


Municipality	L O C A L A G E N C Y	 Illinois Department of Transportation	C O N S U L T A N T	Name STV Incorporated
Township				Address 200 W. Monroe Street, Suite 1650
County Lake County – Division of Transportation		Preliminary Engineering Services Agreement For Non-Motor Fuel Tax Funds		City Chicago
Section 14-00144-20-CH				State Illinois

THIS AGREEMENT is made and entered into this _____ day of _____, 2019 between the above Local Agency (LA) and Consultant (ENGINEER) and covers certain professional engineering services in connection with the improvement of the above SECTION. Non-Motor Fuel Tax Funds, allotted to the LA, ~~by the State of Illinois~~ under the general supervision of the State Department of Transportation, hereinafter called the "DEPARTMENT", will be used entirely ~~or in part~~ to finance ENGINEERING services as described under AGREEMENT PROVISIONS.

Section Description

Name Ela Road and Long Grove Road Intersection Improvement

Route CH57 & CH49 Length 4900.00 Mi. 0.93 FT (Structure No. N/A)

Termini Ela Rd - 1800' south of Long Grove Rd and 1850' north of Long Grove Rd, Long Grove Rd - 1250' east of Ela Rd

Description:

Phase II Engineering and Land Acquisition services for improvements to the intersection of Ela Road and Long Grove Road.

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

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

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

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

The Total Not-to-Exceed Contract Amount shall be \$594225.00

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**

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:

By _____

_____ Lake County Clerk
(Seal)

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

State of Illinois, acting by and through its

County Board

By _____

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:

By _____

Title _____

Engineering Firm

Street Address

City, State

By _____

Title _____

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

STV INCORPORATED

Ela Road and Long Grove Road Phase II Engineering
Scope of Services
STV Incorporated
September 6, 2019

This document describes the proposed scope of engineering services to be provided by STV Incorporated (STV) to the Lake County Division of Transportation (LCDOT) for Phase II design engineering for roadway improvements in the vicinity of the intersection of Ela Road and Long Grove Road in the Villages of Barrington and Deer Park, Lake County, Illinois. The work will be performed in accordance with LCDOT and Illinois Department of Transportation (IDOT) standards. The project will be funded using 100% County funds.

1.0 Meetings and Coordination. STV will prepare for and attend various meetings and field visits during the course of the project design.

1.1 General Project Coordination. STV will coordinate and communicate with LCDOT and various project stakeholders via email, telephone, and ad hoc conference calls as necessary to execute the project.

1.2 Subconsultant Coordination. STV will coordinate and communicate with the subconsultants via email, telephone, and ad hoc conference calls as necessary to execute the project.

1.3 Design Meetings. STV will prepare for and attend a series of meetings as the project design and permitting progresses. Two STV attendees and preparation of meeting minutes as applicable are anticipated.

1.3.1 Project Kickoff Meeting. One meeting is anticipated at LCDOT headquarters to discuss the outcome of the final Phase I PDR, IDS, and LDS and key schedule constraints during Phase II. This meeting will also serve as an introduction to or refresher of this project for those LCDOT staff who were not involved or minimally involved in the project during Phase I.

1.3.2 Preliminary Review. One meeting is anticipated at LCDOT headquarters to discuss LCDOT review comments on the Preliminary submittal.

1.3.3 Pre-Final Review. One meeting is anticipated at LCDOT headquarters to discuss LCDOT review comments on the Pre-Final submittal.

1.3.4 Final Review. Not required.

1.3.5 Lake County Stormwater Management Commission. Two meetings are anticipated at LCSMC headquarters associated with the LCSMC WDP process.

1.3.6 USACE. One pre-application meeting is anticipated with the USACE.

1.3.7 Village of Barrington and Fox Grove Lane Homeowners Association. One meeting is anticipated with the Village of Barrington and the Fox Grove Lane homeowner's association to discuss the project design, especially potential access type changes to the intersection of Fox Grove Lane (North) and Ela Road. The meeting is assumed to occur at LCDOT headquarters.

1.3.8 Village of Deer Park. One meeting is anticipated with the Village of Deer Park to discuss the project design. The meeting is assumed to occur at LCDOT headquarters.

1.3.9 Lake County Forest Preserve District. Two meetings are anticipated at LCFPD headquarters to discuss impacts to the Cuba Marsh Forest Preserve property.

1.3.10 Project Coordination Meetings. A monthly conference call with LCDOT to discuss project status and issues. An 18 month design schedule, with 18 project coordination meetings, is anticipated. Each meeting is anticipated to last one hour.

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- 1.4 Field Visits.** STV will visit the project site as needed to confirm existing conditions and validate the proposed design. Three field visits with two attendees for each field visit are anticipated.
- 1.4.1 Sign inventory.** As part of the field visit effort, STV will inventory existing signs within the project limits to determine which existing signs need to be replaced. STV will prepare a photograph log showing each sign and listing its station and offset direction.
- 1.5 Public Informational Meeting.** STV will lead the effort to present a public informational meeting prior to construction to inform the public of the final project design. The meeting is anticipated to be an open house format with various stations established to describe aspects of the project. STV will perform the following tasks associated with this public meeting and will provide all meeting materials to LCDOT for posting on the LCDOT-maintained website.
- 1.5.1 Notifications.** STV will compile a mailing list of stakeholders and adjacent property owners to be notified about the public meeting. STV will also prepare a notification letter and mail the letter to the identified recipients.
- 1.5.2 Exhibits.** STV will create exhibits for display during the meeting. The exhibits for this meeting are anticipated to include proposed typical sections, staging, construction schedule, and an overall project design exhibit superimposed on aerial photography.
- 1.5.3 Dry Run.** Two STV attendees will participate in a dry run at LCDOT headquarters.
- 1.5.4 Meeting venue and attendance.** STV will secure the meeting venue and two attendees will participate in the public meeting. The meeting venue is anticipated to be the Village Church of Barrington, which was used as the Phase I public meeting venue. One visit, by one STV attendee, is anticipated to review possible meeting venues if the Village Church of Barrington is not chosen as the meeting venue.
- 1.5.5 Meeting summary and comment responses.** STV will summarize the meeting and common questions received during the meeting, as well as prepare individual comment responses for unique or in-depth questions or comments.
- 1.5.6 Court Reporter.** A court reporter will not be required at the meeting.
- 1.6 Utility Coordination.**
- 1.6.1 Update Existing Information.** STV will request updated utility information from the utility companies and revise the plans as required.
- 1.6.2 Plan Reviews.** STV will review relocation plans developed by the respective utility company relative to the proposed roadway improvement.
- 1.6.3 Conflict Resolution.** STV will review any utility conflicts that arise and evaluate opportunities to minimize or avoid the conflict.
- 1.7 Utility Coordination.** STV will coordinate with utility owners regarding their existing facilities and the relocation of any facilities required due to the roadway improvements. Five utility owners are anticipated for this scope of services.
- 1.7.1 Updating Existing Conditions.** STV will confirm that existing utility locations received as atlases or in similar formats match the utility locations shown in the Phase I plans, which are used as the basis for the Phase II plans.
- 1.7.2 Plan Reviews.** STV will email PDFs of the plans to utility companies for review as needed. STV will prepare dispositions of comments and incorporate utility owner review comments as agreed upon with LCDOT.

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1.7.3 Conflict Resolution. STV will provide information about the roadway improvements to utility owners for their use in relocating their facilities. Small, miscellaneous edits to the proposed roadway improvements may be made in order to avoid utility conflicts, depending on the scope and nature of identified conflicts and as agreed upon with LCDOT.

1.7.4 Meetings with Utilities. STV has estimated that one meeting with utility companies will be required. One STV attendee will be required at the meeting.

1.8 ROW Acquisition.

1.8.1 Meetings with Property Owners. As requested by the LCDOT, STV will attend meetings with LCDOT and property owners regarding the acquisition of property. Four meetings with one person from STV attending the meeting is anticipated.

2.0 Plans. The contract plans will be prepared in accordance with the LCDOT Plan Preparation Guidelines (PPG) provided by LCDOT to STV during the scoping process and as described below. Applicable guidelines from the IDOT Bureau of Design and Environment (BDE) and Bureau of Local Roads and Streets (BLRS) manuals will be used as required or referenced by LCDOT PPG. Where there is a discrepancy between LCDOT and IDOT format, the plans will be prepared to meet LCDOT requirements. Where there is a discrepancy between LCDOT format, IDOT format, and the items of work described below, the plans will be prepared in accordance with the descriptions below. The plans will follow the design presented in the final Phase I Project Development Report (PDR), Intersection Design Study (IDS), and Location Drainage Study (LDS).

2.1 Plans. The following plan sheets will be included in the contract documents:

2.1.1 Cover Sheet. The base drawing will be provided by LCDOT to STV.

2.1.2 General Notes/Index/Standards. Current LCDOT General Notes will be reviewed for project-specific items.

2.1.3 Summary of Quantities. The content of the sheet will be created using the IDOT SOQ.exe file and Axiom in accordance with the IDOT Computer Aided Design, Drafting, Modeling & Deliverables Manual.

2.1.4 Schedule of Quantities. The content of the sheet will be created using Microsoft Excel copied and pasted into Microstation.

2.1.5 Typical Sections. The Phase I Typical Sections will be shown on these sheets. Separate Existing Typical Sections and Proposed Typical Sections will be provided.

2.1.6 Alignment and Ties. The scale of the alignments sheet will be set so that the entire project limits will fit onto a single sheet. A schedule of horizontal curve data, horizontal survey ties, and vertical survey benchmarks will also be shown on this sheet. A separate sheet will show schematics of all of the reference ties.

