



Agreement For	Agreement Type
ST	Original

Using Federal Funds? ☐ Yes ☒ No

LOCAL PUBLIC AGENCY

Local Public Agency	County	Section Number	Job Number
County of Lake	Lake	24-00189-06-CH	
Project Number	Contact Name	Phone Number	Email
	Julian Rozwadowski	(847) 377-7400	jrozwadowski@lakecountyil.gov

SECTION PROVISIONS

Local Street/Road Name	Key Route	Length	Structure Number
Center Street (CTY A27)	FAU 0189	1 mi	
Location Termini			Add Location
at Atkinson Road			Remove Location

Project Description

Intersection improvements at Center Street (CTY A27) and Atkinson Road and extending the multi-use path east to US 45.

Engineering Funding	☐ MFT/TBP	☐ State	☒ Other	Local
Anticipated Construction Funding	☐ Federal	☒ MFT/TBP	☐ State	☐ Other

AGREEMENT FOR

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

CONSULTANT

Prime Consultant (Firm) Name	Contact Name	Phone Number	Email
Christopher B. Burke Engineering	Matt Huffman, PE	(847) 804-7615	mhuffman@cbbel.com
Address	City	State	Zip Code
9575 West Higgins Road, Suite 600	Rosemont	IL	60018

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 Contractor	A full time LPA employee authorized to administer inherently governmental PROJECT activities 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 ____ : Direct Costs Check Sheet (attach BDE 436 when using Lump Sum on Specific Rate Compensation)
- ☐ _____
- ☐ _____
- ☐ _____

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 origin 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
Christopher B. Burke Engineering	36-3468939	\$1,183,612.00

Subconsultants	TIN/FEIN/SS Number	Agreement Amount
HBK Engineering, LLC	36-4304016	\$293,240.00
Testing Service Corporation	35-0937582	\$50,039.00
Subconsultant Total		\$343,279.00
Prime Consultant Total		\$1,183,612.00
Total for all work		\$1,526,891.00

AGREEMENT SIGNATURES

Executed by the LPA:

Attest: The

Local Public Agency Type
County

 of

Local Public Agency
County of Lake

By (Signature & Date)

By (Signature & Date)

Local Public Agency

County of Lake

Local Public Agency Type

County

Clerk

Title

Chair, Lake County Board

(SEAL)

Executed by the ENGINEER:

Attest:

Prime Consultant (Firm) Name
Christopher B. Burke Engineering

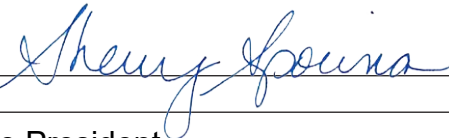
By (Signature & Date)

 7/22/2025
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Title

President

By (Signature & Date)

 7/22/2025

Title

Vice President

APPROVED:

Regional Engineer, Department of Transportation (Signature & Date)

Local Public Agency	Prime Consultant (Firm) Name	County	Section Number
County of Lake	Christopher B. Burke Engineering	Lake	24-00189-06-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

Exhibit A is attached separately.

Local Public Agency	Prime Consultant (Firm) Name	County	Section Number
County of Lake	Christopher B. Burke Engineering	Lake	24-00189-06-CH

**EXHIBIT B
PROJECT SCHEDULE**

Exhibit B is contained within Exhibit A



CHRISTOPHER B. BURKE ENGINEERING, LTD. (CBBEL)

9575 W Higgins Road, Suite 600, Rosemont, Illinois 60018-4920 | (847) 823-0500 | cbbel.com

EXHIBIT A – SCOPE OF SERVICES

Center Street (CTY A27) and Atkinson Road

Phase I Engineering Study

Lake County Division of Transportation

SN 24-00189-06-CH

July 28, 2025

Understanding of Assignment

Christopher B. Burke Engineering, Ltd. (CBBEL) will perform Preliminary Engineering (Phase I Study) on behalf of the Lake County Division of Transportation (LCDOT or County) for an intersection improvement at Center Street (CTY A27) and Atkinson Road to improve pavement condition, to improve safety and operations with modernized traffic signals, to ensure future year 2050 traffic projections are accommodated, to further enhance existing pedestrian/bicycle accommodations, and to modernize the intersection ADA accommodations and curb ramp improvements. Also to further enhance the existing pedestrian/bicycle accommodations, the multi-use path along Center Street will be extended east through the US 45 intersection.

Phase I Engineering will be completed based on IDOT Bureau of Local Roads and Streets (IDOT-BLRS) policies for the major collector functional classification roadway, with local funds being used for engineering and construction. This intersection is located just east of the Village of Grayslake City Center and is a busy intersection with respect to local vehicle and pedestrian/bicycle traffic, and notably many school buses throughout the day. Pace Bus Route 570 also traverses the intersection along the west and north legs, with bus stops north of the intersection. Coordination with PACE is anticipated since they are considering changing system routes. The intersection is flanked by commercial development in three of the four quadrants and residential development in the northeast quadrant. The Grayslake Bike Path crosses the intersection in all directions in all quadrants, except the eastbound approach in the southwest quadrant. Traffic patterns have also recently shifted with the completed construction of the IL 83 re-alignment to Atkinson Road at IL Route 137.

There are known pipelines within the study limits that include gas, hazardous liquid and water transmission. Locating of all underground utilities must occur during preliminary engineering in order to understand the potential impacts and developing a design that minimizes impacts to these facilities to the greatest extent possible. The location of these facilities will be a factor in the development of roadway/intersection design alternatives.

Based on this understanding of the overall project key issues and objectives, the following scope of services are proposed to complete preliminary engineering:

Scope of Services

1. Data Collection & Analysis

CBBEL will collect and evaluate all necessary data for completion of preliminary engineering. This data will include at least the following base information:

- A. Collect and compile all GIS information and maintain a project database for use throughout the entire project.
- B. Prepare aerial mosaics of the project limits to be used for exhibits and presentations.
- C. Record Plans:
 - 1. Record roadway plans, permit, and development plans.
 - 2. Traffic signal plans and signal timing information.
 - 3. Available traffic data and pavement condition.
 - 4. Available survey data and control data for tying to the Lake County mapping.
 - 5. Available County mapping data, including contour mapping and environmental resources.
 - 6. Existing and proposed land use and zoning maps.
 - 7. Public and private utility plans and atlases.
 - 8. USGS maps and Flood Insurance Rate Maps.
 - 9. Public Service routes including Bus and Emergency Services.
 - 10. Available flooding records and drainage complaints as available.
 - 11. Emergency response routes.
- D. Field Visits for project data collection and inspection. (3 site visits)

2. Survey

CBBEL will perform a full topographic survey of the project area for use in preliminary engineering and covers 1,500 feet in all directions at the Center Street at Atkinson intersection to provide enough coverage to Braymore Drive to the north, Grayslake Park District to the south, and Commerce Drive to the east. The topographic survey will include all existing right-of-way, adjacent out-lot parcels with existing multi-use path, and 20-feet outside of existing right-of-way. Since it is unknown whether the multi-use path (MUP) will be extended east along the north or south side of Center Street, both sides of the roadway to 30 feet outside the existing ROW will be surveyed. The survey extends east past the US 45 intersection to provide crosswalk connections to the US 45 intersection. The survey will be drafted in accordance with the IDOT CADD Manual following IDOT's drafting guidelines using Bentley Open Roads Designer CE, 2022 Release 3 (10.12.02.004). LCDOT's Design Survey Procedures (revised 2/22/21) will be followed. The survey scope includes the following survey tasks:

- A. Horizontal Control: Utilizing state plane coordinates, CBBEL will tie into NGS Monumentation control utilizing state of the art GPS equipment. Horizontal Datum will correlate with established/existing NGS control monuments (NAD '83, Illinois East Zone 1201).
- B. Vertical Control: CBBEL will establish site benchmarks for construction purposes, tied to the NAVD '88 Vertical Datum. This will be based on GPS observed NGS Control Monumentation (NAVD'88 vertical control datum) State-of-the-art Hard Level equipment will be used to establish benchmarks and assign a vertical datum on the horizontal control points.
- C. Existing Right-of-Way: CBBEL will establish the existing right-of-way of the roadways within the project limits based on monumentation found in the field, plats of highways, subdivision plats and any other available information. Boundary/Land Acquisition survey, Plat of Highways, and/or Plat of Easement is not included and will be completed as part of subsequent Phase II Engineering.
- D. Topographic Survey: CBBEL will field locate all pavements, driveways, curb and gutters, pavement markings, signs, manholes, utility vaults, drainage structures, driveway culverts, and crossroad culverts.
- E. Cross Sections: CBBEL will survey cross sections along the project limits at 100' intervals, at driveways, and at all other grade controlling features.
- F. Utility Survey: All existing storm and sanitary sewer structures will be surveyed to determine rim and invert elevations and pipe sizes and materials. Construction (materials) and condition of structures will also be documented. Above-ground facilities of any additional underground utilities including water main, gas, electric, cable, etc. will also be located. All underground locating of private utilities will be collected under Task 3.
- G. Tree Survey: CBBEL will locate all trees 3 inches or greater within the topographic survey limits for the project in order to assess potential tree impacts, if any, associated with the project. The located trees will be identified by species and the size and condition determined as appropriate.
- H. Base Mapping: CBBEL will compile the above information into one base map at 1'=20' scale that is representative of existing conditions for use in all preliminary and design engineering work in developing the detailed plan, profile and cross sections for the proposed improvement plan, and contract plans and bid documents.
- I. Supplemental Survey: CBBEL will perform supplemental survey during design engineering for new developments or areas needed for detention facilities outside the original survey coverage.

3. Subsurface Utility Engineering

There are pipelines that run through the project corridor. Subsurface utility engineering will be necessary to provide a roadway design aims at avoiding conflicts and meets the design requirements of the utility owners/operators.

Subconsultant, **HBK Engineering**, will complete utility research and coordination, and Subsurface Utility Engineering (SUE Level B/A, as necessary). Utility coordination includes sending plans, information requests, and reviewing materials received from utility companies.

Additionally, the CBBEL survey team will obtain title information from parcels along the corridor to confirm utility easements. Design guidelines will be obtained from each of the respective pipeline companies to confirm design requirements that will inform the preliminary roadway design. Early engagement with the pipeline utility owners is crucial to the efficient delivery of this project. HBK will perform the SUE level B and discussion can occur with the utility companies with level A potholing to confirm depths once a preferred design is identified. The general HBK scope of services includes (Refer to separately attached scope for more detail):

- A. Initial Coordination/Data Collection
- B. Utility Designation and Survey – SUE Level D & B
- C. Utility Level A Locating (30 test holes included)
- D. Utility Base Mapping
- E. Utility Coordination

4. Traffic & Safety Studies

A. Data Collection

CBBEL will coordinate and provide traffic counts at the following intersections. 12 hour counts will be conducted from 6 AM to 6 PM:

- Atkinson Rd at Center Street (72 hour counts)
- Atkinson Rd at Braymore Drive (24 hour counts)
- Atkinson Rd at Strip Mall, north entrance (12 hour counts)
- Atkinson Rd at Strip Mall, south entrance (12 hour counts)
- Atkinson Rd at Commercial Driveways, directly south of Center Street (12 hour counts)
- Atkinson Rd at Livorsi Dr/Hoffner Dr (24 hour counts)
- US Route 45 and Center Street (24 hour counts)
- Center Street at Commercial Driveway, directly west of Atkinson Rd (12 hour counts)
- Center Street at Commerce Drive (24 hour counts)
- Center Street at Buckingham Drive (24 hour counts)
- Center Street at Bobolink Drive (24 hour counts)

B. Crash Analysis Memorandum

1. This task will include performing a crash study with the findings summarized in a technical memorandum. CBBEL will obtain the most recent 5 years of available data crash and safety tier information from the IDOT portal. The existing crash data will be tabulated with a technical memorandum summarizing the crash history, identifying crash patterns, and providing recommended HSM countermeasures. One crash update is included.

