


Municipality	<b>L O C A L  A G E N C Y</b>	 <b>Illinois Department of Transportation</b>	<b>C O N S U L T A N T</b>	Name BLA, Inc
Township				Address 333 Pierce Road, Suite 200
County Lake County – Division of Transportation		Preliminary Engineering Services Agreement For Motor Fuel Tax Funds		City Itasca
Section 17-00254-03-WR				State Illinois

THIS AGREEMENT is made and entered into this \_\_\_\_\_ day of June, 2020 between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. Motor Fuel Tax Funds, allotted to the LA by the State of Illinois under the general supervision of the State Department of Transportation, hereinafter called the "DEPARTMENT", will be used entirely or in part to finance ENGINEERING services as described under AGREEMENT PROVISIONS.

**Section Description**

Name Buffalo Grove Road

Route FAU 2657 Length 1.70 Mi. 8450.00 FT (Structure No. \_\_\_\_\_ )

Termini South - IL Route 22 / North - US Route 45

Description:

Preliminary Engineering (Phase I) and Design Engineering (Phase II) for the roadway widening and reconstruction along Buffalo Grove Road from Illinois Route 22 north to US Route 45

**Agreement Provisions**

**The Engineer Agrees,**

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

- j.  Prepare the necessary environmental documents in accordance with the procedures adopted by the DEPARTMENT's Bureau of Local Roads & Streets.
  - k.  Prepare the Project Development Report when required by the DEPARTMENT.
  - l.  **Services as included and/or defined in the attached Scope of Services.**
2. That all reports, plans, plats and special provisions to be furnished by the ENGINEER pursuant to the AGREEMENT, will be in accordance with current standard specifications and policies **of the LA and** of the DEPARTMENT. It is being understood that all such reports, plats, plans and drafts shall, before being finally accepted, be subject to approval by the LA and the DEPARTMENT.
  3. To attend conferences at any reasonable time when requested to do so by representatives of the LA or the Department.
  4. In the event plans or surveys are found to be in error during construction of the SECTION and revisions of the plans or survey corrections are necessary, the ENGINEER agrees that the ENGINEER will perform such work without expense to the LA, even though final payment has been received by the ENGINEER. The ENGINEER shall give immediate attention to these changes so there will be a minimum delay to the CONTRACTOR.
  5. That basic survey notes and sketches, charts, computations and other data prepared or obtained by the ENGINEER pursuant to this AGREEMENT will be made available, upon request, to the LA or the DEPARTMENT without cost and without restriction or limitations as to their use.
  6. That all plans and other documents furnished by the ENGINEER pursuant to this AGREEMENT will be endorsed by the ENGINEER and will show the ENGINEER's professional seal where such is required by law.

**The LA Agrees,**

1. ~~To pay the ENGINEER as compensation for all services rendered in accordance with this AGREEMENT according to the following method indicated by a check mark:~~
  - a.  A sum of money equal to \_\_\_\_\_ percent of the awarded contract cost of the proposed improvement as approved by the DEPARTMENT.
  - b.  A sum of money equal to the percent of the awarded contract cost for the proposed improvement as approved by the DEPARTMENT based on the following schedule:

~~Schedule for Percentages Based on Awarded Contract Cost~~

<del>Awarded Cost</del>	<del>Percentage Fees</del>	<del>(see note)</del>
<del>Under \$50,000</del>	<del>_____</del>	<del>%</del>
	<del>_____</del>	<del>%</del>
	<del>_____</del>	<del>%</del>

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

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

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

**The Total Not-to-Exceed Contract Amount shall be \$1985797.00**

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

- ~~a. Upon completion of detailed plans, special provisions, proposals and estimate of cost - being the work required by section 1 of the ENGINEER AGREES - to the satisfaction of the LA and their approval by the DEPARTMENT, 90 percent of the total fee due under this AGREEMENT based on the approved estimate of cost.~~
- ~~b. Upon award of the contract for the improvement by the LA and its approval by the DEPARTMENT, 100 percent of the total fee due under the AGREEMENT based on the awarded contract cost, less any amounts paid under "a" above.~~

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

4. That, should the improvement be abandoned at any time after the ENGINEER has performed any part of the services provided for in sections 1 and 3 of the ENGINEER AGREES and prior to the completion of such services, the LA shall reimburse the ENGINEER for the ENGINEER's actual costs plus \*\* percent incurred up to the time the ENGINEER is notified in writing of such abandonment - "actual cost" being defined as in paragraph 2 of the LA AGREES.
5. That, should the LA require changes in any of the detailed plans, specifications or estimates except for those required pursuant to paragraph 4 of the ENGINEER AGREES, after they have been approved by the DEPARTMENT, the LA will pay the ENGINEER for such changes on the basis of actual cost plus \*\* percent to cover profit, overhead and readiness to serve - "actual cost" being defined as in paragraph 2 of the LA AGREES. It is understood that "changes" as used in this paragraph shall in no way relieve the ENGINEER of the ENGINEER's responsibility to prepare a complete and adequate set of plans and specifications.

**\*\*See the CECS**

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#### **It is Mutually Agreed,**

1. That any difference between the ENGINEER and the LA concerning their interpretation of the provisions of this Agreement shall be referred to a committee of disinterested parties consisting of one member appointed by the ENGINEER, one member appointed by the LA and a third member appointed by the two other members for disposition and that the committee's decision shall be final.
2. This AGREEMENT may be terminated by the LA upon giving notice in writing to the ENGINEER at the ENGINEER's last known post office address. Upon such termination, the ENGINEER shall cause to be delivered to the LA all surveys, permits, agreements, preliminary bridge design & hydraulic report, drawings, specifications, partial and completed estimates and data, if any from traffic studies and soil survey and subsurface investigations with the understanding that all such material becomes the property of the LA. The ENGINEER shall be paid for any services completed and any services partially completed in accordance with section 4 of the LA AGREES.
3. That if the contract for construction has not been awarded one year after the acceptance of the plans by the LA and their approval by the DEPARTMENT, the LA will pay the ENGINEER the balance of the engineering fee due to make 100 percent of the total fees due under this AGREEMENT, based on the estimate of cost as prepared by the ENGINEER and approved by the LA and the DEPARTMENT.
4. That the ENGINEER warrants that the ENGINEER has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this contract, and that the ENGINEER has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, brokerage fee, gifts or any other consideration, contingent upon or resulting from the award or making of this contract. For Breach or violation of this warranty the LA shall have the right to annul this contract without liability.

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

Executed by the LA:

ATTEST: County of Lake of the  
(Municipality/Township/County)  
State of Illinois, acting by and through its  
County Board  
By Lake County Clerk  
(Seal) Title Chair, Lake County Board

RECOMMENDED FOR EXECUTION

Shane E. Schneider, P.E.  
Director of Transportation/County Engineer  
Lake County

Executed by the ENGINEER:

ATTEST: BLA, Inc.  
Engineering Firm  
333 Pierce Road, Suite 200  
Street Address  
Itasca, Illinois  
City, State  
By Vice President Title President / CEO

Approved  
Date  
Department of Transportation  
Regional Engineer  
County Engineer  
On behalf of IDOT pursuant to Agreement  
of Understanding dated May 3, 2018

Note: Five (5) Original Executed Contracts – (2) LCDOT; (2) IDOT District 1, Local Roads; (1) Consultant



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Phase I / Phase II Engineering  
Lake County Division of Transportation  
Buffalo Grove Road (FAU 2657)  
IL Route 22 to US Route 45  
Section No.: 17-00254-03-WR

## **PROJECT SCOPE DESCRIPTION**

BLA, Inc. proposes to complete preliminary design (Phase I) and design engineering (Phase II) for the Buffalo Grove Road corridor from IL Route 22 north to US Route 45.

The preliminary design elements shall include environmental, traffic analysis, intersection design studies, drainage study, geotechnical, topographic survey, value engineering, a preliminary environmental site assessment, and public outreach required to develop a preliminary plan meeting the tasks and requirements of LCDOT.

Following the approval of the preliminary design the scope of work shall consist of the preparation and development of the detailed Phase II engineering plans, contract documents, permitting, land acquisition, ICC and railroad coordination, and utility coordination for the roadway widening of Buffalo Grove Road in order to be locally let.

The project is located on Buffalo Grove Road from IL Route 22 to US Route 45 and consists of the roadway widening / reconstruction from a two-lane roadway to a four-lane roadway with auxiliary lanes. The existing traffic signals within the project limits will be modernized and the addition of new traffic signals at specific intersections will be evaluated. The existing drainage system will be analyzed for capacity and a new system implemented. Railroad coordination will be a critical factor in this project.

IDOT has identified a need to improve the intersection of US Route 45 which includes the intersection of Buffalo Grove Road. Currently, the time frame of the IDOT improvement at the intersection is unknown. LCDOT has indicated that they would like to pursue an additional through lane on Buffalo Grove Road (each direction) at the intersection of US Route 45 with minimal work on the state route. The scope of work for the preparation of the contract plans include the project termination north of US Route 45 on Fairway Drive / Buffalo Grove Road. Preliminary work (traffic analysis, drainage study, environmental, etc) include the intersection of US Route 45 in order to develop improvements and environmental impacts.

The following is a detailed written scope of work to perform the tasks required for the Buffalo Grove Road improvement project.



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**Preliminary Engineering**

**Data Collection / Review:** BLA will contact the JULIE One-Call system to obtain existing utility atlases for private “dry” facilities (gas main, telephone, cable, fiber optic, overhead/underground electric, etc.) in the area. Those utilities which do not have an auto-respond system shall be contacted by mail or via email to obtain the necessary atlases. A Level B SUE Study is included in this task in order to obtain a more accurate location of utilities. BLA will also obtain zoning maps, school and park district maps and plans, existing traffic signal plans, and develop a photo log of the site. Also included is the coordination with the Village of Buffalo Grove to obtain records of Village facilities such as sewer, water, street lighting, etc. Existing information will be obtained from LCDOT and other appropriate agencies such as roadway plans, bikeway plans, right of way data, future development plans, crash reports, previously completed Intersection Design Studies, etc. Data Collection includes information along US Route 45 as well with the exception of Level B SUE (included in the US Route 45 Additional Tasks below) Included in the Data Collection / Review Task is three (3) site visits which will be utilized to obtain the photolog, observation, and field checks.

*Refer to the attached scope of work with fee proposal from TranSystems for their contribution to this task as well as HBK's scope of work and fee proposal for the Level B SUE.*

**Sewer Televising:** The existing storm sewer along Buffalo Grove Road will be televised to determine the condition of the facilities. The tapes will be reviewed and a recommended course of action will be provided based on condition and ability to reuse existing sewers.

*Refer to the Televising scope of work with fee proposal from American Underground, attached and included as a BLA, Inc. direct cost.*

**Topographic Survey:** A full topographic survey will be completed for all above ground and below ground features. This shall consist of survey from IL Route 22 north along Buffalo Grove Road to the north side of the intersection of US Route 45. It will extend along US Route 45 approximately 600 feet either direction from the Buffalo Grove Intersection. The topographic survey will be from right of way to right of way plus 15 feet. Survey work will be performed in accordance with the LCDOT survey requirements including start up coordination with the LCDOT surveyor. Baseline plan stationing shall follow existing LCDOT stationing. This shall consist of obtaining all existing features within the project corridor including (but not limited to) pavement cross sectional elevations, driveway aprons, visible above-ground “dry” utilities (electric, telephone, etc.), and detailed measure downs of public facilities (sanitary, water, storm) along with top of casting elevations (rim grade, flange elevations, etc.).

Project right-of-way and property lines will be prepared from computing existing right-of-way and property lines through field located monuments and plat research.

*Refer to the attached scope of work and fee proposal from Jorgensen Associates.*

**Traffic Analyses:** A traffic analysis shall be conducted using the data provided in the project scoping report as well as obtaining and generating 2050 traffic volumes. A letter will be obtained



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from CMAP consisting of 2050 traffic projections. Review of the previous Traffic Operations Analysis completed by TranSystems (May 2019) will be performed. Collecting 24-hour traffic counts will be performed for the preparation of traffic signal warrant analysis for the following intersections:

1. Buffalo Grove Road at Main Street
2. Buffalo Grove Road at Port Clinton Road (East)
3. US Route 45 at Buffalo Grove Road / Fairway Drive

Traffic signal warrant analysis will be evaluated at the following intersections.

1. Buffalo Grove Road at Main Street
2. US Route 45 at Buffalo Grove Road / Fairway Drive

*Refer to the attached scope of work with fee proposal from TranSystems for their contribution to this task.*

Intersection Design Study: An intersection design study (IDS) will be required for approval by LCDOT. This shall consist of following the procedures outlined in BDE Manual Chapter 14 and shall include intersection geometry, signalized capacity design analysis, elements controlling design, and traffic data tables completely filled out. Detailed geometry including length of storage bays and tapers will be identified as well as AutoTurn vehicle turning movement, position of existing and/or relocated traffic signal equipment. Non-motorized transportation improvements be implemented, these will be depicted as well on the IDS. These documents will be submitted to the LCDOT for review (2 submittals) and it is assumed that no IDOT review will be needed except at US 45. The intersections requiring and IDS are as follows:

1. Buffalo Grove Road at Main Street
2. Buffalo Grove Road at Port Clinton Road (East)
3. US Route 45 at Buffalo Grove Road / Fairway Drive, Opening Day
4. US Route 45 at Buffalo Grove Road / Fairway Drive, 2050 Traffic

*Refer to the attached scope of work with fee proposal from TranSystems for their contribution to this task.*

Crash Study: Crash data and diagrams will be developed identifying crash patterns based of reported crashes for the last 5-year period. After evaluation of the crash information appropriate countermeasures will be developed and a memorandum summarizing the identifiable findings and proposed countermeasures will be prepared and submitted to the County for review and concurrence of our assessment. Analysis will be completed for the following intersections:

1. Buffalo Grove Road at Sandalwood Road
2. Buffalo Grove Road at Foxwood Drive
3. Buffalo Grove Road at Dunstan Lane
4. Buffalo Grove Road at Butternut Drive
5. Buffalo Grove Road at Port Clinton Road (West)
6. Buffalo Grove Road at Whispering Oaks Drive
7. Buffalo Grove Road at Creek View Drive
8. Buffalo Grove Road at Main Street
9. Buffalo Grove Road at Port Clinton Road (East)



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10. Buffalo Grove Road at Indian Creek Drive
11. Buffalo Grove Road at River Oaks Circle
12. Buffalo Grove Road at River Grove Lane
13. Buffalo Grove Road at Woodland Chase Lane

Drainage Study, Calculations & Design: This task will include an evaluation of the existing drainage conditions and the proposed drainage for the improvement. Also included is the drainage investigation and design at the intersection of Buffalo Grove Road and US Route 45 as well as drainage considered adjacent to the railroad. As proposed widening will require detention, an Abbreviated Location Drainage Study will be prepared. The updated Bulletin 70 (2019 data) will be utilized as well as the updated LCSMC WDO. This shall consist of:

- Existing Drainage Plan (EDP)
  - Topographic Survey combined with 2-Foot Contour Atlases to Determine Drainage Patterns in and around the corridor;
  - Watershed Divide Evaluation;
  - Identifications of Floodplain(s);
  - Identification of Drainage Outlets;
  - Development of EDP Plan & Profile Sheets.
- Proposed Drainage Plan (PDP)
  - Design Criteria Generation;
  - Drainage Alternatives for Problematic Areas Identified through the EDP Study;
  - Proposed Replacement of Storm Sewer.
  - Address Project Compliance through the Lake County WDO.
  - Develop PDP Plan & Profile Sheets.

Compensatory storage is anticipated to be required as a result of adjacent floodplain and any potential fill in the 0-10 year or 10-100 floodplain from a result of the roadway widening adjacent to the bridge over Indian Creek. These calculations will be prepared as part of a project Location Drainage Study which will be required for permitting efforts.

The drainage calculations and design of the entire stormwater management system (sewers, ditches, basins, etc.) will be completed. The inlet spacing per lineal foot of curb & gutter, lateral and longitudinal drainage structure design, mainline and lateral storm sewer design, and Best Management Practices will also be incorporated into the project design.

Based on the tributary drainage areas, detention calculations will be made and basins / pipes sized and designed accordingly. If basins are determined feasible some of these locations may be subject to agreements with third parties to which BLA will attend project meetings to coordinate. If a basin is determined to be not feasible, inline detention will be designed to accommodate the proposed improvements.

Each outlet will be analyzed using TR-20 or similarly accepted stormwater modeling software for obtaining approval by the LCDOT and LCSMC. This outlet analysis will determine capacity, existing release rate being discharged into the system, and then analyzed with proposed stormwater improvements to determine if restricted flow is necessary. This flow restriction will consist of all





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orifice plate/baffle wall (or similar acceptable method of restrictor) calculations. The 100-Year flood event will be identified and designs made to accommodate flow over land when possible into a basin. Should the basin not be a feasible alternative, the storm sewer will be designed to accommodate the flooding event if a suitable overland flow route cannot be determined.

Storm sewer accommodating the 10-Year stormwater event will be designed for this project. This design will be consistent with Lake County standards and the Illinois Drainage Manual.

If basins are feasible, grading plans for stormwater management facilities will also be incorporated into the plan set as part of the proposed scope of work. The County's property adjacent to the intersection of Port Clinton East will be investigated for a potential basin if feasible. These grading plans will be detailed with contour lines at 1-foot intervals and tie into existing contours as provided by the project surveyor. This grading plan will be configured to meet all stormwater detention requirements for the tributary area(s).

A permit will be secured by the Lake County Stormwater Management Commission (LCSMC).

As part of the Drainage Study investigation into solutions to correct the identified drainage concerns at the northwest corner of the intersection of Prairie Road and Port Clinton as well as at the address of 23880 Buffalo Grove Road. This work includes alternatives, design calculations and estimates per alternative, exhibits, and coordination with LCDOT, Village of Buffalo Grove and the property owner. This coordination will occur in order to identify the exact drainage concern, present alternative solutions and determine the preferred solution.

Non-Motorized Travel Investigation: BLA will investigate the impacts of the surrounding new non-motorized facilities within / adjacent to the project. Coordination with the Village of Vernon Hills and the Village of Buffalo Grove on their interest in extending sidewalk in the vicinity. The Village of Vernon Hills has interest in extending sidewalk between Port Clinton (west) and Creek View Drive on the north side of Buffalo Grove Road. The Village of Buffalo Grove has interest in extending sidewalk between Port Clinton (east) and River Oaks Circle. These improvements will be analyzed, cost estimates prepared per individual improvement, geometric exhibits, and right of way impacts developed.

Pavement Life Cycle Analysis: It is assumed that lanes will be added to the existing concrete pavement between Creek View Drive and US Route 45. However, a life cycle analysis of proposed pavement will be performed for the section of pavement between Creek View Drive and IL Route 22. An analysis and determination / recommendation will be provided to LCDOT for the proposed pavement material; either asphalt or concrete.

Geotechnical Investigation: Roadway pavement cores and soil borings will be obtained as part of the scope of work and a report developed. These will assist in the determination of existing pavement cross section and the development of the proposed pavement design. The soil borings will be reviewed to determine the necessity for undercuts of unsuitable materials. The exact locations will be determined early during the design.

*Refer to the attached Geotechnical Engineering scope of work provided with fee proposal from*



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*SEECO Consultants, Inc.*

PESA / PSI: A Preliminary Environmental Site Assessment (PESA) Will be completed for Buffalo Grove Road The process will follow the general protocols contained within:

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

The site's historical land use/ownership record will be developed from standard historical sources. Historic aerial photographs will be reviewed to identify land use over time and potential areas of environmental concern, such as areas of surface disturbance and outside storage. Current environmental features and conditions of sites adjacent to the right-of-way/project area will be evaluated. A site walkover of potential right-of-way/project areas designated for excavation and/or acquisition will be conducted for first- hand evaluation of current environmental conditions within the project limits. All of the features and conditions listed above will be investigated and, as appropriate, documented in photographs. The land-use and housekeeping practices of adjacent properties also will be evaluated in accordance with ASTM protocols. A records review will be conducted to determine potential environmental concerns within the study area. It will include a search of standard state and federal environmental record databases in accordance with the specifications of ASTM standards. This search is based on the outline of the study area.

Specifically, Consultant will search each database to identify any potential sources requiring further investigation. As appropriate, Freedom of Information Act (FOIA) requests will be filed with the IEPA to obtain additional data pertaining to identified sites.

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

- a) The project location and description
- b) Historical uses of corridor.
- c) The area geology and hydrology.
- d) The environmental status of sites adjacent to the corridor regarding chemical use and storage, underground and aboveground storage tanks, solid waste, special waste, and hazardous waste, and PCBs.
- e) An analysis of the site inspection.
- f) A summary of the findings regarding any environmental concerns. This will include



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IDOT's per Memo 66-10 and identification of Potentially Impacted Properties (PIPs) per Subpart F, Section 1100, 35 IAC, related to Clean Construction Demolition Debris management.

Upon completion of the PESA a PSI will be performed.

#### *Soil Borings and Sampling*

Refer to Huff and Huff's scope of work for a detailed scope.

#### *Analytical*

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

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

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

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

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

#### *PSI Report Preparation*

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

#### *CCDD (LPC-Form) Documentation*

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



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separate form for each area to account for this currently unknown situation. The results of the samples will be submitted to the CCDD facilities for “pre-certification” prior to letting. The “pre-certification” letters will be placed in the special provisions. Thelen will be included in the facilities contacted.

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

*Refer to the attached scope of work with fee proposal from Huff and Huff for their contribution to this task.*

Wetland Delineation & Environmental Coordination: BLA will perform a wetland delineation of the project site using methodology outlined in the Regional Supplement of 2010 Corps of Engineers Wetland Delineation Manual. The delineation will be completed based on conditions found during the field visit, soil maps, Lake County Wetland Map, National Wetlands Inventory and the U.S. Army Corps of Engineers (USACE) Routine On-Site new Data Forms. BLA will coordinate with IDNR with the Natural Resources Review Consultation based on the Illinois Natural Heritage Database (INHD). Also during the site visit, the wetlands' generalized quality ratings, according to Swink and Wilhelm (1994), plant community quality will be assessed and the limits of the wetland will be flagged. Finally, during the site visit, wildlife and plant community qualities will be assessed.

The results of the field investigation will be summarized in a letter report. The wetlands floristic inventory, index values and quality rating will be included along with exhibits depicting wetland boundaries, project boundary, National Wetland Inventory, Soil Survey, Flood Insurance Rate Map, Lake County Wetland Map, NRCS wetland mapping, floodplain, USGS topography, site photographs and their locations and the U.S. Army Corps of Engineers (USACE) Routine On-Site New Data Forms. This information will be compiled in a format, which can be used as part of a COE Joint Application package. The delineation will be field surveyed and the survey will be used as our base wetland boundary map.

An investigation of the project site will be completed to determine the limits of the wetlands present and flagged. The wetland delineation will be completed based on the methodology established by the USACE/Lake County Regulations. Also during the site visit, wildlife and plant community qualities will be assessed. The limits of the wetland community will be field staked/flagged so that they can be located in relation to the project coordinate system. The limits of the wetland delineation are shown in an exhibit below. The survey of wetland flags will be included in this investigation.

An Illinois Department of Natural Resources (IDNR) ECOCAT consultation shall be filed to determine the presence of any threatened or endangered species.

A consultation letter shall also be sent to the Illinois Historic Preservation Agency (IHPA) for presence of any state historical properties.

Wetland Delineation and Environmental coordination under the Phase I task includes Buffalo



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Grove Road as well as the temporary, interim and or if determined feasible by LCDOT and IDOT permanent condition improvements.

Section 4(f) coordination and processing is anticipated with the Buffalo Grove Road project. The Vernon Township owns and operates Prairie View Park located within the project limits. If any impacts to the property are required due to the roadway widening then the Section 4(f) process will be required. It is anticipated that the determination of the impact will be de minimis and not adversely affect the property. This will not require the analysis of feasible and prudent avoidance alternatives. The FHWA will ultimately decide on the determination of impact

Plat of Highways: This task will include providing Plat(s) of Highway and Legal Descriptions for any potential land acquisition requirements. It is not known the exact number of parcels that will be affected at this time so we are assuming up to thirty (30) parcels will be impacted as a result of the proposed widening. Also included is the preparation of a Plat for the intersection of Buffalo Grove Road at Port Clinton East if the County desires to clean up the right of way at this location. This task shall consist of following all State & Lake County requirements for land acquisition, title research, and setting of right-of-way monuments should permanent right-of-way be required.

*Refer to the attached detailed scope with fee proposal from Jorgensen Associates for this task*

Railroad Coordination: Working with LCDOT to lead the coordination of the project with the Wisconsin Central LTD. (Canadian National Railway) is a key aspect to the project. Meetings will be necessary for this coordination and are indicated below in the *Agency Involvement & Meetings* scope of work. Review of pedestrian crossings and determination of the desired span of pedestrian gate for the sidewalk and multi-use trail crossing will be performed along with the review of the current track width to determine if lengthen the crossing is necessary. As part of the coordination a railroad coordination exhibit similar to an IDS will be developed as well as a railroad report to determine the signal preemption time for the crossing. Review track and signal work cost participation prepared by the railroad will be performed. Also, included is the support of LCDOT with the preparation and review of necessary agreements.

*Refer to the attached scope of work with fee proposal from TranSystems for their contribution to this task.*



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**Plan Preparation and Contract Documents:**

**Title Sheet:** BLA will prepare the title sheet according to the Lake County Division of Transportation standards as directed by the Lake County Division of Transportation (LCDOT). Mylar will be submitted to the Lake County Engineer.

**Pavement Design:** A proposed pavement design will be conducted for Buffalo Grove Road using IDOT Bureau of Local Roads and Streets criteria and the County spreadsheet. The proposed pavement design will be provided in the plans on the cover sheet or the typical section sheets meeting LCDOT requirements. This will be coordinated during the design phase.

**Typical Sections:** The typical section sheets will be prepared which will include existing and proposed typical sections for Buffalo Grove Road and associated side streets to be improved along with any pavement design mixture requirement charts legend items. We anticipate six (6) existing typical sections and six (6) proposed typical sections at two sections per sheet.

**Alignment, Ties and Benchmarks:** The sheet will include complete alignment with curve data, ties with northing and easting, and benchmarks for the roadway per the alignment determined in preliminary design. The control points will be set in a secure location where they can be recovered and utilized during construction. It is anticipated that alignments of the minor side streets as they can be completed from the Buffalo Grove Road alignment, with the exception of Port Clinton east.

**Notes, Index and Standards:** The sheet will include a list of applicable highway standards; Lake County DOT standards; IDOT District 1 standards; general notes (IDOT, LCDOT and utilities), list of commitments and index of all plan sheets.

**Summary of Quantities:** BLA will prepare the sheets including construction and funding code breakdowns for potential Federal/State/County/Other Participating Entity cost share, the quantity calculations/take off for each pay items and preparation of quantity books for delivery to the County. The Summary of Quantities sheets will follow the LCDOT standard format.

**Schedule of Quantities:** These sheets will have all pay items except lump sum and estimated items scheduled according to plan location per LCDOT plan preparation requirements and will help locate quantities. The earthwork schedule will be comprehensive and list all assumptions so that excess, borrow, pavement removal, and unsuitable quantities are clearly calculated and shown.

**Removal Plan:** The removal plan will be prepared for the geometry for the length of the project to take into account the existing features (existing roadway pavement, existing sidewalk, storm sewer, trees, etc.) which will be removed as a result of the improvements. The removal plans will have two panel views per sheet. These will be prepared at 1"=20' scale.

**Maintenance of Traffic (MOT):** A concept Maintenance of traffic plan will be prepared for the project with a brief concept write up. This will be submitted to LCDOT for approval. Upon approval plans will be prepared for proposed traffic staging. At least two stages of Buffalo Grove Road reconstruction / widening is estimated at this time with sub-stages as needed. The various MOT stage typical sections sheet, MOT general notes, Sequence of operations and MOT sign



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legend sheets will be provided. AutoTurn movements will be performed per stage to ensure the construction zones can adequately accommodate vehicle movements. When applicable, side road detours will be implemented and plan sheets will be prepared. These will be prepared at 1"=50' scale, double panel views.

*Refer to the attached scope of work with fee proposal from TranSystems for their contribution to this task.*

Plan and Profile / Drainage and Utility / Drainage Tables: The plans will be prepared utilizing the BDE manual chapters 63-66. All the plans will be prepared at a 1:20 scale. The roadway plans with existing roadway topography and proposed improvements will be shown in plan view and dimensioned accordingly; existing and proposed roadway stations and elevations will be shown in the profile view. When necessary, BLA will also prepare plan and profile sheets for side roads.

The plans will also indicate all existing and proposed drainage system improvements along with all existing utilities. Water main(s) and sanitary sewer(s) present along Buffalo Grove Road will be checked for cover compliance; it is anticipated that water main or sanitary sewer adjustments or relocations are necessary. A conflict list will be prepared with the watermain and sanitary impacts and provided to the Village to have the facilities designed and relocated under a separate contract with the Engineer they desire. Temporary drainage, if any, will be included on the staging plans. If detention is to be stored in basins, all detention basins will have independent sheets if the limits extend beyond the viewable sheet limits. Storm sewer restrictor details will be included on individual detail sheets.

