


Municipality Lake County Division of Transportation	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 N/A				Address 850 Forest Edge Drive
County Lake		Preliminary Engineering Services Agreement For Non-Motor Fuel Tax Funds		City Vernon Hills
Section #99-00249-01-EG				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 Buffalo Grove Road (County Highway #14)

Route W-14 Length 9820 Mi. N/A FT (Structure No. N/A)

Termini IL Rte. 22 to Deerfield Parkway

Description:
Preliminary (Phase I) Engineering Service

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 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.

The Total Not-to-Exceed Contract Amount shall be \$686,251.21

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, IL

City, State

ATTEST:

By _____

By _____

Title _____

Title _____

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

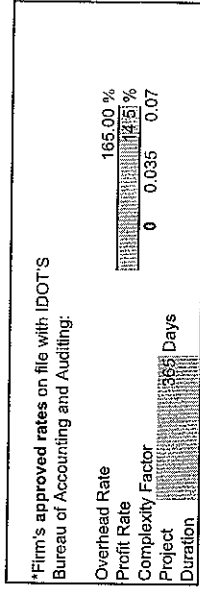
Exhibit A

Preliminary (Phase 1) Engineering Services
 Scope of Work, Man-Hour Calculations and Cost Estimate of Consultant Services
 Improvements to Buffalo Grove Road from North of Deerfield Parkway
 to South of IL Rte. 22 in Buffalo Grove, Illinois

Section #99-00249-01-EG

Lake County Division of Transportation
 Lake County, Illinois

Route: Buffalo Grove Road - IL Rte. 22 to Deerfield Parkway
 Local Agency: LGDOT
 Section: 99-00249-01-EG
 Project: N/A
 Job No.: N/A



Cost Estimate of Consultant's Services in Dollars

Element of Work	Employee Classification	Man-Hours	Payroll Rate	Payroll	Payroll Costs	Overhead*	Services by Others	In House Direct Costs	Profit	Total	
Project Initiation Coordination and Data Collection	PRINCIPAL ENG	16	\$58.00	\$928.00	\$ 928.00	\$ 1,531.20		\$0.00	\$ 356.58	\$ 2,815.78	
	SENIOR ENG	132	\$48.91	\$6,456.12	\$ 6,456.12	\$ 10,952.60		\$0.00	\$ 2,480.76	\$ 19,589.48	
	PROFESSIONAL ENG	80	\$32.64	\$2,611.20	\$ 2,611.20	\$ 4,308.48		\$0.00	\$ 1,003.35	\$ 7,923.03	
	PROJECT CONSULTANT	40	\$32.64	\$1,305.60	\$ 1,305.60	\$ 2,154.24		\$0.00	\$ 501.68	\$ 3,961.52	
	STAFF ENG	80	\$25.65	\$2,052.00	\$ 2,052.00	\$ 3,385.80		\$0.00	\$ 788.48	\$ 6,226.28	
	SR ENG TECH	24	\$28.05	\$673.20	\$ 673.20	\$ 1,110.78		\$0.00	\$ 258.68	\$ 2,042.66	
	ENG TECH II	40	\$19.79	\$791.60	\$ 791.60	\$ 1,306.14		\$0.00	\$ 304.17	\$ 2,401.91	
	CLERICAL	22	\$21.30	\$468.60	\$ 468.60	\$ 773.19		\$0.00	\$ 180.06	\$ 1,421.85	
	Project Administration and Meetings	PRINCIPAL ENG	16	\$58.00	\$928.00	\$ 928.00	\$ 1,531.20		\$0.00	\$ 356.58	\$ 2,815.78
		SENIOR ENG	80	\$48.91	\$3,912.80	\$ 3,912.80	\$ 6,456.12		\$0.00	\$ 1,503.49	\$ 11,872.41
PROFESSIONAL ENG		64	\$32.64	\$2,089.96	\$ 2,089.96	\$ 3,446.78		\$0.00	\$ 802.68	\$ 6,338.43	
PROJECT CONSULTANT		40	\$32.64	\$1,305.60	\$ 1,305.60	\$ 2,154.24		\$0.00	\$ 501.68	\$ 3,961.52	
STAFF ENG		120	\$25.65	\$3,078.00	\$ 3,078.00	\$ 5,078.70		\$0.00	\$ 1,182.72	\$ 9,339.42	
SR ENG TECH		24	\$28.05	\$673.20	\$ 673.20	\$ 1,110.78		\$0.00	\$ 258.68	\$ 2,042.66	
ENG TECH II		16	\$19.79	\$316.64	\$ 316.64	\$ 522.16		\$0.00	\$ 121.67	\$ 960.76	
CLERICAL		40	\$21.30	\$852.00	\$ 852.00	\$ 1,405.80		\$0.00	\$ 327.38	\$ 2,585.18	
Existing Condition, Topographic Survey and Base Plan Preparation		PRINCIPAL ENG	0	\$58.00	\$ -	\$ -	\$ -		\$0.00	\$ -	\$ -
		SENIOR ENG	10	\$48.91	\$489.10	\$ 489.10	\$ 807.02		\$0.00	\$ 187.94	\$ 1,484.05
	PROF LAND SURVEYOR	64	\$46.25	\$2,960.00	\$ 2,960.00	\$ 4,884.00		\$0.00	\$ 1,137.38	\$ 8,981.38	
	PROFESSIONAL ENG	20	\$32.64	\$652.80	\$ 652.80	\$ 1,077.12		\$0.00	\$ 250.84	\$ 1,980.76	
	STAFF ENG	16	\$25.65	\$410.40	\$ 410.40	\$ 677.16		\$0.00	\$ 157.70	\$ 1,245.26	
	SR ENG TECH	200	\$28.05	\$5,610.00	\$ 5,610.00	\$ 9,256.50		\$0.00	\$ 2,155.64	\$ 17,022.14	
	ENG TECH II	400	\$19.79	\$7,916.00	\$ 7,916.00	\$ 13,061.40		\$0.00	\$ 3,041.72	\$ 24,019.12	
ENG TECH I	160	\$13.31	\$2,129.60	\$ 2,129.60	\$ 3,513.84		\$0.00	\$ 818.30	\$ 6,461.74		
Soils Analysis and Report	PRINCIPAL ENG	0	\$58.00	\$ -	\$ -	\$ -		\$0.00	\$ -	\$ -	
	SENIOR ENG	8	\$48.91	\$391.28	\$ 391.28	\$ 645.61		\$0.00	\$ 150.35	\$ 1,187.24	
	PROFESSIONAL ENG	24	\$32.64	\$783.36	\$ 783.36	\$ 1,292.54		\$0.00	\$ 301.01	\$ 2,376.91	
	SR ENG TECH	24	\$28.05	\$673.20	\$ 673.20	\$ 1,110.78		\$0.00	\$ 258.68	\$ 2,042.66	
Subconsultant-Testing Service Corporation											
Subtotal											
							\$ 33,200.00			\$ 33,200.00	
Pavement Analysis and Report	PRINCIPAL ENG	4	\$58.00	\$232.00	\$ 232.00	\$ 382.80		\$0.00	\$ 89.15	\$ 703.95	
	SENIOR ENG	16	\$48.91	\$782.56	\$ 782.56	\$ 1,291.22		\$0.00	\$ 300.70	\$ 2,374.48	
	PROFESSIONAL ENG	32	\$32.64	\$1,044.48	\$ 1,044.48	\$ 1,723.39		\$0.00	\$ 401.34	\$ 3,169.21	
	STAFF ENG	24	\$25.65	\$615.60	\$ 615.60	\$ 1,015.74		\$0.00	\$ 236.54	\$ 1,867.88	
	SR ENG TECH	16	\$28.05	\$448.80	\$ 448.80	\$ 740.52		\$0.00	\$ 172.45	\$ 1,361.77	
Subconsultant-Applied Research Associates, Inc											
							\$ 32,400.00			\$ 32,400.00	

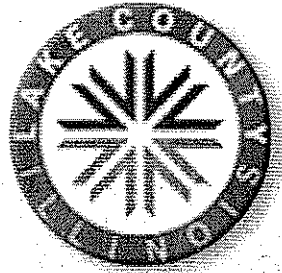
Preliminary Engineering Service Agreement

**Improvements to Buffalo Grove Road
from North of Deerfield Parkway
to South of IL Rte. 22 in Buffalo Grove, Illinois**

Section #99-00249-01-EG

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**

March 24, 2011

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Exhibit D: Pavement Analysis and Report - Subconsultant Scope of Work
Applied Pavement Technologies

Exhibit E: Structural Evaluation - Subconsultant Scope of Work
Wiss, Janney, Elstner Associates, Inc.

Exhibit F: LCDOT Survey Standards

Appendix I

Preliminary (Phase I) Engineering Services Scope of Work, Man-Hour Calculations and Cost Estimate of Consultant Services Improvements to Buffalo Grove Road from North of Deerfield Parkway to South of IL Rte. 22 in Buffalo Grove, Illinois

Section #99-00249-01-EG

Lake County Division of Transportation
Lake County, Illinois

Project Description

The following details the proposed work scope for the Preliminary (Phase I) Engineering Services necessary to improve Buffalo Grove Road from the existing three lane section between IL Route 22 and Deerfield Parkway to a five lane section. Currently the majority of the pavement cross-section is concrete through the project limits. The Lake County Division of Transportation (LCDOT) has indicated that the engineering and construction for this project will be locally funded and that no federal funds will be used for this project. Since no federal funds will be used as part of this project, the LCDOT has indicated that no involvement with the Illinois Department of Transportation should be considered during the development of the Phase I Preliminary Engineering Plans and Report.