A crash prediction analysis will be performed utilizing FHWA Highway Safety Manual – Interactive Highway Safety Design model (IHSDM) to evaluate/predict the crash frequency for 2050 No-Build and the build alternatives at the intersection of Atkinson Road at Center Street. This analysis will be utilized in the alternatives comparison evaluation.

C. Traffic Analysis

1. CMAP Coordination and Traffic Volume Projection – This task will include coordinating with CMAP for 2050 ADT values. Coordination with CMAP will also ensure consideration of effects from nearby projects recently completed, specifically the realignment of IL 83 at the south end of Atkinson Road, and also coordination on future planned projects. CBBEL will then calculate the growth factor and develop design hourly volumes based on the projected ADT.
2. Capacity Analysis – This task will include preparing Synchro/Sim Traffic base files for modeling the existing conditions, 2050 no-build, and proposed traffic signal improvements at the Atkinson Rd at Center Street intersection. Roundabout capacity analysis will be performed using SIDRA for the Center Street at Atkinson Road intersection per IDOT requirements. This task also includes performing the existing and proposed capacity analysis for the Center Street at US Route 45 intersection for the proposed crosswalk installations.
3. Intersection Control Evaluation - An Intersection Control Study will evaluate the effectiveness and safety of various traffic control measures at the Center Street at Atkinson Road intersection. It involves collecting and analyzing data on traffic flow, crash history, and other relevant factors, then using this information to recommend appropriate intersection control strategies, such as traffic signals, stop signs, roundabouts, or other measures. The goal of the study is to improve traffic efficiency, minimize delays, and enhance safety for all road users.
4. Traffic Analysis Technical Memorandum – This task will include preparing the technical memorandum summarizing existing and future traffic operation study conditions. The methodology and analysis for the Intersection Control Evaluation will also be documented in this technical memorandum with detailed recommendations on future operation of the intersection of Atkinson Road and Center Street.

In addition, the technical memorandum will summarize the existing and future (proposed) capacity analysis for the US 45 at Center Street intersection regarding the proposed installation of pedestrian accommodations.

D. Intersection Design Study

CBBEL will prepare an Intersection Design Studies (IDS) at a scale of 1" = 50' for the intersection of Center Street at Atkinson Road for the preferred alternative. The IDS will include the results of existing and 2050 Build traffic analysis, the proposed intersection geometry, the proposed traffic signal or roundabout layout, and the associated design criteria/design

exceptions/general notes. For a roundabout IDS, the fastest path exhibit and sight line exhibit will also be included in this task. The preliminary IDS documents will be submitted to the County for review and revised based on any review comments received.

5. Environmental Studies

This is a non-federal project, and environmental efforts are focused on preparing for Phase II permitting. CBBEL will perform an environmental review of the project corridor and complete the required environmental surveys for completion of Preliminary Engineering in anticipation of Design Engineering. Although locally funded, Environmental Screening Forms, an Environmental Survey Request, and a Wetland Impact Evaluation are included in this task to account for anticipated work within the US 45 right-of-way and the potential use of Motor Fuel Tax (MFT) funds. This scope assumes that the cultural resource review and any necessary biological surveys (including threatened & endangered species surveys) will be completed by the State through the Environmental Survey Request process (described below).

A. ESR Submittal to IDOT-BLRS

CBBEL will prepare and submit an Environmental Survey Request (ESR) for the project to IDOT-BLRS for processing in accordance with IDOT procedures. The environmental review will include a field visit. The ESR submittal will include the required ESR form, special waste screen, exhibits, and a photo log of structures adjacent to the project corridor that are a minimum of 40 years old. The photo log of structures will be prepared by CBBEL for completion of the cultural resource review, as necessary. Buildings that are clearly visible on Google Street View will not be included in the photo log. This task also includes the ESR Screening Form submittals to IDOT-BLRS prior to the ESR submittal, as necessary.

B. Bridge/Structure Bat Assessment

In accordance with the latest Northern Long-Eared Bat (NLEB) guidance from IDOT, CBBEL will complete a Bridge/Structure Bat Assessment (BBA) at applicable bridges and culverts within the project corridor. This scope includes completion of a BBA at one (1) potential structure. This scope includes coordination, fieldwork, photo log, BBA form, and location map.

C. Waters of the US/Wetland Delineation with Preliminary Jurisdictional Determination and Boundary Verification

An investigation of the project corridor will be completed to delineate the limits of waters of the US (WOUS)/wetlands present. The delineation will be completed based on the methodology established by the US Army Corps of Engineers (USACE). During the site visit, wildlife and plant community qualities will also be assessed. The limits of the wetland community will be field staked. We will locate the delineated WOUS/wetland boundaries using a submeter accuracy handheld GPS unit.

The results of the field reconnaissance will be summarized in a letter report. The wetlands' generalized quality ratings (based on the latest USACE guidance) will be included along with exhibits depicting the approximate wetland and project corridor boundaries, National Wetland Inventory, Lake County Wetland Inventory, Soil Survey, floodplain, USGS topography, site photographs, and the USACE Routine On-Site Data Forms.

This task will also include completing a farmed wetland determination for agricultural portions of the project corridor.

A WOUS/wetland Preliminary Jurisdictional Determination and Boundary Verification (PJD/BV) site visit will be coordinated with the Lake County Stormwater Management Commission (LCSMC).

D. Tree Inventory

CBBEL staff will identify all naturalized trees greater than or equal to 3-inches diameter at breast height and all landscape trees regardless of size at the project corridor. CBBEL will provide a tree inventory listing including size, species, condition, form, and general comments regarding the quality of the identified trees. Each tree will be evaluated and assigned a number rating from 1 – 5 based on general observations at the time of the inventory. A rating of 1 (excellent) has the highest value in terms of protection or preservation. A rating of 5 (poor) has the lowest value and represents lower quality individuals.

This task does not include a professional field survey locating the identified trees. CBBEL will locate the trees using a sub-meter accuracy handheld GPS unit. Trees will not be tagged.

E. Preliminary Environmental Site Assessment

CBBEL will prepare the Preliminary Environmental Site Assessment (PESA) for the entire project corridor, except for areas within right-of-way owned by the State of Illinois (i.e., US 45). IDOT will be requested to complete the PESA per IDOT policy for the State-owned right-of-way at the Center Street at US 45 intersection.

This task includes a site visit and preparation of a PESA for special waste, per IDOT requirements. CBBEL will identify potential Recognized Environmental Conditions (RECs) within and immediately adjacent to the project corridor. PESA services include a cursory field investigation in which all parcels within and immediately adjacent to the project corridor are visited to look for evidence of RECs such as underground and aboveground storage tanks, leaking underground storage tanks, the historic presence of hazardous waste handling and/or storage sites, historic hazardous waste spills, potential contaminated soils, pavement staining, malfunctioning transformers, solid waste, or other adverse site conditions (such as noxious odors or tenants likely to be using or handling hazardous substances). A database search will be completed for known tenants and addresses to identify any known presence or release of toxic or hazardous substances into the environment within the project corridor as reported to Federal and State regulatory agencies. A review of past aerial photography and topographic maps will also be performed to identify changes in historic land uses or past tenants that may have used or released toxic or hazardous substances. A report will be compiled to present the results of the PESA investigation. If the PESA results determine there are properties within the project limits with RECs, a Preliminary Site Investigation (PSI) may be necessary. The PSI will be prepared as part of Design Engineering as part of a future contract.

F. Wetland Impact Evaluation Forms

Wetland clearance to address Interagency Wetland Policy Act (IWPA) requirements will be coordinated through IDOT. CBBEL will prepare WOUS/Wetland Impact Evaluation (WIE) forms and exhibits as required by IDOT for all identified WOUS/wetlands in the project corridor, regardless of level of impact. This task will include a resource review, preparation of supporting documentation,

submittal of the WIE forms with exhibits, coordination, and follow-up with the reviewer as necessary. For purposes of this proposal, it is assumed that approximately six (6) independent WOUS/wetland sites will be identified that will require WIE submittal. If wetland impacts are anticipated, the WIE submittal will include the proposed mitigation strategy.

G. Abbreviated Section 4(f) Coordination

The Lake County Forest Preserve District (LCFPD) owns property at the northwest corner of the Center Street at US 45 intersection. Although federal funding is not anticipated as part of this project, it is our understanding that LCDOT would like to incorporate an abbreviated Section 4(f) evaluation into the Phase I process to streamline and document coordination with the LCFPD, if impacts to the LCFPD property cannot be avoided. This task includes preparation of an abbreviated Section 4(f) de minimis impact document and coordination with the LCFPD. Potential impacts to the LCFPD property will be advertised during the Public Involvement process (see Task 11 below). The abbreviated Section 4(f) document will not be processed through IDOT for FHWA review/signature. For the purpose of preparing this scope, it is assumed that the proposed project will require some “use” of the LCFPD property and that the use will be agreeable to the LCFPD.

This task also includes preliminary public lands data collection/coordination to determine presence of any past Open Space Lands Acquisition and Development (OSLAD) or Land & Water Conservation (LAWCON) funding. This scope assumes that OSLAD and LAWCON properties will not be impacted. A supplemental task will be required if the proposed improvements may impact OSLAD or LAWCON properties and an OSLAD/LAWCON related evaluation is required.

6. Drainage Studies

This task includes preparing the drainage aspects for the Preliminary Engineering (Phase I). Preliminary Engineering completion will include the development of an Existing Drainage Plan (EDP) and the development of a Phase I level Proposed Drainage Plan (PDP). Any detention considerations will be evaluated in Phase I. The project will follow the Lake County Stormwater Management Ordinance and IDOT Drainage Manual. As part of the Phase I study, an IDOT-style Location Drainage Technical Memorandum (LDTM) will be prepared to summarize the Phase I findings. A separate LDTM will be prepared for the eastern project termini to address improvements within IDOT’s right-of-way (ROW) at US 45. There is a regulatory floodplain and floodway associated with Mill Creek at the western project limits. It is assumed that there will be no impacts to the crossing or the floodplain/floodway.

Phase I Engineering Drainage Deliverables will include the preparation of an EDP, PDP, and LDTMs. These documents will be suitable for seamless project development into Phase II. Specific Drainage subtasks include the following:

A. Existing Drainage Plan (EDP)

Development of the EDP includes evaluation of existing drainage conditions through a review of field survey, record roadway and site development plans, soil and topographic maps, FEMA studies, drainage reports, flooding records and complaints, wetland mapping, drain tile studies, and field reconnaissance. EDP tasks include the following:

1. Identify on-site and off-site tributary drainage areas, existing drainage systems, features, and outfalls, and plot on project base mapping.
2. Evaluate outfall sensitivity and suitability for continued use.
3. Coordinate with Lake County regarding drainage patterns and concerns about drainage modifications or connections.

