We will not uncover buried manholes.
6) We assume all this work is done during regular M-F working hours, with no time restrictions during the day. We also assume that, weather permitting, we will have only one mobilization and complete the project in consecutive days.
7) We will work with the village to locate a place to securely park our trucks overnight. Because travel time is chargeable, arranging that parking will increase the productivity of the crew each day.
8) You will receive a DVS-format DVD and written report of the televising video approximately a week after the job is completed. All defects will be noted following all PACP protocols. A representative of Civiltech or the village would be welcome to be present as we are doing the work. We recommend you designate someone for our crew to call in the unlikely event they run into an issue in the field that ought to have the village's immediate attention.

Thank you for considering Visu-Sewer of Illinois for the above project. If our proposal is accepted, please sign it and fax or scan/email it back to our office so we can schedule the work. If you have any questions please do not hesitate to contact me at 708-237-0340 (office) or 708-595-6336 (mobile).

All material guaranteed to be as specified. All work to be completed in a substantial workmanlike manner according to standard practices or specifications submitted. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. If a collapse of the original pipe results during the lining process, Visu-Sewer will not be held liable for costs associated with excavation, repairs or restoration. Our workers are fully covered by Workmen's Compensation Insurance. This proposal may be withdrawn if not accepted within 30 days of issue. Terms - Net 30 days.

Acceptance of Proposal

The above prices / conditions are satisfactory and are hereby accepted. Visu-Sewer is authorized to do the work as specified.

Date: _____ Signature: _____

Visu-Sewer of Illinois, LLC
9014 S. Thomas Ave, Bridgeview, IL 60455
www.visu-sewer.com
(P) 708-237-0340 (F) 708-237-0360

CIVILTECH

Attachment F

Subconsultant Proposal
Badger Daylighting Corp.

September 20, 2013

Civil Tech Engineering

August 22, 2013

Dear Mr. Reed Magner

Badger Daylighting is a *national service provider* with field offices throughout the United States and Canada. Badger is the leading provider of non-destructive hydro excavation services. Badger works with facility owners and as a *subcontractor* for companies like yours. It is our *goal* to safely excavate around buried utilities and obstructions, allowing your crews to be more productive. We can help you protect your work force, the clients' infrastructure and the environment.

The **Badger Daylighting Hydrovac** process employs pressurized water and a powerful positive displacement vacuum system to excavate, *even through frost.* The water is delivered through a handheld wand to cut through the soil, which is simultaneously removed by the vacuum to our on board debris tank, providing you with a safe, clean excavation.

Benefits of using Badger Daylighting:

- No damage to buried utilities or your infrastructure.
- Safety of personnel
- Reduced downtime and increased productivity.
- National company, able to dispatch units wherever your project is.
- Availability of multiple units to any jobsite.
- Experience and Safety of the leader in hydro-excavation.

Applications for the Badger system:

- Visual confirmation of buried utilities and obstructions prior to starting.
- Able to work in congested and remote areas.
- Slot trenching to investigate and for installation.
- Pilot holes for footings, piles, shoring, posts, poles, and caissons.
- Material removal from interior structures, culverts, and buildings.

<u>Estimate of work to be performed:</u>

- Assist the Client/Contractor as needed, including but not limited to, removing existing soils by the hydro-vac method of excavation to protect the existing infrastructure.
- Locate existing utilities, structures and obstructions, as per direction of the client/contractor.
- Potholing and slot trenching and excavating as needed.

September 20, 2013

The Contractor is responsible for the following:

- Permits and permission from property owners, utilities, and government agents
- Surface locates and traffic control, if needed
- Breaking, removal, and restoration of asphalt and or concrete, if needed.
- Adequate water source and dump site.
- Specific direction and locations for hydro-vac excavation
- Backfill and site restoration, if necessary.
- Shoring, dewatering, maintenance and barricading of the excavation.

Additional:

1. Badger is not responsible for suspect soil or materials.
2. The Badger crew will be able to work continuously, without undue disruption of service, or schedule.
3. If remote work is needed (more than 20 feet from the unit) additional operator and or equipment may be necessary.
4. Large rock, wood, debris, and or existing obstructions, may alter this proposal.
5. Unstable ground conditions, wet and running sand and or cave-ins, that requires the contractor to provide and install additional equipment and materials may alter this proposal.

Scope of Work

6-8 Locates per Day

Hydro Vac Excavate: Spot Utilities

- One Badger Unit/One Man
- Mobilization/Demobilization
- Water
- Dumping of Spoils($250.00 per load additional)
- 10 hr. shift

TOTAL: $3,135.00 per day

Accessorial Charges:

❖ Slurry Sand (backfill)	$120.00 per cu. Yd
❖ 16" Street Core	$350.00 per core

September 20, 2013

Badger Daylighting Service Rates (Non-Remote)

Standard Rate: $245.00 per hour
- One (1) operator and one (1) Badger Hydrovac unit
- Based on 8 hours per day
- Four (4) hour minimum

Overtime Rates: $285.00 per hour
- One (1) operator and one (1) Badger Hydrovac unit
- Over 8 hours per day or 40 hours per week

Sunday's and Holiday Rates $360.00 per hour
- One (1) operator and one (1) Badger Hydrovac unit
- Four (4) hour minimum

- If work requires remote (>20' from hydrovac unit) operation, Customer will incur charges for additional pipe and operator.

Badger Daylighting (Remote) Service Rates

Standard Rate: $285.00 per hour
- Two (2) man crew and one (1) Badger Hydrovac unit
- Based on 8 hours per day
- Four (4) hour minimum

Overtime Rates: $315.00 per hour
- Two (2) man crew and one (1) Badger Hydrovac unit
- Over 8 hours per day or 40 hours per week

Sunday's and Holiday Rates $395.00 per hour
- Two (2) man crew and one (1) Badger Hydrovac unit
- Four (4) hour minimum

Accessorial Charges

Mobilization (portal to portal): $185.00 per hour
Mobilization (portal to portal): Sundays and Holidays $210.00 per hour
Subsistence: Per Operator $130.00 per day
- If overnight stay is required

September 20, 2013

General Conditions

1. Except where superseded by an existing services agreement the following terms and conditions apply to this quoted business.
2. Payment terms: Net 30 Days
3. Customer responsible for providing water source. If Badger is required to supply water source additional charges may apply.
4. Disposal of spoils not included in above quoted rates.
5. A cancellation fee of $470 will be assessed in the event work is cancelled after Operator is onsite.

The Badger Advantage:

❖ *Remote excavation:* Because of the powerful vacuum system the Badger can easily excavate 200 feet from the truck.

❖ *8 inch Dig tube:* This allows for maximum debris and stone removal, even to depths past 40 feet.

❖ *Telescoping Boom:* Our remote controlled, 6-way, telescoping boom allows for quick positioning of the dig tube no matter how congested the area.

❖ *Water Tank:* Each self-contained unit has a 1200-gallon water tank with multiple filling options, so that less time is spent filling with water.

❖ *Debris Tank:* The 2400-gallon debris tank allows us to excavate longer before needing to off load, thus increasing productivity.

❖ *Heater:* Each Badger unit is equipped with a 1.2 million BTU heater, which can continuously provide water heated to 150 F, making it possible to cut through frost and hard clay.

❖ *Positive displacement blower:* Please do not confuse the Badger unit with a sewer sucker. Our vacuum is not fan driven. The Badger system makes a substantial difference in excavation ability, and productivity.

Safety

In addition to Badger Hydrovac's providing the safest excavating method where existing underground utilities are found, all Badger agents are highly trained to meet our stringent standards for safe work and Best Practices procedures. Badger employs a full time National Safety Coordinator and has developed industry leading safety policy & procedures.

Thank you for the opportunity to provide Badger Daylighting services. To schedule service please call (815) 200-2064.

Sincerely,

Scott Schulz
Badger Daylighting Corp.
Joliet Area Manager
24240 N. Illinois Drive
Channahon, IL 60410
Phone: 815-200-2064
Fax: 815-467-8494
E-mail: sschulz@badger-corp.com

CIVILTECH

Attachment G

Subconsultant Proposal
Huff and Huff, Inc.

Huff & Huff, incorporated
environmental engineers
and consultants

915 Harger Road, Suite 330
Oak Brook, IL 60523
Phone (630) 684-9100
Fax (630) 684-9120
Website: http://huffnhuff.com

August 30, 2013

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

Re: Preliminary Site Investigation (PSI) – Weiland Road Improvements Project – Buffalo Grove, Prairie View, & Lincolnshire – Lake County, Illinois
Proposal No. T13-112I

Dear Mr. Magner:

Huff & Huff, Inc. (Consultant) is pleased to submit this proposal to Civiltech Engineering, Inc. (Client) to perform a Preliminary Site Investigation (PSI) for the referenced project, based upon the Preliminary Environmental Site Assessment (PESA) Report completed by others. The scope of services proposed by Consultant addresses soil handling issues associated with Clean Construction and Demolition Debris (CCDD) certification, as appropriate along with the PSI in support of the reconstruction project being undertaken by Client for the Lake County Division of Transportation (LCDOT).

This proposal for the local roads portion presents our project approach, the scope of services, and cost related to borings along rights-of-way, including borings related to construction of detention basins. This proposal does not include scope or fee specifically related to due diligence on parcels proposed for acquisition with the exception of detention basin related characterization of soils.

1. PROJECT UNDERSTANDING

The approximate project limits along the Weiland Road project corridor extend from Lake-Cook Road to Half-Day Road/IL Route 22 through the proposed route connecting Weiland Road to Prairie Road north of Aptakisic Road. The proposed improvement will consist of reconstruction of the roadways identified above with ROW acquisition to accommodate the proposed connection of Weiland Road to Prairie Road and acquisition to accommodate proposed detention basin construction.

It should be noted that another contract has coverage of a portion of Weiland Road extending from IL Route 83/McHenry Road to Pauline Avenue, with the overlap occurring along Weiland Road between Lake-Cook Road and Pauline Avenue (approximately 2,500 linear feet).

Excavation will be required to accommodate pavement, utility, signal replacements and drainage improvements. In addition, a shared-use path is proposed along portions of the project corridor.

A PESA, dated May 25, 2012 was conducted by Cardno Entrix and ATC Associates, Inc. for the project corridor including:

- Weiland Road (from Pauline Avenue to Aptakisic Road);
- Aptakisic Road (from Bond Street to Joseph Court);
- North Prairie Road (from Aptakisic Road to Half-Day Road/IL Route 22); and
- Connection area near Pet Lane to north of Aptakisic Road, extending northwest generally between Avalon Drive and Arlyd Road.

The PESA concluded that recognized environmental conditions (RECs) or potentially impacted properties (PIPs) are associated with the project corridor. Specifically the Findings Section of the PESA indicates "*potential hazards were identified at seven (7) properties that may directly affect the Weiland Road Project. In addition, ten (10) low risk hazards, which were not involved with regulated substances of significant quantity; were mentioned for awareness during the Weiland Road Project.*

The sites identified as **HIGH RISK** are documented below:

1. Rolling Hills Nursery – (Oil-Dri Corporation of America) 22149 North Pet Lane as a RCRA-SQG of hazardous waste and Facility Index System (FINDS) facility and concerns with introduction of chemicals into the on-site septic system;
2. Residential Property – (Caribbean Landscape, Inc.) 23084 North Prairie Lane as a site with what appears to be a junk-yard on a portion of the site and apparent oil-stained bare soils and concerns with introduction of cehmicals into the on-site septic system;
3. Weiland Partnership/Weiland Property/Weiland Brothers Greenhouse – 21555 North Weiland Road as a RCRA-Non Generator of hazardous waste, FINDS, UST, and LUST facility;

The sites identified as **MODERATE RISK** are documented below:

1. Wooded Land – 22825 North Prairie Road as a site noted to have fly dumping and abandoned heating oil AST on site;
2. American Pet Hotel – 22096 North Pet Lane with concerns of historic land use as a nursery and introduction of chemicals into the on-site septic system;
3. Single-family residences along west Aptakisic Road (between Weiland Road and Pet Lane) with field reconnaissance noting debris, drums, containers, vehicle parts, non-operational vehicles, and concerns for introduction of chemicals into the on-site septic systems;
4. Aptakisic Jr. High School – 1231 North Weiland Road as a FINDS, UST, and LUST facility;

The remaining sites documented in the PESA were considered **LOW to NO RISK** and therefore, not included in the scope of this PSI proposal.

Consultant utilized findings summarized in the PESA document to locate proposed borings for completion during the PSI as documented in the Scope of Services presented below. Soil samples appropriate for the identified contamination risk from the areas of potential concern will be analyzed for petroleum constituents including volatile organic compounds (VOCs) or benzene, toluene, ethylbenzene and xylenes and poly-nuclear aromatic hydrocarbons (PNAs), pesticides, herbicides, metals as appropriate based on location. Analytical results will be reviewed and a report will be prepared summarizing and comparing the results to the Illinois Environmental Protection Agency's Tiered Approach to Corrective Action (TACO) standards and assessing areas requiring special handling or disposal.

The PSI will also include collection of soil samples for assessment of appropriate disposal practices and consideration as CCDD for the project corridor and also for proposed detention basin locations. The detention basin sampling will be conducted by others (geotechnical work) with Consultant Coordinating for split samples for environmental/CCDD purposes. 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). Collection of soil samples for landfill permitting is not included as part of this scope as analytical results should remain applicable based on the construction schedule.