In accordance with the LCDOT Project Scoping Report, it is understood that the intersections of IL Route 22 and Deerfield Parkway were widened to their ultimate locations between 1996 and 2006. Aptakisic Road has been widened out, however part of the pavement was constructed in bituminous pavement. Thompson Boulevard has not been widened out to the ultimate design nor is it completely concrete. Pavement improvements from bituminous to concrete material will be evaluated during the Phase I project. In addition, Intersection Design Studies (IDS's) are to be completed for each intersection to ensure that there are adequate storage lane lengths and that the intersections are functioning as designed.

I. Scope of Services

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

A. PROJECT INITIATION, COORDINATION AND DATA COLLECTION

GHA will coordinate with Federal (if required), State (if required) and local agencies throughout the duration of the Phase I Engineering Study. As studies and analyses are prepared and clearances are received for environmental issues, we will present our finding with LCDOT staff at various coordination meetings. The following tasks are anticipated during this phase of the 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.

- ***Coordination with the Village of Buffalo Grove***
Representatives from GHA will attend a kick-off strategy meeting with Village and LCDOT staff. GHA will provide minutes of the meeting with a record of discussions and circulate to all participants.
- ***Coordination with the Lake County Stormwater Management Commission (LCSMC)***
Representatives from GHA will attend a kick-off meeting with LCSMC and LCDOT staff to discuss the drainage and detention requirements for the project. 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 attend a kick-off meeting 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 Buffalo Grove Park District***
Representatives from GHA will attend a kick-off strategy meeting with Park District and LCDOT staff. GHA will provide minutes of the meeting with a record of discussions and circulate to all participants.
- ***Coordination with Twin Groves School***
Representatives from GHA will attend up to two meetings with School representatives and LCDOT staff regarding potential improvements to access off of Buffalo Grove Road. GHA will provide minutes of the meeting with a record of discussions and circulate to all participants.
- ***Coordination with ComEd***
Representatives from GHA will attend a coordination meeting with ComEd and LCDOT staff. GHA will provide minutes of the meeting with a record of discussions and circulate to all participants.
- ***Coordination with Utility Agencies***
GHA will attend two joint utility coordination meetings with the various utility agencies and LCDOT staff. GHA will provide minutes of the meetings with a record of discussions and circulate to all participants.
- ***Village Board Meetings***
GHA anticipates the need to attend at least two Village Board meeting (to be determined by the Village and LCDOT). It is our expectation that attendance at two Village Board meetings will be sufficient. We have included an optional Community Outreach component to our proposal (See below for Section L. Community Outreach).
- ***Coordination with Property Owners***
GHA will coordinate with the property owners adjacent to the project limits to advise them in advance of the initial existing condition topographical survey work.

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. PROJECT ADMINISTRATION AND MEETINGS

- After initial coordination meetings GHA will coordinate with LCDOT, the Village of Buffalo Grove, Buffalo Grove Park District and stakeholders to discuss specific areas of concerns and assure the requested information from each agency is being addressed. GHA will then provide meeting minutes or a meeting summary as necessary and distribute to all attendees.
- GHA will submit the pre-final reports and documents to LCDOT for review. We will also submit the various reports and preliminary plans to various agencies as directed by LCDOT.
- The preliminary plans will also be submitted to the various utility companies within the project limits for the purpose of determining any potential conflicts caused by the proposed improvements.
- All final plans and reports will be provided to LCDOT in hard copy and electronic formats.

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

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

Topographic and ROW survey limits will encompass approximately 9,820 lineal feet of roadway along Buffalo Grove Road starting approximately south of the IL Route 22 ROW and terminating south of Deerfield Parkway, approximately 100 feet south of the existing lane tapers approaching and departing Deerfield Parkway. The topographic limits will also extend east and west approximately 100 feet beyond the existing lane tapers approaching and departing the following intersections:

- Aptakisic Road and Buffalo Grove Road
- Thompson Boulevard and Buffalo Grove Road

The surveys will also extend 200 feet beyond the ROW for the other intersecting public side street (Banyan Tree Lane, Birchwood Lane, Satinwood Terrace, Brandywyn Lane and Larraway Lane) along the project limits.

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. Cross sections will extend up each intersecting public side streets as previously noted.
- The topography will extend 25 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.
- Additional survey will include areas outside of the road ROW for improvements such as water quality treatment areas and/or detention areas. The additional survey for potential water quality treatment areas and/or detention areas will be defined in this scope for up to three areas. Each of these areas will average approximately 1.0 acres each for budgeting purposes. If a more defined area is requested GHA will provide an amended scope. These additional survey areas shall utilize the horizontal coordinate system, vertical datum and units as the topographic survey.
- GHA will identify preliminary ROW needs, including permanent/temporary easement needs as well.

It should be noted that the LCDOT has indicated that all ROW for this project has been obtained and no additional property acquisition is anticipated. A ROW analysis will be performed as part of the project to verify that additional ROW is not necessary. Depending on the drainage and detention evaluation and proposed water quality improvements, there may be a need for permanent and/or temporary easements.

D. SOILS ANALYSIS AND REPORT

GHA proposes to use Testing Service Corporation (TSC) as a subconsultant to conduct the subsurface investigation analysis and provide recommendations during the preliminary design phase. See Exhibit C for TSC's detailed scope of services.

TSC will prepare a geotechnical report in accordance with the current IDOT Geotechnical Manual. This report will be used to complete pavement design recommendations based on the subgrade soils

and the anticipated traffic volume. Both the topographic information and soils information will be used for the roadway cross-sections and pavement design.

Prior to proceeding with the soils analysis, GHA and TSC will meet with representative from LCDOT to review locations of the proposed soil borings and pavement cores. The subsurface exploration will include drilling 10 foot borings at 300 foot intervals on alternating sides of the pavement centerline. Additionally, pavement cores will be collected at varied locations to determine pavement type and thickness. Pavement core samples will be coordinated between GHA, LCDOT and the subconsultant performing the pavement analysis. A geotechnical engineering report will be submitted for review and inclusion in the Phase I Engineering Report.

E. PAVEMENT ANALYSIS AND REPORT

GHA proposes to use _____ (_____) as a subconsultant to conduct the pavement analysis and report of the existing pavement and provide recommendations for rehabilitation strategies or complete reconstruction alternatives. See Exhibit D for a detailed scope of services.

_____ will include the following services:

- Review existing pavement data.
- Conduct a visual condition survey.
- Conduct falling weight deflectometer (FWD) testing.
- Analysis data and determine the structural remaining life.
- Develop rehabilitation alternatives, life cycle cost analyses and recommendations.

F. STRUCTURAL EVALUATION

GHA proposes to use Wiss, Janney, Elstner Associates, Inc. as a subconsultant to conduct a structural evaluation and analysis of the two major box culverts that convey the *Tributary to the Aptakisic Creek* and *Aptakisic Creek*. The evaluation is to determine if the culverts are in good condition or if culverts are in need of replacement prior to the rehabilitation or reconstruction of the pavement section. See Attachment E for a detailed scope of services.

G. TRAFFIC AND CRASH ANALYSES

These efforts will include the traffic data collection and analyses to determine the necessary intersection improvements in accordance with LCDOT and IDOT BLRS standards and guidelines. This task includes the following:

- ***Existing Traffic Volumes***
GHA will collect existing traffic volumes along the Buffalo Grove Road corridor including 24-hour and peak period turning movement and classification counts. Each of the signalized intersections will be counted utilizing Miovision Video Collection Units (VCUs). This cutting edge data collection process offers improved accuracy and efficiency for larger intersections. The unsignalized intersections including the Twin Groves School access driveways will be counted via traditional manual counts. The 24-hour data will be collected at approximately

eight (8) locations along the corridor using Nu-Metrics Brand *Hi-Star Portable Traffic Analyzers (NC-200s)*.

- ***Future 2040 Traffic Volumes***

GHA will prepare a 2040 traffic projection for the major routes along the corridor and coordinate approval of those projections with CMAP. The accepted 2040 projections will be utilized for the Intersection Design Studies (IDSs) as well as the balance of the design (e.g. pavement design).

- ***Intersection Design Studies***

GHA will prepare an Intersection Design Study (IDS) at each of the signalized intersections along the corridor. An IDS will be completed for each of the following intersections: Buffalo Grove Road and Aptakisic Road, Buffalo Grove Road and Thompson Boulevard and Buffalo Grove Road and Deerfield Parkway. LCDOT staff will be consulted to determine the preferred signal cycle lengths and split times for use in the Highway Capacity Software calculations. If desired, GHA can prepare a preliminary SYNCHRO analysis of the corridor and make operational recommendations prior to commencing design. While minimal improvements are anticipated at the majority of these locations the IDSs will allow us to review the existing operations and make recommendations for LCDOT staff to determine the need for any potential improvements and verify other design aspects such as curb radii, design vehicle accommodations, and turn lane storage lengths for the 2040 design horizon. LCDOT and IDOT BLRS standards will be utilized and the IDS's will generally follow the IDOT District 1 standard format.

- ***Twin Grove School Access Evaluation***

GHA will review the traffic volumes and traffic patterns and provide recommendations regarding the school's access at Buffalo Grove Road.

