


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 Gewalt Hamilton Associates, Inc.
Township				Address 850 Forest Edge Drive
County Lake County – Division of Transportation		Preliminary Engineering Services Agreement For Non-Motor Fuel Tax Funds		City Vernon Hills
Section #11-00184-03-SW				State Illinois

THIS AGREEMENT is made and entered into this _____ day of _____, 2011 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 Greenleaf Avenue Sidewalk Improvements

Route W-29 Length 2,300 Mi. 0.41 FT (Structure No. N/A)

Termini Washington Street to Northpoint Boulevard (excluding Greenleaf Court to Cornell Avenue)

Description:

Engineering design services to develop engineering plans, specifications and bidding documents for installation of sidewalk along Greenleaf Street between Washington Street to Northpoint Boulevard (excluding Greenleaf Court and Cornell Avenue).

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

Draft

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

The LA Agrees,

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

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

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

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

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

The Total Not-to-Exceed Contract Amount shall be \$80,920.89

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.

It is Mutually Agreed,

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

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

Executed by the LA:

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

ATTEST:

State of Illinois, acting by and through its

By _____

County Board

Lake County

Clerk

By _____

(Seal)

Title Chairman of the County Board

RECOMMENDED FOR EXECUTION

Martin G. Buehler, P.E.
Director of Transportation/County Engineer
Lake County

Executed by the ENGINEER:

Gewalt Hamilton Associates, Inc.

Engineering Firm

850 Forest Edge Drive

Street Address

Vernon Hills, Illinois

City, State

ATTEST:

By *Mark D. Berry*

By *Bruce Z. Shrub*

Title *Secretary*

Title *President*

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

Engineering Service Agreement

**Sidewalk Improvements along Greenleaf Avenue
from Washington Street to Northpoint Boulevard
(excluding Greenleaf Court to Cornell Avenue)
in Gurnee, Park City and Waukegan Illinois**

Section #11-00184-03-SW

Lake County, Illinois

Prepared for:



**Lake County Division of Transportation
600 West Winchester Road
Libertyville, IL 60048-1381**

Submitted by:

**GHA GEWALT HAMILTON
ASSOCIATES, INC.**

CONSULTING ENGINEERS

www.gha-engineers.com

**850 Forest Edge Drive
Vernon Hills, IL 60061
847-478-9700**

September 28, 2011

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Appendix I

Engineering Service Agreement

Sidewalk Improvements along Greenleaf Avenue from Washington Street to Northpoint Boulevard (excluding Greenleaf Court to Cornell Avenue) in Gurnee, Park City and Waukegan Illinois

Section #11-00184-03-SW

Lake County Division of Transportation
Lake County, Illinois

Project Description

In accordance with the LCDOT Project Scoping Report, the work scope for the proposed improvements is to connect gaps between existing sidewalk located in the Village of Gurnee and the City of Waukegan along Greenleaf Avenue between Washington Street and Northpoint Boulevard; and to connect to the proposed sidewalk to be completed by Park City in 2012. This sidewalk improvement is located along Greenleaf Avenue between Greenleaf Court and Cornell Avenue. It is understood that the sidewalk is to be designed to be one foot from the right-of-way line. This offset may vary to avoid and/or minimize impacts to existing floodplain, wetlands and tree removals. As part of GHA services, we will evaluate potential impacts to adjoining wetlands and floodplains.

In addition, improvements to the existing traffic signals will be reviewed to include pedestrian signals at the IL Route 120 and Greenleaf Avenue interchange. This work will require permitting through the State and coordination with the City of Waukegan.

In accordance with the scoping report, it is understood that this project will be funded by sales tax funds.

I. Scope of Services

Gewalt Hamilton Associates, Inc. (GHA) will provide the following services:

A. PROJECT INITIATION, PROJECT ADMINISTRATION AND DATA COLLECTION

GHA will coordinate the design of this project with State (IDOT), local agencies (Village of Gurnee, Village of Park City and the City of Waukegan), LCSMC, USACE and utilities. GHA will present our findings to LCDOT staff of the various coordination meetings. The following coordination are anticipated during the design of this project.

- **Coordination with LCDOT**

Representatives from GHA will attend an initial kick-off meeting with the LCDOT. GHA will provide minutes of the meeting with a record of discussions and circulate to all participants.

GHA Project manager will provide LCDOT with monthly status updates in the form of a technical memorandum with updated progress schedule.