2. SCOPE OF SERVICES

Task 1 Preliminary Site Investigation (PSI)

H&H utilized the findings of the PESA Document to preliminarily locate up to **fifteen (15)** soil borings along the project corridor to address the RECs. The **fifteen (15)** borings are associated with the following sites identified in the PESAs, including acquisition and CCDD considerations:

- Rolling Hills Nursery – (Oil-Dri Corporation of America) 22149 North Pet Lane (4 borings);
- Residential Property – (Caribbean Landscape, Inc.) 23084 North Prairie Lane (2 borings);
- Weiland Partnership/Weiland Property/Weiland Brothers Greenhouse – 21555 North Weiland Road (3 borings);
- Wooded Land – 22825 North Prairie Road (2 borings);
- American Pet Hotel – 22096 North Pet Lane (Combined with others already stated);
- Single-family residences along west Aptakisic Road between Weiland Road and Pet Lane (2 borings); and
- Aptakisic Jr. High School – 1231 North Weiland Road (2 borings);

To account for CCDD disposal considerations, in areas without identified RECs or PIPs, samples will still need to be collected for soil pH to depths consistent with project plans. Consultant proposes an additional **fifteen (15)** borings for general CCDD purposes to properly determine pay items for project specifications.

In addition, to account for CCDD disposal considerations in areas where detention ponds are proposed which require excavation, consultant proposes to coordinate with others that are conducting geotechnical assessment of these proposed detention basin areas. Per the Preliminary Project Plans provided by Client, a total **nine (9)** borings are proposed for this purpose. Consultant will coordinate with the geotechnical firm and collect split samples from these borings. Therefore, a total of **thirty-nine (39)** soil borings are proposed for various purposes for the PSI, including assessment of RECs/PIPs and CCDD considerations. However, this proposal accounts for costs for the drilling subcontractor related to borings for the RECs and general corridor CCDD considerations (30 soil borings). The drilling costs related to the remaining soil borings (9) for detention pond assessment will be covered by others.

The depths are all proposed to be within eight (8) feet of existing ground surface for bidding purposes only. Consultant will revise depths of planned borings prior to mobilization consistent with project plans as provided by Client. It should be noted that Consultant will include outside direct costs associated with the advancement of soil borings at these locations and will include traffic control costs to work within existing rights-of-way. Access to specific properties, if necessary is assumed to be the responsibility of the Client and Consultant has not included costs to be the primary contact for these access issues.

Task 2 Analytical

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

- **Volatile Organic Compounds** (up to 10 samples) – VOCs are volatile compounds found in gasoline and related to various solvents;

- **Benzene, Toluene, Ethyl benzene, and Xylene (BTEX)** (up to 10 samples) – BTEX are volatile compounds found in gasoline and other volatile petroleum-based products; and

- **Polynuclear Aromatic Compounds (PNAs)** (up to 20 samples) – PNAs are semi-volatile compounds commonly formed during incomplete combustion of organic compounds. PNAs can be formed by the combustion of wood, coal, and petroleum products. They are also found in less refined, nonvolatile petroleum products and can be used to identify potential for diesel or fuel oil contamination in soil.

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

- **Select Total RCRA Metals** (up to 15 samples) – Federal environmental regulations identify eight (8) heavy metals as hazardous if present in a *solid waste* at concentrations above varying threshold concentrations. Select soil samples collected for this project will be analyzed for the presence of metals believed to be present and associated with the RECs (PIPs). Total lead is the only metal associated with LUST sites, no other metals

will be analyzed for LUST sites. However, additional select metals may be warranted for CCDD considerations. These select samples will be analyzed for consideration as Clean Construction and Demolition Debris (CCDD).

- **SPLP Metals** (up to 15 samples) – The SPLP, or Synthetic Precipitation Leaching Procedure is designed to determine the mobility of both organic and inorganic analytes present in solid wastes. This analytical method will only be used if required to determine final disposition of spoils if a sample indicates elevated levels of metals which require further analysis for disposal.

- **Pesticides/Herbicides** – (up to 10 samples) Pesticides and herbicides are associated with historic and/or current land uses at the facilities identified as landscape and/or nurseries.

In addition, up to 37 soil samples will be analyzed for pH to evaluate the acidic or alkaline characteristics of a liquid or solid. High concentrations of either acid or alkaline materials introduced into the environment can impair the effected environment. Soil pH is important in assessing metal concentrations relative to migration to groundwater according to TACO Tier 1 objectives and the CCDD Maximum Allowable Concentrations (MACs).

Task 3 PSI Report Preparation

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

Task 4 CCDD Determination and LPC Form/Packet Completion

This task includes time for preparing the PE certification needed for CCDD under the new IEPA regulations, based upon analytical results. Where appropriate, the LPC-662 Form shall be utilized (cases of no RECs or PIPs as an owner-signed form); or the LPC-663 Form will be utilized with Consultant signing and stamping the form (cases with RECs/PIPs identified and laboratory analytical completed to document soil conditions relative to REC/PIP). Analytical results shall from all borings proposed for the project corridor, as necessary to determine suitability for earth excavation to be accepted at a CCDD facility.

Task 5 Project Management

For this task, the scope of work includes time necessary to manage the project, including scheduling and coordination with the prime consultant, drillers, traffic control, and environmental laboratories.

Task 6 QA/QC

For this task, time has been allotted for quality assurance/quality control, specifically for review of laboratory analytical information and internal document review.

3. PROJECT COSTS

The estimated man-hours and project costs are included in the attached tables. It is assumed that the driller can access the boring locations within existing rights-of-way and/or on private properties if sampling related to acquisition is required of specific parcels. Traffic control costs have been included in the estimate with the assumption that this service will be required for work within the rights-of-way along Weiland Road, Aptakisic Road, and Prairie Road. It is anticipated that all soil cuttings will be returned to the boring from which it originated. No disposal of waste material is anticipated from proposed soil borings. In addition, Consultant assumes that others will conduct the drilling services required for geotechnical purposes within the proposed detention basins and fee is only included for the 30 soil borings proposed to address RECs/PIPs and CCDD along the project corridor.

4. SCHEDULE

We anticipate that work will begin for the PSI within 10 days of the Notice to Proceed and will be completed within 16 weeks from the start date unless access problems arise. Please indicate acceptance of this agreement by returning a signed copy of this agreement or a purchase order incorporating the terms of the agreement. We appreciate the opportunity to work with you and look forward to a successful completion of the project. If you have any questions concerning our proposed scope of services or fees, please contact us.

CONTRACT TERMS

1. CONSULTANT'S SERVICES: The Consultant's (Huff & Huff, Inc.) services shall consist of those tasks described in Section 2.

2. SCHEDULE: The Consultant's work under this Agreement shall begin within two weeks of receipt of written notice to proceed or a signed copy of this Agreement.

3. COMPENSATION: The fee basis for the scope of work, as outlined in Section 3, pertains to the specific scope work.

4. DIRECTION: For work performed under this Agreement, Consultant shall take direction from the CLIENT.

5. CHANGES: This Agreement may only be changed by written amendment which specifies the terms being revised and which has been signed by both parties hereto.

6. PROJECT DATA: The Consultant, in coordination with the CLIENT, shall obtain from the appropriate sources all data and information necessary for the proper and complete execution of the Consultant's services.

7. INDEPENDENT CONSULTANT: The Consultant shall be deemed to be an independent contractor in all its operations and activities hereunder. The employees furnished by Consultant to perform the work shall be deemed to be Consultant employees exclusively, and said employees shall be paid by Consultant for all services in this connection. The

Consultant shall be responsible for all obligations and reports covering Social Security, Unemployment Insurance, Workmen's Compensation, Income Tax, and other reports and deductions required by an applicable state or Federal law.

8. RIGHTS OF WORK PRODUCT: CLIENT shall have unlimited rights in all drawings, designs, specifications, notes, and other work developed in the performance of this contract, including the right to use same on any other work without additional cost to the CLIENT. The Consultant shall not be liable for any use or reuse of the drawings, designs, specifications, notes and other work for use other than intended under the terms of this Agreement.

9. INDEMNIFICATION: The Consultant hereby agrees to indemnify and hold harmless the CLIENT and any proper owners whose property it is necessary to access in the performance of this work, against any and all liability, loss, damages, demands, or actions or causes of action, which may result from any damages or injuries sustained by a person or entity in connection with or on account of any negligent act or omission of the Consultant or its employees relating to its obligations pursuant to this Agreement.

10. TERMINATION: CLIENT may terminate this Agreement at any time upon ten (10) days written notice for whatsoever reason, provided CLIENT shall pay the Consultant a reasonable fee for work satisfactorily performed prior to the effective date of termination. In no case, however, shall the total amount paid to Consultant exceed the amount set out above.

11. INSURANCE: The Consultant shall maintain insurance as set forth in the prime contract, if attached, or as set forth below.

    a. Worker's Compensation and Employer's Liability Insurance: Worker's Compensation in compliance with applicable State and Federal laws.
    b. Comprehensive General Liability Insurance for Bodily Injury and Property Damage to a combined single limit of $2,000,000 per occurrence/claim or an umbrella of $3,000,000.
    c. Comprehensive Automobile Liability Insurance, including owned, hired, and non-owned automobiles, for Bodily Injury and Property Damage to a combined single limit of $1,000,000 per occurrence/$2,000,000 aggregate.
    d. Professional liability insurance $2,000,000 on a claims made basis.

12. STANDARD OF CARE: Services performed by the Consultant under this Agreement will be conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions.

13. RETENTION OF RECORDS: Consultant shall maintain complete records of all hours billed and direct costs incurred under this Agreement so as to accurately reflect the services performed and basis for compensation and reimbursement under this Agreement.

14. LEGAL: This Agreement shall be construed and interpreted solely in accordance with the laws of the State of Illinois.

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	CLIENT
	HUFF & HUFF, INC.	CIVILTECH ENGINEERING, INC.
	Linda L Huff	
	Signature	Signature
By:	Linda L. Huff, P.E.	
	Typed Name	Typed Name
	President	
	Officer's Title	Officer's Title
	August 30, 2013	
	Date	Date

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Illinois Department of Transportation

Payroll Escalation Table
Fixed Raises

FIRM NAME	Huff & Huff, Inc.	DATE	8/30/2013
PRIME/SUPPLEMENT	Civiltech	PTB NO.	

CONTRACT TERM	12	MONTHS	OVERHEAD RATE		137.58%
START DATE	9/1/2013		COMPLEXITY FACTOR		0
RAISE DATE	1/1/2014		% OF RAISE		3.00%

ESCALATION PER YEAR

9/1/2013 - 1/1/2014	1/2/2014 - 9/1/2014			
4 / 12	8 / 12			
= 33.33%	68.67%			
= 1.0200				

The total escalation for this project would be: **2.00%**

Illinois Department of Transportation

Payroll Rates

FIRM NAME Huff & Huff, Inc. **DATE** 8/30/2013
PRIME/SUPPLEMENT Civiltech
PTB NO.

ESCALATION FACTOR 2.00%

CLASSIFICATION	CURRENT RATE	ESCALATED RATE
Principal	$65.84	$67.16
Senior Project Manager	$56.60	$57.73
Senior Transp. Planner	$37.91	$38.67
Senior Engineer III	$0.00	$0.00
Senior Engineer II	$35.64	$36.35
Senior Engineer I	$35.72	$36.43
Senior Scientist IV	$46.32	$47.25
Senior Scientist III	$36.05	$36.77
Senior Scientist II	$27.84	$28.40
Senior Scientist I	$0.00	$0.00
Senior Geologist I	$33.44	$34.11
Transportation Planner	$0.00	$0.00
Project Engineer II	$33.48	$34.15
Project Engineer I	$26.98	$27.52
Project Scientist I	$20.18	$20.58
Project Geologist I	$19.00	$19.38
Project Associate	$24.00	$24.48
Senior CADD I	$36.72	$37.45
CADD II	$26.78	$27.32
CADD I	$20.16	$20.56
Admin. Manager I	$32.52	$33.17
Administrative IV	$22.00	$22.44
Administrative III	$0.00	$0.00
Administrative II	$20.00	$20.40
Administrative I	$0.00	$0.00
Interns	$16.00	$16.32
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00
		$0.00

Illinois Department of Transportation

Cost Estimate of Consultant Services (CPFF)

Firm	Huff & Huff, Inc.
Route	Weiland Road
Section	Lake-Cook to IL Rte 22
County	Lake
Job No.	
PTB & Item	

Date 8/30/2013

Overhead Rate **137.58%**

Complexity Factor **0**

Item	Manhours	Payroll	Overhead & Fringe Benefits	In-House Direct Costs	Fixed Fee	Outside Direct Costs	Services By Others	Total	% of Grand Total
PSI	53	1,507.54	2,074.07	499.80	597.09	0.00	11,600.00	16,278.51	50.72%
Analytical	2.5	72.09	99.19	4.50	25.74	9,570.00	0.00	9,771.52	30.45%
PSI Report	43	1,251.44	1,721.73	24.60	439.07	20.00	0.00	3,456.83	10.77%
CCDD	16.5	521.77	717.85	33.60	186.45	20.00	0.00	1,479.67	4.61%
Project Management	5	170.54	234.63	0.00	59.35	0.00	0.00	464.53	1.45%
QA/QC	5	236.64	325.57	0.00	82.35	0.00	0.00	644.56	2.01%
TOTALS	125	3,760.03	5,173.04	562.50	1,390.05	9,610.00	11,600.00	32,095.62	100.00%

Method of Compensation:

Cost Plus Fixed Fee 1	[X]	14.5%[DL + R(DL) + OH(DL) + IHDC]
Cost Plus Fixed Fee 2	[ ]	14.5%[DL + R(DL) + 1.4(DL) + IHDC]
Cost Plus Fixed Fee 3	[ ]	14.5%[(2.3 + R)DL + IHDC]
Specific Rate	[ ]	
Lump Sum	[ ]	

Illinois Department of Transportation

Average Hourly Project Rates

Route	Weiland Road
Section	Lake-Cook to IL Rte 22
County	Lake
Job No.	
PTB/Item	

Consultant Huff & Huff, Inc.