2.1.7 Plan and Profile. These plans will be assembled under the following general assumptions:

- Two window view: existing and proposed plan on top; existing and proposed profile on bottom.
- Horizontal scale: 1"=20' at 22"x34" size, Vertical scale: 1"=5' scale at 22"x34" size. The vertical scale of 1"=5' will be used instead of the typical LCDOT 1"=2' vertical scale because the magnitude of vertical relief in this project is large enough that multiple profile breaks would be required to accommodate 1"=2' vertical scale.

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- The stationing of Long Grove Road will be revised from the Phase I stationing beginning at STA 10+00.00 to instead begin at STA 0+00.00 per the LCDOT strip maps.

- Five sheets will be included in this plan series.

2.1.8 Removals. These plans will show the existing items to be removed and will be separate from the Plan and Profile sheets. These sheets will be double plan 1"=20' scale at 22"x34" size. Three sheets will be included in this plan series.

2.1.9 Drainage. These plans will show the proposed drainage systems and will be separate from the roadway Plan and Profile sheets. These sheets will use the roadway Plan and Profile sheets as a template for sheet limits and scale. Five sheets will be included in this plan series.

2.1.10 Erosion Control. Showing erosion control layout for each stage. These sheets will use the Removals sheets as a template for sheet limits and scale. Three sheets will be included for each of the stages listed in the Stages of Construction, except that Stages 3 and 4 will use the same erosion control layout. This results in five sets of sheets for 15 total sheets.

2.1.11 MOT Sequencing Notes. MOT sequencing notes will be developed that present the required staging of traffic control for the project.

2.1.12 MOT Typical Sections. For Stages of Construction where IDOT Traffic Control Standards will not be applicable, MOT Typical Sections will be developed that depict the location of the travel lanes during that specific stage of construction.

2.1.13 Stages of Construction. This scope of services assumes that the project will be constructed in the six stages listed below and in accordance with the traffic control section of the Phase I PDR. These sheets will use the Removals sheets as a template for sheet limits and scale. These sheets will be double plan 1"=20' scale at 22"x34" size. No detour plan is anticipated. IDOT Standard Details will be utilized for the stages where indicated. No detailed staging detail sheets will be required for those stages as noted below.

2.1.14

Pre-Stage (utilize IDOT Standard Details)

- Clearing, grubbing, and tree removal.

Stage 1

- Roadway widening on west side of Ela Road.

Stage 2A

- Roadway widening on east side of Ela Road.
- Roadway widening on south side of Long Grove Road.

Stage 2B

- Roadway widening on east side of Ela Road.
- Roadway widening on north side of Long Grove Road.

Stage 3 (utilize IDOT Standard Details)

- Milling and resurfacing of Ela Road and Long Grove Road.

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Stage 4 (utilize IDOT Standard Details)

- Install final pavement markings and signage.
- Landscaping and clean up.

2.1.15 Intersection Details. A detail plan view (1"=20' at 22"x34" size) showing intersection return radii, tapers, elevations, and sidewalk/shared-use path locations. Separate grading plans will be created for each sidewalk ramp as described in the Construction Details section. One intersection detail sheet will be created for each of the locations listed below.

2.1.15.1 Ela Road and Long Grove Road. This intersection detail will be designed based on the Phase I IDS.

2.1.16 Pavement Marking and Landscaping. These sheets will use the Removals sheets as a template for sheet limits and scale. Three sheets will be included in this plan series.

2.1.17 Traffic Signals. See separate scope of services prepared by Gandhi and Associates.

2.1.18 Lighting. See separate scope of services prepared by Gandhi and Associates.

2.1.19 Construction Details. Special details will be created for drainage outlets into the Cuba Marsh Forest Preserve as described in the Phase I LDS, entrances, and sidewalk/shared-use path ramp grading plans.

2.1.19.1 Lake County Forest Preserve District (LCFPD) Grading Details. Plan-view details (1"=10' scale at 22"x34" size) Grading plans will be created for channel replacement at drainage outfalls within the Cuba Marsh Forest Preserve. This includes Outlets 3, 4, and 5. One detail sheet will be created for each Outlet, for a total of three sheets for this plan series.

2.1.19.2 Entrances. The only entrance to be detailed will be for the driveway located at Sta. 30+00 RT.

2.1.19.3 Americans With Disabilities (ADA) Grading Plans. Grading plans (1"=5' scale at 22"x34" size) will be created showing ADA-compliant design for the following four sidewalk and shared-use path locations. Point labels and a table of points including the point label, northing and easting, and elevation will be included with each grading plan. Where feasible, two grading plans will be shown on each sheet, for two sheets for this plan series.

- Northwest corner of Fox Glove Lane (North) and Ela Road.
- Southwest corner of Long Grove Road and Ela Road.
- Southeast corner of Long Grove Road and Ela Road.
- Northeast corner of Long Grove Road and Ela Road.

2.1.20 Cross-Sections. These plans will be assembled under the following general assumptions:

- Horizontal and vertical scale: 1"=5' at 22"x34" size.

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- Cross-sections will be provided at every 50 feet along the length of the project, plus at all driveways and side roads. Cross-sections will also be included at each storm sewer pipe lateral and at each cross-road culvert.
- No unsuitable materials other than topsoil and organics are expected to be encountered on this project based on the Phase I Preliminary Environmental Site Assessment (PESA).
- The cross-sections will consist of the 66 cross-section locations shown in the Phase I PDR plus an additional 34 cross-sections for storm sewer laterals and critical locations not yet identified for a total of 100 cross-sections.

2.1.21 Retaining Wall. Retaining walls will not be required.

2.1.22 LCDOT Standard Detail Sheets. STV will include all applicable LCDOT standard details in the plans.

2.1.23 IDOT Highway Standards. STV will include all applicable IDOT Highway Standards at the end of the PDF of the plans submitted with the Final Submittal.

3.0 Permits. STV will prepare and submit permit applications for this project. The following permits are anticipated to be required for this project. All permit applications and associated work are anticipated to include a preliminary permit submittal and one round of review comments and resubmittal. STV's subconsultant, Huff and Huff, will assist in permitting as described in their separate scope of services.

3.1 LCSMC Watershed Development Permit (WDP). STV will prepare the permit form and associated exhibits to secure a WDP for drainage, water quality, and erosion control design.

3.2 United States Army Corps of Engineers (USACE) Section 404 Permit. STV will prepare the permit form and associated exhibits for the Joint Application Permit (JAP) to USACE, the Illinois Department of Natural Resources (IDNR), and the Illinois Environmental Protection Agency (IEPA). The only anticipated permitting required from the JAP is for USACE Section 404 activities.

4.0 Other Design Efforts

4.1 Data Collection. STV will collect data to supplement the data collected during the Phase I Study as needed to create the Plans, Specifications, and Estimates (PS&E) as well as project permits.

4.2 Review Work by Subconsultants. STV will perform an overview of the work being performed by the subconsultants.

4.2.1 Land surveying. STV's subconsultant, EDI, will perform pickup survey as needed to supplement the land surveying performed during Phase I. EDI will also confirm and reestablish the horizontal and vertical control used during the Phase I Study for use in the Phase II plans. See the separate scope of services prepared by EDI for more information. STV hours are for coordination, review, and incorporating new survey data into the project CADD files.

4.2.2 Traffic Signals & Lighting. Gandhi & Associates will prepare the design and contract plans for the traffic signal and lighting. See separate scope of services prepared by Gandhi & Associates.

4.2.3 Land Acquisition. STV's subconsultants will perform property appraisals, negotiations and prepare plats and legal descriptions for each property where land acquisition is required. STV hours for this task are for coordination and review of subconsultant deliverables.

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4.2.3.1 Appraisals & Negotiations. See the separate scope of services prepared by Mathewson Right of Way Company (MROW) for property appraisal and negotiation services.

4.2.3.2 Right-of-Way (ROW) Surveying, Plats, and Legals. See the separate scope of services prepared by EDI for ROW surveying, plats, and legal descriptions preparation services. EDI will also acquire the required title commitments for the project. LCDOT will be responsible for recording the final plat of highways.

4.3 Utilities

4.3.1 Utility coordination for reviews and acquiring atlases or other records will be performed by STV. LCDOT and STV will review project relevant utility relocation plans for compatibility with the project plans.

4.3.2 Design of all utility relocations will be performed by the respective utility owner.

4.3.3 Utility relocation plans relative to this project for utilities owned by the Village of Deer Park or the Village of Barrington will be developed by the respective utility owner including all associated pay items and quantities and related documents (special provisions, permits, etc.) and will be incorporated into the contract documents for this improvement by STV. STV will not be responsible for the accuracy or completeness of these documents.

4.4 Specifications. STV will prepare project specifications as needed to govern the project construction.

4.4.1 Checksheets. STV will compile and complete all applicable checksheets for IDOT Bureau of Design and Environment (BDE), IDOT District 1 (D1), and LCDOT special provisions.

4.4.2 Project-Specific Special Provisions. If required, STV write project-specific special provisions as needed to describe items of work for which a provision does not already exist. Five project-specific special provisions are assumed for this scope of services.

4.5 Stormwater Pollution Prevention Plan (SWPPP). STV will prepare a SWPPP using the LCDOT version of IDOT BDE Form 2342: Stormwater Pollution Prevention Plan.

4.6 Estimates. STV will estimate the construction cost and time needed to construct the project. Quantity calculations, estimates of cost, and estimates of time will be submitted for the Pre-Final Plans, Final Plans, and Final Submittal milestones only.

4.6.1 Quantity Calculations. STV will perform quantity calculations for each pay item included in the contract documents. Quantity calculations will be documented using STV spreadsheets and calculation sheets.

4.6.2 Staged Earthwork Calculations. STV calculate the required earthwork per construction stage.

4.6.3 Estimate of Cost. STV will estimate the construction cost of the project by determining unit prices for each pay item. The cost estimate will be provided on IDOT BDE Form 213: Estimate of Cost.

4.6.4 Estimate of Time. STV will estimate the number of days needed to construct the project. The estimate of time will be provided on IDOT BDE Form 220A: Estimate of Time Required.