The sheets will include all the drainage structures and pipes detail in the form of table layout. Per LCDOT requirements individual table layouts will be provided on each drainage sheet covering the pipes and structures that appear on that sheet.

Landscaping and Pavement Marking Plans: BLA will prepare restoration plans which depict areas of proposed seeding / sodding as part of the impacts resulting from the improvement as well as tree replacement. Formal and elaborate landscaping designs are not anticipated to be part of this scope of work. However, if a basin is deemed feasible / necessary at Port Clinton and Buffalo Grove Road, then native vegetation plantings will be installed, and included in the scope. These shall be prepared at 1"=20' scale.

The plan will illustrate the striping for Buffalo Grove Road and appropriate side streets. The pavement marking schedules (as well as raised or recessed reflective marking schedules) will be prepared. Two panel views per sheet will be prepared for this project at 1"=20' scale. The signage plan will be completed by the LCDOT Sign Shop and are not included.

Erosion Control Plans and Details: BLA will prepare permanent and temporary erosion control plans for the roadway during the multiple stages of construction and the compensatory storage area. BLA will prepare the detail sheets for the McHenry-Lake Soil Water Conservation District permit and the NPDES-SWPPP permit. Special attention will be paid to the wetland discharge points in the development of the best management practices. The sheet format will follow the Maintenance of Traffic layout. LCDOT, IDOT, and project specific details will be incorporated



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into the Erosion Control plans under the scope of this task. These will be prepared at 1"=50' scale, double panel view, per stage corresponding to the Maintenance of Traffic plans.

Grading Plan: BLA will prepare the grading plan to provide the final grading contours for the detention basins and compensatory storage areas as well as any special ditch grading.

Intersection Jointing Plan: Intersection jointing plans will be prepared for each intersection and the adjacent turn lanes and storage bays. These plans will indicate joint spacing, dimensions, elevations, saw-cut locations, separation joints, etc. These shall be prepared at 1"=10' scale or 1"=20' scale (for larger intersections).

ADA Plan: BLA will prepare ADA plan sheets for all pedestrian roadway crossings within the project limits. The plan sheets will be formatted per the LCDOT standard and incorporate grades, slopes, stationing offset, northing and easting, all detectable warning panels specified. Detectable warning panel installation will be clearly labeled to enable field layout including panel sizes, radii (if applicable) and dimensions as appropriate.

Also included under this task is the preparation and detail of all individual driveways indicating slopes, dimensions, breakpoints, etc.

Traffic Signal Plans: Included in the scope of work is the preparation of traffic signal plans at the intersection of Buffalo Grove Road and Port Clinton Road and the intersections of Buffalo Grove Road and Main Street and Buffalo Grove Road at US Route 45. This shall consist of temporary signal sheets, temporary cable sheets, proposed signal sheets, proposed cable sheets, street name sign sheets, temporary and permanent interconnect sheets, interconnect schematic sheet and one summary of signal quantity sheets. Scope will also include coordination with IDOT's signal department for review & obtaining all interconnect information pertaining to that system. LCDOT traffic signal details will be utilized.

Traffic signal plans will include additional fiber and schematic diagrams in the plan set. These sheets will be provided from the LCDOT PASSAGE consultant.

*Refer to the attached scope of work with fee proposal from TranSystems for their contribution to this task*

Railroad Crossing Plan: Plans will be prepared for the Buffalo Grove Road railroad crossing. These plans will indicate specific geometrics, details, equipment, etc necessary for the crossing design as developed in Phase I. The Phase I plans that were developed and expediated will be detailed in Phase II to include in the contract plans.

*Refer to the attached scope of work with fee proposal from TranSystems for their contribution to this task*

Lighting Plan: Plans will be prepared for the removal of the Village of Buffalo Groves existing roadway lighting and replace with beacon lighting at the intersections. Full photometrics with a full lighting plan are not included. The photometrics will include one design for beacon lighting at





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the intersections only. The intersection of Buffalo Grove Road and IL Route 22 or Buffalo Grove Road at US Route 45 is not included. The existing combination signal / lighting at the Port Clinton Road will require new lighting with the exception of the east leg where the poles / lighting will be relocated. LCDOT review is included for the photometrics and lighting plans. An IDOT review is not included.

*Refer to the Lighting scope of work with fee proposal from AMES Engineering attached.*

Cross Sections: The cross section sheets will have a full cross section every 50 feet and as well as at all accesses/driveways and roadway cross culverts. They will show the existing and proposed roadway, existing and proposed utilities, cut and fill, unsuitable material per construction stage, etc. at 10-scale horizontal and 5-scale vertical. For accesses/driveways at even (+00 or +50) stations, full sections will be cut and analyzed. The cross section will also show the centerline, PGL and edge of pavement call outs with elevations as well as any land acquisition required for the project. Cross sections for the compensatory storage area will also be performed under this scope of work.

District One Details / IDOT Highway Standards: When a LCDOT standard or detail is not available BLA will utilize IDOT district details as needed and include them in the plans.

Consultant/County Details: BLA anticipates the details for construction entrances, approaches, special drainage connections, structure details, median channelization, etc. as well as incorporation and any special modifications to Lake County DOT standard details.

Specifications & Special Provisions: Detailed project specifications and special provisions will be prepared for the roadway, traffic signal(s), storm sewer, BMPs, and structural items as well as job-specific special provisions written or obtained and the contract documents will include them for the Preliminary, Pre-final and Final submittal. The special provisions will include all applicable LCDOT and IDOT specifications, check sheets, and front-end documents required to facilitate a local letting. Format, content, and order of the specification documents will be as per the LCDOT requirements.

*Refer to the attached scope of work with fee proposal from TranSystems for their contribution to this task*

Estimate of Time: The form will be prepared and updated for the Prefinal and Final plan submittal.

Estimate of Cost: Detailed estimates of cost will be prepared and provided at the preliminary, prefinal, and final submittals. The forms will be prepared and updated per each submittal and utilize recent unit price results. Breakdowns for the Village of Buffalo Grove, Vernon Hills, and Vernon Township will be included on the Estimate of Costs.

*Refer to the attached scope of work with fee proposal from TranSystems for their contribution to this task*



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Public Involvement: BLA anticipates up to two (2) Open House style public meetings for the proposed project. Work shall include:

- Coordination of meeting location;
- Drone footage and video renderings and animation;
- Preparation of notification letters & newspaper advertisements;
- Preparation of meeting brochure and handouts;
- Preparation of meeting exhibits;
- Attendance at the meeting;
- Meeting minutes summary as well as responding to comments received.

Public opposition to the improvements is not anticipated, and only one public meeting is expected; however two may be required if significant comments warrant changes to the proposed plan.

*Refer to the attached scope of work with fee proposal from TranSystems for their contribution to this task*

Agency Involvement & Meetings: We are proposing the following meetings (28) and agency involvement:

- Consultant & LCDOT
  - Kickoff Meeting (1)
  - Coordination Meetings – Traffic /Safety Studies, Alternative Analysis (4)
- Lake County SMC Pre-Application Meeting (1)
- Village of Buffalo Grove (3)
- Village of Vernon Hills (2)
- Prairie View Park / Vernon Township (1)
- Illinois Department of Transportation (3)
- Railroad Coordination (4)
  - Introduction, signal design, Illinois Commerce Commission, Metra, Wisconsin Central LTD (Canadian National Railway)
- USACE Meeting (1)
- Property Owner Meetings (2)
- Private Utility Company Meetings (2)

*Refer to the attached scope of work with fee proposal from TranSystems for their contribution to this task*

Permits:

- USACOE Joint Permit Application Preparation and Submittal for Regional 404 Permit:  
The required exhibits, specifications, data and project information will be compiled and assembled in a permit application submittal package to the USACOE and to the IEPA for Section 404 of the Clean Water Act compliance. We will coordinate development of documents with the Lake County DOT and submit them for your review in draft form. This task may require meeting with the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Illinois Department of Natural Resources, Lake County and potentially other federal, state and local agencies to coordinate permitting activities. BLA will prepare the Threatened and Endangered Species



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Consultation Act as required in Section 7 of the USACOE Permitting Process in compliance with the U.S. Fish and Wildlife Service. We will also prepare and submit an IDNR Threatened and Endangered Species Agency Action Report. LCDOT currently has credits available. The ledger showing the reduction in credits will be submitted to the ACOE to satisfy the wetland banking. BLA will request a pre-application meeting for the permit and meet with them.

- IEPA 401 Water Quality Certification: The required exhibits, specifications, data and project information will be compiled and assembled in a permit application submittal package to the IEPA to obtain the required 401 Water Quality Certification
- Lake County Stormwater Management Commission Permit Application Preparation and Submittal: The required exhibits, specifications, data and project information will be compiled and assembled in a permit application submittal package to the Lake County SMC for the floodplain impacts, detention, storm sewer design, water quality, erosion control, wetland and threatened and endangered species items.
- IEPA - Stormwater Pollution Prevention Plan (SWPPP): BLA will prepare the SWPPP form BDE 2342 and erosion control and sediment control plan measures for the proposed phase II improvements as it has been required to be prepared to comply with the provisions of the NPDES Permit Number ILR10, by IEPA for the storm water discharges from construction activities in a project with greater than 1 acre disturbances.
- IEPA – Division of Public Water Supplies – Construction Permit: This permit application will be submitted and obtained for the potential Village of Buffalo Grove’s water main adjustments and relocations. Its anticipated that conflicts will occur with the water main and the proposed improvements. BLA will coordinate with the Village of Buffalo Grove regarding the Schedule B requirements.

Utility Coordination: BLA’s sub-consultant will contact the JULIE One-Call System to obtain current utility facilities and atlases and perform the SUE study. BLA will review the permits, check against the drainage facilities, prepare the conflict list, and coordinate with the utilities on their issues with the improvements through the LCDOT. BLA will make submittals to all impacted utility companies and municipalities (Buffalo Grove, Vernon Hills, etc.) with the proposed impacts at the pre-final and final milestone dates. BLA will track the responsiveness of each utility, which has submitted for permit, status of relocation, etc. Coordination will begin early and often. If it appears significant utilities are present and unavoidable, early coordination will occur to facilitate relocation efforts. If utility relocation is necessary, BLA will coordinate with the affected utilities, provide electronic files as needed, and provide a review of the relocation permit(s). Coordination with utilities along US Route 45, if improvements are determined to be implemented into the contract documents is under the US Route 45 Intersection Additional Tasks below.

Bridge Railing Rehabilitation: BLA will perform a site visit and brief inspection of the existing conditions of the railing at the Indian Creek bridge. This inspection will determine if any repairs are necessary, in addition to the removal, sanding, coating, and reinstallation of the railings. Such potential repairs would be to the anchor bolts, plates, railing condition, etc. Upon the inspection, a General Plan sheet for the railing will be provided that will also include typical railing sections. The sheet will include pertinent notes and also be used for assign rail section identifying marks for re-erection of the newly painted sections. The plan will also identify the scope of work required for construction consisting of unbolting the railing sections and having them sent to a



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qualified shop for cleaning and painting (powder coated black), and then reinstalled. The scope of work will include an estimate of cost, specifications, and other necessary documents required for a stand alone letting. This portion of work will be prepared separately from the overall Buffalo Grove Road improvement project and let as a stand alone project.

QC/QA: BLA will perform the QC/QA throughout the project; the detailed QC/QA will be emphasized at the time of the three-milestone submittal and the QC/QA statement will be submitted with each submittal. This effort includes QC/QA oversight for sub-consultants' tasks.

Administration/Management: This task will consist of project startup, scope of work reviews, scheduling, budget control, and contract administration for the project. Also included is the management and coordination of the sub-consultants.

Coordination/Deliverables: Coordination with the local agencies will go through LCDOT. Deliverables to the LCDOT will consist of the Word, Excel, MicroStation and PDF files that comprise the Soils/Geotechnical Report, final plans, specifications and estimates prepared for this project.

Project Deliverables: BLA will provide all above listed items as well as the following per the LCDOT's "Electronic Bid Package Format and Submittal" (attached):

- PDF file of the entire plan set, combined into a single file with appropriate naming designation per the attachment.
- Scanned copy of the cover sheet with the County Engineer's signature and licensed P.E. signature.
- Compiled .pdf file of the final contract book along with individual documents in .PDF format with appropriate naming designation per the attachment.
- Soils report, electronic format, with naming designation per the attachment.
- DVD of all final project digital files (Excel, Word, Microstation .DGN files, etc.).

Land Acquisition and Negotiations: This task will consist of managing and leading the right of way acquisition process. Each parcel along the project that requires property for the improvement will be appraised, negotiated and acquired will be performed on behalf of the County.

*Refer to the Land Acquisition and Negotiation scope of work with fee proposal from Santacruz Land Acquisitions, attached*

Phase III Coordination: The coordination during phase III will be made as needed as per the direction from the County. This also includes the compilation of bid tabs. BLA will review project-specific shop drawings and attend the pre-construction meeting for the Buffalo Grove Road project.

*Refer to the attached scope of work with fee proposal from TranSystems for their contribution to this task*



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**Not Included Scope of Work Items**

- *A FEMA - Letter of Map Revision (LOMR)*
- *Structural Design – Retaining walls, noise walls, box culverts, etc.*

## PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME BLA, Inc  
 PRIME/SUPPLEMENT Buffalo Grove Road  
 Prepared By BLA, Inc

DATE 04/30/20  
 PTB-ITEM# 0

CONTRACT TERM 36 MONTHS  
 START DATE 6/1/2020  
 RAISE DATE 1/1/2021  
 END DATE 5/31/2023

OVERHEAD RATE 124.68%  
 COMPLEXITY FACTOR 0  
 % OF RAISE 3%

### ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	6/1/2020	1/1/2021	7	19.44%
1	1/2/2021	1/1/2022	12	34.33%
2	1/2/2022	1/1/2023	12	35.36%
3	1/2/2023	6/1/2023	5	15.18%

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The total escalation = 4.32%

# PAYROLL RATES

FIRM NAME BLA, Inc DATE 04/30/20  
 PRIME/SUPPLEMENT Buffalo Grove Road  
 PTB-ITEM # 0

ESCALATION FACTOR **4.32%**

*Note: Rates should be capped on the AVG 1 tab as necessary*

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal	\$70.00	\$73.02
Dir.of Prelim Design Service	\$70.00	\$73.02
Dir.of Construction Engineer	\$70.00	\$73.02
Dir.of Structural Engineering	\$70.00	\$73.02
Dir. of Environmental Service	\$54.09	\$56.43
Senior Project Manager	\$65.00	\$67.81
Project Manager	\$54.42	\$56.77
Project Engineer	\$37.04	\$38.64
Design Engineer	\$30.15	\$31.45
Structural Engineer	\$31.30	\$32.65
Senior Marketing Coordinator	\$32.77	\$34.18

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

Bureau of Design and Environment

Prepared By: Consultant

**FIRM**

BLA, Inc

**DATE**

04/30/20

**PTB-ITEM #**

0

**OVERHEAD RATE**

124.68%

**PRIME/SUPPLEMENT**

Buffalo Grove Road

**COMPLEXITY FACTOR**

0

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
	Task 1-Data Collection	124	4,940	6,159	795	1,828		-	13,722	0.69%
	Task 2-Sewer Televising	40	1,600	1,995	19,600	592		-	23,787	1.20%
	Task 3-Topographic Survey	40	1,600	1,995		592		-	4,187	0.21%
	Task 4-Traffic Analysis	120	4,799	5,984		1,776		-	12,559	0.63%
	Task 5-Inter. Design Study	24	1,557	1,941		576		-	4,074	0.21%
	Task 6-Crash Study	80	3,257	4,061		1,205		-	8,523	0.43%
	Task 7-Drainage Study	2020	76,702	95,632	449	28,380		-	201,163	10.13%
	Task 8-NMT Investigation	240	9,599	11,968	388	3,552		-	25,507	1.28%
	Task 9-Pvmt Life Cycle	16	660	823	3	244		-	1,730	0.09%
	Task 10-Geotechnical Inv	36	1,460	1,820		540		-	3,820	0.19%
	Task 11-PESA / PSI	80	3,200	3,989		1,184		-	8,373	0.42%
	Task 12-Wetland & Enviro C	760	29,854	37,222	262	11,046		-	78,384	3.95%
	Task 13-Plat of Highways	40	1,600	1,995		592		-	4,187	0.21%
	Task 14-Railroad Coord.	24	1,521	1,897		563		-	3,981	0.20%
	Task 15-Plan Prep / Con Dc	3218	113,979	142,109		42,172		-	298,260	15.02%
	Task 16-Public Involvement	244	8,593	10,714	698	3,180		-	23,185	1.17%
	Task 17-Agency Inv & Mtg	312	18,714	23,333	5,538	6,924		-	54,509	2.74%
	Task 18-Permits	360	12,555	15,653	130	4,645		-	32,983	1.66%
	Task 19-Utility Coordination	180	6,252	7,795	6,980	2,313		-	23,340	1.18%
	Task 20-Bridge Railing Alt	40	1,605	2,001	65	594		-	4,265	0.21%
	Task 21-QA/QC	180	6,281	7,831	2,040	2,324		-	18,476	0.93%
	Task 22-Admin Managemen	180	6,281	7,831		2,324		-	16,436	0.83%
	Task 23-Coor/Deliverables	40	1,446	1,802	21,600	535		-	25,383	1.28%
	Task 24-Land Acq & Nego	40	1,446	1,802		535		-	3,783	0.19%
	Task 25-Phase III Coord	80	3,653	4,555	66	1,352		-	9,626	0.48%
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			-	-		-		-	-	
	Subconsultant		-	-		-	1,081,554	-	1,081,554	54.46%
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	Subconsultant DL					0			-	
	<b>TOTALS</b>	<b>8518</b>	<b>323,154</b>	<b>402,907</b>	<b>58,614</b>	<b>119,568</b>	<b>1,081,554</b>	<b>-</b>	<b>1,985,797</b>	<b>100.00%</b>

726,061

**DBE 0.00%**



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

Bureau of Design and Environment

Prepared By: Consultant

**FIRM**

BLA, Inc

**DATE**

04/30/20

**PTB-ITEM #**

0

**OVERHEAD RATE**

124.68%

**PRIME/SUPPLEMENT**

Buffalo Grove Road

**COMPLEXITY FACTOR**

0

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
	TranSystems Corp		-	-		-	524,092	-	524,092	48.46%
	HBK Engineering		-	-		-	32,966	-	32,966	3.05%
	Jorgensen & Associates, In		-	-		-	236,298	-	236,298	21.85%
	Santacruz Land Acquisition		-	-		-	196,000	-	196,000	18.12%
	Huff and Huff, Inc		-	-		-	42,018	-	42,018	3.88%
	AMES Engineering		-	-		-	20,906	-	20,906	1.93%
	SEECO Consultants, Inc.		-	-		-	29,274	-	29,274	2.71%
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	<b>Subconsultant DL</b>					0				
	<b>TOTALS</b>	0	-	-	-	-	1,081,554	-	1,081,554	100.00%

0

**DBE 0.00%**

### AVERAGE HOURLY PROJECT RATES

FIRM BLA, Inc  
 PTB-ITEM# 0  
 PRIME/SUPPLEMENT Buffalo Grove Road

DATE 04/30/20

SHEET 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Task 1-Data Collection			Task 2-Sewer Televising			Task 3-Topographic Survey			Task 4-Traffic Analysis			Task 5-Inter. Design Study		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	70.00	0.0																	
Dir.of Prelim Design Service	70.00	260.0	3.05%	2.14	12	9.68%	6.77	4	10.00%	7.00	4	10.00%	7.00	12	10.00%	7.00	8	33.33%	23.33
Dir.of Construction Engineer	70.00	16.0	0.19%	0.13															
Dir.of Structural Engineering	70.00	8.0	0.09%	0.07															
Dir. of Environmental Service	56.43	114.0	1.34%	0.76															
Senior Project Manager	67.81	212.0	2.49%	1.69													8	33.33%	22.60
Project Manager	56.77	558.0	6.55%	3.72	12	9.68%	5.49	4	10.00%	5.68	4	10.00%	5.68	12	10.00%	5.68	8	33.33%	18.92
Project Engineer	38.64	2,662.0	31.25%	12.08	38	30.65%	11.84	12	30.00%	11.59	12	30.00%	11.59	36	30.00%	11.59			
Design Engineer	31.45	4,494.0	52.76%	16.59	62	50.00%	15.73	20	50.00%	15.73	20	50.00%	15.73	60	50.00%	15.73			
Structural Engineer	32.65	32.0	0.38%	0.12															
Senior Marketing Coordinatd	34.18	162.0	1.90%	0.65															
		0.0																	
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<b>TOTALS</b>		8518.0	100%	\$37.94	124.0	100.00%	\$39.84	40.0	100%	\$39.99	40.0	100%	\$39.99	120.0	100%	\$39.99	24.0	100%	\$64.86

### AVERAGE HOURLY PROJECT RATES

FIRM BLA, Inc  
 PTB-ITEM# 0  
 PRIME/SUPPLEMENT Buffalo Grove Road

DATE 04/30/20

SHEET 2 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Task 6-Crash Study			Task 7-Drainage Study			Task 8-NMT Investigation			Task 9-Pvmt Life Cycle			Task 10-Geotechnical Inv			Task 11-PESA / PSI		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	70.00																		
Dir.of Prelim Design Service	70.00	8	10.00%	7.00	60	2.97%	2.08	24	10.00%	7.00	2	12.50%	8.75	4	11.11%	7.78	8	10.00%	7.00
Dir.of Construction Engineer	70.00																		
Dir.of Structural Engineering	70.00																		
Dir. of Environmental Servic	56.43																		
Senior Project Manager	67.81				80	3.96%	2.69												
Project Manager	56.77	8	10.00%	5.68	80	3.96%	2.25	24	10.00%	5.68	2	12.50%	7.10	4	11.11%	6.31	8	10.00%	5.68
Project Engineer	38.64	32	40.00%	15.46	824	40.79%	15.76	72	30.00%	11.59	4	25.00%	9.66	10	27.78%	10.73	24	30.00%	11.59
Design Engineer	31.45	32	40.00%	12.58	976	48.32%	15.20	120	50.00%	15.73	8	50.00%	15.73	18	50.00%	15.73	40	50.00%	15.73
Structural Engineer	32.65																		
Senior Marketing Coordinat	34.18																		
<b>TOTALS</b>		80.0	100%	\$40.71	2020.0	100%	\$37.97	240.0	100%	\$39.99	16.0	100%	\$41.23	36.0	100%	\$40.54	80.0	100%	\$39.99

### AVERAGE HOURLY PROJECT RATES

FIRM BLA, Inc  
 PTB-ITEM# 0  
 PRIME/SUPPLEMENT Buffalo Grove Road

DATE 04/30/20

SHEET 3 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Task 12-Wetland & Enviro Coc			Task 13-Plat of Highways			Task 14-Railroad Coord.			Task 15-Plan Prep / Con Doc			Task 16-Public Involvement			Task 17-Agency Inv & Mtg		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	70.00																		
Dir.of Prelim Design Service	70.00	38	5.00%	3.50	4	10.00%	7.00	12	50.00%	35.00							60	19.23%	13.46
Dir.of Construction Engineer	70.00																		
Dir.of Structural Engineering	70.00																		
Dir. of Environmental Servic	56.43	114	15.00%	8.46															
Senior Project Manager	67.81																124	39.74%	26.95
Project Manager	56.77				4	10.00%	5.68	12	50.00%	28.38	234	7.27%	4.13	12	4.92%	2.79	64	20.51%	11.65
Project Engineer	38.64	228	30.00%	11.59	12	30.00%	11.59				952	29.58%	11.43	24	9.84%	3.80	64	20.51%	7.93
Design Engineer	31.45	380	50.00%	15.73	20	50.00%	15.73				2032	63.14%	19.86	46	18.85%	5.93			
Structural Engineer	32.65																		
Senior Marketing Coordinat	34.18													162	66.39%	22.70			
<b>TOTALS</b>		760.0	100%	\$39.28	40.0	100%	\$39.99	24.0	100%	\$63.38	3218.0	100%	\$35.42	244.0	100%	\$35.22	312.0	100%	\$59.98

### AVERAGE HOURLY PROJECT RATES

**FIRM** BLA, Inc  
**PTB-ITEM#** 0  
**PRIME/SUPPLEMENT** Buffalo Grove Road

**DATE** 04/30/20

**SHEET** 4 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Task 18-Permits			Task 19-Utility Coordination			Task 20-Bridge Railing Alt			Task 21-QA/QC			Task 22-Admin Management			Task 23-Coor/Deliverables		
		Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg
Principal	70.00																		
Dir.of Prelim Design Service	70.00																		
Dir.of Construction Engineer	70.00																		
Dir.of Structural Engineering	70.00							8	20.00%	14.00									
Dir. of Environmental Servic	56.43																		
Senior Project Manager	67.81																		
Project Manager	56.77	18	5.00%	2.84	8	4.44%	2.52				8	4.44%	2.52	8	4.44%	2.52	4	10.00%	5.68
Project Engineer	38.64	108	30.00%	11.59	54	30.00%	11.59				58	32.22%	12.45	58	32.22%	12.45	12	30.00%	11.59
Design Engineer	31.45	234	65.00%	20.44	118	65.56%	20.62				114	63.33%	19.92	114	63.33%	19.92	24	60.00%	18.87
Structural Engineer	32.65							32	80.00%	26.12									
Senior Marketing Coordinat	34.18																		
<b>TOTALS</b>		360.0	100%	\$34.87	180.0	100%	\$34.73	40.0	100%	\$40.12	180.0	100%	\$34.89	180.0	100%	\$34.89	40.0	100%	\$36.14

### AVERAGE HOURLY PROJECT RATES

**FIRM** BLA, Inc  
**PTB-ITEM#** 0  
**PRIME/SUPPLEMENT** Buffalo Grove Road

**DATE** 04/30/20

**SHEET** 5 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Task 24-Land Acq & Nego			Task 25-Phase III Coor									Subconsultant					
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	70.00																		
Dir.of Prelim Design Service	70.00																		
Dir.of Construction Engineer	70.00				16	20.00%	14.00												
Dir.of Structural Engineering	70.00																		
Dir. of Environmental Servic	56.43																		
Senior Project Manager	67.81																		
Project Manager	56.77	4	10.00%	5.68	16	20.00%	11.35												
Project Engineer	38.64	12	30.00%	11.59	16	20.00%	7.73												
Design Engineer	31.45	24	60.00%	18.87	32	40.00%	12.58												
Structural Engineer	32.65																		
Senior Marketing Coordinat	34.18																		
<b>TOTALS</b>		40.0	100%	\$36.14	80.0	100%	\$45.66	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00

**BLA, INC****BUFFALO GROVE ROAD****PRELIMINARY DESIGN MANHOURS**

<u>Task and Description</u>	<u>Total Manhours</u>
<b>Task 1 - Data Collection and Review</b>	
<i>Obtain and Review existing GIS Data, Records, Maps, Ex. BGR Reports</i>	48
<i>Village record coordination</i>	12
<i>Prepare Photograph Log / Photo Log Site Visit (1): 2 people x 8 hours</i>	24
<i>Data Collection / Observation Site Visits (2): 2 people x 8 hours x 2 visits</i>	32
<i>Level B SUE Coordination</i>	8
<i>(See attached sub-consultants hours for Level B Sue - HBK)</i>	
<b>Subtotal:</b>	<b>124</b>
<b>Task 2 - Sewer Televising</b>	
<i>Televising Coordination, Analysis and Review</i>	40
<i>Light Cleaning and Televising: 5 days @ 3,320/ 8 hr day = \$16,600</i>	
<i>Heavy Cleaning: 8 hours @ \$375 / hour = \$3,000</i>	
<b>Subtotal:</b>	<b>40</b>
<b>Task 3 - Topographic Survey</b>	
<i>Survey Coordination and Review</i>	40
<i>(See attached sub-consultants hours for Survey - Jorgensen Associates)</i>	
<b>Subtotal:</b>	<b>40</b>
<b>Task 4 - Traffic Analysis</b>	
<i>Traffic Analysis Coordination, Exhibits, Review</i>	120
<i>(See attached sub-consultant hours for Traffic Analysis - TranSystems)</i>	
<b>Subtotal:</b>	<b>120</b>
<b>Task 5 - Intersection Design Study</b>	
<i>IDS Coordination, Exhibits, Review</i>	24
<i>(See attached sub-consultant hours for IDS - TranSystems)</i>	
<b>Subtotal:</b>	<b>24</b>
<b>Task 6 - Crash Study</b>	
<i>Crash Study Coordination, Exhibits, Review</i>	80
<b>Subtotal:</b>	<b>80</b>
<b>Task 7 - Drainage Study, Calculations &amp; Design</b>	
<i>Hydraulic Analysis Model / TR-20 Outlet Analysis / Restrictor Design</i>	240
<i>Detention Determination and Design (Basin vs Inline)</i>	280
<i>Storm Sewer Design and Calculations</i>	520
<i>Abbreviated Location Drainage Study</i>	500
<i>Floodplain Impacts / Compensatory Storage</i>	280
<i>NW Corner of Prairie Road / Port Clinton Investigation</i>	100
<i>23880 Buffalo Grove Road Investigation</i>	100
<b>Subtotal:</b>	<b>2020</b>
<b>Task 8 - Non-Motorized Travel Investigation</b>	
<i>Investigation of new NMT Facilities(Cost Estimate, Exhibits, Memo)</i>	240
<b>Subtotal:</b>	<b>240</b>
<b>Task 9 - Pavement Life Cycle Analysis</b>	
<i>Concrete vs Asphalt Pavement Analysis</i>	16
<b>Subtotal:</b>	<b>16</b>
<b>Task 10 - Geotechnical Investigation</b>	
<i>Geotechnical Coordination</i>	36
<i>(See attached sub-consultants hours for Geotechnical - SEECO)</i>	
<b>Subtotal:</b>	<b>36</b>
<b>Task 11 - PESA / PSI</b>	
<i>PESA / PSI Coordination</i>	80
<i>(See attached sub-consultants hours for PESA / PSI - Huff and Huff)</i>	
<b>Subtotal:</b>	<b>80</b>