Date 8/30/2013

Sheet 1 **OF** 2

Payroll Classification	Avg Hourly Rates	Total Project Rates			PSI			Analytical			PSI Report			CCDD			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	67.16	4.5	3.60%	2.42	0.5	0.94%	0.63				1	2.33%	1.56	1	6.06%	4.07			
Senior Project Manager	57.73	0																	
Senior Transp. Planner	38.67	0																	
Senior Engineer III		0																	
Senior Engineer II	36.35	0																	
Senior Engineer I	36.43	0																	
Senior Scientist IV	47.25	0																	
Senior Scientist III	36.77	0																	
Senior Scientist II	28.40	0																	
Senior Scientist I		0																	
Senior Geologist I	34.11	19.5	15.60%	5.32	4	7.55%	2.57	0.5	20.00%	6.82	3	6.98%	2.38	4	24.24%	8.27	5	100.00%	34.11
Transportation Planner		0																	
Project Engineer II	34.15	0																	
Project Engineer I	27.52	86	68.80%	18.93	48	90.57%	24.92	2	80.00%	22.02	30	69.77%	19.20	6	36.36%	10.01			
Project Scientist I	20.58	0																	
Project Geologist I	19.38	0																	
Project Associate	24.48	0																	
Senior CADD I	37.45	3	2.40%	0.90							2	4.65%	1.74	1	6.06%	2.27			
CADD II	27.32	8	6.40%	1.75							5	11.63%	3.18	3	18.18%	4.97			
CADD I	20.56	0																	
Admin. Manager I	33.17	0.5	0.40%	0.13	0.5	0.94%	0.31												
Administrative IV	22.44	3.5	2.80%	0.63							2	4.65%	1.04	1.5	9.09%	2.04			
Administrative III		0																	
Administrative II	20.40	0																	
Administrative I		0																	
Interns	16.32	0																	
		0																	
		0																	
		0																	
		0																	
TOTALS		125	100%	$30.08	53	100%	$28.44	2.5	100%	$28.84	43	100%	$29.10	16.5	100%	$31.62	5	100%	$34.11

Illinois Department of Transportation

Average Hourly Project Rates

Route	Weiland Road
Section	Lake-Cook to IL Rte 22
County	Lake
Job No.	
PTB/Item	

Consultant: Huff & Huff, Inc.

Date: 8/30/2013

Sheet 2 OF 2

Payroll Classification	Avg Hourly Rates	QA/QC Hours	QA/QC % Part.	QA/QC Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	67.16	2	40.00%	26.86															
Senior Project Manager	57.73																		
Senior Transp. Planner	38.67																		
Senior Engineer III																			
Senior Engineer II	36.35																		
Senior Engineer I	36.43																		
Senior Scientist IV	47.25																		
Senior Scientist III	36.77																		
Senior Scientist II	28.40																		
Senior Scientist I																			
Senior Geologist I	34.11	3	60.00%	20.47															
Transportation Planner																			
Project Engineer II	34.15																		
Project Engineer I	27.52																		
Project Scientist I	20.58																		
Project Geologist I	19.38																		
Project Associate	24.48																		
Senior CADD I	37.45																		
CADD II	27.32																		
CADD I	20.56																		
Admin. Manager I	33.17																		
Administrative IV	22.44																		
Administrative III																			
Administrative II	20.40																		
Administrative I																			
Interns	16.32																		
TOTALS		5	100%	$47.33	0	0%	$0.00	0	0%	$0.00	0	0%	$0.00	0	0%	$0.00	0	0%	$0.00

SUMMARY OF INHOUSE DIRECT COSTS

Civiltech - Weiland Road PSI and CCDD

								DIRECT
Task 1 - PSI								
Trips - Company	60 miles	x	2	x	$ 0.565	=	$	67.80
Tolls	4	x	3	x	$ 1.00	=	$	12.00
PID	4 days	x	1	x	$ 75.00	=	$	300.00
Field Kit	4 days	x	1	x	$ 30.00	=	$	120.00
					Task Total		**$**	**499.80**
Task 2 - Analytical								
Reproduction	1 sets	x	150	x	$ 0.03	=	$	4.50
					Task Total		**$**	**4.50**
Task 3 - PSI Report								
Reproduction	3 sets	x	200	x	$ 0.03	=	$	18.00
Color copies	3 sets	x	15	x	$ 0.11	=	$	4.95
Photo sheets	3 sets	x	5	x	$ 0.11	=	$	1.65
					Task Total		**$**	**24.60**
Task 4 - CCDD								
Reproduction	6 sets	x	150	x	$ 0.03	=	$	27.00
Color copies	6 sets	x	5	x	$ 0.11	=	$	3.30
Photo sheets	6 sets	x	5	x	$ 0.11	=	$	3.30
					Task Total		**$**	**33.60**
Task 5 - Project Management								
					Task Total		**$**	-
Task 6 - QA/QC								
					Task Total		**$**	-
					GRAND TOTAL		**$**	**562.50**

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SUMMARY OF OUTSIDE DIRECT COSTS

Civiltech - Weiland Road PSI and CCDD

						OUTSIDE
Task 1 - PSI						
		x		=	$	-
			Task Total		**$**	**-**
Task 2 - Analytical						
Federal Express	0	x	$ 20.00	=	$	-
Analytical						
PNA	20	x	$ 105.000	=	$	2,100.00
Metals total	15	x	$ 90.00	=	$	1,350.00
VOC	10	x	$ 125.00	=	$	1,250.00
BTEX	10	x	$ 65.00	=	$	650.00
Pest/herb	10	x	$ 250.00	=	$	2,500.00
metals SPLP	15	x	$ 90.00	=	$	1,350.00
pH	37	x	$ 10.00	=	$	370.00
			Task Total		**$**	**9,570.00**
Task 3 - PSI Report						
Federal Express	1	x	$ 20.00	=	$	20.00
	0	x	$ -	=	$	-
			Task Total		**$**	**20.00**
Task 4 - CCDD						
Federal Express	1	x	$ 20.00	=	$	20.00
	0	x	$ -	=	$	-
			Task Total		**$**	**20.00**
Task 5 - Project Management						
			Task Total		**$**	**-**
Task 6 - QA/QC						
			Task Total		**$**	**-**
			GRAND TOTAL		**$**	**9,610.00**

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SUMMARY OF SERVICES BY OTHERS

Civiltech - Weiland Road PSI and CCDD

					OUTSIDE
Task 1 - PSI					
Driller	4	x $ 1,500.00	=	$	6,000.00
Traffic Control	4	x $ 1,400.00	=	$	5,600.00
	0	x $ -	=	$	-
		Task Total		**$**	**11,600.00**
Task 2 - Analytical					
	0	x $ -	=	$	-
		Task Total		**$**	**-**
Task 3 - PSI Report					
	0	x $ -	=	$	-
		Task Total		**$**	**-**
Task 4 - CCDD					
	0	x $ -	=	$	-
		Task Total		**$**	**-**
Task 5 - Project Management					
	0	x $ -	=	$	-
		Task Total		**$**	**-**
Task 6 - QA/QC					
	0	x $ -	=	$	-
		Task Total		**$**	**-**
		GRAND TOTAL		**$**	**11,600.00**

CIVILTECH

Attachment H

Subconsultant Proposal

Terracon Consultants, Inc.

September 11, 2013

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

Phone: 630.735.3390
Email: RMagner@civiltechinc.com

RE: Proposal for Pre-Demolition Asbestos Services
Weiland Road Project
Buffalo Grove, Lake County, IL
Terracon Proposal No: P11130607

Dear Mr. Magner:

Terracon Consultants, Inc. (Terracon) appreciates the opportunity to submit this proposal to Civiltech Engineering, Inc. (Client) to conduct pre-demolition asbestos-containing material (ACM) surveys and prepare the appropriate State of Illinois Department of Transportation (IDOT) Bureau of Design & Environment (BDE) Special Provision forms for the properties to be demolished for the above-referenced project in accordance with your request.

A. PROJECT INFORMATION

Terracon reviewed the following documents regarding the Weiland Road Project provided to us by Civiltech Engineering, Inc.:

- Weiland Overall_200 scale.pdf
- Concept Plans - Weiland Road Draft CDR.pdf
- Borings_Relocation_BldgInspc Details.pdf.pdf

Based on the reviewed documents, Terracon understands the following structures are to be acquired for demolition[1]:

Property Identification # (PIN)	Address	Type	Approximate Size/Stories	Year Constructed
15-33-205-007	20517 N WEILAND RD	SFR[2] w/attached garage	1,026 square feet (SF)/one-story [garage = 480 SF]	1953

[1] *Note: Descriptions, approximate size and other property information were estimated from available data.*

Property Identification # (PIN)	Address	Type	Approximate Size/Stories	Year Constructed
15-33-205-018	20537 N WEILAND RD	SFR w/attached garage	1,392 SF/one-story [garage = 616 SF]	1957
15-33-205-005	20559 N WEILAND RD	SFR w/ basement and detached garage	3,348 SF/two-story [garage = 520 SF]	1900
15-33-205-004	20573 N WEILAND RD	SFR w/detached garage	1,224 SF/one-story [garage = 576 SF]	1961
15-33-205-002	20597 N WEILAND RD	SFR w/attached garage	1,152 SF/one-story [garage = 336 SF]	1960
15-21-400-010	16178 W APTAKISIC RD	SFR w/ basement and detached garage	2,664 SF/one-story [garage = 440 SF]	1945
15-21-400-036	16154 W APTAKISIC RD	SFR w/ basement and detached garage	2,883 SF/one-story [garage = 550 SF]	1946
15-21-400-004	22149 N PET LN	Commercial	6,720 SF/one-story[3]	Not available

If this information is not accurate, please inform us immediately.

B. SCOPE OF SERVICES

For each property, Terracon will perform the following:

Pre-Demolition Asbestos Survey

Terracon will mobilize a State of Illinois Department of Public Health (IDPH) licensed asbestos building inspector to conduct an asbestos survey of the building as required by United States Environmental Protection Agency (USEPA) regulation 40 Code of Federal Regulations (CFR) 61, National Emissions Standards for Hazardous Air Pollutants (NESHAP).

[2] *SFR = single family residential*
[3] *Detached pole barn not included.*

Terracon will conduct a visual assessment of the building to identify materials suspected of containing asbestos (suspect ACM). Suspect materials will be physically assessed for friability and evidence of damage.

Based upon the findings of the visual assessment, samples of suspect ACM will be collected for laboratory analysis in general accordance with the sampling protocols outlined in USEPA 40 CFR 763.86. At a minimum, three samples of each homogeneous suspect material will be collected. Sample collection will result in some isolated damage to materials; however, attempts will be made to limit such damage to the extent necessary for sample collection. Terracon may conduct sampling which requires selective demolition or destructive activities such as knocking holes in walls, dismantling of equipment or removal of protective coverings, if necessary. Terracon will not be responsible for repair or touch-up of sample locations. Reasonable efforts to access suspect materials within known areas of restricted access will be made provided these areas are not determined to be permit-required confined spaces, or to pose a health or safety risk to Terracon personnel. Sampling will not include suspect materials that are not made available for inspection, and will not be conducted if the materials are inaccessible due to physical barriers, confined spaces or cannot be safely reached with available ladders/man lifts.

Terracon will sample the roofing only if reasonable access can be obtained. By authorizing this proposal, the Client agrees to defend and hold Terracon harmless from subsequent liability and damages that may result from roof sampling activities. Terracon will apply temporary patching to roof sample locations, but it is recommended that a roofing contractor should be hired to repair areas damaged by roof sampling.

A laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), will analyze bulk material samples by visual estimation using polarized light microscopy/dispersion staining (PLM/DS) techniques in accordance with methodology approved by the USEPA, Method for the Determination of Asbestos in Bulk Building Materials number 600/R-93/116, on a turn-around time (TAT) of five business days.

When analysis of friable bulk samples by PLM reveals greater than zero, but less than 10% asbestos, USEPA regulation 40 CFR Part 61 (NESHAP) states the analysis should be verified with the more quantitative point counting technique. If point counting is not performed these friable material samples must be considered ACM, including those reported with asbestos content of greater than 0%, but less than or equal to 1%. If PLM analysis reveals the presence of asbestos in the range described above, Terracon will contact the client to discuss the merits of point count analysis. Client approval of additional costs will be obtained before authorizing re-analysis.

When samples for nonfriable materials such as vinyl/asphaltic products (floor tiles/floor sheeting, mastics, shingles etc.), where small, thin asbestos fibers may have been potentially milled into the non-organic binder matrix, identify the amount of asbestos as non-detected by PLM analysis, USEPA recommends these materials be further analyzed using transmission electron microscopy (TEM) due to the difficulty in analyzing such small, thin asbestos fibers in resin-bound materials by

PLM analysis. If this scenario presents itself, Terracon will contact the client to discuss the merits of TEM analysis. Client approval of additional costs will be obtained before authorizing reanalysis.