4.7 Pavement Design. LCDOT will provide STV the pavement design for the project.

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4.8 Drainage Design. Various drainage systems identified in the Phase I LDS will require more detailed design or redesign.

4.8.1 Stormwater Detention Design. STV will evaluate the feasibility of moving the proposed stormwater detention system designed during Phase I from the currently proposed location north of Outlet 2 to instead be south of Outlet 2. If the proposed detention system is moved, STV will prepare a revised exhibit and calculations with a technical memorandum describing the alternatives analysis and design at the new location. New Bulletin 70 rainfall data will be used in the analysis.

4.8.2 Culvert Design. STV will design the size of the proposed cross-road culverts at Outlets 3 and 4 using IDOT Drainage Manual procedures. Flow rates and elevation information will be taken from the Phase I LDS.

4.8.3 Storm Sewer and Ditch Design. STV will perform inlet spacing design and hydraulic analysis of storm sewer laterals to each inlet in accordance with IDOT Drainage Manual and Lake County Stormwater Management Commission (LCSMC) procedures and as described in the Phase I LDS. Storm sewer main lines and ditches designed during Phase I will be reevaluated and resized if necessary to accommodate the new Bulletin 70 rainfall depths.

4.9 Submittals. STV will compile and submit to LCDOT all CAD files used to create the plans for the various submittals on the project.

5.0 Phase III Coordination. STV will answer questions and redesign project elements where needed during construction.

5.1 Requests for Information (RFIs). STV will answer RFIs to clarify design intent during construction. 10 RFIs are anticipated for this scope of services.

5.2 Redesign. STV will redesign various project elements during construction as needed to accommodate unexpected field conditions. These redesigns are anticipated to be limited to minor changes in grading or the location of drainage systems. Five redesigns are anticipated for this scope of services.

5.3 Field Visits. STV will visit the project site as needed to answer RFIs and to confirm field conditions and the validity of proposed redesigns. Five field visits with one attendees for each field visit are anticipated.

5.4 Punchlist Walkthrough. STV will attend the final punchlist walkthrough with the resident engineer. One walkthrough with one attendee is anticipated.

6.0 Administration & QA/QC.

6.1 Administration. STV will perform administration and project management activities related to maintaining project schedule and budget, as well as preparation of project progress reports and invoices.

6.2 QA/QC. STV will quality check contract deliverables at major milestones prior to submitting the deliverables to LCDOT.

**Ela Road and Long Grove Road Phase II Engineering
Scope of Services
STV Incorporated
September 6, 2019**

Deliverables

The following deliverables are anticipated for this project as described in the LCDOT PPG:

1. Preliminary Plans.
2. ROW Plats and Legals.
3. Pre-Final Plans with estimate.
4. Final Plans with estimate.
5. Final Submittal.
6. Design Files.
7. Preliminary Watershed Development Permit Submittal to LCSMC.
8. Final Watershed Development Permit Submittal to LCSMC.
9. Preliminary Joint Application Permit to USACE, IDNR, and IEPA.
10. Final Joint Application Permit to USACE.
11. Technical memorandum for moving proposed stormwater detention system, including:
 - a. Memorandum narrative.
 - b. Hydrology exhibit for the new proposed detention system location.
 - c. Hydrologic and hydraulic calculations for the new proposed detention system location.

Direct Costs

The following direct costs are anticipated for this project:

1. Printing and shipping the PS&E to LCDOT.
2. Printing and shipping permit applications to permitting agencies.
3. Travel and printing miscellaneous exhibits and other documents for meetings.
4. Renting the Public Informational Meeting venue.
5. Travel for Phase III coordination.

Assumptions

The following assumptions were made when preparing this scope of services:

1. Only one week of field surveying will be required for pickup survey.
2. Drainage design performed in Phase I will be accepted by LCSMC, except storm sewer and ditch sizing which will be reevaluated using new Bulletin 70 rainfall data except where increased sizes would require more land acquisition than what is shown in the PDR and LDS. This especially applies to the drainage systems and stormwater detention system at Outlet 2.
3. Plans will be prepared using Bentley Systems Microstation V8i Select Series 2 (SS2) and GEOPAK Select Series 4 (SS4) Open Roads modeling. The three-dimensional (3-D) model will be provided to the LCDOT when requested but will not be part of the contract documents and is provided to the LCDOT for information only.
4. STV will assemble the project specifications according to LCDOT's checksheet.

Ela Road and Long Grove Road Phase II Engineering
Scope of Services
STV Incorporated
September 6, 2019

5. No meetings with IDNR or IEPA will be required for project permitting.
6. All Phase I website materials will be transferred by LCDOT to an LCDOT-hosted and maintained website. STV will not be responsible for creating or maintaining a website during Phase II or Phase III. The STV-maintained Phase I website will expire around October 2019.
7. Land acquisition negotiations will be performed by STV's subconsultant, MROW.
8. Intergovernmental agreements will be prepared by LCDOT.
9. LCDOT will be responsible for recording all legal agreements for land acquisition.
10. Plans will be prepared only in 11"x17" and 22"x34" sizes.
11. Erosion-control-related permitting and construction activities and documents other than the SWPPP, such as the Notice of Intent (NOI), Notice of Termination (NOT), Incidence of Non-Compliance (ION), and inspections are anticipated to be performed by LCDOT. The SWPPP is assumed to be signed by an LCDOT representative such as the County Engineer or designee and not by STV.
12. By the kick-off meeting for this phase of the project example grading plans will be provided to STV by LCFPD or LCDOT for the grading details for drainage outfalls into the Cuba Marsh Forest Preserve
13. LCDOT will perform all stakeholder coordination other than as listed above.

1.0 Meetings & Coordination

	No. of Meetings	Hrs per Meeting	Total	Notes
General Project Coordination			39	0.5 hr per week for 18 months
Project Coordination Meetings	18	2	36	Monthly meetings with LCDOT
Design Meetings				
<i>Project KO Meeting</i>	1	8	8	
<i>Prelim Review</i>	1	8	8	
<i>Pre-Final Review</i>	1	8	8	
<i>Lake Co Stormwater Mgmnt Comm</i>	2	8	16	Increased to two meetings per LCDOT comments
<i>USACE 404 Meeting</i>	1	8	8	
<i>Village of Barrington & Fox Glove Homeowners Assoc</i>	1	8	8	
<i>Village of Deer Park</i>	1	8	8	
<i>Lake Co FPD</i>	1	8	8	
<i>Exhibit preparation for meetings</i>			36	
Field Visits	3	16	48	Includes sign inventory
Public Information Meeting	1			
<i>Notifications</i>			24	
<i>Exhibits</i>			24	
<i>Dry Run</i>			8	
<i>Meeting Venue & Attendance</i>			20	
<i>Meeting Summary & Comment Responses</i>			16	
Utility Coordination				
<i>Updating Existing Information</i>			16	
<i>Plan Reviews</i>			12	
<i>Conflict Resolution</i>			40	
<i>Meetings with utilities</i>	1	8	8	
<i>Exhibit preparation for meetings</i>			4	
ROW Acquisition				
<i>Meetings with property owners</i>	4	4	16	
<i>Exhibit preparation for meetings</i>			8	
Meetings & Coordination Totals	36		427	

2.0 Plans

	No. of Sheets	Hrs per Sheet	Total	Notes
Cover Sheet	1	2	2	
General Notes/Index/Std	1	4	4	
Summary of Quantities	2	2	4	Doesn't include quantity take offs
Schedule of Quantities	6	1.333333	8	Doesn't include quantity take offs
Typical Sections (Ex & Prop)				
<i>Ela Road</i>	1.5	12	18	Both ex typicals on same sheet
<i>Long Grove Road</i>	1.5	12	18	Both ex typicals on same sheet
Alignment & Ties	1	16	16	
Roadway Plan & Profiles				
<i>Ela Road</i>	4	24	96	
<i>Long Grove Road</i>	1	24	24	
Removals				
<i>Ela Road</i>	2	16	32	Double plan sheet
<i>Long Grove Road</i>	1	10	10	1/2 double plan sheet
Drainage Plan & Profiles				
<i>Ela Road</i>	4	24	96	
<i>Long Grove Road</i>	1	24	24	
Erosion Control				
<i>Ela Road</i>	5	9.6	48	Double plan sheet
<i>Long Grove Road</i>	5	4.4	22	1/2 double plan sheet
Sequencing of Construction	1	16	16	
MOT Typical Sections	3	10	30	
Stages of Construction				
<i>Ela Road</i>	6	24	144	For 3 of the stages
<i>Long Grove Road</i>	3	24	72	For 3 of the stages
Intersection Details				
<i>Ela Rd and Long Grove Rd</i>	1	40	40	
Pavement Marking & Landscaping				
<i>Ela Road</i>	4	8	32	Double plan sheet
<i>Long Grove Road</i>	1	8	8	Double plan sheet
Traffic Signal & Lighting Plans	3		0	Plans by Gandhi
Construction Details				
<i>LCFPD Grading Details</i>	3	20	60	
<i>Entrances</i>	1	6	6	Only for driveway at Sta. 30+00 RT
<i>ADA Grading Plans</i>	2	20	40	4 ramps, 2 per sheet
Cross-Sections	25	10	250	100 cross-sections, 4 per sheet
LCDOT Std Detail Sheets	10	0.5	5	
IDOT Hwy Stds	10	0.5	5	
Plan Totals	110		1130	

3.0 Permits

			Total	Notes
LCSMC Watershed Development			40	
USACE Section 404			40	
			0	
Permits Totals	0	0	80	