<b>Task 12 - Wetland Delineation &amp; Environmental Coordination</b>	
<i>Wetland Delineation / Wetland Report</i>	320
<i>Environmental Coordination - ECOCAT / IHPA / US Fish and Wildlife</i>	160
<i>Wetland Impact Evaluation</i>	240
<i>Section 4(f)</i>	40
<b>Subtotal:</b>	<b>760</b>
<b>Task 13 - Plat of Highways</b>	
<i>Plat of Highway Coordination</i>	40
<i>(See attached sub-consultants hours for Plat of Highways - Jorgensen Associates)</i>	
<b>Subtotal:</b>	<b>40</b>
<b>Task 14 - Railroad Coordination</b>	
<i>Prelim Agreement Support, Grade Crossing Const Agreement, ICC Petition</i>	24
<i>(See sub-consultants hours for Railroad Coordination - TranSystems)</i>	
<b>Subtotal:</b>	<b>24</b>



**BLA, INC**  
**BUFFALO GROVE ROAD**  
**FINAL DESIGN MANHOURS**

<b>Task and Description</b>	<b>Number of Sheets</b>	<b>Hours per Sheets</b>	<b>Total Manhours</b>
<b>Task 15 - Plan Preparation / Contract Documents</b>			
Title Sheet	1	6	6
Typical Sections / Pavement Design	6	12	72
Alignment, Ties, and Benchmarks	3	8	24
Notes, Index, and Standards	2	6	12
Summary of Quantities	5	24	120
Schedule of Quantities	10	20	200
Removal Plan (20 scale: 7000 feet at 500 feet per sht=14 sht / 2 views)	7	24	168
Maintenance of Traffic (MOT): TRANSYSTEMS (BLA's Hours for Coordination, Review, Inclusion)			80
Plan and Profile / Drainage and Utility / Drainage Tables	14	36	504
Landscaping and Pavement Marking Plan (20 scale: 7000 feet at 500 per sht=14 sht / 2 views)	7	16	112
Erosion Control Plans and Details	32	12	384
Grading Plan	3	24	72
Intersection Jointing Plan			240
ADA Plan (40 ramps + 5 driveways = 45 Details: 4 hours per detail = 180)			180
Traffic Signal Plans: TRANSYSTEMS (BLA's Hours for Coordination, Review and Inclusion)			120
Railroad Crossing Plan: TRANSYSTEMS (BLA's Hours for Coordination, Review and Inclusion)			60
Lighting Plans: AMES ENGINEERING (BLA's Hours for Coordination, Review and Inclusion)			20
Cross Sections (7000 ft / 50 foot sec=140 sec + 18 sideroads/driveways = 158 sec @ 3 hours per sec)			474
District One Details / IDOT Highway Standards	5	6	30
Consultant / County Details	10	4	40
Specifications & Special Provisions			100
Estimate of Time			80
Estimate of Cost			120
<b>Subtotal:</b>			<b>3218</b>
<b>Task 16 - Public Involvement</b>			
Open House Meeting (2 meeting x 3 attendees x 4 hours)			24
Meeting Preparation - notifications, brochures, exhibits, etc)			220
Drone Footage and video rendering (TRANSYSTEMS)			
(Refer to TRANSYSTEMS scope / fee proposal for their public involvement breakdown)			
<b>Subtotal:</b>			<b>244</b>
<b>Task 17 - Agency Involvement &amp; Meetings</b>			
Consultant & LCDOT (5 meeting x 2 attendees x 4 hours)			40
Lake County SMC Pre-Application (1 meeting x 2 attendees x 4 hours)			8
Village of Buffalo Grove (3 meeting x 2 attendees x 4 hours)			24
Village of Vernon Hills (2 meeting x 2 attendees x 4 hours)			16
Prairie View Park / Vernon Township (1 meeting x 2 attendees x 4 hours)			8
IDOT (3 meeting x 2 attendees x 4 hours)			24
Railroad (4 meeting x 2 attendees x 4 hours)			32
USACE (1 meeting x 2 attendees x 4 hours)			8
Property Owner (2 meeting x 2 attendees x 4 hours)			16
Private Utility (2 meeting x 2 attendees x 4 hours)			16
Preparation per meeting (exhibits, minutes, etc.: 4 hours per meeting x 28 meetings)			120
(Refer to TRANSYSTEMS scope / fee proposal for their agency involvement breakdown)			
<b>Subtotal:</b>			<b>312</b>
<b>Task 18 - Permits</b>			
Army Corps Joint Permit Application Submittal			80
IEPA 401 Water Quality Certification			80
Lake County SMC Permit Application			80
IEPA - SWPPP			40
IEPA Watermain Permit			80
<b>Subtotal:</b>			<b>360</b>
<b>Task 19 - Utility Coordination</b>			
Utility Tracking, Permit Plan Review, Conflict Analysis, submittals			180
<b>Subtotal:</b>			<b>180</b>
<b>Task 20 - Bridge Railing Rehabilitation</b>			
Site Visit, Inspection			8
Bridge Railing Sheets			32
<b>Subtotal:</b>			<b>40</b>
<b>Task 21 - QA/QC</b>			
Internal QA/QC and subconsultant QA/QC (4 %)			180
<b>Subtotal:</b>			<b>180</b>
<b>Task 22 - Administration Management</b>			
scheduling, budget control, contract administration (4%)			180
<b>Subtotal:</b>			<b>180</b>
<b>Task 23 - Coordination / Deliverables / Project Deliverables</b>			
Compile and Review Deliverables, internal and subconsultants			40
<b>Subtotal:</b>			<b>40</b>
<b>Task 24 - Land Acquisition and Negotiations</b>			
Appraisals, negotiations, acquisition Coordination			40
(See sub-consultants hours for Land Acq. And Negotiations - SantaCruz)			
<b>Subtotal:</b>			<b>40</b>
<b>Task 25 - Phase III Coordination</b>			
Compile Bid Tabs, attend pre-con meeting, shop drawing review, RFI			80
<b>Subtotal:</b>			<b>80</b>
<b>Total</b>			<b>8518</b>

**BLA, INC****BUFFALO GROVE ROAD****DIRECT COST**

<u>Task and Description</u>	<u>Sheets</u>	<u>Sets</u>	<u>Rate</u>	<u>Extended Cost</u>
<b>Task 1 - Data Collection and Review</b>				
<i>Exhibits (8.5x11 Color)</i>	10	3	\$0.12	\$3.60
<i>Exhibits (11x17 Color)</i>	10	3	\$0.12	\$3.60
<i>Exhibits (22x34 Color)</i>	10	3	\$13.00	\$390.00
<i>Document Acquisition</i>	1	1	\$200.00	\$200.00
<i>Photograph Log (8.5x11 Color)</i>	10	2	\$0.12	\$2.40
<i>Vehicle Days</i>		3	\$65.00	\$195.00
			<b>Subtotal:</b>	\$794.60
<b>Task 2 - Sewer Televising (American Underground)</b>				
<i>Light Cleaning and Televising: 5 days @ \$3,3/ 8 hr day = \$16,600</i>				\$16,600.00
<i>Heavy Cleaning: 8 hours @ \$375 / hr = \$3,000</i>				\$3,000.00
			<b>Subtotal:</b>	\$19,600.00
<b>Task 3 - Topographic Survey</b>				
<i>(No Direct Cost - Included in Subconsultant's Cost)</i>	---	---	---	---
			<b>Subtotal:</b>	---
<b>Task 4 - Traffic Analysis</b>				
<i>(No Direct Cost - Included in Subconsultant's Cost)</i>	---	---	---	---
			<b>Subtotal:</b>	---
<b>Task 5 - Intersection Design Study</b>				
<i>(No Direct Cost - Included in Subconsultant's Cost)</i>	---	---	---	---
			<b>Subtotal:</b>	---
<b>Task 6 - Crash Study</b>				
<i>(No Direct Cost - Included in Subconsultant's Cost)</i>	---	---	---	---
			<b>Subtotal:</b>	---
<b>Task 7 - Drainage Study, Calculations, &amp; Design</b>				
<i>Forms and Calculations (8.5x11 BW)</i>	50	3	\$0.05	\$7.50
<i>Drainage (LDS) Report (8.5x11 BW)</i>	150	3	\$0.05	\$22.50
<i>Exhibits (22x34 Color)</i>	10	3	\$13.00	\$390.00
<i>Exhibits (11x17 Color)</i>	20	3	\$0.12	\$7.20
<i>Exhibits (8.5x11 Color)</i>	20	3	\$0.12	\$7.20
<i>Misc. Materials &amp; Bindings</i>		3	\$4.75	\$14.25
			<b>Subtotal:</b>	\$448.65
<b>Task 8 - Non-Motorized Travel Investigation</b>				
<i>Memo, Exhibits, EOC (8.5x11 Color)</i>	100	5	\$0.12	\$60.00
<i>Geometric / Layout Exhibits (11x17 Color)</i>	5	5	\$0.12	\$3.00
<i>Geometric / Layout Exhibits (22x34 Color)</i>	5	5	\$13.00	\$325.00
			<b>Subtotal:</b>	\$388.00

<b>Task 9 - Pavement Life Cycle Analysis</b>				
<i>Narrative (8.5x11 BW)</i>	5	3	\$0.05	\$0.75
<i>Exhibits (11x17 BW)</i>	5	3	\$0.05	\$0.75
<i>Exhibits (11x17 Color)</i>	5	3	\$0.12	\$1.80
			<b>Subtotal:</b>	\$3.30
<b>Task 10 - Geotechnical Investigation</b>				
<i>(No Direct Cost - Included in Coordination / Deliverables / Project Deliverables)</i>	---	---	---	---
			<b>Subtotal:</b>	---
<b>Task 11 - PESA/PSI</b>				
<i>(No Direct Cost - Included in Subconsultant's Cost)</i>	---	---	---	---
			<b>Subtotal:</b>	---
<b>Task 12 - Wetland Delineation &amp; Environmental Coordination</b>				
<i>Wetland Delineation and Report (11x17 Color)</i>	25	3	\$0.12	\$9.00
<i>Wetland Delineation and Report (8.5x11 Color)</i>	100	3	\$0.12	\$36.00
<i>Wetland Delineation and Report (8.5x11 BW)</i>	100	3	\$0.05	\$15.00
<i>Wetland Impact Evaluation (11x17 Color)</i>	10	3	\$0.12	\$3.60
<i>Wetland Impact Evaluation (8.5x11 Color)</i>	10	3	\$0.12	\$3.60
<i>Vehicle Days</i>		3	\$65.00	\$195.00
			<b>Subtotal:</b>	\$262.20
<b>Task 13 - Plat of Highways</b>				
<i>(No Direct Cost - Included in Subconsultant's Cost)</i>	---	---	---	---
			<b>Subtotal:</b>	---
<b>Task 14 - Railroad Coordination</b>				
<i>(No Direct Cost - Included in Subconsultant's Cost)</i>	---	---	---	---
			<b>Subtotal:</b>	---
<b>Task 15 - Plan Preparation / Contract Documents</b>				
<i>(No Direct Cost - Included in Coordination / Deliverables / Project Deliverables)</i>	---	---	---	---
			<b>Subtotal:</b>	---
<b>Task 16 - Public Involvement</b>				
<i>Agendas, Advertisement, Handouts, Minutes, etc. (8.5x11 Color)</i>	200	2	\$0.12	\$48.00
<i>Exhibits (22x34 Color)</i>	20	2	\$13.00	\$520.00
<i>Vehicle Days</i>		2	\$65.00	\$130.00
			<b>Subtotal:</b>	\$698.00
<b>Task 17 - Agency Involvement &amp; Meetings</b>				
<i>Agendas, Handouts, Minutes, etc. (8.5x11 Color)</i>	20	28	\$0.05	\$28.00
<i>Exhibits (11x17 Color)</i>	15	28	\$0.12	\$50.40
<i>Exhibits (22x34 Color)</i>	10	28	\$13.00	\$3,640.00
<i>Vehicle Days</i>		28	\$65.00	\$1,820.00
			<b>Subtotal:</b>	\$5,538.40
<b>Task 18 - Permits</b>				
<i>Army Corps (11x17 Color)</i>	20	6	\$0.12	\$14.40
<i>Army Corps (8.5x11 BW)</i>	100	6	\$0.05	\$30.00
<i>IDNR (11x17 Color)</i>	20	6	\$0.12	\$14.40
<i>IDNR (8.5x11 BW)</i>	20	6	\$0.05	\$6.00
<i>Lake County SMC (11x17 Color)</i>	20	6	\$0.12	\$14.40
<i>Lake County SMC (8.5x11 BW)</i>	100	6	\$0.05	\$30.00
<i>IEPA 401, IEPA Water, IEPA SWPPP (11x17 Color)</i>	20	6	\$0.12	\$14.40
<i>IEPA 401, IEPA Water, IEPA SWPPP (8.5x11 BW)</i>	20	6	\$0.05	\$6.00
			<b>Subtotal:</b>	\$129.60
<b>Task 19 - Utility Coordination</b>				
<i>Agendas, Handouts, Conflict List, Minutes, etc. (8.5x11 Color)</i>	200	10	\$0.12	\$240.00
<i>Exhibits (11x17 Color)</i>	200	10	\$0.12	\$240.00
<i>Exhibits (22x34 Color)</i>	100	5	\$13.00	\$6,500.00
			<b>Subtotal:</b>	\$6,980.00
<b>Task 20 - Bridge Railing Alternative Study / Bridge Railing Sheets</b>				
<i>Vehicle Days (1 Site Inspection)</i>		1	\$65.00	\$65.00
			<b>Subtotal:</b>	\$65.00
<b>Task 21 - QA/QC</b>				
<i>Progress Review Sets (8.5x11 - Black and White)</i>	150	6	\$0.05	\$45.00
<i>Progress Review Sets (11x17 - Black and White)</i>	250	6	\$0.05	\$75.00
<i>Progress Review Sets (22x34 - Black and White)</i>	250	6	\$1.28	\$1,920.00
			<b>Subtotal:</b>	\$2,040.00

<b>Task 22 - Administration Management</b>				
<i>(No Direct Cost)</i>				
	---	---	---	---
			<b>Subtotal:</b>	---
<b>Task 23 - Coordination / Deliverables / Project Deliverables</b>				
<i>Plans, Specifications, Sub's Reports (8.5x11 - Black and White)</i>	1000	10	\$0.05	\$500.00
<i>Plans, Specifications, Sub's Reports (8.5x11 - Color)</i>	500	10	\$0.12	\$600.00
<i>Plans, Specifications, Sub's Reports (11x17 - Black and White)</i>	1000	10	\$0.05	\$500.00
<i>Plans, Specifications, Sub's Reports (11x17 - Color)</i>	500	10	\$0.12	\$600.00
<i>Plans, Specifications, Sub's Reports (22x34 - Black and White)</i>	500	10	\$1.28	\$6,400.00
<i>Plans, Specifications, Sub's Reports (22x34 - Color)</i>	100	10	\$13.00	\$13,000.00
			<b>Subtotal:</b>	\$21,600.00
<b>Task 24 - Land Acquisition and Negotiations</b>				
<i>(No Direct Cost - Included in Subconsultant's Cost)</i>				
	---	---	---	---
			<b>Subtotal:</b>	---
<b>Task 25 - Phase III Coordination</b>				
<i>Bid Tab Compliation (11x17 Color)</i>	5	2	\$0.12	\$1.20
<i>Vehicle Days (1 PreCon)</i>		1	\$65.00	\$65.00
			<b>Subtotal:</b>	\$66.20
<b>Total</b>				<b>\$58,613.95</b>



## TranSystems

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Buffalo Grove Road Reconstruction  
Section No.: 17-00254-03-WR  
April 9, 2020

### **EXHIBIT A - SCOPE OF ENGINEERING SERVICES**

---

This scope of services consists of providing design engineering services for the preparation of contract plans and documents for the reconstruction of Buffalo Grove Road between Illinois Route 22 and U.S. Route 45. The project limits of reconstruction are from a point approximately 550 feet north of IL Route 22 to Indian Creek. North of Indian Creek, Buffalo Grove Road is to be widened and resurfaced to accommodate an additional through lane in each direction at the U.S. Route 45 intersection, a distance of approximately 800 feet. It is assumed that the existing striped pavement adjacent to the corner islands at this intersection will be converted to become the added through lane. Improvements on Fairway Drive (north leg of U.S. Route 45 intersection) are to be limited to the widening and resurfacing required to accommodate an additional through lane at the intersection. Improvements on Fairway Drive are anticipated to extend approximately 700 feet to the intersection with Huron Street.

The following is a summary of the items that are included in the proposed scope of services:

#### **1. Data Collection**

- A. Obtain and review project information from LCDOT and other appropriate agencies: roadway and bikeway plans, development plans, crash reports (5 most recent years), bus routes, heavy vehicle routes, and emergency response routes. Obtain previously completed Intersection Design Studies and other geometric studies from IDOT for the Illinois Route 22 and U.S. Route 45 intersections with Buffalo Grove Road.
- B. Conduct one site visit with the project team to document project features and review existing conditions.

#### **2. Traffic and Safety Analysis**

- A. Collect 24-hour traffic count data, including turning movement counts, for preparation of traffic signal warrant analyses and traffic flow evaluations. Traffic count data will be collected by Gewalt Hamilton Associates (Miovision). Traffic counts are to be conducted on a weekday when school is in session. Efforts will be made to conduct traffic counts when no construction is taking place within the vicinity of the project. Current conditions will likely prohibit these counts from being performed until school is back in session in September



## **Exhibit A – SCOPE OF ENGINEERING SERVICES**

Buffalo Grove Road Reconstruction

Section No.: 17-00254-03-WR

2020. In the interim, TranSystems will rely upon previously collected traffic counts from November 2018 and other historic counts provided by Lake County.

1. Buffalo Grove Road at Main Street
  2. Buffalo Grove Road at Port Clinton Road (East)
  3. U.S. Route 45 at Buffalo Grove Road/Fairway Drive
- B. Evaluate traffic signal warrant analyses
1. Buffalo Grove Road at Main Street
  2. U.S. Route 45 at Buffalo Grove Road/Fairway Drive
- C. Review and update as needed the 2050 DHV and ADT traffic projections from previous Traffic Operations Analysis completed by TranSystems (May 2019). Coordinate with CMAP to obtain concurrence and approval of the existing and 2050 ADT volumes. Coordinate results with LCDOT as needed.
- D. Complete Intersection Design Studies (IDS). Include ADA accommodations on the Intersection Design Studies for each intersection. Prepare design exception forms as needed for LCDOT review. Assume 2 submittals to LCDOT. It is assumed that no IDOT review will be needed for the IDS's except for the U.S. Route 45 and Buffalo Grove Road intersection.
1. Buffalo Grove Road at Main Street
  2. Buffalo Grove Road at Port Clinton Road (East)
  3. U.S. Route 45 at Buffalo Grove Road/Fairway Drive, opening day
  4. U.S. Route 45 at Buffalo Grove Road/Fairway Drive, 2050 traffic

### **3. Project Coordination Meetings**

- A. Lake County Division of Transportation (4 meetings)
1. Kick-off – 1
  2. Traffic/Safety Studies – 1
  3. U.S. Route 45 intersection - 1
  4. Alternative analysis – 1
- B. Illinois Department of Transportation (IDOT) (1 meeting)
- C. Local Agency meetings (2 meetings)
1. Village of Buffalo Grove (1 meeting)
  2. Vernon Township (1 meeting)

### **4. Rail Coordination**

TranSystems team will be responsible for working with the Lake County Division of Transportation to lead and coordinate the project with the Wisconsin Central Ltd. (Canadian National Railway).

## **Exhibit A – SCOPE OF ENGINEERING SERVICES**

Buffalo Grove Road Reconstruction  
Section No.: 17-00254-03-WR

- A. Coordination meetings:
  - 1. Initial project introduction meeting (1 meeting)
  - 2. Signal design coordination (2 meetings)
  - 3. Illinois Commerce Commission (2 meetings)
  - 4. Metra (1 meeting)
- B. Review pedestrian crossings and determine desired span of pedestrian gates for side walk and multi-use trail crossing.
- C. Review current track width at crossing and determine if necessary to lengthen crossing.
- D. Develop railroad coordination exhibit (one page exhibit similar to Intersection Design Study that includes all the recommended improvements).
- E. Develop railroad report to aid in determining required signal preemption time for the crossing.
- F. Perform necessary drainage and utility coordination, including storm sewers and traffic signal interconnect.
- G. Assist and support LCDOT with preparation and review of necessary CN Railroad agreements.
- H. Review track and signal work cost participation prepared by the railroad.
- I. Identify required right-of-entry permits for construction.

### **5. Public Information Meetings**

Two public information meetings are planned for this project. Drone video footage will be gathered and used as a public meeting tool to show and document existing issues. Raw video will be reviewed and edited to show traffic and safety operation issues on the project.

- A. Obtain drone flyover video showing limits of project. Drone video by HLR.
- B. Prepare video renderings and animation of drone video showing proposed improvements overlaid on existing conditions.
- C. Assist with exhibit preparation for public meeting related to drone video.
- D. Submit rendered flyover video and exhibits to LCDOT prior to public meeting and make revisions as necessary.



**Exhibit A – SCOPE OF ENGINEERING SERVICES**

Buffalo Grove Road Reconstruction  
Section No.: 17-00254-03-WR

- E. Attend two public information meetings.

**6. Preliminary Plans and Documents (60%)**

- A. It is anticipated that the following sheets prepared by TranSystems will be included in the contract plans:

Sheet Description	No. of Sheets
Schedules of Quantities	6
Traffic Control Staging Notes	2
Traffic Control Typical Sections	9
Traffic Control Plans (1"=50')	47
Traffic Control Details	2
Detour Plans	1
Buffalo Grove Rd at Port Clinton Rd (East) Temporary Traffic Signal Plans	3
Buffalo Grove Rd at U.S. Route 45 Temporary Traffic Signal Plans	3
Temporary Traffic Signal Interconnect Plans	4
Traffic Signal Bill of Materials	1
LCDOT Traffic Signal Details	6
Buffalo Grove Rd at Main St Traffic Signal Plans	5
Buffalo Grove Rd at Port Clinton Rd (East) Traffic Signal Plans	3
Buffalo Grove Rd at U.S. Route 45 Traffic Signal Plans	2
Traffic Signal Interconnect Plans	4
Rail Crossing Plans	1
LCDOT Details	8
District One Standard Details	12

- B. Prepare quantity calculations, schedule of quantities, and quantity summaries and estimate of costs based on current contract unit prices.
- C. Prepare special provisions.
- D. Prepare estimate of time.

**7. Prefinal Plans and Documents (90%)**

- A. Prepare prefinal contract plans and documents based on comments received on preliminary plans.



## **Exhibit A – SCOPE OF ENGINEERING SERVICES**

Buffalo Grove Road Reconstruction  
Section No.: 17-00254-03-WR

- B. Update summary of quantities and estimate of cost for prefinal submittal.
- C. Update special provisions for prefinal submittal.

### **8. Final Plans and Documents (100%)**

- A. Prepare final contract plans and documents based on comments received on prefinal plans.
- B. Update summary of quantities and estimate of cost for final submittal.
- C. Update special provisions for final submittal.

### **9. Project Management and QA/QC**

- A. Initiate project setup including contract administration, budget control, and internal project team meetings.
- B. Prepare and submit monthly progress reports.
- C. Provide phone and email updates and general project coordination with the County as necessary to advance the progress of the project.
- D. Prepare and monitor the project schedule and update the schedule periodically as tasks or project scheduling change, as well as perform scope of work reviews, resource planning, internal team coordination, contract administration, and invoicing.
- E. Establish and adhere to an approved project QA/QC plan.
- F. Provide project QA/QC for all major submittals.

### **10. Post-Design Services**

- A. Provide engineering services to attend on-site meetings, answer questions about the intent of the design, and offer assistance to make design changes necessary during construction of the project

### **Assumptions**

The following tasks or items were not included in this scope of services.

- A. Traffic counts or signal warrant analyses at the intersections of Buffalo Grove Road and Sandalwood Road, Butternut Drive, or Port Clinton Road (West).



