Illinois Department of Transportation

DRAFT

Local Public Agency Engineering Services Agreement

Using Federal Funds? ☐ Yes ☒ No

Agreement For: MFT PE

Agreement Type: Original

LOCAL PUBLIC AGENCY

Local Public Agency	County	Section Number	Job Number
Lake County Division of Transportation	Lake	22-00095-20-CH	

Project Number	Contact Name	Phone Number	Email
	Julian Rozwadowski	(847) 377-7506	jrozwadowski@lakecountyil.gov

SECTION PROVISIONS

Local Street/Road Name	Key Route	Length	Structure Number
Hunt Club Road	4-2661	0.5 mi	N/A

Location Termini: Bridle Trail Rd to 800' N of Stearns School Rd

Add Location | Remove Location

Project Description:

Phase I engineering study for an intersection and roadway widening and reconstruction with the addition of multi-modal facilities along Hunt Club Road and Stearns School Road. Study will include alternatives analysis, environmental assessments, preliminary engineering, and public involvement for the roadway improvements.

Engineering Funding: ☐ MFT/TBP ☐ State ☒ Other — Sales Tax

Anticipated Construction Funding: ☐ Federal ☐ MFT/TBP ☐ State ☒ Other — Sales Tax

AGREEMENT FOR

☒ Phase I - Preliminary Engineering ☐ Phase II - Design Engineering

CONSULTANT

Prime Consultant (Firm) Name	Contact Name	Phone Number	Email
Alfred Benesch & Company	Brent Sears	(312) 819-9783	bsears@benesch.com

Address	City	State	Zip Code
35 West Wacker Drive, Suite 3300	Chicago	IL	60601

THIS AGREEMENT IS MADE between the above Local Public Agency (LPA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. Project funding allotted to the LPA 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.

Since the services contemplated under the AGREEMENT are professional in nature, it is understood that the ENGINEER, acting as an individual, partnership, firm or legal entity, qualifies for professional status and will be governed by professional ethics in its relationship to the LPA and the DEPARTMENT. The LPA acknowledges the professional and ethical status of the ENGINEER by entering into an AGREEMENT on the basis of its qualifications and experience and determining its compensation by mutually satisfactory negotiations.

WHEREVER IN THIS AGREEMENT or attached exhibits the following terms are used, they shall be interpreted to mean:

Regional Engineer	Deputy Director, Office of Highways Project Implementation, Regional Engineer, Department of Transportation
Resident Construction Supervisor	Authorized representative of the LPA in immediate charge of the engineering details of the construction PROJECT
In Responsible Charge	A full time LPA employee authorized to administer inherently governmental PROJECT activities
Contractor	Company or Companies to which the construction contract was awarded

AGREEMENT EXHIBITS

The following EXHIBITS are attached hereto and made a part of hereof this AGREEMENT:

☒ EXHIBIT A: Scope of Services

☒ EXHIBIT B: Project Schedule

☒ EXHIBIT C: Qualification Based Selection (QBS) Checklist

☒ EXHIBIT D: Cost Estimate of Consultant Services (BLR 05513 or BLR 05514)

☒ EXHIBIT E : Direct Costs Check Sheet (attach BDE 436 when using Lump Sum on Specific Rate Compensation)

☒ Exhibit F: Sub-Consultant Services

☐ _____

☐ _____

I. THE ENGINEER AGREES,

1. To perform or be responsible for the performance of the Scope of Services presented in EXHIBIT A for the LPA in connection with the proposed improvements herein before described.
2. The Classifications of the employees used in the work shall be consistent with the employee classifications and estimated staff hours. If higher-salaried personnel of the firm, including the Principal Engineer, perform services that are to be performed by lesser-salaried personnel, the wage rate billed for such services shall be commensurate with the payroll rate for the work performed.
3. That the ENGINEER shall be responsible for the accuracy of the work and shall promptly make necessary revisions or corrections required as a result of the ENGINEER'S error, omissions or negligent acts without additional compensation. Acceptance of work by the LPA or DEPARTMENT will not relieve the ENGINEER of the responsibility to make subsequent correction of any such errors or omissions or the responsibility for clarifying ambiguities.
4. That the ENGINEER will comply with applicable Federal laws and regulations, State of Illinois Statutes, and the local laws or ordinances of the LPA.
5. To pay its subconsultants for satisfactory performance no later than 30 days from receipt of each payment from the LPA.
6. To invoice the LPA, The ENGINEER shall submit all invoices to the LPA within three months of the completion of the work called for in the AGREEMENT or any subsequent Amendment or Supplement.
7. The ENGINEER or subconsultant shall not discriminate on the basis of race, color, national origin or sex in the performance of this AGREEMENT. The ENGINEER shall carry out applicable requirements of 49 CFR part 26 in the administration of US Department of Transportation (US DOT) assisted contract. Failure by the Engineer to carry out these requirements is a material breach of this AGREEMENT, which may result in the termination of this AGREEMENT or such other remedy as the LPA deems appropriate.
8. That none of the services to be furnished by the ENGINEER shall be sublet, assigned or transferred to any other party or parties without written consent of the LPA. The consent to sublet, assign or otherwise transfer any portion of the services to be furnished by the ENGINEER shall be construed to relieve the ENGINEER of any responsibility for the fulfillment of this AGREEMENT.
9. For Preliminary Engineering Contracts:
   (a) To attend meetings and visit the site of the proposed improvement when requested to do so by representatives of the LPA or the DEPARTMENT, as defined in Exhibit A (Scope of Services).
   (b) That all plans and other documents furnished by the ENGINEER pursuant to the AGREEMENT will be endorsed by the ENGINEER and affixed the ENGINEER's professional seal when such seal is required by law. Such endorsements must be made by a person, duly licensed or registered in the appropriate category by the Department of Professional Regulation of the State of Illinois. It will be the ENGINEER's responsibility to affix the proper seal as required by the Bureau of Local Roads and Streets manual published by the DEPARTMENT.
   (c) That the ENGINEER is qualified technically and is thoroughly conversant with the design standards and policies applicable for the PROJECT; and that the ENGINEER has sufficient properly trained, organized and experienced personnel to perform the services enumerated in Exhibit A (Scope of Services).
10. That the engineering services shall include all equipment, instruments, supplies, transportation and personnel required to perform the duties of the ENGINEER in connection with this AGREEMENT (See DIRECT COST tab in BLR 05513 or BLR 05514).

II. THE LPA AGREES,

1. To certify by execution of this AGREEMENT that the selection of the ENGINEER was performed in accordance with the Professional Services Selection Act (50 ILCS 510) (Exhibit C).
2. To furnish the ENGINEER all presently available survey data, plans, specifications, and project information.
3. To pay the ENGINEER:
   (a) For progressive payments - Upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LPA, monthly payments for the work performed shall be due and payable to the ENGINEER, such payments to be equal to the value of the partially completed work minus all previous partial payments made to the ENGINEER.
   (b) Final payment - Upon approval of the work by the LPA but not later than 60 days after the work is completed and reports have been made and accepted by the LPA and DEPARTMENT a sum of money equal to the basic fee as determined in this AGREEMENT less the total of the amount of partial payments previously paid to the ENGINEER

shall be due and payable to the ENGINEER.

(c) For Non-Federal County Projects - (605 ILCS 5/5-409)

(1) For progressive payments - Upon receipt of monthly invoices from the ENGINEER and the approval thereof by the LPA, monthly payments for the work performed shall be due and payable to the ENGINEER. Such payments to be equal to the value of the partially completed work in all previous partial payments made to the ENGINEER.

(2) Final payment - Upon approval of the work by the LPA but not later than 60 days after the work is completed and reports have been made and accepted by the LPA and STATE, a sum of money equal to the basic fee as determined in the AGREEMENT less the total of the amount of partial payments previously paid to the ENGINEER shall be due and payable to the ENGINEER.

4. To pay the ENGINEER as compensation for all services rendered in accordance with the AGREEMENT on the basis of the following compensation method as discussed in 5-5.10 of the BLR Manual.

Method of Compensation:

☐ Percent

☐ Lump Sum

☐ Specific Rate

☒ Cost plus Fixed Fee: Fixed

Total Compensation = DL + DC + OH + FF

Where:
DL is the total Direct Labor,
DC is the total Direct Cost,
OH is the firm's overhead rate applied to their DL and
FF is the Fixed Fee.

Where FF = (0.33 + R) DL + %SubDL, where R is the advertised Complexity Factor and %SubDL is 10% profit allowed on the direct labor of the subconsultants.

The Fixed Fee cannot exceed 15% of the DL + OH.

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

III. IT IS MUTUALLY AGREED,

1. To maintain, for a minimum of 3 years after the completion of the contract, adequate books, records and supporting documents to verify the amount, recipients and uses of all disbursements of funds passing in conjunction with the contract; the contract and all books, records and supporting documents related to the contract shall be available for review and audit by the Auditor General, and the DEPARTMENT; the Federal Highways Administration (FHWA) or any authorized representative of the federal government, and to provide full access to all relevant materials. Failure to maintain the books, records and supporting documents required by this section shall establish a presumption in favor of the DEPARTMENT for the recovery of any funds paid by the DEPARTMENT under the contract for which adequate books, records and supporting documentation are not available to support their purported disbursement.

2. That the ENGINEER shall be responsible for any all damages to property or persons out of an error, omission and/or negligent act in the prosecution of the ENGINEER's work and shall indemnify and save harmless the LPA, the DEPARTMENT, and their officers, agents and employees from all suits, claims, actions or damages liabilities, costs or damages of any nature whatsoever resulting there from. These indemnities shall not be limited by the listing of any insurance policy.

   The LPA will notify the ENGINEER of any error or omission believed by the LPA to be caused by the negligence of the ENGINEER as soon as practicable after the discovery. The LPA reserves the right to take immediate action to remedy any error or omission if notification is not successful; if the ENGINEER fails to reply to a notification; or if the conditions created by the error or omission are in need of urgent correction to avoid accumulation of additional construction costs or damages to property and reasonable notice is not practicable.

3. This AGREEMENT may be terminated by the LPA 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 LPA all drawings, plats, surveys, reports, permits, agreements, soils and foundation analysis, provisions, specifications, partial and completed estimates and data, if any from soil survey and subsurface investigation with the understanding that all such materials becomes the property of the LPA. The LPA will be responsible for reimbursement of all eligible expenses incurred under the terms of this AGREEMENT up to the date of the written notice of termination.

4. In the event that the DEPARTMENT stops payment to the LPA, the LPA may suspend work on the project. If this agreement is suspended by the LPA for more than thirty (30) calendar days, consecutive or in aggregate, over the term of this AGREEMENT, the ENGINEER shall be compensated for all services performed and reimbursable expenses incurred prior to receipt of notice of suspension. In addition, upon the resumption of services the LPA shall compensate the ENGINEER, for expenses incurred as a result of the suspension and resumption of its services, and the ENGINEER's schedule and fees for the remainder of the project shall be equitably adjusted.

5. This AGREEMENT shall continue as an open contract and the obligations created herein shall remain in full force and effect until the completion of construction of any phase of professional services performed by others based upon the service provided herein. All obligations of the ENGINEER accepted under this AGREEMENT shall cease if construction or subsequent professional services are not commenced within 5 years after final payment by the LPA.

6. That the ENGINEER shall be responsible for any and all damages to property or persons arising out of an error, omission and/or negligent act in the prosecution of the ENGINEER's work and shall indemnify and have harmless the LPA, the DEPARTMENT, and their officers, employees from all suits, claims, actions or damages liabilities, costs or damages of any nature whatsoever resulting there from. These indemnities shall not be limited by the listing of any insurance policy.

7. The ENGINEER and LPA certify that their respective firm or agency:

   (a) has not employed or retained for commission, percentage, brokerage, contingent fee or other considerations, any firm or person (other than a bona fide employee working solely for the LPA or the ENGINEER) to solicit or secure this AGREEMENT,
   (b) has not agreed, as an express or implied condition for obtaining this AGREEMENT, to employ or retain the services of any firm or person in connection with carrying out the AGREEMENT or
   (c) has not paid, or agreed to pay any firm, organization or person (other than a bona fide employee working solely for the LPA or the ENGINEER) any fee, contribution, donation or consideration of any kind for, or in connection with, procuring or carrying out the AGREEMENT.
   (d) that neither the ENGINEER nor the LPA is/are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency,
   (e) has not within a three-year period preceding the AGREEMENT been convicted of or had a civil judgment rendered against them for commission of fraud or criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or local) transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property.
   (f) are not presently indicated for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph and
   (g) has not within a three-year period preceding this AGREEMENT had one or more public transaction (Federal, State, local) terminated for cause or default.

   Where the ENGINEER or LPA is unable to certify to any of the above statements in this clarification, an explanation shall be attached to this AGREEMENT.

8. In the event of delays due to unforeseeable causes beyond the control of and without fault or negligence of the ENGINEER no claim for damages shall be made by either party. Termination of the AGREEMENT or adjustment of the fee for the remaining services may be requested by either party if the overall delay from the unforeseen causes prevents completion of the work within six months after the specified completion date. Examples of unforeseen causes included but are not limited to: acts of God or a public enemy; acts of the LPA, DEPARTMENT, or other approving party not resulting from the ENGINEER's unacceptable services; fire; strikes; and floods.

   If delays occur due to any cause preventing compliance with the PROJECT SCHEDULE, the ENGINEER shall apply in writing to the LPA for an extension of time. If approved, the PROJECT SCHEDULE shall be revised accordingly.

9. This certification is required by the Drug Free Workplace Act (30 ILCS 580). The Drug Free Workplace Act requires that no grantee or contractor shall receive a grant or be considered for the purpose of being awarded a contract for the procurement of any property or service from the DEPARTMENT unless that grantee or contractor will provide a drug free workplace. False certification or violation of the certification may result in sanctions including, but not limited to suspension of contract on grant payments, termination of a contract or grant and debarment of the contracting or grant opportunities with the DEPARTMENT for at least one (1) year but not more than (5) years.

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

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

   (a) Publishing a statement:
      (1) Notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance, including cannabis, is prohibited in the grantee's or contractor's workplace.
      (2) Specifying actions that will be taken against employees for violations of such prohibition.
      (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will:
         (a) abide by the terms of the statement; and
         (b) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than (5) days after such conviction.
   (b) Establishing a drug free awareness program to inform employees about:
      (1) The dangers of drug abuse in the workplace;

(2) The grantee's or contractor's policy to maintain a drug free workplace;
(3) Any available drug counseling, rehabilitation and employee assistance program; and
(4) The penalties that may be imposed upon an employee for drug violations.

(c) Providing a copy of the statement required by subparagraph (a) to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.

(d) Notifying the contracting, or granting agency within ten (10) days after receiving notice under part (b) of paragraph (3) of subsection (a) above from an employee or otherwise, receiving actual notice of such conviction.

(e) Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program.

(f) Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.

Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act, the ENGINEER, LPA and the Department agree to meet the PROJECT SCHEDULE outlined in EXHIBIT B. Time is of the essence on this project and the ENGINEER's ability to meet the PROJECT SCHEDULE will be a factor in the LPA selecting the ENGINEER for future projects. The ENGINEER will submit progress reports with each invoice showing work that was completed during the last reporting period and work they expect to accomplish during the following period.

10. Due to the physical location of the project, certain work classifications may be subject to the Prevailing Wage Act (820 ILCS 130/0.01 et seq.).

11. For Preliminary Engineering Contracts:

(a) That tracing, plans, specifications, estimates, maps and other documents prepared by the ENGINEER in accordance with this AGREEMENT shall be delivered to and become the property of the LPA and that basic survey notes, sketches, charts, CADD files, related electronic files, and other data prepared or obtained in accordance with this AGREEMENT shall be made available, upon request to the LPA or to the DEPARTMENT, without restriction or limitation as to their use. Any re-use of these documents without the ENGINEER involvement shall be at the LPA's sole risk and will not impose liability upon the ENGINEER.

(b) That all reports, plans, estimates and special provisions furnished by the ENGINEER shall conform to the current Standard Specifications for Road and Bridge Construction, Bureau of Local Roads and Streets Manual or any other applicable requirements of the DEPARTMENT, it being understood that all such furnished documents shall be approved by the LPA and the DEPARTMENT before final acceptance. During the performance of the engineering services herein provided for, the ENGINEER shall be responsible for any loss or damage to the documents herein enumerated while they are in the ENGINEER's possession and any such loss or damage shall be restored at the ENGINEER's expense.

AGREEMENT SUMMARY

Prime Consultant (Firm) Name	TIN/FEIN/SS Number	Agreement Amount
Alfred Benesch & Company	36-2407363	$1,034,224.00

Subconsultants	TIN/FEIN/SS Number	Agreement Amount
Bravo Company Engineering	82-2099477	$93,000.00
Huff & Huff, Inc. (GZA)	36-3044842	$24,908.00
Mathewson Right of Way Co.	85-4092178	$41,000.00
Rubino Engineering, Inc.	80-0450719	$30,808.00
SWE Solutions	87-1384734	$23,081.00
	Subconsultant Total	$212,797.00
	Prime Consultant Total	$1,034,224.00
	Total for all work	$1,247,021.00

AGREEMENT SIGNATURES

Executed by the LPA:

Attest: The Local Public Agency Type: County of Local Public Agency: Lake

By (Signature & Date)

By (Signature & Date)

Local Public Agency: Lake

Local Public Agency Type: County Clerk

Title

(SEAL)

Executed by the ENGINEER:

Attest:

Prime Consultant (Firm) Name: Alfred Benesch & Company

By (Signature & Date) 6/15/2023

Title: Vice President

By (Signature & Date) 6/15/2023

Title: Sr. Vice President

APPROVED:

Regional Engineer, Department of Transportation (Signature & Date)

Local Public Agency	Prime Consultant (Firm) Name	County	Section Number
Lake County Division of Transport	Alfred Benesch & Company	Lake	22-00095-20-CH

EXHIBIT A
SCOPE OF SERVICES

To perform or be responsible for the performance of the engineering services for the LPA, in connection with the PROJECT herein before described and enumerated below

SCOPE OF SERVICES

PHASE I ENGINEERING FOR
HUNT CLUB RD AT STEARNS SCHOOL RD INTERSECTION IMPROVEMENT

LCDOT SECTION NO. 22-00095-20-CH

INTRODUCTION

This scope of work is presented to the Lake County Division of Transportation for the preliminary engineering and environmental studies (Phase I Study) for the intersection improvements of Hunt Club Road at Stearns School Road which are both two-lane minor arterial roadways. The intersection of Hunt Club Road and Stearns School Road is a signalized intersection located in Lake County, IL. The work will include an intersection design study, alternatives analysis, traffic capacity analysis, bike path improvements, field survey, plats and legal descriptions for right of way and easement acquisitions, identification of detention requirements, flood plain determination, hydrology/hydraulic analysis, wetland delineation, soils investigation, aesthetics evaluation, public involvement, and environmental coordination and approvals. Traffic modeling and capacity analysis of Stearns School Road is also included as well as coordination with LCSMC, utility companies, permitting agencies, and local communities. It is anticipated that this work will be processed using local funds and not processed through the IDOT / FHWA standard process. These tasks are further detailed in the developed scope of services listed below.

PROJECT TEAM

Alfred Benesch & Company (Benesch) will serve as the prime consultant for the project and will be responsible for completing the required services. Benesch will be responsible for the management of all sub-consultants. Benesch will be supported by the following sub-consultants:

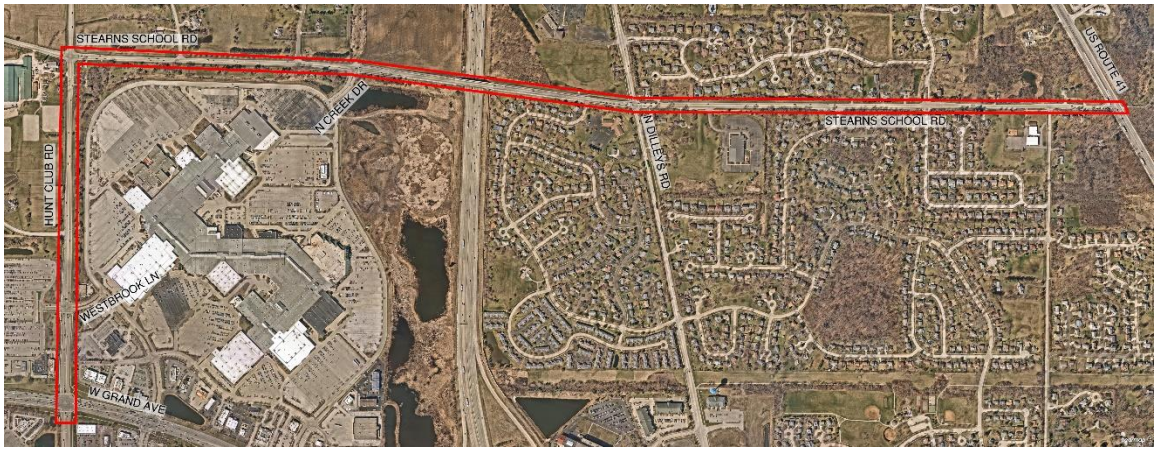
Sub-Consultant Firm	Responsibility
Huff & Huff, Inc.	Environmental Services
Rubino Engineering	Geotechnical Services
Bravo Company Engineering	SUE / Utilities Survey
Mathewson Right of Way Co.	Right-of-Way Services
SWE Solutions	Survey and Visualization Support Services

PROJECT STUDY LIMITS

The project will include a network traffic study that will extend beyond the anticipated construction limits of the intersection improvement.