- ***Auxiliary Lane Analyses***

At each of the unsignalized intersections and access drives along the corridor, GHA will review the existing and projected traffic volumes and determine if any locations meet the LCDOT standards for auxiliary lanes. Recommendations will be made to LCDOT staff prior to inclusion in any geometric plans.

- ***Crash Data***

GHA will obtain the most recent 3-years of crash statistics from LCDOT and the Village of Buffalo Grove. This data will be analyzed according to federal guidelines at each intersection along the corridor. GHA will prepare a summary of the analyses as well as collision diagrams for each intersection where crash data is provided. Day versus night and potential wet cluster crash locations will also be reviewed and recommendations will be made for mitigation needs if necessary.

- ***Geometric Plan***

GHA will supplement the geometric design established with the IDS's and prepare a complete geometric plan for the limits of the Buffalo Grove corridor.

H. ENVIRONMENTAL STUDIES

The Buffalo Grove Road project will not be processed through the IDOT Bureau of Local Roads and Streets (BLRS). Based on this understanding, completion of the IDOT Environmental Survey Request Form will not be needed. GHA will provide the following:

- ***Project Notification***
GHA will submit a project notification letter with exhibits for the State Clearinghouse Review.
- ***Potential Special Waste***
GHA will perform a historical aerial review to determine if there is a potential for contaminated areas or remediation sites.
- ***Wetlands/Waters of the United States***
GHA will delineate the wetlands and Waters of the United States in accordance with the guidelines and methods set forth in the Corps of Engineers Wetland Delineation Manual, dated January 1987. GHA will coordinate with the Lake County Stormwater Management Commission and the U.S. Army Corps of Engineers to verify the wetland/WOUS boundaries and determine jurisdiction.
- ***Archaeological and Historic Preservation***
GHA will submit the necessary documentation to the Illinois Historic Preservation Agency (IHPA) and State Historic Preservation Office (SHPO) for archaeological and historic preservation consultation to obtain clearance and signoff of the project.
- ***Threatened and Endangered Species***
GHA will submit the necessary documentation for federal and state threatened and endangered species consultation with the Illinois Department of Natural Resources (IDNR) and U.S. Fish & Wildlife Service to obtain clearance and signoff of the project.
- ***Air Quality***
GHA will prepare a general analysis of the potential effects the project will have on air quality (fugitive dust emissions, particulate emissions, fuel emissions). This will also require an analysis of the project design concept and scope to determine if they are consistent with the project information used for the TIP conformity analysis. GHA services do not include air quality sampling.
- ***Noise Pollution***
Since the proposed improvements will consist of additional through-traffic lanes a Noise Screening Analysis, for determination of potential traffic noise impacts, will be completed and submitted to LCDOT. If the results show a potential noise impact, a full Noise Model will be needed. We have included an allowance dollar amount in the manhour calculations if a Noise Model is needed.
- ***Green Infrastructure Design***
GHA will review alternatives and incorporate Best Management Practices for water quality improvement in the design of the project. An analysis of pollutant removal efficiency and life cycle cost for alternative BMPs will be included. GHA will coordinate these

improvements with LCDOT, the Village of Buffalo Grove and the Buffalo Grove Park District.

I. PRELIMINARY DRAINAGE AND HYDRAULIC STUDIES

Concurrent with the Intersection Design Study and Geometric Plan, GHA will prepare a Location Drainage Study (LDS) for the proposed roadway reconstruction and improvements. The LDS will follow the IDOT standard format and will include the following:

- General drainage location maps.
- Existing Drainage Plan exhibits with identification of all drainage paths and major drainage features.
- Reports of flooding problems (flood prone areas, roadway overtops) of both adjacent properties and the highway facility. GHA will contact Lake County Stormwater Management Commission (SMC) and the Village of Buffalo Grove for information regarding historical flooding issues through the project limits.
- Identification of regulatory floodplain and floodways.
- Evaluation of floodplain impacts and compensatory storage calculations.
- Hydraulic analysis of major drainage features (major culvert crossings, detention facilities, channels).
- Evaluation of existing outlets to determine if suitable.
- Evaluation of design criteria (return frequencies for storm sewers, ditches, and culverts if applicable).
- Storm water detention analysis.
- Inlet spacing calculations.
- Storm sewer design and hydraulic grade line computations.
- Proposed Drainage Plan exhibits with identification of cross culverts, trunk sewers, large ditches and channels and detention facilities if applicable.
- Evaluation of ROW and drainage easement needs to implement proposed drainage system.
- Evaluation of drainage alternatives and any new drainage features.
- Review permitting requirements and Local Agency coordination.

It has been identified by LCDOT that the Village of Buffalo Grove and County has detention for the project provided for through the various basins along the corridor. It is understood that the Village of Buffalo Grove had developers provide additional storage in the detention facilities to accommodate the future five lane pavement section. GHA will review the existing detention facilities to confirm the proper storage volumes have been provided through review of the as-constructed plans of the respective detention facilities. GHA will coordinate this task with the Village of Buffalo Grove for review of the appropriate plans, reports and associated documents.

J. PRELIMINARY DESIGN

GHA will prepare the following documents for the completion of the Phase I preliminary engineering plans:

- ***Preliminary Plans***

This task will include the preparation of a Preliminary Geometrics Plan, Typical Pavement Sections, and Plan and Profile Sheets. GHA will prepare preliminary engineering documents that will be submitted to the LCDOT and all permitting agencies for review and approval. The drawings shall be full size (22" x 34") that must be fully legible when reduced to 1/2 sizes (11 x 17) and contain the following information:

- Existing conditions.
- Geometrics of proposed road layout.
- Existing ROW and individual lot property lines.
- Proposed ROW survey including all necessary ROW dedications.
- Approximate location of existing and proposed utilities.
- Proposed road profile and typical road pavement sections based on LCDOT standards and applicable Village standard details.
- Proposed sidewalk/bike path layout. There is an existing bike path that runs through the project limits parallel with Buffalo Grove Road. Links between existing gaps in the bike route are to be coordinated with the Village of Buffalo Grove.

- ***Cross Section Design***

GHA will recommend a cross section(s) based on the results of the traffic analyses, soil analyses and pavement evaluation.

- ***Right-of-Way and Easement Acquisition Calculations***

If necessary, GHA will describe and determine the limits of right-of-way acquisition as well as temporary and permanent easements. A spreadsheet will be developed that presents the property owner, PIN, and amount of ROW needed.

- ***Village Utilities***

GHA will meet with Village staff to determine anticipated Village utility needs (i.e. water main, storm and sanitary sewer) and design utility replacements/repairs as needed. If relocation or redesign of sanitary sewer and/or water main will be needed, this work will be completed as part of the Phase II services. Based on conversation with the Village of Buffalo Grove, the Village will be having the sanitary sewer televised through the project limits this year. GHA will also include an allowance amount in the engineering budget for a contractor to perform televising of storm sewer and other sanitary sewer that may not be covered through the Village's contract. See the manhour calculations for the televising allowance.

- ***Streetscapes***

GHA will coordinate parkway trees improvements and landscape median improvements throughout the project limits with the Village of Buffalo Grove. Other improvements to be investigated with the Village for the landscape medians are irrigation and electrical needs.

- **Lighting**
GHA will provide preliminary lighting design (photometrics) for the different segments of roadway in accordance with Village and LCDOT standards. The Village of Buffalo Grove street lights already exist throughout a majority of the project corridor. GHA will confirm that the existing street light and foundation locations have adequate setbacks from the proposed five lane cross-section. The street lighting standards are to be coordinated with the Village of Buffalo Grove and be used in the design.
- **Guardrail**
GHA will review the existing guardrail for compliance with current standards.
- **Traffic Control and Construction Phasing**
A Maintenance of Traffic/Implementation Plan will be developed for the reconstruction project. The Plan will include an efficient strategy to construct the new five lane section while minimizing operational impacts, business and residential impacts and pedestrian conflicts. Exhibits will be prepared that show typical sections for 2 to 3 roadway segments (3 stages each) and 4 plans for the major intersections (3 stages).

K. PRELIMINARY PLANS AND PHASE I ENGINEERING REPORT

GHA will provide a complete Phase I Engineering Report similar to the criteria outlined in the BDE Manual. GHA will compile existing maps, plans, and other existing documents describing the proposed area and conditions. GHA will identify the purpose and guidelines that will be used for the proposed improvements as well as describe the type of work to be accomplished by the project and items affecting improvements. GHA will identify each aspect to be constructed at less than the design guidelines and provide appropriate justification. The Phase I Engineering Report shall include existing conditions, proposed improvements, typical cross-sections, soils report, pavement evaluation report, structural evaluation, ROW analysis, traffic and crash analysis, environmental reports and clearances, preliminary drainage report and all necessary exhibits.

L. COMMUNITY OUTREACH

Notwithstanding an involved public process for development of the Buffalo Grove Road Plan, the Phase I stage of the project will be one of the final opportunities for the public to provide input. Anticipating participation from an active and engaged community, our proposed outreach process includes both a traditional (face-to-face) and web-based communications approach. GHA proposes to work with Houseal Lavigne Associates (HLA), as our public outreach specialists. HLA will coordinate this component of the project with GHA and LCDOT. The following are the recommended outreach activities are proposed:

Planned Activities:

- Interactive Project Website
- On-line Community Issues Mapping - proprietary software
- Community Meetings with keypad polling (Two meetings are anticipated)
- Stakeholder Workshops/Key Person Interviews/Focus Group Discussions
- Press Releases and Newsletter Articles
- RSS/ Social Networking

Highlights and Focus Areas:

- ***Website Development and proprietary public engagement software***

A project website will be constructed. In addition to posting materials on the website, HLA has developed web-based software (On-Line Community Mapping) that allows citizens to comment from their homes, places of business, or elsewhere should they not be able to attend public meetings. It also provides those who did attend another opportunity to ask questions or provide comments after the meeting.