**Exhibit A – SCOPE OF ENGINEERING SERVICES**

Buffalo Grove Road Reconstruction  
Section No.: 17-00254-03-WR

- B. Improvements at the U.S Route 45 intersection are limited to adding a through lane in each direction on Buffalo Grove Road. Detailed engineering plans, traffic signal design, or maintenance of traffic plans related to additional turn lanes on Buffalo Grove Road or additional lanes on U.S. Route 45 are not included in this scope of services.
- C. Existing traffic signal equipment at the intersection of U.S. Route 45 and Buffalo Grove Road/Fairway Drive including controller cabinet, traffic signal poles, and mast arms are to remain.
- D. Permits
- E. Intergovernmental Agreements
- F. Preparation of funding applications

**Lake County Division of Transportation**

Buffalo Grove Road

IL Route 22 to US Route 45

Phase II Estimate of Staff Hours

	<b>TASKS</b>	<b>TOTALS</b>	<b>TranSystems</b>
1	Data Collection	36	36
2	Traffic and Safety Analysis	458	458
3	Project Coordination Meetings	56	56
4	Rail Coordination	232	232
5	Public Information Meetings	244	244
6	Prelim Plans and Documents (60%)	1,385	1,385
7	Prefinal Plans and Documents (90%)	732	732
8	Final Plans and Documents (100%)	271	271
9	Project Management and QA/QC	466	466
10	Post-Design Services	20	20
<b>Total Manhours =</b>		<b>3,900</b>	<b>3,900</b>

# 1 Data Collection

Item	Total
<b>A. Obtain and review data, plans and info from agencies</b>	
Roadway and Bikeway Plans	4
Development Plans	4
Heavy Vehicle Routes	2
Emergency Response Routes	2
IL Route 22 and US Route 45 IDS's from IDOT	8
<b>B. Conduct site visits</b>	
1 visit @ 2 people each	16
<b>Subtotal =</b>	<b>36</b>

## 2 Traffic and Safety Analysis

Item	Total
<b>A. Traffic Volumes - Obtain 24-hour counts</b>	<b>0</b>
Buffalo Grove Road at Main Street	0
Buffalo Grove Road at Port Clinton Road (East)	0
Buffalo Grove Road at U.S. Route 45	0
<b>B. Traffic Signal Warrants</b>	<b>8</b>
Buffalo Grove Road at Main Street	4
Buffalo Grove Road at Port Clinton Road (East) ( <i>signalized, assumed warrant not needed</i> )	0
Buffalo Grove Road at U.S. Route 45	4
<b>C. Review 2050 Traffic Projections</b>	<b>12</b>
Coordinate with CMAP for concurrence of existing and 2050 Volumes	12
<b>D. Intersection Design Studies (IDS)</b>	<b>438</b>
IDS - Buffalo Grove Road at Main Street	120
IDS - Buffalo Grove Road at Port Clinton Road (East)	80
IDS - Buffalo Grove Road at U.S. Route 45 (Interim), Opening Day	60
IDS - Buffalo Grove Road at U.S. Route 45 (Interim), 2050 Traffic	12
ADA Ramps - Buffalo Grove Road at Main Street (6 hrs/ quadrant @ 4 quadrants)	24
ADA Ramps - Buffalo Grove Road at Port Clinton Road (East) (3 quadrants)	18
ADA Ramps - Buffalo Grove Road at U.S. Route 45 (Interim) (4 quadrants)	24
Prepare Design Exception Forms (3 IDS @ 8 hrs / IDS)	24
Submit IDS to LCDOT (preliminary) for review (2 submittals)	8
Revise IDS and submit to LCDOT for final approval	40
Submit U.S. 45 IDS to IDOT (preliminary) for review	4
Revise U.S. 45 IDS and submit to IDOT for final approval	24
<b>Subtotal =</b>	<b>458</b>

### 3 Project Coordination Meetings

Item	No. of Meetings	No. of Attendees	Hours per Meeting	Total
<b>A. Lake County Division of Transportation</b>				
Phase II kick-off meeting	1	2	4	8
Traffic/Safety Studies	1	2	4	8
U.S. Route 45 Intersection	1	2	4	8
Alternative Analysis	1	2	4	8
<b>B. Illinois Department of Transportation</b>	1	2	4	8
<b>C. Local Agency Meetings</b>				
Village of Buffalo Grove	1	2	4	8
Vernon Township	1	2	4	8
			<b>Subtotal =</b>	<b>56</b>

Note: Meeting time includes exhibit preparation, travel time to and from, and composition of meeting minutes

## 4 Rail Coordination

Item	No. of Meetings	No. of Attendees	Hours per Meeting	Total
<b>A. Coordination Meetings</b>				
Project Introduction	1	2	4	8
Signal Design Coordination	2	2	4	16
Illinois Commerce Commission	2	2	4	16
Metra	1	2	4	8
<b>B. Pedestrian Crossing Review</b>				16
<b>C. Track Width at Crossing Review</b>				16
<b>D. Develop Railroad Coordination Exhibit</b>				16
<b>E. Railroad Report for Signal Preemption Time</b>				60
<b>F. Drainage and Utility Coordination</b>				16
<b>G. Coordinate and Review Construction &amp; Maintenance Agreement with CNRR</b>				36
<b>H. Track and Signal Work Cost Participation Recommendations</b>				16
<b>I. Identify Right-of-Entry Permits for Construction</b>				8
<b>Subtotal =</b>				<b>232</b>

Note: Meeting time includes exhibit preparation, travel time to and from, and composition of meeting minutes

## 5 Public Information Meetings

Item	Total
<b>A. Drone Flyover Video</b>	8
<b>B. Video Rendering</b>	
Initial Video Rendering	120
Revisions to Rendering	60
<b>C. Exhibit Preparation</b>	32
<b>D. Meeting Attendance - 2 meetings</b>	
Public Information Meeting (2 meetings * 2 people * 6 hours/meeting)	24
<b>Subtotal =</b>	<b>244</b>



# Contract PS&E

(Hours Roll Forward to Tabs 6, 7, 8)

Item	No. of Sheets	Hours per Sheet	Sheet / Item Subtotal	Item Total
<b>A. Plan Preparation</b>				<b>2,020</b>
<b>Summary and Schedules of Quantities</b>				<b>144</b>
Schedules of Quantities	6	24	144	
<b>Suggested Traffic Control Plans</b>				<b>920</b>
Construction Staging Notes	2	16	32	
Traffic Control Typical Sections				
Pre-stage	2	8	16	
Stage 1	2	12	24	
Stage 2	2	12	24	
Stage 3	2	12	24	
U.S. Route 45	1	8	8	
Traffic Control Plans (1"=50')				
Pre-stage	11	12	132	
Stage 1	11	16	176	
Stage 2	11	16	176	
Stage 3	11	16	176	
U.S. Route 45	3	12	36	
Traffic Control Details	2	16	32	
Detour Plans	1	24	24	
Traffic Control Quantities and Calculations			40	
<b>Temporary Traffic Signal Plans</b>				<b>160</b>
Buffalo Grove Rd at Port Clinton Rd (East)				
Temporary Traffic Signal Plan (1"=20')	1	32	32	
Temporary Traffic Signal Staging	1	16	16	
Temporary Traffic Signal Cable Plan	1	32	32	
Buffalo Grove Rd at U.S. Route 45				
Temporary Traffic Signal Plan (1"=20')	1	32	32	
Temporary Traffic Signal Staging	1	16	16	
Temporary Traffic Signal Cable Plan	1	32	32	
<b>Traffic Signal Plans</b>				<b>488</b>
Bill of Materials	1	24	24	
District and Other Details	6	3	18	
Buffalo Grove Rd at Main Street				
Proposed Traffic Signal Plan (1"=20')	1	110	110	
Proposed Traffic Signal Cable Plan	1	32	32	
Railroad Preemption	2	40	80	
Mast Arm Mounted Street Name Signs	1	2	2	
Buffalo Grove Rd at Port Clinton Rd (East)				
Proposed Traffic Signal Plan (1"=20')	1	110	110	
Proposed Traffic Signal Cable Plan	1	32	32	
Mast Arm Mounted Street Name Signs	1	2	2	

# Contract PS&E

(Hours Roll Forward to Tabs 6, 7, 8)

Item	No. of Sheets	Hours per Sheet	Sheet / Item Subtotal	Item Total
Buffalo Grove Rd at U.S. Route 45				
Proposed Traffic Signal Plan (1"=20')	1	60	60	
Proposed Traffic Signal Cable Plan	1	16	16	
Mast Arm Mounted Street Name Signs	1	2	2	
<b>Temporary Traffic Signal Interconnect Plans</b>				<b>96</b>
Temporary Interconnect Plans (Dual Pane)	3	24	72	
Temporary Interconnect Schematic	1	24	24	
<b>Traffic Signal Interconnect Plans</b>				<b>160</b>
Interconnect Plans (Dual Pane)	3	40	120	
Interconnect Schematic	1	40	40	
<b>Rail Crossing Plans</b>				<b>24</b>
Rail Crossing Detail	1	24	24	
<b>LCDOT Details</b>	<b>8</b>	<b>2</b>	<b>16</b>	<b>16</b>
<b>District One Standard Details</b>	<b>12</b>	<b>1</b>	<b>12</b>	<b>12</b>
<b>B. Quantities and Costs</b>				<b>228</b>
Summary of Quantities			140	
Estimate of Construction Costs			40	
Cost participation breakdown			24	
Estimate of Time			24	
<b>C. Special Provisions</b>				<b>60</b>
Suggested Traffic Control			20	
Traffic Signals			24	
Traffic Signal System Interconnect (PASSAGE)			8	
Rail Crossing			8	
			<b>Subtotal =</b>	<b>2,308</b>

## 6 Prelim Plans and Documents (60%)

Item	Total
A. Preliminary Contract Plans (60%) - See "Contract PSE" Tab for Breakdown	1,212
B. Preliminary Quantities and Estimate of Cost (60%) - See "Contract PSE" Tab for Breakdown	137
C. Preliminary Special Provisions (60%) - See "Contract PSE" Tab for Breakdown	36
<b>Subtotal =</b>	<b>1,385</b>

## 7 Prefinal Plans and Documents (90%)

Item	Total
A. Prefinal Contract Plans (90%) - See "Contract PSE" Tab for Breakdown	606
B. Prefinal Quantities and Estimate of Cost (90%) - See "Contract PSE" Tab for Breakdown	68
C. Prefinal Special Provisions (90%) - See "Contract PSE" Tab for Breakdown	18
D. Disposition of comments from Preliminary (60%) submittal	40
<b>Subtotal =</b>	<b>732</b>

## 8 Final Plans and Documents (100%)

Item	Total
A. Final Contract Plans (100%) - See "Contract PSE" Tab for Breakdown	202
B. Final Quantities and Estimate of Cost (100%) - See "Contract PSE" Tab for Breakdown	23
C. Final Special Provisions (100%) - See "Contract PSE" Tab for Breakdown	6
D. Disposition of comments from Prefinal (90%) submittal	40
<b>Subtotal =</b>	<b>271</b>

## 9 Project Management and QA/QC

Item	Project Duration in Months	Hours per Month	Total
<b>A. Project Management</b>			
Management of project	30	2	60
In-house coordination meetings	30	3	90
<b>B. Monthly Progress Reports</b>	30	2	60
<b>C. General Project Coordination</b>	30	1	30
<b>D. Project Scheduling</b>	30	1	30
<b>E. Quality Assurance/Quality Control</b>			
Traffic and Safety Analyses			32
Internal Design and Calculation Reviews			32
Preliminary Plans and Documents (60%)			40
Prefinal Plans and Documents (90%)			32
Final Plans and Documents (100%)			20
Internal Audits of Quality Plan			40
<b>Subtotal =</b>			<b>466</b>

## 10 Post-Design Services

Item	No. of Meetings/ Reviews	No. of Attendees/ Reviewers	Hours per Meeting/ Review	Total
A. Engineering Services During Construction	5	1	4	20
			Subtotal =	20

## PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME TranSystems Corporation  
 PRIME/SUPPLEMENT Prime  
 Prepared By \_\_\_\_\_

DATE 4/9/2020  
 PTB-ITEM# 180-1

CONTRACT TERM 36 MONTHS  
 START DATE 4/1/2020  
 RAISE DATE 4/18/2020  
 END DATE 3/31/2023

OVERHEAD RATE 151.94%  
 COMPLEXITY FACTOR 0  
 % OF RAISE 3%

### ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	4/1/2020	4/18/2020	1	2.78%
1	4/19/2020	4/18/2021	12	34.33%
2	4/19/2021	4/18/2022	12	35.36%
3	4/19/2022	3/18/2023	11	33.39%

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The total escalation = 5.86%



# PAYROLL RATES

**FIRM NAME**  
**PRIME/SUPPLEMENT**  
**PTB-ITEM #**

TranSystems Corporatio **DATE**  
Prime

4/9/2020

**ESCALATION FACTOR** **5.86%**

*Note: Rates should be capped on the AVG 1 tab as necessary*

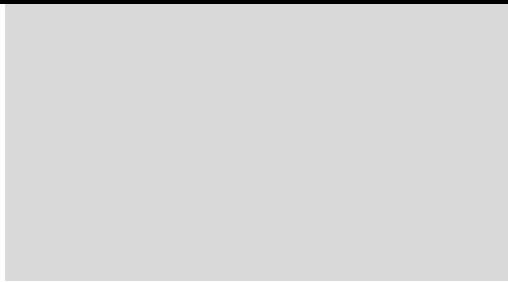
CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Engineer 5 (E5)	\$70.00	\$70.00
Engineer 4 (E4)	\$70.00	\$70.00
Engineer 3 (E3)	\$58.55	\$61.98
Engineer 2 (E2)	\$45.68	\$48.36
Engineer 1 (E1)	\$34.92	\$36.97
Planner 5 (P5)	\$60.00	\$60.00
Planner 4 (P4)	\$60.00	\$60.00
Planner 3 (P3)	\$44.39	\$46.99
Architect 5 (AR5)	\$60.00	\$60.00
Architect 4 (AR4)	\$60.00	\$60.00
Architect 3 (AR3)	\$57.63	\$61.01
Architect 2 (AR2)	\$40.16	\$42.51
Architect 1 (AR1)	\$34.62	\$36.65
Environmental Scientist 4 (SC4)	\$60.00	\$60.00
Industry Specialist 3 (IS3)	\$53.18	\$56.30
Industry Specialist 2 (IS2)	\$39.14	\$41.43
Construction Services 4 (CS4)	\$51.53	\$54.55
Construction Services 3 (CS3)	\$40.50	\$42.87
Technician 5 (T5)	\$60.00	\$60.00
Technician 3 (T3)	\$36.00	\$38.11
Technician 1 (T1)	\$20.34	\$21.53
Administrative 3 (A3)	\$49.96	\$52.89
Administrative 2 (A2)	\$37.53	\$39.73
Administrative 1 (A1)	\$24.70	\$26.15

## Subconsultants

FIRM NAME TranSystems Corporation  
PRIME/SUPPLEMENT Prime  
PTB-ITEM # \_\_\_\_\_

DATE 4/9/2020

NAME	Direct Labor Total	Contribution to Prime Consultant
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Total 0.00 0.00



### AVERAGE HOURLY PROJECT RATES

FIRM TranSystems Corporation  
PTB-ITEM# 180-1  
PRIME/SUPPLEMENT Prime

DATE 4/9/2020

SHEET 1 OF 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			1. Data Collection			2. Traffic and Safety Analy			3. Project Coordination Me			4. Rail Coordination			5. Public Information Meetings		
		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 5 (E5)	70.00	40.0	1.03%	0.72									24	10.34%	7.24				
Engineer 4 (E4)	70.00	154.0	3.95%	2.76							16	28.57%	20.00	48	20.69%	14.48	12	4.92%	3.44
Engineer 3 (E3)	61.98	530.0	13.59%	8.42	4	11.11%	6.89	60	13.10%	8.12			52	22.41%	13.89				
Engineer 2 (E2)	48.36	1,581.0	40.54%	19.60	8	22.22%	10.75	172	37.55%	18.16	40	71.43%	34.54	56	24.14%	11.67	92	37.70%	18.23
Engineer 1 (E1)	36.97	1,035.0	26.54%	9.81	24	66.67%	24.64	194	42.36%	15.66			52	22.41%	8.29				
Planner 5 (P5)	60.00	0.0																	
Planner 4 (P4)	60.00	0.0																	
Planner 3 (P3)	46.99	0.0																	
Architect 5 (AR5)	60.00	0.0																	
Architect 4 (AR4)	60.00	0.0																	
Architect 3 (AR3)	61.01	0.0																	
Architect 2 (AR2)	42.51	0.0																	
Architect 1 (AR1)	36.65	0.0																	
Environmental Scientist 4 (S)	60.00	0.0																	
Industry Specialist 3 (IS3)	56.30	140.0	3.59%	2.02													140	57.38%	32.30
Industry Specialist 2 (IS2)	41.43	0.0																	
Construction Services 4 (CS)	54.55	0.0																	
Construction Services 3 (CS)	42.87	0.0																	
Technician 5 (T5)	60.00	0.0																	
Technician 3 (T3)	38.11	0.0																	
Technician 1 (T1)	21.53	372.0	9.54%	2.05				32	6.99%	1.50									
Administrative 3 (A3)	52.89	0.0																	
Administrative 2 (A2)	39.73	48.0	1.23%	0.49															
Administrative 1 (A1)	26.15	0.0																	
		0.0																	
		0.0																	
		0.0																	
<b>TOTALS</b>		3900.0	100%	\$45.88	36.0	100.00%	\$42.28	458.0	100%	\$43.44	56.0	100%	\$54.54	232.0	100%	\$55.58	244.0	100%	\$53.98

### AVERAGE HOURLY PROJECT RATES

**FIRM** TranSystems Corporation  
**PTB-ITEM#** 180-1  
**PRIME/SUPPLEMENT** Prime

**DATE** 4/9/2020

**SHEET** 2 OF 2

PAYROLL CLASSIFICATION	AVG HOURLY RATES	6. Prelim Plans and Docs (60%)			7. Prefinal Plans and Docs (90%)			8. Final Plans and Docs (100%)			9. Project Management and QA			10. Post-Design 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			
Engineer 5 (E5)	70.00										16	3.43%	2.40						
Engineer 4 (E4)	70.00	10	0.72%	0.51	6	0.82%	0.57				60	12.88%	9.01	2	10.00%	7.00			
Engineer 3 (E3)	61.98	126	9.10%	5.64	50	6.83%	4.23	16	5.90%	3.66	222	47.64%	29.53						
Engineer 2 (E2)	48.36	605	43.68%	21.12	342	46.72%	22.59	128	47.23%	22.84	120	25.75%	12.45	18	90.00%	43.52			
Engineer 1 (E1)	36.97	444	32.06%	11.85	234	31.97%	11.82	87	32.10%	11.87									
Planner 5 (P5)	60.00																		
Planner 4 (P4)	60.00																		
Planner 3 (P3)	46.99																		
Architect 5 (AR5)	60.00																		
Architect 4 (AR4)	60.00																		
Architect 3 (AR3)	61.01																		
Architect 2 (AR2)	42.51																		
Architect 1 (AR1)	36.65																		
Environmental Scientist 4 (S)	60.00																		
Industry Specialist 3 (IS3)	56.30																		
Industry Specialist 2 (IS2)	41.43																		
Construction Services 4 (CS)	54.55																		
Construction Services 3 (CS)	42.87																		
Technician 5 (T5)	60.00																		
Technician 3 (T3)	38.11																		
Technician 1 (T1)	21.53	200	14.44%	3.11	100	13.66%	2.94	40	14.76%	3.18									
Administrative 3 (A3)	52.89																		
Administrative 2 (A2)	39.73										48	10.30%	4.09						
Administrative 1 (A1)	26.15																		
<b>TOTALS</b>		1385.0	100%	\$42.23	732.0	100%	\$42.16	271.0	100%	\$41.55	466.0	100%	\$57.49	20.0	100%	\$50.52	0.0	0%	\$0.00



## Hampton, Lenzini and Renwick, Inc.

Civil Engineers • Structural Engineers • Land Surveyors • Environmental Specialists  
www.hlrengineering.com

October 29, 2019

Kyle M Duffy, PE  
TransSystems  
1475 East Woodfield Road, Suite 600  
Schaumburg, IL 60173-5440  
(847) 407-5277

Re: General drone work

Dear Mr. Duffy:

We propose to provide the following general drone services for TransSystems. Services scope and costs are as follows:

### Scope of Work

- Aerial video and pictures with drone based on 8 hour day.
  - 8 hours includes drive time from HLR's Elgin office, on site drone time and video picture download time.
  - Total drone flight time no greater than 2.5 hours without 1 week notice.
  - Flight locations to be submitted to HLR staff at least 1 week prior to flights for review for potential conflicts with FAA Part 107 rules.
  - No flights will be performed that will conflict with FAA Part 107 rules.
  - HLR employee that is Part 107 licensed has final go, no go decision on flights.
  - Flights will be on days that weather conditions are deemed suitable by the HLR employee that is Part 107 licensed.
  - Deliverable will be pictures or raw video files no greater than 20 minute intervals and will be in 1080p format transferred directly to a TransSystems laptop.

**Lump Sum \$1200.**

Yours truly,

**HAMPTON, LENZINI AND RENWICK, INC.**

A handwritten signature in black ink, appearing to read 'Austin Ridgely', is written over a horizontal line.

Austin Ridgely, P.L.S.  
Vice President

April 8, 2020

Matthew J. Smith  
Assistant Vice President  
TranSystems  
1475 East Woodfield Road, Suite 600  
Schaumburg, IL 60173-5440

Re: Agreement for Professional Services  
Traffic Data Collection – Turning Movement Counts  
Buffalo Grove Road  
GHA Proposal No. 2020.D027

Dear Mr. Smith:

Gewalt Hamilton Associates, Inc., (GHA) is pleased to submit our proposal for traffic data collection services for the above referenced project.

Our proposal is based on GHA's understanding of the project based on our recent correspondence with you.

If our proposal is acceptable, please sign and return one complete copy to our office. Should you have any questions or if we can be of additional assistance, please feel free to contact me at (847) 821-6200.

Sincerely,  
Gewalt Hamilton Associates, Inc.

*William J. Klewin*

William J. Klewin  
Director of Data Collection Division  
[bklewin@gha-engineers.com](mailto:bklewin@gha-engineers.com)

Encl.: GHA Proposal No. 2020.D027

Agreement for Professional Services  
Traffic Data Collection – Turning Movement Counts  
Buffalo Grove Road  
GHA Proposal No. 2020.D027

TranSystems, 1475 East Woodfield Road, Suite 600, Schaumburg, IL 60173-5440, and Gewalt Hamilton Associates, Inc. (GHA), 625 Forest Edge Drive, Vernon Hills, IL 60061, agree and contract as follows:

## I. Project Understanding

TranSystems is requesting three (3) Turning Movement Counts (TMC's) in Buffalo Grove, Illinois, for 24 hours per location.

Vehicle classifications consist of lights, mediums, and articulated trucks, with bicycles and pedestrians on the roads (this does **not** include bikes on the roads). All locations will be counted on the same Typical Weekday.

## II. Traffic Data Collection Services

GHA will provide the counts at the following locations based on the emails received from TranSystems dated January 24, April 7, and April 8, 2020. Please refer to the attached Exhibit A – Location Map:

1. Buffalo Grove Rd & Main St
2. Buffalo Grove Rd & Port Clinton Rd – East
3. U.S. Route 45 & Buffalo Grove Road/Fairway Drive

### *Collection Details*

- Weekday (T, W or TH)
- 12AM-12AM
- 24 hours
- Lights / Mediums / Articulated Trucks
- Bikes / Peds on Crosswalks

### Deliverables

- Studies will be shared via Miovision DataLink

## III. Project Schedule

GHA will schedule the work within two weeks of written authorization to proceed, weather permitting.

Data collection will be processed for 72-hour turn-around through Miovision and will be provided to the Client, via DataLink, as soon as it is available.



#### IV. Key Personnel

Mr. William J. Klewin, the Director of the Data Collection Division, will function as the Project Manager. He will be assisted by additional professional and technical staff with years of experience.

#### V. Compensation for Services

GHA proposes to complete the above work for a lump sum fee as outlined below.

<u>TMC's w/ crosswalks</u>	<u>Fee</u>
3 locations x 24 hours (\$63/hr)	\$4,536.00
<i>24-Hour 25% Off Incentive</i>	<i><b>-\$1,134.00</b></i>
TMC Total	\$3,402.00
<u>Crosswalks: 3 locations x 24 hours (\$3/hr)</u>	<u>\$216.00</u>
<b>Total Lump Sum Fee</b>	<b>\$3,618.00</b>

The proposed fee includes all necessary equipment and deployment. Reimbursable expenses, including items such as photos, postage, messenger services, printing, mileage, etc., are included in the fee indicated above. An invoice will be submitted upon completion of the study and will detail charges made against the project and services provided.

Please note that our proposal assumes the study will be completed within one deployment. If multiple deployments are requested, an adjustment to the fee will be necessary. GHA will provide the Client a written estimate of any additional fees prior to commencing with such work.

Any additional services requested and authorized by the Client will be billed on a time-and-materials (T&M) basis in accordance with the attached *GHA Hourly Rates*.


*Any required permits, if needed, from applicable regulatory agencies are to be obtained by the Client prior to the study date.*

#### VI. Authorization

By signing below, you indicate your acceptance of this Agreement in its entirety.

Gewalt Hamilton Associates, Inc.

TranSystems

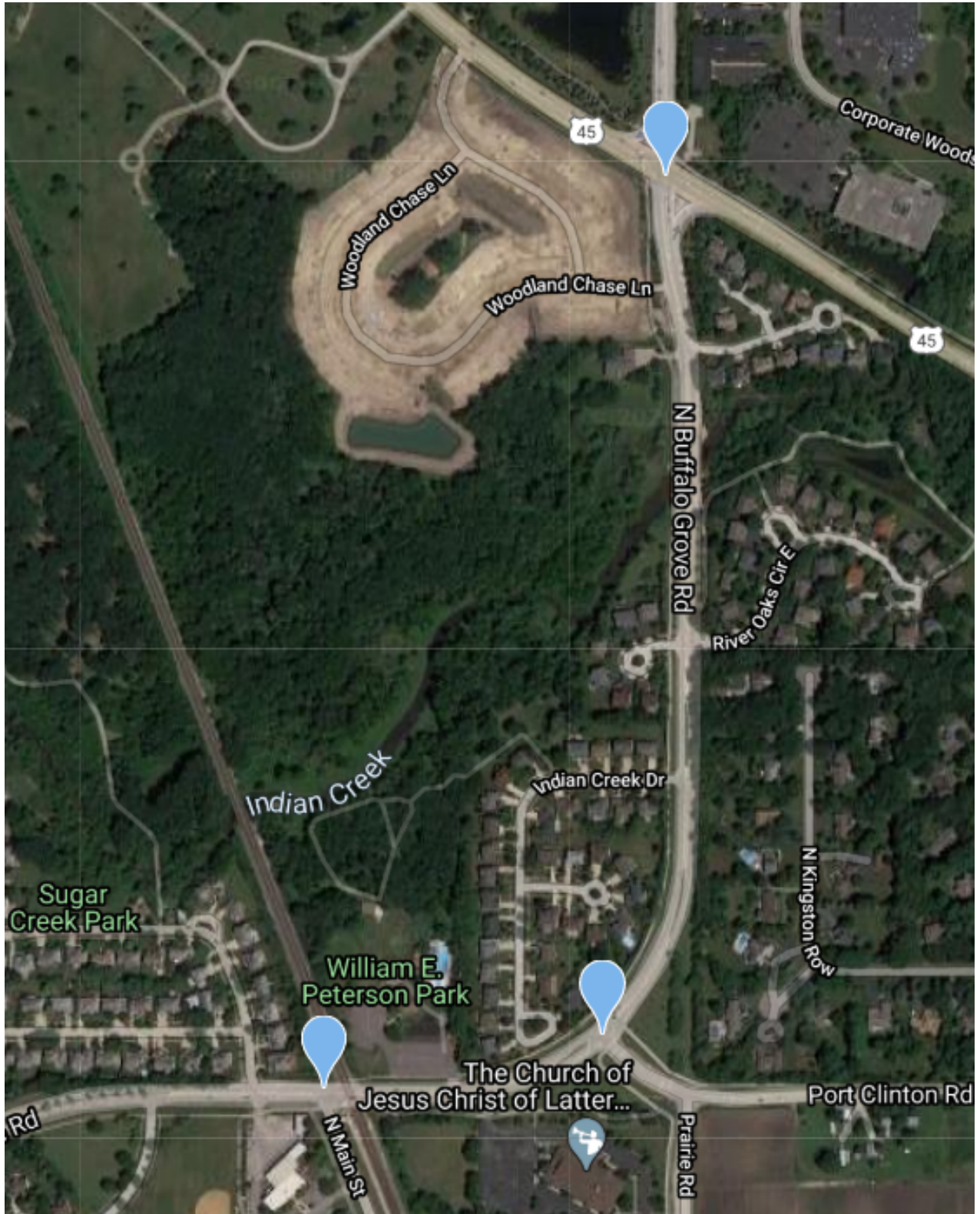
  
\_\_\_\_\_  
William J. Klewin  
Director of Data Collection Division

\_\_\_\_\_  
Matthew J. Smith  
Assistant Vice President

Date: \_\_\_\_\_

Encl.: Exhibit A – Location Map  
GHA Hourly Rates

# Exhibit A



**EXHIBIT E**  
**Direct Cost Summary**

1.	<u>Data Collection</u>				
	Mileage				
		2 trips @	50 miles/trip	\$ 0.575 /mile	\$ 58
				Subtotal	\$ 58
3.	<u>Project Coordination</u>				
	Mileage				
		14 trips @	50 miles/trip	\$ 0.575 /mile	\$ 403
	FedEx/Messenger Service				
		16 deliveries @		\$ 25.00 /delivery	\$ 400
				Subtotal	\$ 803
4.	<u>Rail Coordination</u>				
	Mileage				
		6 trips @	60 miles/trip	\$ 0.575 /mile	\$ 207
	FedEx/Messenger Service				
		8 deliveries @		\$ 25.00 /delivery	\$ 200
				Subtotal	\$ 407
6.	<u>Public Information Meetings</u>				
	Drone Footage				\$ 1,200
	FedEx/Messenger Service				
		8 deliveries @		\$ 25.00 /delivery	\$ 200
	Mileage				
		3 trips @	50 miles/trip	\$ 0.575 /mile	\$ 86
				Subtotal	\$ 1,486
7.	<u>Prelim Plans and Documents</u>				
	FedEx/Messenger Service				
		3 deliveries @		\$ 25.00 /delivery	\$ 75
	Printing				
		500 sheets @		\$ 0.50 /sheet	\$ 250
				Subtotal	\$ 325
8.	<u>Prefinal Plans and Documents</u>				
	FedEx/Messenger Service				
		3 deliveries @		\$ 25.00 /delivery	\$ 75
	Printing				
		500 sheets @		\$ 0.50 /sheet	\$ 250
				Subtotal	\$ 325
9.	<u>Final Plans and Documents</u>				
	FedEx/Messenger Service				
		3 deliveries @		\$ 25.00 /delivery	\$ 75
	Printing				
		500 sheets @		\$ 0.50 /sheet	\$ 250
				Subtotal	\$ 325
				<b>TOTAL DIRECT COSTS</b>	<b>\$ 3,729</b>

## Buffalo Grove Road SUE

At the request of BLA, Inc. (BLA), HBK Engineering, LLC (HBK) has prepared a scope of services and a manhour and fee estimate for Subsurface Utility Engineering (SUE). These services are for the Buffalo Grove Road roadway improvement limits from Half Day Rd/IL-22 to Buffalo Grove Rd, including the intersection of US-45 and Buffalo Grove Rd (200' east and west along US-45 and 500' north on Buffalo Grove Road. The limits of the work for the project area are shown in Exhibit A, which is attached.

**The following information represents HBK's scope of work for services for this roadway improvement project.**

### ***UTILITY COORDINATION PHASE I***

Subsurface Utility Engineering (SUE)/utility locating and surveying for this project will be completed by **HBK Engineering, Inc. (HBK)**, as a subconsultant to BLA.

#### 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/Planning Information Request. A request will be made for these utilities to provide any available maps of existing facilities. It has been estimated that there will be up to ten public and private utilities to coordinate with for this project.

#### Utility Locating

Descriptions of Subsurface Utility Engineering (SUE) quality levels are derived from the FHWA website on subsurface utility engineering. The website describes American Society of Civil Engineers (ASCE) Standard *C-1 38-02, Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data*. 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 Level D and B locating of any utility facilities located within the project limits. Level D information will be obtained from utility atlases, JULIE requests, and other reliable sources. Qualified HBK staff will perform Level B locates of underground utilities within the project limits and mark them with appropriately colored paint and/or flags. HBK staff will coordinate with the designer's survey crew so that utility markings can be incorporated into their work (picked up by their survey crew) in a timely manner.

SUE Level D and B locating shall include underground traffic control facilities at signalized intersections to the extent allowed by MOT limitations, worker safety, and the ability of the facilities to transmit a locating tone.

Level A locating (potholing or otherwise exposing buried utilities) is **not included** in this scope of work. If needed, Level A locating can be added to the scope at a later date.