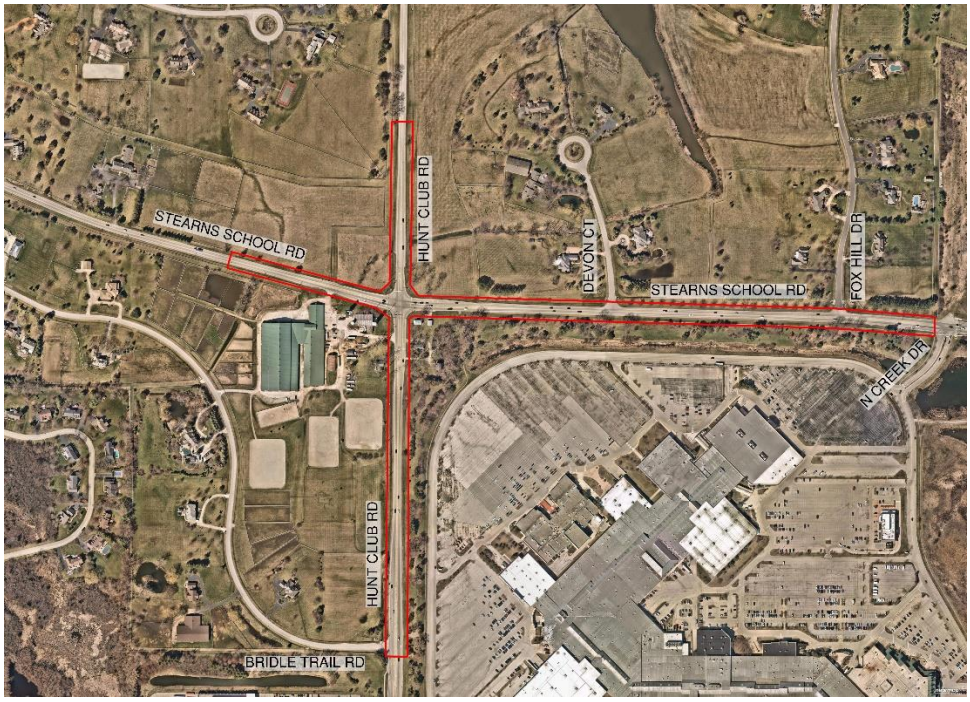
Network Traffic Study Limits:

The traffic study limits will extend east-west along Stearns School Road from the intersection at Hunt Club Road to the intersection at US Route 41 and north-south along Hunt Club Road from Stearns School Road to Grand Ave.



Intersection Improvement Project Limits:

The intersection improvements will include Hunt Club Road from Bridle Trail Road to 800’ north of the intersection and Stearns School Road from 800’ west of the intersection to N Creek Drive.



GENERAL SCOPE OF SERVICES

The scope of the Phase I preliminary engineering is divided into the following tasks which are described in further detail in the following pages:

1. Data Collection
2. Design Survey
3. Utility Coordination
4. Right-Of-Way Services
5. Traffic and Safety Analysis
6. Alternative Analysis
7. Geometric Design
8. Environmental Studies
9. Drainage Studies
10. Geotechnical Services
11. Public Involvement
12. Project Development Report
13. Agency Coordination and Meetings
14. Project Management and Administration
15. Quality Assurance / Quality Control (QA/QC) and Project Documentation

DETAILED WORK TASK DESCRIPTIONS

This section provides a detailed description for each of the major work tasks identified above. The tasks described below may take place at different times throughout the project or occur in parallel throughout the project.

1. Data Collection

Benesch will gather, compile, organize and review the following information:

- As-built roadway and utility plans, as available from Lake County
- Previous inspection reports for roadway and drainage systems (if available)
- Digital aerial photography, parcel information and GIS layers (Lake County GIS)
- Future development plans and comprehensive plans
- Crash Reports – most recent 5 years
- Existing traffic or pedestrian counts applicable to the study
- Existing traffic signal timing for all of the traffic signals in the Stearns School Road Traffic Study Limits.
- Existing ROW information, including known utility easements
- Stearns School Bridge over I-94 Plans
- Stearns School Road and US 41 intersection improvement Plans
- FEMA Floodplain and floodway mapping

Benesch will perform a field review of the project site, roadways, drainage, utilities, and traffic patterns for the study area. These reviews will occur as necessary throughout the project to make recommendations in the completed Phase I documents. Any additional data obtained by sub-consultants, will be reviewed by Benesch prior to be presenting to the County.

2. Design Survey (Benesch + *SWE Solutions*)

The project will conduct a topographic survey utilizing a combination of traditional ground survey methods and aerial drone survey and will be completed in accordance with the LCDOT Design Survey Procedures dated 02/22/2021. Topographic information will be gathered as needed to develop a suitable digital terrain model (DTM) for the project. Specific areas of survey are as follows:

- 2,500’ along Hunt Club Road and 3,500’ along Stearns School Road as defined in the intersection improvements project limits and up to 25' outside of the existing ROW.

Topographic Survey Details

SWE Solutions will provide topographic survey utilizing RTK Drones + GPS Rover synced up to Trimble VRS Network. All standard topo features will be included such as manholes, catch basins, inlets, other utility structures, sign poles, trees, power poles etc. Line work will include Back of walk, face of walk, top of curb, flowline, edge of pavement, roadway centerline, break lines etc. All data collection to be within survey grade of 0.05’ (1.5cm). Access to the generated 3D topographical model uploaded to NIRA will be available for a minimum of 5 years.

Benesch will provide supplemental traditional survey for the project to set the project control, spot verify drone topographical survey information, record drainage structure invert information, and pick up additional topographical features required for Plat work described below.

The field data to be collected will include:

- Northing, Easting, Elevation data using GPS derived Illinois East State Plane coordinates, NAD 83, NAVD88, grid, survey foot. (Benesch and SWE)
- The general topography within survey limits will include an approximate 50' grid of ground and/or break line shots. Definable break lines, such as top of slopes, toe of slopes, edge of pavement, structures, etc. will be detailed. (SWE)
- Visible utilities, junction boxes, and utility locate marks will be collected within the survey limits. Project area drainage structure inverts will be measured when access is possible. The survey will not make assumptions as to the location of utilities that are not visible or marked. (SWE)
- Installation of horizontal and vertical control points located at a maximum of 1000' along the roadway and at least 200' past every leg of the project limits for the subject area. Traverses and level runs will be performed at the same intervals to confirm survey grade accuracy of control points. (Benesch)

Existing right-of-way establishment using record information and property corner searches within the project limits. Up to 7 parcel plats will be prepared for those parcels impacted by the proposed improvement and identified as requiring right-of-way acquisition, based on the selected preferred alternative.

See attached SWE Solutions scope narrative for additional description of topo and drone survey.

Survey Deliverables:

- ✓ Electronic Survey
- ✓ Copies of Field Books
- ✓ 3D Model uploaded to NIRA
- ✓ Digital Existing Right-of-Way file
- ✓ Up to 7 Survey Plats

3. Utility Coordination (Benesch and *Bravo Company Engineering*)

Bravo Company will lead utility data collection, investigation, and coordination with the utility companies as detailed further in their attached scope. Benesch will provide coordination support and generate a utility conflicts summary table to include with the project report.

- Existing Utility Locating: Bravo will gather utility atlases and field verify locations where possible through a JULIE request and survey tasks per attached scope. An existing utility CADD file will be created, and affected utilities will be identified.
- Subsurface Utility Engineering (SUE) Quality Level B will be performed within the project limits. (See attached scope by Bravo Company Engineering).
- Conflict Notification: Preliminary proposed design information (plan and profile sheets showing utilities) will be transmitted to the utility companies to identify specific conflicts. Bravo will coordinate with individual utilities to establish conceptual parameters for relocation.

See attached Bravo Company Engineering scope narrative for description of SUE Study

Utility Coordination Deliverables:

- ✓ Existing utility base file (displayed on preliminary plan and profile)
- ✓ Documentation of utility coordination process
- ✓ SUE Study

4. Right-Of-Way Services (*Mathewson Right of Way Co.*)

Mathewson will conduct a preliminary assessment and valuation of the adjacent properties that may be impacted by the proposed project improvements as part of the Phase I process. Appraisals and Negotiations will be deferred to Phase II, once plats have been prepared for impacted properties.

See attached Mathewson Right of Way Co. scope narrative for description of Right-of-Way Coordination.

5. Traffic and Safety Analysis

Traffic operations and crash analyses will be completed for the project in accordance with typical IDOT BLRS Phase I requirements and LCDOT standards.

Corridor Traffic Operations Analysis

Traffic Counts

Intersection turning movement traffic counts (TMC) will be obtained at Six signalized intersections within the corridor study limits and ADT volumes will be calculated for each leg of the intersection based on turning movement counts:

- Hunt Club Road and Stearns School Road
- N Creek Drive and Stearns School Road
- N Dilleys Road and Stearns School Road
- US Route 41/Skokie Highway and Stearns School Road
- Westbrook Lane and Hunt Club Road
- Grand Ave and Hunt Club Road

One set of weekday TMC counts will be performed. Weekday Counts will be obtained for a 24-hour period, on a Tuesday, Wednesday, or Thursday during a non-holiday week, using the Miovision Datalink video counting software. Due to the commercial nature of the corridor, an additional 8-hour TMC count will be taken on a Saturday to confirm the traffic peak hour. Two sets of Weekend TMC counts will be performed. One set of weekend TMC counts will occur between July and early August. The second set of weekend TMC counts will occur during late October. Heavy trucks, light trucks, passenger vehicles, bicycles, and pedestrians will be collected.

Traffic Volume Development

Benesch will gather information on the existing land use, anticipated population growth, and any known proposed development plans along the corridor to develop traffic volumes for 2050 volume scenario. The ITE Trip Generation Manual will be used to calculate anticipated site-

generated traffic volumes for any parcels that are being redeveloped. These redevelopment areas will be assigned to the street network. Benesch will calculate growth rates for the roadway segments located within the study area to compare with both historic and projected growth rates from CMAP.

Benesch will request base year and projected 2050 traffic volumes from CMAP. These volumes will be used to calculate growth rates based on the MPO's travel demand model. The CMAP 2050 traffic volumes and growth rates will be used to compare to the 2050 traffic projections developed by Benesch. Both sets of traffic projections will be presented to the County to determine which 2050 traffic projections will be used in capacity analysis.

Traffic Operations Analysis

Traffic volumes will be analyzed with Highway Capacity Software (HCS) and Vistro software to investigate up to 6 proposed intersection alternatives and consequently what effects those alternatives have on the corridor. Highway capacity methodologies will be used for the PTV analysis. Both the AM and PM peak hours will be analyzed. If the weekend peak hour is determined to have the highest amount of traffic, then that peak hour will be used in the analysis. HCS will be utilized to perform in-depth analysis of the study intersections and the different proposed alternatives. Vistro will be used to investigate how the different intersection alternatives impact the surrounding traffic corridor. Once the preferred alternative is established, the corresponding traffic model for that alternative will be revisited to finalize and fine-tune. Additionally, the Stearns School Road corridor will perform a traffic evaluation of the impacts of replacing the N Creek Drive and Dilleys Road intersections with roundabouts for one sub-alternative. Below is a list of the anticipated traffic capacity analysis models.

Traffic Capacity Analysis Models

i. No Build Alternative - Existing Geometrics (HCS & Vistro)
    1. Existing Traffic – AM & PM Peak
    2. 2050 Traffic – AM & PM Peak
ii. Alternative **1** Proposed Geometry (HCS & Vistro)
    1. Existing Traffic – AM & PM Peak
    2. 2050 Traffic – AM & PM Peak
iii. Alternative **2** Proposed Geometry (HCS & Vistro)
    1. Existing Traffic – AM & PM Peak
    2. 2050 Traffic – AM & PM Peak
iv. Alternative **3** Proposed Geometry (HCS & Vistro)
    1. Existing Traffic – AM & PM Peak
    2. 2050 Traffic – AM & PM Peak
v. Alternative **4** Proposed Geometry (HCS & Vistro)
    1. Existing Traffic – AM & PM Peak
    2. 2050 Traffic – AM & PM Peak
vi. Alternative **5** Proposed Geometry (HCS & Vistro)
    1. Existing Traffic – AM & PM Peak
    2. 2050 Traffic – AM & PM Peak
vii. Alternative **6** Proposed Geometry (HCS & Vistro)
    1. Existing Traffic – AM & PM Peak
    2. 2050 Traffic – AM & PM Peak
viii. Sub Alternative **1** Proposed Geometry (HCS & Vistro)
    1. Existing Traffic – AM & PM Peak

2. 2050 Traffic – AM & PM Peak

5 Vissim models will be created for visualization purposes. The anticipated models are listed below. Assumes the highest peak volume period will be used for Vissim models.

i. No Build Alternative - Existing Geometrics (Vissim)
    1. 2050 Traffic – Highest Peak Hour Volume
ii. Signalized Alternative (Vissim)
    1. 2050 Traffic – Highest Peak Hour Volume
iii. Single Lane Roundabout Alternative (Vissim)
    1. 2050 Traffic – Highest Peak Hour Volume
iv. Mini Multilane Roundabout Alternative (Vissim)
    1. 2050 Traffic – Highest Peak Hour Volume
v. Full Multilane Roundabout Alternative (Vissim)
    1. 2050 Traffic – Highest Peak Hour Volume

Crash Analysis

Benesch will review and summarize the most recent five years of crash data within the Intersection Improvement Limits. Crash analysis will not be performed for the Corridor Traffic Study Limits. Crash trends will be identified and summarized and may include:

- Crash Severity (fatal, injury, or property damage only)
- Crash Type (Rear End, Head-on, Right Angle, Left Turn, Right Turn, Sideswipe, etc.)
- Pedestrian and Bicycle Involvement
- Light Conditions, Weather, Pavement Condition
- Contributing cause (careless driving, failure to yield right of way, ran signal)

Safety analysis will be completed using Highway Safety Software to provide safety performance functions for the study intersections for both No Build conditions (existing and future). Predicted safety performance measures will be developed using Highway Safety Manual crash modification factors for the proposed alternatives for the future volume conditions, up to six alternatives as defined in Task 6 Alternatives Analysis.

Findings of the traffic and crash analyses will be summarized in a Traffic and Safety Memo and in appropriate sections of the PDR.

Traffic & Crash Analysis Deliverables:

- ✓ Traffic Counts
- ✓ Benesch Traffic Projections
- ✓ CMAP Traffic Projections
- ✓ Traffic and Safety Memorandum

6. Alternatives Analysis

Based on the results of the traffic operations and crash analyses, preliminary geometric design alternatives will be developed for evaluation. Alternative development will include horizontal alignment, turn lane channelization requirements, pedestrian, and bicycle facilities. The evaluation will also include a concept level evaluation for each alternative of the drainage and detention requirements.

Up to six intersection alternatives will be evaluated including:

- Signalized intersection improvements (2 alternative lane configurations)
- Roundabout intersection improvements (3 alternative lane configurations)
- One alternative to be determined

Plan view exhibits, summary of impacts and concept-level cost estimates will be developed for each alternative. Up to three alternate intersection alignments will be assessed for property impacts using the optimal lane configuration and intersection type identified in the initial alternatives analysis. Alternatives analysis will include evaluation of closed versus open drainage as well as detention requirements for each alternative. Alternatives will be presented to the Lake County Division of Transportation and appropriate stakeholders through the Public Involvement Program to solicit feedback on local priorities.

Additionally, the project will study the existing sidewalk along the west side of Hunt Club Road from Grand Avenue to Bridle Trail Road to evaluate the feasibility of upgrading this facility to a shared-use or bike path. Up to three alternatives will be evaluated and a preferred path alternative selected in coordination with LCDOT. The preferred path alternative will be used to advance the Phase I geometric design from Westbrook Lane to Bridle Trail Road, but the path alternative from Grand Avenue to Westbrook Lane will be provided as a concept design only within the Alternative Selection Memo.

Alternative evaluation matrix will be developed using evaluation criteria for both performance (i.e. level of service, manage conflict points, safety, etc.) and acceptance criteria (R/W impacts, public input, utility impacts, etc.) The evaluation criteria will be used to rank each alternative together. The evaluation criteria and the preliminary rankings will be coordinated with LCDOT to provide input through the process. Conclusions from the alternative evaluation will be summarized in a technical memorandum for the project record and used as the basis for the geometric design deliverables.

Deliverables:

- ✓ Alternative Exhibits
- ✓ Typical Sections
- ✓ Summary of Impacts (alternative comparison matrix)
- ✓ Memorandum documenting alternative selection

7. Geometric Design

Once the preferred geometric alternative has been established, Benesch will prepare typical section exhibits, preliminary plan and profile sheets (20-scale) and document any design exceptions for submittal to the Lake County Division of Transportation. Cross section sheets will be produced at critical locations in accordance with IDOT BLRS and LCDOT standards. These items will be compiled into a preliminary geometrics package and submitted to the Lake County Division of Transportation for review, approval, and included in the Project Development Report (PDR). All deliverables are assumed to be submitted to LCDOT electronically.

IDS Preparation

Intersection Design Studies will be prepared according to LCDOT requirements consistent with IDOT BLRS standards for the intersection of Hunt Club Road and Stearns School Road and submitted for Lake County Division of Transportation review and approval. ADA ramp design will be deferred to Phase II and is not included in this scope.

Maintenance of Traffic

Conceptual construction staging exhibits and typical sections will be developed to establish expected construction impacts to local businesses and impacted roadways. A queuing analysis will be performed to establish expected traffic impacts during construction and a constructability review will be performed by Benesch field staff. This information will be summarized in a technical memo and submitted to LCDOT for approval. Detailed traffic staging plans are not included and will be deferred to Phase II.

Deliverables:

- ✓ Plan and profile sheets
- ✓ Cross-section sheets
- ✓ Typical sections exhibit
- ✓ Intersection Design Study plans with Autoturn exhibits
- ✓ Construction Staging Memo

8. Environmental Studies (*Huff & Huff, Inc.*)

Environmental scope includes evaluations of the potential environmental impacts of the project coordinated locally through LCDOT. These areas include special waste, noise, biological/wetlands and other natural resources, endangered and threatened species, water quality and resources, floodplains, air quality, and cultural resources.

ESR Preparation

It is anticipated that this project will be processed using local funds only and not as a Federally Approved Categorical Exclusion. LCDOT will make the determination if the Environmental Survey Request Form (ESRF) will be submitted to obtain signoffs on biological, wetlands, cultural resources, and special waste (State ROW only) though IDOT or locally through LCDOT. This work effort will consist of preparation of an aerial base photo with existing right-of-way and areas for screening (conservative estimate of future right-of-way/easements) identified. It will also include submittal of general ground level photos and individual photos of all structures over 50 years old. Benesch will prepare a photo log of structures/properties along the proposed project that are potentially significant from an historical standpoint. The ESRF and support documents

will be submitted electronically to LCDOT for processing. This task will also include incidental coordination with IDOT related to the ESR submittal and review.

See attached Huff & Huff scope narrative for description of PESA/PSI, Wetland Delineation and Tree Survey work.

Environmental Studies Deliverables:

- ✓ Electronic submittal of ESR form and supporting documents
- ✓ PESA (See attached scope by Huff and Huff)
- ✓ Wetlands and WOTUS Delineations, WIE Submittal (See attached scope by Huff and Huff)

9. Drainage Studies

This task will consist of preparing a Location Drainage Technical Memo (LDTM). The intersection of Hunt Club Road and Stearns School Road currently consists of a closed drainage system, with an open system extending beyond the intersection limits. Existing drainage areas, patterns, and facilities (storm sewers, ditches/swales, etc.) will be reviewed and analyzed for their capacity to convey required storm frequency drainage. Coordination will be conducted with the County and SMC to identify existing drainage problems and concerns. All deliverables are assumed to be submitted to LCDOT electronically.

Based on an evaluation of the existing drainage conditions, a proposed drainage plan will be developed to accommodate the preferred alternative roadway geometry drainage. This analysis will include any storm sewer sizing, sewer routing, proposed ditch flows, and storm water detention solutions as necessary to meet the site and SMC requirements. In addition, the impacts to the culvert conveying water from upstream tributary to Hunt Club Farm Lake will be analyzed. A drainage report (LDTM) will be produced and submitted to the County and SMC for review. As part of the Roadway Drainage Study, potential BMP's (Best Management Practices) will be identified.

Drainage Studies Deliverables:

- ✓ Location Drainage Technical Memo (LDTM)

10. Geotechnical Services (*Rubino Engineering*)

See the attached Rubino Scope of Services for details on geotechnical services included.