- ***Coordination with the Local Agencies***
Representatives from GHA will meet and coordinate the sidewalk improvements with the various communities adjoin this project. GHA will provide summaries of the meeting(s) to LCDOT.
- ***Coordination with the Lake County Stormwater Management Commission (LCSMC)***
Representatives from GHA will meet with LCSMC and LCDOT staff to discuss the potential drainage, floodplain and wetland impacts of the project and permitting requirements. GHA will provide minutes of the meeting with a record of discussions and circulate to all participants.
- ***Coordination with the US Army Corp of Engineers (USACE)***
Representatives from GHA will meet with the USACE and LCDOT staff to discuss potential wetland impacts and permitting requirements. GHA will provide minutes of the meeting with a record of discussions and circulate to all participants.
- ***Coordination with the Illinois Department of Transportation (IDOT)***
Representatives from GHA will meet with the IDOT and LCDOT staff to discuss the traffic signal modifications at Greenleaf Avenue and IL Route 120 and permitting requirements. GHA will provide minutes of the meeting with a record of discussions and circulate to all participants.
- ***Coordination with Utility Agencies***
GHA will request atlases and utility information from the various agencies/companies that have existing utilities within the LCDOT right-of-way.

GHA will request available historical data and information (i.e. engineering plans, subdivision plans, easement plats, drainage reports, as-constructed plans, etc.) from the above mentioned agencies during the coordination process.

B. TOPOGRAPHIC EXISTING CONDITIONS, ROW SURVEY AND BASE PLAN PREPARATION

GHA will prepare a complete existing conditions topographic survey and ROW analysis for the project limits in accordance with LCDOT and IDOT standards. Exhibit C attached are LCDOT survey standards.

Topographic and ROW survey limits (ROW to ROW) will encompass approximately 2,300 lineal feet of roadway along Greenleaf Avenue from Oglesby Avenue to approximately 700 feet south to existing sidewalk on the east side of the road; and along Greenleaf Avenue from Cornell Avenue to Northpoint Boulevard.

Our topographic survey will include the following tasks:

- Prepare a topographic and cross-section survey of the roadways meeting IDOT standards for Design Surveys (Chapter 3 of the IDOT Survey Manual).
- This work will be performed according to the standards and requirements detailed in Table 3 of Chapter II, Section II, page 2-8 (copy attached) for Second Order, Class II surveys.

Horizontal coordinates shall be referenced to the State Plane Coordinate System, Illinois East Zone, NAD83 adjustment. Vertical elevations shall be referenced to the North American Vertical Datum of 1988 (NAVD88). All units shall be U.S. Survey feet and decimal parts thereof.

- Survey and establish the roadway centerlines based on recovered monumentation and research of available plats and property records. Establish alignment and stationing of roadways based on record information and field surveys and develop alignment and stationing for intersecting streets. Prepare standard "Alignment, Ties, and Benchmarks" sheets conforming to the guidelines of section 63-4.06 of the IDOT BDE Manual. All surveys shall utilize the horizontal coordinate system, vertical datum and units as the topographic survey.
- The topography will include cross sections on station and at 50 foot intervals including cross sections at all intersections, cross streets and driveways, extending from ROW to ROW.
- The topography will extend 15 feet past the existing right of ways locating size and location of vegetation and landscaping elements, including tagging and locating all trees 6" and greater caliber. GHA will identify the visible utilities, sanitary and storm manholes, catch basins, inlets and water valves (Design JULIE) in the project area. GHA will coordinate with private utility companies to obtain the most recent copies of available atlases for inclusion into our survey and to confirm JULIE locations. Locations, size and inverts of all visible drainage structures, cross culverts, drive and street culvert structures with flow directions will be included. All visible/substantial site improvements including pavement, pavement markings, driveways, fences, walls, buildings, sidewalks, traffic signals, etc. will be identified.
- GHA will locate and survey the existing property monumentation in the project area and confirm the position of the property lines within the project limits.
- GHA will survey flagged wetlands after the wetland delineations. The survey of the wetland flags shall utilize the horizontal coordinate system, vertical datum and units as the aerial topography.
- GHA will identify preliminary ROW needs, including permanent/temporary easement needs as well.