B. Proposed Drainage Plan (PDP)

Development of the PDP includes evaluating proposed drainage conditions for the Preferred Alternative based on Bulletin 75, IDOT Drainage manual, IDOT Local Roads, and Lake County design criteria. PDP tasks include the following:

1. Determine and obtain Lake County's concurrence on project drainage design criteria. Lay out proposed roadway drainage system alternatives in plan and profile.
2. Two culverts will be evaluated to accommodate the bike path along Center Road. The culverts convey Center Road over two unnamed Tributaries to Mill Creek. Both crossings, per StreamStats, are under one square mile and are considered minor. StreamStats will be used as the basis of the hydrology for the study.
3. Coordinate with the IDOT for any improvements required at the intersection of US Route 45 and Center Street.
4. Coordinate with Lake County on the preferred approach for resolving any drainage issues and providing required detention and water quality Best Management Practices (BMPs) in accordance with County requirements.
5. Prepare preliminary analysis and design for the preferred drainage system alternative.
6. Design a drainage system in a way that minimizes the impact to the existing utilities.
7. Evaluate the need for additional rights-of-way and easements for drainage purposes.
8. Evaluate the need for any detention requirements within the County and IDOT ROW.
9. Finalize the PDP based on stakeholder coordination.

C. Location Drainage Technical Memorandum

- a. Prepare a Location Drainage Technical Memorandum (LDTM) in IDOT format to document existing and proposed drainage conditions of the US Route 45 intersection with Center Street. Draft for IDOT review and comment.
- b. Prepare a Location Drainage Technical Memorandum (LDTM), for the non IDOT roadways, in IDOT format to document existing and proposed drainage conditions. Draft for LCDOT and LCSMC review and comment.

- c. Finalize based on comments received, with disposition of comments, for LCDOT and LCSMC review and approval.

7. Structural Studies

A. Retaining Wall Type Study

The proposed improvements may require a potential retaining wall at the Center Street at Atkinson Road intersection depending on the intersection control (i.e., RAB) or along the bike path on either side of Center Street further east of Atkinson. CBBEL has assumed 2 retaining walls approximately 500 ft long, with an exposed height less than 7 ft (no Type, Size and Location plans required). CBBEL will investigate potential wall types. Likely wall types include precast modular block walls (e.g. Redi-Rock) for shallow foundation walls, and if poor soils are present, soldier pile retaining walls for deep foundation walls. This task will include a review of the project geotechnical report to determine the most suitable alternatives. A report will be prepared that discusses the pros and cons of each wall type. The report will include general plan and elevation exhibits, typical section exhibits and concept level cost estimates. CBBEL will assist LCDOT in selecting the best wall type for this project.

B. Geotechnical Studies

Testing Service Corporation will complete a geotechnical investigation and analysis for the proposed pavement reconstruction and two (2) potential retaining wall (up to 500-foot length each). Refer to the TSC separately attached scope of work for more detail.

8. Alternatives Analysis and Concept Design

The focus of the alternatives analysis will be to determine the proposed lane configuration and widths at intersections including turn lanes just north and east of the signalized intersection. The alternatives analysis will also focus on the east MUP configuration to meet needs and minimize impacts.

Geometric Studies task includes a two-stepped process with first determining the initial concept lane configuration and profile, and then preparation of preliminary plans for the preferred alternative. The work associated with each step includes the following:

- A. Design Criteria Memorandum – A design criteria memo will be prepared that will guide the roadway design.
- B. Purpose & Need Memorandum – Following the completion of the various data collection, crash analysis, traffic analysis and other design studies, a brief purpose and need memo will be prepared that will be used for the first Public Information Meeting and identifying the range of initial alternatives.
- C. Alternatives Analysis and Memorandum – Concept level geometry will be developed for comparative analysis and evaluation of alternatives. The concept geometry will be developed and evaluated based on the environmental resource data collected by the CBBEL Team and/or as provided by IDOT through the environmental survey process, based on the traffic and crash analysis performed, and based on initial stakeholder input.

Each concept alternative will be developed in plan-view with concept level profiles and critical cross sections to determine probable right-of-way needs for comparative evaluation. For purposes of this scope, it is assumed that two distinct initial alternatives will be developed for relative comparison for the intersection (signalized intersection and roundabout) and multi-use path extension to US 45 (north side and south side).

It is anticipated that there will be sub-alternatives for each based on the above-mentioned considerations. A third alternative is included if another alternative arises out of the project development and stakeholder coordination processes. Impact evaluation will be prepared for the range of alternatives that considers environmental/socio economic impacts, transportation performance, safety performance, and utility impacts.

As discussed in the public involvement task below, it is anticipated that Public Information Meeting #1 will be held to get initial input on existing issues and needs and concept typical sections.

An alternatives memorandum will be developed to document the various alternatives evaluated for the intersection and multi-use path extension.

- D. Preferred Alternative Identification – Based on the results of the comparative analysis of alternatives and associated stakeholder and agency coordination, the preferred alternative will be identified and will be the basis for development of the proposed drainage plan and for determination of right-of-way/easement requirements (if any) for the project.
- E. This task also includes all design efforts with respect to pedestrian and bicycle accommodation throughout the project limits.

9. Preliminary Engineering Plans (30% Design)

Plans to be produced for use in development of Phase II plans that would be in accordance with the LCDOT Plan Preparation Guide. The preferred alternative concept design (15%) will be advanced for further design development for LCDOT reviews and will be prepared to approximately 30% completion.

- A. CBBEL will prepare preliminary plan and profile sheets showing existing and proposed horizontal and vertical geometry at a scale of 1" = 20'. The proposed geometry will be set to meet design criteria and to avoid or minimize right-of-way and easement requirements. Typical sections for the proposed improvement will be developed concurrently.
- B. A 3D corridor model will be developed for the proposed improvement. Existing and proposed cross-sections will be templated at 50-foot intervals and at all side streets, driveways and other grade controlling features to determine right-of-way and easement requirements, wetland impacts (if present), ditch locations and drainage patterns, and to fine-tune the proposed vertical geometry. Existing conditions cross-sections will be developed utilizing the topographic survey performed by CBBEL. These cross-sections will show existing right-of-way, existing grade, proposed grade (top surface only) and proposed right-of-way and easements where necessary.

During this task, it is expected that preliminary plan, profile, and cross sections will be reviewed by the County for their comments and/or concurrence. At the end of this task the project team will have completed preliminary geometry and identified the proposed project limits including the right-of-way acquisitions and easements necessary for the construction of the proposed improvement.

- C. Concept ADA curb ramps will be developed at the Center Street at Atkinson Road, Center Street at US 45, and one additional intersection TBD depending on the multi-use path location to identify any ROW needs and confirm ADA/PROWAG layout compliance. Detailed curb ramp grading will be performed during design engineering.
- D. If a roundabout is the preferred alternative at the intersection, then lighting will be required. This task includes photometric calculations, concept design, and developing a cost estimate for the work required.
- E. This task also includes preparation of a detailed project cost estimate.

10. Engineering Reports

A. Preliminary Engineering Project Report

An abbreviated Project Development Report will be prepared following BLR 22210 and other examples provided by LCDOT. This will be submitted to the County for a draft review, pre-final review and then for final approval.

B. Concept Staging

Evaluate construction staging to maintain traffic and minimize disruption to the traveling public while maintaining a satisfactory work zone for the Contractor. Confirm geometry and temporary pavement design and develop exhibits to demonstrate staging for LCDOT review. Once the traffic staging concept has been approved by LCDOT, it will serve as the basis for the development of the Maintenance of Traffic and whether any detours are necessary. If the preferred alternative is a RAB, it is assumed that a full closure and detour is necessary to construct the intersection.

C. Transportation Management Plan

CBBEL will prepare the Transportation Management Plan (TMP), including the Traffic Control Plan and the construction method evaluation. This task includes work zone queuing analysis and developing the Traffic Operations Plan and Public Information Plan. The current version of the IDOT D1 Form OP0042 Work Zone Safety Memorandum (WZSM) will be the basis of the submittal. IDOT Detour Committee approval will be required if detours are needed at or using US 45. Hours have been included for revisions to the TMP or WZSM based on review comments by IDOT.

11. Public Involvement

CBBEL will lead a public involvement program that engages project stakeholders to inform them of the project and solicit their input. The following activities are planned throughout the project development process:

A. Individual Stakeholder Meetings and Coordination:

Individual stakeholder meetings will be held throughout the project to discuss the project. It is anticipated that ten (10) stakeholder meetings will be held. General coordination with stakeholders via email/phone is included in this task.

B. Public Information Meetings:

A virtual public forum will be conducted and hosted by LCDOT. CBBEL will support LCDOT with preparation of all materials for posting on the virtual forum webpage. The scope of this activity will include purpose and need type information, and associated exhibits to effectively communicate that information with the public, interactive comment/input map, and survey. A Virtual Public Forum (VPF) summary will be prepared along with a FAQ document and memo summarizing VPF feedback received. Individual questions not addressed by the FAQ will be responded to individually.

Two public information meetings will be held during preliminary engineering. The meeting format will be an open house format. For each meeting the following tasks will be performed:

1. Compile mailing list.
2. Preparation of brochures/handouts.
3. Preparation of display exhibits.
4. Preparation of pre-recorded video presentation.
5. Attendance at dry run events.
6. Secure location for public meetings.
7. Preparation of newspaper display ads and press releases.
8. Attendance at public information meeting.
9. Preparation of record summaries of the meetings will include at a minimum copy of all notices, presentation material, attendance lists, comments, and responses.
10. Preparation of post public information meeting project updates for posting on the project website.
11. Prepare individual response letters to uncommon comments received, or requests for information received at the Public Meeting.
12. ROW Exhibits (prepared under separate task) will be provided affected property owners during final Public Information Meeting along with a letter and comment form.

C. Project Website

CBBEL will provide materials for inclusion for the project website, hosted by LCDOT.

12. Land Acquisition Evaluation & Plat of Highway

This task will include right-of-way confirmation and development of the Plat of Highway.

- A. Preliminary Engineering Land Acquisition Exhibits: CBBEL will prepare land acquisition letters and exhibits at the end of preliminary engineering to inform all property owners of the

proposed acquisition as part of this project. It is anticipated that there could be up to 20 parcels of acquisition within the project limits.

- B. Plat of Highway: CBBEL will perform field reconnaissance, Recorder's Office research, parcel surveys and calculations, Plat of Highway preparation and legal description preparation of the proposed right-of-way and easements for up to twenty (20) parcels +/- . Securing title commitment reports is included as a direct cost. Individual parcel plats will not be prepared and are not part of this task.
1. Reconnaissance: CBBEL will field recon the project area to discover sufficient right-of-way, property line and section/quarter line evidence within the project limits. Research will be performed at the Lake County Recorder's office to acquire recorded plats of subdivisions, monument records, plats of dedication, plats of surveys, plats of highways, deeds, etc. throughout corridor of this project, along with ordering and reviewing the title commitment reports for the twenty parcels +/- .
 2. Parcel Surveys: CBBEL will field locate all property line, right-of-way line and section/quarter line evidence discovered during Task B1. CBBEL will also locate the existing buildings within the parcels affected by the proposed right-of-way takes and easements.
 3. Parcel Calculations: Utilizing the information and physical evidence found in Task B.1 and B.2, CBBEL will compute the location of the existing property lines, right-of-way lines and section/quarter lines along with the proposed take and easement lines for this project.
 4. Drafting of the Plat of Highway: CBBEL will compile all the information gathered in Task B.1 thru B.3 on the Plat of Highway in a format suitable for submittal to and approval by LCDOT and IDOT. We have estimated the Plat of Highway for this project will consist of 10 sheets more or less.
 5. Prepare Written Legal Descriptions: CBBEL will prepare written legal descriptions of all permanent right-of-way takes and temporary/permanent easements suitable for submittal to and approval by LCDOT and IDOT.
 6. Proposed Right-of-Way Staking: CBBEL will set 5\8 x 24-inch iron rods (with 2" survey caps) at the corners of the right-of-way takes acquired and shown on the plat of highway drafted in Task B2.4 upon completion of construction or at specific timeline requested by LCDOT.