This website can be used to provide an on-line community project questionnaire, post project schedules and meeting dates, display graphics, maps and draft documents, address frequently asked questions, host a community discussion forum, contain on-line community surveys, and provide a variety of other features. We also have the ability to create content that can be viewed only by LCDOT staff, or other specific groups, providing a secure and convenient way to distribute and discuss draft documents. The purpose of the website is to provide a singular, easy to use resource for information regarding the Buffalo Grove Road Preliminary Phase I Engineering Design.

- ***Community Meetings and Keypad Polling***

The community workshops will be face-to-face outreach events scheduled throughout the planning process. We anticipate two meetings. The purpose of the workshops is to allow residents to provide input, before any plans or recommendations are formulated. Community workshops will include the use of keypad polling, which provides an opportunity for all participants of the workshop to be actively involved throughout the event and affords an opportunity for everyone to see how their neighbors, fellow business owners, peers, etc. feel about certain issues.

- ***Stakeholders Workshops/Key Person Interview/Focus Group Discussions***

The Stakeholders Workshops, Key Person Interviews, and Focus Group Discussions will be targeted specifically toward individuals and organizations that have a direct stake in the Buffalo Grove Road corridor. HLA will coordinate with GHA and LCDOT and develop a contact list. The purpose is to obtain feedback from those persons regarding the new plan and suggested design.

- ***Press Releases, Notices and Newsletter Articles***

HLA will work with GHA and LCDOT staff to prepare special articles for the website and local media outlets at key points in the planning process. We suggest an initial article to describe the purpose and objectives of the Buffalo Grove Road Preliminary (Phase I) Engineering Project.

- ***RSS/Social Networking***

In addition to the project website, we propose to integrate the use of Twitter for the Buffalo Grove Phase I Engineering Project. Twitter is a free online service that connects people with one another. When someone "follows" the study on Twitter, they have the option to receive text messages notifying them of project updates. Feeds will be created on the project website where updates will be delivered to news readers and inboxes of subscribed users. Additionally, a Facebook Fan Page will be created as another method of keeping the various people informed. Facebook will also allow followers of the page to receive updates of the study.

Deliverables:

- Interactive Project Website
- Online Mapping Tool
- Press Releases and Articles
- Questionnaires, Comments Summaries, Meeting Minutes
- Social Networks – Monitor and Summarize Comments
- Key Persons and Stakeholder Interview Coordination and Minutes
- Preparation Materials for all Meetings

II. Staff

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

Project Manager	Todd Gordon, P.E.
Project Engineer	Kevin Belgrave, P.E., PTOE
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	George Saam, PLS
Senior Project Advisor	Steven Magnusen, P.E.
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 February 2016 letting schedule.

Based on our experience with review agencies, we cannot guarantee the following schedule but will do our best to achieve timely results. It may be possible to complete Phase I in advance of some of the dates identified and allow commencement of Phase II (pending an agreement) prior to May 2012.

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. Phase II Engineering Design Services / Detailed Construction Plans and Specifications
2. Boundary surveys of individual parcels
3. Preparation of an ALTA/ACSM Land Title Survey.
4. Right-of-way and/or easement acquisition
5. Plat preparation including any easements or dedication documents
6. Structural design
7. Tree surveys
8. Wetland mitigation
9. Phase III Construction Engineering Services.
10. Meetings or hearings outside of the scope of services described above.
11. Permit fees or review fees.
12. Obtaining additional topographic information beyond the scope noted above.
13. 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.

**ATTACHMENT A TO GEWALT HAMILTON ASSOCIATES, INC.
PROFESSIONAL SERVICES 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.

The terms of this Agreement are subject to renegotiation if not accepted within 60 days of the date indicated on the contract. Requests for extension beyond 60 days should be made in writing prior to the expiration date. The fees and terms of the Agreement shall remain in full force and effect for one year from the date of acceptance of the Agreement, and shall be subject to revision at that time, or any time thereafter, if GHA gives written notice to the other party at least 60 days prior to the requested date of revision. In the event that the parties fail to agree on the new rates or other revisions, either party may terminate this Agreement by giving the other party 10 days written notice.

Payments are due within (30) days after a statement is rendered. Fees not paid within 60 days of the end of the calendar month in which the statement is rendered will bear interest at the rate of one percent (1.0%) per month until paid. The provision for the payment of interest shall not be construed as authorization to make payments late. Failure of the Client to make payments when due shall, at the option of GHA, be cause for suspension of services. Upon notification by GHA of suspension of services, Client shall make payment of all outstanding invoices within seven days. Client's failure to make such payment to GHA shall constitute a material breach of the Agreement and shall be cause for termination by GHA. GHA shall be entitled to reimbursement of all costs actually incurred by GHA in collecting overdue accounts under this Agreement, including, without limitations, legal fees and costs.

The Client's obligation to pay for the professional services provided is in no way dependent upon the Client's ability to obtain financing, rezoning, payment from a third party, approval of governmental or regulatory agencies or the Client's successful completion of the project.

The Client and GHA agree that any documents prepared by either party shall conform to the specifications listed in the Engineering Agreement. Any electronic files submitted by GHA to the Client are submitted for an acceptance period of 10 days. Any defects the Client discovers during this period will be reported to GHA and will be corrected as part of GHA's Basic Scope of Services. Corrections of defects detected and reported after the acceptance period will be compensated for as Additional Services.

The Client acknowledges GHA's plans and specifications, including field data, notes, calculations, and all documents or data on electronic media, as instruments of professional service. The plans and specifications prepared under this Agreement shall become the property of the Client upon completion of the services and payment in full of all monies due to GHA. However, GHA shall retain ownership rights over all electronic data and documents.

The Client shall not reuse or make or permit to be made any modification to the plans, specifications, or electronic data without the prior written authorization of GHA. The Client agrees to waive any claim against GHA arising from any unauthorized reuse or modification of the plans and specifications or electronic data. The Client agrees, to the fullest extent permitted by law, to defend and indemnify and hold GHA harmless from any damage, liability or cost, including attorneys' fees and costs, arising from any reuse or modification of the plans, specifications, or electronic data by the Client or any person or entity which acquires or obtains the plans, specifications, or electronic data from or through the Client.

The client is aware that differences may exist between the electronic files delivered and the printed plans and specifications. In the event of a conflict between the signed and/or sealed printed plans and specifications prepared by GHA and electronic files, the signed and/or sealed printed plans and specifications shall govern.

The Americans with Disabilities Act (ADA) provides that it is a violation of the ADA to design and construct a facility for first occupancy later than January 26, 1993, that does not meet the accessibility and usability requirements of the ADA except where an entity can demonstrate that it is structurally impractical to meet such requirements. The Client acknowledges that the requirements of the ADA will be subject to various, and possibly contradictory interpretations. GHA, therefore, will use reasonable professional efforts to interpret applicable ADA requirements and other federal, state and local laws, rules, codes, ordinances, and regulations as they apply to the project. GHA, however cannot and does not warrant or

guarantee that the Client's project will comply with interpretations of ADA requirements and/or requirements of other federal, state and local laws, rules, codes, ordinances, and regulations as they apply to the project.

If required by the contracted scope of services, GHA, shall prepare an opinion of probable construction costs, which shall be submitted to the Client for review. Since GHA has no control over the cost of labor, materials, or equipment, or over the contractor's methods of determining prices, or over competitive bidding or market conditions, opinions of probable costs, if called for by this Agreement as part of GHA's scope, shall be made on the basis of experience and qualifications applied to the program contemplated by the Agreement and information provided by Owner, and represent a reasonable judgment as a design professional familiar with the construction industry. However, GHA cannot and does not guarantee or warrant that proposals, bids, or the actual construction costs will not vary from opinions of probable cost prepared for the Client. If the Client wishes greater assurance as to the construction cost, Client agrees it will employ an independent cost estimator.

If required by the Scope of Services, GHA shall visit the project at defined intervals during construction to become generally familiar with the progress and quality of the contractors' work to determine if the work is proceeding in general conformance with the Contract Documents.

Client agrees that GHA does not have control of and is not responsible for construction means, methods, techniques, sequences or procedures, or for safety measures and programs including enforcement of Federal, State and County safety requirements, in connection with construction work performed by the Client's construction contractors. GHA is not responsible for the supervision of Client's construction contractors, subcontractors, materialmen, suppliers, or any of their employees, agents and representatives of such contractors; or responsible for any machinery, construction equipment, and tools used and employed by contractors and subcontractors in the project. GHA, Inc. has no authority or right to stop the work. In no event shall GHA be liable for the acts or omissions of Client's construction contractors, subcontractors, materialmen or suppliers, or any persons or entities performing any of the construction work, or for failure of any of them to carry out their work as called for by the Construction Documents.