#### Scope Omissions:

- Coordination with LCDOT for survey right-of-entry letter will be handled by BLA.
- SUE Level A locates

(BLA\_Buffalo Grove Road\_HBK\_195432\_Work Scope\_01232020 Final.doc)

**HBK ENGINEERING, LLC - LCDOT SECTION 19-00095-17-CH UTILITY COORDINATION SUE - HOURS/FEES SCHEDULE**

Route: Buffalo Grove Road  
 Local: LAKE COUNTY DOT  
 (Municipality/Township/County)  
 Section: \_\_\_\_\_  
 Project: SUE; BG Road, Half Day Road to US 45  
 Job No: \_\_\_\_\_

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

Overhead Rate (OH)	126.42%
Complexity Factor (R)	0.00
Calendar Days	_____

**Cost Plus Fixed Fee Methods of Compensation:**

- Fixed Fee 1  14.5%[DL + R(DL) + OH(DL) + IHDC]  
 Fixed Fee 2  14.5%[DL + R(DL) + 1.4(DL) + IHDC]  
 Fixed Fee 3  14.5%[(2.3 + R)DL + IHDC]  
 Specific Rate  10%(DL + (OH\*DL))  
 Lump Sum

**Cost Estimate of Consultant's Services in Dollars**

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Cost	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
<b>UTILITY COORDINATION - PHASE I</b>	PRINCIPAL	18	\$ 70.00	\$ 1,260.00	\$ 1,592.89				\$ 413.67	\$ 3,266.56
	SENIOR PROJECT MANAGER	10	\$ 63.30	\$ 633.00	\$ 800.24				\$ 207.82	\$ 1,641.06
	PROJECT MANAGER	20	\$ 58.00	\$ 1,160.00	\$ 1,466.47				\$ 380.84	\$ 3,007.31
	PROJECT ENGINEER	26	\$ 45.00	\$ 1,170.00	\$ 1,479.11				\$ 384.12	\$ 3,033.24
	LOCATOR 3	86	\$ 37.00	\$ 3,182.00	\$ 4,022.68		\$ 729.60		\$ 1,044.68	\$ 8,978.96
	LOCATOR 2	86	\$ 33.00	\$ 2,838.00	\$ 3,587.80		\$ 729.60		\$ 931.74	\$ 8,087.14
	PERMIT COORDINATOR	10	\$ 33.00	\$ 330.00	\$ 417.19				\$ 108.34	\$ 855.53
	ANALYST	10	\$ 29.00	\$ 290.00	\$ 366.62				\$ 95.21	\$ 751.83
DESIGNER	30	\$ 43.00	\$ 1,290.00	\$ 1,630.82				\$ 423.52	\$ 3,344.34	
<b>FIELD SURVEY WORK - PHASE I</b>	PROFESSIONAL LAND SURVEYOR	0	\$ 56.00	\$ -	\$ -				\$ -	\$ -
	PROJECT MANAGER	0	\$ 58.00	\$ -	\$ -				\$ -	\$ -
	FIELD LEAD	0	\$ 33.00	\$ -	\$ -				\$ -	\$ -
	FIELD TECHNICIAN	0	\$ 25.00	\$ -	\$ -				\$ -	\$ -
	DESIGNER	0	\$ 43.00	\$ -	\$ -				\$ -	\$ -
<b>UTILITY COORDINATION - PHASE II</b>	PRINCIPAL	0	\$ 70.00	\$ -	\$ -				\$ -	\$ -
	SENIOR PROJECT MANAGER	0	\$ 63.30	\$ -	\$ -				\$ -	\$ -
	PROJECT MANAGER	0	\$ 58.00	\$ -	\$ -				\$ -	\$ -
	PROJECT ENGINEER	0	\$ 45.00	\$ -	\$ -				\$ -	\$ -
	LOCATOR 3	0	\$ 37.00	\$ -	\$ -				\$ -	\$ -
	ANALYST	0	\$ 29.00	\$ -	\$ -				\$ -	\$ -
<b>Totals</b>		296.00		\$ 12,153.00	\$ 15,363.82	\$ -	\$ 1,459.20	\$ -	\$ 3,989.94	\$ 32,965.96

**NOTES:**

1. *'Outside Direct Cost' is per the IDOT BDE spreadsheet, including Mileage, Tolls and Locating Equipment (Marking Paint/Flags)*

BLR 05611 (Rev. 11/09/17)

Printed on 01/09/2020

**HBK ENGINEERING, LLC - LCDOT SECTION 17-00095-19-CH SUE LEVEL A - HOURS/FEES SCHEDULE**

**Route:** BUFFALO GROVE RD  
**Local:** LAKE COUNTY DOT  
 (Municipality/Township/County)  
**Section:** \_\_\_\_\_  
**Project:** SUE LEVEL A UTILITY LOCATES  
**Job No:** \_\_\_\_\_

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

Overhead Rate (OH)	126.42%
Complexity Factor (R)	0.00
Calendar Days	

**Cost Plus Fixed Fee Methods of Compensation:**

- Fixed Fee 1  14.5%[DL + R(DL) + OH(DL) + IHDC]  
 Fixed Fee 2  14.5%[DL + R(DL) + 1.4(DL) + IHDC]  
 Fixed Fee 3  14.5%[(2.3 + R)DL + IHDC]  
 Specific Rate  10%(DL + (OH\*DL))  
 Lump Sum

**Cost Estimate of Consultant's Services in Dollars**

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead (OH*DL)	Services by Others (SBO)	Outside Direct Cost	In-House Direct Costs (IHDC)	Fixed Fee (FF)	Total
<b>Costs for SUE QL-A locates are shown below. The cost is on a per hole basis, if they are required. Costs may be reduced if multiple holes are required and can be performed on the same trip.</b>										
SUE LEVEL A UTILITY LOCATES (each)	SENIOR PROJECT MANAGER	4	\$ 63.00	\$ 252.00	\$ 318.58		\$ 3,000.00		\$ 82.73	\$ 3,653.31
LEVEL A MOT (each)	PROJECT ENGINEER	8	\$ 45.00	\$ 360.00	\$ 455.11				\$ 118.19	\$ 933.30
LEVEL A PERMIT (each)	PERMIT COORDINATOR	4	\$ 33.00	\$ 132.00	\$ 166.87			\$ 250.00	\$ 79.59	\$ 628.46
LEVEL A ROW REST. (each)	DESIGNER	4	\$ -	\$ -	\$ -		\$ 750.00		\$ -	\$ 750.00
<b>Totals</b>		20.00		\$ 744.00	\$ 940.56	\$ -	\$ 3,750.00	\$ 250.00	\$ 280.51	\$ 5,965.08

**NOTES:**

- SUE LEVEL A UTILITY LOCATES 'OUTSIDE DIRECT COST' INCLUDES EXCAVATION, BACKFILL AND DISPOSAL FEES BY SUB-CONTRACTOR.**
- SUE LEVEL A UTILITY LOCATES 'OUTSIDE DIRECT COST' ASSUMES UNIMPROVED TEST HOLE (OUTSIDE OF PAVEMENT) FOR UTILITY DEPTH UP TO 12'. PRICE INCLUDES EXCAVATION, BACKFILL AND DISPOSAL FEES BY SUB-CONTRACTOR, AND EXCLUDES TRAFFIC CONTROL.**
- LEVEL A PERMIT 'IN-HOUSE DIRECT COST' IS AN ASSUMED BASE PERMIT FEE. THIS MAY BE WAIVED OR INCREASED DEPENDENT UPON THE PERMITTING AGENCY REQUIREMENTS.**

BLR 05611 (Rev. 11/09/17)

Printed on 02/14/20

**COMPANY NAME: HBK Engineering, LLC**  
 PTB NUMBER: **Buffalo Grove Rd - Lake County DOT Jurisdiction**  
 TODAY'S DATE: **4/15/2020**

ITEM	ALLOWABLE	UTILIZE W.O. ONLY	QUANTITY J.S. ONLY	CONTRACT RATE	TOTAL
Per Diem (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			\$0.00	\$0.00
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost (Up to state rate maximum)			\$0.00	\$0.00
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost			\$0.00	\$0.00
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			\$0.00	\$0.00
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum		1,540	\$0.580	\$893.20
Vehicle Owned or Leased	\$32.50/half day (4 hours or less) or \$65/full day		0	\$65.00	\$0.00
Vehicle Rental	Actual cost (Up to \$55/day)			\$55.00	\$0.00
Tolls	Actual cost		44	\$1.50	\$66.00
Parking	Actual cost		0	\$25.00	\$0.00
Overtime	Premium portion (Submit supporting documentation)			\$0.00	\$0.00
Shift Differential	Actual cost (Based on firm's policy)			\$0.00	\$0.00
Overnight Delivery/Postage/Courier Service	Actual cost (Submit supporting documentation)		0	\$150.00	\$0.00
Copies of Deliverables/Mylars (In-house)	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Copies of Deliverables/Mylars (Outside)	Actual cost (Submit supporting documentation)		0	\$100.00	\$0.00
Project Specific Insurance	Actual cost			\$0.00	\$0.00
Monuments (Permanent)	Actual cost			\$0.00	\$0.00
Photo Processing	Actual cost			\$0.00	\$0.00
2-Way Radio (Survey or Phase III Only)	Actual cost			\$0.00	\$0.00
Telephone Usage (Traffic System Monitoring Only)	Actual cost			\$0.00	\$0.00
CADD	Actual cost (Max \$15/hour)			\$0.00	\$0.00
Web Site	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Advertisements	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Public Meeting Facility Rental	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Public Meeting Exhibits/Renderings & Equipment	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Recording Fees	Actual cost			\$0.00	\$0.00
Transcriptions (specific to project)	Actual cost			\$0.00	\$0.00
Courthouse Fees	Actual cost			\$0.00	\$0.00
Storm Sewer Cleaning and Televising	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Traffic Control and Protection	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Aerial Photography and Mapping	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Utility Exploratory Trenching	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Testing of Soil Samples*	Actual cost			\$0.00	\$0.00
Lab Services*	Actual cost (Provide breakdown of each cost)			\$0.00	\$0.00
Equipment and/or Specialized Equipment Rental*	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Locating Equipment (Marking Paint/Flags)	Actual Cost	X	1	\$500.00	\$500.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
	<b>TOTAL DIRECT COST</b>				<b>\$1,459.20</b>

\*If other allowable costs are needed and not listed, please add in the above spaces provided.

**LEGEND**  
 W.O. = Work Order  
 J.S. = Job Specific





# JORGENSEN & ASSOCIATES, INC.

LAND SURVEYORS

---

Est. 1990

February 19, 2020

Mr. Dan Bruckelmeyer, P.E.  
President/CEO  
BLA, Inc.  
333 Pierce Road  
Suite 200  
Itasca, Illinois 60143

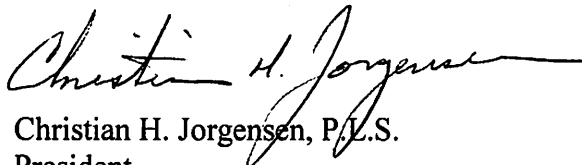
Re: Buffalo Grove Road Survey Proposal

Dear Mr. Bruckelmeyer:

Enclosed, please find our revised proposal to prepare a topographic survey and a statutory plat of highways with legal descriptions for the referenced project.

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

Respectfully submitted,  
Jorgensen & Associates, Inc.

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

CHJ/pt

Enclosures

E:\BLA\Lake County\Buffalo Grove Rd\Letter

## **SCOPE OF SERVICES**

### **Topographic Survey**

General: The topographic survey to include: structures, ground shots, roadway and shoulders, guardrail, utilities, locate trees 3" and larger, soil borings and inverts within the project corridor.

The project corridor being 15 feet beyond the existing R.O.W. lines of Buffalo Grove Road from Illinois Route 22 to U.S. Route 45, including both intersections. Along U.S. Route 45 the survey will extend approximately 600 feet southeasterly and northwesterly from Buffalo Grove Road and approximately 500 feet north of U.S. Route 45 along Fairway Drive. The survey will extend 30 feet beyond the existing R.O.W. at entrances and 150 feet beyond the existing R.O.W. at the side roads. The survey will include the establishment of the existing R.O.W. lines within the project limits.

Establish bench marks and horizontal control points based on NGS geodetic survey monuments with G.P.S. survey methods. Locate and describe bench marks. The project will be based on NAD '83(2011) and NGVD '88 datums.

Prepare "MicroStation" base file of the topographic survey and provide "GEOPAK" T.I.N.

All work will be completed according to the current Lake County Design Survey Procedures.

### **Land Acquisition Survey**

General: Prepare a Plat of Highways and legal descriptions for 30 fee simple parcels.

The project involves land surveying to reference the highways center lines to public land lines, location of property boundaries, preparation of a statutory plat of highways and legal descriptions, monumentation of the proposed right of way and highways center lines. The preparation and recording of "Monument Record" documents for all U.S. public land survey monuments referenced in the plat of highways.

Search for and locate boundary monumentation and locate appraisal topography on all affected parcels.

Research at County Recorder for any pertinent boundary documentation. Provide and review title commitments, calculate parcel boundaries, proposed center line alignments and proposed right of way lines.

Prepare preliminary plat of highways and legal descriptions.

Monument center line alignments, proposed right of way, section corners and quarter corners.

Prepare final plat of highways and legal descriptions, submit to client for recording.

Route: Buffalo Grove Road  
Section: Illinois Route 22 to U.S. Route 45  
County: Lake  
Job No.:

**Exhibit "A"**

Payroll Burden & Fringe Costs

	<u>% of Direct Productive Payroll</u>
Federal Insurance Contributions Act _____	11.81%
State Unemployment Compensation _____	0.47%
Federal Unemployment Compensation _____	0.11%
Workmen's Compensation Insurance _____	0.95%
Paid Holidays, Vacation, Sick Leave, Personal Leave _____	9.83%
Bonus _____	11.78%
Pension _____	0.98%
Group Insurance _____	<u>37.83%</u>
Total Payroll Burden & Fringe Costs	73.76%

Route: Buffalo Grove Road  
Section: Illinois Route 22 to U.S. Route 45  
County: Lake  
Job No.:

**Exhibit "B"**

Overhead and Indirect Costs

	<u>% of Direct Productive Payroll</u>
Business Insurance _____	4.72%
Depreciation _____	11.00%
Indirect wages and salaries _____	42.74%
Reproductive and printing costs _____	0.23%
Office Supplies _____	2.99%
Computer Costs _____	2.19%
Professional Fees _____	1.94%
Telephone _____	1.89%
Fees, license & dues _____	0.88%
Repairs and maintenance _____	1.77%
Business space rent _____	4.94%
Facilities - capital _____	0.72%
Travel - Meals _____	0.26%
Survey Supplies _____	2.60%
Automobile/travel expense _____	0.41%
Miscellaneous Expense _____	0.76%
State Income Tax _____	1.67%
Postage _____	0.20%
Educational & Professional Registrations _____	0.23%
Gain on Sale of Asset _____	<u>(1.33%)</u>
 Total Overhead	 80.81%

## PAYROLL ESCALATION TABLE ANNIVERSARY RAISES

FIRM NAME  
PRIME/SUPPLEMENT  
Prepared By

Jorgensen & Associates, Inc.  
PRIME

DATE 02/19/20  
PTB-ITEM # 0

CONTRACT TERM 12 MONTHS  
START DATE 3/1/2020  
RAISE DATE ANNIVERSARY

OVERHEAD RATE 154.57%  
COMPLEXITY FACTOR 0  
% OF RAISE 3.00%

### ESCALATION PER YEAR

DETERMINE THE MID POINT OF THE AGREEMENT

6

CACULATE THE ESCALATION FACTOR TO THE MIDPOINT OF THE CONTRACT

1.50%

The total escalation for this project would be: 1.50%

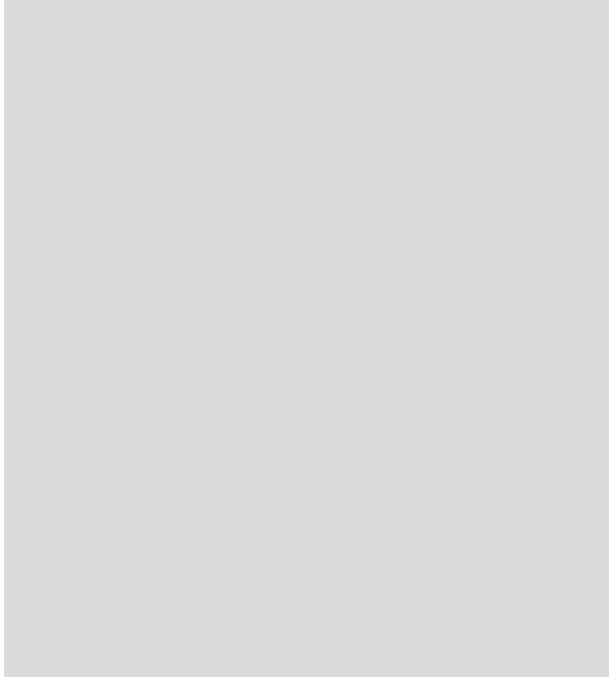
# PAYROLL RATES

FIRM NAME Jorgensen & Associates DATE 02/19/20  
PRIME/SUPPLEMENT PRIME  
PTB-ITEM # 0

ESCALATION FACTOR 1.50%

*Note: Rates should be capped on the AVG 1 tab as necessary*

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal/Officer	\$47.00	\$47.71
Supervisor, P.L.S.	\$44.00	\$44.66
Survey Party Chief, P.L.S.	\$29.50	\$29.94
Instrument Operator	\$23.00	\$23.35
Cadd Supervisor	\$32.25	\$32.73



## COST PLUS FIXED FEE COST ESTIMATE OF CONSULTANT SERVICES

Bureau of Design and Environment  
Prepared By: Consultant

**FIRM**  
**PTB-ITEM#**  
**PRIME/SUPPLEMENT**

Jorgensen & Associates, Inc.  
0  
PRIME

**OVERHEAD RATE** 154.57%  
**COMPLEXITY FACTOR** 0

**DATE** 02/19/20

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
	(1) Field - Topographic Survey	856	22,807	35,253	1,354	8,439		-	67,853	69.34%
	(2) Office - Compile Field Data	125	5,034	7,781	67	1,863		-	14,745	15.07%
	(3) Office - Create Existing Topography Base File	109	3,568	5,515		1,320		-	10,403	10.63%
	(4) Office - Create T.I.N. & Contours	12	393	607		145		-	1,145	1.17%
	(5) QC/QA	26	1,161	1,795		430		-	3,386	3.46%
	(6) Coordination Meetings	2	95	147	40	35		-	317	0.32%
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	<b>Subconsultant DL</b>					0		-		
	<b>TOTALS</b>	1130	33,058	51,098	1,461	12,232	-	-	97,849	100.00%

84,156

**DBE 0.00%**

### AVERAGE HOURLY PROJECT RATES

FIRM Jorgensen & Associates, Inc.  
 PTB-ITEM# 0  
 PRIME/SUPPLEMENT PRIME

DATE 02/19/20

SHEET 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			(1) Field - Topographic Survey			(2) Office - Compile Field Data			(3) Office - Create Existing Topography Base File			(4) Office - Create T.I.N. & Contours			(5) QC/QA		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal/Officer	47.71	2.0	0.18%	0.08															
Supervisor, P.L.S.	44.66	105.0	9.29%	4.15				79	63.20%	28.23							26	100.00%	44.66
Survey Party Chief, P.L.S.	29.94	428.0	37.88%	11.34	428	50.00%	14.97												
Instrument Operator	23.35	428.0	37.88%	8.84	428	50.00%	11.67												
Cadd Supervisor	32.73	167.0	14.78%	4.84				46	36.80%	12.05	109	100.00%	32.73	12	100.00%	32.73			
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<b>TOTALS</b>		1130.0	100%	\$29.26	856.0	100.00%	\$26.64	125.0	100%	\$40.27	109.0	100%	\$32.73	12.0	100%	\$32.73	26.0	100%	\$44.66



### AVERAGE HOURLY PROJECT RATES

**FIRM** Jorgensen & Associates, Inc.  
**PTB-ITEM #** 0  
**PRIME/SUPPLEMENT** PRIME

**DATE** 02/19/20  
**SHEET** 2 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	(6) Coordination Meetings														
		Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg
Principal/Officer	47.71	2	100.00%	47.71												
Supervisor, P.L.S.	44.66															
Survey Party Chief, P.L.S.	29.94															
Instrument Operator	23.35															
Cadd Supervisor	32.73															
<b>TOTALS</b>		2.0	100%	\$47.71	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00

Route: Buffalo Grove Road  
 Section: Illinois Route 22 to U.S. Route 45  
 County: Lake  
 Job No.:

**Manhour Breakdown  
 Topographic Survey Estimate**

Buffalo Grove Road	± 8,000' = ± 1.515 miles
Fairway Drive	± 500' = ± 0.095 mile
Side Roads	± 2,100' = ± 0.398 mile
U.S. Route 45	± <u>1,200'</u> = ± <u>0.227 mile</u>
 Total Length	 ± 11,800' = ± 2.235 miles

1. Field – Topographic Survey

a. Measure traverse, level circuit & G.P.S. survey 33 hours x 2 men =	66 MH
b. Search & locate existing R.O.W. & section lines 80 hours x 2 men =	160 MH
c. Locate existing topography & inverts 234 hours x 2 men =	468 MH
d. Locate wetland flags 8 hours x 2 men =	16 MH
e. Locate utility markings 56 hours x 2 men =	112 MH
f. Monument existing center line alignment 14 hours x 2 men =	28 MH
g. Monument/tie section & quarter corners 3 hours x 2 men =	<u>6 MH</u>
Sub-total Item #1	856 MH

2. Office - Compile Field Data		
a. Compute traverse, level circuit & G.P.S. survey 15 hours x 1 man =		15 MH
b. Edit & compile topographic survey 44 hours x 1 man =		44 MH
c. Research records 2 hours x 1 man =		2 MH
d. Compute existing R.O.W. lines 64 hours x 1 man =		<u>64 MH</u>
	Sub-total Item #2	125 MH
3. Office - Create Existing Topography Base File		
a. Layout and drafting 109 hours x 1 man =		109 MH
4. Office - Create T.I.N. & Contours		
a. Compute contours 12 hours x 1 man =		12 MH
5. QC/QA		
a. Check topographic survey 24 hours x 1 man =		24 MH
b. Check contours 2 hours x 1 man =		<u>2 MH</u>
	Sub-total Item #5	26 MH
6. Coordination Meetings 1 meeting @ 2 hours =		<u>2 MH</u>
	Total All Items	1,130 MH

Route: Buffalo Grove Road  
Section: Illinois Route 22 to U.S. Route 45  
County: Lake  
Job No.:

**Breakdown of  
In House Direct Costs**

Item

1. Field - Topographic Survey

a. Trips to project site - 54 each  
± 44 miles/trip x 54 trips = ± 2,376 miles  
± 2,376 miles @ \$0.57/mile = \$ 1,354.32

2. Office – Compile Field Data

a. Trips to County Recorder - 1 each  
± 30 miles/trip x 1 trip = ± 30 miles  
± 30 miles @ \$0.57/mile = \$ 17.10

b. Miscellaneous Records = \$ 50.00

Sub-total Item #2 \$ 67.10

6. Coordination Meetings

a. Meetings at BLA office - 1 each  
± 70 miles/trip x 1 trip = ± 70 miles  
± 70 miles @ \$0.57/mile = \$ 39.90

Total All Items \$1,461.32

**COMPANY NAME: Jorgensen & Associates, Inc.**

PTB NUMBER: \_\_\_\_\_

 TODAY'S DATE: **2/19/2020**

ITEM	ALLOWABLE	UTILIZE W.O. ONLY	QUANTITY J.S. ONLY	CONTRACT RATE	TOTAL
Per Diem (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			\$0.00	\$0.00
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost (Up to state rate maximum)			\$0.00	\$0.00
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost			\$0.00	\$0.00
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			\$0.00	\$0.00
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum		2,476	\$0.570	\$1,411.32
Vehicle Owned or Leased	\$32.50/half day (4 hours or less) or \$65/full day			\$0.00	\$0.00
Vehicle Rental	Actual cost (Up to \$55/day)			\$0.00	\$0.00
Tolls	Actual cost			\$0.00	\$0.00
Parking	Actual cost			\$0.00	\$0.00
Overtime	Premium portion (Submit supporting documentation)			\$0.00	\$0.00
Shift Differential	Actual cost (Based on firm's policy)			\$0.00	\$0.00
Overnight Delivery/Postage/Courier Service	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Copies of Deliverables/MyIars (In-house)	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Copies of Deliverables/MyIars (Outside)	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Project Specific Insurance	Actual cost			\$0.00	\$0.00
Monuments (Permanent)	Actual cost			\$0.00	\$0.00
Photo Processing	Actual cost			\$0.00	\$0.00
2-Way Radio (Survey or Phase III Only)	Actual cost			\$0.00	\$0.00
Telephone Usage (Traffic System Monitoring Only)	Actual cost			\$0.00	\$0.00
CADD	Actual cost (Max \$15/hour)			\$0.00	\$0.00
Web Site	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Advertisements	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Public Meeting Facility Rental	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Public Meeting Exhibits/Renderings & Equipment	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Recording Fees	Actual cost			\$0.00	\$0.00
Transcriptions (specific to project)	Actual cost			\$0.00	\$0.00
Courthouse Fees	Actual cost		1	\$50.00	\$50.00
Storm Sewer Cleaning and Televising	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Traffic Control and Protection	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Aerial Photography and Mapping	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Utility Exploratory Trenching	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Testing of Soil Samples*	Actual cost			\$0.00	\$0.00
Lab Services*	Actual cost (Provide breakdown of each cost)			\$0.00	\$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
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				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
<b>TOTAL DIRECT COST</b>					<b>\$1,461.32</b>

\*If other allowable costs are needed and not listed, please add in the above spaces provided.

