030867

**All DISTRICTS**

**VILLAGE OF LOMBARD**
**REQUEST FOR BOARD OF TRUSTEES ACTION**
For Inclusion on Board Agenda

__X__ Resolution or Ordinance (Blue) _____ Waiver of First Requested
_____ Recommendations of Boards, Commissions & Committees (Green)
_____ Other Business (Pink)

**TO:** PRESIDENT AND BOARD OF TRUSTEES

**FROM:** William T. Lichter, Village Manager

**DATE:** January 7, 2004 (COW) (B of T) **Date:** 01/15/2004

**TITLE:** 2010 Stormwater Management Study
Amendment #3 to Contract Scope

**SUBMITTED BY:** David A. Dratnol, P.E., Village Engineer

**BACKGROUND/POLICY IMPLICATIONS:**

Please see attached memo.

**FISCAL IMPACT/FUNDING SOURCE:**

Current Contract Amount: $200,000.00
No Additional Funds
Allocation: $30,000.00
PW Project No.: SS-01-02
HTE Project No.: 0122
P.O. No.: 041771

Review (as necessary):
Village Attorney X_____ Date_____
Finance Director X Leonard J. Flood Date 1/8/04
Village Manager X_____ Date_____

NOTE: All materials must be submitted to and approved by the Village Manager's Office by 12:00 noon, Wednesday, prior to the Agenda Distribution.

AGENDA.DOC

# InterOffice Memo

**To:** William T. Lichter, Village Manager

**From:** David A. Dratnol, P.E., Village Engineer

**Date:** January 7, 2004

**Subject:** 2010 Stormwater Management Study
Preliminary Engineering

Attached, please find amendment #3 to the agreement with Christopher B. Burke Engineering, Ltd. (CBBEL) for the 2010 Stormwater Management Study. This amendment modifies their scope of services by authorizing tasks 11 and 12 in the attached proposal from CBBEL dated January 6, 2004. It will allocate $30,000 of the previously encumbered $200,000 for this work.

Please present this contract amendment to the President and Board of Trustees for their review and approval at their regular meeting on January 15, 2004. If approved, please have one signed copy returned to Engineering for further processing.

DAD

Note: At this time the engineer is executing the original amendments. They will be forwarded to the Clerk upon their receipt.

c: File: SS-01-02

2010 STORMWATER MANAGEMENT STUDY
VILLAGE OF LOMBARD
Contract # SS-01-02-S
6-Jan-03

## *2010 Stormwater Management Study*

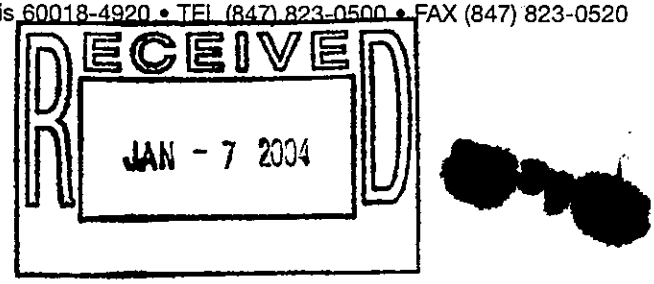
**CONTRACT # SS-01-02-S**

**Christopher B. Burke Engineering, Ltd.**

| Task | Budget Dollars | Spent Dollars | % Complete | Budget Remaining Dollars |
|---|---|---|---|---|
| 1 Gatz-Vista-Kenilworth | $28,404.54 | $28,404.54 | 100.0% | $0.00 |
| 2 Update Atlas Data | $28,278.53 | $28,278.53 | 100.0% | $0.00 |
| 3 & 4 SA216 & SA218 | $21,722.65 | $21,722.65 | 100.0% | $0.00 |
| 5 Yorktown Woods | $20,019.53 | $20,019.53 | 100.0% | $0.00 |
| 6 Wilson Ave./Elizabeth St. | $5,373.61 | $5,373.61 | 100.0% | $0.00 |
| 7 St. Charles Rd Drainage/Utility | $9,221.03 | $9,221.03 | 100.0% | $0.00 |
| 8 Charles Lane Pond Enhancement | $7,704.33 | $0.00 | 0.0% | $7,704.33 |
| 9 Hammerschmidt | $14,312.46 | $0.00 | 0.0% | $14,312.46 |
| 10 Washington Street Drainage Eval. | $14,312.46 | $0.00 | 0.0% | $14,312.46 |
| 11 Westmore-Meyers Rd Drainage Eval. | $11,508.32 | $0.00 | 0.0% | $11,508.32 |
| 12 Gatz Pond Outlet Storm Sewer | $16,417.50 | $0.00 | 0.0% | $16,417.50 |
| 13 Finley Rd Pond Expansion | $18,070.42 | $0.00 | 0.0% | $18,070.42 |
| Subtotal | $195,345.38 | $113,019.89 | 57.9% | $82,325.49 |
| Direct | $3,725.97 | $1,050.97 | 28.2% | $2,675.00 |
| Total | $199,071.35 | $114,070.86 | 57.3% | $85,000.49 |
| Contract Amount | $200,000.00 | | | |

**CHRISTOPHER B. BURKE** ENGINEERING, LTD.
9575 West Higgins Road • Suite 600 • Rosemont, Illinois 60018-4920 • TEL (847) 823-0500 • FAX (847) 823-0520

January 6, 2004




Mr. Stan Rickard
Director of Public Works
Village of Lombard
255 E. Wilson Avenue
Lombard, Illinois 60148

Subject: **Proposal for Professional Engineering Services**
**2010 Stormwater Management Study**
**Additional Tasks**

Dear Mr. Rickard:

Christopher B. Burke Engineering Ltd. (CBBEL) is pleased to submit this proposal to provide professional engineering services related to additional tasks, included is a detailed scope of services and proposed fees.