Terracon will prepare schematic floor plans indicating the approximate location of collected samples and any identified ACM for inclusion in the report.

Report

Terracon will prepare a separate technical report describing the sample methodology and the results for each ACM survey. The reports will include the number, type and location of material samples collected, the analytical results, the estimated quantities and the condition of the materials identified as ACM, as well as recommendations as to any additional sampling or remediation procedures that may be deemed necessary, based on regulatory requirements, guidelines and industry standards. One full electronic version (PDF®) of the report will be submitted.

Special Provision Preparation

Upon completion of all asbestos surveys, Terracon will prepare one Special Provision form for each identified condition as described below:

- Building Removal – Case I (Non-Friable and Friable Asbestos)
- Building Removal – Case II (Non-Friable Asbestos)
- Building Removal – Case III (Friable Asbestos)
- Building Removal – Case IV (No Asbestos)

One full electronic version (PDF®) of each Special Provision form will be submitted.

Schedule

Services may begin immediately after receipt of the authorization to proceed and the final report for a given site will be submitted within fifteen business days after Terracon has been granted access. Special provision forms will be submitted within ten business days after all site asbestos surveys have been completed. In order to comply with the proposed schedule, the following items are required to be provided by the Client at the time of notification to proceed:

- A signed notice to proceed evidencing acceptance of this scope of services;
- Right of entry to conduct the assessment, including unrestricted access; and
- Notification of any restrictions or special requirements (such as confidentiality) regarding accessing the site.

Scope and Report Limitations

The findings and conclusions presented in the final reports will be based on each site's current utilization and the information collected as discussed in this proposal. If requested by the Client,

Terracon may provide a verbal report prior to completion of a final written report. The content of the final written report takes precedence over any verbal reports, which may be provided. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the reports. As indicated herein, the surveys will be limited to readily and safely accessible areas of the subject properties. Terracon cannot guarantee a building or building components to be asbestos-free as the possibility exists that suspect ACM may be hidden from sight or in inaccessible locations, or the homogeneous construction areas identified may not be truly homogeneous. The limitations herein must be considered when the user of this report formulates opinions as to risks associated with the site. No warranties, express or implied, are intended or made.

C. COMPENSATION

The services proposed herein will be conducted for the following fees:

Description	Unit Cost	Extended Cost
Asbestos Surveys/Reports (8) – Fee per site includes survey, report preparation and laboratory analysis of up to 50 PLM asbestos bulk samples on a five-day TAT. If additional samples are necessary, the samples will be invoiced at $10.00 per PLM sample upon client approval.	$1,600.00	$12,800.00
Special Provisions Preparation (4) - Fee assumes the preparation of up to four forms.	$250.00	$1,000.00
TOTAL FEE		**$13,800.00**

Terracon will proceed with these services in accordance with written authorization. If activities outlined herein do not reflect your intended objectives, a modification of the proposed scope can be prepared. If conditions are encountered at the sites, which require significant changes in the scope of services which will increase the cost of the services, you will be contacted for discussion and approval of such changes before we proceed.

The compensation assumes a single mobilization per property.

Terracon's invoices will be submitted to the address appearing above at regular intervals throughout the course of the project.

D. AUTHORIZATION

This proposal may be accepted by executing the attached Agreement for Services and returning one copy along with this proposal to Terracon. This proposal is valid only if authorized within 60 days from the listed proposal date. Project initiation may be expedited by sending a copy of the authorization to proceed via e-mail to bjquealy@terracon.com or by facsimile to 630-357-9489.

We appreciate the opportunity to provide this proposal and look forward to working with you on this project. If you have any questions or comments regarding this proposal or require additional services, please give us a call.

Sincerely,
Terracon Consultants, Inc.

Brendan J. Quealy
Department Manager
Industrial Hygiene/Asbestos Services

Attachment: Agreement for Services

Reference Number: P11130607

AGREEMENT FOR SERVICES

This **AGREEMENT** is between Civiltech Engineering Inc ("Client") and Terracon Consultants, Inc. ("Consultant") for Services to be provided by Consultant for Client on the Pre-Demolition Asbestos Services - Weiland Road project ("Project"), as described in the Project Information section of Consultant's Proposal dated 09/11/2013 ("Proposal") unless the Project is otherwise described in Exhibit A to this Agreement (which section or Exhibit is incorporated into this Agreement).

1. **Scope of Services.** The scope of Consultant's services is described in the Scope of Services section of the Proposal ("Services"), unless Services are otherwise described in Exhibit B to this Agreement (which section or exhibit is incorporated into this Agreement). Portions of the Services may be subcontracted. Consultant's Services do not include the investigation or detection of, nor do recommendations in Consultant's reports address the presence or prevention of biological pollutants (e.g., mold, fungi, bacteria, viruses, or their byproducts) or occupant safety issues, such as vulnerability to natural disasters, terrorism, or violence. If Services include purchase of software, Client will execute a separate software license agreement. Consultant's findings, opinions, and recommendations are based solely upon data and information obtained by and furnished to Consultant at the time of the Services.
2. **Acceptance/ Termination.** Client agrees that execution of this Agreement is a material element of the consideration Consultant requires to execute the Services, and if Services are initiated by Consultant prior to execution of this Agreement as an accommodation for Client at Client's request, both parties shall consider that commencement of Services constitutes formal acceptance of all terms and conditions of this Agreement. Additional terms and conditions may be added or changed only by written amendment to this Agreement signed by both parties. In the event Client uses a purchase order or other form to administer this Agreement, the use of such form shall be for convenience purposes only and any additional or conflicting terms it contains are stricken. This Agreement shall not be assigned by either party without prior written consent of the other party. Either party may terminate this Agreement or the Services upon written notice to the other. In such case, Consultant shall be paid costs incurred and fees earned to the date of termination plus reasonable costs of closing the project.
3. **Change Orders.** Client may request changes to the scope of Services by altering or adding to the Services to be performed. If Client so requests, Consultant will return to Client a statement (or supplemental proposal) of the change setting forth an adjustment to the Services and fees for the requested changes. Following Client's review, Client shall provide written acceptance. If Client does not follow these procedures, but instead directs, authorizes, or permits Consultant to perform changed or additional work, the Services are changed accordingly and Consultant will be paid for this work according to the fees stated or its current fee schedule. If project conditions change materially from those observed at the site or described to Consultant at the time of proposal, Consultant is entitled to a change order equitably adjusting its Services and fee.
4. **Compensation and Terms of Payment.** Client shall pay compensation for the Services performed at the fees stated in the Compensation section of the Proposal unless fees are otherwise stated in Exhibit C to this Agreement (which section or Exhibit is incorporated into this Agreement). If not stated in either, fees will be according to Consultant's current fee schedule. Fee schedules are valid for the calendar year in which they are issued. Fees do not include sales tax. Client will pay applicable sales tax as required by law. Consultant may invoice Client at least monthly and payment is due upon receipt of invoice. Client shall notify Consultant in writing, at the address below, within 15 days of the date of the invoice if Client objects to any portion of the charges on the invoice, and shall promptly pay the undisputed portion. Client shall pay a finance fee of 1.5% per month, but not exceeding the maximum rate allowed by law, for all unpaid amounts 30 days or older. Client agrees to pay all collection-related costs that Consultant incurs, including attorney fees. Consultant may suspend Services for lack of timely payment. It is the responsibility of Client to determine whether federal, state, or local prevailing wage requirements apply and to notify Consultant if prevailing wages apply. If it is later determined that prevailing wages apply, and Consultant was not previously notified by Client, Client agrees to pay the prevailing wage from that point forward, as well as a retroactive payment adjustment to bring previously paid amounts in line with prevailing wages. Client also agrees to defend, indemnify, and hold harmless Consultant from any alleged violations made by any governmental agency regulating prevailing wage activity for failing to pay prevailing wages, including the payment of any fines or penalties.
5. **Third Party Reliance.** This Agreement and the Services provided are for Consultant and Client's sole benefit and exclusive use with no third party beneficiaries intended. Reliance upon the Services and any work product is limited to Client, and is not intended for third parties. For a limited time period not to exceed three months from the date of the report, Consultant will issue additional reports to others agreed upon with Client, however Client understands that such reliance will not be granted until those parties sign and return Consultant's reliance agreement and Consultant receives the agreed-upon reliance fee.
6. **LIMITATION OF LIABILITY. CLIENT AND CONSULTANT HAVE EVALUATED THE RISKS AND REWARDS ASSOCIATED WITH THIS PROJECT, INCLUDING CONSULTANT'S FEE RELATIVE TO THE RISKS ASSUMED, AND AGREE TO ALLOCATE CERTAIN OF THE ASSOCIATED RISKS. TO THE FULLEST EXTENT PERMITTED BY LAW, THE TOTAL AGGREGATE LIABILITY OF CONSULTANT (AND ITS RELATED CORPORATIONS AND EMPLOYEES) TO CLIENT AND THIRD PARTIES GRANTED RELIANCE IS LIMITED TO THE GREATER OF $50,000 OR CONSULTANT'S FEE, FOR ANY AND ALL INJURIES, DAMAGES, CLAIMS, LOSSES, OR EXPENSES (INCLUDING ATTORNEY AND EXPERT FEES) ARISING OUT OF CONSULTANT'S SERVICES OR THIS AGREEMENT. UPON WRITTEN REQUEST FROM CLIENT, CONSULTANT MAY NEGOTIATE A HIGHER LIMITATION FOR ADDITIONAL CONSIDERATION. THIS LIMITATION SHALL APPLY REGARDLESS OF AVAILABLE PROFESSIONAL LIABILITY INSURANCE COVERAGE, CAUSE(S) OR THE THEORY OF LIABILITY, INCLUDING NEGLIGENCE, INDEMNITY, OR OTHER RECOVERY. THIS LIMITATION SHALL NOT APPLY TO THE EXTENT THE DAMAGE IS PAID UNDER CONSULTANT'S COMMERCIAL GENERAL LIABILITY POLICY.**
7. **Indemnity/Statute of Limitations.** Consultant and Client shall indemnify and hold harmless the other and their respective employees from and against legal liability for claims, losses, damages, and expenses to the extent such claims, losses, damages, or expenses are legally determined to be caused by their negligent acts, errors, or omissions. In the event such claims, losses, damages, or expenses are legally determined to be caused by the joint or concurrent negligence of Consultant and Client, they shall be borne by each party in proportion to its own negligence under comparative fault principles. Neither party shall have a duty to defend the other party, and no duty to defend is hereby created by this indemnity provision and such duty is explicitly waived under this Agreement. Causes of action arising out of Consultant's services or this Agreement regardless of cause(s) or the theory of liability, including negligence, indemnity or other recovery shall be deemed to have accrued and the applicable statute of limitations shall commence to run not later than the date of Consultant's substantial completion of services on the project.
8. **Warranty.** Consultant will perform the Services in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. **EXCEPT FOR THE STANDARD OF CARE PREVIOUSLY STATED, CONSULTANT MAKES NO WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, RELATING TO CONSULTANT'S SERVICES AND CONSULTANT DISCLAIMS ANY IMPLIED WARRANTIES OR WARRANTIES IMPOSED BY LAW, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**
9. **Insurance.** Consultant represents that it now carries, and will continue to carry: (i) workers' compensation insurance in accordance with the laws of the states having jurisdiction over Consultant's employees who are engaged in the Services, and employer's liability insurance ($1,000,000); (ii) commercial general liability insurance ($1,000,000 occ / $2,000,000 agg); (iii) automobile liability insurance ($1,000,000 B.I. and P.D. combined single

limit); and (iv) professional liability insurance ($1,000,000 claim / agg). Certificates of insurance will be provided upon request. Client and Consultant shall waive subrogation against the other party on all general liability and property coverage.