**LEGEND**

W.O. = Work Order

J.S. = Job Specific

## PAYROLL ESCALATION TABLE ANNIVERSARY RAISES

FIRM NAME  
PRIME/SUPPLEMENT  
Prepared By

Jorgensen & Associates, Inc.  
PRIME

DATE 01/24/20  
PTB-ITEM # 0

CONTRACT TERM 12 MONTHS  
START DATE 3/1/2020  
RAISE DATE ANNIVERSARY

OVERHEAD RATE 154.57%  
COMPLEXITY FACTOR 0  
% OF RAISE 3.00%

### ESCALATION PER YEAR

DETERMINE THE MID POINT OF THE AGREEMENT

6

CACULATE THE ESCALATION FACTOR TO THE MIDPOINT OF THE CONTRACT

1.50%

The total escalation for this project would be: 1.50%

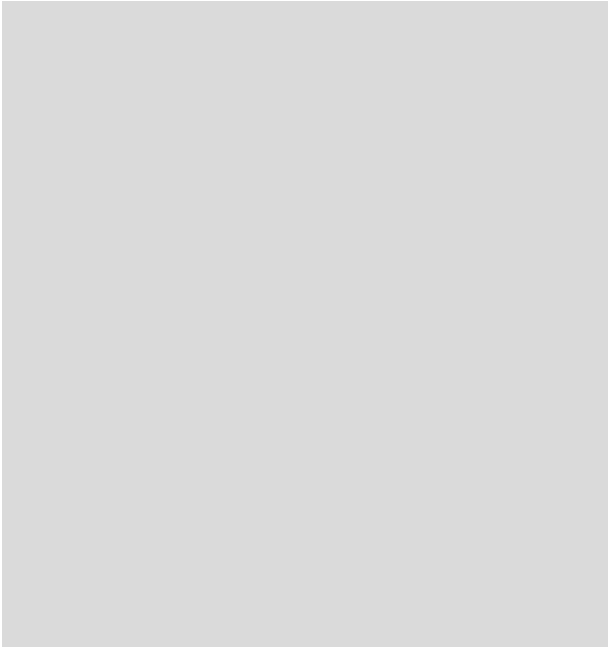
# PAYROLL RATES

FIRM NAME Jorgensen & Associates DATE 01/24/20  
PRIME/SUPPLEMENT PRIME  
PTB-ITEM # 0

ESCALATION FACTOR 1.50%

*Note: Rates should be capped on the AVG 1 tab as necessary*

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal/Officer	\$47.00	\$47.71
Supervisor, P.L.S.	\$44.00	\$44.66
Survey Party Chief, P.L.S.	\$29.50	\$29.94
Instrument Operator	\$23.00	\$23.35
Cadd Supervisor	\$32.25	\$32.73
Administrative Assistant	\$22.50	\$22.84







### AVERAGE HOURLY PROJECT RATES

FIRM Jorgensen & Associates, Inc.  
 PTB-ITEM# 0  
 PRIME/SUPPLEMENT PRIME

DATE 01/24/20

SHEET 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			(1) Pre-Survey Phase			(2) Survey Reconnaissance			(3) Project Survey Plan			(4) First Submittal Plat of Highways & Descriptions			(5) Survey (Field)		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal/Officer	47.71	2.0	0.15%	0.07															
Supervisor, P.L.S.	44.66	299.0	23.09%	10.31									46	13.73%	6.13				
Survey Party Chief, P.L.S.	29.94	315.0	24.32%	7.28				16	50.00%	14.97							299	50.00%	14.97
Instrument Operator	23.35	315.0	24.32%	5.68				16	50.00%	11.67							299	50.00%	11.67
Cadd Supervisor	32.73	358.0	27.64%	9.05	7	70.00%	22.91				4	100.00%	32.73	289	86.27%	28.24			
Administrative Assistant	22.84	6.0	0.46%	0.11	3	30.00%	6.85												
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<b>TOTALS</b>		1295.0	100%	\$32.50	10.0	100.00%	\$29.76	32.0	100%	\$26.64	4.0	100%	\$32.73	335.0	100%	\$34.37	598.0	100%	\$26.64

### AVERAGE HOURLY PROJECT RATES

**FIRM** Jorgensen & Associates, Inc.  
**PTB-ITEM #** 0  
**PRIME/SUPPLEMENT** PRIME

**DATE** 01/24/20  
**SHEET** 2 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	(6) Survey (Office)			(7) Final Submittal Plat of Highways & Descriptions			(8) Coordination Meetings			(9) QC/QA			Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg						
Principal/Officer	47.71							2	100.00%	47.71									
Supervisor, P.L.S.	44.66	140	84.85%	37.89	5	19.23%	8.59				108	87.80%	39.21						
Survey Party Chief, P.L.S.	29.94																		
Instrument Operator	23.35																		
Cadd Supervisor	32.73	25	15.15%	4.96	18	69.23%	22.66				15	12.20%	3.99						
Administrative Assistant	22.84				3	11.54%	2.64												
<b>TOTALS</b>		165.0	100%	\$42.85	26.0	100%	\$33.89	2.0	100%	\$47.71	123.0	100%	\$43.21	0.0	0%	\$0.00	0.0	0%	\$0.00

Route: Buffalo Grove Road  
 Section: Illinois Route 22 to U.S. Route 45  
 County: Lake  
 Job No.:

**Manhour Breakdown  
 Land Acquisition Estimate**

Length of Project

Buffalo Grove Road	± 8,000'	= ± 1.515 miles	
Fairway Drive	± 500'	= ± 0.095 mile	
U.S. Route 45	± 1,200'	= ± 0.227 mile	
 Total Length	 ± 9,700'	 = ± 1.837 miles	

30 Parcels: 30 Fee Simple

1. Pre-Survey Phase  
 Research available records

a.	Title Co.	)	
		)	
b.	Recorder's Office	)	7 MH
		)	
c.	I.D.O.T.	)	
		)	
d.	Utilities	)	
		)	
e.	Private Surveyors	)	
		)	
f.	Land Owners	)	<u>3 MH</u>

Sub-total Item # 1                      10 MH

2. Reconnaissance Survey                      2 Men                      32 MH

3.	Project Survey Plan		$\pm 2,640'$ /sheet - 4 sheets	
	a.	Alignment info	)	
			)	
	b.	Existing R.O.W. info	)	
			)	
	c.	Land line data	)	
			)	
	d.	Subdivision data	)	4 sheets
				<u>4 MH</u>
			Sub-total Item #3	4 MH
4.	First Submittal Plat of Highways & Descriptions			
	a.	Ownership info	)	
			)	
	b.	Total holding boundaries	)	
			)	
	c.	Total holding area listing	)	16 MH
			)	
	d.	Private survey info	)	
			)	
	e.	Deed calculated closures	)	
	f.	Layout and drafting	$\pm 600'$ /sht. $\pm 18$ sheets	
		252 hours x 1 man =		252 MH
		Cover Sheet	1 sheet	
		1 hour x 1 man =		1 MH
		Index Sheet	1 sheet	
		4 hours x 1 man =		4 MH
		Alignment sheets	2 sheets	
		4 hours x 1 man =		4 MH
		Total Holding sheets	8 sheets	
		28 hours x 1 man =		28 MH
	g.	Legal descriptions	30 descriptions	<u>30 MH</u>
			Sub-total Item #4	335 MH

5.	Survey (Field)		
a.	Monument center line alignment		
	Fairway Drive - 500' - 2 hours x 2 men =		4 MH
	U.S. Route 45 - 1,200' - 4 hours x 2 men =		8 MH
b.	Measure existing property lines		
	120 hours x 2 men =		240 MH
c.	Appraisal topography		
	90 hours x 2 men =		180 MH
d.	Monument & reference section & quarter corners		
	3 hours x 2 men =		6 MH
e.	Monument proposed R.O.W. lines		
	80 hours x 2 men =		<u>160 MH</u>
		Sub-total Item #5	598 MH
6.	Survey (Office)		
a.	Compute traverse		
	14 hours x 1 man =		14 MH
b.	Compute existing property lines		
	120 hours x 1 man =		120 MH
c.	Compile appraisal topography		
	11 hours x 1 man =		11 MH
d.	Compute center line alignment		
	4 hours x 1 man =		4 MH
e.	Compute proposed R.O.W.		
	16 hours x 1 man =		<u>16 MH</u>
		Sub-total Item #6	165 MH

7.	Final Submittal Plat of Highways & Descriptions	
a.	Final drafting ± 30 sheets 14 hours x 1 man =	14 MH
b.	Final descriptions 30 descriptions	3 MH
c.	Prepare & record Monument Records 3 Monument Records	6 MH
d.	Assembly of final papers	<u>3 MH</u>
	Sub-total Item #7	26 MH
8.	Coordination Meetings	
a.	1 meeting @ 2 hours =	2 MH
9.	QC/QA	
b.	Check preliminary plats 30 sheets	93 MH
c.	Check preliminary legal descriptions 30 legal descriptions	12 MH
c.	Check final plats 30 sheets	15 MH
d.	Check final legal descriptions 30 legal descriptions	<u>3 MH</u>
	Total All Items	1,295 MH

Route: Buffalo Grove Road  
Section: Illinois Route 22 to U.S. Route 45  
County: Lake  
Job No.:

**Breakdown of  
In House Direct Costs**

Item

1. Pre-Survey Phase

a. Trip to County Recorder – 1 each  
± 30 miles/trip x 1 trip = ± 30 miles  
± 30 miles @ \$0.57/mile = \$ 17.10

b. Deeds & Monument Records = \$ 60.00

Sub-total Item #1 \$ 77.10

2. Reconnaissance Survey

a. Trips to project site - 2 each  
± 44 miles/trip x 2 trips = ± 88 miles  
± 88 miles @ \$0.57/mile = \$ 50.16

4. First Submittal Plat of Highways & Descriptions

a. Plat of Highways Mylars  
30 sheets @ \$5.00/sheet = \$ 150.00

5. Survey (Field)

a. Trips to project site - 38 each  
± 44 miles/trip x 38 trips = ± 1,672 miles  
± 1,672 miles @ \$0.57/mile = \$ 953.04

7. Final Submittal Plat of Highways & Descriptions

a. Trip to County Recorder	
± 30 miles/trip x 1 trip = ± 30 miles	
± 30 miles @ \$0.57/mile =	\$ 17.10
b. Record Monument Records	
3 Monument Records @ \$60 =	\$ 180.00
c. Deliver Final Papers to Lake County office	
± 22 miles/trip x 1 trip = ± 22 miles	
± 22 miles @ \$0.57/mile =	<u>\$ 12.54</u>
Sub-total Item #7	\$ 209.64

8. Coordination Meetings

a. Meetings at BLA office – 1 each	
± 70 miles/trip x 1 trip = ± 70 miles	
± 70 miles @ \$0.57/mile =	<u>\$ 39.90</u>
Total All Items	\$ 1,479.84



**COMPANY NAME: Jorgensen & Associates, Inc.**

PTB NUMBER: \_\_\_\_\_

 TODAY'S DATE: **1/24/2020**

ITEM	ALLOWABLE	UTILIZE W.O. ONLY	QUANTITY J.S. ONLY	CONTRACT RATE	TOTAL
Per Diem (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum			\$0.00	\$0.00
Lodging (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost (Up to state rate maximum)			\$0.00	\$0.00
Lodging Taxes and Fees (per GOVERNOR'S TRAVEL CONTROL BOARD)	Actual cost			\$0.00	\$0.00
Air Fare	Coach rate, actual cost, requires minimum two weeks' notice, with prior IDOT approval			\$0.00	\$0.00
Vehicle Mileage (per GOVERNOR'S TRAVEL CONTROL BOARD)	Up to state rate maximum		1,912	\$0.570	\$1,089.84
Vehicle Owned or Leased	\$32.50/half day (4 hours or less) or \$65/full day			\$0.00	\$0.00
Vehicle Rental	Actual cost (Up to \$55/day)			\$0.00	\$0.00
Tolls	Actual cost			\$0.00	\$0.00
Parking	Actual cost			\$0.00	\$0.00
Overtime	Premium portion (Submit supporting documentation)			\$0.00	\$0.00
Shift Differential	Actual cost (Based on firm's policy)			\$0.00	\$0.00
Overnight Delivery/Postage/Courier Service	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Copies of Deliverables/Mylars (In-house)	Actual cost (Submit supporting documentation)		30	\$5.00	\$150.00
Copies of Deliverables/Mylars (Outside)	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Project Specific Insurance	Actual cost			\$0.00	\$0.00
Monuments (Permanent)	Actual cost			\$0.00	\$0.00
Photo Processing	Actual cost			\$0.00	\$0.00
2-Way Radio (Survey or Phase III Only)	Actual cost			\$0.00	\$0.00
Telephone Usage (Traffic System Monitoring Only)	Actual cost			\$0.00	\$0.00
CADD	Actual cost (Max \$15/hour)			\$0.00	\$0.00
Web Site	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Advertisements	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Public Meeting Facility Rental	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Public Meeting Exhibits/Renderings & Equipment	Actual cost (Submit supporting documentation)			\$0.00	\$0.00
Recording Fees	Actual cost		3	\$60.00	\$180.00
Transcriptions (specific to project)	Actual cost			\$0.00	\$0.00
Courthouse Fees	Actual cost		1	\$60.00	\$60.00
Storm Sewer Cleaning and Televising	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Traffic Control and Protection	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Aerial Photography and Mapping	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Utility Exploratory Trenching	Actual cost (Requires 2-3 quotes with IDOT approval)			\$0.00	\$0.00
Testing of Soil Samples*	Actual cost			\$0.00	\$0.00
Lab Services*	Actual cost (Provide breakdown of each cost)			\$0.00	\$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	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
				\$0.00	\$0.00
<b>TOTAL DIRECT COST</b>					<b>\$1,479.84</b>

\*If other allowable costs are needed and not listed, please add in the above spaces provided.

**LEGEND**  
 W.O. = Work Order  
 J.S. = Job Specific

Route: Buffalo Grove Road  
Section: Illinois Route 22 to U.S. Route 45  
County: Lake  
Job No.:

**Breakdown of  
Services by Others**

Item

1. Pre-Survey Phase

a. Commitments for Title Insurance 30 Commitments @ \$475.00 each =	\$ 14,250.00
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# DESIGN SURVEY PROCEDURES



## **DESIGN SURVEY PROCEDURES** (Revised 10/19/18)

### **HORIZONTAL ALIGNMENT**

Unless otherwise specified in the services contract, the CONSULTANT is to provide the horizontal alignment. The CONSULTANT will conduct all surveying, stationing, and preparation of required plans using English units of measure and the U.S. Survey Foot. The CONSULTANT'S SURVEYOR will try to re-establish the original horizontal alignment as shown on the recorded R.O.W. plats. The CONSULTANT shall contact LCDOT's Land Surveyor to obtain R.O.W. plats and field notes before establishing the horizontal alignment and stationing. The CONSULTANT shall notify LCDOT's Surveyor immediately if the alignment cannot be reproduced or if in the CONSULTANT'S opinion the existing alignment information is in error.

The CONSULTANT'S SURVEYOR, prior to construction, shall stake the PCs, PIs, PTs, and POTs so that the alignment location can be verified before construction staking is initiated. The CONSULTANT'S SURVEYOR will provide four reference ties to all U.S. Public Land Survey Monuments that are located within the construction limits. The reference points should be located outside of the anticipated construction limits if practical, so that they can be used after construction to replace the monuments. The CONSULTANT shall record Monument Records for all Section and Quarter Section corners set or found within the construction limits.

The CONSULTANT will mark the baseline for relocated alignments when off pavement at the PCs, PTs, and POTs with iron rods. The rods shall be set one foot below the surface in farmed land. The CONSULTANT will advise the County of any pavement alignment variations. In cases where the proposed centerline of construction or survey baseline is different from the existing centerline of R.O.W., both shall be shown and the relationship between them shall be indicated on an Alignment & Tie sheet.

### **ALIGNMENT & TIE SHEET**

An Alignment & Tie Sheet shall be provided as part of the final plans. The plans are to be prepared using English units of measure and the U.S. Survey Foot. The station, offset, and coordinates of the alignment points (PCs, PTs, PIs, and POTs) and survey control (traverse) points shall be shown. Coordinates for all projects shall be on the Illinois State Plane Coordinate System, - East zone, NAD83 (Adjustment). The grid (combination) factor for the project shall be shown. A list of traverse points with station, offset, and coordinates shall be provided.

## **VERTICAL ALIGNMENT**

The North American Vertical Datum of 1988 (NAVD 88) shall be used for vertical control. Lake County Mapping Benchmarks are available on-line (<http://gis.lakeco.org/maps/>). NAVD88 benchmarks are available on-line from the National Geodetic Survey. LCDOT's Land Surveyor may also be contacted for benchmarks that may be in the area. The primary benchmarks and site benchmarks shall be listed and described on the Alignment & Tie Sheet. The location of the site benchmarks shall also be shown on the plan sheets with a symbol. Site benchmarks are to be located at less than 1000-foot intervals with a minimum of two (2) on each project.

All benchmarks shall be located on stable objects. LCDOT prefers these objects to be outside the construction limits. Some acceptable benchmark examples are, spikes in poles, bolts on fire hydrant rings, and concrete foundations.

## **TOPOGRAPHY**

The CONSULTANT shall cut cross-sections at 50-foot intervals and at all points needing clarification. For areas of superelevation or requiring greater detail, cross-sections shall be cut at 25-foot intervals. The cross section interval should be defined in the engineering services contract.

Full cross-section profiles will be taken at all cross streets, alleys, cross road culverts, and entrances (commercial, private, and field). Half cross-sections will not be accepted because they skew the computer terrain model.

The CONSULTANT will locate and identify all trees (6 inches in diameter or greater) within the area either side of the centerline, defined by the proposed ROW or construction limits (whichever is greater) plus an additional 10 feet. The trees shall be identified by species and size. The trees shall be located by station/offset and have a ground elevation.

Streams, tributaries, or major drainage ditches located within a lateral distance of 250 feet from centerline (upstream and downstream) shall be surveyed. Alignment, profiles, and cross-sections shall be taken. The stream width shall be shown as the distance measured between the tops of the stream banks. Profile elevations along the bottom of the watercourse shall be taken at a minimum of 50-foot intervals.

The survey shall extend a minimum of 200 feet beyond the roadway construction limits. Cross-sections shall be taken a minimum of 10 feet beyond the proposed R.O.W. or construction limits (whichever is greater). Cross-sections will extend 30 feet beyond the proposed R.O.W. at entrances and 150 feet at minor side roads.

All survey data shall be collected in Illinois State Plane Coordinates – East Zone. The collected survey data for the existing topography shall have a minimum of 3<sup>rd</sup> Order Accuracy horizontally with readings to the nearest 0.1 feet for vertical on gravel or ground and readings to the nearest 0.01 feet for vertical on all other surfaces.

For ADA ramps: The Consultant shall not use GPS devices to collect vertical data or elevations for hard surfaces e.g. curb and gutter, sidewalk, bike paths etc.

### **RAILROAD INSURANCE**

The CONSULTANT will comply with the railroad's requirements when conducting a survey on the railroad's R.O.W. Usually, this includes obtaining a permit, paying a fee, obtaining Railroad Protective Liability Insurance, notification of a flagman to be present near the rails during the survey operations, and any other requirements of the railroad. The CONSULTANT is responsible for all of the foregoing requirements.

### **DELIVERABLES**

- I. Copies from the CONSULTANT'S field books, showing benchmarks, level circuits, & structure details, such as size and inverts etc.
- II. The Base Drawing at 1:1 scale. All the topographic information shall be plotted electronically. The data shall be in Illinois State Plane Coordinates – East Zone and be recorded in a MICROSTATION (dgn) format. All CAD work shall be according to LCDOT CAD Standards. ASCII files, gpk files, and/or InRoads files containing all point information as described below shall be included. A filename “ID” acronym explanation sheet shall be provided. Backup CDs shall be provided.
- III. Point Information:
  - (1) Point number
  - (2) Northing and Easting coordinate values
  - (3) "Z" elevations
  - (4) Point identification by code
  - (5) Notes

# PROPOSAL FOR LAND ACQUISITION SERVICES

**Lake County Division of  
Transportation**

**BLA, Inc.**



**Buffalo Grove Road  
from IL 22 and US 45**

**Santacruz Land  
Acquisitions** 

222 Northfield Road · Suite 201  
Northfield, IL 60093  
[www.santacruz-associates.com](http://www.santacruz-associates.com)

Contact:  
J. Steve Santacruz  
847-868-9620  
[jsteve@santacruz-associates.com](mailto:jsteve@santacruz-associates.com)

# 1

## EXECUTIVE SUMMARY

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We understand the importance of keeping on schedule. On-time lettings gives the Lake County Division of Transportation, the Local Public Agency (“LPA”) the best use of its resources and strengthens the efficiencies in the implementation of its roadway improvement program. To achieve your goals, it is critical that your land acquisition consultant understands the importance and addresses three critical issues in your acquisition of right of way:

- Deliver the right of way on-time to meet the letting
- Manage the acquisition risks, including the cost of condemnation litigation
- Compliance with land acquisition policies and procedures and FWHA policies that effect the certification and funding of your project.

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

Delivery of right of way on-time keeps the project on its letting schedule. We understand that nothing is more important to the LPA.

**We have assembled a team of industry leading right of way professionals that have years of experience working on land acquisition projects with the understanding of what needs to be done to complete an acquisition on time.**

Santacruz Land Acquisitions (“Santacruz”) will work with the staff for the LPA and/or BLA, Inc., Engineer for the LPA, (“Consultant”) to develop a land acquisition plan for the reconstruction of Buffalo Grove Road from IL 22 and US 45 (the “Project”) to assure that the goals are met.

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

### CRITICAL ISSUE 2: MANAGE THE ACQUISITION RISKS

Equally important as the scheduled letting is the acquisition budget for the Project. Our team will suggest ways to minimize impacts and reduce costs in challenging acquisitions. We will also work with the LPA to minimize the condemnation referrals that impact the budget for this Project. At the same, our team will quickly identify parcels in the very beginning of the process that have title issues that can only be resolved through condemnation so that the team can develop strategies on moving the land acquisition process forward.



Your land acquisition consultant needs to have knowledge of the legal requirements necessary to position an agency for condemnation. Our team possesses that knowledge and has years of experience providing “expert witness” testimony in these matters.

**Santacruz is made up of skilled right of way professionals with a vast background in real estate and civil engineering with respect to transportation projects which gives us the ability to recognize issues and resolve them before they create delays.**

### CRITICAL ISSUE 3: COMPLIANCE WITH GOVERNMENT REGULATIONS

All land acquisition services must be performed in accordance with the Uniform Relocation Assistance and Real Property Act. In addition, we are familiar with IDOT’s land acquisition guidelines, policies and procedures.

**We apply our team’s extensive collective decades of experience complying with federal and state laws and maximizing the team’s knowledge of the land acquisition policies of IDOT.**

### ADDITIONAL COMPONENT OF OUR PROPOSAL: BEP UTILIZATION

**Santacruz** is a BEP with Central Management Services, a DBE with IDOT and an MBE with Cook County and the City of Chicago.

### TEAM ORGANIZATION

**Santacruz** has assembled a versatile team of professional right of way consultants with the experience to deliver successful land acquisition services and meet the letting dates of the project. Javier Santacruz will lead the team as Project Manager. The team brings a wealth of experience in land acquisition for governmental agencies and related real estate law and civil engineering disciplines to assure the proper handling of even the most complicated of acquisitions. Additionally, the key members of the team have collaborated in the past on projects.

### WHY SANTACRUZ LAND ACQUISITIONS?

As you review our proposal, you will see that the team that Santacruz Land Acquisitions has assembled is versatile, experienced and qualified to deliver the full scope of the land acquisition needs for the LPA. What sets apart our team is:

- Years of successful on-time delivery of right of way land acquisition services to various other agencies
- Diverse set of real estate acquisition disciplines including backgrounds in law and civil engineering
- Extensive experience with complex valuations and acquisitions
- Title review experience, including familiarity with all types of recorded documents affecting real estate and knowledge on how to clear title
- Experience in reviewing plats and legal descriptions, as well as an ability to review and understand roadway construction plans
- Expertise with the Uniform Relocation Assistance and Real Property Act of 1970, as amended (Uniform Act), Illinois Eminent Domain Act (735 ILCS 30), IDOT Land Acquisition Guidelines.
- Familiarity with IDOT policies and procedures related to land acquisition and appraisals.

### SUMMARY

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

## COMPENSATION

Santacruz Land Acquisitions shall be entitled to the compensation as shown on the attached schedule. Our cost proposal, based on **thirty (30)** projected parcels of right-of-way, is as follows:

<b><u>APPRAISALS:</u></b>	<b>\$90,000.00.</b>
<b><u>NEGOTIATIONS:</u></b>	<b>\$87,000.00.</b>

As directed, Santacruz Land Acquisitions shall invoice the LPA or Consultant for any fees and charges related to the acquisitions including, without limitation, (i) the cost of the later date title commitments, (ii) the cost of title insurance policies obtained on the parcels to be acquired, (iii) the cost of recording any necessary documents to complete the conveyance and obtain clear title, (iv) lender's fees related to the processing of any partial releases needed to provide clear title, and (v) land trustee processing fees. Santacruz Land Acquisitions shall include **\$600.00** per parcel for these charges. Santacruz Land Acquisitions shall pay any such fees and charges in excess of the **\$600.00** per parcel allowance for which Santacruz Land Acquisitions shall be entitled to additional compensation in the amount of any such payments pursuant to a separate work order issued.

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

Based on the projected total number of parcels of right-of-way to be acquired for the Project, the land acquisition negotiation services provided herein are offered at a cost not to exceed **\$196,000.00** as follows (per the pricing schedule in Exhibit 3.a.):

Land Acquisition Services	<b>\$177,000.00</b>
Consultation/Meeting Services	<b>\$1,000.00</b>
Estimated Direct Billable Expenses	<b>\$18,000.00</b>

# 2

## TECHNICAL APPROACH

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Santacruz shall perform all necessary services in the preparation of appraisals and review appraisals and the negotiation of the acquisition of necessary properties required for the completion of the Project. All services shall be performed in accordance with the policies and procedures of IDOT, as applicable, the Uniform Act and the Illinois Eminent Domain Act.

Santacruz agrees to perform the services as set forth herein as well as furnish and deliver to the LPA the final reports accompanied by all necessary documents needed for recordation and/or necessary for eminent domain proceedings. **The process described in this section has been the roadmap to many successful right of way projects for Santacruz helping us to help you keep your projects on-time and within budget.**

### LAND ACQUISITION CRITICAL PATH STEPS – “OUR ROAD MAP”

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#### Task 1: Notice to Proceed

Our services start after authorization to proceed from the LPA and IDOT (as may be necessary).

#### Task 2: Kick-off Meeting

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

#### Task 3: Delivery and Review of Project Information

The LPA or Consultant will provide Santacruz with plats of highway, legal descriptions, the most recent title commitments and any other pertinent information regarding the property owner for each parcel assigned for acquisition. In addition, the LPA or Consultant will also provide us with a set of project plans, including, (i) plan and profile, (ii) drainage and utilities, (iii) pavement markings and (iv) cross sections.

#### Task 4: Introductory Notice to Owners

The Appraiser will notify the property owner of the proposed taking and will invite the property owner to be present during the inspection by the appraiser.

## Task 5: Appraisal

The Appraiser shall make a detailed inspection of the properties and make such investigations and studies as are consistent with industry standard and necessary to derive sound conclusions for the preparation of appraisal reports. All appraisal work shall be completed within eight to ten weeks after commencement.

The Appraiser shall assist in analyzing and responding to valuation information provided by a property owner in support of a counter offer.

As necessitated by a change of ownership, a revision to the right of way or for condemnation purposes, Santacruz will furnish and deliver updated or revised appraisals. Such requests may be pursuant to a separate work order.

## Task 6: Negotiation and Acquisition

Santacruz shall commence negotiations after approval by the LPA of the appraisals and the amount of just compensation to be offered to the property owner.

Before contacting the property owner, Santacruz will prepare and send the introductory letter to the property owner on the LPA's letterhead.

Santacruz will present the property owner with an offer package, which shall contain the Offer to Purchase and other documents to assist the property owner with reviewing the right-of-way request.

Santacruz Land Acquisitions will make all reasonable efforts to complete the acquisition of the right-of-way from the property owner.

Santacruz will not have any authority to determine administrative settlements. Santacruz will consult with the LPA for approval of any counter offers and upon acceptance by the LPA of any such counter offer, Santacruz will prepare the necessary documentation for administrative settlement.

Santacruz will review the title commitment provided for each parcel to determine the liens

and encumbrances that will need to be addressed in order to complete the acquisition process for the LPA.

If, during its discussions with the property owner, errors in the plans are discovered or the property owner requests design changes, Santacruz will immediately notify LPA or Consultant with this information. At any time during negotiations for situations involving design changes, errors in plans or for any other reason, if requested by LPA or Consultant, Santacruz will cease negotiations on certain parcels until corrected information or further instruction is provided to Santacruz.

Upon successful negotiations with the property owner, Santacruz will prepare all necessary conveyance documents in order to complete the acquisition and obtain title approval for the property. Santacruz will submit the completed parcel file with original conveyance documents, any documents necessary for title clearance, the Negotiator's Log documenting all negotiation activities, copies of all correspondence with the property owner, title commitments, plats, and all other documentation as required by the LPA and IDOT (as necessary).

## Condemnation Support

Santacruz understands that appearances in court and/or pretrial conferences, which may include depositions, and preparation for litigation or pre-trial conferences may be required by the LPA so that it may complete the acquisition of the property through condemnation.

In the event, after making every reasonable effort to contact and negotiate with a property owner, Santacruz is unable to obtain a settlement for the acquisition of the right-of-way, Santacruz shall refer the parcel to the LPA for acquisition by condemnation.

In such case, at the request of the LPA or its trial counsel, the Appraiser assigned to appraise the parcel shall make any such appearances or complete such preparation work in order to assist with this process. In addition, at the request of the LPA or its trial counsel, the Negotiator assigned to

negotiate the parcel shall make any such appearances or complete such preparation work in order to assist with this process. Such requests for trial appearances or condemnation support will be pursuant to a separate work order.

## PERSONNEL

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The experience and talent of the right of way professionals that make up the team for Santacruz will, to a large extent, be the basis for the success of keeping this Project on-time and within budget. Santacruz brings over twenty-five years of right of way acquisition experience. Santacruz has worked on thousands of acquisition parcels for ISTHA, IDOT, Cook, Kane, Lake, and Will Counties. We have also worked for numerous township and municipalities. Santacruz has years of experience handling some of the most complex land acquisition transactions.

The Santacruz staff includes two negotiators and two paralegals with years of experience in acquiring a variety of right-of-way parcels.

## PRIOR EXPERIENCE

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Santacruz Land Acquisitions was founded in 1992 and has grown to be one of the most dependable right-of-way negotiation firms in Illinois. Santacruz has been providing comprehensive right-of-way solutions, including negotiation activities and the coordination of the valuations of parcels for various public agencies.

# 3

## EXHIBITS

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### a. Pricing Schedule

# Compensation for Services

## **Appraisal Services (per parcel)**

Appraisals	\$3,000.00
Revision to appraisal due to change in ROW or plans <sup>1</sup>	\$1,500.00 - \$4,000.00

## **Negotiation Services (per parcel)**

Negotiation and acquisition services for Right of Way including, without limitation, documentation of conveyance of property interest	\$2,900.00
Additional negotiations due to change in ownership or plans <sup>1</sup>	\$1,900.00 - \$3,500.00

## **Witness Services (if applicable)**

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

## **Title Services (if applicable)**

Later date commitment – In addition to actual recording costs + Administrative fee	\$25.00
Title insurance policies – In addition to actual recording costs + Administrative fee	\$25.00
Recording of Documents – In addition to actual recording costs + Administrative fee	\$25.00
Copies of recorded documents – In addition to actual copying costs & research fees + Administrative fee	\$25.00

<sup>1</sup> May requires supplemental work order.