Geotechnical Deliverables:

- ✓ Roadway Geotechnical Report (RGR)

11. Public Involvement

This task includes a public involvement program intended to engage local and regional stakeholders at key points during the Phase I process. The program will use a combination of online and in-person strategies. Public involvement letters and exhibits will be provided in English and Spanish.

Virtual Public Forum
The Lake County Virtual Public Forum (VPF) platform will be used for initial public outreach to gather public feedback on existing conditions and problems or deficiencies related to traffic, drainage or non-motorized travel needs. Benesch will prepare the following material to be incorporated into the VPF website by Lake County: Project Location Map, Existing Conditions exhibit with ADT, Crash exhibit, Project Timeline schematic, survey questions, comment starter questions. Materials will be provided to LCDOT for posting. Hosting a project website is not included in this scope.

Postcards advertising the VPF will be prepared and sent to up to 150 property owners based on the address list provided by LCDOT. Benesch will also prepare a newspaper advertisement for the VPF to be published in accordance with IDOT BLRS requirements.

Survey responses and comments received through the VPF will be reviewed and summarized for use in alternatives evaluation. A Frequently Asked Questions (FAQ) document and draft responses for up to 30 unique questions not covered by the FAQ will be prepared for LCDOT use. Sending comment responses will be completed by LCDOT and is not included in this scope.

Stakeholder Meetings
Up to 18 one-on-one or small group meetings will be held with the key project stakeholders and impacted property owners to discuss the proposed improvements. It is anticipated that an initial round of stakeholder meetings will be held prior to the Virtual Public Forum and a second round of meetings will be held prior to each Public Meeting.

Project Video
An artistic rendering of the proposed alternative design will be prepared for use in the stakeholder and public meetings and incorporated into video format.

A project video not exceeding five minutes will be prepared for use in the public meeting and stakeholder meetings. Project video will utilize drone footage and may include the following information: description of existing conditions and deficiencies, summary of alternatives considered, 3D/4D visualization of proposed improvements.

Public Meetings
Two open house style public meetings will be held for the project. The first meeting will present alternatives and the second meeting will present the proposed improvements in accordance with IDOT guidelines outlined in Chapter 21 of the BLRS Manual.

It is anticipated that the public meetings will be held in-person, at a public or easily accessible facility near the project site. Benesch will prepare and supply meeting materials including sign-in sheets, comment forms, a project information handout, exhibit boards, and audio-visual equipment required to play the project video. The project information handout and exhibits will be available in Spanish, and a Spanish translator will be available at the meeting. Meeting materials will be made available electronically to be posted on LCDOT, municipal, and other stakeholder websites.

Postcards advertising the Public Meetings will be prepared and sent to up to 150 property owners based on the address list provided by LCDOT. Benesch will also prepare newspaper

advertisements for the Public Meeting to be published in accordance with IDOT BLRS requirements.

A public meeting summary document, FAQ document and draft responses for up to 30 comments not covered by the FAQ will be prepared following the Public Meeting. Sending comment responses will be completed by LCDOT and is not included in this scope.

Public Involvement Program Deliverables:

- ✓ Virtual Public Forum questions and exhibits
- ✓ Virtual Public Forum summary, FAQ, and comment responses
- ✓ Publication of meeting notices in local newspapers as required by IDOT
- ✓ Postcard meeting notices
- ✓ Public Meeting materials including exhibits and handouts
- ✓ Public Meeting summaries and comment responses

12. Project Development Report

A draft Project Development Report (PDR) in IDOT BLR format (BLR22211 or BLR22210) will be developed and will incorporate the environmental, coordination, public involvement, and engineering aspects of the project. A Draft PDR will be developed prior to the second public information meeting and will be submitted to LCDOT for review. Comments received by LCDOT will be incorporated and resubmitted to LCDOT upon completion of the final public meeting and receipt of required clearances/approvals for review and approval. The Final PDR will include quantities and a cost estimate for the preferred alternative.

Project Development Report Deliverables:

- ✓ Cost Estimate
- ✓ Project Development Report (Draft and Final)

13. Agency Coordination and Meetings

This task includes design coordination with the various agencies impacted by the preferred alternative as established by the Alternatives Analysis and Geometric Studies.

The following coordination meetings are anticipated:

- Initial kick-off meeting with Lake County Division of Transportation – 1 meeting (In Person)
- Design review/coordination meetings with Lake County – 1 meeting per month (virtual)
- Preferred Alternative Evaluation Meeting with Lake County – 1 meeting (In Person)
- Coordination meetings with the Village of Gurnee – 2 Meetings (In person)
- IDOT/FHWA meeting not included or expected to be required
- Environmental permitting meetings to establish design requirements with:
  - Lake County Stormwater Management – 1 meeting (virtual)
  - US Army Corps of Engineers (USACE) – 1 meeting (virtual)

Additional services in this task include preparation of meeting agendas and exhibits/materials, preparation and distribution of meeting minutes, submittal of project design documents and reports for agency review, and follow-up correspondence.

Agency Coordination Deliverables**:**

- ✓ Meeting agenda packets and minutes
- ✓ Records of conversation (ROC) and e-mails of all coordination activities with the County and various agencies

14. Project Management and Administration and project documentation

Administration consists of project management responsibilities such as: Project scheduling activities, invoicing, tracking and communicating scope creep, staffing resource management and internal project team meetings to provide a quality product on schedule and within budget. Benesch will prepare progress reports and invoices on a four-week cycle. These progress reports and invoices will be in a format acceptable to the County.

Benesch will prepare a project schedule, including a breakdown of the major tasks depicting the project's key milestones and deliverables for Phase I.

Project Management and Administration Deliverables:

- ✓ Project Work Plan
- ✓ Progress Reports
- ✓ Scope Creep Log
- ✓ Invoices
- ✓ Project Schedule

15. Quality Assurance / Quality Control (QA/QC)

QA/QC consists of development of a QA/QC Plan and will include the internal processes necessary to ensure consistency and accuracy of documents and deliverables. Deliverables will be checked by independent peer reviews prior to delivery to LCDOT. Documentation of QA/QC procedures will be maintained and will be furnished upon request.

QA/QC and Administration Deliverables:

- ✓ QMP

Lake County Division of Transportation
Hunt Club and Stearns School Road Intersection - Phase I
Bensch Estimate of Hours (6-15-2023)

TASK	DESCRIPTION	Benesch HOURS
1	Data Collection	180
2	Design Survey - Benesch	508
3	Utility Coordination	48
4	Right of Way Services	24
5	Traffic and Safety Analysis	996
6	Alternatives Analysis	744
7	Geometric Design	964
8	Environmental Studies (Huff & Huff)	32
9	Drainage Studies	550
10	Geotechnical Services	16
11	Public Involvement	964
12	Project Development Report	240
13	Agency Coordination and Meetings	188
14	Project Management and Administration	148
15	Quality Assurance / Quality Control (QA/QC) and project documentation	241
	Total:	**5843**

Draft Subconsultant Estimate of Cost (6-2-2023)

	DESCRIPTION	Subconsultant Cost
1	Huff & Huff, Inc.	$ 24,908
2	Rubino Engineering	$ 30,808
3	Bravo Company Engineering	$ 93,000
4	Mathewson Right of Way Co.	$ 41,000
5	SWE Solutions	$ 23,081

Lake County Division of Transportation
Hunt Club and Stearns School Road Intersection - Phase I
Draft Estimate of Hours (As of 6-15-2023)

TASK	DESCRIPTION	HOURS	Direct Cost
1	**Data Collection**	**Benesch**	**Direct Cost ESTIMATE**
	Compile, organize and review the following information: Record plans, plats, development plans, roadway plans, prior engineering studies, GIS, ROW	120	
	Site visit, observations, field measurements and creation of photo log - 2 staff x 2 visits x 8 hrs/visit (includes prep/documentation) + 12 hrs photo log	44	1 vehicle @ $65/day x 2 visits = $130
	Site visit, drainage and detention observations 2 staff x 1 visits x 8 hrs/visit (includes prep/documentation)	16	1 vehicle @ $65/day x 1 visit = $65
	Sub-Total Task 1 =	**180**	

2	**Design Survey - Benesch**	**Benesch**	**Direct Cost ESTIMATE**
	Set up survey project	12	
	Set Control	120	1 vehicle @ $65/day x 15 days = $975
	ROW Search	50	
	Pickup topo to supplement / verify drone survey	40	
	Drainage Structure measurements	24	
	Stake property takes	12	
	Downloading/data reduction	12	
	One trip to the Recorder's office in Lake County	12	$150 Recorder Fees
	Additional computations/drafting/reseach if section corners need to be reset/monumented (if needed)	16	$500 Resetting monuments
	Existing Right-of-Way Determination and research for 7 parcel plats (idot style) - includes drafting, computations, analysis, and one correction based on comments, signed plats, etc. (30 hours each)	210	$5,250 estimated title commitments
	General Topo + 3D Model - Drone generated (SWE Solutions)	0	See subconsultant attachments for cost
	Sub-Total Task 2.1 =	**508**	

3	**Utility Coordination**	**Benesch**	**Direct Cost ESTIMATE**
	Sue Survey support, exhibits, and coordination - utility conflict impact assessment	24	
	Conflicts Identification Table	16	
	Coordinate proposed improvement plan transmittal to utility companies with record utility information. (draft letter and transmit with plan set)	8	
	Utility relocation plans and coordination meetings not included	0	
	SUE Survey (Bravo)	0	See subconsultant attachments for cost
	Sub-Total Task 3.1 =	**48**	

Lake County Division of Transportation
Hunt Club and Stearns School Road Intersection - Phase I
Draft Estimate of Hours (As of 6-15-2023)

TASK	DESCRIPTION	HOURS	Direct Cost
4	**Right of Way Services**	**Benesch**	**Direct Cost ESTIMATE**
	ROW evaluation support and coordination for Mathewson	24	
	Preliminary market assessments	0	See subconsultant attachments for cost
	Sub-Total Task 4 =	**24**	
5	**Traffic and Safety Analysis**	**Benesch**	**Direct Cost ESTIMATE**
	Obtain Miovision traffic data (6 signalized intersections - 24 hour weekday count and 2 sets of 8 hour weekend counts at each location)	48	6 x $90/hr x (24 + 8 + 8)hrs = $21,600
	Traffic Projections - develop ITE Trip Generation growth rates & CMAP coordination	80	
	Traffic analysis - Vistro - evaluate corridor: existing configuration, no build, 6 alternatives	180	
	Traffic analysis - HCS - evaluate study intersesction: existing configuration, no build, 6 alternatives	120	
	Traffic analysis - Vissim - 5 models: existing, signal, single roundabout, mini roundabout, multilane roundabout (56 hrs per model)	280	
	Safety Analysis - HSS and HSM - 2 no-build alternatives and up to 6 geometric alternatives	108	
	Traffic analysis - construction staging queuing analysis for preferred alternative	100	
	Obtain, compile and summarize crash data for past 5 years within intersection improvement limits (collision diagrams provided by LCDOT)	24	
	Prepare and submit Technical Memorandum	56	
	Sub-Total Task 5 =	**996**	

Lake County Division of Transportation
Hunt Club and Stearns School Road Intersection - Phase I
Draft Estimate of Hours (As of 6-15-2023)

TASK DESCRIPTION **HOURS** **Direct Cost**

6	Alternatives Analysis	Benesch	Direct Cost ESTIMATE
	Preliminary Geometric Alternatives Design Evaluation (Assumes 6 alternatives total with two intersection types and impact analysis)	240	
	Preliminary Drainage Alternatives Design Evaluation (Assumes 6 intersection alternatives and 3 path alternatives as defined by geometric alternatives)	96	
	Preliminary Sidewalk Alternatives Design Evaluation - Grand Ave to Bridle Trail Rd (Assumes 3 alternatives)	120	
	Alignment assessment - Evaluate up to 3 shifted alignment options to finalize preferred alternative geometry	24	
	50-scale exhibits or strip maps for each alternative (6)	128	
	Concept typical sections for each alternative (6)	48	
	Alternative Evaluation Powerpoint Presentation	40	
	Alternative Analysis Summary Memo	48	
	Sub-Total Task 6.1 =	**744**	

7	Geometric Design	Benesch	Direct Cost ESTIMATE
	Develop 50-scale plan-profile sheets (6 sheets @ 20 hours)	120	
	Typical Sections (6 Typicals @ 6 hours each)	36	
	ADA details not included (deferred to Phase II)	0	
	Create 3D model for design and impacts evaluation - 2 corridors (Hunt Club and Stearns School) 6000' total distance (Excludes Grand Ave to Bridle Trail Rd Bike Path)	200	
	Develop cross sections (every 100' plus driveway crossings @ 4hrs each = 70 sections x 3hrs) (Excludes Grand Ave to Bridle Trail Rd Bike Path)	280	
	Prepare design variance summary (if needed) - LCDOT submission only	24	
	Develop conceptual maintenance of traffic plan exhibits	80	
	Develop conceptual maintenance of traffic typical sections	24	
	Construction staging technical memo	60	
	IDS Plans (1 intersection)	140	
	Sub-Total Task 7 =	**964**	

Lake County Division of Transportation
Hunt Club and Stearns School Road Intersection - Phase I
Draft Estimate of Hours (As of 6-15-2023)

TASK	DESCRIPTION	HOURS	Direct Cost

8	Environmental Studies	Benesch	Direct Cost ESTIMATE
	Prepare and submit Environmental Survey Request (ESR) package of forms and exhibits. Includes exhibit and resource database reviews (HARGIS, wetlands, etc.) Address LCDOT comments and resubmit if required.	24	
	Environmental studies support and oversight	8	
	Wetland delineation	0	See subconsultant attachments for cost
	Tree Survey	0	See subconsultant attachments for cost
	PESA	0	See subconsultant attachments for cost
	PSI/CCDD (Defer to Phase II)	0	See subconsultant attachments for cost
	Jurisdictional Determination & WIE	0	See subconsultant attachments for cost
	Sub-Total Task 8 =	**32**	

9	Drainage Studies	Benesch	Direct Cost ESTIMATE
	Analyze existing drainage, develop CivilStorm model and EDP	150	$500 FEMA model request
	Develop Phase I level conceptual routing and layout (structure spacing, location, etc.) and PDP.	200	
	Proposed Path Detention analysis and layout	100	
	Prepare abbreviated LDS, submit, revise per comments and finalize	100	
	Sub-Total Task 9 =	**550**	

10	Geotechnical Services	Benesch	Direct Cost ESTIMATE
	Geotechnical coordination - mobilization coordination with LCDOT, provide exhibits and location direction for boring operations	16	
	Soil Borings (setup/drilling/reporting)	0	See subconsultant attachments for cost
	Sub-Total Task 10 =	**16**	

Lake County Division of Transportation
Hunt Club and Stearns School Road Intersection - Phase I
Draft Estimate of Hours (As of 6-15-2023)

TASK DESCRIPTION **HOURS** **Direct Cost**

11	Public Involvement	Benesch	Direct Cost ESTIMATE
	Virtual Public Forum initial project materials (including advertisement and postcards)	80	Postcards ($300) + Publication ($500) = $800
	Virtual Public Forum public outreach, FAQ, and comment response preperation	40	
	Individual stakeholder meetings - up to 18 (18 meetings, 4 hrs, 2 people)	144	1 vehicle @ $65/day x 18 meetings = $1170
	Individual stakeholder meeting materials preperation (Exhibits, handouts, meeting materials, summaries)	144	
	Translation Services - Spanish	24	$7500 - service hours for materials and in-person translation specialist
	Project Video	200	$6600 Video processing and graphics support
	Public Meeting 1		A/V Equipment ($1000) + facility Rental ($3000) = $4000
	Exhibits, handouts, meeting materials, prepare newspaper ads	120	Postcards ($300) + Publication ($500) + Exhibits/Handouts ($3,000) = $3,800
	Meeting attendance (1 meeting x 6 hrs x 4 people)	24	3 vehicles @ $65/day = $195
	Follow-up Summary and comment responses	32	
	Public Meeting 2		A/V Equipment ($1000) + facility Rental ($3000) = $4000
	Exhibits, handouts, meeting materials, prepare newspaper ads	100	Postcards ($300) + Publication ($500) + Exhibits/Handouts ($3,000) = $3,800
	Meeting attendance (1 meeting x 6 hrs x 4 people)	24	3 vehicles @ $65/day = $195
	Follow-up Summary and comment responses	32	
	Sub-Total Task 11 =	**964**	

12	Project Development Report	Benesch	Direct Cost ESTIMATE
	Draft PDR Report (BLR 22211) - Submitted electronically to LCDOT only (not IDOT)	120	1 Hard copy for public meeting ($300)
	Final PDR Report (BLR 22211) - Submitted electronically to LCDOT only (not IDOT)	80	
	Cost Estimate	40	
	Sub-Total Task 12 =	**240**	

Lake County Division of Transportation
Hunt Club and Stearns School Road Intersection - Phase I
Draft Estimate of Hours (As of 6-15-2023)

TASK	DESCRIPTION	HOURS	Direct Cost

13	Agency Coordination and Meetings	Benesch	Direct Cost ESTIMATE
	Initial kick-off meeting with Lake County Division of Transportation - In person (1 meeting x 4 hrs x 3 people, agenda, and meeting minutes)	16	1 vehicle @ $65/day x 1 meeting = $65
	Design review/coordination meetings with LCDOT - Virtual (one per month x 18 months; 1 meeting x 2 hrs x 2 people and meeting minutes)	108	
	Preferred Alternative Evaluation Meeting with Lake County Division of Transportation - In person (1 meeting x 4 hrs x 3 people, agenda, and meeting minutes)	16	1 vehicle @ $65/day x 1 meeting = $65
	Coordination meetings with the Village of Gurnee - In person (2 meetings x 4 hrs x 3 people and meeting minutes)	28	1 vehicle @ $65/day x 2 meetings = $130
	Environmental Permitting Meetings - LCSMC, USACE - Virtual (2 meeting x 2 hrs x 3 people and meeting minutes)	20	
	IDOT/FHWA Coordination Meetings not included or expected to be required	0	
	Sub-Total Task 13 =	**188**	

14	Project Management and Administration	Benesch	Direct Cost ESTIMATE
	Project Setup (schedule, contracts, and files)	40	
	Project administration, management and general coordination (6 hrs per month x 18 months)	108	
	Sub-Total Task 14 =	**148**	

15	Quality Assurance / Quality Control (QA/QC) and project documentation	Benesch	Direct Cost ESTIMATE
	Quality Management Plan (QMP)	16	
	QA/QC (4% of total hours)	225	
	Sub-Total Task 15 =	**241**	

	Totals	**5843**	

Illinois Department of Transportation

EXHIBIT D

COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

FIXED RAISE

Local Public Agency	County	Section Number
Lake County DOT	Lake	22-00095-20-CH

Prime Consultant (Firm) Name	Prepared By	Date
Alfred Benesch & Company	Brent Sears	6/15/2023

Consultant / Subconsultant Name	Job Number
Alfred Benesch & Company	

Note: This is name of the consultant the CECS is being completed for. This name appears at the top of each tab.

Remarks

Hunt Club and Stearns School Road Intersection Improvement, Phase I

PAYROLL ESCALATION TABLE

CONTRACT TERM	**24**	**MONTHS**	**OVERHEAD RATE**	**169.97%**
START DATE	**8/1/2023**		**COMPLEXITY FACTOR**	
RAISE DATE	**1/1/2024**		**% OF RAISE**	**2.00%**
END DATE	7/31/2025			

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	8/1/2023	1/1/2024	5	20.83%
1	1/2/2024	1/1/2025	12	51.00%
2	1/2/2025	8/1/2025	7	30.35%

The total escalation = 2.18%

Local Public Agency	County	Section Number
Lake County DOT	Lake	22-00095-20-CH

Consultant / Subconsultant Name	Job Number
Alfred Benesch & Company	

PAYROLL RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET FIXED RAISE

MAXIMUM PAYROLL RATE	**86.00**
ESCALATION FACTOR	**2.18%**

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Project Principal	$86.00	$86.00
Sr Technical Manager	$86.00	$86.00
Sr. Project Manager	$75.00	$76.63
Project Manager II	$70.00	$71.52
Project Manager I	$58.50	$59.77
Sr. Project Engineer	$60.00	$61.31
Project Engineer II	$55.00	$56.20
Project Engineer I	$43.50	$44.45
Sr. Designer	$50.00	$51.09
Designer II	$43.00	$43.94
Designer I	$36.50	$37.30
Sr. Surveyor	$60.10	$61.41
Sr. Party Chief	$49.20	$50.27
Sr. Technical Specialist	$53.00	$54.15
Technical Manager II	$65.00	$66.42
Technical Manager I	$65.00	$66.42
Sr. Technologist	$53.43	$54.59
Technologist II	$44.00	$44.96
Project Assistant II	$34.00	$34.74
Project Assistant I	$35.00	$35.76
Intern	$25.00	$25.54

Local Public Agency	County	Section Number
Lake County DOT	Lake	22-00095-20-CH

Consultant / Subconsultant Name	Job Number
Alfred Benesch & Company	

SUBCONSULTANTS

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

NAME	Direct Labor Total	Contribution to Prime Consultant
Bravo Company Engineering	26,556.00	2,655.60
Huff & Huff, Inc. (GZA)	7,380.00	738.00
Rubino Engineering, Inc.	7,020.00	702.00
SWE Solutions	8,728.00	872.80

Total	49,684.00	4,968.40

NOTE: Only subconsultants who fill out a cost estimate that splits out direct labor may be listed on this sheet.