4.0 Other Design Efforts

			Total	Notes
Data Collection			8	
Review work by subconsultants				
<i>EDI - Mon Check, PU Survey, Plats & Legals</i>			32	
<i>Gandhi - Traffic Signal & Lighting</i>			16	
<i>Huff & Huff - Environmental</i>			16	
<i>MROW - Appraisals</i>			16	
Specifications			72	
SWPPP			20	
Estimates				
<i>Plan Quantity Calculations</i>			100	
<i>Staged Earthwork Calculations</i>			24	
<i>Estimate of Cost</i>			16	
<i>Estimate of Time</i>			8	
Pavement Design			0	LCDOT will supply
Stormwater Detention Design			42	
Culvert Design			12	Includes Outlets 3 & 4
Storm Sewer and Ditch Design			80	Increased for new Bulletin 70 rainfall depths as discussed with LCDOT
Incorporate utility plans and other contract documents developed by the municipalities			12	
Submittal - Compile & Prep				
<i>Preliminary</i>			4	
<i>Pre-Final</i>			6	
<i>Final</i>			6	
<i>Bid Documents</i>			6	
Other Design Efforts Totals	0	0	496	

5.0 Phase III Coordination

			Total	Notes
Review/Answer RFI's			20	
Address Items Discovered During Construction			24	
Meetings / Field Visits			16	
Punchlist Walkthrough			4	
			0	
Phase III Coord Totals	0	0	64	

6.0 Administration and Management / QA/QC

			Total	Notes
Adminstration & Management			105	
QA/QC			80	
A&M and QA/QC Totals	0	0	185	

Summary	Hours
1.0 Meetings & Coordination	427
2.0 Plans	1130
3.0 Permits	80
4.0 Other Design Efforts	496
5.0 Phase III Coordination	64
6.0 Administration and Management / QA/QC	185
Total	2382

PAYROLL ESCALATION TABLE FIXED RAISES

Bureau of Design and Environment
Prepared By: Consultant

FIRM NAME STV Incorporated
PRIME/SUPPLEMENT Prime
Prepared By STV Incorporated

DATE 09/05/19
PTB-ITEM# 0

CONTRACT TERM 18 MONTHS
START DATE 9/1/2019
RAISE DATE 1/1/2020

END DATE 2/28/2021

OVERHEAD RATE 143.28%
COMPLEXITY FACTOR 0
% OF RAISE 3%

ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	9/1/2019	1/1/2020	4	22.22%
1	1/2/2020	1/1/2021	12	68.67%
2	1/2/2021	3/1/2021	2	11.79%

The total escalation = 2.68%

PAYROLL RATES

FIRM NAME
PRIME/SUPPLEMENT
PTB-ITEM #

STV Incorporated
Prime
0

DATE

09/05/19

Bureau of Design and Environment
Prepared By: Consultant

ESCALATION FACTOR

2.68%

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

CLASSIFICATION	IDOT	CALCULATED RATE
	PAYROLL RATES ON FILE	
Professional 8	\$70.00	\$70.00
Professional 7	\$70.00	\$70.00
Professional 6	\$64.95	\$66.69
Professional 5	\$60.07	\$61.68
Professional 4	\$49.55	\$50.88
Professional 3	\$43.86	\$45.03
Professional 2	\$37.34	\$38.34
Professional 1	\$34.85	\$35.78
Engineering Tech 5	\$55.85	\$57.34
Engineering Tech 4	\$44.16	\$45.34
Engineering Tech 1	\$17.75	\$18.23
Administrative Assistant 3	\$42.31	\$43.44
Administrative Assistant 2	\$30.99	\$31.82

Bureau of Design and Environment
Prepared By: Consultant
09/10/19

0

DBE 0.00%

AVERAGE HOURLY PROJECT RATES

FIRM
PTB-ITEM#
PRIME/SUPPLEMENT

STV Incorporated
0
Prime

Bureau of Design and Environment
Prepared By: Consultant

DATE 09/05/19

SHEET 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			1.0 Meet & Coordination			2.0 Plans			3.0 Permits			4.0 Other Design Efforts			5.0 Phase III Coord		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Professional 8	70.00	56.0	2.35%	1.65	16	3.75%	2.62	24	2.12%	1.49				8	1.61%	1.13			
Professional 7	70.00	0.0																	
Professional 6	66.69	0.0																	
Professional 5	61.68	309.0	12.97%	8.00	88	20.61%	12.71	80	7.08%	4.37				93	18.75%	11.56			
Professional 4	50.88	454.0	19.06%	9.70	110	25.76%	13.11	80	7.08%	3.60	40	50.00%	25.44	95	19.15%	9.74	50	78.13%	39.75
Professional 3	45.03	540.0	22.67%	10.21	110	25.76%	11.60	266	23.54%	10.60	20	25.00%	11.26	100	20.16%	9.08	14	21.88%	9.85
Professional 2	38.34	528.0	22.17%	8.50	68	15.93%	6.11	340	30.09%	11.54	10	12.50%	4.79	100	20.16%	7.73			
Professional 1	35.78	495.0	20.78%	7.44	35	8.20%	2.93	340	30.09%	10.77	10	12.50%	4.47	100	20.16%	7.21			
Engineering Tech 5	57.34	0.0																	
Engineering Tech 4	45.34	0.0																	
Engineering Tech 1	18.23	0.0																	
Administrative Assistant 3	43.44	0.0																	
Administrative Assistant 2	31.82	0.0																	
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TOTALS		2382.0	100%	\$45.49	427.0	100.00%	\$49.08	1130.0	100%	\$42.36	80.0	100%	\$45.96	496.0	100%	\$46.46	64.0	100%	\$49.60

AVERAGE HOURLY PROJECT RATES

FIRM
PTB-ITEM#
PRIME/SUPPLEMENT

STV Incorporated

0

Prime

Bureau of Design and Environment
Prepared By: Consultant

DATE 09/05/19

SHEET 2 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	6.0 Admin / QA/QC			7.0 Subconsultants			8.0 STV Direct Costs											
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Professional 8	70.00	8	4.32%	3.03															
Professional 7	70.00																		
Professional 6	66.69																		
Professional 5	61.68	48	25.95%	16.00															
Professional 4	50.88	79	42.70%	21.73															
Professional 3	45.03	30	16.22%	7.30															
Professional 2	38.34	10	5.41%	2.07															
Professional 1	35.78	10	5.41%	1.93															
Engineering Tech 5	57.34																		
Engineering Tech 4	45.34																		
Engineering Tech 1	18.23																		
Administrative Assistant 3	43.44																		
Administrative Assistant 2	31.82																		
TOTALS		185.0	100%	\$52.06	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

Firm Name: STV Incorporated

 LCDOT Section:
 PTB/Item No: 14-00144-20-CH

REQUIRED – DIRECT COSTS WILL ONLY BE ACCEPTED FOR INCLUSION IN CONTRACT WHEN DOCUMENTED ON THIS FORM.
 (Indicate only rate and quantities for this specific project.)

Item	Allowable	Contract (1) Rate	Quantity (n/a for work orders)	Total
Per Diem	Up to State Rate Maximum			
Lodging (Overnight)	Up to State Rate Maximum			
Lodging (Extended)	Actual Cost (based on IDOT's and firm's policy)			
Air Fare Coach Rate (with two weeks' notice)	As Approved			
Vehicles: Mileage	Up to State Rate Maximum	Up to State Rate Max.	100	\$54.50
Daily Rate (owned or leased)	\$80/day	\$80/day	26.00	\$2,080.00
Overtime	(Premium Portion)	Prem. Portion		
Tolls	Actual Cost	Actual Cost		
Digital Photo Processing	Actual Cost	Actual Cost		
Photo Processing	Actual Cost	Actual Cost		
Cell Phones – (traffic systems, survey, phase III only)	\$70/month/phone (maximum) – Phase III (max. of three without IDOT approval)	Actual Cost		
Telephone Usage (traffic system monitoring)	Actual Cost	Actual Cost		
2-Way Radio (survey or phase III only)	Actual Cost	Actual Cost		
Overnight Delivery/Postage/Courier Service	Actual Cost	Actual Cost	N/A	\$250.00
Copies of Deliverables/Mylars (in-house)	Actual Cost			
Copies of Deliverables/Mylars (outside)	Actual Cost	Actual Cost		
Specific Insurance (required for project)	Actual Cost	Actual Cost		
CADD	Actual Cost (max. \$15.00/hour)	Actual Cost		
Monuments (permanent)	Actual Cost			
Newspaper Advertisements	Actual Cost	Actual Cost	N/A	\$375.00
Web Site	Actual Cost	Actual Cost		
Facility Rental for Public Meetings & Exhibits/Renderings & AV	Actual Cost	Actual Cost		\$700.00
Transcriptions (specific to project)	Actual Cost	Actual Cost		
Recording Fees	Actual Cost	Actual Cost		
Courthouse Fees	Actual Cost	Actual Cost		
Testing of Soil Samples	Actual Cost	Actual Cost		
Lab Services	Actual Cost	Actual Cost		
Storm Sewer Cleaning and Televising	Actual Cost (requires 2-3 quotes)	Actual Cost		
Traffic Control and Protection	Actual Cost (requires 2-3 quotes)	Actual Cost		
Aerial Photography and Mapping	Actual Cost (requires 2-3 quotes)	Actual Cost		
Utility Exploratory Trenching	Actual Cost (requires 2-3 quotes)	Actual Cost		
Shift Differential	Actual Cost (based on firm's policy)	Actual Cost		
Project Site Travel	Actual Cost (based on IDOT's and firm's policy)	Actual Cost		
Equip. Rental Spec. for Proj. (snooper, lift, etc.)	Actual Cost (requires 2-3 quotes)	Actual Cost		
Specialized Equip. (as needed w/approval)	Actual Cost (requires 2-3 quotes)	Actual Cost		
Railroad Flagmen	Actual Cost	Actual Cost		
Printing Brochures for Public Meeting	Actual Cost	Actual Cost	N/A	\$250.00
Public Meeting Informational Display Signs	Actual Cost	Actual Cost	N/A	\$125.00

Item	Allowable	Contract (1) Rate	Quantity (n/a for work orders)	Total
Large Format Color Printing	Actual Cost	\$1.50/SF	N/A	\$700.00
Full Size Plots on Bond	Actual Cost	\$0.25/SF	N/A	\$200.00
Xerox Black and White Copies	Actual Cost	\$0.10/EA	N/A	\$125.00
Post Card Printing for Public Meeting	Actual Cost	Actual Cost	N/A	\$200.00
Color Copies	Actual Cost	\$0.75/EA	N/A	\$400.00
TOTAL				\$5,459.50

1) Used to determine upper limit of compensation for direct cost. Unless maximum is specified under allowable, bill at actual cost.