10. **CONSEQUENTIAL DAMAGES.** NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR LOSS OF PROFITS OR REVENUE; LOSS OF USE OR OPPORTUNITY; LOSS OF GOOD WILL; COST OF SUBSTITUTE FACILITIES, GOODS, OR SERVICES; COST OF CAPITAL; OR FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT, PUNITIVE, OR EXEMPLARY DAMAGES.
11. **Dispute Resolution.** Client shall not be entitled to assert a Claim against Consultant based on any theory of professional negligence unless and until Client has obtained the written opinion from a registered, independent, and reputable engineer, architect, or geologist that Consultant has violated the standard of care applicable to Consultant's performance of the Services. Client shall provide this opinion to Consultant and the parties shall endeavor to resolve the dispute within 30 days, after which Client may pursue its remedies at law. This Agreement shall be governed by and construed according to Illinois law.
12. **Subsurface Explorations.** Subsurface conditions throughout the site may vary from those depicted on logs of discrete borings, test pits, or other exploratory services. Client understands Consultant's layout of boring and test locations is approximate and that Consultant may deviate a reasonable distance from those locations. Consultant will take reasonable precautions to reduce damage to the site when performing Services; however, Client accepts that invasive services such as drilling or sampling may damage or alter the site. Site restoration is not provided unless specifically included in the Services.
13. **Testing and Observations.** Client understands that testing and observation are discrete sampling procedures, and that such procedures indicate conditions only at the depths, locations, and times the procedures were performed. Consultant will provide test results and opinions based on tests and field observations only for the work tested. Client understands that testing and observation are not continuous or exhaustive, and are conducted to reduce - not eliminate - project risk. Client agrees to the level or amount of testing performed and the associated risk. Client is responsible (even if delegated to contractor) for requesting services, and notifying and scheduling Consultant so Consultant can perform these Services. Consultant is not responsible for damages caused by services not performed due to a failure to request or schedule Consultant's services. Consultant shall not be responsible for the quality and completeness of Client's contractor's work or their adherence to the project documents, and Consultant's performance of testing and observation services shall not relieve Client's contractor in any way from its responsibility for defects discovered in its work, or create a warranty or guarantee. Consultant will not supervise or direct the work performed by Client's contractor or its subcontractors and is not responsible for their means and methods.
14. **Sample Disposition, Affected Materials, and Indemnity.** Samples are consumed in testing or disposed of upon completion of tests (unless stated otherwise in the Services). Client shall furnish or cause to be furnished to Consultant all documents and information known or available to Client that relate to the identity, location, quantity, nature, or characteristic of any hazardous waste, toxic, radioactive, or contaminated materials ("Affected Materials") at or near the site, and shall immediately transmit new, updated, or revised information as it becomes available. Client agrees that Consultant is not responsible for the disposition of Affected Material unless specifically provided in the Services, and that Client is responsible for directing such disposition. In the event that test samples obtained during the performance of Services (i) contain substances hazardous to health, safety, or the environment, or (ii) equipment used during the Services cannot reasonably be decontaminated, Client shall sign documentation (if necessary) required to ensure the equipment and/or samples are transported and disposed of properly, and agrees to pay Consultant the fair market value of this equipment and reasonable disposal costs. In no event shall Consultant be required to sign a hazardous waste manifest or take title to any Affected Materials. Client shall have the obligation to make all spill or release notifications to appropriate governmental agencies. The Client agrees that Consultant neither created nor contributed to the creation or existence of any Affected Materials conditions at the site. Accordingly, Client waives any claim against Consultant and agrees to indemnify and save Consultant, its agents, employees, and related companies harmless from any claim, liability or defense cost, including attorney and expert fees, for injury or loss sustained by any party from such exposures allegedly arising out of Consultant's non-negligent performance of services hereunder, or for any claims against Consultant as a generator, disposer, or arranger of Affected Materials under federal, state, or local law or ordinance.
15. **Ownership of Documents.** Work product, such as reports, logs, data, notes, or calculations, prepared by Consultant shall remain Consultant's property. Proprietary concepts, systems, and ideas developed during performance of the Services shall remain the sole property of Consultant. Files shall be maintained in general accordance with Consultant's document retention policies and practices.
16. **Utilities.** Client shall provide the location and/or arrange for the marking of private utilities and subterranean structures. Consultant shall take reasonable precautions to avoid damage or injury to subterranean structures or utilities. Consultant shall not be responsible for damage to subterranean structures or utilities that are not called to Consultant's attention, are not correctly marked, including by a utility locate service, or are incorrectly shown on the plans furnished to Consultant.
17. **Site Access and Safety.** Client shall secure all necessary site related approvals, permits, licenses, and consents necessary to commence and complete the Services and will execute any necessary site access agreement. Consultant will be responsible for supervision and site safety measures for its own employees, but shall not be responsible for the supervision or health and safety precautions for any other parties, including Client, Client's contractors, subcontractors, or other parties present at the site.

Consultant:	**Terracon Consultants, Inc.**	Client:	**Civiltech Engineering Inc**
By:	Date: **9/11/2013**	By:	Date:
Name/Title:	**Brendan J Quealy / Manager-Industrial Hygiene/Asbestos Services**	Name/Title:	**Reid T. Magner, P.E.**
Address:	**135 Ambassador Dr.**	Address:	**450 E. Devon Ave Suite 300**
	Naperville, IL 60540		**Itasca, IL 60143**
Phone:	**(630) 717-4263** Fax: **(630) 357-9489**	Phone:	**(630) 735-3390** Fax: **(630) 773-3975**
Email:	**bjquealy@terracon.com**	Email:	**rmagner@civiltechinc.com**

Reference Number: P11130607

CIVILTECH

Attachment I

Subconsultant Proposal
Hitchcock Design Group

Scope of Services

Phase I Engineering

The goal for this part of the engagement is to review the previously prepared Phase I documents and further define the landscape items to be included in the project. We understand that trees removed as part of this project will be replaced on a 1:1 basis. A tree survey has already been conducted and will be used to determine the number of trees requiring replacement.

A. Data Collection and Coordination

Objective: Collect and review data from the previously prepared Phase I documents and coordinate with Civiltech to determine the specific landscape improvements to advance.

Process: Hitchcock Design Group will:

1. Identify jurisdictional requirements, operational practices, development plans and construction procedures related to landscape items as regulated by the following groups:
   a. Lake County Division of Transportation (LCDOT)
   b. IDOT/FHWA
   c. Franchise power and communication utility providers
   d. Adjacent property owners

2. Review previously prepared existing data for the project area and the immediate surroundings related to landscape items as provided by Civiltech including:
   a. Aerial photography
   b. Topographic surveys
   c. Boundaries, property ownership and easements
   d. Utility information
   e. Proposed roadway improvement plans

3. Observe and photograph the project area and immediate surroundings in order to identify readily apparent physical conditions and patterns of use.

4. Using the survey information and proposed roadway improvement plans provided by Civiltech, prepare **Base Maps** at appropriate scales for the study area suitable for preparation of preliminary landscape design.

5. Prepare a **Landscape Program Memorandum** that summarizes the landscape requirements and consensus project program elements to advance.

Deliverables: **Base Maps; Landscape Program Memorandum**

B. Preliminary Landscape Design

Objective: Reach consensus on the type, location, organization, scale, character and potential cost of the specific landscape improvements.

Process: Following approval of the Landscape Program Memorandum, Hitchcock Design Group will:

1. Prepare a **Preliminary Landscape Plan** including appropriate plan views, sections, elevations and other graphic images to illustrate the landscape improvements including:
   a. Street tree plantings
   b. Vegetated screen along Mirielle Subdivision
   c. Sound wall aesthetics
   d. Detention basin plantings

2. Prepare **Preliminary Landscape Quantities and Costs** using standard IDOT pay items.

3. Review the Preliminary Landscape Plan and sound wall aesthetics with Civiltech, LCDOT, and other project team members.

4. Based on input received, refine the preliminary landscape plan including updating the landscape quantities and costs.

5. Prepare a presentation quality **Color Rendering** of the landscape improvements suitable for public presentation.

6. Attend a Public Meeting to present the landscape recommendations.

7. Finalize and submit the preliminary landscape recommendations to Civiltech. Attend a review meeting with Civiltech and LCDOT to review the preliminary recommendations.

Deliverables: **Preliminary Landscape Plan, Preliminary Landscape Quantities and Costs, Color Rendering**

Phase II Engineering

The goal for this part of the engagement is to finalize the Plans, Specifications, and Estimates (PS&E) for the landscape improvements and submit the documents to Civiltech for inclusion in the final documents as required by LCDOT/IDOT for final approval and bid letting.

A. Pre-Final Plan Development

Objective: Advance the approved preliminary landscape design and receive project team and LCDOT/IDOT approval of the landscape improvements to document for construction and bidding.

Process: Following Phase I approval, Hitchcock Design Group will:

1. Prepare **Pre-Final Landscape Plans** based on the specific site conditions including:
   a. Street tree plantings
   b. Vegetated screen along Mirielle Subdivision
   c. Sound wall aesthetics
   d. Detention basin plantings

2. Prepare a **Pre-Final Plant List**, **Summary of Quantities** and **Cost Estimate** for the proposed landscape items and sound wall aesthetics based on standard IDOT pay items.

3. Prepare **Pre-Final Special Provisions** for the landscape and sound wall aesthetic items.

4. Provide the Pre-Final Landscape Plans, Plant List, Summary of Quantities, Cost Estimate, and Outline Special Provisions to Civiltech who will prepare Final documents.

Deliverables: **Pre-Final Landscape Design, Plant List, Summary of Quantities, Cost Estimate,** and **Special Provisions**

B. Final Plan Development

Objective: Produce the plans, specifications, and estimates for LCDOT/IDOT review and approval to bid and construct the landscape improvements.

Process: Following LCDOT/IDOT Pre-Final Plan approval, Hitchcock Design Group will be available to provide input and review the Final Plan documents prepared by Civiltech.

Documents to be prepared by Civiltech include:

1. Prepare the plans, specifications and estimates based on IDOT standards for the landscape items:
   a. Summary of quantities
   b. Landscape plans, material list, and details
   c. Specifications and special provisions
   d. Quantity estimate and construction cost estimate using IDOT coded pay items

2. Submit the documents to LCDOT/IDOT for Preliminary Plan Review (30%). Participate in plan-in-hand field review with project team and LCDOT/IDOT representatives.

3. Revise the documents based on preliminary plan review and submit revised documents to LCDOT/IDOT for Pre-Final Plan Review (60%). Prepare a disposition of comments to include with the submittal.

4. Revise the documents based on pre-final plan review and submit the documents to LCDOT/IDOT for Final Plan Review (90%). Prepare a disposition of comments to include with the submittal.

5. Finalize and submit the documents to LCDOT/IDOT for Final Plan Approval and Release (100%).

General Project Administration

In addition to the services outlined above, HDG will administer the performance of its own work throughout the term of the contract by providing the following services:

A. Communications
1. Schedule, create agendas and summarize the highlights of periodic meetings
2. Rehearse, attend and present at public forums identified
3. Collect and disseminate communications from other parties
4. Periodically inform your representative about our progress

B. Schedules
1. Create, periodically update and distribute the project schedule
2. Coordinate the activities of our staff and our consultants

C. Staffing
1. Select and assign staff members and consultants to appropriate tasks and services
2. Prepare and administer consultant agreements

D. File Maintenance
1. Establish and maintain appropriate correspondence, financial, drawing and data files
2. Obtain appropriate insurance certificates from consultants
3. Maintain appropriate time and expense records

Optional, Additional Services

Services or meetings not specified in this scope of services will be considered additional services. If circumstances arise during our performance of the outlined services that we believe require additional services, we will promptly notify you about the nature, extent and probable additional cost of the additional services, and perform only such additional services following your written authorization.

COST PLUS FIXED FEE
COST ESTIMATE OF CONSULTANT SERVICES

DF-824-034
REV 12/04

FIRM Hitchcock Design Group
PTB
PRIME/SUPPLEMENT

DATE 08/30/13

OVERHEAD RATE 1.6591
COMPLEXITY FACTOR 0

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	IN-HOUSE DIRECT COSTS (D)	FIXED FEE (E)	Outside Direct Costs (F)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
	ID Jurisdictional Requirements	6	266.44	442.05	25.00	98.58				832.07	5.04%
	Review Existing Data	8	265.93	441.20		98.39				805.53	4.88%
	Observe Site	8	265.93	441.20	50.00	98.39				855.53	5.18%
	Prepare Base Map	4	174.58	289.65	25.00	64.59				553.82	3.35%
	Landscape Program	4	179.15	297.22		66.28				542.66	3.28%
	Preliminary Design	25	760.49	1,261.73	25.00	281.38				2,328.60	14.09%
	Prepare Prelim Costs	5	178.89	296.80		66.19				541.89	3.28%
	Review w/Project Team	4	183.72	304.80	100.00	67.97				656.49	3.97%
	Refine Plans	12	532.88	884.09		197.16				1,614.13	9.77%
	Color Rendering	4	174.58	289.65	200.00	64.59				728.82	4.41%
	Public Meeting	4	183.72	304.80	50.00	67.97				606.49	3.67%
	Review w/Project Team	4	183.72	304.80	50.00	67.97				606.49	3.67%
	Pre-Final plans	25	760.49	1,261.73	25.00	281.38				2,328.60	14.09%
	Pre-Final Quantities/Costs	7	224.57	372.58		83.09				680.24	4.12%
	Pre-Final Special Provisions	5	220.51	365.85	25.00	81.59				692.94	4.19%
	Provide to Civiltech	2	68.77	114.09		25.44				208.30	1.26%
	Review Plans	16	624.23	1,035.65	50.00	230.96				1,940.84	11.75%
	Subconsultant DL					0.00				0.00	0.00%
	TOTALS	143	5,248.57	8,707.89	625.00	1,941.97	0.00	0.00	0.00	**16,523.43**	100.00%

PREPARED BY THE AGREEMENTS UNIT

Printed 8/30/2013 3:05 PM

CIVILTECH

Attachment J

Subconsultant Proposal
"T" Engineering Services, Ltd.

"T" Engineering Services, Ltd.
real estate appraisers

February 16, 2012

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

Subject: *Proposal for Review Appraisal Services*
Weiland Road Phase II

Dear Mr. Magner:

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

We propose to review appraisal reports on the subject project at $750 per parcel with the client being Civiltech Engineering, Inc. The appraisal reviews will be completed within two weeks after receiving the subject appraisal reports.

Respectfully submitted,

Keith T. Tadrowski
President

CIVILTECH

Attachment K

Subconsultant Proposal

Santacruz Associates, Ltd.

PROPOSAL FOR LAND ACQUISITION SERVICES

Lake County Division of Transportation

Civiltech Engineering, Inc.