C. WETLAND EVALUATION

Wetland Delineation

GHA will delineate all Waters of the U.S. (WOUS), including wetlands, in conformance with Local and County ordinances and the U.S. Army Corps of Engineers (USACE). This task will include a review of aerial photos of site, both current and historic; review of USGS topographic map; review of Lake County Wetland Inventory map; review of Lake County Soil Survey; review of FEMA map; conduct on-site investigation; analyze and document existing vegetation, hydrology and hand auger soil samples; flag WOUS and/or wetland boundaries, if any, at approximately 25 feet intervals; and prepare Wetland Delineation Report summarizing the findings. GHA will submit two (2) copies of the report to the Client and advise Client of future permits that may be needed for development of property.

Please note that Wetland Delineations conducted outside of the growing season (March – October) may not be confirmed by the jurisdictional agency until spring. Projects are evaluated on a case-by-case basis. In addition, the jurisdictional agency may require an updated Floristic Quality Assessment during the growing season.

Boundary Confirmation and Jurisdictional Determination

GHA will submit a formal request for a jurisdictional determination and boundary confirmation to the USACE and Lake County as well as coordinate a site visit. Wetlands that are adjacent to and/or have a direct hydrologic connection to a navigable waterway are federally regulated under Section 404 of the Clean Water Act. Isolated wetlands are exempt from federal regulation following the January 2001 Supreme Court decision (SWANCC v. USACE), because they do not have an easily traceable, direct hydrologic connection to a navigable waterway. However, if there is a direct subsurface connection (i.e. via storm sewer, drain tile, etc.) to a navigable waterway, the USACE will likely take jurisdiction over the wetland areas. Isolated wetlands in Lake County are regulated under the Watershed Development Ordinance.

Wetland Permitting

The required data and project information will be compiled and assembled into a permit application submittal package and submitted to the jurisdictional agency for review. This task will include coordination with, at a minimum, Lake County Stormwater Management Commission, U.S. Army Corps of Engineers, U.S. Fish & Wildlife Service and Illinois Department of Natural Resources.

D. DRAINAGE AND HYDRAULIC REVIEW

GHA will review the proposed improvements in conjunction with the existing drainage and adjoining floodplain through the project limits for compliance with the Lake County Watershed Development Ordinance. GHA will complete the necessary permit applications, plans and reports to obtain approval from the LCSMC. The limits of the adjoining floodplain will be verified with the existing condition topography through the project limits. It is understood that the sidewalk is to be adjusted as needed to minimize impacts to the floodplain (and/or wetlands) and drainage. Dependant on these factors, modifications may be needed to the existing drainage system to accommodate the new sidewalk, which may include additional storm sewer, curb and gutter, culvert replacements and/or additions.

We have included a contingency amount in the manhour exhibit to accommodate the design of compensatory floodplain mitigation to compensate for any fill required within the existing floodplain. We will attempt to avoid impacts to both floodplain and wetlands where possible.

E. TRAFFIC SIGNAL MODIFICATION PLANS AND TECHNICAL SPECIFICATIONS

GHA will prepare the preliminary, pre-final and final traffic signal modification plans for the inclusion of pedestrian signal with special provisions for the Greenleaf Avenue and IL Route 120 intersection(s). The plans will include summary of quantities, general notes, traffic signal modification plans, cable plans, phase designation diagrams, required LCDOT and IDOT design details and pavement marking details. GHA's work will include:

- GHA will design sidewalk ramps, detectable warnings and crosswalks in compliance with ADA requirements.
- GHA will design crosswalk and pavement markings in accordance with IDOT and LCDOT standards.
- GHA will make modifications to medians and curb and gutter as needed.
- GHA will design traffic signal modifications including pedestrian push buttons, signal heads, and any required changes to existing signal equipment.
- GHA will coordinate and assist the City of Waukegan in preparing the permit application to IDOT District 1 for signal work and sidewalk constructed within the IDOT right-of-way.

F. FINAL PLANS, SPECIFICATIONS AND ESTIMATE (PS&E).

- GHA will prepare pre-final engineering plans and will generally include the following sheets:
 - Cover Sheet
 - General Notes/Highway Standards
 - Summary and Schedule of Quantities
 - Typical Sections
 - Alignment, Ties and Benchmarks
 - Erosion Control Plan
 - Plan and Profiles
 - Drainage and Utility Plan
 - Traffic Signal Modification Plan
 - Cross Sections
 - Details

The plans will be prepared in accordance with Lake County DOT plan preparation guidelines. If necessary, as determined during the design, GHA can include the preparation of any right-of-way and easement plat and documentation. We have included a contingency amount to our manhour exhibit to account for the preparation of acquisition documentation if right-of-way and/or easements are needed. We have included up to two easement (or right-of-way) plats to this contingency cost.