ENVIRONMENTAL DESIGN, INC.



33 W. Monroe St., Suite 1825
Chicago, Illinois 60603
phone: 312.345.1400
fax: 312.345.0529
www.envdesigni.com

STV, Inc.
200 West Monroe Street, Suite 1650
Chicago IL 60606-5015

August 30, 2019

ATTN: Mr. Patrick McCluskey, PE

**Subject: Lake County DOT – Ela Road at Long Grove Road
Phase II Survey Scope
Barrington and Deer Grove, Illinois**

Dear Mr. McCluskey,

Pursuant to your request, following is a proposed scope of work for the subject project.

Control Verification and Supplemental Pick Up Topographic Survey

This task includes additional topographic surveys within the project limits as directed, in accordance with LCDOT Survey Procedures.

EDI will perform topographic and utility surveys as directed and update the previously prepared basemapping at 1"=20' scale that is representative of existing conditions for use in Phase II engineering work in developing the detailed plan, profile and cross sections for the preferred alternative.

Boundary Survey, Research, and Plat of Highways and Legal Description Development

EDI will review the supplied Title Commitments for approximately 20 properties. Additional research will be performed as necessary, and record documents including Subdivision Plats will be acquired. EDI will retrace the portion of the parent tract boundaries necessary to define the acquisition areas. Parcels will be computed and a Plat of Highways in conformance to the current LCDOT Plat Guidelines will be developed. Parcels will be labeled with angular and linear dimension as well as areas. Approximately 28 Legal Descriptions will be developed for Temporary and Permanent Easements as well as Fee Takings. EDI will set the property corners disturbed by construction activities within the Temporary Easements

Respectfully,

Environmental Design International inc.

A handwritten signature in blue ink, appearing to read 'Wm. J. Fleming', is written over a horizontal line.

William J. Fleming, PLS
Vice President, Survey

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME
PRIME/SUPPLEMENT

ENVIRONMENTAL DESIGN INTERNATIONAL INC.
STV - LCDOT - ELA AT LONG GROVE

DATE 08/30/19
PTB NO. _____

CONTRACT TERM 12 MONTHS
START DATE 9/1/2019
RAISE DATE 7/1/2020

OVERHEAD RATE 166.49%
COMPLEXITY FACTOR 0
% OF RAISE 3.00%

ESCALATION PER YEAR

9/1/2019 - 8/31/2020

12
12

= 100.00%
= 1.0000

The total escalation for this project would be:

0.00%

PAYROLL RATES

FIRM NAME**PRIME/SUPPLEMENT**

PSB NO.

ENVIRONMENTAL DESIGN INTERNATIONAL INC.

STV - LCDOT - ELA AT L DATE

08/30/19

ESCALATION FACTOR

0.00%

[illegible]

Subconsultants

FIRM NAME ENVIRONMENTAL DESIGN INTERNATIONAL INC. DATE 08/30/19
PRIME/SUPPLEMENT STV - LCDOT - ELA AT LONG GROVE
PSB NO. _____

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

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

ENVIRONMENTAL DESIGN INTERNATIONAL INC.

DATE 08/30/19

OVERHEAD RATE

1.6649

STV - LCDOT - ELA AT LONG GROVE COMPLEXITY FACTOR

COMPLEXITY FACTOR

0

[illegible]

DBE 100.00%

AVERAGE HOURLY PROJECT RATES

FIRM ENVIRONMENTAL DESIGN INTERNATIONAL INC.
PSB
PRIME/SUPPLEMENT STV - LCDOT - ELA AT LONG GROVE

DATE 08/30/19

SHEET 1 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJECT RATES			Project Administration			Control Verification			Pickup Survey & Mapping			Research - Title Review			Boundary Survey		
		Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg	Hours	% Part.	Wgtd Avg
Principal	70.00	2	0.31%	0.22	1	9.09%	6.36												
Surveyor III	55.50	38	5.88%	3.26	8	72.73%	40.36				1	0.95%	0.53	5	33.33%	18.50	8	4.55%	2.52
Surveyor II	43.50	152	23.53%	10.24				2	11.11%	4.83	8	7.62%	3.31	10	66.67%	29.00	24	13.64%	5.93
Surveyor I	36.13	172	26.63%	9.62							16	15.24%	5.51				48	27.27%	9.85
Survey Crew Chief	30.42	120	18.58%	5.65				8	44.44%	13.52	40	38.10%	11.59				48	27.27%	8.30
Instrument Person	19.81	120	18.58%	3.68				8	44.44%	8.80	40	38.10%	7.55				48	27.27%	5.40
CADD Technician	28.50	40	6.19%	1.76															
Admin Support I	22.83	2	0.31%	0.07	2	18.18%	4.15												
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TOTALS		646	100%	\$34.50	11	100.00%	\$50.88	18	100%	\$27.16	105	100%	\$28.48	15	100%	\$47.50	176	100%	\$32.01

AVERAGE HOURLY PROJECT RATES

FIRM
PSB

ENVIRONMENTAL DESIGN INTERNATIONAL INC.

PRIME/SUPPLEMENT

STV - LCDOT - ELA AT LONG GROVE

DATE 8/30/19

SHEET 2 OF 5

PAYROLL CLASSIFICATION	AVG HOURLY RATES	Plat of Highways			Legal Descriptions			Stake ROW			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	70.00										1	4.76%	3.33						
Surveyor III	55.50	8	3.85%	2.13							8	38.10%	21.14						
Surveyor II	43.50	60	28.85%	12.55	40	100.00%	43.50	4	7.69%	3.35	4	19.05%	8.29						
Surveyor I	36.13	100	48.08%	17.37							8	38.10%	13.76						
Survey Crew Chief	30.42							24	46.15%	14.04									
Instrument Person	19.81							24	46.15%	9.14									
CADD Technician	28.50	40	19.23%	5.48															
Admin Support I	22.83																		
TOTALS		208	100%	\$37.53	40	100%	\$43.50	52	100%	\$26.53	21	100%	\$46.53	0	0%	\$0.00	0	0%	\$0.00

BDE 436 (Rev. 09/30/13)

MATHEWSON RIGHT OF WAY COMPANY

**AGREEMENT FOR
LAND ACQUISITION CONSULTING SERVICES**

**Lake County Division of Transportation / STV Incorporated
Ela and Long Grove Project**

AGREEMENT between Mathewson Right of Way Company (MROWCO) whose address is 30 North LaSalle Street, Suite 2400, Chicago, Illinois 60602 and STV Incorporated (STV), whose address is 200 West Monroe, Suite 1650, Chicago, Illinois 60606.

MROWCO shall provide to STV, on behalf of the Lake County Division of Transportation (LCDOT), consulting services for the acquisition of right of way for the Ela and Long Grove Project (PROJECT).

The PROJECT shall consist of the acquisition of approximately 20 parcels.

MROWCO shall perform the following services:

1. Appraisals
2. Negotiations
3. Document Preparation for Lake County Forest Preserve Parcel
4. Closing
5. Direct Expenses (Later Dates, Docs., Trust Fees, Releases, Recording Fees & Policies)
6. Project Management

All of the above are described as specified in Exhibit A: Scope of Services attached hereto.


STV shall compensate MROWCO for the services provided on behalf of LCDOT under this AGREEMENT as provided in Exhibit B: Compensation attached hereto. The total amount of compensation authorized by this agreement is not to exceed \$157,250.00.

Submitted this 17th day of July 2019.

Accepted this ____ day of _____ 2019.

Mathewson Right of Way Company

STV Incorporated

By: 
Katherine D. Mathewson
President

By: _____

EXHIBIT A: SCOPE OF SERVICES

MROWCO agrees to perform, at the direction of STV, the following services:

1. Appraisals
2. Negotiations
3. Document Preparation for Lake County Forest Preserve Parcel
4. Closing
5. Direct Expenses (Later Dates, Docs., Trust Fees, Releases, Recording Fees & Policies)
6. Project Management

All services called for in this AGREEMENT will be conducted by an individual or individuals whose qualifications have been approved by the Illinois Department of Transportation, when applicable.

All services within the scope of this AGREEMENT shall be performed, where applicable, in accordance with the Land Acquisition Policies and Procedures Manual, hereinafter referred to as the LAPPM.

APPRAISALS

Determinations of fair market value performed by the Appraiser shall be in accordance with the LAPPM.

The Appraiser shall make a detailed inspection of the properties and make such investigations and studies as are necessary to derive sound conclusions for the preparation of appraisal reports.

Valuations shall be prepared as outlined in the LAPPM. The format to be used shall be one of the following types as described in the LAPPM:

- Non-Complex Appraisal Report
- Complex Appraisal Report

The Appraiser is to determine which type of appraisal format should be used for each parcel and obtain LCDOT'S concurrence. MROWCO shall provide a copy of an appraisal of each parcel together with Improvement Disposition Values form to be submitted to LCDOT for approval.

Property needed shall be acquired by fee simple, dedication, permanent easement, temporary use permit, or temporary easement as determined and shown on the right of way plan furnished by LCDOT.

It may be necessary for a completed appraisal to be updated for condemnation purposes or revised due to a change in the ROW plat or due to new information provided by LCDOT. These updates or revisions will be assigned to the Appraiser in a separate work order as the need arises.