Local Public Agency	County	Section Number
Lake County DOT	Lake	22-00095-20-CH

Consultant / Subconsultant Name	Job Number
Alfred Benesch & Company	

DIRECT COSTS WORKSHEET

List ALL direct costs required for this project. Those not listed on the form will not be eligible for reimbursement by the LPA on this project.

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

ITEM	ALLOWABLE	QUANTITY	CONTRACT RATE	TOTAL
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual Cost (Up to state rate maximum)			$0.00
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual Cost			$0.00
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			$0.00
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			$0.00
Vehicle Owned or Leased	$32.50/half day (4 hours or less) or $65/full day	46	$65.00	$2,990.00
Vehicle Rental	Actual Cost (Up to $55/day)			$0.00
Tolls	Actual Cost			$0.00
Parking	Actual Cost			$0.00
Overtime	Premium portion (Submit supporting documentation)			$0.00
Shift Differential	Actual Cost (Based on firm's policy)			$0.00
Overnight Delivery/Postage/Courier Service	Actual Cost (Submit supporting documentation)			$0.00
Copies of Deliverables/Mylars (In-house)	Actual Cost (Submit supporting documentation)			$0.00
Copies of Deliverables/Mylars (Outside)	Actual Cost (Submit supporting documentation)			$0.00
Project Specific Insurance	Actual Cost			$0.00
Monuments (Permanent)	Actual Cost	2	$250.00	$500.00
Photo Processing	Actual Cost			$0.00
2-Way Radio (Survey or Phase III Only)	Actual Cost			$0.00
Telephone Usage (Traffic System Monitoring Only)	Actual Cost			$0.00
CADD	Actual Cost (Max $15/hour)			$0.00
Web Site	Actual Cost (Submit supporting documentation)			$0.00
Advertisements	Actual Cost (Submit supporting documentation)	3	$500.00	$1,500.00
Public Meeting Facility Rental	Actual Cost (Submit supporting documentation)	2	$3,000.00	$6,000.00
Public Meeting Exhibits/Renderings & Equipment	Actual Cost (Submit supporting documentation)	2	$7,900.00	$15,800.00
Recording Fees	Actual Cost	3	$50.00	$150.00
Transcriptions (specific to project)	Actual Cost			$0.00
Courthouse Fees	Actual Cost			$0.00
Storm Sewer Cleaning and Televising	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Traffic Control and Protection	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Aerial Photography and Mapping	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Utliity Exploratory Trenching	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Testing of Soil Samples	Actual Cost			$0.00
Lab Services	Actual Cost (Provide breakdown of each cost)			$0.00
Equipment and/or Specialized Equipment Rental	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Title Commitments	Actual Cost	7	$750.00	$5,250.00
Traffic Count Collection Services - Miovision	Actual Cost	1	$21,600.00	$21,600.00
FEMA Hydraulic Model	Actual Cost	1	$500.00	$500.00
Spanish Translation Services	Actual Cost	3	$2,500.00	$7,500.00
			TOTAL DIRECT COSTS:	**$61,790.00**

Local Public Agency
Lake County DOT

County
Lake

Section Number
22-00095-20-CH

Consultant / Subconsultant Name
Alfred Benesch & Company

Job Number

COST ESTIMATE WORKSHEET

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

OVERHEAD RATE 169.97%

COMPLEXITY FACTOR 0

TASK	DIRECT COSTS (not included in row totals)	STAFF HOURS	PAYROLL	OVERHEAD & FRINGE BENEFITS	FIXED FEE	SERVICES BY OTHERS	TOTAL	% OF GRAND TOTAL
1. Data Collection	195	180	9,713	16,509	3,205		29,427	2.36%
2 Design Survey	6,875	508	28,095	47,753	9,271		85,119	6.83%
3 Utility Coordination		48	2,458	4,179	811		7,448	0.60%
4. Right of Way Services		24	1,283	2,181	424		3,888	0.31%
5. Traffic and Safety Analysis	21,600	996	52,714	89,598	17,396		159,708	12.81%
6 Alternatives Analysis		744	40,121	68,194	13,240		121,555	9.75%
7. Geometric Design		964	50,785	86,320	16,759		153,864	12.34%
8 Environmental Studies		32	1,709	2,906	564		5,179	0.42%
9. Drainage Studies	500	550	29,418	50,002	9,708		89,128	7.15%
10. Geotechnical Services		16	834	1,417	275		2,526	0.20%
11. Public Involvement	32,060	964	56,060	95,285	18,500		169,845	13.62%
12. Project Development Report	300	240	13,325	22,648	4,397		40,370	3.24%
13. Agency Coordination and Meeting	260	188	10,811	18,376	3,568		32,755	2.63%
14. Project Management and Administration		148	8,402	14,282	2,773		25,457	2.04%
15. QA/QC and Project Documentation		241	13,598	23,112	4,487		41,197	3.30%
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
Subconsultants:			-	-	-		-	0.00%
1. Bravo Company Engineering			-	-	-	93,000	93,000	7.46%
2. Huff & Huff, Inc. (GZA)			-	-	-	24,908	24,908	2.00%
3. Mathewson Right of Way Co.			-	-	-	41,000	41,000	3.29%
4. Rubino Engineering, Inc.			-	-	-	30,808	30,808	2.47%
5. SWE Solutions			-	-	-	23,081	23,081	1.85%
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
Subconsultant DL							$4,968.40	0.40%
Direct Costs Total ===>	$61,790.00						**$61,790.00**	4.96%
TOTALS		5843	319,326	542,762	105,378	212,797	1,247,021	100.00%
			862,088					

Local Public Agency
Lake County DOT

County
Lake

Section Number
22-00095-20-CH

Consultant / Subconsultant Name
Alfred Benesch & Company

Job Number

AVERAGE HOURLY PROJECT RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

SHEET 1 OF 3

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			1. Data Collection			2 Design Survey			3 Utility Coordination			4. Right of Way Services			5. Traffic and Safety Analysis		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Project Principal	86.00	68.0	1.16%	1.00															
Sr Technical Manager	86.00	96.0	1.64%	1.41													96	9.64%	8.29
Sr. Project Manager	76.63	0.0																	
Project Manager II	71.52	416.0	7.12%	5.09	24	13.33%	9.54												
Project Manager I	59.77	870.0	14.89%	8.90	40	22.22%	13.28	48	9.45%	5.65	12	25.00%	14.94	8	33.33%	19.92	134	13.45%	8.04
Sr. Project Engineer	61.31	356.0	6.09%	3.74															
Project Engineer II	56.20	1,093.0	18.71%	10.51	40	22.22%	12.49				12	25.00%	14.05	8	33.33%	18.73	180	18.07%	10.16
Project Engineer I	44.45	464.0	7.94%	3.53	36	20.00%	8.89	60	11.81%	5.25	24	50.00%	22.22	8	33.33%	14.82			
Sr. Designer	51.09	192.0	3.29%	1.68													192	19.28%	9.85
Designer II	43.94	780.0	13.35%	5.87	40	22.22%	9.76										210	21.08%	9.26
Designer I	37.30	378.0	6.47%	2.41													132	13.25%	4.94
Sr. Surveyor	61.41	220.0	3.77%	2.31				220	43.31%	26.59									
Sr. Party Chief	50.27	180.0	3.08%	1.55				180	35.43%	17.81									
Sr. Technical Specialist	54.15	40.0	0.68%	0.37															
Technical Manager II	66.42	0.0																	
Technical Manager I	66.42	228.0	3.90%	2.59															
Sr. Technologist	54.59	246.0	4.21%	2.30													36	3.61%	1.97
Technologist II	44.96	96.0	1.64%	0.74															
Project Assistant II	34.74	80.0	1.37%	0.48															
Project Assistant I	35.76	0.0																	
Intern	25.54	40.0	0.68%	0.17													16	1.61%	0.41
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
TOTALS		5843.0	100%	$54.65	180.0	100.00%	$53.96	508.0	100%	$55.31	48.0	100%	$51.22	24.0	100%	$53.47	996.0	100%	$52.93

Local Public Agency
Lake County DOT

County
Lake

Section Number
22-00095-20-CH

Consultant / Subconsultant Name
Alfred Benesch & Company

Job Number

AVERAGE HOURLY PROJECT RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

PAYROLL CLASSIFICATION	AVG HOURLY RATES	6 Alternatives Analysis			7. Geometric Design			8 Environmental Studies			9. Drainage Studies			10. Geotechnical Services			11. Public Involvement		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Project Principal	86.00	16	2.15%	1.85	16	1.66%	1.43										16	1.66%	1.43
Sr Technical Manager	86.00																		
Sr. Project Manager	76.63																		
Project Manager II	71.52	80	10.75%	7.69	40	4.15%	2.97				16	2.91%	2.08				160	16.60%	11.87
Project Manager I	59.77	150	20.16%	12.05	128	13.28%	7.94	6	18.75%	11.21	60	10.91%	6.52	8	50.00%	29.89	80	8.30%	4.96
Sr. Project Engineer	61.31				140	14.52%	8.90	12	37.50%	22.99							100	10.37%	6.36
Project Engineer II	56.20	150	20.16%	11.33	240	24.90%	13.99				56	10.18%	5.72				246	25.52%	14.34
Project Engineer I	44.45	96	12.90%	5.74	120	12.45%	5.53				72	13.09%	5.82	8	50.00%	22.22			
Sr. Designer	51.09																		
Designer II	43.94	120	16.13%	7.09	148	15.35%	6.75	14	43.75%	19.22	120	21.82%	9.59						
Designer I	37.30	92	12.37%	4.61	96	9.96%	3.71				58	10.55%	3.93						
Sr. Surveyor	61.41																		
Sr. Party Chief	50.27																		
Sr. Technical Specialist	54.15																40	4.15%	2.25
Technical Manager II	66.42																		
Technical Manager I	66.42	40	5.38%	3.57	12	1.24%	0.83				160	29.09%	19.32						
Sr. Technologist	54.59																210	21.78%	11.89
Technologist II	44.96																96	9.96%	4.48
Project Assistant II	34.74										8	1.45%	0.51				16	1.66%	0.58
Project Assistant I	35.76																		
Intern	25.54				24	2.49%	0.64												
TOTALS		744.0	100%	$53.93	964.0	100%	$52.68	32.0	100%	$53.42	550.0	100%	$53.49	16.0	100%	$52.11	964.0	100%	$58.15

Local Public Agency
Lake County DOT

County
Lake

Section Number
22-00095-20-CH

Consultant / Subconsultant Name
Alfred Benesch & Company

Job Number

AVERAGE HOURLY PROJECT RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

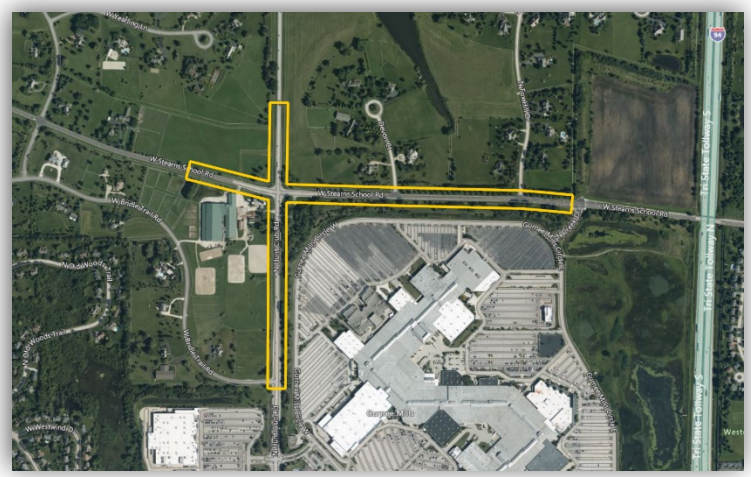
SHEET 3 **OF** 3

PAYROLL CLASSIFICATION	AVG HOURLY RATES	12. Project Development Report			13. Agency Coordination and Meetings			14. Project Management and Administration			15. QA/QC and Project Documentation								
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Project Principal	86.00	4	1.67%	1.43	4	2.13%	1.83	8	5.41%	4.65	4	1.66%	1.43						
Sr Technical Manager	86.00																		
Sr. Project Manager	76.63																		
Project Manager II	71.52	8	3.33%	2.38	40	21.28%	15.22	32	21.62%	15.46	16	6.64%	4.75						
Project Manager I	59.77	32	13.33%	7.97	60	31.91%	19.08	60	40.54%	24.23	44	18.26%	10.91						
Sr. Project Engineer	61.31	52	21.67%	13.28							52	21.58%	13.23						
Project Engineer II	56.20	80	33.33%	18.73	32	17.02%	9.57	8	5.41%	3.04	41	17.01%	9.56						
Project Engineer I	44.45				20	10.64%	4.73				20	8.30%	3.69						
Sr. Designer	51.09																		
Designer II	43.94	64	26.67%	11.72	24	12.77%	5.61				40	16.60%	7.29						
Designer I	37.30																		
Sr. Surveyor	61.41																		
Sr. Party Chief	50.27																		
Sr. Technical Specialist	54.15																		
Technical Manager II	66.42																		
Technical Manager I	66.42										16	6.64%	4.41						
Sr. Technologist	54.59																		
Technologist II	44.96																		
Project Assistant II	34.74				8	4.26%	1.48	40	27.03%	9.39	8	3.32%	1.15						
Project Assistant I	35.76																		
Intern	25.54																		
TOTALS		240.0	100%	$55.52	188.0	100%	$57.51	148.0	100%	$56.77	241.0	100%	$56.42	0.0	0%	$0.00	0.0	0%	$0.00

Bravo Company ENGINEERING

EXHIBIT A – SCOPE OF SERVICES

I. TECHNICAL APPROACH AND PROJECT UNDERSTANDING

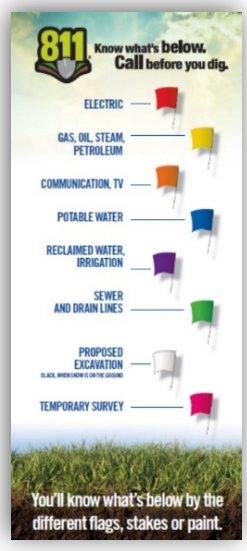


This project involves a Quality Level B ("QLB") subsurface utility engineering (SUE) investigation of the intersection of Stearns School Road and Hunt Club Road, from 800' west of the intersection to N. Creek Drive and from Bridle Trail Rd to 800' north of the intersection; this amounts to a total length of approximately 5,973 feet (1.13mi) of roadway.

QLB involves the use of surface geophysical techniques to determine the existence and horizontal position of underground utilities as well as their approximate vertical depths. This activity is called "designating". It further correlates utility records and surface topographical information and may also help reveal unrecorded lines. This information may be sufficient to accomplish preliminary engineering goals, by helping the designer to determine where to place storm drainage systems, footers, foundations, and other design features in order to avoid conflicts with existing utilities. Slight adjustments in the design may produce substantial cost savings by eliminating utility relocations.

Our project approach will include the following:

A. Utility Company Coordination – JULIE, Inc. serves as a message handling, notification service for underground facility owners, taking information about planned excavations and distributing this information to its membership. It is then the responsibility of each facility owner to mark the location of their underground facilities at the excavation site or notify the excavator that they have no facilities in conflict with the proposed excavation.



We will first submit to JULIE a Design Stage/Planning Information Request. The Design Stage/Planning Information Request is beneficial for engineers and others who are in the design or planning stage of a project and excavation is not intended in the immediate future. We will indicate that we are in the design stage of the project, the information will be processed, and we will receive a list of affected member engineering contacts via email.

We will send letters to the utility companies within the project limits requesting copies of their utility atlases. While locating an underground utility line is not an exact science, the atlases will be used to incorporate utility locations within our project base drawing.

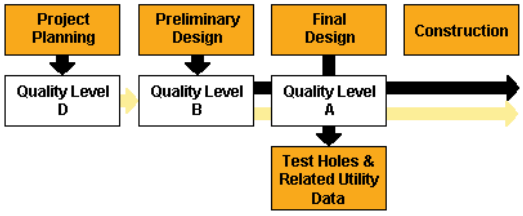
The facility owners are required to respond to a valid design stage request within 10 working days upon notification by the designer in one of three ways:

- Provide drawings/prints of the location of the facility owner's underground facilities at the proposed site.
- Show the location of the facility owner's underground facilities on a drawing provided by the designer.
- Locate and mark the facility owner's underground facilities at the proposed job site.

As responses from utility companies are received, we will log all correspondence and begin creating a preliminary utility base file to reflect approximate and "Level D" locations of existing facilities in the project area.

B. Field Investigation – This item includes review of the existing topographic survey and utility base file prepared, and a "plan-in-hand" field investigation of the project site will be performed to verify the completeness and accuracy of the utility atlases and corresponding Level D data. Bravo Company will utilize electronic depth gauge tools and software to precisely measure both horizontal and vertical depths of all existing utilities within the project limits. Once measured, this Quality Level B utility information will be automatically stored in data files that can be easily imported into contract drawings and sheets.

C. Contract Drawings - Bravo Company will use the field-measured Quality Level B data files, existing topographic survey file, and other base drawing files being prepared by Benesch to further refine the utility base file and ensure it depicts the position and type of all known utilities (aerial and underground) and facilities obtained through the design stage/planning process. In addition, we will utilize the vertical information imported through the Quality Level B investigation to create a 3D Utility Model. This 3D model can serve as a useful tool in the conflict analysis process and can eventually be incorporated into the Benesch profile and cross section sheets.



Using a consistent border sheet drawing file, as developed by Benesch, we will prepare Subsurface Utility Engineering plan sheets that can be used within the contract construction documents at a scale of 1" = 50' and that can also be printed to PDF for electronic distribution and viewing.

II. Technical Experience

The Bravo Company Engineering team assembled has over 25-years of combined experience supporting Utility, County, IDOT, Tollway, and other Agencies through design process with Project Management and Design Services. Our independent and impartial utility services include conflict analysis, conflict resolution, and supporting status of utility services beginning at the preliminary investigation Level D with design stage requests, existing records obtained and oral recollections from public works staff, and progressively up through the requisite levels of quality C, B, and A for each individual utility and to ascertain conflict resolution.

When required, we are competent in the coordination of utility efforts to complete IDOT's Status Of Utility specification that is typically included within LCDOT contract letting documents. Other responsibilities have included nondestructive techniques to incorporate the roadway's design, surface characteristics, surveying and mapping, vacuum excavation, and asset management technologies to identify and classify quality levels of existing subsurface utility data as well as mapping locations of the underground utilities.

Bravo Company Engineering can meet this contract obligation with our current staff and has the knowledge and experience to perform the Project Management and Subsurface Utility Engineering. Teaming with an experienced design consultant staff also ensures proper scheduling of the work so that the project is on target beginning-to-end.

We are confident that our team has what it takes to deliver a successful program and quality product that Benesch, our team, and the Client's staff can be proud of.

Very fitting for this project is Bravo Company Engineering's philosophy mantra of BE, KNOW, DO! Be the expert, Know the job, and Do the difficult!

Bravo Company ENGINEERING

SUE LEAD INVESTIGATIVE ENGINEER

REID MAGNER, P.E.

Reid is engaged, enthusiastic, and volunteers throughout the Chicagoland Region with the APWA having served as their branch past-president and has a record of large project achievements; he understands planning, design, land acquisition, and construction services; he has skillful guidance and expertise extending thru the design engineering team, leadership with contagious energy and project engagement.

Reid's essential duties and responsibilities include the implementation of projects in accordance with guidelines for local cities/municipalities, counties, and other state agencies utilizing local, federal, and other specialty type funding. His project work includes the design and preparation of plans, special provisions, permit applications, quantity calculations and estimates of cost and time, exhibits and engineering specialty reports for projects, and subsurface utility engineering.

He leads meetings with clients and agencies, conducts public involvement activities, as necessary, and performs day-to-day engineering tasks as dictated by workload.