Weiland Road

Woodstone Drive to IL 22

Santacruz Land Acquisitions

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

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

1 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 your acquisition of right of way:

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

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

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

Santacruz 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 the LPA and/or Civiltech Engineering, Engineer for the LPA, ("Consultant") to develop a land acquisition plan for the construction of Weiland Road from Woodstone Drive to north of IL Route 22 (the "Project") to assure that the goals are met. With years of right of way acquisition work, we have a large database of real estate representatives for corporate acquisitions to cut down the time spent in the initial steps of locating the real estate representative for each property.

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

CRITICAL ISSUE 2: MANAGE THE ACQUISITION RISKS

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

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

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). In addition, we are 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 the 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 BEP with Central Management Services, a DBE with IDOT and an MBE with Cook County and the City of Chicago.

SUMMARY

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

COMPENSATION

Santacruz Associates Ltd. d/b/a Santacruz Land Acquisitions shall be entitled to the compensation as shown on the attached schedule. Our cost proposal, based on **fifty-four** (**54**) projected parcels of right-of-way, is as follows:

NEGOTIATIONS: **$118,800.00**.

As directed, Santacruz Land Acquisitions shall invoice the LPA or Consultant for any fees and charges related to the acquisitions including, without limitation, (i) the cost of the later date title commitments, (ii) the cost of title insurance policies obtained on the parcels to be acquired, (iii) the cost of recording any necessary documents to complete the conveyance and obtain clear title, (iv) lender's fees related to the processing of any partial releases needed to provide clear title, and (v) land trustee processing fees. Santacruz 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.

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 **$145,800.00** as follows:

Land Acquisition Services	**$118,800.00**
Direct Billable Expenses	**$27,000.00**

SUMMARY

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

COMPENSATION

Santacruz Associates Ltd. d/b/a Santacruz Land Acquisitions shall be entitled to the compensation as shown on the attached schedule. Our cost proposal, based on the updating of **five** (5) projected parcels of right-of-way, is as follows:

NEGOTIATIONS: **$6,000.00**.

As directed, Santacruz Land Acquisitions shall invoice the LPA or Consultant for any fees and charges related to the acquisitions including, without limitation, (i) the cost of the later date title commitments, (ii) the cost of title insurance policies obtained on the parcels to be acquired, (iii) the cost of recording any necessary documents to complete the conveyance and obtain clear title, (iv) lender's fees related to the processing of any partial releases needed to provide clear title, and (v) land trustee processing fees. Santacruz 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.

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 **$9,000.00** as follows:

Land Acquisition Services	**$6,000.00**
Direct Billable Expenses	**$3,000.00**

2 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 the LPA and Consultant in accordance with the policies and procedures of IDOT, as applicable, the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 ("Uniform Act"), as amended (49 CFR Part 24), the Illinois Eminent Domain Act (735 ILCS 30) ("Eminent Domain Act") and the Illinois Code of Civil Procedure ("Code of Civil Procedure").

Santacruz Land Acquisitions will review the highway construction plans with the 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 the LPA the final reports accompanied by all necessary documents needed for recordation and/or necessary for eminent domain proceedings. **The process described in this section has been the roadmap to many successful right of way projects for Santacruz Land Aqcuisitions helping us help you keep your projects on-time and within budget.**

LAND ACQUISITION CRITICAL PATH STEPS – "OUR ROAD MAP"

Task 1: Notice to Proceed

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

Task 2: Kick-off Meeting

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

Task 3: Delivery and Review of Project Information

The LPA or Consultant will provide Santacruz 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, the LPA or Consultant will also provide us with a set of project plans, including, (i) plan and profile, (ii) drainage and utilities, (iii) pavement markings and (iv) cross sections.

Task 4: Negotiation and Acquisition

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

The Negotiator will not have any authority to determine administrative settlements. The Negotiator will consult with the LPA for approval of any counter offers and upon acceptance by the LPA of any such counter offer, Santacruz 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 the Authority. Santacruz Land Acquisitions will direct any questions to the 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 the LPA's letterhead. This letter will provide a general statement of the Project, identify the property and the legal property owner, and briefly state the right of requirements necessary from the parcel. This letter shall also contain contact information for Santacruz Land Acquisitions and a representative of the 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 the LPA commence condemnation proceedings. All contacts and efforts to make contact with the property owner shall be documented in the negotiator's report maintained by Santacruz 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 the 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 the LPA a completed parcel file with its recommendation to acquire the parcel by means of condemnation. In addition, the file will include the Negotiator's Log, copies of all correspondence with the property owner, title commitments, plats, and all other documentation as required by the LPA.

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

PERSONNEL

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

The internal support team members for Santacruz Land Acquisitions include Robin Weber, a real estate paralegal with over twenty years 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. Having developed its own proprietary database overlay, we have developed great efficiencies that allow us to handle hundreds of parcels at one time keeping deadlines organized for each of our different clients.

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

Santacruz 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.

3 EXHIBITS

a. Pricing Schedule

Compensation for Services

Negotiation Services

Negotiation and acquisition services for Right of Way including, without limitation, documentation of conveyance of property interest	$2,200.00

Witness Services

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

Title Services (if applicable)

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

Compensation for Services

Negotiation Services

Updated negotiation and acquisition services for Right of Way including, without limitation, documentation of conveyance of property interest	$1,200.00

Witness Services

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

Title Services (if applicable)

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

CIVILTECH

Attachment L

Subconsultant Proposal

HDR, Inc.

September 27, 2013

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

Re: Proposal for Relocation Services
Weiland Road Project
Buffalo Grove, Lake County, IL

Dear Mr. Magner:

HDR Engineering, Inc. (HDR) is pleased to provide relocation services on the Weiland Road Project which includes both Business and Residential Relocation Services. Relocation services will consist of:

coordination with appraiser and negotiator
occupant interviews
relocation process
relocation plan and updates
determination of relocation eligibility
notices preparation and delivery
move estimates
identification of replacement housing
relocation benefit calculations
relocation package approval and presentation
advisory services
coordination of appeals
coordination of claims
project management and administration

HDR will provide personnel to assist on the Weiland Road Project as needed on a Cost Per Parcel basis for residential parcels, business parcels and attendance at team meetings. The HDR personnel selected for this assignment have the experience to quickly establish a positive rapport with the community and work effectively within the community and the management team for successful relocations.

HDR proposes to perform these services for a **fee of $4,500 for residential and $7,500 for non complex business parcels.**

Reimbursable Expenses

Automobile Travel	0.565/mile
Expenses such as printing, long distance phone calls, postage, commercial travel, lodging, etc. are billed at actual costs.	

HDR Engineering, Inc.

8550 W Bryn Mawr Avenue
Suite 900
Chicago, IL 60631-3223

Phone: (773) 380-7900
Fax: (773) 380-7979
www.hdrinc.com

Services shall be performed according to the Uniform Relocation Act (URA), State, local laws and regulations. A copy of our Terms and Conditions are attached.

The HDR team looks forward to working with you on successfully completing the Weiland Road project with these services. If modifications are required or you have any questions, please call me at your convenience at (773) 867-7248.

Sincerely,

HDR ENGINEERING, INC.

Carol Bellinger

Carol Bellinger
Sr. Project Manager
Real Estate Services

HDR Engineering, Inc.

8550 W Bryn Mawr Avenue
Suite 900
Chicago, IL 60631-3223

Phone: (773) 380-7900
Fax: (773) 380-7979
www.hdrinc.com

HDR, Inc. is an employee-owned company that, unlike many of its competitors, employs full-time real estate staff and provides facilities and equipment for its agents. All HDR agents receive extensive training and oversight, which is not a universal approach in the right-of-way industry. HDR has 23 local full-time real estate professionals in the region who are supported by 130 real estate professionals nationwide that can provide input on unique situations that may arise. HDR's local real estate professionals are able to work out of the HDR offices located in Chicago and invested in the company, the project, and the community.

HDR's Real Estate Services specialize in projects involving highways, transit, railroad, airport, and utility relocations throughout the United States and Illinois. HDR provides real estate consulting and right-of-way services for government, public agencies, railroads, and utility companies. HDR offers all services necessary for successful land acquisition projects, including project management, acquisition cost estimating, title evaluation, and negotiations with owners, all in compliance with government laws and regulations. The company facilitates reasonable settlements and provides full documentation to ensure funding certification.

Chicago to St. Louis High Speed Rail Real Estate Services (Union Pacific Railroad)
HDR is providing real estate services on the Chicago-St. Louis High Speed Rail (HSR) corridor. Union Pacific's precedent-setting plan for this corridor, which will enable 110-mph passenger rail in a shared corridor with freight, will set the U.S. standard for cooperation with a state passenger-rail authority and will provide state-of-the-art passenger-rail transportation service in the Midwest. The HDR team works with the HSR design team on improving public and private crossings to meet FRA safety standards for HSR. HDR is working with the construction team on closing or improving crossings and resolving encroachment issues for safety. HDR is providing all services necessary for successful acquisitions and relocations, project management, title evaluation, negotiations with owners, and relocation benefit computations (including survey, appraisal and appraisal review, due diligence, condemnation support, and closing services).

HDR has completed the surveys and premise plats for five of the seven tiers of the project and is negotiating for the acquisition of the varied real estate interests necessary for the operation of a high speed rail system - including acquiring fee, permanent and temporary easements, leases, licenses, and permits and coordinating utility relocations. Our agents are facilitating reasonable settlements with supporting documentation to ensure funding certification.

Reference:
Steve Sand, Director-Acquisitions Real Estate
Union Pacific Railroad Company
1400 Douglas Street, STOP 1690
Omaha, Nebraska 68179-1690
(402) 544-8568
sjsand1@up.com

Elgin O'Hare Western Access (Illinois Tollway)
The Elgin O'Hare Western Access (EOWA) project is a multi-agency effort led by the Illinois Tollway to improve the transportation near O'Hare International Airport. HDR is responsible for providing land acquisition and relocation services for the Tollway as a sub-consultant with American Surveying & Engineering, P.C. Scope of services includes: acquisition and relocation of more than 38 non-residential properties and commercial businesses with an estimated 1,300 employees and residential parcels. Interview proposed impacted families and business operators, perform advisory assistance, determine eligibility, prepare offer and claims documents, approve claim payments, and perform DSS (decent, safe, and sanitary) inspections. Determine purchase additive and rent supplement amounts, maintain accurate records, prepare reports, attend public meetings/hearings and open houses, and track properties and activity in line for condemnation proceedings.

Reference:

Joanne F. Fehn- Land Acquisitions Manager
Illinois State Toll Highway Authority
2700 Ogden Avenue
Downers Grove, Illinois 60515
(630) 241-6800 Ext. 3950
jfehn@getipass.com

Jay Howell- Vice President of Engineering
American Surveying & Engineering, P.C.
841 North Galena Avenue
Dixon, Illinois 60515
(815) 288-6231
j.howell@americansurvey.com

HDR Engineering, Inc.
Terms and Conditions for Professional Services

1. **STANDARD OF PERFORMANCE**
The standard of care for all professional engineering, consulting and related services performed or furnished by ENGINEER and its employees under this Agreement will be the care and skill ordinarily used by members of ENGINEER's profession practicing under the same or similar circumstances at the same time and in the same locality. ENGINEER makes no warranties, express or implied, under this Agreement or otherwise, in connection with ENGINEER's services.

2. **INSURANCE/INDEMNITY**
ENGINEER agrees to procure and maintain, at its expense, Workers' Compensation insurance as required by statute; Employer's Liability of $250,000; Automobile Liability insurance of $1,000,000 combined single limit for bodily injury and property damage covering all vehicles, including hired vehicles, owned and non-owned vehicles; Commercial General Liability insurance of $1,000,000 combined single limit for personal injury and property damage; and Professional Liability insurance of $1,000,000 per claim for protection against claims arising out of the performance of services under this Agreement caused by negligent acts, errors, or omissions for which ENGINEER is legally liable. OWNER shall be made an additional insured on Commercial General and Automobile Liability insurance policies and certificates of insurance will be furnished to the OWNER. ENGINEER agrees to indemnify OWNER for claims to the extent caused by ENGINEER's negligent acts, errors or omissions. However, neither Party to this Agreement shall be liable to the other Party for any special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the Project or the Agreement from any cause or causes, including but not limited to any such damages caused by the negligence, errors or omissions, strict liability or breach of contract.

3. **OPINIONS OF PROBABLE COST (COST ESTIMATES)**
Any opinions of probable project cost or probable construction cost provided by ENGINEER are made on the basis of information available to ENGINEER and on the basis of ENGINEER's experience and qualifications, and represents its judgment as an experienced and qualified professional engineer. However, since ENGINEER has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s') methods of determining prices, or over competitive bidding or market conditions, ENGINEER does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost ENGINEER prepares.

4. **CONSTRUCTION PROCEDURES**
ENGINEER's observation or monitoring portions of the work performed under construction contracts shall not relieve the contractor from its responsibility for performing work in accordance with applicable contract documents. ENGINEER shall not control or have charge of, and shall not be responsible for, construction means, methods, techniques, sequences, procedures of construction, health or safety programs or precautions connected with the work and shall not manage, supervise, control or have charge of construction. ENGINEER shall not be responsible for the acts or omissions of the contractor or other parties on the project. ENGINEER shall be entitled to review all construction contract documents and to require that no provisions extend the duties or liabilities of ENGINEER beyond those set forth in this Agreement. OWNER agrees to include ENGINEER as an indemnified party in OWNER's construction contracts for the work, which shall protect ENGINEER to the same degree as OWNER. Further, OWNER agrees that ENGINEER shall be listed as an additional insured under the construction contractor's liability insurance policies.