Neither the professional activities of GHA, nor the presence of GHA or its employees and subconsultants (if any) at a construction site, shall relieve the Contractor or any other entity of their obligations, duties and responsibilities including but not limited to, construction means, methods, sequence, techniques, or procedures necessary for performing, superintending or coordinating all portions of the Work in accordance with the Contract Documents and any health or safety precautions required by any regulatory agencies or industry practice. GHA personnel have no authority or right to exercise any control or direction over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. The Client agrees that the Contractor is solely responsible for jobsite safety, and warrants that this intent shall be included in the Client's agreement with the Contractor. The Client also agrees that the Client, GHA, and GHA's personnel and consultants shall be defended/indemnified by the Contractor for all claims asserted against GHA which arise out of the Contractor's or its subcontractors' negligence, errors or omissions in their performance of their work, and shall also be named as an additional insured under the Contractor(s)'s general liability insurance policy.

It is acknowledged by both parties that GHA's scope of services does not include any services related to asbestos, mold, fungus or any other hazardous or toxic materials, contaminants or pollutants. In the event that GHA, or any other party encounters asbestos mold, fungus or any other hazardous or toxic materials, contaminants or pollutants at the job site, or it should become known in any way that such materials may be present at the jobsite or any adjacent areas that may affect the performance of GHA, GHA may, at its option and without liability for consequential or any other damages, suspend performance of its services on the project until the Client retains appropriate specialist consultants or contractors to identify, abate and/or remove the asbestos, mold, fungus or any other hazardous or toxic materials, contaminants or pollutants and further warrant that the jobsite is in full compliance with applicable laws and regulations.

If required by the scope of services, records drawings (or revised specifications) will be prepared, in part, on the basis of information compiled and furnished by others, the accuracy of which GHA may reasonably rely upon, GHA will not be responsible for any errors or omissions, which have been incorporated into this document due to information furnished by others.

When preparing civil engineering or surveying plans and drawings, information on existing underground utilities or soil conditions is provided from the best information available. This information may be obtained from visible surface evidence, utility company records or soil borings, and is not represented to be the exact location of these utilities or soils in the fields.

Client agrees that GHA may reasonably rely on the accuracy of information furnished by third parties. Contractor is solely responsible for exact utility locations. Client shall not hold GHA responsible for Contractor's error/omission in the utility locations. Client agrees GHA is not responsible for additional costs, which result from utility conflicts or unforeseen conditions. If the Client wishes to obtain the services of a contractor to provide test holes and exact utility locations, GHA, may incorporate that information into the design and reasonably rely upon same. If not included in the scope of services, such work will be compensated as additional services.

The Client agrees to limit GHA's professional liability to the Client and to all construction contractors, or subcontractors on the project arising from GHA, Inc.'s alleged negligent acts, errors, or omissions, such that the total aggregate liability of GHA, Inc. to all those named shall not exceed \$50,000 or GHA's total fee for the services rendered on this project, whichever is greater. GHA, Inc. makes no warranties, either expressed or implied, including any warranty of habitability, merchantability or fitness for any particular purpose. In no event shall GHA be liable for any loss of profit or any consequential damages.

All claims, disputes, controversies or matters in question arising out of or relating to this Agreement or any breach thereof, including but not limited to disputes arising out of alleged design defects, breaches of contract, errors, omissions, or acts of professional negligence (collectively "disputes") shall be submitted to mediation before and as a condition precedent to any other remedy. Upon written request by either party to this Agreement for mediation of any dispute, the Client and GHA shall select by mutual agreement a neutral mediator. Such selection shall be made within ten (10) calendar days of the date of receipt by the other party of the written request for mediation. In the event of failure to reach such agreement or in any instance when the selected mediator is unable or unwilling to serve and a replacement mediator cannot be agreed upon by Client or GHA within ten (10) calendar days, a mediator shall be chosen as specified in the Construction Industry Mediation Rules of the American Arbitration Association then in effect. Mediation shall take place in Chicago, Illinois unless the Client and GHA agree otherwise. The fees of the mediator(s) and costs incurred by the mediator(s) shall be apportioned equally between the parties.

Either the Client or GHA may terminate this Agreement without penalty at any time with or without cause upon giving the other party ten (10) calendar days prior written notice. The Client shall, within thirty (30) calendar days of termination pay GHA for all services rendered and all costs incurred up to the date of termination, in accordance with compensation provisions to this Agreement. The Client shall also reimburse GHA termination expenses, including, but not limited to, those associated with demobilization, reassignment of personnel and space and equipment costs. Client shall not assign this Agreement without GHA's written consent.

Exhibit A

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

Exhibit A

Preliminary (Phase 1) Engineering Services
 Scope of Work, Man-Hour Calculations and Cost Estimate of Consultant Services
 Improvements to Buffalo Grove Road from North of Deerfield Parkway
 to South of IL Rte. 22 in Buffalo Grove, Illinois

Section #99-00249-01-EG

Lake County Division of Transportation
 Lake County, Illinois

Route: Buffalo Grove Road - IL Rte 22 to Deerfield Parkway

Local Agency: LCDOT (Municipality/Township/County)

Section: 99-00249-01-EG

Project: N/A

Job No.: N/A

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

Overhead Rate 15.00 %
 Profit Rate 14.50 %
 Complexity Factor 0 0.035
 Project Duration 365 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 Coordination and Data Collection	PRINCIPAL ENG	16	\$58.00	\$ 928.00	\$ 1,531.20		\$0.00	\$ 356.58	\$ 2,815.78
	SENIOR ENG	132	\$48.91	\$ 6,456.12	\$ 10,652.80		\$0.00	\$ 2,480.76	\$ 19,589.48
	PROFESSIONAL ENG	80	\$32.64	\$ 2,611.20	\$ 4,308.48		\$0.00	\$ 1,003.35	\$ 7,923.03
	PROJECT CONSULTANT	12	\$32.64	\$ 391.68	\$ 646.27		\$0.00	\$ 150.50	\$ 1,188.46
	STAFF ENG	80	\$25.65	\$ 2,052.00	\$ 3,365.80		\$0.00	\$ 788.48	\$ 6,226.28
	SR ENG TECH	24	\$28.05	\$ 673.20	\$ 1,110.78		\$0.00	\$ 258.68	\$ 2,042.66
	ENG TECH II	40	\$19.79	\$ 791.60	\$ 1,306.14		\$0.00	\$ 304.17	\$ 2,401.91
CLERICAL	22	\$21.30	\$ 468.60	\$ 773.19		\$0.00	\$ 180.05	\$ 1,421.85	
Project Administration and Meetings									
Project Administration and Meetings	PRINCIPAL ENG	16	\$58.00	\$ 928.00	\$ 1,531.20		\$0.00	\$ 356.58	\$ 2,815.78
	SENIOR ENG	80	\$48.91	\$ 3,912.80	\$ 6,456.12		\$0.00	\$ 1,503.49	\$ 11,872.41
	PROFESSIONAL ENG	64	\$32.64	\$ 2,089.96	\$ 3,446.78		\$0.00	\$ 802.68	\$ 6,338.43
	PROJECT CONSULTANT	40	\$32.64	\$ 1,305.60	\$ 2,154.24		\$0.00	\$ 501.68	\$ 3,961.52
	STAFF ENG	120	\$25.65	\$ 3,078.00	\$ 5,078.70		\$0.00	\$ 1,182.72	\$ 9,339.42
	SR ENG TECH	24	\$28.05	\$ 673.20	\$ 1,110.78		\$0.00	\$ 258.68	\$ 2,042.66
	ENG TECH II	16	\$19.79	\$ 316.64	\$ 522.46		\$0.00	\$ 121.67	\$ 960.76
CLERICAL	40	\$21.30	\$ 852.00	\$ 1,405.80		\$0.00	\$ 327.38	\$ 2,585.18	
Existing Condition, Topographic Survey and Base Plan Preparation									
Existing Condition, Topographic Survey and Base Plan Preparation	PRINCIPAL ENG	0	\$58.00	\$ -	\$ -		\$0.00	\$ -	\$ -
	SENIOR ENG	10	\$48.91	\$ 489.10	\$ 807.02		\$0.00	\$ 187.94	\$ 1,484.05
	PROF LAND SURVEYOR	64	\$46.25	\$ 2,960.00	\$ 4,884.00		\$0.00	\$ 1,137.38	\$ 8,981.38
	PROFESSIONAL ENG	20	\$32.64	\$ 652.80	\$ 1,077.12		\$0.00	\$ 250.84	\$ 1,980.76
	STAFF ENG	16	\$25.65	\$ 410.40	\$ 677.16		\$0.00	\$ 157.70	\$ 1,245.26
	SR ENG TECH	200	\$28.05	\$ 5,610.00	\$ 9,256.50		\$0.00	\$ 2,155.64	\$ 17,022.14
	ENG TECH II	400	\$19.79	\$ 7,916.00	\$ 13,061.40		\$0.00	\$ 3,041.72	\$ 24,019.12
ENG TECH I	160	\$13.31	\$ 2,129.60	\$ 3,513.84		\$0.00	\$ 818.30	\$ 6,461.74	
Soils Analysis and Report									
Soils Analysis and Report	PRINCIPAL ENG	0	\$58.00	\$ -	\$ -		\$0.00	\$ -	\$ -
	SENIOR ENG	8	\$48.91	\$ 391.28	\$ 645.61		\$0.00	\$ 150.35	\$ 1,187.24
	PROFESSIONAL ENG	24	\$32.64	\$ 783.36	\$ 1,292.54		\$0.00	\$ 301.01	\$ 2,376.91
	SR ENG TECH	24	\$28.05	\$ 673.20	\$ 1,110.78		\$0.00	\$ 258.68	\$ 2,042.66
Subconsultant-Testing Service Corporation						\$ 31,400.00			\$ 31,400.00
Pavement Analysis and Report									
Pavement Analysis and Report	PRINCIPAL ENG	4	\$58.00	\$ 232.00	\$ 382.80		\$0.00	\$ 89.15	\$ 703.95
	SENIOR ENG	16	\$48.91	\$ 782.56	\$ 1,291.22		\$0.00	\$ 300.70	\$ 2,374.48
	PROFESSIONAL ENG	32	\$32.64	\$ 1,044.48	\$ 1,723.39		\$0.00	\$ 401.34	\$ 3,169.21
	STAFF ENG	24	\$25.65	\$ 615.60	\$ 1,015.74		\$0.00	\$ 236.54	\$ 1,867.88
SR ENG TECH	16	\$28.05	\$ 448.80	\$ 740.52		\$0.00	\$ 172.45	\$ 1,361.77	
Subconsultant-TBD						\$ 40,228.00			\$ 40,228.00
									\$ 43,609.45
									\$ 39,916.17
									\$ 61,194.45
									\$ 37,006.81
									\$ 49,705.30