13. Project and Agency Coordination

This task includes all coordination to successfully complete the project. This includes the following meetings:

A. Project Team (52 meetings, virtual)

1. Half hour Bi-weekly project team meetings will be held throughout the project

- B. County Status Meetings (24 meetings, virtual)
 - 1. Monthly County Status meetings (24) will be held throughout the project.
- C. County Milestone Meetings (4 meetings, in-person)
 - 1. Kick-off
 - 2. Alternative Identification
 - 3. Preferred Alternative Presentation
 - 4. 1 Miscellaneous TBD
- D. IDOT (2 meetings, virtual)
 - 1. BLRS, GSU, Hydraulic Section, Bureau of Traffic for US 45 coordination
- E. Lake County Stormwater Management (1 meeting, in-person)
- F. Lake County Forest Preserve District (2 meetings, in-person)
- G. PACE (1 meeting, in-person)
- H. Village of Grayslake (6 meetings, in-person)

14. Project Administration and QA/QC

- A. Project Administration
 - 1. Overall project management for planning, organizing, and controlling resources, procedures, and protocols to successfully deliver the project.
 - 2. Contract Management & Progress Reports will be submitted on a monthly basis. VantagePoint contract management software will be utilized to assist in efficiently managing and tracking the project budget.
 - 3. A project schedule will be maintained throughout the project and updated on a quarterly basis.
 - 4. A scope creep log will be submitted with each invoice submittal.
- B. Quality Assurance / Quality Control (QA/QC)

The CBBEL QC/QA plan emphasizes an integrated project development process, with a guiding principal to ensure cost effective and practical infrastructure management that advocates a safe, constructible and cost-effective design solution that minimizes change orders and schedule delays.

The QC/QA Manager will perform a comprehensive evaluation of the following items throughout the design process at milestone deliverables (15%, 30%, and Design Reports).

Constructability reviews will also be conducted during milestone deliverables, to confirm the staging plan is compatible with the proposed drainage and utility relocations.

The Project Manager manages the overall project quality control's process and, through the QC/QA Manager, assigns qualified senior quality reviewers for pending deliverables as required.

Exclusions

The following items are excluded from the scope of services:

- Traffic Noise Analysis.
- CBBEL will not self-perform any biological surveys (State or Federal Listed Species).
- The Section 4(f) coordination with the Forest Preserve will not be submitted to IDOT/FHWA as federal funding is not anticipated.
- The Section 106 coordination with the Forest Preserve will not be submitted to IDOT/FHWA as federal funding is not anticipated.
- Utility relocation design.
- Traffic signal interconnect of US Route 45.

ID Task Name		2026																								2027							
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug								
1	Phase I Engineering																																
2	LCDOT Authorization to Proceed																																
3	Kickoff Meeting with LCDOT																																
4	Data Collection (Traffic Counts, Crash Data, Utilities, and 2050 Traffic Projections (as applicable))																																
5	Topographic Survey, Utility Coordination, and Plotting																																
6	Prepare Crash Analysis																																
7	Complete Existing Conditions Traffic Analysis																																
8	Kickoff Meeting with IDOT for US 45 intersection																																
9	Environmental Field Review and ESR Submittal to IDOT																																
10	IDOT Environmental Processing																																
11	Public Information Meeting #1 (Issues, needs, identify alternatives)																																
12	Prepare Existing Drainage Plan and submit for Village Review/Comment																																
13	Roadway/Intersection Alternatives Analysis (including Potential Roundabout) and identify Preferred Alternative with the Village																																
14	Preliminary Proposed Improvement Plans (plan, profile, cross sections, ADA details)																																
15	Preliminary Intersection Design Study Including Potential Roundabout																																
16	LCDOT Review of Preliminary Roadway Plans and Intersection Design Studies																																
17	Village, Forest Preserve, Property Owner Coordination (as required)																																
18	Final Proposed Improvement Plans & Intersection Design Studies, with response to LCDOT, Village and IDOT review comments																																
19	Proposed Drainage Plan																																
20	Roadway Lighting Review and Cost Estimate (as applicable)																																
21	Prepare Construction Cost Estimate																																
22	Prepare Draft Phase I Project Development Report (PDR) and submit for LCDOT review																																
23	LCDOT Review of Draft PDR - Approval to Hold Public Information Meeting & Property Owner Coordination																																
24	Public Information Meeting #2 (Preferred Alternative)																																
25	Prepare Final PDR (with response to LCDOT, Village review comments and PIM comments) and Submit to LCDOT for approval.																																
26	LCDOT Review of Final PDR																																
27	Target Phase I Engineering Design Approval																																

Center Street and Atkinson Road
Preliminary and Design Engineering Services
EXHIBIT A1 - Work Hour Estimate

TASK	DESCRIPTION	WHE CBBEL
1	DATA COLLECTION AND ANALYSIS	
a	Collect and Compile GIS Information and Maintain a Project Database	88
b	Prepare Base Aerial Exhibits and Location Maps	12
c	Obtain and Review Record Plans	32
d	Field Visits (3 x 2 ppl)	40
	SUBTOTAL	172
2	SURVEY	
a	Center/Atkinson Intersection (6,000 LF)	400
b	Center/US 45 ADA Corners	35
c	Center Street North and South Parkways between Atkinson and US 45 (3,500 LF)	130
d	Set Primary Control	88
e	Supplemental Topographic Survey (15%)	92
	SUBTOTAL	745
3	SUBSURFACE UTILITY ENGINEERING	
a	Coordination/Data Collection/ Permit Application Assistance	68
b	SUE QL-B Deliverable Review and Coordination	8
c	SUE QL-A Deliverable Review and Coordination	48
d	Basemapping Deliverable Incorporation	40
e	Utility Coordination Deliverable Review	8
f	Concept Level Only Conflict Evaluation & Mitigation Deliverable Review	72
	SUBTOTAL	244
4	TRAFFIC & STAFETY STUDIES	
a	Data Collection	28
b	Crash Analysis Memorandum and Predictive Crash Analysis	86
c	Traffic Analysis	260
d	Intersection Design Study (Roundabout)	164
	SUBTOTAL	538
5	ENVIRONMENTAL STUDIES	
a	IDOT Environmental Screening Forms and General Env. Coordination	56
b	IDOT ESR	62
c	Bridge/Structure Bat Assessment	18

Center Street and Atkinson Road
Preliminary and Design Engineering Services
EXHIBIT A1 - Work Hour Estimate

TASK	DESCRIPTION	WHE CBBEL
d	Waters of the US/Wetland Delineation	84
e	WOUS/Wetland Impact Evaluation	44
f	Prelim. Jurisdictional Determination and Boundary Confirmation	8
g	Tree Inventory and Impact Exhibits	56
h	Abbreviated Section 4(f) Documentation	104
i	Preliminary Environmental Site Assessment	96
	SUBTOTAL	528
6	DRAINAGE STUDIES	
a	Existing Drainage System (GLDM, EDP, Identified Drainage Problems, Major Drainage Features)	150
b	Proposed Drainage System (Design Criteria, Outlet Evaluation, SW Detention Analysis, ROW & Drainage Alts, PDP, WQ/BMP, Study Assembly)	340
	SUBTOTAL	490
7	STRUCTURAL STUDIES	
a	Retaining Wall Type Study	94
b	Geotechnical Studies	32
	SUBTOTAL	126
8	ALTERNATIVE ANALYSIS & CONCEPT DESIGN	
a	Design Criteria Memorandum	16
b	Purpose and Need Memorandum	48
c	Concept Typical and Plan View Aerial Exhibits (2 Exhibits)	40
d	Concept Alternatives Geometry Development (2 Alternatives)	200
e	Alternative Comparative Evaluation and Memorandum	72
f	Preferred Alternative Identification	32
g	Concept Engineers Estimate	24
	SUBTOTAL	432
9	PRELIMINARY ENGINEERING PLANS	
a	Plan and Profile Sheets	32
b	ORD Corridor Model and Cross Sections	396
c	ADA curb ramps (8 at Atkinson, 8 at US 45, up to 4 for either N or S path)	80
d	Roundabout lighting photometrics, design, and cost estimate	80
e	LCDOT/IDOT Reviews and addressing comments	88
f	Preliminary Engineers Estimate	48

**Center Street and Atkinson Road
Preliminary and Design Engineering Services
EXHIBIT A1 - Work Hour Estimate**

TASK	DESCRIPTION	WHE
		CBBEL
	SUBTOTAL	724
10	ENGINEERING REPORTS	
a	Preliminary Engineering Report	132
b	Concept Staging	72
c	Transportation Management Plan	92
	SUBTOTAL	296
11	PUBLIC INVOLVEMENT	
a	Stakeholder Involvement Plan	36
b	Individual Stakeholder Meetings (10) & Coordination	100
c	Virtual Public Forum Support	48
d	Public Information Meeting #1	188
e	Public Information Meeting #2	240
f	LCDOT Website Support	48
	SUBTOTAL	660
12	LAND ACQUISITION EVALUATION & PLAT OF HIGHWAYS	
a	Preliminary Engineering Land Acquisition Exhibits 20 parcels +\(-)	80
b	Plat of Highway	869
	SUBTOTAL	949
13	PROJECT AND AGENCY COORDINATION	
a	Project Team (52 bi-weekly meetings, virtual)	312
b	County Status Meetings (24 monthly meetings, virtual)	96
c	County Milestone Meetings (4 meetings, in-person)	56
d	IDOT Meetings (2 meetings, virtual)	12
e	LCSM, LCFPD, PACE (4 meetings, in-person)	48
f	Village of Grayslake Coordination & Meetings (6 meetings, in-person)	48
	SUBTOTAL	572
14	PROJECT ADMINISTRATION & QUALITY ASSURANCE/ QUALITY CONTROL	
a	Design & Technical Studies Review	140
b	Concept Alternative and Preliminary Engineering Review	70
c	Project Administration/Management (24 months x 6hrs)	144
f	Monthly Progress Reports (24 month x 2hrs)	48
	SUBTOTAL	402
	TOTAL	6,878



Local Public Agency	County	Section Number
LCDOT	Lake	N/A
Prime Consultant (Firm) Name	Prepared By	Date
Christopher B. Burke Engineering, Ltd.	Emily T. Anderson	7/21/2025
Consultant / Subconsultant Name	Job Number	
CBBEL		

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	145.92%
START DATE	10/1/2025		COMPLEXITY FACTOR	0
RAISE DATE	1/1/2026		% OF RAISE	3.00%
END DATE	9/30/2027			

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	10/1/2025	1/1/2026	3	12.50%
1	1/2/2026	1/1/2027	12	51.50%
2	1/2/2027	10/1/2027	9	39.78%

The total escalation = 3.78%

Local Public Agency	County	Section Number
LCDOT	Lake	N/A
Consultant / Subconsultant Name		Job Number
CBBEL		