5. **CONTROLLING LAW**
This Agreement is to be governed by the law of the state where ENGINEER's services are performed.

6. **SERVICES AND INFORMATION**
OWNER will provide all criteria and information pertaining to OWNER's requirements for the project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations. OWNER will also provide copies of any OWNER-furnished Standard Details, Standard Specifications, or Standard Bidding Documents which are to be incorporated into the project.

OWNER will furnish the services of soils/geotechnical engineers or other consultants that include reports and appropriate professional recommendations when such services are deemed necessary by ENGINEER. The OWNER agrees to bear full responsibility for the technical accuracy and content of OWNER-furnished documents and services.

In performing professional engineering and related services hereunder, it is understood by OWNER that ENGINEER is not engaged in rendering any type of legal, insurance or accounting services, opinions or advice. Further, it is the OWNER's sole responsibility to obtain the advice of an attorney, insurance counselor or accountant to protect the OWNER's legal and financial interests. To that end, the OWNER agrees that OWNER or the OWNER's representative will examine all studies, reports, sketches, drawings, specifications, proposals and other documents, opinions or advice prepared or provided by ENGINEER, and will obtain the advice of an attorney, insurance counselor or other consultant as the OWNER deems necessary to protect the OWNER's interests before OWNER takes action or forebears to take action based upon or relying upon the services provided by ENGINEER.

7. **SUCCESSORS AND ASSIGNS**
OWNER and ENGINEER, respectively, bind themselves, their partners, successors, assigns, and legal representatives to the covenants of this Agreement. Neither OWNER nor ENGINEER will assign, sublet, or transfer any interest in this Agreement or claims arising therefrom without the written consent of the other.

8. **RE-USE OF DOCUMENTS**
All documents, including all reports, drawings, specifications, computer software or other items prepared or furnished by ENGINEER pursuant to this Agreement, are instruments of service with respect to the project. ENGINEER retains ownership of all such documents. OWNER may retain copies of the documents for its information and reference in connection with the project; however, none of the documents are intended or represented to be suitable for reuse by OWNER or others on extensions of the project or on any other project. Any reuse without written verification or adaptation by ENGINEER for the specific purpose intended will be at OWNER's sole risk and without liability or legal exposure to ENGINEER, and OWNER will defend, indemnify and hold harmless ENGINEER from all claims, damages, losses and expenses, including attorney's fees, arising or resulting therefrom. Any such verification or adaptation will entitle ENGINEER to further compensation at rates to be agreed upon by OWNER and ENGINEER.

9. **TERMINATION OF AGREEMENT**
OWNER or ENGINEER may terminate the Agreement, in whole or in part, by giving seven (7) days written notice to the other party. Where the method of payment is "lump sum," or cost reimbursement, the final invoice will include all services and expenses associated with the project up to the effective date of termination. An equitable adjustment shall also be made to provide for termination settlement costs ENGINEER incurs as a result of commitments that had become firm before termination, and for a reasonable profit for services performed.

10. **SEVERABILITY**
If any provision of this agreement is held invalid or unenforceable, the remaining provisions shall be valid and binding upon the parties. One or more waivers by either party of any provision, term or condition shall not be construed by the other party as a waiver of any subsequent breach of the same provision, term or condition.

11. **INVOICES**
ENGINEER will submit monthly invoices for services rendered and OWNER will make prompt payments in response to ENGINEER's invoices.

ENGINEER will retain receipts for reimbursable expenses in general accordance with Internal Revenue Service rules pertaining to the support of expenditures for income tax purposes. Receipts will be available for inspection by OWNER's auditors upon request.

If OWNER disputes any items in ENGINEER's invoice for any reason, including the lack of supporting documentation, OWNER may temporarily delete the disputed item and pay the remaining amount of the invoice. OWNER will promptly notify ENGINEER of the dispute and request clarification and/or correction. After any dispute has been settled, ENGINEER will include the disputed item on a subsequent, regularly scheduled invoice, or on a special invoice for the disputed item only.

OWNER recognizes that late payment of invoices results in extra expenses for ENGINEER. ENGINEER retains the right to assess OWNER interest at the rate of one percent (1%) per month, but not to exceed the maximum rate allowed by law, on invoices which are not paid within thirty (30) days from the date of the invoice. In the event undisputed portions of ENGINEER's invoices are not paid when due, ENGINEER also reserves the right, after seven (7) days prior written notice, to suspend the performance of its services under this Agreement until all past due amounts have been paid in full.

12. CHANGES

The parties agree that no change or modification to this Agreement, or any attachments hereto, shall have any force or effect unless the change is reduced to writing, dated, and made part of this Agreement. The execution of the change shall be authorized and signed in the same manner as this Agreement. Adjustments in the period of services and in compensation shall be in accordance with applicable paragraphs and sections of this Agreement. Any proposed fees by ENGINEER are estimates to perform the services required to complete the project as ENGINEER understands it to be defined. For those projects involving conceptual or process development services, activities often are not fully definable in the initial planning. In any event, as the project progresses, the facts developed may dictate a change in the services to be performed, which may alter the scope. ENGINEER will inform OWNER of such situations so that changes in scope and adjustments to the time of performance and compensation can be made as required. If such change, additional services, or suspension of services results in an increase or decrease in the cost of or time required for performance of the services, an equitable adjustment shall be made, and the Agreement modified accordingly.

13. CONTROLLING AGREEMENT

These Terms and Conditions shall take precedence over any inconsistent or contradictory provisions contained in any proposal, contract, purchase order, requisition, notice-to-proceed, or like document.

14. EQUAL EMPLOYMENT AND NONDISCRIMINATION

In connection with the services under this Agreement, ENGINEER agrees to comply with the applicable provisions of federal and state Equal Employment Opportunity for individuals based on color, religion, sex, or national origin, or disabled veteran, recently separated veteran, other protected veteran and armed forces service medal veteran status, disabilities under provisions of executive order 11246, and other employment, statutes and regulations, as stated in Title 41 Part 60 of the Code of Federal Regulations § 60-1.4 (a-f), § 60-300.5 (a-e), § 60-741 (a-e).

15. HAZARDOUS MATERIALS

OWNER represents to ENGINEER that, to the best of its knowledge, no hazardous materials are present at the project site. However, in the event hazardous materials are known to be present, OWNER represents that to the best of its knowledge it has disclosed to ENGINEER the existence of all such hazardous materials, including but not limited to asbestos, PCB's, petroleum, hazardous waste, or radioactive material located at or near the project site, including type, quantity and location of such hazardous materials. It is acknowledged by both parties that ENGINEER's scope of services do not include services related in any way to hazardous materials. In the event ENGINEER or any other party encounters undisclosed hazardous materials, ENGINEER shall have the obligation to notify OWNER and, to the extent required by law or regulation, the appropriate governmental officials, and ENGINEER may, at its option and without liability for delay, consequential or any other damages to OWNER, suspend performance of services on that portion of the project affected by hazardous materials until OWNER: (i) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the hazardous materials; and (ii) warrants that the project site is in full compliance with all applicable laws and regulations. OWNER acknowledges that ENGINEER is performing professional services for OWNER and that ENGINEER is not and shall not be required to become an "arranger," "operator," "generator," or "transporter" of hazardous materials, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (CERCLA), which are or may be encountered at or near the project site in connection with ENGINEER's services under this Agreement. If ENGINEER's services hereunder cannot be performed because of the existence of hazardous materials, ENGINEER shall be entitled to terminate this Agreement for cause on 30 days written notice. To the fullest extent permitted by law, OWNER shall indemnify and hold harmless ENGINEER, its officers, directors, partners, employees, and subconsultants from and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from hazardous materials, provided that (i) any such cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or injury to or destruction of tangible property (other than completed Work), including the loss of use resulting therefrom, and (ii) nothing in this paragraph shall obligate OWNER to indemnify any individual or entity from and against the consequences of that individual's or entity's sole negligence or willful misconduct.

16. EXECUTION

This Agreement, including the exhibits and schedules made part hereof, constitute the entire Agreement between ENGINEER and OWNER, supersedes and controls over all prior written or oral understandings. This Agreement may be amended, supplemented or modified only by a written instrument duly executed by the parties.

17. ALLOCATION OF RISK

OWNER AND ENGINEER HAVE EVALUATED THE RISKS AND REWARDS ASSOCIATED WITH THIS PROJECT, INCLUDING ENGINEER'S FEE RELATIVE TO THE RISKS ASSUMED, AND AGREE TO ALLOCATE CERTAIN OF THE RISKS, SO, TO THE FULLEST EXTENT PERMITTED BY LAW, THE TOTAL AGGREGATE LIABILITY OF ENGINEER (AND ITS RELATED CORPORATIONS, SUBCONSULTANTS AND EMPLOYEES) TO OWNER AND THIRD PARTIES GRANTED RELIANCE IS LIMITED TO THE GREATER OF $100,000 OR ITS FEE, FOR ANY AND ALL INJURIES, DAMAGES, CLAIMS, LOSSES, OR EXPENSES (INCLUDING ATTORNEY AND EXPERT FEES) ARISING OUT OF ENGINEER'S SERVICES OR THIS AGREEMENT REGARDLESS OF CAUSE(S) OR THE THEORY OF LIABILITY, INCLUDING NEGLIGENCE, INDEMNITY, OR OTHER RECOVERY. THIS LIMITATION SHALL NOT APPLY TO THE EXTENT THE DAMAGE IS PAID UNDER ENGINEER'S COMMERCIAL GENERAL LIABILITY INSURANCE POLICY.

18. LITIGATION SUPPORT

In the event ENGINEER is required to respond to a subpoena, government inquiry or other legal process related to the services in connection with a legal or dispute resolution proceeding to which ENGINEER is not a party, OWNER shall reimburse ENGINEER for reasonable costs in responding and compensate ENGINEER at its then standard rates for reasonable time incurred in gathering information and documents and attending depositions, hearings, and trial.

19. UTILITY LOCATION

If underground sampling/testing is to be performed, a local utility locating service shall be contacted to make arrangements for all utilities to determine the location of underground utilities. In addition, OWNER shall notify ENGINEER of the presence and location of any underground utilities located on the OWNER's property which are not the responsibility of private/public utilities. ENGINEER shall take reasonable precautions to avoid damaging underground utilities that are properly marked. The OWNER agrees to waive any claim against ENGINEER and will indemnify and hold ENGINEER harmless from any claim of liability, injury or loss caused by or allegedly caused by ENGINEER's damaging of underground

utilities that are not properly marked or are not called to ENGINEER's attention prior to beginning the underground sampling/testing.

CIVILTECH

Attachment M

Subconsultant Proposal
Kapur & Associates, Inc.

Scope of Work

Kapur & Associates Inc (CONSULTANT) shall provide and update 3D model information from design including: pavement, storm sewer, drainage, structures and grading including proposed Finished Grade, and proposed Subgrade for automated machine guidance (AMG).

Projects included in the scope of work include:

1. Weiland Road – Lake County Il.

The proposed 3D AMG model shall be made available to the contractor at the Ad Date.

Model Data Refinement

Density and Tolerances

The values for e_{max} are based upon the horizontal and vertical tolerances for sub grade and base staking as they appear in WisDOT's Standard Specifications. These are, respectively,

$$t_h = 0.25 \text{ ft and } t_v = 0.03 \text{ ft}$$

Roadway Regions

All regions outside of intersection, ramp, gore, and transition footprint as defined below as minimum or as needed for an urban freeway section or urban arterial section:

1. When roadway is in horizontal and vertical tangency
    a. Maximum Corridor Frequency = 50' for all Design Speeds
2. When roadway is on a horizontal curve:
    a. Design Speed <= 30mph, Maximum Corridor Frequency = 10'
    b. 35mph <= Design Speed <= 55mph, Maximum Corridor Frequency = 25'
    c. Design Speed >= 60 mph, Maximum Corridor Frequency = 50'
3. When roadway is on a vertical curve:
    a. Design Speed <= 30mph, Maximum Corridor Frequency = 10'
    b. 35mph <= Design Speed <= 50mph, Maximum Corridor Frequency = 25'
    c. Design Speed >= 55 mph, Maximum Corridor Frequency = 50'
4. Add frequency lines for all horizontal geometry points, superelevation transition points, profile geometry points, and profile high/low points.
5. Designer to add frequency lines for all horizontal geometry points, superelevation transition points, profile geometry points, and profile high/low points and at other points of interest such as change of typical section, critical drainage location, etc.

Intersection, Ramp, Gore, and Transition Regions

Intersection, ramp, gore, and transition regions are those which fall within footprint of these areas and its acceleration/deceleration lanes and tapers.

1. For all design speeds, surfaces will be modeled with a point density at least as frequent as the design spot elevations shown on the plans, along with necessary interpolations and extrapolations to create complete AMG surfaces.

2. Add frequency lines for all horizontal geometry points, superelevation transition points, profile geometry points, and profile high/low points
3. Designer to add frequency lines at other points of interest such as change of typical section, critical drainage location, etc.