Exhibit B

Direct Cost Estimate

Exhibit B

**Preliminary (Phase I) Engineering Services
Scope of Work, Man-Hour Calculations and Cost Estimate of Consultant Services
Improvements to Buffalo Grove Road from North of Deerfield Parkway
to South of IL Rte. 22 in Buffalo Grove, Illinois**

Section #99-00249-01-EG

**Lake County Division of Transportation
Lake County, Illinois**

Direct Cost Estimate

Printing Expenses:

Preliminary Project Development Report (2 Submittals)

Assume 120 sheets x 5 sets x \$0.15/sheet x 2 submittals \$180.00

Assume 40 sheet x 5 sets x \$0.25/sheet x 2 submittals \$100.00

Final Project Development Report (2 Submittals)

Assume 150 sheets x 5 sets x \$0.15/sheet x 2 submittals \$225.00

Assume 80 sheet x 5 sets x \$0.25/sheet x 2 submittals \$200.00

Draft Preliminary Plan Documents (2 Submittals)

Assume 75 sheets x 10 sets x 6 sf x \$0.25/sf x 2 submittals \$2,250.00

Final Preliminary Plan Documents (2 Submittals)

Assume 90 sheets x 10 sets x 6 sf x \$0.25/sf x 2 submittals \$2,700.00

Shipping Expense: Estimated at \$800.00

Vehicle Expense: Estimated at \$500.00

Anticipated Direct Cost Estimate: \$6,955.00

Exhibit C

**Soils Analysis and Report
Subconsultant Scope of Work**

Testing Service Corporation



March 23, 2011

TESTING SERVICE CORPORATION

Corporate Office:

360 S. Main Place, Carol Stream, IL 60188-2404
630.462.2600 • Fax 630.653.2988

Local Office:

457 E. Gundersen Drive, Carol Stream, IL 60188-2492
630.653.3920 • Fax 630.653.2726

Mr. Todd Gordon
Gewalt Hamilton Associates, Inc.
850 Forest Edge Drive
Vernon Hills, Illinois 60061

RE: P.N. 46,665-Revised March 23, 2011
Roadway Improvements
Buffalo Grove Road
IL Rt 22 to Deerfield Parkway
Buffalo Grove, Illinois

Dear Mr. Gordon:

Testing Service Corporation (TSC) is pleased to submit this proposal to provide Geotechnical Engineering Services for the above captioned project. It addresses roadway improvements to Buffalo Grove Road (Section No. 99-00249-01-EG) in Buffalo Grove, Illinois. The project extends from IL Route 22 south to Deerfield Parkway. This proposal addresses Phase 1 and Phase 2 work with the exception of two culverts.

Our understanding of existing site conditions and the proposed improvements are as follow:

- Buffalo Grove Road between Route 22 and Deerfield Parkway has a road with a 3 lane section to as wide as five lane section near the intersections. The road was built in PCC pavement in 1988 with upgrades done at the intersections between 1997 and 2006. The pavement shows signs of wear with gaps between concrete slabs becoming more pronounced.
- Pavement widening and/or reconstruction will be required for Buffalo Grove Road (± 9,820 feet).
- Intersections at Aptakisic Road and IL. Route 22 are excluded from this project.
- There are two (2) culverts located within the project limits. At this point in time it is not known whether new culverts will be required for this project.

If the location or type of the proposed structure(s) are changed, TSC should be promptly contacted to determine the relevance of our proposed boring program to the new project configuration.

Scope of Work:

We are proposing to drill a total thirty three (33) soil borings extended to a depth of 10 feet as part of our Geotechnical Exploration. The borings will be spaced at 300' intervals on alternating sides along Buffalo Grove Road. Total drilling footage on this basis is estimated to be about 330 lineal feet.

In addition, ten (10) pavement cores will be taken on each of Buffalo Grove Road, to determine pavement thickness and composition within the project limits. The cores will be located at approximately 1000 foot intervals and be taken using a 4" core barrel and portable coring machine.

Providing a Full Range of Geotechnical Engineering, Environmental Services, and Construction Materials Engineering & Testing

Carol Stream, IL • Bloomington, IL • DeKalb, IL • Gurnee, IL • Shorewood, IL • Tinley Park, IL • Rockford, IL

Based on a site visit on March 16, 2011 we believe that the boring locations will be accessible to conventional drilling equipment. No provisions have been made for tree/brush clearing or other obstruction removal should borehole access be impeded. No borings are planned inside of existing structures. Offsets to the boring locations may be required due to existing utilities.

TSC will utilize a crew trained in layout procedures to stake the borings in the field. Ground surface elevations for each borehole will be determined by level survey methods (benchmark to be provided). Utility clearance for the borings will be obtained by contacting JULIE (Joint Utility Locating Information for Excavators); secondary and private underground utility lines will have to be marked by the property owner or their agents.

Soil samples will be obtained by split-spoon methods. Sampling for the subgrade borings will be performed on a continuous interval for the first 5 feet and at 2.5 foot intervals below. Representative portions of samples will be sealed, packaged and transported to our laboratory. Groundwater observations will also be made during and following completion of drilling operations.

Permits and Traffic Control:

Buffalo Grove Road is a Lake County Road. Lake County roads require a Lake County Permit. Lane closures will also be required to perform the field work on these major roadways, to be provided by a professional firm. Traffic control for the soil borings on Buffalo Grove Road will consist of roadway signs, traffic cones and arrowboard.

Laboratory Testing:

All boring samples will be examined by an experienced laboratory soils technician, to verify field descriptions and visually classify them in accordance with the AASHTO Soil Classification System. Laboratory testing will include moisture content determinations as well as hand penetrometer measurements of unconfined compressive strength, as appropriate. Representative subgrade samples will also be tested for Atterberg limits and grain size analysis in accordance with IDOT procedures.

Report of Data Obtained:

Field and laboratory test data will be summarized in an engineering report, to include computer generated boring logs and location plan. It should be noted that soil profile sheets are not included in our scope of work. The report will address anticipated soil and groundwater conditions impacting the roadway improvements, based upon the information obtained from the borings. It will also provide specific recommendations to guide treatment of unsuitable or unstable soil types within areas of pavement widening or reconstruction. Recommendations will also be made for a subgrade support value for pavement design. However our scope of work does not include performing pavement design.

Fees and Scope:

In accordance with the Cost Estimate attached, TSC is estimating a budget amount of Thirty One Thousand Four Hundred Dollars (\$31,400.00) to provide the Contract Drilling Services outlined above. Our proposal is based on the understanding that: the boring locations are accessible to a conventional truck or skid mounted drilling equipment; none of the borings will be located in standing water; and that the work can be performed during standard business hours. Our fee is further subject to this proposal being accepted by you on or before December 31, 2011.

The fees, hourly rates and other charges for field services furnished under this proposal are based on TSC's current contract with the International Union of Operating Engineers, Local 150. Because your

project is funded in part or in total by state or local government funding sources, it will be subject to IPWA requirements.

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

Mr. Todd Gordon
Gewalt Hamilton Associates, Inc.
850 Forest Edge Drive
Vernon Hills, Illinois 60061
Tel: (847) 478-9700
Fax: (847) 478-9701
Email: tgordon@gha-engineers.com

If this proposal meets with your approval, please indicate your acceptance by signing one copy and returning it to our Carol Stream, Illinois office. We look forward to being of service to you on this project.