PAYROLL RATES

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

MAXIMUM PAYROLL RATE	90.00
ESCALATION FACTOR	3.78%

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Engineer VI	\$83.06	\$86.20
Engineer V	\$72.37	\$75.11
Engineer IV	\$59.40	\$61.65
Engineer III	\$45.29	\$47.00
Engineer I/II	\$37.53	\$38.95
Survey V	\$86.00	\$89.25
Survey IV	\$79.30	\$82.30
Survey III	\$68.82	\$71.42
Survey II	\$56.50	\$58.64
Survey I	\$40.63	\$42.17
Engineering Technician V	\$71.00	\$73.69
Engineering Technician IV	\$55.23	\$57.32
Engineering Technician III	\$46.30	\$48.05
Engineering Technician I/II	\$34.50	\$35.81
CAD Manager	\$73.26	\$76.03
CAD Technician II	\$54.39	\$56.45
CAD Technician I	\$29.00	\$30.10
GIS Specialist III	\$61.00	\$63.31
Landscape Architect II	\$69.00	\$71.61
Environmental Resource Specialist V	\$75.93	\$78.80
Environmental Resource Specialist IV	\$63.80	\$66.21
Environmental Resource Specialist III	\$42.33	\$43.93
Environmental Resource Specialist I/II	\$31.67	\$32.87
Environmental Resource Technician	\$46.80	\$48.57
Landscape Designer I/II	\$31.50	\$32.69
Business Operations Department	\$59.42	\$61.67

Local Public Agency

LCDOT

Consultant / Subconsultant Name

CBBEL

County

Lake

Section Number

N/A

Job Number

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	7630	\$0.70	\$5,341.00
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	204	\$1.00	\$204.00
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)	1	\$200.00	\$200.00
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)	2	\$1,000.00	\$2,000.00
Public Meeting Facility Rental	Actual Cost (Submit supporting documentation)	2	\$2,000.00	\$4,000.00
Public Meeting Exhibits/Renderings & Equipment	Actual Cost (Submit supporting documentation)	2	\$1,000.00	\$2,000.00
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)	1	\$25,000.00	\$25,000.00
Utlility 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
Traffic Counts and Contingency Traffic Counts		1	\$15,400.00	\$15,400.00
EDR Report		1	\$2,000.00	\$2,000.00
PJD/BV		1	\$4,000.00	\$4,000.00
Title Reports and Recording of Monument Records		1	\$12,300.00	\$12,300.00
TOTAL DIRECT COSTS:				\$72,445.00

LCDOT

Lake

N/A

CBBEL

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

COMPLEXITY FACTOR	0
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973,934

Local Public Agency

LCDOT

County

Lake

Section Number

N/A

Consultant / Subconsultant Name

CBBEL

Job Number

AVERAGE HOURLY PROJECT RATES

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

SHEET1OF3

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			1. Datra Collection & Analysis			2. Survey			3. Subsurface Utility Engineering			4. Traffic & Safety Studies			5. Environmental Studies		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Engineer VI	86.20	72.0	1.05%	0.90										40	7.43%	6.41			
Engineer V	75.11	684.0	9.94%	7.47	8	4.65%	3.49	8	1.07%	0.81	12	4.92%	3.69	8	1.49%	1.12	21	3.98%	2.99
Engineer IV	61.65	1,072.0	15.59%	9.61	8	4.65%	2.87	8	1.07%	0.66	12	4.92%	3.03	218	40.52%	24.98	20	3.79%	2.34
Engineer III	47.00	1,465.0	21.30%	10.01	32	18.60%	8.74	8	1.07%	0.50	60	24.59%	11.56	116	21.56%	10.13	20	3.79%	1.78
Engineer I/II	38.95	1,040.0	15.12%	5.89	32	18.60%	7.25				60	24.59%	9.58	156	29.00%	11.29	32	6.06%	2.36
Survey V	89.25	30.0	0.44%	0.39				16	2.15%	1.92									
Survey IV	82.30	185.0	2.69%	2.21				55	7.38%	6.08									
Survey III	71.42	140.0	2.04%	1.45				80	10.74%	7.67									
Survey II	58.64	492.0	7.15%	4.19				232	31.14%	18.26									
Survey I	42.17	492.0	7.15%	3.02				232	31.14%	13.13									
Engineering Technician V	73.69	0.0																	
Engineering Technician IV	57.32	0.0																	
Engineering Technician III	48.05	0.0																	
Engineering Technician I/II	35.81	0.0																	
CAD Manager	76.03	533.0	7.75%	5.89				106	14.23%	10.82	88	36.07%	27.42						
CAD Technician II	56.45	12.0	0.17%	0.10							12	4.92%	2.78						
CAD Technician I	30.10	0.0																	
GIS Specialist III	63.31	249.0	3.62%	2.29	92	53.49%	33.86										59	11.17%	7.07
Landscape Architect II	71.61	12.0	0.17%	0.12															
Environmental Resource S	78.80	246.0	3.58%	2.82													246	46.59%	36.72
Environmental Resource S	66.21	65.0	0.95%	0.63													65	12.31%	8.15
Environmental Resource S	43.93	65.0	0.95%	0.42													65	12.31%	5.41
Environmental Resource S	32.87	0.0																	
Environmental Resource T	48.57	0.0																	
Landscape Designer I/II	32.69	12.0	0.17%	0.06															
Business Operations Depa	61.67	12.0	0.17%	0.11															
		0.0																	
TOTALS		6878.0	100%	\$57.58	172.0	100.00%	\$56.21	745.0	100%	\$59.85	244.0	100%	\$58.06	538.0	100%	\$53.93	528.0	100%	\$66.81

Local Public Agency

LCDOT

Consultant / Subconsultant Name

CBBEL

County

Lake

Section Number

N/A

Job Number

AVERAGE HOURLY PROJECT RATES
EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

SHEET 2 OF 3

PAYROLL CLASSIFICATION	AVG HOURLY RATES	6. Drainage Studies			7. Structural Studies			8. Alts Analysis & Concept Design			9. Prelim Engineering Plans			10. Engineering Reports			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
Engineer VI	86.20							12	2.78%	2.39									
Engineer V	75.11	45	9.18%	6.90	12	9.52%	7.15	66	15.28%	11.47	74	10.22%	7.68	40	13.51%	10.15	80	12.12%	9.10
Engineer IV	61.65	98	20.00%	12.33	46	36.51%	22.51	84	19.44%	11.99	146	20.17%	12.43	42	14.19%	8.75	80	12.12%	7.47
Engineer III	47.00	165	33.67%	15.83	44	34.92%	16.41	124	28.70%	13.49	216	29.83%	14.02	112	37.84%	17.79	194	29.39%	13.82
Engineer I/II	38.95	166	33.88%	13.20	24	19.05%	7.42	124	28.70%	11.18	206	28.45%	11.08	102	34.46%	13.42	138	20.91%	8.14
Survey V	89.25																		
Survey IV	82.30																		
Survey III	71.42																		
Survey II	58.64																		
Survey I	42.17																		
Engineering Technician V	73.69																		
Engineering Technician IV	57.32																		
Engineering Technician III	48.05																		
Engineering Technician I/II	35.81																		
CAD Manager	76.03										82	11.33%	8.61				72	10.91%	8.29
CAD Technician II	56.45																		
CAD Technician I	30.10																		
GIS Specialist III	63.31	16	3.27%	2.07				22	5.09%	3.22							60	9.09%	5.76
Landscape Architect II	71.61																12	1.82%	1.30
Environmental Resource Spe	78.80																		
Environmental Resource Spe	66.21																		
Environmental Resource Spe	43.93																		
Environmental Resource Spe	32.87																		
Environmental Resource Tec	48.57																		
Landscape Designer I/II	32.69																12	1.82%	0.59
Business Operations Departm	61.67																12	1.82%	1.12
TOTALS		490.0	100%	\$50.32	126.0	100%	\$53.49	432.0	100%	\$53.75	724.0	100%	\$53.83	296.0	100%	\$50.10	660.0	100%	\$55.60

Local Public Agency

LCDOT

Consultant / Subconsultant Name

CBBEL

County

Lake

Section Number

N/A

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. Land Acq Eval & Plat of Highways			13. Project & Agency Coordination			14. Project Admin & 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
Engineer VI	86.20				8	1.40%	1.21	12	2.99%	2.57									
Engineer V	75.11	20	2.11%	1.58	146	25.52%	19.17	144	35.82%	26.90									
Engineer IV	61.65	20	2.11%	1.30	146	25.52%	15.74	144	35.82%	22.08									
Engineer III	47.00				272	47.55%	22.35	102	25.37%	11.93									
Engineer I/II	38.95																		
Survey V	89.25	14	1.48%	1.32															
Survey IV	82.30	130	13.70%	11.27															
Survey III	71.42	60	6.32%	4.52															
Survey II	58.64	260	27.40%	16.07															
Survey I	42.17	260	27.40%	11.55															
Engineering Technician V	73.69																		
Engineering Technician IV	57.32																		
Engineering Technician III	48.05																		
Engineering Technician I/II	35.81																		
CAD Manager	76.03	185	19.49%	14.82															
CAD Technician II	56.45																		
CAD Technician I	30.10																		
GIS Specialist III	63.31																		
Landscape Architect II	71.61																		
Environmental Resource Spe	78.80																		
Environmental Resource Spe	66.21																		
Environmental Resource Spe	43.93																		
Environmental Resource Spe	32.87																		
Environmental Resource Tec	48.57																		
Landscape Designer I/II	32.69																		
Business Operations Departm	61.67																		
TOTALS		949.0	100%	\$62.43	572.0	100%	\$58.46	402.0	100%	\$63.49	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00



SUBCONSULTANT PROPOSAL

HBK ENGINEERING, LLC

June 6, 2025

Mr. Mathew Huffman, P.E.
Head of Phase 1 Engineering - Transportation
Christopher B. Burke Engineering, Ltd.
9575 W Higgins Road
Suite 600
Rosemont, Illinois 60018

Re: Scope and Fee for Subsurface Utility Engineering for Center Road at Atkinson Road – LCDOT
HBK Engineering, LLC

Dear Mr. Huffman,

HBK Engineering, LLC, is pleased to present this proposal to Christopher B. Burke Engineering. This proposal for Subsurface Utility Engineering (SUE) work centering around roadway improvements along Center Road and Atkinson Road in Lake County. This project will require data analysis and collection, SUE utility designation and locating, utility data base map drafting, and utility coordination.

The total proposal cost estimate is \$293,240.00. HBK's scope and fees for the project are broken into three (3) components, as follows:

HBK Labor Cost

Pricing Total: \$136,530.00

HBK Direct Cost (Vehicle days)

Pricing Total: \$3,120.00

Direct Cost (Including pothole excavator & traffic control fees)

Pricing Total: \$153,590.00

HBK appreciates the opportunity to assist Christopher B. Burke Engineering on this project. Please contact me if there are questions or if you need additional information. Upon acceptance of this proposal, HBK Engineering will provide a Professional Services Agreement for execution with Christopher B. Burke Engineering.

Sincerely,



Dan Zeman, PE CAPM
Project Engineering Manager

Attachments:

- LCDOT - CBBEL_Center Rd at Atkinson Rd SUE_HBK SOW - 2025.06.06.pdf
- LCDOT - CBBEL_Center Rd at Atkinson Rd SUE_HBK Fee Estimate - 2025.06.06.pdf

cc: Lance Niemerg, Ian Gagnon, PE, and Bethany Turk, PE

(LCDOT - CBBEL_Center Rd at Atkinson Rd SUE_HBK Cover Letter - 2025.06.06.doc)



LCDOT – Center Street at Atkinson Road SUE – Lake County

At the request of Christopher B. Burke Engineering (Consultant), **HBK Engineering, LLC (HBK)** has prepared a scope of services for utility coordination, design and conflict review, logging of specifications of existing facilities, and utility relocation cost estimates for the Center Street at Atkinson Road roadway improvements in Lake County. A manhour and fee estimate for this project is also attached.