- GHA will coordinate with the LCDOT regarding the final scope of the planned improvements. The proposed improvements to this project may include work to modify the existing drainage system needed to accommodate the new sidewalk, which may include additional storm sewer, curb and gutter, culvert replacements and/or additions.
- GHA will submit pre-final plans and specifications to Lake County Division of Transportation for review and comment.
- GHA will submit plans to the local agencies adjoining the project for review and comment.
- GHA will prepare detailed quantity calculations.
- GHA will prepare construction bidding documents and specifications.
- GHA will submit plans to IDOT for permit request with regards to the work within IDOT ROW.

- GHA will submit the appropriate permit applications, plans and reports for approval to LCSMC and USACE.
- GHA will prepare a detailed engineer's opinion of probable cost based upon the completed final engineering plans.
- After the comments have been received by all agencies, GHA will finalize the Plans, Specifications and Estimate (PS&E) documents and submit the documents to the appropriate agencies for Final approval.

II. Staff

GHA proposes to use the following primary staff on this project:

Project Manager	Todd Gordon, P.E.
Project Engineer	Daniel Strahan, P.E., CFM
Traffic Engineer	Daniel Brinkman, P.E., PTOE
Environmental Consultant	Marcy Knysz, AICP, LEED AP
Hydraulic Engineer	Mei Zhu, P.E., CFM, LEED AP
Project Surveyor	Jon Past, PLS
Senior Engineering Technician	James Deferville

The primary project team will be assisted, as needed, by other GHA engineers, technicians, and support staff.

III. Schedule

It is our intention to begin design work as soon as this agreement is completed. GHA will work closely with LCDOT staff to determine an acceptable schedule. It is understood that the goal of LCDOT is to meet a 2012 letting schedule. Based on our experience with review agencies, we cannot guarantee the following schedule but will do our best to achieve timely results.

IV. Compensation for Services

Included in this proposal are the estimated man-hour calculations. Reimbursable expenses such as mileage, printing, courier service etc. are also included as an attachment and are noted on the man-hour calculation chart. These reimbursable expenses will be billed directly to the client without markup.

Note that invoices of GHA charges made against the project are submitted to clients every four weeks. This allows the client to review the status of the work in progress and the charges made. Additional hours considered to be outside the scope of services will be identified. If it is determined that the man-hour estimate or services beyond the original scope is to be exceeded, a written modification to the proposal will be submitted to the County.

No permit fees or review fees are included in this proposal.

V. Additional Services Not Included

This proposal does not include work on the following:

1. Boundary surveys of individual parcels.

2. Preparation of an ALTA/ACSM Land Title Survey.
3. Right-of-way and/or easement acquisition.
4. Plat preparation including any easements or dedication documents.
5. Structural design.
6. Tree surveys.
7. Special Waste Screening.
8. Wetland mitigation.
9. Floodplain modeling and simulation analysis
10. Phase III Construction Engineering Services.
11. Meetings or hearings outside of the scope of services described above.
12. Permit fees or review fees.
13. Obtaining additional topographic information beyond the scope noted above.
14. Surveys required for locating underground utilities marked by third parties. Gas, electric, telephone or other public utility services design. For informational purposes, the location of such utilities shall be depicted on our drawings based on information provided to us by the public utility or the Village. Performing additional surveying and topographic work beyond that noted in the scope of work, including investigation of underground utilities, and physical location of them.

VI. General Conditions of this Agreement

The delineated services provided by Gewalt Hamilton Associates, Inc., (GHA) under this Agreement will be performed as reasonably required in accordance with the generally accepted standards for civil engineering and surveying services as reflected in the contract for this project at the time when and the place where the services are performed.

Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Client or GHA. GHA's services under this Agreement are being performed solely for the Client's benefit, and no other party or entity shall have any claim against GHA because of this Agreement or the performance or nonperformance of services hereunder. In no event shall GHA be liable for any loss of profit or any consequential damages.

GHA shall not have control of and shall not be responsible for construction means, methods, techniques, sequences or procedures, or for job site safety measures. Such control is the sole responsibility of the Client's contractor.

The Client, and not GHA, is responsible for ensuring that the contractor implements the Storm Water Pollution Prevention Plan (SWPPP), including maintenance and/or repair of soil erosion and sediment control measures for compliance with the General NPDES Permit for Storm Water Discharges from Construction Site Activities. GHA assumes no liability for any actions by the Illinois Environmental Protection Agency (IEPA) resulting from the contractor's failure to comply with SWPPP or the requirements of the General Permit.