Respectfully submitted,

TESTING SERVICE CORPORATION



Michael Machalinski, P.E.
Vice President

Prepared By:



Michael D. Billings
Director of Business Development

MVM:MDB:kw

Enc: Cost Estimate
General Conditions

Approved and accepted for _____ by: _____

(NAME)

(TITLE)

(DATE)

COST ESTIMATE
P.N. 46,665
Roadway Improvements
Buffalo Grove Road
IL Rt 22 to Deerfield Parkway
Buffalo Grove, Illinois

ITEM		UNITS	QTY	RATE	COST
STAKING AND UTILITY CLEARANCE SERVICES (It is our understanding boring elevations will be interpolated from cross sections or topographic plans.)					
1.1	Two-Person Crew	Hour	0.0	150.00	\$ 0.00
1.2	Layout Crew Chief	Hour	20.0	90.00	\$ 1,800.00
OBTAIN PERMITS (It is our understanding that an Lake County DOT permit will be required.)					
2.1	Project Engineer Administration	Hour	3.0	120.00	\$ 360.00
2.2	Bonds, Permits, or Other Charges	At Cost	1	1,000.00	\$ 1,000.00
MOBILIZATION AND DEMOBILIZATION OF DRILL RIG AND CREW					
3.1	Drill Mounted on Truck	Each	1	450.00	\$ 450.00
3.2	Drill Mounted on All-terrain Vehicle	Each	0	600.00	\$ 0.00
3.3	Daily Surcharge All-terrain Vehicle	Day	3	200.00	\$ 600.00
BORINGS FOR SUBGRADE Includes samples by SPT (split spoon) or geo-probe methods, visual classification and moisture contents.					
4.1	Standard Subgrade Borings	Foot	330.0	34.50	\$ 11,385.00
4.2	Supplemental Borings for Soft Organic Soils	Foot	0.0	34.50	\$ 0.00
4.3	Soil Borings by Hand Auger	Foot	0.0	55.00	\$ 0.00
4.4	Bulk Subgrade Samples for IBR Tests	Sample	0.0	75.00	\$ 0.00
5.1	Administration Fees and Additional Payroll Taxes	Lump Sum	1	100.00	\$ 100.00
OBTAIN PAVEMENT CORES Includes coring with 4 inch diameter barrel and retrieving all pavement materials to maximum depth of about 16 to 18 inches.					
6.1	Core Van and Crew (portal to portal)-Regular Time	Hour	8.0	150.00	\$ 1,200.00
6.2	Core Van and Crew (portal to portal)-Over Time	Hour	4.0	150.00	\$ 600.00
6.2	Bit Wear - per inch of asphalt pavement	Inch	0.0	2.50	\$ 0.00
6.3	Bit Wear - per inch of P.C. concrete pavement	Inch	80.0	4.00	\$ 320.00
6.4	Patch Holes with Cold Patch Asphalt (Soil borings or pavement cores)	Each	10	10.00	\$ 100.00

ITEM		UNITS	QTY	RATE	COST
6.5	Materials technician to measure and describe core sample in laboratory	Sample	10	15.00	\$ 150.00
TRAFFIC CONTROL BY TSC					
7.1	TSC Flagger	Hour	0.0	90.00	\$ 0.00
7.2	Lane Closure by Professional Firm.	Hour	10.0	190.00	\$ 1,900.00
7.3	TSC Pickup and Arrowboard	Day	4	140.00	\$ 560.00
LABORATORY TESTING					
8.1	Visual Classification and Water Content for Core Subgrade Samples	Sample	10	10.50	\$ 105.00
8.2	Washed Sieve Samples	Sample	0	85.00	\$ 0.00
8.3	Particle Size Analysis Including Hydrometer Analysis	Sample	6	115.00	\$ 690.00
8.4	Atterberg Limit Determinations	Sample	6	75.00	\$ 450.00
8.5	Organic Content (L.O.I. & Wet Combustion)	Sample	4	100.00	\$ 400.00
8.6	Moisture/Density Relationship of Soils (Standard Proctor)	Sample	0	155.00	\$ 0.00
8.7	Illinois Bearing Ratio (IBR) of Laboratory Compacted Soils	Sample	0	175.00	\$ 0.00
PROJECT ADMINISTRATION, ENGINEERING, ANALYSIS AND REPORTING PERSONNEL (It is our understanding that soil profile sheets will needed for this project.)					
9.1	Senior Geotechnical Engineer, P.E.	Hour	5.0	150.00	\$ 750.00
9.2	Project Geotechnical Engineer, P.E.	Hour	50.0	115.00	\$ 5,750.00
9.3	Secretary	Hour	8.0	55.00	\$ 440.00
9.4	CADD Technician	Hour	30.0	75.00	\$ 2,250.00
ESTIMATED TOTAL:					\$ 31,360.00
RECOMMENDED BUDGET:					\$ 31,400.00



TESTING SERVICE CORPORATION

GENERAL CONDITIONS

Geotechnical and Construction Services

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

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

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

4. CLIENT'S DUTY TO NOTIFY ENGINEER: Client represents and warrants that Client has advised TSC of any known or suspected hazardous materials, utility lines and underground structures at any site at which TSC is to perform services under this agreement.

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

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

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

with its contract. "Contractor" as used herein shall include subcontractors, suppliers, architects, engineers and construction managers.

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

7. DOCUMENTS AND SAMPLES: Client is granted an exclusive license to use findings and reports prepared and issued by TSC and any sub-consultants pursuant to this Agreement for the purpose set forth in TSC's proposal provided that TSC has received payment in full for its services. TSC and, if applicable, its sub-consultant, retain all copyright and ownership interests in the reports, boring logs, maps, field data, field notes, laboratory test data and similar documents, and the ownership and freedom to use all data generated by it for any purpose. Unless otherwise agreed in writing, test specimens or samples will be disposed immediately upon completion of the test. All drilling samples or specimens will be disposed sixty (60) days after submission of TSC's report.

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

9. PAYMENT: Client shall be invoiced periodically for services performed. Client agrees to pay each invoice within thirty (30) days of its receipt. Client further agrees to pay interest on all amounts invoiced and not paid or objected to in writing for valid cause within sixty (60) days at the rate of twelve (12%) per annum (or the maximum interest rate permitted by applicable law, whichever is the lesser) until paid and TSC's costs of collection of such accounts, including court costs and reasonable attorney's fees.

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

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

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

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

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

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



TESTING SERVICE CORPORATION

Project Data Sheet

General Information:

Project Name: _____

Project Address: _____

City / State / Zip: _____

Project Manager: _____

Telephone: _____

Fax: _____

Site Contact: _____

Telephone: _____

Fax: _____

Send Invoice To:

Purchase Order No: _____

Attention: _____

Company: _____

Address: _____

City / State / Zip: _____

Telephone: _____

Fax: _____

Important Notes:

Completed By:

Signature: _____

Name: _____

Date: _____

Distribute Reports as Follows:

Name: _____

Company: _____

Address: _____

City / State / Zip: _____

Telephone: _____

Fax: _____

Name: _____

Company: _____

Address: _____

City / State / Zip: _____

Telephone: _____

Fax: _____

Name: _____

Company: _____

Address: _____

City / State / Zip: _____

Telephone: _____

Fax: _____

Name: _____

Company: _____

Address: _____

City / State / Zip: _____

Telephone: _____

Fax: _____

Exhibit D

**Pavement Analysis and Report
Subconsultant Scope of Work**

TBD

Exhibit E

**Structural Evaluation
Subconsultant Scope of Work**

Wiss, Janney, Elstner Associates, Inc.

Via Email: kbelgrave@gha-engineers.com

March 18, 2011

Mr. Kevin Belgrave, P.E.
Senior Engineer
Gewalt Hamilton Associates, Inc.
850 Forest Edge Drive
Vernon Hills, IL 60061

Re: Buffalo Grove Culvert Analysis
WJE No. 2011.1262

Dear Mr. Belgrave:

Wiss, Janney, Elstner Associates, Inc. (WJE) is pleased to provide this proposal for engineering services to evaluate two existing culverts under Buffalo Grove Road between Deerfield Pkwy and IL Rte 22. It is our understanding that the Lake County Highway Department (LCHD) is planning to widen this portion of Buffalo Grove Road from three to five lanes and has requested that the existing culverts be evaluated to determine if they require repairs or need to be replaced. We are not aware of the availability of any design drawings for either culvert.

To assess the condition of each culvert, WJE engineers will carry out a one-day inspection during which accessible surfaces of the culverts will be sounded to identify areas of concrete delamination and spalling. The field work will also include documentation of each culvert in sufficient detail as to define its geometry and typical reinforcing steel size and spacing. Two cores will be removed from each culvert for laboratory study and for verification of wall and slab thicknesses. Brief petrographic examinations of the cores will be used to assess the general condition of the concrete and its future durability. One of the cores from each culvert will be tested to provide an estimate of as-built concrete compressive strength.

A structural analysis of the two culverts will be performed to determine if each can safely support the owner-specified design loads. These analyses will consider the field data and laboratory test results. Any strength deficiencies will be noted and conceptual repairs provided. A letter report summarizing our field, laboratory, and analytical work will be prepared. This report will include our recommendations for repair or replacement.

To carry out the work described above, we request a lump sum fee of \$12,500. This price assumes that the LCHD will provide any required traffic control for the one-day field study and that the culverts can be safely accessed during periods of low water. If requested, WJE can prepare culvert extension and repair drawings as additional scope. We will perform the proposed engineering services in accordance with our standard Terms and Conditions for Professional Services, dated October 1, 2009 (a copy of this document is attached).

Headquarters & Laboratories—Northbrook, Illinois

Atlanta | Austin | Boston | Chicago | Cleveland | Dallas | Denver | Detroit | Honolulu | Houston
Los Angeles | Minneapolis | New Haven | New York | Princeton | San Francisco | Seattle | Washington, DC


We appreciate this opportunity to work with Gewalt Hamilton and the LCHD on this project. Please call if you have questions regarding our proposal and our understanding of the project.

Sincerely,

WISS, JANNEY, ELSTNER ASSOCIATES, INC.