Project Limits

Atkinson Road

1500 feet North and South from the intersection of Center Street and Atkinson Road. Locate and survey limits will include 20-feet outside of the existing right-of-way.

Center Street

1500 feet West and 5280 feet East from the intersection of Center Street and Atkinson Road. Locate and survey limits will include 20-feet outside of the existing right-of-way West along Center Street and will include 30-feet outside of existing right-of-way East along Center Street.

All work for this project will be completed by HBK, as a subconsultant to Christopher B. Burke Engineering.

Project Tasks

Based on the expectation that utility conflicts are likely to be a substantial challenge with respect to design and construction of the proposed improvements, a separate Subsurface Utility Engineering (SUE) evaluation will be completed for the project by HBK. The information gathered by HBK will be incorporated into the project plans as appropriate. All work will be performed within the following tasks.

Initial Coordination/Data Collection

The proposed improvements will require coordination with public and private utilities that have facilities within the project corridor. HBK will coordinate with any utility companies/agencies found to have facilities located within the vicinity of the project limits through a JULIE Design Stage Information Request. HBK will also coordinate with Consultant to obtain any information available, including area utility companies and contact information. A request will be made for these utilities to provide any available maps of existing facilities. HBK will provide copies of the atlases obtained to Consultant upon completion of all relevant work.

Utility Designation and Survey

Descriptions of SUE quality levels are derived from the American Society of Civil Engineers (ASCE) Standard 38-22, *Standard Guideline for Investigating and Documenting Existing Utilities*. There are four recognized quality levels of underground utility information ranging from Quality Level QL-D (the lowest level) to Quality Level QL-A (the highest level).

HBK will perform SUE Quality Level B designation of any utility facilities located within the project limits. Quality Level D information will be obtained from the utility company atlases, JULIE requests, and other reliable sources. Qualified HBK staff will perform Level B designation of underground utilities within the project limits.

HBK will survey the designated utilities utilizing state plane coordinates. HBK will survey all designated and, if applicable, potholed utilities utilizing GPS equipment. It is assumed that the coordinates or field information will be on Illinois State Plane East, NAD83 (2011).

It is assumed that either Consultant has benchmarks available in the vicinity of the project or that HBK will be allowed to establish vertical control (NAVD88) utilizing GPS or the nearest NGS vertical monuments will be used. Consultant will provide the benchmark(s) and control data for HBK's use in its data collection.

Survey will include existing visible utility structures, including telecommunication, gas, electric, watermain, and other utilities noted previously found within the project limits.

Utility Data Base Mapping

HBK will compile all the above information into one base map MicroStation drawing suitable for plotting at 1"=20' scale that is representative of existing utility locations for use in all Phase II engineering work in developing the detailed plan, profile, and cross sections for the preferred alternative. Survey base map drawing will be generated in MicroStation.

HBK will coordinate with the roadway designer so that utilities can be depicted accurately in the survey data and utility base maps. This shall include time allotted for utility base map QA/QC.

Utility Level A Locating

HBK will oversee the excavation and collection of data for as many as thirty (30) Level A test holes of a typical size. HBK will have qualified staff on hand to observe a sub-contracted excavation crew and collect field measurements and other data. The data will be added to the utility base map. This data will be used to refine the project team's understanding of existing subsurface utilities and required potential need for relocations.

Utility Coordination

HBK will coordinate with the utility companies/agencies having facilities within the project limits during Phase I and II Engineering. HBK will draft notifications and send preliminary Phase I geometric plans and electronic files will be sent to utility companies to review the proposed improvements and identify impacts/conflicts to their facilities. HBK will participate in conflict/relocation reviews and lead relocation efforts. HBK will continue to lead the coordination effort through phase II of the project.

Utility Coordination Meetings

HBK will plan, attend (virtually), and lead up to one (1) joint utility coordination meeting during Phase I and two (2) during Phase II and all impacted utilities will be invited so that their relocations, if any, can be mutually coordinated.

Assumptions/Exclusions

- Permitting fees are included as an estimate in this proposal and an additional permitting cost shall be considered a pass-through cost
- SUE Level B designation and utility base mapping DOES NOT include sanitary or storm sewers
- All fees within this proposal are based on the provided project timeline
- If requested, additional Level A test holes exceeding the proposed thirty (30), will require an additional hour and fee estimate from HBK
- Fee included in this proposal for utility coordination assumes the timeline of twenty-four (24) months from project kickoff

End of Document



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

Local Public Agency LCDOT	County Lake	Section Number N/A
Prime Consultant (Firm) Name Christopher B. Burke Engineering, Ltd.	Prepared By Dan Zeman, PE CAPM	Date 6/6/2025
Consultant / Subconsultant Name HBK Engineering, LLC	Job Number 	

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	104.02%
START DATE	10/1/2025				COMPLEXITY FACTOR	
RAISE DATE	1/1/2026				% OF RAISE	2.00%
END DATE	9/30/2027					

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	10/1/2025	1/1/2026	3	12.50%
1	1/2/2026	1/1/2027	12	51.00%
2	1/2/2027	10/1/2027	9	39.02%

The total escalation = 2.52%

Local Public Agency	County	Section Number
LCDOT	Lake	N/A
Consultant / Subconsultant Name		Job Number
HBK Engineering, LLC		

PAYROLL RATES

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

MAXIMUM PAYROLL RATE	86.00
ESCALATION FACTOR	2.52%

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Administrative	\$29.37	\$30.11
Analyst 1	\$29.14	\$29.87
Analyst 2	\$43.80	\$44.90
Associate 1	\$33.55	\$34.39
Associate 2	\$39.38	\$40.37
Associate 3	\$39.31	\$40.30
Designer 0	\$34.00	\$34.86
Designer 1	\$31.09	\$31.87
Designer 2	\$32.23	\$33.04
Designer 3	\$42.35	\$43.42
Engineer	\$42.68	\$43.75
Field Lead	\$39.69	\$40.69
Field Tech	\$26.37	\$27.03
Licensed Professional Surveyor	\$55.70	\$57.10
Licensed Structural Engineer	\$69.01	\$70.75
Locator 0	\$20.46	\$20.97
Locator 1	\$23.12	\$23.70
Locator 2	\$23.92	\$24.52
Locator 3	\$27.95	\$28.65
Permit Coordinador	\$30.50	\$31.27
Principal	\$86.12	\$86.00
Program Manager	\$78.16	\$80.13
Project Coordinator	\$35.23	\$36.12
Project Manager	\$48.53	\$49.75
Quality Manager	\$67.68	\$69.38
Senior Engineer	\$52.87	\$54.20
Senior Project Manager	\$60.43	\$61.95

Local Public Agency

LCDOT

County

Lake

Section Number

N/A

Consultant / Subconsultant Name

HBK Engineering, LLC

Job Number**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	48	\$65.00	\$3,120.00
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)			\$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)			\$0.00
Utility 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:				\$3,120.00

LCDOT

Lake

N/A

HBK Engineering, LLC

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

COMPLEXITY FACTOR

118,721BLR 05514 (Rev. 02/09/23)
COST EST

Local Public Agency

LCDOT

County

Lake

Section Number

N/A

Consultant / Subconsultant Name

HBK Engineering, LLC

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			Research/JULIE Design Request			QL-B Designation			QL-A Observation			Data Processing			Base Mapping		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Administrative	30.11	40.0	3.31%	1.00							40	11.90%	3.58						
Analyst 1	29.87	0.0																	
Analyst 2	44.90	0.0																	
Associate 1	34.39	224.0	18.54%	6.38	16	20.00%	6.88	72	33.96%	11.68	88	26.19%	9.01						
Associate 2	40.37	416.0	34.44%	13.90	40	50.00%	20.19	72	33.96%	13.71	88	26.19%	10.57	64	64.00%	25.84	8	5.26%	2.12
Associate 3	40.30	0.0																	
Designer 0	34.86	0.0																	
Designer 1	31.87	0.0																	
Designer 2	33.04	40.0	3.31%	1.09													40	26.32%	8.69
Designer 3	43.42	16.0	1.32%	0.58													16	10.53%	4.57
Engineer	43.75	0.0																	
Field Lead	40.69	60.0	4.97%	2.02				24	11.32%	4.61	24	7.14%	2.91	8	8.00%	3.26	4	2.63%	1.07
Field Tech	27.03	0.0																	
Licensed Professional Surveyor	57.10	0.0																	
Licensed Structural Engineer	70.75	0.0																	
Locator 0	20.97	0.0																	
Locator 1	23.70	0.0																	
Locator 2	24.52	0.0																	
Locator 3	28.65	0.0																	
Permit Coordinator	31.27	40.0	3.31%	1.04							40	11.90%	3.72						
Principal	86.00	32.0	2.65%	2.28	4	5.00%	4.30	4	1.89%	1.62	8	2.38%	2.05	4	4.00%	3.44	4	2.63%	2.26
Program Manager	80.13	216.0	17.88%	14.33	16	20.00%	16.03	32	15.09%	12.09	32	9.52%	7.63	16	16.00%	12.82	40	26.32%	21.09
Project Coordinator	36.12	0.0																	
Project Manager	49.75	0.0																	
Quality Manager	69.38	0.0																	
Senior Engineer	54.20	124.0	10.26%	5.56	4	5.00%	2.71	8	3.77%	2.05	16	4.76%	2.58	8	8.00%	4.34	40	26.32%	14.26
Senior Project Manager	61.95	0.0																	
TOTALS		1208.0	100%	\$48.17	80.0	100.00%	\$50.10	212.0	100%	\$45.76	336.0	100%	\$42.05	100.0	100%	\$49.69	152.0	100%	\$54.07

Local Public Agency

LCDOT

County

Lake

Section Number

N/A

Consultant / Subconsultant Name

HBK Engineering, LLC

Job Number**AVERAGE HOURLY PROJECT RATES****EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET**SHEET 2 OF 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Utility Coordination																	
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Administrative	30.11																		
Analyst 1	29.87																		
Analyst 2	44.90																		
Associate 1	34.39	48	14.63%	5.03															
Associate 2	40.37	144	43.90%	17.72															
Associate 3	40.30																		
Designer 0	34.86																		
Designer 1	31.87																		
Designer 2	33.04																		
Designer 3	43.42																		
Engineer	43.75																		
Field Lead	40.69																		
Field Tech	27.03																		
Licensed Professional Survey	57.10																		
Licensed Structural Engineer	70.75																		
Locator 0	20.97																		
Locator 1	23.70																		
Locator 2	24.52																		
Locator 3	28.65																		
Permit Coordinator	31.27																		
Principal	86.00	8	2.44%	2.10															
Program Manager	80.13	80	24.39%	19.54															
Project Coordinator	36.12																		
Project Manager	49.75																		
Quality Manager	69.38																		
Senior Engineer	54.20	48	14.63%	7.93															
Senior Project Manager	61.95																		
TOTALS		328.0	100%	\$52.33	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00

SUBCONTRACTOR - BADGER - SUE QUALITY LEVEL A "TEST HOLES"