The Appraiser shall prepare a comparable sales brochure in accordance with the LAPPM for each project and as directed by LCDOT.

The Appraiser shall prepare grids that compare comparable sales to the subject parcel, where appropriate.

The Appraiser shall include land and improvement allocations in the comparable sales data section of all appraisals.

The Non-Complex Appraisal Report and Complex Appraisal Report, and an updated or revised appraisal report, shall be deemed complete when an acceptable appraisal report is submitted by MROWCO and approved by LCDOT.

Appearances in court and/or pretrial conferences, which include depositions and preparation time for depositions and court, may be required for the appraisal services requested herein. The time spent at such appearance or appearances shall be made upon request of LCDOT or its trial counsel and shall be paid for as specified in Exhibit B.

Appraiser may be asked to perform a Cost Analysis for budgetary purposes.

Appraiser may be asked to provide a Comparable Sales Book as an on-going assignment independent of individual appraisals.

MROWCO staff may assist in the preparation of appraisal work.

NEGOTIATIONS

The Negotiator is responsible for all land acquisition negotiations conducted under this AGREEMENT. Negotiations shall be in accordance with the LAPPM. The negotiator shall:

- Be the LCDOT's representative to the property owner.
- Work with the Project Manager to receive and understand the scope of work for each work order and the associated deadlines/time frames involved.
- Establish schedules for each activity and report the progress to the Project Manager to assure a quality product.
- Assure that the deadlines assigned are met.
- Maintain channels of communication.
- Provide a quality product.

Before the initiation of negotiations for each parcel, the LCDOT must approve the amount of just compensation. The Negotiator shall fully document on an ongoing basis all efforts made to acquire the parcel in the Negotiator's Report. Said report shall be available to the LCDOT as reasonably requested

The Negotiator may recommend administrative settlements as outlined in the LAPPM. Administrative settlements will be determined by the LCDOT on an individual parcel basis.

In the event MROWCO, after having made every reasonable effort to negotiate with the owner of a parcel, is unable to obtain a settlement on the approved appraisal amount, MROWCO shall prepare and submit a written report summarizing the progress of negotiations to date together with a copy of MROWCO'S Negotiator's Report completed to date with the names and addresses of all interested parties. MROWCO'S written report shall also include its recommendation for further procedure towards acquiring the parcel. The LCDOT may elect to prepare and forward a Final Offer letter (with copy to MROWCO) to the owner of the parcel and thereafter refer the matter to the State's Attorney's Office to proceed with preparation of a condemnation petition. In any case, the LCDOT reserves the right to require MROWCO to make additional negotiation contacts with the parcel owner up until the actual date of filing a petition to condemn the parcel.

The negotiation for a parcel will be deemed complete when all required documents necessary to obtain title approval are submitted and approved by the LCDOT. If a negotiated settlement cannot be reached, the negotiation for a parcel will be deemed complete when the documentation for eminent domain action is submitted and approved by the LCDOT, and the complaint is filed.

If requested to do so, MROWCO shall provide title review and an attorney's approval letter provided by Mathewson & Mathewson, P.C. for no additional cost. MROWCO shall record or cause to be recorded all conveyance documents and curative title documents related to the acquisitions. MROWCO shall not be responsible for recording the Plats of Highway.

Each Updated Negotiation or Revised Negotiation shall be paid for at the per parcel fee as specified in Exhibit B. An updated negotiation or revised negotiation is defined as additional negotiation work requested by the LCDOT due to new parcel information supplied by the LCDOT to MROWCO after first contact with the property owner. New parcel information could include, but is not limited to, significant changes in the area of the acquisition; updated (and modified) appraisal amounts that require revised negotiation documents; updated (and modified) title information that requires negotiations with additional property owner(s). Any additional work required to obtain title approval does not constitute an update or revision that would necessitate a separate work order.

EXHIBIT B: COMPENSATION

The services to be provided by MROWCO under this agreement shall be assigned and compensated as provided in the table below.

<u>Task</u>	<u>Fee</u>	<u>Parcels</u>	<u>Total</u>
Appraisals (TE Only) (incl. LCFPD parcel)	\$2,400.00	15	\$36,000.00
Appraisals (Permanent Taking)	\$3,000.00	5	\$15,000.00
Negotiations (TE Only)	\$3,000.00	14	\$42,000.00
Negotiations (Permanent Taking)	\$4,000.00	5	\$20,000.00
Document Preparation for LCFPD acquisition	\$1,500.00	1	\$1,500.00
Closing Costs	\$750.00	19	\$14,250.00
Direct Expenses (Later Dates, Docs, Trust Fees, Releases & Policies)	\$1,000.00	19	\$19,000.00
Project Management	\$500.00	19	\$9,500.00
Total:			\$157,250.00

The sum total of all services provided for in this AGREEMENT shall not exceed **\$157,250.00**.

The fees for services shall include all transportation, food, lodging, telephone, or any other operating expenses incurred by MROWCO in the performance thereof.

HUFF & HUFF, INC. (GZA)



A Subsidiary of GZA

GEOTECHNICAL

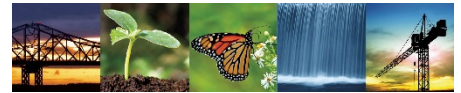
ENVIRONMENTAL

ECOLOGICAL

WATER

CONSTRUCTION
MANAGEMENT

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



September 4, 2019

via email: patrick.mccluskey@stvinc.com

Patrick McCluskey, P.E.
STV Incorporated
200 West Monroe Street, Suite 1650
Chicago, Illinois 60606-5015

**Re: Phase II Roadway Design – Environmental Services
Ela Road and Long Grove Road Intersection, Lake County, Illinois
Proposal No. 81.PT00067.19 (Revised)**

Dear Mr. McCluskey:

Huff & Huff, Inc., (H&H) a subsidiary of GZA GeoEnvironmental, Inc. (H&H) is pleased to submit this proposal to STV Incorporated (Client) for Phase II Roadway Design, Environmental Services for the Ela Road and Long Grove Road Intersection Improvement project. Specifically, H&H has been tasked to provide services for the assessment of project corridor soils for consideration of final disposition at a Clean Construction or Demolition Debris (CCDD) facility or uncontaminated soil fill operation (USFO) and Wetland Permitting. This proposal presents our project approach, the scope of services, cost, and schedule for completing the project.

1. PROJECT BACKGROUND

The Lake County Division of Transportation is completing the Phase 1 Study for the proposed improvement of the intersection of Ela Road and Long Grove Road. Client and H&H have prepared the Phase 1 Engineering and environmental studies for the project. Based on the studies, minimal environmental impacts will occur from the improvement. Limited wetland resources are potentially impacted and will require permitting with the US Army Corps of Engineers (USACE) and the Lake County Stormwater Management Commission (SMC).

H&H previously prepared a Preliminary Environmental Site Assessment PESA for the Project Corridor in November 2017. The PESA did not identify Potentially Impacted Properties PIPs and subsequent sampling as part of a Preliminary Environmental Site Assessment (PESA) was considered unnecessary. However, as excavation and offsite disposal of excess materials is anticipated for the project, sampling of soils is considered necessary.

Recent industry trends at Clean Construction Demolition Debris (CCDD) have resulted in sampling activities beyond pH only analyses being required prior to acceptance of 662 Form areas of excavated materials.

It is anticipated that Client will provide information on areas of planned soil disturbance, including depths.

2. SCOPE OF SERVICES

The scope identified below has been developed based on H&H's services provided for the Phase 1 study.



Task 1 – CCDD Facility Coordination, Sampling, and Completion of Form 662

Based on H&H's experience with CCDD facilities in Lake County, soil sampling beyond pH only will be necessary along the Project Corridor. It is our experience that coordination is necessary with CCDD facilities to reach agreement on sampling activities to supplement Form 662 submissions. This Task presents the anticipated coordination activities and sampling activities based on previous experience with CCDD facilities in Lake County.

A. Coordination with CCDD Facility

H&H will prepare a Sampling Plan for submission to the CCDD facility which will include the previously completed PESA and propose sampling parameters and sampling frequency. The Sampling Plan will seek concurrence from three CCDD facilities regarding the anticipated sampling

B. CCDD Sampling

H&H will conduct limited sampling activities within the proposed limits of excavation with laboratory analysis based upon previous experience with CCDD facilities.

1) Soil Borings and Field Screening

It is anticipated that up to one day of field effort will be required with up to ten (10) borings completed along the Project Corridor, assumed to be completed with the aid of traffic control services (1 day of traffic control included in scope/fee).

The borings will be advanced with a GeoProbe drill rig to a maximum depth of 10 feet bgs, to be consistent with depths of proposed improvements. The soil borings will be logged by H&H personnel. The borings will be screened with a photo-ionization-detector (PID). One sample from each boring is planned for laboratory analysis.

2) Laboratory Analysis

Laboratory analysis of soil samples is proposed to be consistent with constituents of concern (COCs) anticipated in the CCDD Sampling Plan. The sample with the highest PID reading and/or other field indication of impact will be analyzed for:

- **Volatile Organic Compounds (2 sample)** – VOCs are volatile compounds found in gasoline and related to various solvents;
- **Benzene, toluene, ethylbenzene, and total xylenes (BTEX)** (up to 8 samples) – BTEX are volatile compounds found in gasoline;
- **Polynuclear Aromatic Hydrocarbons (PNAs)** (up to 10 samples) – 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.
- **RCRA Metals, total and SPLP/TCLP methods plus iron** (up to 10 samples) – Federal environmental regulations identify eight (8) heavy metals as hazardous if present in a *solid waste* at concentrations above varying threshold concentrations. We anticipate that seven RCRA (7) metals will be analyzed via total method and chromium and iron will be analyzed via TCLP method. Samples will be analyzed for



select RCRA Metals, some of which may require further SPLP or TCLP analysis to determine compliance with the CCDD maximum allowable concentrations (MACs) (up to 5 samples).