Flora A. Calabrese, S.E.
Project Manager



Jonathan C. McGormley, P.E., S.E.
Associate Principal

Attachments

buffalogrvculvertsprop_jmcgormley_kbelgrave_gwa.docx

Wiss, Janney, Elstner Associates, Inc. or WJE Engineers & Architects, P.C. (WJE) has been requested to perform certain professional and other services. The parties agree that these services shall be performed under the following Terms and Conditions, and that Client's acceptance of WJE's proposal or its direction for WJE to commence any services constitutes acceptance of these Terms.

1. Independent Contractor. WJE is an independent contractor, and all persons employed to furnish services hereunder are employees of WJE or its subcontractors/subconsultants and not of the Client. WJE and Client agree to be solely responsible for compliance with all federal, state, and local laws, rules and regulations, and ordinances that apply to their own respective employees.

2. Performance. The standard of care for all professional services performed or furnished by WJE will be the skill and care ordinarily used by members of WJE's professions performing similar services and practicing under similar circumstances at the same time and in the same locality. WJE makes no guarantees or warranties, express or implied, with regard to the performance of its services. WJE shall not have control over or be in charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures or for construction safety precautions and programs since these are the responsibilities of others. WJE agrees to perform its services in as timely a manner as is consistent with the professional standard of care and to comply with applicable laws, regulations, codes and standards that relate to WJE's services and that are in effect as of the date when the services are provided.

3. Client Duties. In order for WJE to perform the services requested, the Client shall, at no expense to WJE, (1) provide all necessary information regarding Client's requirements as necessary for the orderly progress of the work; (2) designate a person to act as Client's representative for the services who shall have the authority to transmit instructions, receive instructions and information, and interpret and define Client's policies and requests for WJE's services; and (3) provide access to and make all provisions for WJE to enter, without cost, limitation, or burden to WJE, the subject property as required to perform the work, including the use of scaffolds or similar mechanical equipment. WJE is entitled to rely upon the information and services provided by the Client.

4. Safety. Field work will be performed only under conditions deemed safe by WJE personnel. Charges may be made for safety or security measures required by hazardous job conditions that WJE may encounter. Client understands that WJE is only responsible for the safety of its own employees and that of its subconsultants and is not responsible for the safety of other persons or property.

5. Compensation and Expenses. Client agrees to pay for WJE's requested services in accordance with WJE's standard hourly rate schedule or negotiated fee. Charges generally will be billed in monthly intervals with applicable taxes included. Travel, subsistence, and out-of-pocket expenses incurred; communications; reproduction; and shipping charges will be billed at cost plus 5 percent and invoiced as an expense service fee. Use of vehicles will be billed at \$0.60 per mile. Expended materials for field and laboratory work, rental equipment, and any fees advanced on Client's behalf will be billed at cost plus 10 percent and invoiced as an expense service fee. WJE equipment used in field or laboratory work is billed at WJE's equipment usage rate

schedule in effect at the time the work is performed, subject to adjustment for minimum or extended usage. Portal-to-portal equipment usage rates are comparable to prevailing commercial rental rates (if available). Billing rates may be increased annually. Any subcontracted service will be billed at cost plus 10 percent providing the subcontract firm has in place adequate insurance coverage determined by WJE; otherwise, the cost will be marked up 20 percent and invoiced as an expense service fee. Client agrees to pay WJE's then-current time charges, attorneys' fees, and other expenses resulting from required attendance at depositions, administrative proceedings, or responding to subpoenas or court orders relating to the Project, but not for such expenses attributed to WJE's negligent performance of its services.

Payment for WJE's services is expected in full in US dollars upon receipt of the invoice. Invoices considered past due are subject to any related attorneys' fees and collection expenses. WJE reserves the right to suspend its services if the Client fails to make payment when due providing that WJE gives seven calendar days' notice to Client as practicable. In such an event, WJE shall have no liability to the Client for delay or damage caused the Client because of such suspension.

6. Termination. Both the Client and WJE have the right to terminate WJE's services for convenience upon seven calendar days' written notice to the other party. In the event the Client terminates without cause, WJE shall be entitled to compensation for its services and expenses up to the time of such notification, including fees for any transition services, and shall have no liability for delay or damage to Client because of such termination.

7. Reports, Drawings, and Work Product. WJE retains ownership of reports, drawings, specifications, test data, techniques, photographs, letters, notes, and other work product, including those in electronic form, it has created. These documents or parts thereof may not be reproduced or used by the Client for any purpose other than the purpose for which they were prepared, including, but not limited to, use on other projects or future modifications to this Project, without the prior written consent of WJE. Upon request, WJE will provide Client with a copy of documentation for information and reference purposes and bill for such reproduction in accordance with Paragraph 5 above. Any unauthorized use of WJE's work product shall be at the Client's sole risk and Client shall indemnify WJE for any liability or legal exposure to WJE. To the extent WJE terminates its services due to non-payment of fees by Client, Client shall not be entitled to use the documents described herein for any purpose whatsoever.

8. Environmental Hazards. Client acknowledges that WJE's services do not include the detection, investigation, evaluation, or abatement of environmental conditions that WJE may encounter, such as mold, lead, asbestos, PCBs, hazardous substances, or toxic materials that may be present in buildings and structures involved in this Project. The Client agrees to defend, indemnify, and hold WJE harmless from any claims relating to the actual or alleged existence or discharge of such materials through no fault

of WJE's employees. WJE reserves the right to suspend its services, without liability for consequential or any other damages, if it has reason to believe that its employees may be exposed to hazardous materials and will notify the Client in such event.

9. Dispute Resolution. Prior to the initiation of any legal proceedings, WJE and the Client agree to submit all claims, disputes, or controversies arising out of or in relation to the services provided by WJE to mediation. Such mediation shall be conducted under the auspices of the American Arbitration Association or such other mediation service or mediator upon which the parties agree.

10. Governing Law. The laws of the state where WJE performs its services shall govern.

11. Successors and Assigns. These Terms shall be binding upon Client and WJE and their respective successors, assigns and legal representatives. Neither party may assign, subcontract, or otherwise delegate its responsibilities without the prior consent of the other party, which consent shall not be unreasonably withheld.

12. Insurance. WJE maintains commercial general liability, automobile, workers' compensation, and employers' liability and professional liability coverages under policies written by national insurance carriers rated by the A.M. Best Company, evidence of which will be provided upon request. Endorsements are not allowed. No waiver of subrogation is allowed on WJE's professional liability policy. Upon written request, WJE agrees to name the Client as an additional insured to the commercial general liability and automobile coverages. Any request to add other parties as additional insureds must be made in writing and is subject to certain limitations. All policies are subject to annual renewal, and WJE will not undertake to guarantee continued coverage beyond the individual policy term. Excess coverage is available for exposures over primary policy limits except for professional liability.

13. Indemnity. To the fullest extent permitted by law, Client and WJE each agree to indemnify and hold the other harmless, and their respective agents, officers and employees, from and against liability for all direct claims, losses, damages, and expenses, including reasonable attorneys' fees, to the extent such claims, losses, damages, or expenses are for bodily injury, sickness, disease, death, or property damage and to the extent they are caused by the negligent acts, errors, or omissions of the indemnifying party, and/or the indemnifying party's agents, officers, employees, independent contractors, or subcontractors of any tier. In the event such claims, losses, damages, or expenses are caused by the joint or concurrent negligence of

Client and WJE, or their respective agents, officers, employees, independent contractors, or subcontractors of any tier, they shall be borne by each party in proportion to that negligence.

14. Agreed Remedy. To the fullest extent permitted by law, the total liability, in the aggregate, of WJE and WJE's officers, directors, employees, agents, and consultants to Client and anyone claiming by, through, or under Client, for any and all injuries, claims, losses, expenses, or damages, including, without limitation, attorneys' fees, arising out of or in any way related to WJE's services, the Project, or these Terms, from any cause or causes whatsoever, including but not limited to, negligence, strict liability, indemnity or breach of contract shall not exceed an amount equal to the proceeds obligated to be paid under WJE's applicable insurance policy for such claims. If, for any reason, the applicable insurance policy does not provide coverage for any particular claim described herein, then the liability amount shall not exceed WJE's fees for the services performed hereunder.

In no event shall WJE be liable in contract, tort, strict liability, warranty or otherwise, for any special, incidental or consequential damages, such as, but not limited to, delay, disruption, loss of product, loss of anticipated profits or revenue, loss of use of equipment or system, non-operation or increased expense of operation of other equipment or systems, cost of capital, or cost of purchase or replacement equipment systems or power.

15. Third-Party Beneficiaries. Nothing contained in these Terms shall create a contractual relationship with, or a cause of action in favor of, a third party against either the Client or WJE. WJE's services hereunder are being performed solely for the benefit of the Client, and no other entity shall have any claim against WJE because of these Terms or WJE's performance or non-performance of services hereunder.

16. Entire Agreement. These Terms together with any written proposal shall constitute the entire understanding of the parties concerning the Project and supersede all prior negotiations and written agreements between them, and any amendment or modification to either WJE's proposal or these Terms may be made only by a written instrument expressly stated to be an amendment and signed by WJE.

17. Severability. If any provisions of these Terms, or portions thereof, are determined to be unenforceable, the remainder shall not be affected thereby and each remaining provision or portion thereof shall continue to be valid and effective and shall be enforceable to the fullest extent permitted by law.

Exhibit F

LCDOT Survey Standards