The Client and GHA agree that all disputes between them arising out of or relating to this Agreement or the Project shall be submitted to nonbinding mediation in Chicago, Illinois unless the parties mutually agree otherwise.

This Agreement, including all subparts and *Attachment A*, which is attached hereto and incorporated herein as the General Provisions of this Agreement, constitute the entire integrated agreement between the parties which may not be modified without all parties consenting thereto in writing.

Thank you for your consideration. We look forward to the opportunity to working with you and providing our services to the County.

Exhibit A

**Man-Hour Calculations
and Cost Estimate of Consultant Services**

Exhibit A

Engineering Services
 Scope of Work, Man-Hour Calculations and Cost Estimate of Consultant Services
 Sidewalk Improvements along Greenleaf Avenue
 from Washington Street to Northpoint Blvd (excluding Greenleaf Court to Cornell Avenue)
 in Gurnee, Park City and Waukegan, Illinois
 Section #11-0184-03-SW
 Lake County Division of Transportation
 Lake County, Illinois

Route: Greenleaf Avenue - Washington St. to Northpoint Blvd
 Local Agency: LDDOT
 Section: 11-0184-03-SW (Municipality/Township/County)
 Project: N/A
 Job No.: N/A

*Firm's approved rates on file with IDOT's Bureau of Accounting and Auditing:
 Overhead Rate 165.00 %
 Profit Rate 34.5 %
 Complexity Factor 0 0.035 0.07
 Project Duration 248 Days

Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll Costs	Overhead*	Services by Others	In House Direct Costs	Profit	Total				
Project Initiation, Project Administration, and Data Collection	SENIOR ENG	16	\$48.44	\$775.04	\$1,278.82	\$0.00	\$0.00	\$297.81	\$2,351.87				
	PROFESSIONAL ENG	24	\$32.19	\$772.56	\$1,274.72	\$0.00	\$0.00	\$268.86	\$2,344.14				
	PROJECT CONSULTANT	12	\$32.19	\$386.28	\$637.36	\$0.00	\$0.00	\$148.43	\$1,172.07				
	STAFF ENG	16	\$25.34	\$405.44	\$668.98	\$0.00	\$0.00	\$156.79	\$1,250.21				
	SR ENG TECH	8	\$28.15	\$225.20	\$371.58	\$0.00	\$0.00	\$86.53	\$683.31				
	ENG TECH II	8	\$22.10	\$176.80	\$291.72	\$0.00	\$0.00	\$77.94	\$536.46				
	CLERICAL	4	\$48.44	\$193.76	\$319.70	\$0.00	\$0.00	\$74.45	\$897.92				
	PROF LAND SURVEYOR	24	\$41.25	\$990.00	\$1,633.50	\$0.00	\$0.00	\$380.41	\$3,003.91				
Existing Condition, Topographic Survey and Base Plan Preparation	PROFESSIONAL ENG	4	\$32.19	\$128.76	\$212.45	\$0.00	\$0.00	\$49.48	\$390.69				
	STAFF ENG	12	\$25.34	\$304.08	\$501.73	\$0.00	\$0.00	\$116.84	\$922.65				
	SR ENG TECH	80	\$28.15	\$2,252.00	\$3,715.80	\$0.00	\$0.00	\$863.33	\$6,833.13				
	ENG TECH II	80	\$20.08	\$1,606.40	\$2,650.56	\$0.00	\$0.00	\$617.26	\$4,874.22				
	ENG TECH I	8	\$13.18	\$105.44	\$173.98	\$0.00	\$0.00	\$40.52	\$319.93				
	SENIOR ENG	4	\$48.44	\$193.76	\$319.70	\$0.00	\$0.00	\$74.45	\$897.92				
	PROJECT CONSULTANT	16	\$32.19	\$515.04	\$849.82	\$0.00	\$0.00	\$197.90	\$1,562.76				
	STAFF ENG	40	\$25.34	\$1,013.60	\$1,672.24	\$0.00	\$0.00	\$389.55	\$3,075.55				
Drainage and Hydraulic Review	CLERICAL	8	\$22.10	\$176.80	\$291.72	\$0.00	\$0.00	\$202.58	\$1,599.88				
	SENIOR ENG	12	\$48.44	\$581.28	\$959.11	\$0.00	\$0.00	\$223.36	\$1,763.75				
	PROFESSIONAL ENG	40	\$32.19	\$1,287.60	\$2,124.54	\$0.00	\$0.00	\$484.76	\$3,906.90				
	STAFF ENG	32	\$25.34	\$810.88	\$1,337.95	\$0.00	\$0.00	\$311.58	\$2,460.41				
	SR ENG TECH	4	\$28.15	\$112.60	\$185.79	\$0.00	\$0.00	\$43.27	\$341.66				
	ENG TECH II	24	\$20.08	\$481.92	\$795.17	\$0.00	\$0.00	\$185.16	\$1,462.27				
	CLERICAL	8	\$22.10	\$176.80	\$291.72	\$0.00	\$0.00	\$77.94	\$536.46				
	SENIOR ENG	12	\$48.44	\$581.28	\$959.11	\$0.00	\$0.00	\$223.36	\$1,763.75				
Traffic Signal Modification Plans and Technical Specifications	PROFESSIONAL ENG	4	\$32.19	\$128.76	\$212.45	\$0.00	\$0.00	\$49.48	\$390.69				
	SR ENG TECH	60	\$28.15	\$1,689.00	\$2,786.85	\$0.00	\$0.00	\$649.00	\$5,124.85				
	ENG TECH II	40	\$20.08	\$803.20	\$1,325.28	\$0.00	\$0.00	\$308.63	\$2,437.11				
	CLERICAL	4	\$22.10	\$88.40	\$145.86	\$0.00	\$0.00	\$33.97	\$269.23				
	SENIOR ENG	24	\$48.44	\$1,162.56	\$1,918.22	\$0.00	\$0.00	\$446.71	\$3,527.50				
	PROFESSIONAL ENG	40	\$32.19	\$1,287.60	\$2,124.54	\$0.00	\$0.00	\$484.76	\$3,906.90				
	PROJECT CONSULTANT	8	\$32.19	\$257.52	\$424.91	\$0.00	\$0.00	\$98.95	\$781.36				
	STAFF ENG	32	\$25.34	\$810.88	\$1,337.95	\$0.00	\$0.00	\$311.58	\$2,460.41				
Final Plans, Specifications and Estimate (P&S&E)	SR ENG TECH	24	\$28.15	\$675.60	\$1,114.74	\$0.00	\$0.00	\$259.60	\$2,045.94				
	ENG TECH II	40	\$20.08	\$803.20	\$1,325.28	\$0.00	\$0.00	\$308.63	\$2,437.11				
	CLERICAL	12	\$22.10	\$265.20	\$437.58	\$0.00	\$0.00	\$101.90	\$804.68				
	SENIOR ENG	8	\$48.44	\$387.52	\$639.41	\$0.00	\$0.00	\$148.90	\$1,175.83				
	PROFESSIONAL ENG	16	\$32.19	\$515.04	\$849.82	\$0.00	\$0.00	\$197.90	\$1,562.76				
	STAFF ENG	12	\$25.34	\$304.08	\$501.73	\$0.00	\$0.00	\$116.84	\$922.65				
	ENG TECH II	24	\$20.08	\$481.92	\$795.17	\$0.00	\$0.00	\$185.16	\$1,462.27				
	CLERICAL	4	\$22.10	\$88.40	\$145.86	\$0.00	\$0.00	\$33.97	\$269.23				
CONTINGENCY - Floodplain Comp Storage	PROF LAND SURVEYOR	20	\$41.25	\$825.00	\$1,361.25	\$0.00	\$0.00	\$317.01	\$2,503.26				
	SR ENG TECH	24	\$28.15	\$675.60	\$1,114.74	\$0.00	\$0.00	\$259.60	\$2,049.94				
	ENG TECH II	20	\$20.08	\$401.60	\$662.64	\$0.00	\$0.00	\$154.31	\$1,218.55				
	SENIOR ENG	8	\$48.44	\$387.52	\$639.41	\$0.00	\$0.00	\$148.90	\$1,175.83				
	PROFESSIONAL ENG	16	\$32.19	\$515.04	\$849.82	\$0.00	\$0.00	\$197.90	\$1,562.76				
	STAFF ENG	12	\$25.34	\$304.08	\$501.73	\$0.00	\$0.00	\$116.84	\$922.65				
	ENG TECH II	24	\$20.08	\$481.92	\$795.17	\$0.00	\$0.00	\$185.16	\$1,462.27				
	CLERICAL	4	\$22.10	\$88.40	\$145.86	\$0.00	\$0.00	\$33.97	\$269.23				
CONTINGENCY - Easement/ROW Plan Preparation	PROF LAND SURVEYOR	20	\$41.25	\$825.00	\$1,361.25	\$0.00	\$0.00	\$317.01	\$2,503.26				
	SR ENG TECH	24	\$28.15	\$675.60	\$1,114.74	\$0.00	\$0.00	\$259.60	\$2,049.94				
	ENG TECH II	20	\$20.08	\$401.60	\$662.64	\$0.00	\$0.00	\$154.31	\$1,218.55				
	SENIOR ENG	8	\$48.44	\$387.52	\$639.41	\$0.00	\$0.00	\$148.90	\$1,175.83				
	PROFESSIONAL ENG	16	\$32.19	\$515.04	\$849.82	\$0.00	\$0.00	\$197.90	\$1,562.76				
	STAFF ENG	12	\$25.34	\$304.08	\$501.73	\$0.00	\$0.00	\$116.84	\$922.65				
	ENG TECH II	24	\$20.08	\$481.92	\$795.17	\$0.00	\$0.00	\$185.16	\$1,462.27				
	CLERICAL	4	\$22.10	\$88.40	\$145.86	\$0.00	\$0.00	\$33.97	\$269.23				
In House Direct Costs (See Attached Estimate)													
					\$3,167.00				\$3,167.00				
					\$25,430.96				\$25,430.96				
					\$41,961.08				\$41,961.08				
					\$9,771.85				\$9,771.85				
					\$80,920.89				\$80,920.89				
Totals					912	\$	\$25,430.96	\$	\$41,961.08	\$	\$9,771.85	\$	\$80,920.89