In addition, soil samples will be analyzed for soil pH from each boring location (up to 10 samples).

C. **CCDD (LPC-Form) Documentation**

H&H will secure CCDD acceptance letters from 3 CCDD sites. 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-662 document that will be signed/stamped by the Client Representative. Locations that do not achieve the MACs (including soil pH range) will be identified as exclusion zones, not acceptable for CCDD facility disposal.

Task 2 – USACE Wetland Permitting

Permits for impacts to USACE jurisdictional wetlands and waterways are issued through the Chicago District, USACE in Lake County.

H&H will complete and submit the Joint Application form and other necessary information to obtain a permit from the USACE for impacts to USACE jurisdictional wetlands and/or waterways. The USACE will coordinate with the following agencies during the review of the Joint Application as required:

- U.S. Army Corps of Engineers (USACE)
- U.S. Fish & Wildlife Service (FWS)
- Illinois Department of Natural Resources (IDNR)
- Illinois Department of Natural Resources/Office of Water Resources (IDNR/OWR)
- Illinois Environmental Protection Agency (IEPA)
- Illinois Historic Preservation Agency (IHPA)

The Chicago District of the USACE has a regional permit program meant to simplify and expedite specific types of projects. Most regional permits have automatically authorized Section 401 Water Quality Certification (WQC) from the IEPA. It is anticipated that this project will qualify for a regional permit. If the project does not qualify for a regional permit, an individual permit will be required. Individual permits require a public notice period as well as separate WQC from the IEPA. The individual permit process can take significantly more time than the regional permit process. This scope of work assumes the project will qualify under the Regional Permit program. This scope does not include permitting under the Individual Permit.

Within the regional permit program, permits are classified as either Category I or Category II. Category I includes activities with minimal impacts requiring review by the USACE. Category II includes activities with minimal impacts requiring more rigorous review by the USACE and coordination with the resource agencies.

Regional Permit 3 (RP3) authorizes the construction or replacement of public transportation projects, including roads, bridges, runways and taxiways, and railroads. The cumulative impact cannot exceed 1.0 acre for a single and complete project.



Mitigation

There are currently two options by which mitigation criteria can be met: 1) the use of a wetland bank, or 2) new wetland construction. In most cases, the USACE prefers the use of wetland banks over new wetland construction.

Wetland banking is typically the best way to provide mitigation for wetland impacts. The creation of small isolated mitigated wetlands does not replace the functions of wetlands as well as a large scale wetland bank. In many cases, the regulatory community prefers the use of wetland banks to mitigate impacts. Banking is a viable mitigation option for this project.

Because the USACE generally prefers the use of mitigation banks and the level of mitigation required, if any, is currently unknown, wetland mitigation design is not included in this proposal. Wetland mitigation design is not included in this scope of work.

At this time, no on-site mitigation design is included in the scope of services. This scope assumes that LCDOT will utilize wetland bank credits they currently own for the required wetland mitigation.

If state or state pass through funding is to be utilized on the project, the project will be required to follow the guidelines of the IWPA. The IWPA requires mitigation of all wetland impacts, regardless of size. Additionally, the IWPA recognizes all wetlands and is not subject to the limitations on isolated wetlands that is the current policy of the USACE. On-site mitigation through the IWPA is recognized as within one-mile of the project site. If on-site mitigation is not feasible, mitigation can be conducted off-site or through mitigation banks, but at a higher mitigation ratio.

Task 3 – Lake County Wetland Permitting

Lake County regulates all wetlands including isolated waters of Lake County and buffers to these wetlands. Lake County defines four levels of wetland impacts:

- Category I includes wetland impacts with a cumulative impact area of 0.25 acre or less, without impacts to High Quality Aquatic Resources (HQAR), High Functional Value Wetland (HFVW), or High Quality Habitat Sites (HQHS).
- Category II includes projects that have between 0.25 and 2 acres of wetland impact and do not impact HQAR, HFVW, and/or HQHS.
- Category III includes wetland impacts with a cumulative impact area of 2 acres or greater in size, or that impact HQAR, HQHS, and/or HFVW.
- Category IV includes wetland impacts for the restoration, creation, and enhancement of wetlands provided that there are net gains in aquatic resource function.

Isolated Waters of Lake County (IWLC) are potentially present within the project limits. It is anticipated this project meets the definition of a category I wetland impact. Category III permit applications must include documentation of avoidance and minimization on the site. In addition, any permit application that includes an impact to a HQAR, HQHS, or HFVW ADID wetlands must include an alternative analysis for wetland avoidance.

H&H will work with the Client to obtain permits as required under the Lake County Watershed Development Ordinance. The Lake County Ordinance requires permits for impacts related to stormwater and wetlands. H&H will work with Client to obtain the wetland authorizations through the County. Client will obtain the necessary stormwater permits. This scope includes a pre-application meeting with Lake County. The wetland permits will require submittal of the wetland delineation report that was completed in Phase 1.



Jurisdictional Determination

Prior to the issuance of permits. A jurisdictional determination (JD) is required to determine whether the wetlands on site are isolated or under the jurisdiction of the USACE. In addition, a boundary verification will be required. H&H will prepare the necessary forms and reports for submittal to the SMC. Fees for the boundary verification and JD are not included in this proposal.

Other permits

Costs for the following permits are not included in this proposal. If these permits become necessary, a separate proposal can be submitted.

- Section 401 of the Clean Water Act is automatically granted under most Regional Permits from the USACE. If the project does not meet the guidelines of the Regional Permit Program, separate Section 401 WQC will be required. This proposal assumes the project will qualify for a regional permit.
- National Pollutant Discharge Elimination System (NPDES) Permitting - Client will be responsible for preparation of the NPDES permitting, plan preparation, and associated coordination. H&H will not complete this item; however, as stated below, H&H will complete the coordination with the IDNR and IHPA (associated with a Section 404 permit), which will need to be submitted by Client during the NPDES permitting process, prior to receiving an NPDES permit.
- The Lake County SMC is required to review the project for erosion and sedimentation control measures for projects in Lake County. If wetland impacts are unavoidable, the SMC reviews the entire project for erosion control protection (not just the wetland areas). The USACE issuance of a permit to impact wetlands will be contingent upon approval of the erosion and sediment control plan by the SMC. H&H will utilize the erosion control plans developed by Client to obtain approval of the erosion and sediment control plan.

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, memo production and other in-house management activities, and project closeout.

Task 5 – QA/QC

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

2. LEVEL OF EFFORT AND SCHEDULE

The fee for the currently proposed scope of services is included on the attached IDOT cost plus fixed fee (CPFF) worksheets. The project will be initiated after the receipt of Notice to Proceed. The CCDD Assessment work will commence within 5 business days of project approval, with a target completion date of six weeks from the date of approval. If an expedited schedule is necessary, H&H will coordinate with Client to establish a schedule that is appropriate for the project needs. However, costs for laboratory analysis reflect standard turn around (5 to 7 business days).



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.

James C. Novak, PWS
Associate Principal

Jeremy J. Reynolds, P.G.
Associate Principal

This Proposal for Services and Schedule of Fees 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: _____

Exhibit A - Preliminary Engineering

Route: Ela Road and Long Grove

Local Agency: Lake

(Municipality/Township/County)

Section: _____

Project: _____

Job No.: _____

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

Overhead Rate (OH)	<u>174.01</u>	%
Complexity Factor (R)	<u>0.00</u>	
Calendar Days		

Method of Compensation:

Cost Plus Fixed Fee 1	<input type="checkbox"/>	14.5%[DL + R(DL) + OH(DL) + IHDC]
Cost Plus Fixed Fee 2	<input type="checkbox"/>	14.5%[DL + R(DL) + 1.4(DL) + IHDC]
Cost Plus Fixed Fee 3	<input type="checkbox"/>	14.5%[(2.3 + R)DL + IHDC]
Specific Rate	<input type="checkbox"/>	
Lump Sum	<input checked="" type="checkbox"/>	

Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs (DL)	Overhead*	Services by Others	In-House Direct Costs (IHDC)	Profit	Total
CCDD	Associate Principal I	2.00	\$62.63	\$125.26	\$217.96	\$4,000.0	\$5,004.3	\$525.99	\$9,873.51
	Senior Geologist PM	4.00	\$47.33	\$189.32	\$329.43	\$0.00	\$0.00	\$75.21	\$ 593.96
	Technical Graphics Technician	4.00	\$23.34	\$93.36	\$162.45	\$0.00	\$0.00	\$37.09	\$ 292.90
	Scientist E1	44.00	\$30.43	\$1,338.92	\$2,329.85	\$0.00	\$0.00	\$531.97	\$4,200.74
	Admin Mgr	1.00	\$42.04	\$42.04	\$73.15	\$0.00	\$0.00	\$16.70	\$ 131.89
USACE Wetland Perm	Senior Technical Scientist	30.00	\$43.36	\$1,300.80	\$2,263.52	\$0.00	\$20.00	\$519.72	\$4,104.04
	Scientist E2	20.00	\$24.73	\$494.60	\$860.65	\$0.00	\$0.00	\$196.51	\$1,551.76
Lake County Permitting	Senior Technical Scientist	28.00	\$43.36	\$1,214.08	\$2,112.62	\$0.00	\$52.70	\$490.01	\$3,869.41
	Scientist E2	16.00	\$24.73	\$395.68	\$688.52	\$0.00	\$0.00	\$157.20	\$1,241.40
PM	Senior Geologist PM	3.00	\$47.33	\$141.99	\$247.07	\$0.00	\$0.00	\$56.41	\$ 445.47
QA/QC	Associate Principal I	2.00	\$62.63	\$125.26	\$217.96	\$0.00	\$0.00	\$49.76	\$ 392.98
	Senior Geologist PM	3.00	\$47.33	\$141.99	\$247.07	\$0.00	\$0.00	\$56.41	\$ 445.47
Totals				\$5,603.30	\$9,750.25	\$4,000.0	\$5,077.0	\$2,712.9	\$27,143.53