	General Information			QLA, QLC or QLB Start Location Information							QLB End Location Information						Utility Information								
Request #	Contract #	Location Information	Property Owner	SUE Quality Level (A,B,C)	Nearest Mile Post (Start)	Mainline Station # (Start)	Offset		Northing (Start)	Easting (Start)	Nearest Mile Post (End)	Mainline Station # (End)	Offset		Northing (End)	Easting (End)	Utility Type	Utility Owner Name	Utility Size	Utility Material	Drawing Provided				
							FT	L/R					FT	L/R							Atlas	Plan	Profile	X-Sect	Plat	Permit
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
1	RR-18-4382	SW Quadrant, SSR at I-94	ISTHA	QLA	7.6	3720+00	120	L	2085930.246	1087939.242							Fiber Optic	G4S Company	10"	HDPE	x	x				
2	RR-18-4382	SW Quadrant, SSR at I-94	ISTHA	QLA	7.6	3720+50	120	L	2085980.219	1087940.883							Fiber Optic	G4S Company	10"	HDPE	x	x				
3	RR-18-4382	SW Quadrant, SSR at I-94	ISTHA	QLA	7.6	3721+00	120	L	2086030.192	1087942.523							Fiber Optic	G4S Company	10"	HDPE	x	x				
4	RR-18-4382	SW Quadrant, SSR at I-94	ISTHA	QLA	7.6	3721+50	120	L	2086080.165	1087944.163							Fiber Optic	G4S Company	10"	HDPE	x	x				
5	RR-18-4382	SW Quadrant, SSR at I-94	ISTHA	QLA	7.6	3722+00	120	L	2086130.138	1087945.804							Fiber Optic	G4S Company	10"	HDPE	x	x				
6	RR-18-4382	SW Quadrant, SSR at I-94	ISTHA	QLA	7.6	3722+35	111	L	2086164.832	1087955.478							Fiber Optic	G4S Company	10"	HDPE	x	x				
7	RR-18-4382	SW Quadrant, SSR at I-94	ISTHA	QLA	7.6	3722+50	108	L	2086179.683	1087960.154							Fiber Optic	G4S Company	10"	HDPE	x	x				
8	RR-18-4382	SSR at Tri-State Tollway	ISTHA	QLA	7.6	3723+00	106	L	2086229.616	1087962.992							Fiber Optic	G4S Company	10"	HDPE	x	x				
9	RR-18-4382	SSR at Tri-State Tollway	ISTHA	QLA	7.5	3723+25	106	L	2086254.601	1087963.834							Fiber Optic	G4S Company	5-1 1/2", 6-1 1/4"	HDPE	x	x				
10	RR-18-4382	NW Quadrant, SSR at I-94	ISTHA	QLA	7.5	3723+75	112	L	2086304.795	1087958.941							Fiber Optic	G4S Company	5-1 1/2", 6-1 1/4"	HDPE	x	x				
11	RR-18-4382	NW Quadrant, SSR at I-94	ISTHA	QLA	7.5	3724+00	121	L	2086330.053	1087951.722							Fiber Optic	G4S Company	5-1 1/2", 6-1 1/4"	HDPE	x	x				
12	RR-18-4382	NW Quadrant, SSR at I-94	ISTHA	QLA	7.5	3724+50	121	L	2086380.035	1087953.076							Fiber Optic	G4S Company	5-1 1/2", 6-1 1/4"	HDPE	x	x				
13	RR-18-4382	NW Quadrant, SSR at I-94	ISTHA	QLA	7.5	3725+00	121	L	2086430.009	1087954.707							Fiber Optic	G4S Company	5-1 1/2", 6-1 1/4"	HDPE	x	x				
14	RR-18-4382	NW Quadrant, SSR at I-94	ISTHA	QLA	7.5	3725+50	121	L	2086479.982	1087956.339							Fiber Optic	G4S Company	5-1 1/2", 6-1 1/4"	HDPE	x	x				
15	RR-18-4382	NW Quadrant, SSR at I-94	ISTHA	QLA	7.5	3726+00	121	L	2086529.955	1087957.971							Fiber Optic	G4S Company	5-1 1/2", 6-1 1/4"	HDPE	x	x				
16	RR-18-4382	NW Quadrant, SSR at I-94	ISTHA	QLA	7.5	3726+50	121	L	2086579.929	1087959.602							Fiber Optic	G4S Company	5-1 1/2", 6-1 1/4"	HDPE	x	x				
17																										

III. SCOPE OF SUBSURFACE UTILITY ENGINEERING (SUE) SERVICES

Our Subsurface Utility Engineering (SUE) Investigative approach involves coordination with JULIE and the utility companies owning facilities within the project limits, a field investigation to the site to perform electronic depth measurements of utilities, and preparation of 2D and 3D utility base files to assist in the creation of SUE Investigation of Underground Utilities drawings.

1. **Early Coordination and Data Collection**
   - A. Submit to JULIE a Design Stage/Planning Information Request to determine which utility companies are within the project limits and who should be contacted with future atlas request
   - B. Send letters to the utility companies within the project limits requesting copies of their utility atlases.
   - C. Develop a utility log to document all utility coordination efforts.
   - D. Develop a preliminary 2D utility base file based using all atlases files received (Quality Level D). This preliminary base will be used as a guide during field investigations.

2. **Field Survey**
   - A. A Site Investigation will be conducted to obtain electronic horizontal and vertical measurements of all existing utilities (Quality Level B) as well as photo documentation of above ground and aerial facilities.

3. **SUE Plan Sheets and Utility Model Development**
   - A. Import Quality Level B data to further refine 2D utility base file.
   - B. Use Quality Level B data to create a 3D utility model using Microstation's OpenRoads Designer Subsurface Utility tools.

C. Use 2D Utility Base file, additional base files provided by Benesch, and IDOT's standard border to develop SUE Investigation of Underground Utilities sheets. Sheets include color coded utility linework, utility owner callouts, and electronic depth labels at key crossing locations.

D. Quality Level A ("QLA "), if necessary, involves the use of nondestructive digging equipment at discrete, critical points to determine the precise horizontal and vertical position of underground utilities, as well as the type, size, condition, material, and other characteristics. This activity is called "locating." It is the highest quality level presently available. This information, when combined with other surveyed and mapped information, allows the designer to infer plan and profile information, for use in making final design decisions. By knowing exactly where a utility is positioned in three dimensions, the designer can accurately determine the extent of a utility conflict, or can often make small adjustments in elevations or horizontal locations and avoid the need to relocate utilities. Additional information such as utility material, condition, size, soil contamination, and paving thickness also assists the designer and utility owner in their decisions. QLA information (in the form of test hole logs), when included in the project bid documents, may yield more favorable bids due to reduced contractor uncertainty about subsurface conditions.

    i. Where a potential QLA SUE investigation is determined to have value and assists the project team in making final design decisions, we will first request that the affected utilities perform their own investigations to be supported by as-built documentation though field exploratory logs at no cost to the project. If the affected Utility is not able to provide a QLA SUE investigation, Bravo Company Engineering can provide the necessary QLA SUE vacuum excavation services. Work assumes access is available to the excavation sites and no surface locates, survey marks, traffic control, permits or permission from property owners, utilities, and government agents, or permitting fees will be required.

4. Utility Company Coordination

A. As the existing utility locations, potential conflicts, and potential relocations are identified, Bravo will coordinate with utility companies to ensure all conflicts are identified and mitigated before construction begins.

B. Prior to Phase 2 milestone submittals, the D-1 Status of Utility Spec will be completed to document all conflicts and define relocation timelines.

5. Project Administration

A. After the completion of the County's plan reviews, we will address comments received and bring resolution to any concerns.

Exhibit D-1 Preliminary Engineering

Route: Stearns School Rd and Hunt Club Rd Intersection Improvement
Local Agency: Lake County Division of Transportation
Section: 22-00095-20-CH
Project: M-XXXX(XXX)
Job No: D-XX-XXX-XX

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

Overhead Rate (OH)	1.2
Complexity Factor (R)	0.000
Calendar Days	360

Method of Compensation:

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

See Exhibit A-1 for Scope of Services
See Exhibit A-3 for a detailed Workhour Estimate.
See Exhibit A-4 for detailed Services by Others and In-House Direct Costs.

Cost Estimate of Consultant's Services

	Element of Work	Employee Classification	Man-hours	Payroll Rate	Payroll Costs (DL)	Overhead*	In-House Direct Costs (IHDC)	Services by Others	Profit	Total
1	Early Coordination and Data Collection						$ -	$ -	$ -	$ -
	$5,486.38	Project Manager	2.0	$ 65.00	$ 130.00	$ 156.00			$ 41.47	$ 327.47
		Engineer III	14.0	$ 52.00	$ 728.00	$ 873.60			$ 232.23	$ 1,833.83
		Engineer I	44.0	$ 30.00	$ 1,320.00	$ 1,584.00			$ 421.08	$ 3,325.08
		Chief Layout Specialist	0.0	$ 55.00	$ -	$ -			$ -	$ -
2	Field Survey						$ 1,105.00	$ -	$ -	$ 1,105.00
	$29,463.90	Project Manager	2.0	$ 65.00	$ 130.00	$ 156.00			$ 41.47	$ 327.47
		Engineer III	104.0	$ 52.00	$ 5,408.00	$ 6,489.60			$ 1,725.15	$ 13,622.75
		Engineer I	0.0	$ 30.00	$ -	$ -			$ -	$ -
		Chief Layout Specialist	104.0	$ 55.00	$ 5,720.00	$ 6,864.00			$ 1,824.68	$ 14,408.68
3	SUE Plan Sheets and Utility Model Development						$ -	$ 25,000.00	$ -	$ 25,000.00
	$44,174.63	Project Manager	8.0	$ 65.00	$ 520.00	$ 624.00			$ 165.88	$ 1,309.88
		Engineer III	36.0	$ 52.00	$ 1,872.00	$ 2,246.40			$ 597.17	$ 4,715.57
		Engineer I	152.0	$ 30.00	$ 4,560.00	$ 5,472.00			$ 1,454.64	$ 11,486.64
		Chief Layout Specialist	12.0	$ 55.00	$ 660.00	$ 792.00			$ 210.54	$ 1,662.54
4	Utility Company Coordination						$ -	$ -	$ -	$ -
	$8,020.50	Project Manager	16.0	$ 65.00	$ 1,040.00	$ 1,248.00			$ 331.76	$ 2,619.76
		Engineer III	32.0	$ 52.00	$ 1,664.00	$ 1,996.80			$ 530.82	$ 4,191.62
		Engineer I	16.0	$ 30.00	$ 480.00	$ 576.00			$ 153.12	$ 1,209.12
		Chief Layout Specialist	0.0	$ 55.00	$ -	$ -			$ -	$ -
5	Project Administration						$ -	$ -	$ -	$ -
	$5,854.16	Project Manager	12.0	$ 65.00	$ 780.00	$ 936.00			$ 248.82	$ 1,964.82
		Engineer III	12.0	$ 52.00	$ 624.00	$ 748.80			$ 199.06	$ 1,571.86
		Engineer I	16.0	$ 30.00	$ 480.00	$ 576.00			$ 153.12	$ 1,209.12
		Chief Layout Specialist	8.0	$ 55.00	$ 440.00	$ 528.00			$ 140.36	$ 1,108.36
	Totals		**590.0**		**$ 26,556.00**	**$ 31,867.20**	**$ 1,105.00**	**$ 25,000.00**	**$ 8,471.36**	**$ 92,999.56**

Prepared by: Bravo Company Engineering, Inc.

Bravo Company ENGINEERING

Exhibit D-2 Preliminary Engineering

Workhour Estimate

Item No.	Task	Staff Classifications & Workhours				Total Workhours	% of Workhours
		Project Manager	Engineer III	Engineer I	Chief Layout Specialist		
Scope of Services							
1	**Early Coordination and Data Collection**						
A.	Submit to JULIE a Design Stage/Planning Information Request		2.0			**2.0**	3.3%
B.	Send Atlas Request Letters to the Utility Companies within the Project Limits	2.0		12.0		**14.0**	23.3%
C.	Develop a utility log to document all utility coordination efforts		8.0	16.0		**24.0**	40.0%
D.	Develop a preliminary 2D utility base file (Quality Level D)		4.0	16.0		**20.0**	33.3%
	Item 1 Subtotal	**2.0**	**14.0**	**44.0**	**0.0**	**60.0**	**100.0%**
2	**Field Survey**						
A.	Site Investigation to obtain electronic measurements (Quality Level B) and photo documentation	2.0	80.0		80.0	**162.0**	77.1%
B.	Pole Inventory		24.0		24.0	**48.0**	22.9%
	Item 2 Subtotal	**2.0**	**104.0**	**0.0**	**104.0**	**210.0**	**100.0%**
3	**SUE Plan Sheets and Utility Model Development**						
A.	Import Quality Level B data to further refine 2D utility base file.		8.0	24.0	8.0	**40.0**	19.2%
B.	Create 3D Utility Model using OpenRoads Designer Subsurface Utility tools		8.0	40.0	4.0	**52.0**	25.0%
C.	Create SUE Plan Sheets (12 sheets at 1"=20')		20.0	80.0		**100.0**	48.1%
D.	Further QLA Investigation and Potholing	8.0		8.0		**16.0**	7.7%
	Item 3 Subtotal	**8.0**	**36.0**	**152.0**	**12.0**	**208.0**	**100.0%**
4	**Utility Company Coordination**						
A.	Coordinate with Utility Companies to Mitigate Conflicts and Determine Relocation Scope	16.0	24.0			**40.0**	62.5%
B.	Prepare D-1 Status of Utility Spec		8.0	16.0		**24.0**	37.5%
	Item 4 Subtotal	**16.0**	**32.0**	**16.0**	**0.0**	**64.0**	**100.0%**
5	**Project Administration**						
A.	Contract Document Modifications (Plan, Special Provisions, Quantities) following Reviews	4.0	8.0	16.0	4.0	**32.0**	66.7%
B.	Project Administration (invoice preparation and job-file documentation)	8.0	4.0		4.0	**16.0**	33.3%
	Item 5 Subtotal	**12.0**	**12.0**	**16.0**	**8.0**	**48.0**	**100.0%**
	Total Workhours:	**40.0**	**198.0**	**228.0**	**124.0**	**590.0**	
	% of Workhours:	**6.8%**	**33.6%**	**38.6%**	**21.0%**	**100.0%**	

Bravo Company ENGINEERING

Exhibit D-3 Preliminary Engineering

Services by Others and In-House Direct Costs

Item No.	Task	In-House Direct Cost	Sub-Consultant Cost
1	**Early Coordination and Data Collection**		
	Item 1 Subtotal	**$0.00**	**$0.00**
2	**Field Survey**		
	Vehicle: Truck ($65.00 per day) Field Investigation and Submittal	$1,105.00	
	Item 2 Subtotal	**$1,105.00**	**$0.00**
3	**SUE Plan Sheets and Utility Model Development**		
	Sub-Consultant: Utility Daylighting		
	Evaluation of Potential Utility Conflicts and Need for Level "A" S.U.E. 12 Vacuum Test Holes		$25,000.00
	i. Subsurface Utility Locating - 0' to 6' ($/Hole) with Vacuum Test Holes (assumes one each on opposite side of the roadway for profile determination, inclusive of field work with QLA test hole forms,QLA test hole results, QLA field log books, CADD, and professional time)		
	ii. Subsurface Utility Locating - Extra Depth In Addition to Base Price, 6'-1" and Over ($/Hole) (inclusive of field work with QLA test hole forms,QLA test hole results, QLA field log books, CADD, and time)		$0.00
	Item 3 Subtotal	**$0.00**	**$25,000.00**
4	**Utility Company Coordination**		
	Item 4 Subtotal	**$0.00**	**$0.00**
5	**Project Administration**		
	Item 5 Subtotal	**$0.00**	**$0.00**
	Total In-House Direct Costs:	**$1,105.00**	-
	Total Subconsultant Costs:	-	**$25,000.00**
	TOTAL IN-HOUSE DIRECT & SUBCONSULTANT COSTS:	**$26,105.00**	

Huff & Huff, incorporated
A Subsidiary of GZA

GEOTECHNICAL
ENVIRONMENTAL
ECOLOGICAL
WATER
CONSTRUCTION MANAGEMENT

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

May 30, 2023

Mr. Brent Sears, PE
Project Manager
Alfred Benesch & Company
35 W. Wacker Drive
Suite 3300
Chicago, Illinois 60601

via email: bsears@benesch.com

Re: Phase I Environmental Engineering Services (Wetlands, Trees, PESA)
Hunt Club Road at Stearns School Road (Section No. 22-00095-20-CH)
Village of Gurnee, Lake County, Illinois
Proposal No. 81.P013042.24

Dear Mr. Sears:

Huff & Huff, Inc., a subsidiary of GZA, Inc. (H&H) is pleased to submit this proposal to Alfred Benesch & Company (Client) to provide Phase I environmental services for the proposed Hunt Club Road at Stearns School Road intersection improvements in Gurnee, Lake County, Illinois. The improvements have been proposed by Lake County DOT (LCDOT) and services requested include Wetland Delineation and Reporting, a Tree Survey and a Preliminary Environmental Site Assessment (PESA). This proposal presents our Project Understanding, Scope of Services, Level of Effort and Schedule, and Acceptance for completing the project. Costs, and Terms and Conditions are presented as attachments.

1. PROJECT UNDERSTANDING

H&H understands that Client has been retained by LCDOT to develop a proposal for Phase I Design. The Phase I preliminary engineering study is to be completed in accordance with the Illinois Department of Transportation's Bureau of Local Roads & Streets Policies & Procedures, for an intersection improvement at Hunt Club Road and Stearns School Road in the Village of Gurnee and unincorporated Lake County, IL. We understand the limits are currently under review by LCDOT and currently anticipated to be along Hunt Club Road from Bridle Trail Road to 800-feet north of the intersection and Stearns School Road from 800-feet west of the intersection to N Creek Drive.

Phase I work is to include intersection design study; alternatives analysis; traffic capacity analysis; bike path improvements; field survey; plats and legal descriptions for right-of-way and easement acquisitions; identification of detention requirements; flood plain determination; hydrology/hydraulic analysis; wetland delineation; soils investigation, aesthetics evaluation; public involvement; and environmental coordination and approvals (biological, cultural, wetland and special waste). Traffic modeling and capacity analysis of Stearns School Road, from Hunt Club Road to US Route 41 should be included to better understand future travel demands along the corridor and aid in selection of the preferred intersection alternative.

2. SCOPE OF SERVICES

Task 1: Wetland and Waterway Delineation

H&H/GZA understands that regulated wetlands are potentially located within or adjacent to the project limits. H&H/GZA proposes to conduct a wetland and surface water delineation in accordance with:

- The February 25, 2022, edition of the United States Army Corps of Engineers (USACE) Chicago District Nationwide Permit (NWP) Program;
- The USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0), (Supplemental Wetland Manual);
- The October 13, 2020, edition of the Lake County WDO;

The National Wetland Inventory Map does not indicate the presence of wetlands within the project limits. The Lake County Wetland Inventory indicates the possible presence of one wetland and one ditch/swale feature. None of the features identified within the project limits are considered ADID wetlands.

A. Off-site Record/Document Review

The following records/documents will be reviewed prior to conducting the field investigation. Soils information will be reviewed to determine the soil types encountered during the delineation procedures. The sources to be reviewed and used include:

- Current and historic aerial photographs;
- U.S. Geological Survey (USGS), Topographic Map;
- U.S. Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI) Maps;
- Lake County Wetland Inventory Maps;
- Lake County Advanced Identification of Wetlands (ADID) Maps;
- Natural Resources Conservation Service (NRCS), Soil Survey of Lake County;
- Hydric Soils of the United States;
- Federal Emergency Management Agency (FEMA), Flood Insurance Rate Maps (FIRM); and
- USGS, Hydrologic Atlas.

B. On-Site Investigation (Field Inventory)

H&H/GZA proposes to conduct on-site investigations of all potential wetlands and waterways within the project limits as well as confirm the absence of wetlands if none is present. Proposed services include the identification and delineation of wetlands. Wetland delineation field investigation activities include on-site testing for the presence of hydric soils, hydrophytic vegetation, and sufficient hydrology. A floristic quality assessment (FQA) will be conducted for each identified wetland. Functions of wetlands based on field observations will also be evaluated during the on-site investigation. H&H/GZA will flag boundaries of wetlands located within the Lake County portion of the project limits in accordance with the WDO. H&H/GZA will provide global positioning system (GPS) data for wetland and waterway boundaries.

Task 2: Wetland Report

Upon completion of Task 1, a Wetland Delineation Report will be prepared summarizing the findings of the off-site record/document review and the on-site investigation. This report will be submitted to the Client as a PDF only. H&H/GZA will provide shapefiles and a MicroStation file of the wetland and waterway boundaries. Specific items to be included in the report are as follows:

- Map showing the wetland and waterway boundaries within the project limits;
- Aerial photography depicting the appropriate limits of the delineated wetlands and waterways;
- USACE data sheets with FQAs, as required;
- Color photos of the wetlands and data points; and
- Written description of wetland functional classification.

The NRCS no longer conducts farmed wetland determinations for areas of agricultural conversion. As agricultural land is present within the project limits, conducting a Farmed Wetland Determination (FWD) is included in the scope.

Time is included in this scope to complete the Boundary Verification (BV) and Preliminary Jurisdictional Determination (PJD) with Lake County Stormwater Management Commission (SMC) Staff. This includes a separate field trip to the site to meet with SMC staff. Fees for the BV/PJD are not included in the cost estimate as the fees are dependent upon the findings of the delineation and how many wetlands are present, which is not known at this time.