Pricing Source: Quanta 2025 Pricing 1.3

Received: 12/19/2024

Item	UOM	Cost Per UOM	Estimated Units	Total
Badger Hydrovac with Operator	Hourly	\$287.00	80	\$22,960.00
Badger Hydrovac w/ Operator OT, over 8 hrs	Hourly	\$326.00	24	\$7,824.00
Badger Hydrovac w/ Operator PT (see 5)	Hourly	\$364.00		\$0.00
Second Operator	Hourly	\$140.00		\$0.00
Second Operator OT, over 8 hours	Hourly	\$170.00	80	\$13,600.00
Second Operator PT (see 5)	Hourly	\$212.00	24	\$5,088.00
NPA / NPLA per hour premium	Hourly	TBD		\$0.00
Per Diem - per employee unless NPLA	Daily	\$200.00		\$0.00
Support Truck	Daily	\$195.00	10	\$1,950.00
Project Supervisor	Hourly	TBD		\$0.00
Orientation Training	Hourly	TBD		\$0.00
Remote Hose	per Foot	\$5.00	750	\$3,750.00
Daily Safety Consumables	per Empl.	\$25.00	30	\$750.00
Burner Surcharge	Hourly	\$25.00		\$0.00
Supply Water	Each	\$220.00	10	\$2,200.00
				\$0.00
Flaggers ST	Hourly	\$258.00	80	\$20,640.00
Flaggers OT	Hourly	\$284.00	24	\$6,816.00
Single Lane Closure	Daily	\$3,105.00	10	\$31,050.00
				\$0.00
				\$0.00
Disposition	Daily	\$569.00	10	\$5,690.00
Ozinga Backfill	Daily	\$384.00	10	\$3,840.00
Ozinga truck	Daily	\$194.00	10	\$1,940.00
Note: FRF % can be found at https://www.badgerinc.com/frf/	FRF %:	9.00%	Fluctuating Fuel Recovery:	\$11,528.82
			Sub Total:	\$128,098.00
			10% Contingency:	\$13,962.68
			Total:	\$153,589.50



SUBCONSULTANT PROPOSAL

TESTING SERVICE CORPORATION

June 11, 2025

Ms. Emily T. Anderson, PE, CFM
Christopher B. Burke Engineering, Ltd.
9575 West Higgins Road Suite 600
Rosemont, IL 60018-4920

RE: P.N. 75,668
Geotechnical Exploration
Proposed Retaining Walls
Center St & Atkinson Rd
Grays Lake, IL



TESTING SERVICE CORPORATION

Corporate Office

360 South Main Place, Carol Stream, IL 60188-2404
Phone 630.462.2600

Dear Ms. Anderson:

Testing Service Corporation (TSC) is pleased to submit this proposal to provide Geotechnical Engineering Services for the above-captioned project. It is in response to your email dated May 2, 2025. The objectives of the Geotechnical Exploration are to explore soil and groundwater conditions and provide recommendations for retaining wall foundation design in connection with the proposed intersection improvements at Center Street (CTY A27) and Atkinson Road.

It is understood that two (2) new retaining walls are likely needed as part of the intersection improvements at Center Street and Atkinson Road. The walls will be up to 500 feet long and up to 7 feet tall. Plans call for the walls to consist of either a block wall or a soldier pile wall.

Boring Program:

We are proposing to drill fourteen (14) soil borings and four (4) pavement cores as part of our Geotechnical Exploration. Seven (7) soil borings are planned for each wall, spaced about 75 feet apart. They are to be extended to 30 feet below existing grade. Total drilling footage on this basis is estimated to be about 420 lineal feet.

Two (2) pavement cores are to be taken along Center Street and two (2) along Atkinson Road. They will be located about 500 feet from the intersection in each direction. One (1) will be taken in the northbound, southbound, eastbound and westbound lanes. They are to be extended to 10 feet below existing grade. The cores of the asphalt and/or P.C. concrete surface will be taken using a 4-inch diameter core barrel, with auger samples also obtained of underlying base course/subbase materials.

For the purposes of this proposal, we have assumed that the boring locations will be accessible to a conventional truck or ATV-mounted drill. In this regard, they should not be located in standing water, within wooded areas or on steeply sloping ground. No provisions have been made for tree/brush clearing or other obstruction removal should borehole access be impeded. Landscape restoration (if required) is also not included in the project budget.

TSC will utilize personnel who are trained in layout procedures to stake the borings in the field. Ground surface elevations for each borehole will be determined by GPS using a Trimble R12 GNSS receiver. Utility clearance for the borings will be obtained by contacting JULIE (Joint Utility Locating Information for Excavators). Private underground utility lines will have to be marked by the property owner or their agents; a private locator can be hired for an added cost if necessary.

Soil samples will primarily be obtained by split-spoon methods, with thin-walled tubes also taken if conditions dictate. Sampling will be performed at 2½-foot intervals for at least the first 20 feet (and greater if fill or unsuitable soil types extend below that depth as well as in cut or detention areas), to

otherwise not exceed 5-foot intervals. A representative portion of the split-spoon samples will be placed in a glass jar with a screw-type lid for transportation to our laboratory. Groundwater observations will also be made during and following completion of drilling operations, with the boreholes to be backfilled immediately and any in pavement areas also patched at the surface.

In accordance with the International Building Code (IBC), the Site Class for seismic design is to be based on average soil properties in the top 100 feet. Where IBC 2006 or later has been enacted, Site Class D shall be used unless site-specific soils information is available. To determine whether Site Class C is a possibility, it would be necessary to extend at least one (1) of the borings to 100' in depth (or rock if encountered shallower), or alternatively to measure soil shear wave velocity using the Refraction Microtremor (ReMi) method. The added cost for SeisOpt ReMi testing is given in our Cost Estimate as an optional service.

Assumptions for Permits:

It is understood that Center Street (CTY A27) is under Lake County jurisdiction and may require a county permit to perform the fieldwork within the county highway right-of-way. Please note that our cost estimate for this project is based on the assumption that TSC will be able to perform all borings and cores during weekdays (Monday through Friday) beginning no later than 8:00 AM and ending no sooner than 3:00 PM.

Traffic Control:

Due to underground utilities within the right-of-way as well as overhead powerlines, the soil borings may end up in the roadway. It is anticipated that the shoulder and/or one traffic lane will have to be temporarily blocked at each boring location using professional traffic control with flagmen or specific traffic control measures. This proposal includes a provision for lane closures by a professional traffic control firm. If it is determined that traffic control is not needed, you will not be charged for this service.

Laboratory Testing:

Samples obtained from the borings will be examined by experienced laboratory personnel in order to verify field descriptions as well as to visually classify in accordance with the Unified Soil Classification System. Laboratory testing will include moisture content and dry unit weight determinations as well as measurements of unconfined compressive strength by direct or indirect methods, as appropriate. Other tests deemed to be necessary by TSC's Project Engineer may also be recommended for your approval.

Engineering Report:

A geotechnical engineering report will be prepared upon completion of field and laboratory testing, to include typed boring logs and a location plan. The report will provide a summary of soil and groundwater conditions as well as address their impact on the proposed site development. It will also provide recommendations to guide design and specification preparation pertaining to geotechnical issues relevant to the structure or purpose described in this proposal. These may include the following as applicable:

- General earthwork and construction considerations.
- Remedial work and/or treatment of unstable or unsuitable soil types.
- Fill placement and compaction requirements.
- Foundation type, capacity and depth/elevation.
- Anticipation and management of groundwater.

Fees and Scope:

In accordance with the Cost Estimate of Consultant Services Worksheet (BLR 05514) attached, TSC is proposing a not-to-exceed budget amount of **Fifty Thousand Dollars (\$ 50,000.00)** to provide the Geotechnical Exploration outlined above. Our proposal is based on the understanding that the boring locations are accessible to conventional drilling equipment and the work can be performed during standard business hours. Our fee is further subject to this proposal being accepted by you on or before December 31, 2025.

Should the study reveal unexpected subsurface conditions requiring a change in the scope of work, you will be contacted before we proceed with any additional work. Our invoice would then be based on our standard unit rates given in the attached Cost Estimate or as otherwise agreed upon. While our quoted fee does not include earthwork, excavation, and/or footing observations during the construction phase, the project budget should include a provision for these services. Plan review, preconstruction meetings and/or other consulting and professional services that are provided subsequent to the delivery of TSC's report would be covered by a separate invoice.

TSC's geotechnical investigation does not include services required to evaluate the likelihood of the site being contaminated by hazardous materials or other pollutants. Analytical testing which would be required in connection with IEPA Form LPC-663, Uncontaminated Soil Certification is also not included. Should environmental and/or analytical testing be desired, please contact the undersigned for additional details and/or associated costs.

Closure:

The geotechnical engineering services being performed are subject to TSC's attached General Conditions. TSC charges include all state and federal taxes that may be required. However, unless stated otherwise they do not include license, permit or bond fees that local governments may impose, if any to potentially be added to our invoice. The invoice will be sent to the following unless written instructions to the contrary are received:

Ms. Emily T. Anderson, PE, CFM
Christopher B. Burke Engineering, Ltd.
9575 West Higgins Road Suite 600
Rosemont, IL 60018-4920
Tel: (847) 823-0500
Email: eanderson@cbbel.com

If this proposal meets with your approval, please indicate your acceptance by signing one copy and returning it to our Carol Stream, Illinois office. It would be helpful if you could also complete the attached Project Data form indicating who is to receive copies of TSC's report and other related information.



Your consideration of our proposal is appreciated. We look forward to being of service to you on this project.

Respectfully submitted,

TESTING SERVICE CORPORATION

A handwritten signature in blue ink, appearing to read "T. Peceniak", is written over a light blue rectangular background.

Timothy R. Peceniak, P.E.
Geotechnical Engineer

Enc: Cost Estimate
General Conditions
Project Data Sheet

Approved and accepted for _____ by:

(NAME)

(TITLE)

(DATE)

CBBEL Project Number: _ _ _ . _ _ _ _ _ . _ _ _ _ _

Please fill out the Project Data Sheet at the end of this document



TESTING SERVICE CORPORATION

PROJECT DATA SHEET

CBBEL Project Number: _ _ _ . _ _ _ _ _ . _ _ _ _ _

Project Info	Changes (If needed)
Name: Proposed Retaining Walls	
Address: Center St & Atkinson Rd	
City/State/Zip: Grays Lake, IL	
Project Manager:	
Email:	
Telephone:	

Invoicing
To: Accounts Payable
Email: ap@cbbel.com



TESTING SERVICE CORPORATION

GENERAL CONDITIONS

Geotechnical and Construction Services

1. PARTIES AND SCOPE OF WORK: If Client is ordering the services on behalf of another, Client represents and warrants that Client is the duly authorized agent of said party for the purpose of ordering and directing said services, and in such case the term "Client" shall also include the principal for whom the services are being performed. Prices quoted and charged by TSC for its services are predicated on the conditions and the allocations of risks and obligations expressed in these General Conditions. Unless otherwise stated in writing, Client assumes sole responsibility for determining whether the quantity and the nature of the services ordered by Client are adequate and sufficient for Client's intended purpose. Unless otherwise expressly assumed in writing, TSC's services are provided exclusively for client. TSC shall have no duty or obligation other than those duties and obligations expressly set forth in this Agreement. TSC shall have no duty to any third party. Client shall communicate these General Conditions to each and every party to whom the Client transmits any report prepared by TSC. Ordering services from TSC shall constitute acceptance of TSC's proposal and these General Conditions.