Exhibit B

Direct Cost Estimate

Exhibit B

**Sidewalk Improvements along Greenleaf Avenue
from Washington Street to Northpoint Boulevard
(excluding Greenleaf Court to Cornell Avenue)
in Gurnee, Park City and Waukegan Illinois**

Section #11-00184-03-SW

Lake County, Illinois

Direct Cost Estimate

Printing Expenses:

▪ Preliminary Documents/Plans Assume 40 sheets x 5 sets x 6 sf x \$0.25/SF	\$300.00
▪ Permit Submittals (2 Submittals) Assume 50 sheets x 8 sets x 6 sf/shts x \$0.25/sf x 2 submittals	\$1,200.00
▪ Bid Set Engineering Plans Assume 50 sheets x 15 sets x 6 sf x \$0.25/sf	\$1,125.00
▪ Specification Book Assume 160 sheets x 15 sets x \$0.15/sheet	\$360.00
▪ Wetland Delineation Booklet Assume 80 sheets x 6 sets x \$0.15/sheet	\$72.00
Shipping Expense: 20 submittals x \$15.00/submittal	\$300.00
Vehicle Expense: 800 miles x \$0.50/mile	<u>\$400.00</u>
Anticipated Direct Cost Estimate:	\$3,757.00

Exhibit C

LCDOT Survey Standards

SURVEY PROCEDURES (Revised 4/21/08)

UNITS-COORDINATES

The CONSULTANT will conduct all surveying, stationing, and preparation of required plans using English units of measure and the U.S. Survey Foot. State Plane Coordinates – Illinois East Zone, NAD 83 shall be obtained for all alignment and survey control points.

HORIZONTAL ALIGNMENT

Unless otherwise specified in the services contract, the CONSULTANT is to provide the horizontal alignment. 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 and benchmarks before establishing the horizontal alignment and stationing. 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, Pls, PTs, and POTs so that LCDOT's Surveyor can locate them later for construction staking. The CONSULTANT'S SURVEYOR will provide four reference ties to all U.S. Public Land Survey Monuments 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 all 100-foot interval station locations on the survey base line for construction, when on paved surfaces with a P.K. or Mag nail and spray paint. The baseline for relocated alignments when off pavement will be marked at 100-foot intervals 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 will be indicated on the Alignment and Tie sheet.

An Alignment and Tie Sheet shall be provided as part of the final product. The Alignment and Tie sheet shall be signed and sealed by the CONSULTANT'S SURVEYOR. The station, offset and coordinates of the alignment points and survey control points shall be shown. It shall be noted whether the coordinates, stationing and distances are State Plane grid or ground surface. In the case that the information shown is ground surface distances, the State Plane Coordinates still must also be shown for all alignment points and survey control points in order that they can be located with GPS and so that the project can be referenced into our GIS maps. The coordinates may be

shown in a separate table. In either case the grid (combination) factor must also be shown.