Any impacts to wetlands or waterways will require permits. H&H/GZA understands that wetland permitting will take place during Phase II; therefore, permitting is not included within this scope of services.

Task 3: Tree Survey/Data Collection

H&H/GZA will complete a tree survey for the project within the proposed limits of construction, which will also include trees whose critical root zone is present within the project limits at these locations. H&H/GZA will identify the trees to species level and determine health, structure, and origin. H&H/GZA will note whether any trees are of exceptional size and condition. H&H/GZA will also determine which trees are worth avoidance, if any. The tree survey will follow the LCFPD *Licenses and Easement Ordinance* (Ordinance) tree survey requirements if any trees fall within forest preserve property with any trees outside of the forest preserve being surveyed using IDOT Policy D&E 18 for the preservation and removal of trees.

The LCFPD Ordinance specifies all trees with a diameter at breast height (DBH) of three (3) inches or greater as well as trees with a DBH of less than three inches when such have been intentionally planted for landscaping, environmental mitigation, or habitat preservation/enhancement purposes be identified. Shrubs greater than three (3) inches DBH will also be assessed on LCFPD property. The Ordinance allows stands of low-quality shrubs to be surveyed and documented by estimating the number of individuals in the colony. The tree survey will be supervised by an International Society of Arboriculture (ISA) Certified Arborist.

This proposal assumes that all surveyed trees and shrubs will be located via GPS from which shapefiles will be developed. The compiled shapefiles will be submitted to the Client.

This proposal includes an assessment of northern long-eared bat (NLEB; *Myotis septentrionalis*) habitat within the proposed ROW. The NLEB assessment only entails an assessment of the potential for individual trees and forest resources to provide suitable habitat for NLEB and does not include a survey for specific bat surveys via mist netting or echolocation surveys within the project or adjacent areas.

Task 4: Tree Survey Report

After trees are evaluated by H&H/GZA within the project limits, a tabulation of trees will be compiled to summarize tree resources and potential impacts. The report will include details on tree species, size, health, structure, origin (volunteer or landscaped tree), and any identified specimen and exceptional trees and will be provided to the Client in electronic PDF format only. This task does not include coordination with the LCFPD or any other agency for tree mitigation.

Task 5: <u>Preliminary Environmental Site Assessment (PESA)</u>

H&H will conduct a Preliminary Environmental Site Assessment (PESA) for the local road portions of the Hunt Club Road at Stearns School Road intersection Project Corridor. This process will follow general protocols contained within:

- A Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation (IDOT) Highway Projects (Erdmann et al., 2012);
- ASTM International (ASTM) standard 1527-13;
- IDOT Bureau of Design and Environment (BDE) Procedure Memorandum Number 10-07, Special Waste Procedures. This memo was incorporated into Chapter 27-3 of the IDOT BDE Manual in June 2012;
- IDOT Bureau of Local Roads and Streets (BLRS) Manual, Chapter 20-12, Special Waste, July 2013;
- Public Act 96-1416; and
- Clean Construction or Demolition Debris (CCDD) Fill Operations and Uncontaminated Soil Fill Operations: Amendments to 35 Illinois Administrative Code 1100, effective August 27, 2012.

A. Historical Research

The Project Corridor historical land use/ownership record will be developed from standard historical sources. Historic aerial photographs will be reviewed to identify land use over time and potential areas of environmental concern, such as areas of surface disturbance and outside storage.

B. Site Evaluation

Current environmental features and conditions of sites adjacent to the Project Corridor will be evaluated. A site walkover of potential areas designated for excavation and/or acquisition will be conducted for first-hand evaluation of current environmental conditions within the Project Corridor. All of the features and conditions listed above will be investigated and, as appropriate, documented in photographs. The land-use and housekeeping practices of adjacent properties will also be evaluated in accordance with ASTM protocols.

C. Records Review

A records review will be conducted to determine potential environmental concerns within the Project Corridor. This will include a search of standard state and federal environmental record databases in accordance with the specifications of ASTM standards. This search is based on the limits of the Project Corridor. Specifically, H&H/GZA will search each database to identify any potential sources requiring further investigation. As appropriate, Freedom of Information Act (FOIA) requests will be filed with the Illinois Environmental Protection Agency (IEPA) to obtain additional data pertaining to identified sites.

D. Report Preparation

A PESA Report summarizing the results of the evaluation will be prepared. The following information will be included in this report:

- The project location and description;
- Historical uses of Project Corridor;
- The area geology and hydrology;
- The environmental status of sites adjacent to the Project Corridor regarding chemical use and storage, underground and aboveground storage tanks, solid waste, special waste, hazardous waste, and PCBs;
- An analysis of the site inspection; and

- A summary of the findings regarding environmental concerns. The Potentially Impacted Properties (PIPs) will be assessed, per Subpart F, Section 1100, 35 IAC, related to CCDD management and in general conformation with IDOT memorandums.

Task 6: Project Administration

Time under this task includes project administration and management activities that include cost and schedule tracking; coordination with Client on authorized activities; memo production and other in-house management activities.

Task 7: QA/QC

Time under this task includes Quality Assurance/Quality Control (QA/QC) time for the reports as described above.

3. LEVEL OF EFFORT AND SCHEDULE

Estimated hours and costs to complete the proposed scope of services are attached. The wetland delineation will be conducted within four weeks of the notice to proceed during the growing season in Lake County, which is approximately between May 15th and October 1st, with an anticipated completion of the Wetland Delineation Report within four weeks of field work. Completion of the PJD/BV and tree survey are dependent on Client need and schedules. If an expedited schedule is necessary, H&H/GZA will coordinate with Client to establish a schedule that is appropriate for the project needs.

PESA work will commence within 5 days of the notice to proceed and will require up to eight weeks to complete. If an expedited schedule is necessary, H&H will coordinate with Client to establish a schedule that is appropriate for the project needs. The cost estimate for this scope of work is presented in the attached Cost Estimate of Consultant Services (CECS). Costs will be invoiced as a cost-plus fixed fee.

4. ACCEPTANCE

CONDITIONS OF ENGAGEMENT

The conditions of engagement are described in the attached Terms and Conditions for Professional Services. H&H/GZA's report will be prepared on behalf of and for the exclusive use of Client. Client acknowledges and agrees that the report and the findings in the report shall not, in whole or in part, be disseminated or conveyed to any other party, or used or relied upon by any other party, in whole or in part, except for the specific purpose and to the specific parties alluded to above, without the written consent of H&H/GZA. H&H/GZA would be pleased to discuss the conditions associated with any additional dissemination, use, or reliance by other parties.

ACCEPTANCE

This agreement may be accepted by signing in the appropriate space below and returning one complete copy to H&H/GZA. Issuance of a Purchase Order implicitly acknowledges acceptance of this proposal. This proposal is valid for a period of 30 days from the date of issue.

We appreciate the opportunity to submit this proposal. Please feel free to contact the undersigned at (630) 684-9100 with any questions.

Very truly yours,

Huff & Huff, Inc.

Jeremy J. Reynolds, P.G.
Associate Principal/Vice President

James Novak, PWS
Associate Principal/Vice President

Attachments: Terms and Conditions
Cost Sheets

This Proposal for Services, Schedule of Fees and Terms and Conditions for Professional Services are hereby accepted and executed by a duly authorized signatory, who by execution hereof, warrants that he/she has full authority to act for, in the name, and on behalf of _____.

By: _____ Title: _____

Printed/Typed Name: _____ Date: _____

The Proposal for Services, Schedule of Fees and Terms and Conditions for Professional Services may be executed in two or more counterparts, each of which together shall be deemed an original, but all of which together shall constitute one and the same instrument. In the event that any signature is delivered by facsimile transmission or by an e-mail delivery of a document in ".pdf" format, each such signature shall create a valid and binding obligation of the party executing the document, or on whose behalf each document is executed, with the same force and effect as if each such facsimile or ".pdf" signature were an original thereof.


STEARNS SCHOOL RD
HUNT CLUB RD
DEVON CT
STEARNS SCHOOL RD
FOX HILL DR
N CREEK DR
HUNT CLUB RD
BIRDIE TRAIL RD

ATTACHMENT 1

Terms and Conditions

ATTACHMENT 2

IDOT BLR 05514 Format Cost sheets

Illinois Department of Transportation

EXHIBIT D

COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

FIXED RAISE

Local Public Agency	County	Section Number
Lake County Division of Transportation	Lake	22-00095-20-CH

Prime Consultant (Firm) Name	Prepared By	Date
Alfred Benesch & Company	JJR/JCN	5/30/2023

Consultant / Subconsultant Name	Job Number
Huff & Huff, Inc. a subsidiary of GZA, Inc.	

Note: This is name of the consultant the CECS is being completed for. This name appears at the top of each tab.

Remarks

Hunt Club Road at Stearns School Road Intersection Improvements Phase I

PAYROLL ESCALATION TABLE

CONTRACT TERM	**24**	**MONTHS**	**OVERHEAD RATE**	**190.00%**
START DATE	**8/1/2023**		**COMPLEXITY FACTOR**	**0**
RAISE DATE	**3/1/2024**		**% OF RAISE**	**2.00%**
END DATE	7/31/2025			

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	8/1/2023	3/1/2024	7	29.17%
1	3/2/2024	3/1/2025	12	51.00%

The total escalation = 1.84%

Local Public Agency	County	Section Number
Lake County Division of Transportation	Lake	22-00095-20-CH

Consultant / Subconsultant Name	Job Number
Huff & Huff, Inc. a subsidiary of GZA, Inc.	

PAYROLL RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET FIXED RAISE

MAXIMUM PAYROLL RATE	**86.00**
ESCALATION FACTOR	**1.84%**

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Associate Principal III	$78.95	$80.40
Associate Principal II	$72.15	$73.48
Associate Principal I	$68.96	$70.23
Senior Consultant II	$78.93	$80.38
Senior Consultant I	$43.23	$44.03
Senior Project Manager III	$68.98	$70.25
Senior Project Manager II	$57.05	$58.10
Senior Project Manager I	$53.72	$54.71
Senior Landscape Architect	$59.54	$60.64
Senior Planning PM	$56.62	$57.66
Senior Technical Specialist I	$55.05	$56.06
Senior Scientist PM II	$57.08	$58.13
Senior Technical Scientist	$54.50	$55.50
Scientist PM II	$49.25	$50.16
Scientist PM I	$42.33	$43.11
Assistant PM Scientist	$37.61	$38.30
Environmental Engineer PM II	$49.99	$50.91
Environmental Engineer PM I	$45.00	$45.83
Geotechnical Engineer PM I	$48.28	$49.17
Assistant PM Engineer I	$44.19	$45.00
Engineer II	$30.25	$30.81
Engineer I	$33.35	$33.96
Scientist S1	$31.72	$32.30
Technical Graphics Technician	$25.96	$26.44
Administrative Manager	$48.89	$49.79
Senior Administrative Assistant	$34.50	$35.14
Lead Word Processor	$42.39	$43.17

Local Public Agency	County	Section Number
Lake County Division of Transportation	Lake	22-00095-20-CH

Consultant / Subconsultant Name	Job Number
Huff & Huff, Inc. a subsidiary of GZA, Inc.	

SUBCONSULTANTS

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

NAME	Direct Labor Total	Contribution to Prime Consultant
Total	**0.00**	**0.00**

NOTE: Only subconsultants who fill out a cost estimate that splits out direct labor may be listed on this sheet.

Local Public Agency	County	Section Number
Lake County Division of Transportation	Lake	22-00095-20-CH
Consultant / Subconsultant Name		**Job Number**
Huff & Huff, Inc. a subsidiary of GZA, Inc.		

DIRECT COSTS WORKSHEET

List ALL direct costs required for this project. Those not listed on the form will not be eligible for reimbursement by the LPA on this project.

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

ITEM	ALLOWABLE	QUANTITY	CONTRACT RATE	TOTAL
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual Cost (Up to state rate maximum)			$0.00
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual Cost			$0.00
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			$0.00
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum	650	$0.66	$425.75
Vehicle Owned or Leased	$32.50/half day (4 hours or less) or $65/full day			$0.00
Vehicle Rental	Actual Cost (Up to $55/day)			$0.00
Tolls	Actual Cost	10	$5.40	$54.00
Parking	Actual Cost			$0.00
Overtime	Premium portion (Submit supporting documentation)			$0.00
Shift Differential	Actual Cost (Based on firm's policy)			$0.00
Overnight Delivery/Postage/Courier Service	Actual Cost (Submit supporting documentation)			$0.00
Copies of Deliverables/Mylars (In-house)	Actual Cost (Submit supporting documentation)			$0.00
Copies of Deliverables/Mylars (Outside)	Actual Cost (Submit supporting documentation)			$0.00
Project Specific Insurance	Actual Cost			$0.00
Monuments (Permanent)	Actual Cost			$0.00
Photo Processing	Actual Cost			$0.00
2-Way Radio (Survey or Phase III Only)	Actual Cost			$0.00
Telephone Usage (Traffic System Monitoring Only)	Actual Cost			$0.00
CADD	Actual Cost (Max $15/hour)			$0.00
Web Site	Actual Cost (Submit supporting documentation)			$0.00
Advertisements	Actual Cost (Submit supporting documentation)			$0.00
Public Meeting Facility Rental	Actual Cost (Submit supporting documentation)			$0.00
Public Meeting Exhibits/Renderings & Equipment	Actual Cost (Submit supporting documentation)			$0.00
Recording Fees	Actual Cost			$0.00
Transcriptions (specific to project)	Actual Cost			$0.00
Courthouse Fees	Actual Cost			$0.00
Storm Sewer Cleaning and Televising	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Traffic Control and Protection	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Aerial Photography and Mapping	Actual Cost (Requires 2-3 quotes with IDOT approval)	14	$10.00	$140.00
Utliity Exploratory Trenching	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Testing of Soil Samples	Actual Cost			$0.00
Lab Services	Actual Cost (Provide breakdown of each cost)			$0.00
Equipment and/or Specialized Equipment Rental	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Database Package	Actual Cost	1	$450.00	$450.00
				$0.00
				$0.00
				$0.00
			TOTAL DIRECT COSTS:	**$1,069.75**

Local Public Agency
Lake County Division of Transportation

County
Lake

Section Number
22-00095-20-CH

Consultant / Subconsultant Name
Huff & Huff, Inc. a subsidiary of GZA, Inc.

Job Number

COST ESTIMATE WORKSHEET

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

OVERHEAD RATE 190.00%

COMPLEXITY FACTOR 0

TASK	DIRECT COSTS (not included in row totals)	STAFF HOURS	PAYROLL	OVERHEAD & FRINGE BENEFITS	FIXED FEE	SERVICES BY OTHERS	TOTAL	% OF GRAND TOTAL
Task 1: Wetland and Waters Delineation	96	8	328	624	108	0	1,060	4.26%
Task 2: Wetland Report	236	46	1,840	3,496	607	0	5,943	23.86%
Task 3: Tree Survey / Data Collection	192	27	1,470	2,792	485	0	4,747	19.06%
Task 4: Tree Survey Memo	0	28	1,310	2,490	432	0	4,232	16.99%
Task 5: PESA	546	47	1,551	2,946	512	0	5,009	20.11%
Task 6: Project Administration	0	4	228	434	75	0	737	2.96%
Task 7: QAQC	0	10	653	1,241	216	0	2,110	8.47%
Subconsultant DL							$0.00	
Direct Costs Total ===>	$1,069.75						**$1,069.75**	4.29%
TOTALS		170	7,380	14,023	2,435	-	24,908	100.00%

21,403

Local Public Agency
Lake County Division of Transportation

County
Lake

Section Number
22-00095-20-CH

Consultant / Subconsultant Name
Huff & Huff, Inc. a subsidiary of GZA, Inc.

Job Number

AVERAGE HOURLY PROJECT RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

SHEET 1 OF 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Task 1: Wetland and Waters Delineation			Task 2: Wetland Report			Task 3: Tree Survey / Data Collection			Task 4: Tree Survey Memo			Task 5: PESA		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Associate Principal III	80.40	0.0																	
Associate Principal II	73.48	6.0	3.53%	2.59															
Associate Principal I	70.23	2.0	1.18%	0.83															
Senior Consultant II	80.38	0.0																	
Senior Consultant I	44.03	0.0																	
Senior Project Manager III	70.25	0.0																	
Senior Project Manager II	58.10	0.0																	
Senior Project Manager I	54.71	4.0	2.35%	1.29															
Senior Landscape Architect	60.64	0.0																	
Senior Planning PM	57.66	0.0																	
Senior Technical Specialist I	56.06	0.0																	
Senior Scientist PM II	58.13	0.0																	
Senior Technical Scientist	55.50	44.0	25.88%	14.37							26	96.30%	53.45	18	64.29%	35.68			
Scientist PM II	50.16	0.0																	
Scientist PM I	43.11	47.5	27.94%	12.05	7	87.50%	37.72	36	78.26%	33.74							3.5	7.45%	3.21
Assistant PM Scientist	38.30	4.5	2.65%	1.01													3.5	7.45%	2.85
Environmental Engineer PM II	50.91	0.0																	
Environmental Engineer PM I	45.83	0.0																	
Geotechnical Engineer PM I	49.17	0.0																	
Assistant PM Engineer I	45.00	0.0																	
Engineer II	30.81	0.0																	
Engineer I	33.96	0.0																	
Scientist S1	32.30	46.0	27.06%	8.74				4	8.70%	2.81				8	28.57%	9.23	34	72.34%	23.37
Technical Graphics Technician	26.44	15.0	8.82%	2.33	1	12.50%	3.30	6	13.04%	3.45	1	3.70%	0.98	2	7.14%	1.89	5	10.64%	2.81
Administrative Manager	49.79	0.0																	
Senior Administrative Assistant	35.14	1.0	0.59%	0.21													1	2.13%	0.75
Lead Word Processor	43.17	0.0																	
TOTALS		170.0	100%	$43.41	8.0	100.00%	$41.03	46.0	100%	$40.00	27.0	100%	$54.43	28.0	100%	$46.80	47.0	100%	$32.99

Local Public Agency
Lake County Division of Transportation

County
Lake

Section Number
22-00095-20-CH

Consultant / Subconsultant Name
Huff & Huff, Inc. a subsidiary of GZA, Inc.

Job Number

AVERAGE HOURLY PROJECT RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Task 6: Project Administration			Task 7: QAQC														
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Associate Principal III	80.40																		
Associate Principal II	73.48	2	50.00%	36.74	4	40.00%	29.39												
Associate Principal I	70.23				2	20.00%	14.05												
Senior Consultant II	80.38																		
Senior Consultant I	44.03																		
Senior Project Manager III	70.25																		
Senior Project Manager II	58.10																		
Senior Project Manager I	54.71				4	40.00%	21.88												
Senior Landscape Architect	60.64																		
Senior Planning PM	57.66																		
Senior Technical Specialist I	56.06																		
Senior Scientist PM II	58.13																		
Senior Technical Scientist	55.50																		
Scientist PM II	50.16																		
Scientist PM I	43.11	1	25.00%	10.78															
Assistant PM Scientist	38.30	1	25.00%	9.58															
Environmental Engineer PM II	50.91																		
Environmental Engineer PM I	45.83																		
Geotechnical Engineer PM I	49.17																		
Assistant PM Engineer I	45.00																		
Engineer II	30.81																		
Engineer I	33.96																		
Scientist S1	32.30																		
Technical Graphics Technician	26.44																		
Administrative Manager	49.79																		
Senior Administrative Assistant	35.14																		
Lead Word Processor	43.17																		
TOTALS		4.0	100%	$57.09	10.0	100%	$65.32	0.0	0%	$0.00	0.0	0%	$0.00	0.0	0%	$0.00	0.0	0%	$0.00

AGREEMENT FOR
LAND ACQUISITION AND VALUE CONSULTING

Benesch
SCOPE OF SERVICES AND BUDGET
Hunt Club Road at Stearns School Road

1. The Lake County Division of Transportation has engaged Benesch to provide Phase 1 and Phase 2 Engineering Services as part of the Hunt Club Road at Stearns School Road Improvement Project.

2. Benesch hereby engages Mathewson Land Services, Inc. (MLS), to provide professional assistance with regard to right of way issues arising as part of the Phase 1 Engineering and Analysis.

3. MLS shall perform the following services in conjunction with the above referenced Project:

   Ownership Research and Analysis: MLS shall provide research and advice on the ownership of properties potentially impacted by the proposed improvements. The research may consist of obtaining title commitments or copies of recorded documents. The research may also include identifying any potential acquisition complications apparent in the public record.

   Valuation: MLS shall provide opinions on probable costs associated with various design alternatives. The opinions may be based in whole or part on cost analysis prepared by licensed appraisers. MLS shall identify valuation challenges and potential cost savings arising from design options.

   Relocation Assistance: MLS shall provide analysis regarding possible relocation assistance required in the event any person (individual, family or business) is displaced as a result of the proposed improvements.

   Other Services: MLS agrees to provide additional services as the parties may agree are appropriate in furtherance of the project.

   The scope of the above described work shall apply to seven (7) parcels of property.