Project Deliverables

Deliverables for CAD model data shall be provided in electronic digital Terramodel and LandXML 1.2 file formats as needed. The model data shall contain features, points, mass points, reference lines, break lines, area extents lines, profiles, Terramodel TIN surfaces, LandXML 1.2 surfaces, etc. georeferenced to project vertical and horizontal datum

AMG Model
Roadway model data shall consist of LandXML v1.2 files containing reference line and proposed profile information as well as Terramodel files containing TIN Civil 3D surfaces as follows:

1. Existing ground – as supplied by Civiltech
2. Proposed top
    - Top of topsoil outside the roadway subgrade shoulder points extended to the slope intercepts
    - Top of shoulder and top of pavement within the roadway subgrade shoulder points
3. Proposed Subgrade
    - Top of topsoil outside the roadway subgrade shoulder points extended to the slope intercepts
    - Subgrade surface within the roadway subgrade shoulder points

Model Review

The CONSULTANT shall provide updated models prior to delivery to Civiltech Design and Construction staff for review and quality management as needed (with model review progress meetings as needed). The CONSULTANT shall provide maps, information, and data to Civiltech project managers as necessary for model integration and coordination of the process.

Basis of Payment

Compensation for all services provided by the CONSULTANT under terms of the CONTRACT shall be:

For the preparation of the 3D model data including an AMG 3D model, A Cost Plus Fixed Fee total of $40,514.29.

WEILAND ROAD

0

0

Kapur & Associates, Inc.

Consultant Contract Total Fee Computation

WEILAND ROAD

Project ID					Total for Contract
Number of Staff Hours	622				622
Total Direct Labor	$14,634.00				$14,634.00
Total Overhead Costs	$23,230.01				$23,230.01
Fixed Fee/Profit	$2,650.48				$2,650.48
Direct Expenses	$0.00				$0.00
Subtotal	$40,514.49	$0.00	$0.00	$0.00	$40,514.49
					$0.00
					$0.00
Subcontract Subtotal	$0.00	$0.00	$0.00	$0.00	$0.00
TOTAL COST	$40,514.49	$0.00	$0.00	$0.00	$40,514.49

WEILAND ROAD

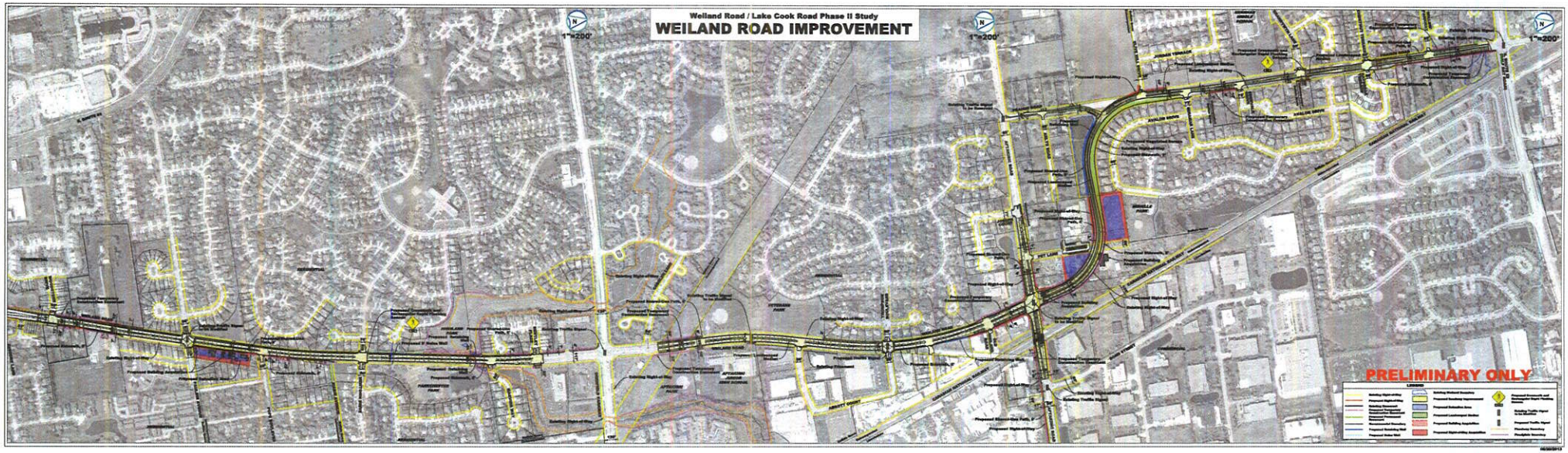
Kapur & Associates, Inc.
Summary of Staff Hours and Direct Labor Costs
PROJECT TOTAL

WEILAND ROAD

Classification		Project Manager		Project Engineer		Modeling Tech					
Avg. Hourly Wage		$57.00		$28.00		$21.00				Total Direct Labor	
Task	Activity Code	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars	Hours	Dollars
FG MODEL			$0.00		$0.00	380	$7,980.00			380	$7,980.00
SG MODEL			$0.00		$0.00	110	$2,310.00			110	$2,310.00
STORM SEWER CHECK			$0.00		$0.00	40	$840.00			40	$840.00
CORRESPONDANCE			$0.00	60	$1,680.00		$0.00			60	$1,680.00
MEETINGS		32	$1,824.00		$0.00		$0.00			32	$1,824.00
			$0.00		$0.00		$0.00			0	$0.00
			$0.00		$0.00		$0.00			0	$0.00
			$0.00		$0.00		$0.00			0	$0.00
			$0.00				$0.00			0	$0.00
			$0.00		$0.00		$0.00			0	$0.00
										0	$0.00
TOTAL:		32	$1,824.00	60	$1,680.00	530	$11,130.00	0	$0.00	622	$14,634.00

Attachment N

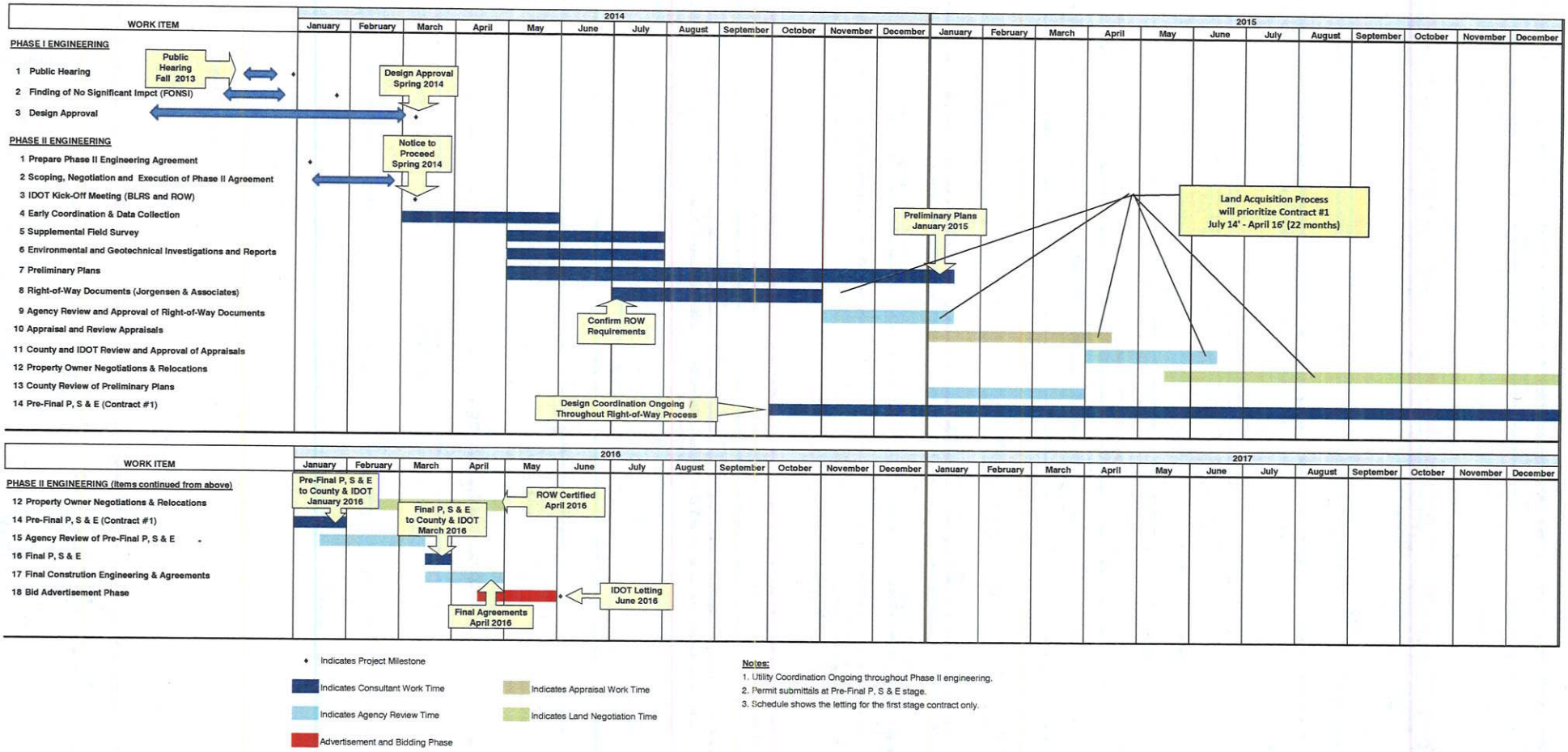
Overall Project Map


Weiland Road / Lake Cook Road Phase II Study
WEILAND ROAD IMPROVEMENT
1"=200'
1"=200'
1"=200'
PRELIMINARY ONLY

Attachment O

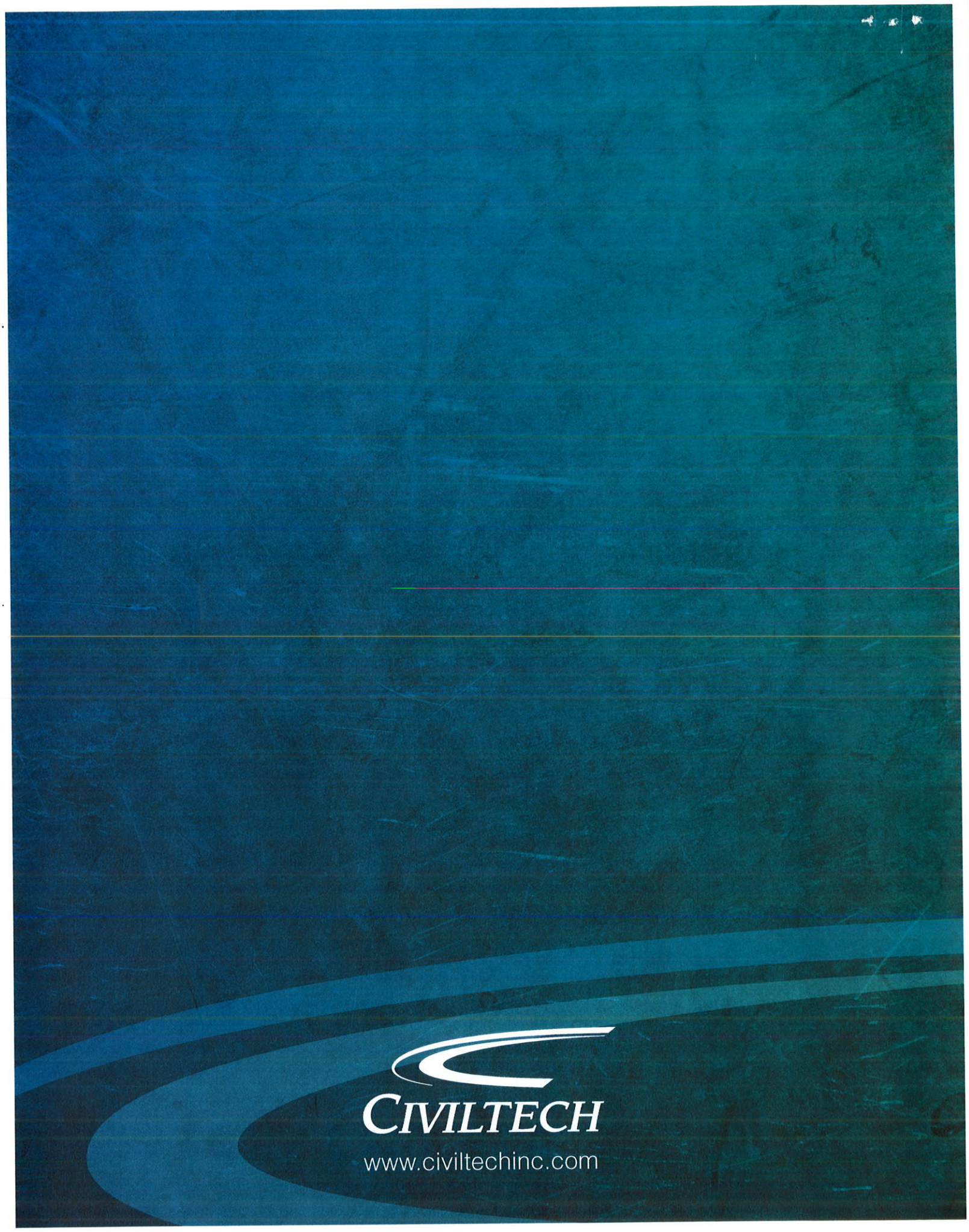
Project Schedule

Schedule



Notes:

1. Utility Coordination Ongoing throughout Phase II engineering.
2. Permit submittals at Pre-Final P, S & E stage.
3. Schedule shows the letting for the first stage contract only.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