HUFF & HUFF, INC. SUMMARY OF INHOUSE DIRECT COSTS

Project: STV - Ela Road - LCDOT

DIRECT

Task 01 - CCDD Documentation

Trips - Company	30 miles	x	2	x	\$	0.545	=	\$	32.70
tolls	1 ea	x	12	x	\$	1.50	=	\$	18.00
Reproduction	2 sets	x	190	x	\$	0.03	=	\$	11.40
Color copies	2 sets	x	10	x	\$	0.11	=	\$	2.20
Field Kit	1 day	x	2	x	\$	30.00	=	\$	60.00
pH Meter	1 day	x	2	x	\$	10.00	=	\$	20.00
PID Meter	1 day	x	2	x	\$	50.00	=	\$	100.00
Task Total									\$ 244.30

Task 02 - USACE Wetland Permitting

Task Total	\$ -
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Task 03 - Lake County Wetland Permitting

Trips - Company	30 miles	x	2	x	\$	0.545	=	\$	32.70
			0	x	\$	-	=	\$	-
Task Total									\$ 32.70

Task 04 - Project Management

Task Total	\$ -
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Task 05 - QAQC

Task Total	\$ -
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GRAND TOTAL	\$ 277.00
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HUFF & HUFF, INC.
SUMMARY OF OUTSIDE DIRECT COSTS
Project: STV - Ela Road - LCDOT

OUTSIDE

Task 01 - CCDD Documentation

Records Search			1	x	\$	350.00	=	\$	350.00
Aerials, Topos			1	x	\$	180.00	=	\$	180.00
VOCs	1 ea	x	2	x	\$	150.00	=	\$	300.00
BTEX	1 ea	x	8	x	\$	60.00	=	\$	480.00
PNAs	1 ea	x	10	x	\$	105.00	=	\$	1,050.00
RCRA total	1 ea	x	10	x	\$	85.00	=	\$	850.00
TCLP Fe & Cr	1 ea	x	10	x	\$	85.00	=	\$	850.00
RCRA SPLP	1 ea	x	5	x	\$	100.00	=	\$	500.00
pH	1 ea	x	10	x	\$	20.00	=	\$	200.00
Task Total									\$ 4,760.00

Task 02 - USACE Wetland Permitting

Federal Express			1	x	\$	20.00	=	\$	20.00
			0	x	\$	-	=	\$	-
Task Total									\$ 20.00

Task 03 - Lake County Wetland Permitting

Federal Express			1	x	\$	20.00	=	\$	20.00
			0	x	\$	-	=	\$	-
Task Total									\$ 20.00

Task 04 - Project Management

Task Total \$ -

Task 05 - QAQC

Task Total \$ -

GRAND TOTAL \$ 4,800.00

HUFF & HUFF, INC.
SUMMARY OF SERVICES BY OTHERS
Project: STV - Ela Road - LCDOT

				<u>OUTSIDE</u>
<i>Task 01 - CCDD Documentation</i>				
Driller (day)	1	x	\$ 2,000.00 = \$	2,000.00
Traffic Control (day)	1	x	\$ 2,000.00 = \$	2,000.00
Task Total				\$ 4,000.00
<i>Task 02 - USACE Wetland Permitting</i>				
Task Total				\$ -
<i>Task 03 - Lake County Wetland Permitting</i>				
Task Total				\$ -
<i>Task 04 - Project Management</i>				
Task Total				\$ -
<i>Task 05 - QAQC</i>				
Task Total				\$ -
<hr/>				
GRAND TOTAL				\$ 4,000.00

F:\Proposal-FY2020\STV\[STV Ela Road LCDOT DC REVISED.xls]Outside Direct Costs

GANDHI AND ASSOCIATES, INC.

**Project: New Traffic Signal at Ela Road and Long Grove Road
Lake County, Illinois**

Scope of Work

The scope of the services will consist of design and plan preparation for a New Traffic Signal Installation for the intersection of Ela Road and Long Grove Road in Villages of Barrington and Deer Park in Lake County, Illinois.

The work will include complete intersection layout with traffic signal equipments, cable plan, phase designation diagram, emergency vehicle preemption chart, mast arm mounted sign design, schedule of quantities, combination lighting on traffic signal mast arms and or posts as applicable, special provisions, estimate of probable costs, and coordination with power company. Lake County's equipments for intersection traffic monitoring will also be incorporated in the signal work, if it is desired by the County. GAI's work will also include fiber interconnect plans along Ela Road between Lake Cook Road and Long Grove Road.

The proposed traffic signal will be coordinated with the existing traffic signals at Ela Road at Lake-Cook Road on the south and Ela Road at Cuba Road on the north of the proposed traffic signal at Ela and Long Grove Roads.

The signal plans will be prepared in accordance with the prevailing standards as determined by IDOT – District 1 as well as LCDOT.

Ela Road at Long Grove Road, New Traffic Signal Design and Interconnect Plans

<u>Dercriptions</u>		<u>Sheets</u>	<u>Manhours</u>	
<u>New Traffic Signal - Preliminary Plans (90 to 95% complete)</u>				
	Proposed Intersection Plan	2	42	
	Proposed Cable Plan, Phase Designation, and EVP Phasing	1	30	
	Mast Arm Mounted Street Name Signs and Schedule of Quantities Table	1	12	
	Quantities including backup data and Probable Cost Estimate	-	11	
	Additional time needed for Combination Lighting	-	9	
<u>Pre-Final Plans</u>				
	Study of the Plan Review Comments	-	1	
	Modify Plans as per Review Comments	-	4	
	Respond to the Review Comments (Disposition of Comments)	-	1	
<u>Final Plans</u>				
	Study of the Plan Review Comments	-	0.5	
	Modify Plans as per Review Comments	-	1	
	Respond to the Review Comments (Disposition of Comments)	-	0.5	
	Proposed Interconnect Plans (on Ela Rd. from Lake Cook Rd. to Long Grove Rd.) (Note: The Signals at Cuba Road and Lake Cook Road have already been wirelessly interconnected to LCDOT system)	3	36	
	Proposed Interconnect Schematic	1	10	
	Interconnect Quantities	-	2	
	District 1 Standards	7	2	

Ela Road at Long Grove Road, New Traffic Signal Design and Interconnect Plans

<u>Dercriptions</u>		<u>Sheets</u>	<u>Manhours</u>	
	Special Provisions	-	5	
	PESA Response Plan Forms and Exhibits (Done in Phase 1)	-	0	
	QA/QC (Included in Signal Plans)	-	0	
	Meetings and Coordination		8	
	Coordination with ComEd		4	
	Field Check (2 persons x 4 Hours/Person x 1 trip)		8	
	Project Administration (4% of total manhours) (0% for this project)		0	
	Total (Gandhi & Associates, Inc.)	15	Subtotal MH's	187

PAYROLL ESCALATION TABLE FIXED RAISES

FIRM NAME
PRIME/SUPPLEMENT
Prepared By

Gandhi and Associates, Inc.
Prime
Myra Recinto

DATE 09/10/19
PTB-ITEM# 0

CONTRACT TERM 4 MONTHS
START DATE 9/1/2019
RAISE DATE 1/1/2020

END DATE 12/31/2019

OVERHEAD RATE 129.00%
COMPLEXITY FACTOR 0
% OF RAISE 3%

ESCALATION PER YEAR

year	First date	Last date	Months	% of Contract
0	9/1/2019	12/31/2019	4	100.00%

The total escalation = 0.00%

PAYROLL RATES

FIRM NAME
PRIME/SUPPLEMENT
PTB-ITEM #

Gandhi and Associates, DATE
Prime
0

09/10/19

ESCALATION FACTOR

0.00%

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

CLASSIFICATION	IDOT PAYROLL RATES ON FILE	CALCULATED RATE
Principal	\$70.00	\$70.00
Project Manager	\$65.00	\$65.00
Project Engineer	\$50.67	\$50.67
Senior Engineer	\$45.67	\$45.67
Engineer	\$40.25	\$40.25
CADD/Designer	\$30.50	\$30.50

Subconsultants

FIRM NAME Gandhi and Associates, Inc.
PRIME/SUPPLEMENT Prime
PTB-ITEM # 0

DATE 09/10/19

NAME	Direct Labor Total	Contribution to Prime Consultant
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Gandhi and Associates, Inc.

Total

0.00

0.00

Bureau of Design and Environment
Prepared By: Consultant

09/10/19

129.00%

C

DBE 100.00%

AVERAGE HOURLY PROJECT RATES

FIRM Gandhi and Associates, Inc.
PTB-ITEM# 0
PRIME/SUPPLEMENT Prime

DATE 09/10/19

SHEET 1 OF 1

PAYROLL CLASSIFICATION	AVG HOURLY RATES	TOTAL PROJ. RATES			New Traffic Signal Design, Complete			Proposed Interconnect Plans Along Ela Rd. from Long Grove Rd. to Cuba Rd. to Lake-Cook Rd											
		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																	
Project Manager	65.00	15.0	8.02%	5.21	13	8.61%	5.60	2	5.56%	3.61									
Project Engineer	50.67	26.0	13.90%	7.05	22	14.57%	7.38	4	11.11%	5.63									
Senior Engineer	45.67	38.0	20.32%	9.28	30	19.87%	9.07	8	22.22%	10.15									
Engineer	40.25	62.0	33.16%	13.34	48	31.79%	12.79	14	38.89%	15.65									
CADD/Designer	30.50	46.0	24.60%	7.50	38	25.17%	7.68	8	22.22%	6.78									
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TOTALS		187.0	100%	\$42.39	151.0	100.00%	\$42.52	36.0	100%	\$41.82	0.0	0%	\$0.00	0.0	0%	\$0.00	0.0	0%	\$0.00