4. Services shall be invoiced approximately monthly at the rates set forth below. MLS fees shall not exceed the following:

Task/Provider	Hours	Rate	Extension
Attorney	40	$350.00	$14,000.00
Appraiser	40	$300.00	$12,000.00
Staff	40	$200.00	$8,000.00
Total			$34,000.00
Direct Expenses*			$7,000.00
* Direct Expenses shall include title commitments and related document copies for up to seven (7) parcels.			
Total Fees			$41,000.00

Total cost for all services: $41,000.00.

Respectfully submitted:

Mathewson Land Services, Inc.

By: _____
Mark D. Mathewson, President

June 15, 2023

To: Jill Hayes
Benesch
35 W. Wacker Dr
Suite 3300
Chicago, IL 60601
P: 312-819-8200

Re: Proposal – Roadway Geotechnical Report
Proposed Roadway Improvements along Hunt Club Road and Stearns School Road
Warren Township, Illinois
Proposal No. Q23.269g_REV3

Via email: JHayes@benesch.com

Dear Mr. Hayes,

Rubino Engineering, Inc. (Rubino) is pleased to submit the following proposal to provide geotechnical engineering services for the above referenced project. Rubino received a request for proposal from Jill Hayes of Benesch via email on May 22, 2023.

PROJECT UNDERSTANDING

Rubino understands that Benesch team was selected by LCDOT for the Hunt Club Road at Stearns School Road Phase I/II design work. The anticipated limits are currently under review with LCDOT, but we anticipate them to include Hunt Club Road from Bridle Trail Road to 800' north of the intersection and Stearns School Road from 800' west of the intersection to N Creek Drive. Rubino will provide soil borings, pavement cores and a Roadway Geotechnical Report.

At the time of this proposal creation, all four legs of the intersection are planned for reconstruction, with widening on the southern extent.

Information received:

- RFP email from Jill Hayes of Benesch on May 22, 2023.
- Revision email to revise for BLR forms
- Second revision email to update patching and working times

Field Services Scope of Services Summary

Additional Scope discussion can be found in subsequent pages of this proposal

Site Access	Open site – County Roads LCDOT Permitting
Field Equipment / Soil Sampling Method	Track-mounted Geoprobe Drill Rig & Core Machine
Traffic Control Needs	Lane Closure – Single Lane or Flaggers
Boring Location Plan	See below for aerial / KMZ
Soil Sampling	SPT – 2 ½ ft to 10 feet
Backfill Needs	Cuttings, excess spoils remain on site
Patching	DOT Mix non-shrink grout
Site Protection or Restoration included	None
Groundwater Readings	During drilling and upon auger removal

Boring Depths

To obtain data to evaluate subsurface conditions within the proposed development/construction areas. Rubino proposes the drilling scope of work as detailed below:

NUMBER OF BORINGS WITH PAVEMENT CORES	DEPTH (FEET BEG*)	LOCATION	SPT SAMPLING INTERVALS	SOIL CLASSIFICATION METHOD
12	10	Stearn School Road – Approximately every 300 ft alternating lanes	2 ½ ft to 10 ft	IDH
9	10	Hunt Club Road – Approximately every 300 ft alternating lanes; **Southern Borings to be drilled off roadway in ROW where possible**		
21 Total Borings	**210 Total Lineal Feet**			

Should any of the information on which this proposal has been based, including as described above, be inconsistent with the planned construction, Rubino requests to be contacted immediately in order to make any necessary changes to this proposal and scope of work.

SCOPE OF SERVICES DISCUSSION

The following sections outline the scope of services developed based on the information provided by the client and the information listed above in order to provide a geotechnical exploration the planned project. The exploration will be performed in general accordance with both the requested proposal information and Rubino's current understanding of the project.

Site Access

Based on current site topography, surface conditions, and project discussions, Rubino anticipates that the project site will be accessible to track-mounted Geoprobe drilling equipment.

Traffic Control

Rubino anticipates that traffic control will be necessary along both Stearns School Road and Hunt Club Road. Rubino will subcontract a traffic control company to provide flaggers and/or a single lane closure with working times between 8am and 3pm.

Boring Locations

The approximate proposed boring locations are shown below. Rubino recommends that the borings be located and surveyed for elevation by others prior to drilling. If the borings cannot be surveyed, Rubino will locate the borings in the field by measuring distances from known, fixed site features.

SPT - Soil Sampling

Soil sampling will include split-barrel samples (ASTM D 1586) or thin-walled tube samples on cohesive soils (ASTM D 1587) at 2 ½ - foot intervals to a depth of 10 feet and 5 - foot intervals thereafter, as applicable.

Completion of Borings

Upon completion of drilling, the borings will be backfilled with soil cuttings and capped with **non-shrink grout**. Some damage to ground surface may result from the drilling operations near the work areas and along ingress/egress pathways. Rubino will attempt to minimize such damage, but no restoration other than backfilling the soil test borings is included.

It should be noted that over time, some settlement may occur in the bore hole. If Rubino is requested to return to the site for the purpose of filling any bore holes that may have settled, additional time and material charges may apply.

Geotechnical Laboratory Testing

The soil samples obtained during the field exploration program will be transported to the laboratory for classification and a limited number of laboratory tests. The nature and extent of the laboratory testing program is at the discretion of Rubino Engineering, Inc. and will depend upon the subsurface conditions encountered during drilling.

Laboratory testing will be performed in accordance with ASTM procedures and may include examination of selected samples to evaluate the soils' index properties and relative strength characteristics.

Based on the proposed quantity of soil borings, anticipated depths, and project type, a list of the anticipated laboratory tests are summarized below.

LABORATORY TEST	ESTIMATED QUANTITY	SAMPLE TYPE
Atterberg Limits	6	Split spoon, bulk, or Shelby Tube
Hydrometer	6	Split spoon, bulk, or Shelby Tube
Natural Moisture Content	84	Cohesive Samples

ROADWAY GEO REPORT (RGR)

Upon completion of field and laboratory work, Rubino will prepare a roadway geotechnical engineering report (RGR) using the collected data. The report will include the following per the IDOT Geotechnical Manual:

- Cover Sheet and Table of Contents
- Project Description, Location and Scope
- Geology and Pedology
- Field Exploration
- General Subgrade Conditions
- Special Conditions, if applicable
- Construction Monitoring
- Appendices (Supporting Documentation): location map, boring plan and soil profile, boring logs, laboratory test results, SSR Charts, photographs

An electronic copy of the report will be provided. The report will be addressed to Benesch.

PROJECT SCHEDULE

Rubino proposes to initiate work on this project within 5 working days after receiving written authorization to proceed and we will follow the schedule below in order to complete the project:

Task	Number of Working Days
Utility clearance and rig mobilization	10 – 15
Field work including site layout and drilling	5
Laboratory Testing	10 – 12
Preparation of the RGR	15

Project schedules can be affected by weather conditions and changes in scope. If the report needs to be delivered by a specific day, please notify us as soon as possible. Preliminary verbal recommendations can be made to appropriate parties upon completion of the field investigation and laboratory testing. Rubino will need to receive a signed copy of this proposal intact prior to mobilizing the drill rig.

UTILITY LOCATE AND OUTSIDE SERVICES

Rubino will coordinate contacting the Utility "One-Call" for public utility clearance prior to the start of drilling activities. It is Rubino's experience that this service does not mark the locations of privately owned utilities. This proposal is based on privately owned utility locates being coordinated by the owner prior to drill rig mobilization.

FEES

Rubino proposes to charge the fee for performance of the outlined scope of services on a cost plus fixed fee basis per the attached CECS. Based on the scope of services outlined above, the fee will be: **$30,808**

Please see the attached fee schedule for additional unit rates for services requested after issuing the geotechnical report (drawing / spec review, scope or site layout change, etc.).

Scope Limitations

Project services do not include a site evaluation to determine the presence or absence of wetlands, hazardous substances, or toxic materials.

Rock coring is not included in the scope of this exploration, therefore, the character and continuity of refusal materials, if encountered, can be determined only with a more comprehensive scope of services. Therefore, the borings will be advanced to the depths referenced above, or to refusal, whichever is shallower.

Boring, sampling and testing requirements are a function of the subsurface conditions encountered. The proposed lump-sum fee is based on the use of shallow foundations to support the planned construction and the existence of adequate bearing materials being encountered within the proposed boring depths. Should conditions be encountered which require a deepening of borings or additional investigation, Rubino will notify you to discuss modifying the outlined scope of services. Additional work beyond the lump-sum fee will not be performed without your prior authorization.

AUTHORIZATION

If this proposal is acceptable to you, Rubino will perform the work in accordance with the attached General Conditions that are incorporated into and made a part of this proposal. Please sign below as notice to proceed and return one copy of this proposal intact to our office. Rubino will proceed with the work upon receipt of authorization.

Rubino appreciates the opportunity to offer our services for this project and we look forward to working with your company. Please contact Rubino with questions pertaining to this proposal or requests for additional services.

Respectfully submitted,

RUBINO ENGINEERING, INC.

Rubino Engineering, Inc.

Michelle A. Lipinski, PE
President

Anthony T. Tomaras
Project Manager

RUBINO ENGINEERING, INC. IS:
AN AASHTO-ACCREDITED LABORATORY
IDOT PREQUALIFIED
IDOT DBE-CERTIFIED (100% WOMAN-OWNED)

MAL/file

Attachments: Proposal Acceptance and Data Sheet
Schedule of Services and Fees
General Conditions

**This is an electronic copy. Hard Copies of this proposal are available upon request.

PROPOSAL ACCEPTANCE:

AGREED TO, THIS _____ DAY OF _____ , 202__.

BY *(please print)*: _____

TITLE: _____

COMPANY: _____

SIGNATURE: _____

PROJECT INFORMATION:

1. Project Name: _____
2. Project Location: _____
3. Your Job No: _____ Purchase Order No.: _____
4. Project Manager: _____ Telephone No.:_____
5. Site Contact:_____ Telephone No.:_____
6. Number and Distribution of Reports:

   ( ) Copies To: _____ ( ) Copies To: _____

   _____ _____

   _____ _____

   Attn: _____ Attn:_____

   Email: _____ **Email:** _____

   ( ) Copies To: _____ ( ) Copies To: _____

   _____ _____

   _____ _____

   Attn: _____ Attn:_____

   Email: _____ **Email:** _____

7. Invoicing Address: _____

   _____

   _____

   Attn: _____

   Email: _____
8. Other Pertinent Information Or Previous Subsurface Information Available:

   _____

   _____

Rubino Engineering, Inc.
2023 Schedule of Geotechnical Services & Fees

LABORATORY TESTING

Moisture Content Test / Visual Classification	Each	$	7.00
Atterberg Limits Determination (LL, PL)	Each	$	65.00
Combined Hydrometer & Sieve Analysis	Each	$	130.00
Sieve Analysis (washed)	Each	$	85.00
Unconfined Compression Test, with Stress-Strain Curve	Each	$	95.00
Density Determination	Each	$	15.00
Specific Gravity Determination	Each	$	65.00
Organic Content Determination Test (loss on ignition)	Each	$	15.00
One-Dimensional Consolidation Test (ASTM D-2435)	Each	$	750.00
Triaxial Testing (TXC-CIU) 3-Point Envelope	Each	$	1,300.00

FEE REMARKS

1) All fees and services are provided in accordance with the attached Rubino General Conditions.
2) Unit prices/rates are in effect for 12 months from the date of this proposal and are subject to change without notice thereafter.
3) Overtime rates are applicable for services performed in excess of 8 hours per day Monday through Friday, before 8:00 AM or after 5:00 PM, and for all hours worked on Saturdays, Sundays and holidays. The overtime rate is 1.5 times the applicable hourly rate.
4) All rates are billed on a portal-to-portal basis.
5) Standby time due to delays beyond Rubino's control will be charged at the applicable hourly rate.
6) Transportation and per diem are charged at the applicable rates.
7) Rates involving mileage (including transportation, mobilization, vehicle and trip charges) are subject to change based upon increases in the national average gasoline price.
8) A minimum charge of 4 hours applies to field testing and observation services.
9) Scheduling or cancellation of field testing and observation services is required no less than the working day prior to the date the services are to be performed. Services cancelled without advance and/or inadequate notice will be assessed a minimum charge of 4 hours.
10) For all Rubino services, a project management/engineering review charge will be billed for all reports issued for the scheduling/supervision of personnel and the evaluation/review of data and reports.
11) The minimum billing increment for time is a half hour.
12) A project set-up charge of a minimum of two hours applies to all projects.
13) Professional services rates are exclusive of expert deposition or testimony time.
14) Drilling and field service rates are based on OSHA Level D personnel protection.
15) For sites where drilling is to occur that are not readily accessible to a truck mounted drill rig, rates for rig mobility, site clearing, crew stand-by time, etc. will be charged as applicable.
16) If applicable the prevailing wage fees charged under this agreement will be adjusted if there is any change in the applicable prevailing wage rate established by the Illinois Department of Labor.
17) Services and fees not listed on this schedule may be quoted on request.

Client#: 1171577 RUBINENG

ACORD **CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY) 9/01/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer any rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Laurie Cloninger	
USI Ins Srvcs LLC Euclid-Prof 2021 Spring Road, Suite 100 Oak Brook, IL 60523 312 442-7200	PHONE (A/C, No, Ext): 630 625-5219	FAX (A/C, No): 610 537-4939
	E-MAIL ADDRESS: AEcertificates@usi.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : RLI Insurance Company	13056
INSURED Rubino Engineering, Inc. 425 Shepard Dr Elgin, IL 60123	INSURER B : Berkley Insurance Company	32603
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN. THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			PSB0003777	09/01/2022	09/01/2023	EACH OCCURRENCE	$1,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$1,000,000
							MED EXP (Any one person)	$10,000
							PERSONAL & ADV INJURY	$1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$2,000,000
	POLICY X PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$2,000,000
	OTHER:							$
A	AUTOMOBILE LIABILITY			PSA0001881	09/01/2022	09/01/2023	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
A	X UMBRELLA LIAB X OCCUR			PSE0002142	09/01/2022	09/01/2023	EACH OCCURRENCE	$5,000,000
	X EXCESS LIAB CLAIMS-MADE						AGGREGATE	$5,000,000
	DED RETENTION $							$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N			PSW0002789	09/01/2022	09/01/2023	X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y	N / A					E.L. EACH ACCIDENT	$1,000,000
	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$1,000,000
							E.L. DISEASE - POLICY LIMIT	$1,000,000
B	Professional Liability			AEC905800703	09/01/2022	09/01/2023	$2,000,000 each claim / $4,000,000 annual aggr.	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Professional Liability is written on a 'claims made' policy form.

Some or all officers are excluded from Workers Compensation coverage.

Contractors Pollution Liability Coverage:
Insurance Carrier - Capitol Specialty Insurance Corporation (NAIC #10328)
(See Attached Descriptions)

CERTIFICATE HOLDER	CANCELLATION
Rubino Engineering, Inc.	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

ACORD 25 (2016/03) 1 of 2 The ACORD name and logo are registered marks of ACORD
#S37240573/M37240539 LXCAA

GENERAL CONDITIONS

1. PARTIES AND SCOPE OF SERVICES: Rubino Engineering, Inc. shall include said company or its particular division, subsidiary or affiliate performing the services. "Services" means the specific geotechnical, analytical, testing or other service to be performed by Rubino Engineering, Inc. as set forth in Rubino Engineering, Inc.'s proposal, Client's acceptance thereof and these General Conditions. Additional services ordered by Client shall also be subject to these General Conditions. "Client" refers to the person or business entity ordering the services to be done by Rubino Engineering, Inc. If Client is ordering the services on behalf of another, Client represents and warrants that it is the duly authorized agent of said party for the purpose of ordering and directing said services. Unless otherwise stated in writing, Client assumes sole responsibility for determining whether the quantity and the nature of the services ordered by the client is adequate and sufficient for Client's intended purpose. Client shall communicate these General Conditions to each and every third party to whom Client transmits any part of Rubino Engineering, Inc.'s services. Rubino Engineering, Inc. shall have no duty or obligation to any third party greater than that set forth in Rubino Engineering, Inc.'s proposal, Client's acceptance thereof and these General Conditions. The ordering of services from Rubino Engineering, Inc., or the reliance on any of Rubino Engineering, Inc.'s work, shall constitute acceptance of the terms of Rubino Engineering, Inc.'s proposal and these General Conditions, regardless of the terms of any subsequently issued document.

2. TESTS AND INSPECTIONS: Client shall cause all tests and inspection of the site, materials and work performed by Rubino Engineering, Inc. or others to be timely and properly performed in accordance with the plans, specifications and contract documents and Rubino Engineering, Inc.'s recommendations. No claims for loss, damage or injury shall by brought against Rubino Engineering, Inc. by Client or any third party unless all tests and inspections have been so performed and unless Rubino Engineering, Inc.'s recommendations have been followed. Client agrees to indemnify, defend and hold Rubino Engineering, Inc., its officers, employees and agents harmless from any and all claims, suits, losses, costs and expenses, including, but not limited to, court costs and reasonable attorney's fees in the event that all such tests and inspections are not so performed or Rubino Engineering, Inc.'s recommendations are not so followed except to the extent that such failure is the result of the negligence, willful or wanton act of omission of Rubino Engineering, Inc., its officers, agents or employees, subject to the limitation contained in paragraph 9.

3. SCHEDULING OF SERVICES: The services set forth in Rubino Engineering, Inc.'s proposal and Client's acceptance will be accomplished in a timely, workmanlike and professional manner by RUBINO ENGINEERING, INC. personnel at the prices quoted. If Rubino Engineering, Inc. is required to delay commencement of the services or if, upon embarking upon its services, Rubino Engineering, Inc. is required to stop or interrupt the progress of its services as a result of changes in the scope of the services requested by Client, to fulfill the requirements of third parties, interruptions in the progress of construction, or other causes beyond the direct reasonable control of Rubino Engineering, Inc., additional charges will be applicable and payable by Client.

4. ACCESS TO SITE: Client will arrange and provide such access to the site as is necessary for Rubino Engineering, Inc. to perform the services. Rubino Engineering, Inc. shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as the result of its services or the use of its equipment; however, Rubino Engineering, Inc. has not included in its fee the cost of restoration of damage which may occur. If Client desires or requires Rubino Engineering, Inc. to restore the site to its former condition, upon written request Rubino Engineering, Inc. will perform such additional services as is necessary to do so and Client agrees to pay Rubino Engineering, Inc. for the cost.

5. CLIENT'S DUTY TO NOTIFY ENGINEER: Client represents and warrants that it has advised Rubino Engineering, Inc. of any known or suspected hazardous materials, utility lines and pollutants at any site at which Rubino Engineering, Inc. is to perform services hereunder, and unless Rubino Engineering, Inc. has assumed in writing the responsibility of locating subsurface objects, structures, lines or conduits. Rubino Engineering, Inc. may use such information in performing its services and is entitled to rely upon the accuracy and completeness thereof. Client agrees to defend, indemnify and save Rubino Engineering, Inc. harmless from all claims, suits, loses costs and expenses, including reasonable attorney's fees as a result of personal injury, death or property damage occurring with respect to Rubino Engineering, Inc.'s performance of its work and resulting to or caused by contact with subsurface of latent objects, structures, lines or conduits where the actual or potential presence and location thereof were not revealed to Rubino Engineering, Inc. by Client and/or by any of Client's subcontractors or sub consultants

6. RESPONSIBILITY: Rubino Engineering, Inc.'s services shall not include determining, supervising or implementing the means, methods, techniques, sequences or procedures of construction. Rubino Engineering, Inc. shall not be responsible for evaluating, reporting or affecting job conditions concerning health, safety or welfare. Rubino Engineering, Inc.'s services or failure to perform same shall not in any way excuse any contractor, subcontractor or supplier from performance of its work in accordance with the contract documents. Rubino Engineering, Inc. has no right or duty to stop the contractor's work.

7. SAMPLE DISPOSAL: Unless otherwise agreed in writing, test specimens or samples will be disposed immediately upon completion of the test. All drilling samples or specimens will be disposed sixty (60) days after submission of Rubino Engineering, Inc.'s report.

8. PAYMENT: Client shall be invoiced once each month for services performed during the preceding period. Client agrees to pay each invoice within thirty (30) days of its receipt. Client further agrees to pay interest on all amounts invoiced and not paid or objected to for valid cause in writing with said thirty (30) day period at the rate of eighteen (18) percent per annum (or the maximum interest rate permitted under applicable law), until paid. Client agrees to pay Rubino Engineering, Inc.'s cost of collection of all amounts due and unpaid after sixty (60) days, including court costs and reasonable attorney's fees. Rubino Engineering, Inc. shall not be bound by any provision or agreement requiring or providing for arbitration or disputes or controversies arising out of this agreement, any provision wherein Rubino Engineering, Inc. waives any rights to a mechanics' lien, or any provision conditioning Rubino Engineering, Inc.'s right to receive payment for its services upon payment to Client by any third party. These General Conditions are notice, where required, that Rubino Engineering, Inc. shall file a lien whenever necessary to collect past due amounts. Release of such lien shall be given only when payment in full has been received for services duly rendered. Failure to make payment within thirty (30) days of invoice shall constitute a release of Rubino Engineering, Inc. from any and all claims which Client may have, whether in tort, contract or otherwise and whether known or unknown at the time.