VERTICAL ALIGNMENT

Vertical control for the project shall be based on NGVD 29 or NAVD 88 benchmarks. Indicate on the plans which Datum is used. NGVD 29 Lake County Mapping Benchmarks are preferred (<http://gis.lakeco.org/maps/>). LCDOT's Land Surveyor may also be contacted for benchmarks that may be in the area. The controlling benchmarks and the site benchmarks shall be described on the plans. Site benchmarks are to be located at less than 1000-foot intervals with a minimum of two (2) on each project.

All benchmarks will be located on stable objects. LCDOT prefers these objects to be outside the construction site. Some acceptable benchmark examples are, spikes in poles, bolts on fire hydrant rings, and concrete foundations. LCDOT's surveyor can be contacted for benchmarks that may be in the area.

TOPOGRAPHY

The CONSULTANT shall cut cross sections at 50-foot intervals in urban areas (100-foot intervals in rural areas) and at all points needing clarification. 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 will 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 ROW or construction limits (whichever is greater). Cross sections will extend 30 feet beyond the proposed R.O.W. at entrances 150 feet at minor side roads.

The collected survey data for the existing topography shall have a minimum of 3rd 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.

RAILROAD INSURANCE

The CONSULTANT will comply with the railroad's requirements when conducting a survey on the railroad's ROW. 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. Base Drawing at 1:1. All the topographic information shall be plotted electronically. The data shall be recorded in a MICROSTATION .DGN format. All line work defining different elements shall be completed using LCDOT's CELL and LINE LIBRARIES (see attachment). ASCII files containing all point information as described below shall be included. Backup CD's or diskettes shall be provided.
- III. SUMMARY SHEETS showing:
 - (1) Point number
 - (2) Point identification by code and description
 - (3) Station
 - (4) Distance offset (right or left)
 - (5) Northing and Easting coordinate values
 - (6) "Z" elevations

* Four computer printouts shall be provided:

1. List of points referenced by stations.
2. List of points referenced by sequential point numbering.
3. List of points sorted by point identification.
4. "ID" acronym explanation sheets.

An example showing the different printouts is shown on the next page.

(LCDOT'S IDENTIFICATION CODES SHALL BE USED – see attachment)

TYPICAL PRINT-OUT FORM (EAMPLE)								
BY POINT NUMBERS								
POINT NUMBER	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DEFINITION CODE (1)	DESCRIPTION PD	MATERIAL CODE (1)
3331	104+23.306	-45.869	10313.993	20392.255	207.495	491.10	10 INCH TREE PINE	0
3332	104+50.475	-49.159	10323.810	20416.938	207.743	668	PAVEMENT EDGE	759
3333	104+69.987	-44.270	10261.604	20452.162	207.126	310	FL W/GRATE	774
3334	103+93.865	+40.590	10297.779	20365.781	207.378	304.15	6 INCH TILE	836
BY STATION								
STATION	POINT NUMBER	OFFSET	NORTHING	EASTING	ELEVATION	DEFINITION CODE (1)	DESCRIPTION PD	MATERIAL CODE (1)
103+93.865	3334	+40.590	10297.779	20365.781	207.378	304.15	6 INCH TILE	836
104+23.306	3331	-45.869	10313.993	20392.255	207.495	491.10	10 INCH TREE PINE	0
104+50.475	3332	-49.159	10323.810	20416.938	207.743	668	PAVEMENT EDGE	759
104+69.987	3333	-44.270	10261.604	20452.162	207.126	310	FL W/GRATE	774
BY POINT DESCRIPTION								
POINT NUMBER	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DEFINITION CODE (1)	DESCRIPTION PD	MATERIAL CODE (1)
3331	104+23.306	+40.590	10297.779	20365.781	207.378	304.15	6 INCH TREE PINE	0
3336	104+50.475	-45.869	10313.993	20392.255	207.495	491.10	10 INCH TREE PINE	0
2323	104+69.987	-49.159	10323.810	20416.938	207.743	668	6 INCH TREE OAK	0
2565	103+93.865	-44.270	10261.604	20452.162	207.126	310	5 INCH TREE OAK	0

(1) LCDOT CODES

LCDOT's Land Surveyor:

Steve Heuer, PLS
 600 West Winchester Road
 Libertyville, IL 60048
 (847) 377-7488