A Subsidiary of GZA



January 24, 2020

via email: [dbruckelmeyer@bla-inc.com](mailto:dbruckelmeyer@bla-inc.com)

Mr. Dan Bruckelmeyer, P.E.  
President/CEO  
Bollinger, Lach & Associates, Inc.  
333 Pierce Road, Suite 200  
Itasca, IL 60143

**Re: Phase II Environmental Services – PESA, PSI/CCDD  
Section 17-00254-03-WR – Buffalo Grove Road (IL 22 to US45) – Lake County, IL.  
Proposal No.: 81.PT000147.20 (Rev1)**

Dear Mr. Bruckelmeyer:

Huff & Huff, Inc. (H&H), a subsidiary of GZA, Inc. (Consultant) is pleased to submit this revised proposal to Bollinger Lach & Associates, Inc. (Client) to provide Phase II environmental services in conjunction with the proposed roadway widening project, located along Buffalo Grove Road. The limits extend from IL Route 22 (Half Day Road or IL 22) to US Route 45 (US 45) and a revision to include an additional 0.5 miles north of US 45 along Fairway Drive to accommodate potential profile adjustment at intersection with US 45, for a total distance of approximately 2.0 miles in the Villages of Buffalo Grove and Vernon Hills, Lake County, Illinois.

Client has requested completion of a Preliminary Environmental Site Assessment (PESA) and a Preliminary Site Investigation (PSI) including assessment for disposal of soils at a clean construction and demolition debris (CCDD) or uncontaminated soil fill operation (USFO) facility for the local roads portion of the project. This proposal presents our project understanding based on information provided by Client including our proposed the scope of services under assumption that the proposed fee will be provided at a later date, upon request from Client.

**1. PROJECT UNDERSTANDING**

We understand the improvements along Buffalo Grove Road include widening, including right-of-way easement acquisitions, sidewalk and ADA ramp improvements, and culvert, storm sewer, and stormwater detention design. In addition, we understand there may be design elements to include a 2.5-foot profile increase at the intersection of Buffalo Grove Road and US 45, therefore extending improvements approximately 0.5 miles north of US 45 along Fairway Drive. Since it is currently unknown if work along the north leg is necessary, this work has been included as a separate task (Task 5) and is specific to the additional effort for the north leg.

**2. SCOPE OF SERVICES**

**Task 1 – Preliminary Environmental Site Assessment (PESA)**

The process will follow general protocols contained within:

- A Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation (IDOT) Highway Projects (Erdmann et al., 2012)
- ASTM International (ASTM) standard 1527-13

GEOTECHNICAL

ENVIRONMENTAL

ECOLOGICAL

WATER

CONSTRUCTION  
MANAGEMENT

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- The IDOTs Bureau of Design and Environment (BDE) Procedure Memorandum Number 10-07, *Special Waste Procedures*. This memo was incorporated into Chapter 27-3 of the IDOT BDE Manual in June 2012.
- IDOT Bureau of Local Roads and Streets (BLRS) Manual, Chapter 20-12, Special Waste, July 2013.
- Public Act 96-1416
- Clean Construction or Demolition Debris Fill Operations (CCDD) and Uncontaminated Soil Fill Operations: Amendments to 35 Illinois Administrative Code 1100. Effective on August 27, 2012.

#### **A. Historical Research**

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

#### **B. Site Evaluation**

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

#### **C. Records Review**

A records review will be conducted to determine potential environmental concerns within the study area. It will include a search of standard state and federal environmental record databases in accordance with the specifications of ASTM standards. This search is based on the outline of the study area.

Specifically, Consultant will search each database to identify any potential sources requiring further investigation. As appropriate, Freedom of Information Act (FOIA) requests will be filed with the IEPA to obtain additional data pertaining to identified sites.

#### **D. Report Preparation**

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

- a) The project location and description
- b) Historical uses of corridor.
- c) The area geology and hydrology.
- d) The environmental status of sites adjacent to the corridor regarding chemical use and storage, underground and aboveground storage tanks, solid waste, special waste, and hazardous waste, and PCBs.
- e) An analysis of the site inspection.
- f) A summary of the findings regarding environmental concerns. This will include IDOT's BDE Manual Chapter 27-3, Special Waste Procedures, and identification of Potentially Impacted Properties (PIPs) per Subpart F, Section 1100, 35 IAC, related to Clean Construction or Demolition Debris management.

### **Task 2 – Preliminary Site Investigation / CCDD**

Consultant proposes conducting a series of up to twenty-eight (28) soil borings to evaluate soil conditions along the entire project corridor with respect to handling and disposal considerations. The actual number and placement of soil borings



will be based on the findings of the PESA proposed in Task 1 in conjunction with the proposed project plans, with sampling to depths consistent with the proposed improvements, currently estimated to range from 2 to 12 feet below ground surface. In addition, since culvert work is currently anticipated, we propose to conduct sampling of sediment at up to four (4) locations), if necessary, in areas where sediment disturbance is anticipated.

#### **A. Soil Borings and Soil/Sediment Sampling**

It is anticipated that two (2) days of field effort will be required with up to 28 borings completed, assumed with the aid of traffic control services. The borings will be advanced and soil samples collected for laboratory analysis to address sites identified as RECs/PIPs for soil disposal considerations, specifically at locations identified for proposed excavation. The depths of the soil borings will be dependent upon design details to account for depths of proposed disturbance. Consultant will adjust the depths of planned borings prior to mobilization consistent with project plans as provided by Client, in conjunction with PESA findings. Currently it is estimated that borings will be advanced to approximately 2 to 12 feet below ground surface.

Currently, we do not anticipate completing borings with the railroad right-of-way (RRROW) and soil borings can be completed immediately adjacent to the RRROW without the need for access permission, flaggers, and fees associated with completing borings within the RRROW. If spoils are to be generated from within the RRROW that require characterization, depending on the volume anticipated, it may become necessary to either obtain the necessary authorization to access the RRROW or follow an IDOT Risk Management approach to consider spoils from within the RRROW as non-special waste (IDOT 669.05 a(5) soils).

#### **B. Analytical**

Laboratory analysis of soil samples is proposed to be consistent with constituents of concern (COCs) as determined from the PESA, with the below information presented based on Consultants current understanding of the project, to be adjusted ultimately based on the findings of the PESA and in conjunction with industry trends for consideration of disposal at CCDD facilities. Boring locations where petroleum products or other volatile organic compounds represent the primary concern, samples will be field screened with a photoionization detector (PID). The sample with the highest PID reading in each boring will be analyzed for:

- **Volatile Organic Compounds** (up to 10 samples) – VOCs are volatile compounds found in gasoline and related to various solvents;
- **Semi-Volatile Organic Compounds (SVOCs) or Polynuclear Aromatic Hydrocarbons (PNAs)** (up to 8 samples each) – SVOCs are semi-volatile compounds commonly formed during incomplete combustion of organic compounds. PNAs are a subset of SVOCs and can be formed by the combustion of wood, coal, and petroleum products. They are also found in less refined, nonvolatile petroleum products and can be used to identify potential for diesel or fuel oil contamination in soil.

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

- **RCRA Metals, total and SPLP/TCLP methods** (up to 16 samples) – Federal environmental regulations identify eight (8) heavy metals as hazardous if present in a *solid waste* at concentrations above varying threshold concentrations. Samples will be analyzed for seven (7) of the eight (8) RCRA Metals via total analysis. In addition, we propose to analyze up to 16 samples via TCLP analysis method for chromium and iron (iron is included here since spoils may be directed to Thelen Sand & Gravel and they require iron analysis). Subsequently, based on the results of the seven (7) RCRA



metals analyzed via total analysis method, some parameters may require supplemental analysis via SPLP or TCLP methodology to determine compliance with the CCDD maximum allowable concentrations (MACs) (8 samples).

- **Pesticides / Herbicides** (up to 4 samples) – Railroad corridors and golf courses have historically used herbicides to control vegetative growth along their corridors.

In addition, soil samples will be analyzed for soil pH from each boring location, analyzed with a field meter consistent with CCDD sampling requirements with select pH samples submitted for laboratory analysis (up to 28).

### **C. PSI Report Preparation**

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

### **D. CCDD (LPC-Form) Documentation**

The soil sample results will be compared to the Maximum Allowable Concentrations (MACs) associated with CCDD facility acceptance, including the soil pH range of 6.25 to 9.0. If results achieve the MAC values, H&H will prepare the LPC-663 document that will be signed/stamped by the H&H. This proposal assumes that, consistent with current LCDOT protocol, the completed LPC-Form documentation will be submitted to at least three (3) CCDD facilities in the general area of the project to have the facilities review the completed documentation and provide preliminary review/concurrence documentation to be included in the bidding documents.

Any locations that do not achieve the MACs (including soil pH range) will be identified as exclusion zones, not acceptable for CCDD facility disposal, utilizing soil classifications per IDOT 669.05.

### **Task 3 – QA/QC**

Time under this task includes QA/QC time for the project deliverables as described above.

### **Task 4 – Project Management**

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

### **Task 5 – Local Roads Component North Leg of Intersection with US 45 for Added PESA and PSI/CCDD Coverage**

Below we present the sub-tasks associated with completion of services consistent with the above Tasks 1 to 2 to reflect the cost differential to include services for the added 0.5 miles along Fairway Drive, north of US 45. There is no need to include additional effort for Task 3 (QA/QC) or Task 4 (Project Management). A description of the added scope is included below and costs included as a separate line item on the attached cost sheets:

#### **A. PESA**

All components included in Task 1 above (Historical Research, Site Evaluation, Records Review Report Preparation) apply to completing a PESA for this additional coverage area, which equates to an additional 0.5 miles of coverage, beyond the originally assumed 1.5 miles. We do not envision completing a separate PESA, rather we propose to complete a single PESA inclusive of the entire project corridor. Costs included here reflect the additional 0.5 miles of coverage.



## **B. PSI/CCDD**

All components included in Task 2 above (Soil Borings and Sampling, Analytical, Report Preparation, and LPC-Form Documentation) apply to completing the PSI/CCDD assessment for this additional coverage area. To account for the additional 0.5 miles of corridor, we have included the following:

- One (1) additional day of drilling effort and traffic control for total of three (3) days since two (2) days are included in Task 2;
- Ten (10) additional soil borings to depths consistent with the above-mentioned task;
- Additional laboratory analyses, including:
  - 5 VOC samples;
  - 4 SVOC samples;
  - 4 PNA samples;
  - 8 RCRA metal samples by total analysis (7 metals);
  - 8 TCLP chromium and iron samples;
  - 4 TCLP RCRA metals samples; and
  - 10 pH samples

## **3. PROJECT COSTS**

We understand that costs are not necessary at this time. Consultant will provide the proposed costs on IDOT CECS spreadsheets in cost plus fixed fee (CPFF) format upon request from Client.

## **4. LEVEL OF EFFORT AND SCHEDULE**

PESA work will commence within 5 business days of project approval, with a target completion date of five weeks from the date of approval. The PSI / CCDD work will commence after the completion of the PESA utilizing preliminary plans provided by Client and will require approximately eight weeks to complete. We estimate that the This schedule can be adjusted to accommodate the schedule of the project owner to ensure milestones are met.

## **5. TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES**

### **CONDITIONS OF ENGAGEMENT**

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

### **ACCEPTANCE**

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



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

Very truly yours,

**Huff & Huff, Inc.**

Jeremy J. Reynolds, P.G.  
Associate Principal

Attachments: Terms and Conditions

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

By: \_\_\_\_\_

Title: \_\_\_\_\_

Printed/Typed Name: \_\_\_\_\_

Date: \_\_\_\_\_

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



## **TERMS AND CONDITIONS FOR PROFESSIONAL SERVICES Including Site Investigation, Remediation, Geotechnical, Construction, And Testing**

© 2016 by Huff & Huff, Inc., a Subsidiary of GZA GeoEnvironmental, Inc.

These Terms and Conditions, together with Huff & Huff, Inc.'s (H&H's) Proposal, make up the Agreement between H&H and you, Client, named in the attached proposal.

### **BEFORE SIGNING THE PROPOSAL, BE SURE YOU READ AND UNDERSTAND THE PARAGRAPHS ENTITLED "INDEMNIFICATION" AND "LIMITATION OF REMEDIES" WHICH DEAL WITH THE ALLOCATION OF RISK BETWEEN YOU AND H&H.**

- 1. Services.** H&H will perform the services set forth in its Proposal and any amendments or change orders authorized by you. Any request or direction from you that would require extra work or additional time for performance or would result in an increase in H&H's costs will be the subject of a negotiated amendment or change order.
- 2. Standard of Care; Warranties.**
  - a. H&H will perform the services with the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services at the same time under similar conditions in the same or similar locality.
  - b. H&H warrants that its construction services will be of good quality, free of faults and defects and in conformance with the Proposal.
  - c. **EXCEPT AS SET FORTH IN SUBSECTIONS 2a AND 2b, ABOVE, NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTY OF MARKETABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS MADE OR INTENDED BY H&H'S PROPOSAL OR BY ANY OF H&H'S ORAL OR WRITTEN REPORTS.**
  - d. H&H assigns to you any manufacturers' warranties of equipment or materials purchased from others, to the extent they are assignable, and your sole recourse will be against the manufacturer. Full risk of loss of materials and equipment will pass to you upon delivery to the Site, and you will be responsible for insuring and otherwise protecting them against theft and damage.
- 3. Payment.**
  - a. Except as otherwise stated in the Proposal, you will compensate H&H for the services at the rates set forth in the applicable Proposal, amendment or change order; reimburse its expenses, which will include a communication fee calculated as a percentage of labor invoiced; and pay any sales or similar taxes thereon.
  - b. Any retainer specified in H&H's Proposal shall be due prior to the start of services and will be applied to the final invoice for services.
  - c. H&H will submit invoices periodically, and payment will be due within 20 days from invoice date. Overdue payments will bear interest at 1½ percent per month or, if lower, the maximum lawful rate. H&H may terminate its services upon 10 days' written notice anytime your payment is overdue on this or any other project and you will pay for all services through termination, plus termination costs. You will reimburse H&H's costs of collecting overdue invoices, including reasonable attorneys' fees.
- 4. Your Responsibilities.**
  - a. Except as otherwise agreed, you will secure the approvals, permits, licenses and consents necessary for performance of the services. If you are the owner or operator of the Site, you will provide H&H with all documents, plans, information concerning underground structures (including but not limited to utilities, conduits, pipes, and tanks), information related to hazardous materials or other environmental or geotechnical conditions at the Site and other information that may be pertinent to the services or, if you are not the owner or operator of the Site, you agree to make reasonable efforts to obtain these same documents and provide them to H&H. Unless otherwise indicated in writing, H&H will be entitled to rely on documents and information you provide.
  - b. If you use the services of a construction manager at the Site, you agree to use best and reasonable efforts to include in your agreement(s) with the construction contractor provisions obligating the latter:
    - (i) to indemnify and hold harmless, to the fullest extent permitted by law, you and H&H, its officers, employees and principals, for or on account of any claims, liabilities, costs and expenses, including attorneys' fees, arising out of or relating to the design or implementation



of construction means, methods, procedures, techniques, and sequences of construction, including safety precautions or programs, of the contractor, or any of its subcontractors or any engineer engaged by it;

- (ii) to name you and H&H as additional insureds under general liability and builder's risk insurance coverages maintained by the contractor, or any of its subcontractors; and
  - (iii) to require that all of its subcontractors agree and be bound to the obligations set forth in (i) and (ii) above.
- c. In the event that you are unable to secure such provisions in the agreement(s) with the construction contractor, you shall promptly notify H&H and H&H shall have the opportunity to negotiate with you reasonable substitute risk allocation and insurance indemnities and protections.
5. **Right of Entry; Site Restoration.** You grant H&H and its subcontractor(s) permission to enter the Site to perform the services. If you do not own the Site, you represent and warrant that the owner has granted permission for H&H to enter the Site and perform the services; you will provide reasonable verification on request; and you will indemnify H&H for any claims by the Site owner related to alleged trespass by H&H or its subcontractors. H&H will exercise reasonable care to limit damage to landscaping, paving, systems and structures at the Site that may occur and you agree to compensate H&H for any restoration it is asked to perform, unless otherwise indicated in the Proposal.
6. **Underground Facilities.** H&H's only responsibility under this Section will be to provide proper notification to the applicable state utility "Call-Before-You-Dig" program. You further agree to assume responsibility for and to defend, indemnify and hold harmless H&H with respect to personal injury and property damages due to H&H's interference with subterranean structures including but not limited to utilities, conduits, pipes, and tanks:
- (i) that are not correctly shown on any plans and information you or governmental authorities provide to H&H; or
  - (ii) that are not correctly marked by the appropriate utility.
7. **Reliance.** The services, information, and other data furnished by you shall be at your expense, and H&H may rely upon all information and data that you furnish, including the accuracy and completeness thereof. You acknowledge that the quality of the services provided by H&H is directly related to the accuracy and completeness of the information and data that you furnish to H&H. **H&H's REPORTS ARE PREPARED FOR AND MADE AVAILABLE FOR YOUR SOLE USE. YOU ACKNOWLEDGE AND AGREE THAT USE OF OR RELIANCE UPON THE REPORT OR THE FINDINGS IN THE REPORT BY ANY OTHER PARTY, OR FOR ANY OTHER PROJECT OR PURPOSE, SHALL BE AT YOUR OR SUCH OTHER PARTY'S SOLE RISK AND WITHOUT ANY LIABILITY TO H&H.**
8. **Lab Tests and Samples.** H&H is entitled to rely on the results of laboratory tests using generally accepted methodologies. H&H may dispose of samples in accordance with applicable laws 30 days after submitting test results to you unless you request in writing for them to be returned to you or to be held longer, in which case you will compensate H&H for storage and/or shipping beyond 30 days.
9. **H&H Professionals.** H&H employees or consultants may act as licensed, certified or registered professionals (including but not limited to Professional Engineers, Licensed Site or Environmental Professionals, or Certified Industrial Hygienists collectively referred to in this section as "H&H Professionals") whose duties may include the rendering of independent professional opinions. You acknowledge that a federal, state or local agency or other third party may audit the services of H&H or other contractor/consultant(s), which audit may require additional services, even though H&H and such H&H Professionals have each performed such services in accordance with the standard of care set forth herein. You agree to compensate H&H for all services performed in response to such an audit, or to meet additional requirements resulting from such an audit, at the rates set forth in the applicable Proposal, amendment or change order.
10. **Hazardous Materials; H&H "Not a Generator".** Before any hazardous or contaminated materials are removed from the Site, you will sign manifests naming you as the generator of the waste (or, if you are not the generator, you will arrange for the generator to sign). You will select the treatment or disposal facility to which any waste is taken. H&H will not be the generator or owner of, nor will it possess, take title to, or assume legal liability for any hazardous or contaminated materials at or removed from the Site. H&H will not have responsibility for or control of the Site or of operations or activities at the Site other than its own. H&H will not undertake, arrange for or control the handling, treatment, storage, removal, shipment, transportation or disposal of any hazardous or contaminated materials at or removed from the Site, other than any laboratory samples it collects or tests. You agree to defend, indemnify and hold H&H harmless for any costs



or liability incurred by H&H in defense of or in payment for any legal actions in which it is alleged that H&H is the owner, generator, treater, storer or disposer of hazardous waste.

- 11. Limits on H&H's Responsibility.** H&H will not be responsible for the acts or omissions of contractors or others at the Site, except for its own subcontractors and employees. H&H will not supervise, direct or assume control over or the authority to stop any contractor's work, nor shall H&H's professional activities nor the presence of H&H or its employees and subcontractors be construed to imply that H&H has authority over or responsibility for the means, methods, techniques, sequences or procedures of construction, for work site health or safety precautions or programs, or for any failure of contractors to comply with contracts, plans, specifications or laws. Any opinions by H&H of probable costs of labor, materials, equipment or services to be furnished by others are strictly estimates and are not a guarantee that actual costs will be consistent with the estimates.
- 12. Changed Conditions.**
  - a. You recognize the uncertainties related to environmental and geotechnical services, which often require a phased or exploratory approach, with the need for additional services becoming apparent during the initial services. You also recognize that actual conditions encountered may vary significantly from those anticipated, that laws and regulations are subject to change, and that the requirements of regulatory authorities are often unpredictable.
  - b. If changed or unanticipated conditions or delays make additional services necessary or result in additional costs or time for performance, H&H will notify you and the parties will negotiate appropriate changes to the scope of services, compensation and schedule.
  - c. If no agreement can be reached, H&H will be entitled to terminate its services and to be equitably compensated for the services already performed. H&H will not be responsible for delays or failures to perform due to weather, labor disputes, intervention by or inability to get approvals from public authorities, acts or omissions on your part, or any other causes beyond H&H's reasonable control, and you will compensate H&H for any resulting increase in its costs.
- 13. Documents and Information.** All documents, data, calculations and work papers prepared or furnished by H&H are instruments of service and will remain H&H's property. Designs, reports, data and other work product delivered to you are for your use only, for the limited purposes disclosed to H&H. Any delayed use, use at another site, use on another project, or use by a third party will be at the user's sole risk, and without any liability to H&H. Any technology, methodology or technical information learned or developed by H&H will remain its property. Provided H&H is not in default under this Agreement, H&H's designs will not be used to complete this project by others, except by written agreement relating to use, liability and compensation.
- 14. Electronic Media.** In accepting and utilizing any drawings, reports and data on any form of electronic media generated by H&H, you covenant and agree that all such electronic files are instruments of service of H&H, who shall be deemed the author and shall retain all common law, statutory law and other rights, including copyrights. In the event of a conflict between the signed documents prepared by H&H and electronic files, the signed documents shall govern. You agree not to reuse these electronic files, in whole or in part, for any purpose or project other than the project that is the subject of this Agreement. Any transfer of these electronic files to others or reuse or modifications to such files by you without the prior written consent of H&H will be at the user's sole risk and without any liability to H&H.
- 15. Confidentiality; Subpoenas.** Information about this Agreement and H&H's services and information you provide to H&H regarding your business and the Site, other than information available to the public and information acquired from third parties, will be maintained in confidence and will not be disclosed to others without your consent, except as H&H reasonably believes is necessary: (a) to perform its services; (b) to comply with professional standards to protect public health, safety and the environment; and (c) to comply with laws and court orders. H&H will make reasonable efforts to give you prior notice of any disclosure under (b) or (c) above. Information available to the public and information acquired from third parties will not be considered confidential. You will reimburse H&H for responding to any subpoena or governmental inquiry or audit related to the services, at the rates set forth in the applicable Proposal, amendment or change order.
- 16. Insurance.** During performance of the services, H&H will maintain workers compensation, commercial general liability, automobile liability, and professional liability/contractor's pollution liability insurance. H&H will furnish you certificates of such insurance on request.





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

**18. Limitation of Remedies.**

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

**19. Disputes.**

- a. All disputes between you and H&H shall be subject to non-binding mediation.
- b. Either party may demand mediation by serving a written notice stating the essential nature of the dispute, the amount of time or money claimed, and requiring that the matter be mediated within forty-five (45) days of service of notice.
- c. The mediation shall be administered by the American Arbitration Association in accordance with its most recent Construction Mediation Rules, or by such other person or organization as the parties may agree upon.
- d. No action or suit may be commenced unless mediation has occurred but did not resolve the dispute, or unless a statute of limitation period would expire if suit were not filed prior to such forty-five (45) days after service of notice.

**20. Miscellaneous.**

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

### PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME Huff & Huff, Inc.  
 PRIME/SUPPLEMENT BLA, Inc.  
 Prepared By JJR

DATE 01/24/20  
 PTB-ITEM# 0

CONTRACT TERM 12 MONTHS  
 START DATE 2/1/2020  
 RAISE DATE 3/1/2020  
 END DATE 1/31/2021

OVERHEAD RATE 174.01%  
 COMPLEXITY FACTOR 0  
 % OF RAISE 3%

#### ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	2/1/2020	3/1/2020	1	8.33%
1	3/2/2020	2/1/2021	11	94.42%

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The total escalation = 2.75%

# PAYROLL RATES

**FIRM NAME** Huff & Huff, Inc. **DATE** 01/24/20  
**PRIME/SUPPLEMENT** BLA, Inc.  
**PTB-ITEM #** 0

**ESCALATION FACTOR** **2.75%**

*Note: Rates should be capped on the AVG 1 tab as necessary*

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal	\$72.80	\$74.80
Associate Principal II	\$75.00	\$77.06
Associate Principal I	\$62.63	\$64.35
Senior Consultant	\$69.44	\$71.35
Senior Project Manager III	\$60.73	\$62.40
Senior Project Manager II	\$46.64	\$47.92
Senior Project Manager I	\$45.12	\$46.36
Senior Landscape Architect	\$52.74	\$54.19
Senior Planning PM	\$51.48	\$52.90
Senior Geologist PM	\$47.33	\$48.63
Senior Technical Specialist	\$46.14	\$47.41
Senior Scientist PM II	\$48.58	\$49.92
Senior Scientist PM I	\$45.62	\$46.87
Senior Technical Scientist	\$44.24	\$45.46
Technical Graphics Technic	\$23.34	\$23.98
Scientist PM II	\$43.85	\$45.06
Engineer PM I	\$38.50	\$39.56
Assistant PM Engineer I	\$35.13	\$36.10
Engineer I	\$31.88	\$32.76
Assistant PM Scientist	\$31.50	\$32.37
Scientist E2	\$24.62	\$25.30
Administrative Managers	\$42.04	\$43.20
Senior Administrative Assist	\$29.53	\$30.34

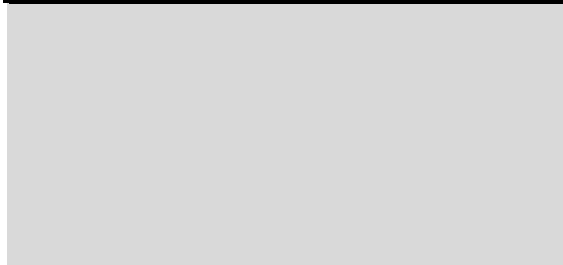


### Subconsultants

FIRM NAME Huff & Huff, Inc.  
PRIME/SUPPLEMENT BLA, Inc.  
PTB-ITEM # 0

DATE 01/24/20

NAME	Direct Labor Total	Contribution to Prime Consultant
------	--------------------	----------------------------------



**Total** **0.00** **0.00**

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

Bureau of Design and Environment

Prepared By: Consultant

**FIRM**  
**PTB-ITEM #**  
**PRIME/SUPPLEMENT**

Huff & Huff, Inc.  
0  
BLA, Inc.