9. STANDARD OF CARE: RUBINO ENGINEERING, INC.'S SERVICES WILL BE PERFORMED, ITS FINDINGS OBTAINED AND ITS REPORTS PREPARED IN ACCORDANCE WITH ITS PROPOSAL, CLIENT'S ACCEPTANCE THEREOF, THESE GENERAL CONDITIONS AND WITH GENERALLY ACCEPTED PRINCIPLES AND PRACTICES. IN PERFORMING ITS PROFESSIONAL SERVICES, RUBINO ENGINEERING, INC. WILL USE THAT DEGREE OF CARE AND SKILL ORDINARILY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY MEMBERS OF ITS PROFESSION. RUBINO ENGINEERING, INC. MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, IN CONNECTION WITH ITS SERVICES PROVIDED AS SET FORTH IN ITS PROPOSAL, CLIENT'S ACCEPTANCE THEREOF, AND THESE GENERAL CONDITIONS. STATEMENTS MADE IN RUBINO ENGINEERING, INC. REPORTS ARE OPINIONS BASED UPON ENGINEERING JUDGMENT AND ARE NOT TO BE CONSTRUED AS REPRESENTATIONS OF FACT.

SHOULD RUBINO ENGINEERING, INC. OR ANY OF ITS PROFESSIONAL EMPLOYEES BE FOUND TO HAVE BEEN NEGLIGENT IN THE PERFORMANCE OF ITS WORK, OR TO HAVE MADE AND BREACHED ANY EXPRESSED OR IMPLIED WARRANTY, REPRESENTATION OR CONTRACT, CLIENT, ALL PARTIES CLAIMING THROUGH CLIENT AND ALL PARTIES CLAIMING TO HAVE IN ANY WAY RELIED UPON RUBINO ENGINEERING, INC.'S WORK, AGREE THAT THE MAXIMUM AGGREGATE AMOUNT OF THE LIABILITY OF RUBINO ENGINEERING, INC., ITS OFFICERS, EMPLOYEES AND AGENTS SHALL BE LIMITED TO $10,000.00 OR THE TOTAL AMOUNT OF THE FEE PAID TO RUBINO ENGINEERING, INC. FOR ITS WORK PERFORMED WITH RESPECT TO THE PROJECT, WHICHEVER AMOUNT IS GREATER.

NO ACTION OR CLAIM, WHETHER IN TORT, CONTRACT OR OTHERWISE, MAY BE BROUGHT AGAINST RUBINO ENGINEERING, INC., ARISING FROM OR RELATED TO RUBINO ENGINEERING, INC.'S WORK, MORE THAN TWO (2) YEARS AFTER THE CESSATION OF RUBINO ENGINEERING, INC.'S WORK HEREUNDER.

10. INDEMNITY: To the fullest extent permitted by law, Client and Rubino Engineering, Inc. each agree to indemnify the other party and the other party's officers, directors, partners, employees, and representatives, from and against losses, damages, and judgments arising from claims by third parties, including reasonable attorneys' fees and expenses recoverable under applicable law, but only to the extent they are found to be caused by a negligent act, error, or omission of the indemnifying party or any of the indemnifying party's officers, directors, members, partners, agents, employees, subcontractors, or subconsultants in the performance of services under this Agreement. If claims, losses, damages, and judgments are found to be caused by the joint or concurrent negligence of Client and Rubino Engineering, Inc., they shall be borne by each party in proportion to its negligence.

11. TERMINATION: This Agreement may be terminated by either party upon seven (7) days' prior written notice. In the event of termination, Rubino Engineering, Inc. shall be compensated by Client for all services performed up to and including the termination date, including reimbursable expenses and for the completion of such services and records as are necessary to place Rubino Engineering, Inc.'s files in order and/or protect its professional reputation. Failure of Client to make payments when due shall be cause for suspension of services or, ultimately, termination, unless and until Rubino Engineering Inc. has been paid in full all amounts due for services, expenses and other related changes.

12. DISPUTE RESOLUTION: In the event of a dispute arising out of or relating to this Agreement or the services to be rendered hereunder, the Client and Rubino Engineering, Inc. agree to attempt to resolve such disputes in the following manner: 1) The parties agree to attempt to resolve any and all unsettled claims, counterclaims, disputes and other matters in question through direct negotiations between the appropriate representatives of each party; 2) If such negotiations are not fully successful, the parties agree to submit any and all remaining unsettled claims, counterclaims, disputes and other matters in question to mediation in accordance with the Construction Industry Mediation Rules of the American Arbitration Association, effective as of the date of this Agreement.

13. WITNESS FEES: Rubino Engineering, Inc.'s employees shall not be retained as expert witnesses except by separate written agreement. Client agrees to pay Rubino Engineering, Inc.'s legal expenses, administrative costs and fees pursuant to Rubino Engineering, Inc.'s then current fee schedule for Rubino Engineering, Inc. to respond to any subpoena.

14. NO HIRE: Client agrees not to hire Rubino Engineering, Inc.'s employees except through Rubino Engineering, Inc. In the event Client hires a Rubino Engineering, Inc. employee, Client shall pay Rubino Engineering, Inc. an amount equal to one-half of the employee's annualized salary, with Rubino Engineering, Inc. waiving other remedies it may have.

15. HAZARDOUS MATERIALS: Nothing contained within this agreement shall be construed or interpreted as requiring Rubino Engineering, Inc. to assume the status of an owner, operator, generator, storer, transporter, treater or disposal facility as those terms appear within RCRA, CERCLA, or within any Federal or State statute or regulation governing the generation, transportation, treatment, storage and disposal of pollutants. Client assumes full responsibility for compliance with the provisions of RCRA, CERCLA, and any other Federal or State statute or regulation governing the handling, treatment, storage and disposal of pollutants.

16. PROVISIONS SEVERABLE: The parties have entered into this agreement in good faith and it is the specific intent of the parties that the terms of the General Conditions be enforced as written. In the event any of the provisions of these General Conditions should be found to be unenforceable, it shall be stricken and the remaining provisions shall be enforceable.

17. ENTIRE AGREEMENT: This agreement constitutes the entire understanding of the parties, and there are no representations, warranties or undertakings made other than as set forth herein. This agreement may be amended, modified or terminated only in writing, signed by each of the parties hereto.

Rubino Engineering, Inc.

Illinois Department of Transportation

EXHIBIT D

COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

FIXED RAISE

Local Public Agency	County	Section Number
LCDOT	Lake	

Prime Consultant (Firm) Name	Prepared By	Date
Benesch	Anthony Tomaras	6/15/2023

Consultant / Subconsultant Name	Job Number
Rubino Engineering, Inc.	Q23.269g_REV3

Note: This is name of the consultant the CECS is being completed for. This name appears at the top of each tab.

Remarks

PAYROLL ESCALATION TABLE

CONTRACT TERM	**24**	**MONTHS**	**OVERHEAD RATE**	**169.03%**
START DATE	**8/1/2023**		**COMPLEXITY FACTOR**	
RAISE DATE	**3/1/2024**		**% OF RAISE**	**2.00%**
END DATE	7/31/2025			

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	8/1/2023	3/1/2024	7	29.17%
1	3/2/2024	3/1/2025	12	51.00%
2	3/2/2025	8/1/2025	5	21.68%

The total escalation = 1.84%

Local Public Agency	County	Section Number
LCDOT	Lake	

Consultant / Subconsultant Name	Job Number
Rubino Engineering, Inc.	Q23.269g_REV3

PAYROLL RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET FIXED RAISE

MAXIMUM PAYROLL RATE	**86.00**
ESCALATION FACTOR	**1.84%**

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Material Tester 1 & 2	$43.54	$44.34
Project Manager / Engineer	$48.46	$49.35
Staff Engineer / Geologist / Soil Scientist	$35.62	$36.28
Laboratory Staff	$30.00	$30.55
Principal	$75.00	$76.38
Driller	$61.25	$62.38
Administrative	$27.83	$28.34

Local Public Agency	County	Section Number
LCDOT	Lake	

Consultant / Subconsultant Name	Job Number
Rubino Engineering, Inc.	Q23.269g_REV3

SUBCONSULTANTS

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

NAME	Direct Labor Total	Contribution to Prime Consultant

Total **0.00** **0.00**

NOTE: Only subconsultants who fill out a cost estimate that splits out direct labor may be listed on this sheet.

Local Public Agency
LCDOT

County
Lake

Section Number

Consultant / Subconsultant Name
Rubino Engineering, Inc.

Job Number
Q23.269g_REV3

DIRECT COSTS WORKSHEET

List ALL direct costs required for this project. Those not listed on the form will not be eligible for reimbursement by the LPA on this project.

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

ITEM	ALLOWABLE	QUANTITY	CONTRACT RATE	TOTAL
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual Cost (Up to state rate maximum)			$0.00
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual Cost			$0.00
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			$0.00
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			$0.00
Vehicle Owned or Leased	$32.50/half day (4 hours or less) or $65/full day	8	$65.00	$520.00
Vehicle Rental	Actual Cost (Up to $55/day)			$0.00
Tolls	Actual Cost			$0.00
Parking	Actual Cost			$0.00
Overtime	Premium portion (Submit supporting documentation)	12	$31.19	$374.27
Shift Differential	Actual Cost (Based on firm's policy)			$0.00
Overnight Delivery/Postage/Courier Service	Actual Cost (Submit supporting documentation)			$0.00
Copies of Deliverables/Mylars (In-house)	Actual Cost (Submit supporting documentation)			$0.00
Copies of Deliverables/Mylars (Outside)	Actual Cost (Submit supporting documentation)			$0.00
Project Specific Insurance	Actual Cost			$0.00
Monuments (Permanent)	Actual Cost			$0.00
Photo Processing	Actual Cost			$0.00
2-Way Radio (Survey or Phase III Only)	Actual Cost			$0.00
Telephone Usage (Traffic System Monitoring Only)	Actual Cost			$0.00
CADD	Actual Cost (Max $15/hour)			$0.00
Web Site	Actual Cost (Submit supporting documentation)			$0.00
Advertisements	Actual Cost (Submit supporting documentation)			$0.00
Public Meeting Facility Rental	Actual Cost (Submit supporting documentation)			$0.00
Public Meeting Exhibits/Renderings & Equipment	Actual Cost (Submit supporting documentation)			$0.00
Recording Fees	Actual Cost			$0.00
Transcriptions (specific to project)	Actual Cost			$0.00
Courthouse Fees	Actual Cost			$0.00
Storm Sewer Cleaning and Televising	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Traffic Control and Protection	Actual Cost (Requires 2-3 quotes with IDOT approval)	2	$2,500.00	$5,000.00
Aerial Photography and Mapping	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Utliity Exploratory Trenching	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Testing of Soil Samples	Actual Cost			$0.00
Lab Services	Actual Cost (Provide breakdown of each cost)	1	$1,940.00	$1,940.00
Equipment and/or Specialized Equipment Rental	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Drill Rig Mobilization	In House Direct Cost	2	$650.00	$1,300.00
DOT Mix non-shrink grout	In House Direct Cost	21	$22.46	$471.74
				$0.00
				$0.00
			TOTAL DIRECT COSTS:	**$9,606.01**

Local Public Agency	County	Section Number
LCDOT	Lake	

Consultant / Subconsultant Name	Job Number
Rubino Engineering, Inc.	Q23.269g_REV3

COST ESTIMATE WORKSHEET

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

OVERHEAD RATE 169.03% **COMPLEXITY FACTOR** 0

TASK	DIRECT COSTS (not included in row totals)	STAFF HOURS	PAYROLL	OVERHEAD & FRINGE BENEFITS	FIXED FEE	SERVICES BY OTHERS	TOTAL	% OF GRAND TOTAL
Drilling, Coring, and Reporting		150	7,020	11,865	2,317		21,202	68.82%
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
Subconsultant DL							$0.00	
Direct Costs Total ===>	$0.00						$9,606.01	31.18%
TOTALS		150	7,020	11,865	2,317	-	30,808	100.00%

18,885

BLR 05514 (Rev. 02/09/23)

COST EST

Printed 6/15/2023 1:59 PM

Local Public Agency	County	Section Number
LCDOT	Lake	

Consultant / Subconsultant Name	Job Number
Rubino Engineering, Inc.	Q23.269g_REV3

AVERAGE HOURLY PROJECT RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

SHEET 1 OF 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Drilling, Coring, and Reporting														
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Material Tester 1 & 2	44.34	20.0	13.33%	5.91	20	13.33%	5.91												
Project Manager / Engineer	49.35	18.0	12.00%	5.92	18	12.00%	5.92												
Staff Engineer / Geologist /	36.28	64.0	42.67%	15.48	64	42.67%	15.48												
Laboratory Staff	30.55	4.0	2.67%	0.81	4	2.67%	0.81												
Principal	76.38	4.0	2.67%	2.04	4	2.67%	2.04												
Driller	62.38	40.0	26.67%	16.63	40	26.67%	16.63												
Administrative	28.34	0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
TOTALS		150.0	100%	$46.80	150.0	100.00%	$46.80	0.0	0%	$0.00	0.0	0%	$0.00	0.0	0%	$0.00	0.0	0%	$0.00

SWE SOLUTIONS

6/12/2023

To Whom It May Concern,

SWE Solutions will provide topographic survey services for Benesch project: Hunt Club Rd at Stearns School Rd Intersection Improvement.

Survey work to be completed utilizing RTK Drones + GPS Rover synced up to Trimble VRS Network. All XYZ raw data will be processed in correct Coordinate System: NAD83(2011) / Illinois East (US Survey feet) & Altitude Settings: NAVD88 height (US Survey feet). All topo features to be included such as manholes, catch basins, inlets, other utility structures, sign poles, trees, and power poles. 3D Line work to include back of walk, face of walk, top of curb, flowline, edge of pavement, roadway centerline, break lines, and driveways. All data collection to be within survey-grade of 0.05' (1.5cm).

Total Fee: **$23,081**.

Deliverables:

- ORD DGN with full topo
- Raw data of all points listed as: Point #, Northing, Easting, Elevation, Code (Point codes consistent with current IDOT SMD standards)
- 3D Model uploaded to NIRA (login provided to Benesch + LCDOT) Dataset to be live for 5 years
- Model files will be provided to Benesch (both .obj & geotiff files)
- Terrain model consisting of 20' x 20' grid extended 25' either side of ROW

Illinois Department of Transportation

EXHIBIT D

COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

FIXED RAISE

Local Public Agency	County	Section Number
Lake County DOT	Lake	22-00095-20-CH

Prime Consultant (Firm) Name	Prepared By	Date
Alfred Benesch & Company	Stephanie Wong	6/7/2023

Consultant / Subconsultant Name	Job Number
SWE Solutions	

Note: This is name of the consultant the CECS is being completed for. This name appears at the top of each tab.

Remarks

Hunt Club and Stearns School Road Intersection Improvement, Phase I

PAYROLL ESCALATION TABLE

CONTRACT TERM	**24**	**MONTHS**	**OVERHEAD RATE**	**120.00%**
START DATE	**8/1/2023**		**COMPLEXITY FACTOR**	**0**
RAISE DATE	**1/1/2024**		**% OF RAISE**	**2.00%**
END DATE	7/31/2025			

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	8/1/2023	1/1/2024	5	20.83%
1	1/2/2024	1/1/2025	12	51.00%
2	1/2/2025	8/1/2025	7	30.35%

The total escalation = 2.18%

Local Public Agency	County	Section Number
Lake County DOT	Lake	22-00095-20-CH

Consultant / Subconsultant Name	Job Number
SWE Solutions	

PAYROLL RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET FIXED RAISE

MAXIMUM PAYROLL RATE	**86.00**
ESCALATION FACTOR	**2.18%**

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal	$58.00	$59.26
Project Manager	$55.00	$56.20

Local Public Agency	County	Section Number
Lake County DOT	Lake	22-00095-20-CH

Consultant / Subconsultant Name	Job Number
SWE Solutions	

SUBCONSULTANTS

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

NAME	Direct Labor Total	Contribution to Prime Consultant
Total	**0.00**	**0.00**

NOTE: Only subconsultants who fill out a cost estimate that splits out direct labor may be listed on this sheet.

Local Public Agency	County	Section Number
Lake County DOT	Lake	22-00095-20-CH
Consultant / Subconsultant Name		**Job Number**
SWE Solutions		

DIRECT COSTS WORKSHEET

List ALL direct costs required for this project. Those not listed on the form will not be eligible for reimbursement by the LPA on this project.

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

ITEM	ALLOWABLE	QUANTITY	CONTRACT RATE	TOTAL
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual Cost (Up to state rate maximum)			$0.00
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual Cost			$0.00
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			$0.00
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			$0.00
Vehicle Owned or Leased	$32.50/half day (4 hours or less) or $65/full day			$0.00
Vehicle Rental	Actual Cost (Up to $55/day)			$0.00
Tolls	Actual Cost			$0.00
Parking	Actual Cost			$0.00
Overtime	Premium portion (Submit supporting documentation)			$0.00
Shift Differential	Actual Cost (Based on firm's policy)			$0.00
Overnight Delivery/Postage/Courier Service	Actual Cost (Submit supporting documentation)			$0.00
Copies of Deliverables/Mylars (In-house)	Actual Cost (Submit supporting documentation)			$0.00
Copies of Deliverables/Mylars (Outside)	Actual Cost (Submit supporting documentation)			$0.00
Project Specific Insurance	Actual Cost			$0.00
Monuments (Permanent)	Actual Cost			$0.00
Photo Processing	Actual Cost			$0.00
2-Way Radio (Survey or Phase III Only)	Actual Cost			$0.00
Telephone Usage (Traffic System Monitoring Only)	Actual Cost			$0.00
CADD	Actual Cost (Max $15/hour)			$0.00
Web Site	Actual Cost (Submit supporting documentation)	$5	$200.00	$1,000.00
Advertisements	Actual Cost (Submit supporting documentation)			$0.00
Public Meeting Facility Rental	Actual Cost (Submit supporting documentation)			$0.00
Public Meeting Exhibits/Renderings & Equipment	Actual Cost (Submit supporting documentation)			$0.00
Recording Fees	Actual Cost			$0.00
Transcriptions (specific to project)	Actual Cost			$0.00
Courthouse Fees	Actual Cost			$0.00
Storm Sewer Cleaning and Televising	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Traffic Control and Protection	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Aerial Photography and Mapping	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Utliity Exploratory Trenching	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
Testing of Soil Samples	Actual Cost			$0.00
Lab Services	Actual Cost (Provide breakdown of each cost)			$0.00
Equipment and/or Specialized Equipment Rental	Actual Cost (Requires 2-3 quotes with IDOT approval)			$0.00
				$0.00
				$0.00
				$0.00
				$0.00
			TOTAL DIRECT COSTS:	**$1,000.00**

Local Public Agency	County	Section Number
Lake County DOT	Lake	22-00095-20-CH

Consultant / Subconsultant Name	Job Number
SWE Solutions	

COST ESTIMATE WORKSHEET

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

OVERHEAD RATE 120.00% **COMPLEXITY FACTOR** 0

TASK	DIRECT COSTS (not included in row totals)	STAFF HOURS	PAYROLL	OVERHEAD & FRINGE BENEFITS	FIXED FEE	SERVICES BY OTHERS	TOTAL	% OF GRAND TOTAL
RTK Drone Survey		48	2,771	3,325	914		7,010	30.37%
Data Processing		8	450	540	148		1,138	4.93%
Topo Extraction		34	1,911	2,293	631		4,835	20.95%
TIN Creation		32	1,798	2,158	593		4,549	19.71%
QA/QC		32	1,798	2,158	593		4,549	19.71%
NIRA Cloud Hosting	1,000		-	-	-		-	0.00%
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
			-	-	-		-	
Subconsultant DL							$0.00	
Direct Costs Total ===>	$1,000.00						$1,000.00	4.33%
TOTALS		154	8,728	10,474	2,879	-	23,081	100.00%
			19,202					

Local Public Agency
Lake County DOT

County
Lake

Section Number
22-00095-20-CH

Consultant / Subconsultant Name
SWE Solutions

Job Number

AVERAGE HOURLY PROJECT RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

SHEET 1 OF 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			RTK Drone Survey			Data Processing			Topo Extraction			TIN Creation			QA/QC		
		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	59.26	24.0	15.58%	9.24	24	50.00%	29.63	0			0			0			0		
Project Manager	56.20	130.0	84.42%	47.44	24	50.00%	28.10	8	100.00%	56.20	34	100.00%	56.20	32	100.00%	56.20	32	100.00%	56.20
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
		0.0																	
TOTALS		154.0	100%	$56.68	48.0	100.00%	$57.73	8.0	100%	$56.20	34.0	100%	$56.20	32.0	100%	$56.20	32.0	100%	$56.20