2. SCHEDULING OF SERVICES: The services set forth in this Agreement will be accomplished in a timely and workmanlike manner. If TSC is required to delay any part of its services to accommodate the requests or requirements of Client, regulatory agencies, or third parties, or due to any cause beyond its reasonable control, Client agrees to pay such additional charges, if any, as may be applicable.

3. ACCESS TO SITE: TSC shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as a result of its services or the use of its equipment; however, TSC has not included in its fee the cost of restoration of damage which may occur. If Client desires or requires TSC to restore the site to its former condition, TSC will, upon written request, perform such additional work as is necessary to do so and Client agrees to pay to TSC the cost thereof plus TSC's normal markup for overhead and profit.

4. CLIENT'S DUTY TO NOTIFY ENGINEER: Client represents and warrants that Client has advised TSC of any known or suspected hazardous materials, utility lines and underground structures at any site at which TSC is to perform services under this Agreement. Unless otherwise agreed in writing, TSC's responsibility with respect to underground utility locations is to contact the Illinois Joint Utility Locating Information for Excavators for the location of public, but not private, utilities.

5. DISCOVERY OF POLLUTANTS: TSC's services shall not include investigation for hazardous materials as defined by the Resource Conservation Recovery Act, 42 U.S.C. § 6901, et seq., as amended ("RCRA") or by any state or Federal statute or regulation. In the event that hazardous materials are discovered and identified by TSC, TSC's sole duty shall be to notify Client.

6. MONITORING: If this Agreement includes testing construction materials or observing any aspect of construction of improvements, Client's construction personnel will verify that the pad is properly located and sized to meet Client's projected building loads. Client shall cause all tests and inspections of the site, materials and work to be timely and properly performed in accordance with the plans, specifications, contract documents, and TSC's recommendations. No claims for loss, damage or injury shall be brought against TSC unless all tests and inspections have been so performed and unless TSC's recommendations have been followed.

TSC's services shall not include determining or implementing the means, methods, techniques or procedures of work done by the contractor(s) being monitored or whose work is being tested. TSC's services shall not include the authority to accept or reject work or to in any manner supervise the work of any contractor. TSC's services or failure to

perform same shall not in any way operate or excuse any contractor from the performance of its work in accordance with its contract. "Contractor" as used herein shall include subcontractors, suppliers, architects, engineers and construction managers.

Information obtained from borings, observations and analyses of sample materials shall be reported in formats considered appropriate by TSC unless directed otherwise by Client. Such information is considered evidence, but any inference or conclusion based thereon is, necessarily, an opinion also based on engineering judgment and shall not be construed as a representation of fact. Subsurface conditions may not be uniform throughout an entire site and ground water levels may fluctuate due to climatic and other variations. Construction materials may vary from the samples taken. Unless otherwise agreed in writing, the procedures employed by TSC are not designed to detect intentional concealment or misrepresentation of facts by others.

7. DOCUMENTS AND SAMPLES: Client is granted an exclusive license to use findings and reports prepared and issued by TSC and any sub-consultants pursuant to this Agreement for the purpose set forth in TSC's proposal provided that TSC has received payment in full for its services. TSC and, if applicable, its sub-consultant, retain all copyright and ownership interests in the reports, boring logs, maps, field data, field notes, laboratory test data and similar documents, and the ownership and freedom to use all data generated by it for any purpose. 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 TSC's report.

8. TERMINATION: TSC's obligation to provide services may be terminated by either party upon (7) seven days prior written notice. In the event of termination of TSC's services, TSC shall be compensated by Client for all services performed up to and including the termination date, including reimbursable expenses. The terms and conditions of these General Conditions shall survive the termination of TSC's obligation to provide services.

9. PAYMENT: Client shall be invoiced periodically for services performed. ~~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 in writing for valid cause within sixty (60) days at the rate of twelve (12%) per annum (or the maximum interest rate permitted by applicable law, whichever is the lesser) until paid and TSC's costs of collection of such accounts, including court costs and reasonable attorney's fees.~~

10. WARRANTY: TSC's professional services will be performed, its findings obtained and its reports prepared in accordance with these General Conditions and with generally accepted principles and practices. In performing its professional services, TSC will use that degree of care and skill ordinarily exercised under similar circumstances by members of its profession. In performing physical work in pursuit of its professional services, TSC will use that degree of care and skill ordinarily used under similar circumstances. This warranty is in lieu of all other warranties or representations, either express or implied. Statements made in TSC reports are opinions based upon engineering judgment and are not to be construed as representations of fact.

~~Should TSC or any of its employees be found to have been negligent in performing professional services or to have made and breached any express or implied warranty, representation or contract, Client, all parties claiming through Client and all parties claiming to have in any way relied upon TSC's services or work agree that the maximum aggregate amount of damages for which TSC, its officers, employees and agents shall be liable is limited to \$50,000 or the total amount of the fee paid to TSC for its services performed with respect to the project, whichever amount is greater.~~

~~In the event Client is unwilling or unable to limit the damages for which TSC may be liable in accordance with the provisions set forth in the preceding paragraph, upon written request of Client received within five days of Client's acceptance of TSC's proposal together with payment of an additional fee in the amount of 5% of TSC's estimated cost for its services (to be adjusted to 5% of the amount actually billed by TSC for its services on the project at time of completion), the limit on damages shall be increased to \$500,000 or the amount of TSC's fee, whichever is the greater. This charge is not to be construed as being a charge for insurance of any type, but is increased consideration for the exposure to an award of greater damages.~~

11. INDEMNITY: Subject to the provisions set forth herein, TSC and Client hereby agree to indemnify and hold harmless each other and their respective shareholders, directors, officers, partners, employees, agents, subsidiaries and division (and each of their heirs, successors, and assigns) from any and all claims, demands, liabilities, suits, causes of action, judgments, costs and expenses, including reasonable attorneys' fees, arising, or allegedly arising, from personal injury, including death, property damage, including loss of use thereof, due in any manner to the negligence of either of them or their agents or employees or independent contractors. In the event both TSC and Client are found to be negligent or at fault, then any liability shall be apportioned between them pursuant to their pro rata share of negligence or fault. TSC and Client further agree that their liability to any third party shall, to the extent permitted by law, be several and not joint. The liability of TSC under this provision shall not exceed the policy limits of insurance carried by TSC. Neither TSC nor Client shall be bound under this indemnity agreement to liability determined in a proceeding in which it did not participate represented by its own independent counsel. The indemnities provided hereunder shall not terminate upon the termination or expiration of this Agreement, but may be modified to the extent of any waiver of subrogation agreed to by TSC and paid for by Client.

12. SUBPOENAS: TSC's employees shall not be retained as expert witnesses except by separate, written agreement. Client agrees to pay TSC pursuant to TSC's then current fee schedule for any TSC employee(s) subpoenaed by any party as an occurrence witness as a result of TSC's services.

13. OTHER AGREEMENTS: TSC shall not be bound by any provision or agreement (i) requiring or providing for arbitration of disputes or controversies arising out of this Agreement or its performance, (ii) wherein TSC waives any rights to a mechanics lien or surety bond claim; (iii) that conditions TSC's right to receive payment for its services upon payment to Client by any third party or (iv) that requires TSC to indemnify any party beyond its own negligence. These General Conditions are notice, where required, that TSC shall file a lien whenever necessary to collect past due amounts. This Agreement contains the entire understanding between the parties. Unless expressly accepted by TSC in writing prior to delivery of TSC's services, Client shall not add any conditions or impose conditions which are in conflict with those contained herein, and no such additional or conflicting terms shall be binding upon TSC. The unenforceability or invalidity of any provision or provisions shall not render any other provision or provisions unenforceable or invalid. This Agreement shall be construed and enforced in accordance with the laws of the State of Illinois. In the event of a dispute arising out of or relating to the performance of this Agreement, the breach thereof or TSC's services, the parties agree to try in good faith to settle the dispute by mediation under the Construction Industry Mediation Rules of the American Arbitration Association as a condition precedent to filing any demand for arbitration, or any petition or complaint with any court. Paragraph headings are for convenience only and shall not be construed as limiting the meaning of the provisions contained in these General Conditions.



TESTING SERVICE CORPORATION

PROJECT DATA SHEET

CBBEL Project Number:

Project Info		Changes (If needed)
Name:		
Address:		
City/State/Zip:		
Project Manager:		
Email:		
Telephone:		

Invoicing	
To:	Accounts Payable
Email:	ap@cbbel.com



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

Local Public Agency LCDOT	County Lake	Section Number N/A
Prime Consultant (Firm) Name Christopher B. Burke Engineering, Ltd.	Prepared By Timothy R. Peceniak	Date 6/11/2025
Consultant / Subconsultant Name Testing Serveice Corporation	Job Number 	

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

Remarks

Center Street at Atkinson Road

PAYROLL ESCALATION TABLE

CONTRACT TERM	24	MONTHS	OVERHEAD RATE	138.65%
START DATE	10/1/2025		COMPLEXITY FACTOR	
RAISE DATE	1/1/2026		% OF RAISE	2.00%
END DATE	9/30/2027			

ESCALATION PER YEAR

Year	First Date	Last Date	Months	% of Contract
0	10/1/2025	1/1/2026	3	12.50%
1	1/2/2026	1/1/2027	12	51.00%
2	1/2/2027	10/1/2027	9	39.02%

LCDOT

Lake

	N/A
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Testing Service Corporation

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

MAXIMUM PAYROLL RATE	86.00
ESCALATION FACTOR	2.52%

[illegible]

Local Public Agency

LCDOT

County

Lake

Section Number

N/A

Consultant / Subconsultant Name

Testing Service Corporation

Job Number

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)			\$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)	1	\$17,000.00	\$17,000.00
Aerial Photography and Mapping	Actual Cost (Requires 2-3 quotes with IDOT approval)			\$0.00
Utility 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
Drill Mounted on Truck or ATV Rig	Mobilization/Demobilization	5	\$1,850.00	\$9,250.00
Examine Samples, W%, Qu and Dry Unit Weights	Actual Cost	140	\$30.00	\$4,200.00
				\$0.00
				\$0.00
TOTAL DIRECT COSTS:				\$30,450.00

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N/A

Testing Service Corporation

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

OVERHEAD RATE	138.65%
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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
Geotechnical Services		147	7,211	9,998	2,380		19,589	39.15%
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Subconsultant DL							\$0.00	
Direct Costs Total ==>	\$0.00						\$30,450.00	60.85%
TOTALS		147	7,211	9,998	2,380	-	50,039	100.00%

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N/A

Testing Service Corporation

EXHIBIT D COST ESTIMATE OF CONSULTANT SERVICES (CECS) WORKSHEET

SHEET 1 **OF** 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Geotechnical Services														
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Senior Engineer	53.34	40.0	27.21%	14.51	40	27.21%	14.51												
Staff Engineer	39.89	3.0	2.04%	0.81	3	2.04%	0.81												
Staking & Utility Clearance	43.37	6.0	4.08%	1.77	6	4.08%	1.77												
Drilling Inspector	51.68	1.0	0.68%	0.35	1	0.68%	0.35												
CADD Technician	23.58	6.0	4.08%	0.96	6	4.08%	0.96												
Administrative Assistant	24.28	3.0	2.04%	0.50	3	2.04%	0.50												
Drilling Crew	46.16	72.0	48.98%	22.61	72	48.98%	22.61												
Drilling Crew Overtime	69.24	16.0	10.88%	7.54	16	10.88%	7.54												
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TOTALS		147.0	100%	\$49.05	147.0	100.00%	\$49.05	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00