**OVERHEAD RATE** 174.01%  
**COMPLEXITY FACTOR** 0

**DATE** 01/24/20

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
	PESA	46	1,413	2,458	402	523	0	-	4,796	11.41%
	PSI/CCDD	72	2,182	3,796	10,068	807	7,500	-	24,353	57.96%
	QAQC	9	485	844	0	179	0	-	1,508	3.59%
	Project Management	4	169	295	0	63	0	-	527	1.25%
	Add N. Leg PESA, PSI/CCDD	31	895	1,558	4,300	331	3,750	-	10,834	25.78%
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	<b>Subconsultant DL</b>					0			-	
	<b>TOTALS</b>	162	5,144	8,951	14,770	1,903	11,250	-	42,018	100.00%

14,095

**DBE 0.00%**

### AVERAGE HOURLY PROJECT RATES

**FIRM** Huff & Huff, Inc.  
**PTB-ITEM#** 0  
**PRIME/SUPPLEMENT** BLA, Inc.

**DATE** 01/24/20

**SHEET** 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			PESA			PSI/CCDD			QAQC			Project Management			Add N. Leg PESA, PSI/CCDD		
		Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg
Principal	70.00	0.0																	
Associate Principal II	70.00	0.0																	
Associate Principal I	64.35	3.0	1.85%	1.19							3	33.33%	21.45						
Senior Consultant	71.35	0.0																	
Senior Project Manager III	62.40	0.0																	
Senior Project Manager II	47.92	0.0																	
Senior Project Manager I	46.36	0.0																	
Senior Landscape Architect	54.19	0.0																	
Senior Planning PM	52.90	0.0																	
Senior Geologist PM	48.63	8.0	4.94%	2.40							6	66.67%	32.42	2	50.00%	24.32			
Senior Technical Specialist	47.41	2.0	1.23%	0.59	1	2.17%	1.03	1	1.39%	0.66									
Senior Scientist PM II	49.92	0.0																	
Senior Scientist PM I	46.87	0.0																	
Senior Technical Scientist	45.46	10.0	6.17%	2.81	4	8.70%	3.95	6	8.33%	3.79									
Technical Graphics Technic	23.98	0.0																	
Scientist PM II	45.06	0.0																	
Engineer PM I	39.56	0.0																	
Assistant PM Engineer I	36.10	2.0	1.23%	0.45										2	50.00%	18.05			
Engineer I	32.76	0.0																	
Assistant PM Scientist	32.37	65.0	40.12%	12.99	20	43.48%	14.07	30	41.67%	13.49							15	48.39%	15.66
Scientist E2	25.30	69.0	42.59%	10.77	20	43.48%	11.00	34	47.22%	11.95							15	48.39%	12.24
Administrative Managers	43.20	0.0																	
Senior Administrative Assist	30.34	3.0	1.85%	0.56	1	2.17%	0.66	1	1.39%	0.42							1	3.23%	0.98
		0.0																	
		0.0																	
		0.0																	
		0.0																	
<b>TOTALS</b>		162.0	100%	\$31.75	46.0	100.00%	\$30.71	72.0	100%	\$30.30	9.0	100%	\$53.87	4.0	100%	\$42.36	31.0	100%	\$28.88

**HUFF & HUFF, INC.**  
**SUMMARY OF INHOUSE DIRECT COSTS**  
Project: BLA - Buffalo Grove Rd IL22-US45+N Leg

**DIRECT**

**Task 1: PESA**

Trips - Company	75 miles	x	1 x	\$ 0.58	=	\$ 43.13	
Tolls	1 ea	x	6 x	\$ 1.50	=	\$ 9.00	
			0 x	\$ -	=	\$ -	
						<b>Task Total</b>	<b>\$ 52.13</b>

**Task 2: PSI/CCDD**

Trips - Company	75 miles	x	3 x	\$ 0.58	=	\$ 130.50	
Tolls	1 ea	x	18 x	\$ 1.50	=	\$ 27.00	
pH Meter	1 day	x	2 x	\$ 10.00	=	\$ 20.00	
Field Kit	1 day	x	2 x	\$ 30.00	=	\$ 60.00	
PID Meter	1 day	x	2 x	\$ 50.00	=	\$ 100.00	
						<b>Task Total</b>	<b>\$ 337.50</b>

**Task 3: QA/QC**

						0 x	\$ - = \$ -
						<b>Task Total</b>	<b>\$ -</b>

**Task 4: Project Management**

						0 x	\$ - = \$ -
						<b>Task Total</b>	<b>\$ -</b>

**Task 5: N. Leg Local PESA and PSI/CCDD**

Trips - Company	75 miles	x	1 x	\$ 0.58	=	\$ 43.50	
Tolls	1 ea	x	6 x	\$ 1.50	=	\$ 9.00	
pH Meter	1 day	x	1 x	\$ 10.00	=	\$ 10.00	
Field Kit	1 day	x	1 x	\$ 30.00	=	\$ 30.00	
PID Meter	1 day	x	1 x	\$ 50.00	=	\$ 50.00	
						<b>Task Total</b>	<b>\$ 142.50</b>

---

**GRAND TOTAL      \$ 532.13**

**HUFF & HUFF, INC.**  
**SUMMARY OF OUTSIDE DIRECT COSTS**  
Project: BLA - Buffalo Grove Rd IL22-US45+N Leg

**OUTSIDE**

**Task 1: PESA**

Records Search	1 x	\$ 350.00	=	\$ 350.00
	0 x	\$ -	=	\$ -
		<b>Task Total</b>		<b>\$ 350.00</b>

**Task 2: PSI/CCDD**

VOCs	1 ea	x	10 x	\$ 135.00	=	\$ 1,350.00
5035 ktis for VOCs	1 ea	x	10 x	\$ 12.00	=	\$ 120.00
SVOCs	1 ea	x	8 x	\$ 210.00	=	\$ 1,680.00
PNAs	1 ea	x	8 x	\$ 105.00	=	\$ 840.00
RCRA total (7)	1 ea	x	16 x	\$ 89.00	=	\$ 1,424.00
TCLP Cr + Fe	1 ea	x	16 x	\$ 80.00	=	\$ 1,280.00
TCLP RCRA	1 ea	x	8 x	\$ 160.00	=	\$ 1,280.00
Pests/Herbs	1 ea	x	4 x	\$ 320.00	=	\$ 1,280.00
pH	1 ea	x	28 x	\$ 17.00	=	\$ 476.00
			0 x	\$ -	=	\$ -
				<b>Task Total</b>		<b>\$ 9,730.00</b>

**Task 3: QA/QC**

	0 x	\$ -	=	\$ -
		<b>Task Total</b>		<b>\$ -</b>

**Task 4: Project Management**

	0 x	\$ -	=	\$ -
		<b>Task Total</b>		<b>\$ -</b>

**Task 5: N. Leg Local PESA and PSI/CCDD**

VOCs	1 ea	x	5 x	\$ 135.00	=	\$ 675.00
5035 ktis for VOCs	1 ea	x	5 x	\$ 12.00	=	\$ 60.00
SVOCs	1 ea	x	4 x	\$ 210.00	=	\$ 840.00
PNAs	1 ea	x	4 x	\$ 105.00	=	\$ 420.00
RCRA total (7)	1 ea	x	8 x	\$ 89.00	=	\$ 712.00
TCLP Cr + Fe	1 ea	x	8 x	\$ 80.00	=	\$ 640.00
TCLP RCRA	1 ea	x	4 x	\$ 160.00	=	\$ 640.00
pH	1 ea	x	10 x	\$ 17.00	=	\$ 170.00
				<b>Task Total</b>		<b>\$ 4,157.00</b>

---

**GRAND TOTAL      \$ 14,237.00**



**HUFF & HUFF, INC.**  
**SUMMARY OF SERVICES BY OTHERS**

Project: BLA - Buffalo Grove Rd IL22-US45+N Leg

**OUTSIDE**

**Task 1: PESA**

	0 x	\$ -	=	\$ -	
		<b>Task Total</b>		<b>\$ -</b>	

**Task 2: PSI/CCDD**

Driller (day)	2 x	\$ 2,000.00	=	\$ 4,000.00	
Traffic Control (Day)	2 x	\$ 1,750.00	=	\$ 3,500.00	
		<b>Task Total</b>		<b>\$ 7,500.00</b>	

**Task 3: QA/QC**

	0 x	\$ -	=	\$ -	
		<b>Task Total</b>		<b>\$ -</b>	

**Task 4: Project Management**

	0 x		=	\$ -	
		<b>Task Total</b>		<b>\$ -</b>	

**Task 5: N. Leg Local PESA and PSI/CCDD**

Driller (Day)	1 x	\$ 2,000.00	=	\$ 2,000.00	
Traffic Control (Day)	1 x	\$ 1,750.00	=	\$ 1,750.00	
		<b>Task Total</b>		<b>\$ 3,750.00</b>	

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**GRAND TOTAL      \$ 11,250.00**



Project: Buffalo Grove Road  
Lake County Division of Transportation  
AEI Ref. # 2020-01

January 21, 2020  
Revised February 18, 2020

Ames Engineering, Inc. (AEI) will be the sub-consultant to BLA, Inc. to provide lighting PS&E and to provide CADD services for the above project.

**Scope of Work – Lighting**

Ames Engineering, Inc. (AEI) scope of services consists of providing plans for the installation of only beacon lighting at the intersections for the widened Buffalo Grove Rd. from north of IL 22 to south of US 45. The work will consist of the following items:

1. Providing General Notes, Legend and Schedule of Quantities
2. Provide proposed beacon lighting plans at intersections
3. Wiring Diagram/Load table
4. Electrical Detail sheets
5. Special Provisions
6. Voltage Drop Calculations
7. Field visit
8. RFI's
9. Engineers Cost Estimate
10. Coordination with ComEd
11. Meetings with Prime/Client
12. QA/QC
13. Project management and administration

**Items not included in scope:**

1. Any items outside the scope of work and project limits as shown above.
2. Additional hours will be required if changes to geometry are made after the final plan submittal.
3. Lighting plans at the intersections of Buffalo Grove Rd. with IL 22 and with US 45.

**Items to be furnished to AEI:**

1. Base sheets in dgn format.
2. All underground utilities (dgn format).
3. Buffalo Grove Details/Standards in electronic format
4. Electronic files (dgn format) of proposed roadway geometry, alignment shall be provided by the Prime.

Project: Buffalo Grove Road  
Lake County Division of Transportation  
AEI Ref. # 2020-01

**Manhour Estimate - Lighting**

<b>Item</b>	<b>Task</b>	<b>Hours</b>
1.	General Notes, Legend and Schedule of Quantities (1sheet)	8
2.	Proposed Beacon Lighting Plans at intersections (3 sheets @ 24 hrs/sheet) = 72 hrs	72
3.	Wiring Diagram/Load Table (1 sheet @ 12 hrs/sheet) = 12 hrs	12
4.	Electrical Detail sheets (5 sheets @ 1hr /sheet)	5
5.	Special Provisions	6
6.	Voltage Drop Calculations	8
7.	Field Visit (1 field trip 2 persons @ 4 hrs/trip)	8
8.	RFI's	4
9.	Engineer's Cost Estimate	8
10.	Coordination with ComEd	4
11.	Meetings with Prime/Client (1 meeting @ 4 hrs/meeting)	4
12.	QA/QC	4
13.	Project management and administration	6
<b>Total</b>		<b>149</b>



Project: Buffalo Grove Road  
Lake County Division of Transportation  
AEI Ref. # 2020-01

**Direct Cost Estimate – Lighting**

Travel:

Field Check: 1 trip @ \$65/day=\$65

Meeting: 1 meeting @ \$65/day=\$65 \$ 130.00

In-House Miscellaneous:

50 CADD Hrs.: x \$10/hr= \$500 \$ 500.00

TOTAL \$ 630.00

## PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME AMES Engineering, Inc.  
 PRIME/SUPPLEMENT Prime  
 Prepared By Sarah Jafri

DATE 02/19/20  
 PTB-ITEM# 193

CONTRACT TERM 36 MONTHS  
 START DATE 4/1/2020  
 RAISE DATE 1/1/2021  
 END DATE 3/31/2023

OVERHEAD RATE 140.26%  
 COMPLEXITY FACTOR 0  
 % OF RAISE 2%

### ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	4/1/2020	1/1/2021	9	25.00%
1	1/2/2021	1/1/2022	12	34.00%
2	1/2/2022	1/1/2023	12	34.68%
3	1/2/2023	4/1/2023	3	8.84%

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The total escalation = 2.52%

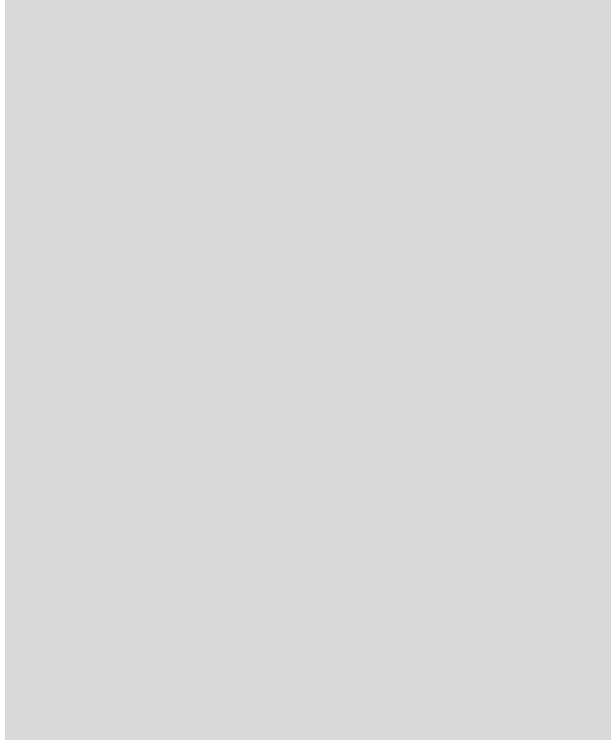
# PAYROLL RATES

FIRM NAME AMES Engineering, Inc. DATE 02/19/20  
PRIME/SUPPLEMENT Prime  
PTB-ITEM # 193

ESCALATION FACTOR 2.52%

*Note: Rates should be capped on the AVG 1 tab as necessary*

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Senior Electrical Engineer	\$57.78	\$59.24
Project Engineer	\$51.46	\$52.76
CADD Technician	\$37.30	\$38.24



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

Bureau of Design and Environment  
Prepared By: Consultant

FIRM AMES Engineering, Inc.  
 PTB-ITEM # 193  
 PRIME/SUPPLEMENT Prime

OVERHEAD RATE 140.26%  
 COMPLEXITY FACTOR 0

DATE 02/19/20

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
DBE	Lighting	149	7,420	10,407	630	2,449		20,906	20,906	100.00%
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	<b>Subconsultant DL</b>					0				
	<b>TOTALS</b>	149	7,420	10,407	630	2,449	-	20,906	20,906	100.00%

17,827

**DBE 100.00%**

### AVERAGE HOURLY PROJECT RATES

**FIRM** AMES Engineering, Inc.  
**PTB-ITEM#** 193  
**PRIME/SUPPLEMENT** Prime

**DATE** 02/19/20

**SHEET** 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Lighting											
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Senior Electrical Engineer	59.24	35.0	23.49%	13.91	35	23.49%	13.91									
Project Engineer	52.76	68.0	45.64%	24.08	68	45.64%	24.08									
CADD Technician	38.24	46.0	30.87%	11.81	46	30.87%	11.81									
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<b>TOTALS</b>		149.0	100%	\$49.80	149.0	100.00%	\$49.80	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00



### PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME AMES Engineering, Inc.  
 PRIME/SUPPLEMENT Prime  
 Prepared By Sarah Jafri

DATE 02/19/20  
 PTB-ITEM# 193

CONTRACT TERM 36 MONTHS  
 START DATE 4/1/2020  
 RAISE DATE 1/1/2021  
 END DATE 3/31/2023

OVERHEAD RATE 140.26%  
 COMPLEXITY FACTOR 0  
 % OF RAISE 2%

#### ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	4/1/2020	1/1/2021	9	25.00%
1	1/2/2021	1/1/2022	12	34.00%
2	1/2/2022	1/1/2023	12	34.68%
3	1/2/2023	4/1/2023	3	8.84%

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The total escalation = 2.52%

# PAYROLL RATES

FIRM NAME AMES Engineering, Inc. DATE 02/19/20  
PRIME/SUPPLEMENT Prime  
PTB-ITEM # 193

ESCALATION FACTOR 2.52%

*Note: Rates should be capped on the AVG 1 tab as necessary*

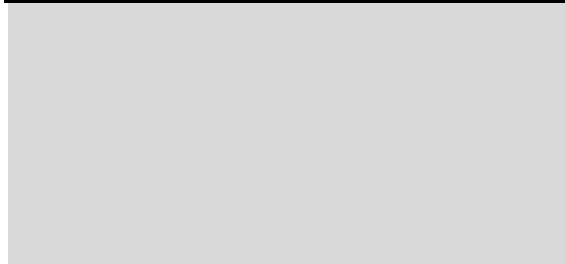
CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Senior Electrical Engineer	\$57.78	\$59.24
Project Engineer	\$51.46	\$52.76
CADD Technician	\$37.30	\$38.24

### Subconsultants

FIRM NAME AMES Engineering, Inc.  
PRIME/SUPPLEMENT Prime  
PTB-ITEM # 193

DATE 02/19/20

NAME	Direct Labor Total	Contribution to Prime Consultant
------	--------------------	----------------------------------



**Total**

**0.00**

**0.00**

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

Bureau of Design and Environment  
Prepared By: Consultant

FIRM AMES Engineering, Inc.  
 PTB-ITEM # 193  
 PRIME/SUPPLEMENT Prime

OVERHEAD RATE 140.26%  
 COMPLEXITY FACTOR 0

DATE 02/19/20

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENF (C)	DIRECT COSTS (D)	FIXED FEE (E)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
DBE	Lighting	149	7,420	10,407	630	2,449		20,906	20,906	100.00%
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	<b>Subconsultant DL</b>					0			-	
	<b>TOTALS</b>	149	7,420	10,407	630	2,449	-	20,906	20,906	100.00%

17,827

**DBE 100.00%**

### AVERAGE HOURLY PROJECT RATES

**FIRM** AMES Engineering, Inc.  
**PTB-ITEM#** 193  
**PRIME/SUPPLEMENT** Prime

**DATE** 02/19/20

**SHEET** 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			Lighting														
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg			
Senior Electrical Engineer	59.24	35.0	23.49%	13.91	35	23.49%	13.91												
Project Engineer	52.76	68.0	45.64%	24.08	68	45.64%	24.08												
CADD Technician	38.24	46.0	30.87%	11.81	46	30.87%	11.81												
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<b>TOTALS</b>		149.0	100%	\$49.80	149.0	100.00%	\$49.80	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00

### AVERAGE HOURLY PROJECT RATES

**FIRM** AMES Engineering, Inc.  
**PTB-ITEM#** 193  
**PRIME/SUPPLEMENT** Prime

**DATE** 02/19/20  
**SHEET** 2 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES																		
		Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg			
Senior Electrical Engineer	59.24																		
Project Engineer	52.76																		
CADD Technician	38.24																		
<b>TOTALS</b>		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	0.0	0%	\$0.00

### AVERAGE HOURLY PROJECT RATES

**FIRM** AMES Engineering, Inc.  
**PTB-ITEM#** 193  
**PRIME/SUPPLEMENT** Prime

**DATE** 02/19/20  
**SHEET** 3 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES																		
		Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg			
Senior Electrical Engineer	59.24																		
Project Engineer	52.76																		
CADD Technician	38.24																		
<b>TOTALS</b>		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	0.0	0%	\$0.00

### AVERAGE HOURLY PROJECT RATES

**FIRM** AMES Engineering, Inc.  
**PTB-ITEM#** 193  
**PRIME/SUPPLEMENT** Prime

**DATE** 02/19/20

**SHEET** 4 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES																		
		Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg			
Senior Electrical Engineer	59.24																		
Project Engineer	52.76																		
CADD Technician	38.24																		
<b>TOTALS</b>		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	0.0	0%	\$0.00



### AVERAGE HOURLY PROJECT RATES

FIRM AMES Engineering, Inc.  
 PTB-ITEM# 193  
 PRIME/SUPPLEMENT Prime

DATE 02/19/20

SHEET 5 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES																		
		Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg	Hours	% Part.	Wgt'd Avg			
Senior Electrical Engineer	59.24																		
Project Engineer	52.76																		
CADD Technician	38.24																		
<b>TOTALS</b>		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	0.0	0%	\$0.00

Construction Monitoring &  
Observations  
Construction Materials Testing  
Tunnels and Underground Openings  
Geotechnical Engineering &  
Evaluation

**SEECO Consultants Inc.**  
CONSULTING ENGINEERS

Subsurface Explorations  
Foundation Analysis & Design  
Structural Rehabilitation  
Condition Surveys  
Dams and Drainage Studies

January 27, 2020

Mr. Dan Bruckelmeyer, P.E.  
Bollinger Lach & Assoc.  
333 Pierce Rd., Ste. 200  
Itasca, IL 60143

**PROPOSAL**

Subsurface Exploration, Laboratory Testing and Geotechnical Engineering and Analysis for the Proposed Buffalo Grove Road Improvements, Lake County, IL

Dear Mr. Bruckelmeyer,

Pursuant to your request, SEECO Consultants, Inc. is pleased to present our proposal for the above referenced project. In preparing our proposal, we have reviewed pertinent information and have discussed the project with you. It is our understanding that the project will encompass widening/reconstruction/paving of Buffalo Grove Road from Half Day Road to Route 45 in Lake County, IL.

The scope of work SEECO is proposing is as follows:

- Perform a total of 25 borings to 15 feet for the pavement and up to five (5) borings to 35 feet for potential undercut areas. Additionally, 15 full depth pavement cores with subgrade sampling are proposed. The boreholes will be located at locations consistent with the improvements as determined by BLA. It is assumed the locations will be accessible to a truck mounted drill rig. Due to the locations of overhead lines, several borings may require offsets within the pavement, or completion by hand method. One flag person will be utilized. Borehole elevations will be supplied to us.
- The resulting soil samples will be returned to SEECO's laboratory for further testing and analysis. Visual Classification, Moisture Content and Unconfined Compressive Strength utilizing a calibrated penetrometer will be performed on all samples. Illinois Bearing Ratio will be estimated.
- Upon completion of the field exploration and laboratory testing a written IDOT RGR geotechnical report will be prepared under the direction of a Registered Professional/Structural Engineer of Illinois. The report will address encountered subsurface soil conditions, laboratory data, pavement recommendations and general construction considerations. Soil boring profiles will be added to profile drawings supplied to us by you. The report will be performed as an IDOT RGR.
- It is anticipated that right of entry and access locations to the site will be provided to us. Boring locations may be offset as required. No utility R.O.W. conflicts are anticipated. SEECO will not be responsible for restoration costs beyond backfilling of holes to match existing conditions. This contract is not assignable. No permits or bonds are required.

The cost for these services will be \$29,274.36 per the attached IDOT CECS and Summary of Direct Costs. The attached General Conditions complete this proposal.

**PROPOSAL**

Subsurface Exploration, Laboratory Testing and Geotechnical  
Engineering and Analysis for the Proposed Buffalo Grove Road  
Improvements, Lake County, IL

January 27, 2020  
Page 2

We will proceed with the work as outlined after we receive a signed supplemental subconsultant agreement from Bollinger Lach & Assoc.

If there are any questions with regard to this proposal, I would be glad to discuss them with you. We are very interested in providing you with our services on this project and assure you of our utmost cooperation.

Respectfully submitted,

SEECO Consultants, Inc.



Donald C. Cassier,  
Director of Field Services



Collin W. Gray, S.E., P.E.  
President

DCC:arm

O:\Proposals\GEOTECH\BLA 012720.doc

## SUMMARY OF DIRECT COSTS

Mobilization of Equipment and Personnel	\$ 500.00
Soil Borings, Truck Mounted Rig Estimate 550' @ \$24.00/lf	\$13,200.00
Pavement Cores w/Subgrade Sampling Estimate 15 cores @ \$200.00/core	\$ 3,000.00
Visual Classification (AASHTO), Moisture Content, Unconfined Compressive Strength Utilizing a Calibrated Penetrometer Tests Estimate 195 tests @ \$8.00/test	\$ 1,560.00
Unconfined Compressive Strength (Rimac) Tests Estimate 30 tests @ \$15.00/test	\$ 450.00
Organic Content Tests Estimate 4 tests @ \$85.00/test	\$ 340.00
Grain Size Analysis Estimate 4 tests @ \$205.00/test	\$ 820.00
Atterberg Limits Estimate 4 tests @ \$95.00/test	<u>\$ 380.00</u>
<b>ESTIMATED TOTAL DIRECT COSTS:</b>	<b>\$20,250.00</b>

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

**FIRM** SEECO Consultants Inc.      **DATE** 01/27/20  
**PSB** \_\_\_\_\_  
**PRIME/SUPPLEMENT** \_\_\_\_\_      **OVERHEAD RATE** 1.8  
\_\_\_\_\_      **COMPLEXITY FACTOR** 0

DBE DROP BOX	ITEM	MANHOURS (A)	PAYROLL (B)	OVERHEAD & FRINGE BENEFIT (C)	IN-HOUSE DIRECT COSTS (D)	FIXED FEE (E)	Outside Direct Costs (F)	SERVICES BY OTHERS (G)	DBE TOTAL (H)	TOTAL (B-G)	% OF GRAND TOTAL
	Field Exploration	18	726.64	1,307.95	16,700.00	268.86				19,003.45	64.92%
	Laboratory Analysis									3,550.00	
	Geotechnical Engineering	54	2,120.16	3,816.29	3,550.00	784.46				6,720.91	22.96%
					0.00					0.00	
<b>Subconsultant DL</b>											
<b>TOTALS</b>											72
			2,846.80	5,124.24	20,250.00	1,053.32	0.00	0.00	0.00	29,274.36	87.87%

**DBE 0.00%**

**AVERAGE HOURLY PROJECT RATES**

**FIRM** SEECO Consultants Inc.  
**PSB** \_\_\_\_\_  
**PRIME/SUPPLEMENT** \_\_\_\_\_

**DATE** 01/27/20

**SHEET** 1 **OF** 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			Field Exploration			Laboratory Analysis			Geotechnical Engineering			Hours	% Part.	Wgtd Avg			
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg						
Principal	70.00	1	1.39%	0.97	0								1	1.85%	1.30	0			
Project Manager	45.00	2	2.78%	1.25	2	11.11%	5.00						0			0			
Project Engineer	42.77	22	30.56%	13.07				0					22	40.74%	17.42	0			
Staff Engineer	40.52	20	27.78%	11.26				0					20	37.04%	15.01	0			
Field Engineer	39.79	4	5.56%	2.21	4	22.22%	8.84												
Technician	39.79	12	16.67%	6.63	12	66.67%	26.53												
ACAD Draftsperson	29.82	7	9.72%	2.90									7	12.96%	3.87	0			
Secretarial	22.52	4	5.56%	1.25									4	7.41%	1.67	0			
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<b>TOTALS</b>		72	100%	\$39.54	18	100.00%	\$40.37	0	0%	\$0.00	54	100%	\$39.26	0	0%	\$0.00	0	0%	\$0.00

## SEECO Consultants Inc. - General Conditions-11/10

### Scope of Work

SEECO Consultants Inc. (hereinafter called SEECO) shall perform the services defined in this contract and shall invoice the Client for those services at the stated amount or standard rates shown on the attached fee schedule. The estimate of cost to the Client as stated in this contract shall not be considered as a firm figure, but only an estimate unless otherwise specifically stated in this contract. SEECO will provide additional services under this contract as requested by the Client and invoice the Client for those additional services at the standard rates, as quoted. Contract does not include the provision for prevailing wage rates unless otherwise stated. Acceptance of services proposed herewith - prior to contract execution- implies and constitutes acceptance of rates and conditions set forth in this contract unless explicitly agreed upon mutually in writing prior to inception of services.

### Soil Boring Locations

It is understood that the Client will furnish SEECO with a diagram indicating both the location of the site and the borings on that site. SEECO reserves the right to deviate a reasonable distance from the boring location specified unless this right is specifically revoked by the Client in writing at the time the location diagram is supplied. SEECO reserves the right to terminate this contract if conditions preventing the drilling at the specified locations are encountered which were not made known to SEECO prior to the date of this contract. SEECO will contact the underground utility locate network responsible in the locale being drilled. However, SEECO is not responsible for damage to underground utilities that are not marked, located or mislocated/mismarked whether said utility is party to the locating network or not. Client is responsible for locating proprietary utilities and/or underground structures and appurtenances. SEECO will backfill the boreholes with soil cuttings and match the surface to existing conditions, unless otherwise stated in the contract. SEECO is not responsible to maintain boreholes beyond initial backfilling, for any repair of settled backfill, or any costs associated with potential borehole settlement, including reparations or personal injury beyond our active on site exploration time.

### Construction Observation and Testing

Unless otherwise stated in contract, field personnel charges are subject to an eight hour minimum, including portal-to-portal travel time. Any cancellations onsite will incur said eight hour minimum. Cancellations after travel time has commenced will incur a minimum charge of 3 hours to the client.

### Access to Sites

Unless otherwise agreed, the Client will furnish SEECO with right-of-access to the site in order to conduct the planned investigation or inspection. SEECO will take responsible precautions to minimize damage to the site due to its operations, but has not included in the fee the cost of restoration of any damage resulting from the operations. This includes crop damage/restoration costs. If the Client desires, SEECO will restore any damage to the site and add the cost of restoration to the fee stated in the proposal contract.

### Samples/Reports

All samples of soil and rock will be discarded 60 days after submission of the report unless the Client advises SEECO in writing to the contrary. SEECO will furnish three copies of each report to the client.

### Subcontracts/Assignments

SEECO reserves the right to subcontract drilling and related support services to SEECO Environmental Services Inc. and construction inspection, observation and testing services to SEECO Construction Services, Inc. Subcontracting rights are not limited to stated services or entities. Client may not assign this contract without express written consent of SEECO.

### Invoices

Invoices will be submitted once a month for services performed during the prior month. Payment will be due within 30 days of receipt of invoice unless otherwise stated in contract. Interest will be added to delinquent accounts at the rate of two percent per month for each month of delinquency. The billing rates as described in the contract may be increased on the annual anniversary of the effective date of this contract at an annual rate not to exceed 10%. Any and all costs incurred in collecting delinquent invoices, including but not limited to legal fees, filing fees and costs, court costs, etc. will be added to the amount due.

### Liability

SEECO is protected by Workman's Compensation Insurance (and/or employer's liability insurance) and by public liability insurance for bodily injury (limit \$1,000,000) and property damage (limit \$1,000,000) and will furnish certificates of insurance upon request. Within the limits of the insurance, SEECO agrees to save the Client harmless from loss, damage, injury or liability arising directly from the negligent acts or omissions of SEECO and its employees. If the Client's contract places greater responsibility upon SEECO or requires increased insurance coverage, SEECO will, if specifically directed by the Client, take out additional insurance, if obtainable, at the Client's expense, but will not be responsible for property damage from any causes, including fire and/or explosion beyond the limits of the insurance coverage.

### Limitation of Liability

The Client recognizes the inherent risks connected with construction. In performing their professional services, SEECO will use that degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of their profession practicing in the same or similar locality. No other warranty, express or implied, is made or intended by the proposal for consulting services or by furnishing oral or written reports of the findings made. It is agreed that the Client will limit any and all liability, claim for damages, cost of defense, or expenses to be levied against SEECO on account of any design defect, error, omission, or professional negligence to a sum not to exceed \$1,000.00. Further, the Client agrees to notify any contractor or subcontractor who may perform work in connection with any design, report or study prepared by SEECO of such limitation of liability for design defects, omissions, or professional negligence, and require as a condition precedent to their performing the work a like limitation of liability on their part as against SEECO. In the event the Client fails to obtain a like limitation of liability provision as to design defects, errors, omissions, or professional negligence, any liability of the Client and SEECO in such a manner that the aggregate liability for SEECO for such design defect to all parties, including the Client shall not exceed \$1,000.00. Limitation of liability stated herewith is extended to include SEECO Construction Services, Inc. and SEECO Environmental Services, Inc., and any and all officers, shareholders, employees and/or agents of SEECO Consultants Inc., SEECO Construction Services, Inc., and/or SEECO Environmental Services, Inc.