## SCOPE OF SERVICES

**Task 8 – Charles Lane Pond Enhancement:** It is our understanding that the Village of Lombard is planning to improve the landscaping around the Charles Lane Pond located northwest of Charles Lane and Finley Road. The Village's desire is to remove the existing fence and to replant with maintainable grass. Because of the surrounding wetlands, a determination of the limits and jurisdiction of the wetland area within the proposed project needs to performed. CBBEL wetland specialist will visit the site and perform a wetland assessment. A request will be made to DuPage County Department of Environmental Concerns (DEC) for wetland jurisdictional determination. To assist CBBEL with the completion of the jurisdictional determination the Village must provide CBBEL with any documentation available regarding when the facility was originally constructed and more importantly the approved engineering plans for the facility.

If DEC determines the area to be jurisdictional and If the proposed landscape plan impacts the wetland area, CBBEL will develop a concept level planting plan based on the objectives of the Village and CBBEL's understanding of what plantings would be acceptable under the Countywide Floodplain and Stormwater Ordinance (Ordinance). CBBEL will meet with DEC wetland staff to present and discuss the concept planting plan at a preapplication meeting. Based on the conclusions of this meeting, CBBEL staff will revise the planting plan as requested and present it to Village staff for review and approval. A formal stormwater permit application package will be prepared (Wetland Tab) and submitted to DEC and for review and issuance of a permit.

DRD/drd
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**Task 9 – Hammerschmidt Basin**: The Hammerschmidt Basin is a grass bottom stormwater management facility located adjacent to the Hammerschmidt School at Harding Road and Hammerschmidt Avenue. It is our understanding that the basin currently outfalls to a combined sewer. The Village objective is to have the basin outfall to a storm sewer. CBBEL water resources staff will review the Village's combined and storm atlas to determine possible existing storm sewers which the basin could outlet. Using the nearest Village of Lombard benchmark that is tied into the aerial topography, CBBEL will perform a field survey, which will obtain information on the existing basin outlet (i.e. invert, size and overflow elevation) and invert and rim elevations of the existing storm sewers identified as possible outlets.

A hydrologic model of the existing storm sewer's tributary area will be developed. The Village's aerial topography will be used to define subbasins within the tributary watershed. Based on the current land use and land cover appropriate Runoff Curve Numbers (RCN) and Time of Concentrations will be developed for each subbasin using the TR-55 methodology. Using various storm durations, a critical duration analysis will be performed to determine the storm duration the produces the greatest flows in the existing storm sewers. Illinois State Water Survey (ISWS) Bulletin 70 rainfall depths will used along with the appropriate Huff Rainfall Distribution. Once the critical duration has been determined, the 2-, 5- and 10-year storm events will be simulated with the model.

Based on the basin's outlet characteristics and the overflow elevation, the outflow from the detention basin that will be directed to an existing storm sewer will be determined. A Hydra model will be developed for the existing storm sewers. The results of Hydra model will be evaluated to determine which storm sewers have capacity to handle the basin's outflow. For the existing storm sewers that are determined to be a feasible outlet alternative, the storm sewer pipes needed to convey the basin's outflow to the existing storm sewer will be sized and a concept level opinion of probable cost prepared. A report will be prepared summarizing the evaluation.

**Task 10 – Washington Street Drainage Evaluation:** It is our understanding that the intersection of Washington Boulevard and 3rd Avenue has frequent street flooding. Currently the intersection drains to a combined sewer system. The Village's aerial topography will be used to determine the overland flow path for the intersection. CBBEL water resources engineers will perform a field reconnaissance of the watercourse where the intersection drains in order to determine a suitable location for a new outfall. Using the nearest Village of Lombard benchmark that is tied into the aerial topography, CBBEL will perform a field survey to obtain the watercourse invert, the rim and invert of the existing combined sewer at the intersection and first floor elevations of the homes located adjacent to the intersection.

A hydrologic model of the tributary area of the intersection will be developed. The Village's aerial topography will be used to the tributary watershed. Based on the current land use and land cover appropriate Runoff Curve Numbers (RCN) and Time of Concentrations will be developed for the tributary watershed using the TR-55 methodology. Using various storm durations, a critical duration analysis will be performed to determine the storm duration the produces the greatest flows in the existing storm sewers. Illinois State Water Survey (ISWS) Bulletin 70 rainfall depths will used along with the appropriate Huff Rainfall Distribution. Once the critical duration has been determined, the 2-, 5- and 10-, 50- and 100-year storm events will be simulated with model. Using the Hydra model, a concept level new storm sewer alignment and size will be developed which would allow the intersection drainage to be disconnected from the combined sewer and connected to a new storm sewer. The proposed storm sewer will be sized to prevent potential first floor flooding of the adjacent homes for all storm events up to the 100-year storm event and achieve acceptable intersection ponding durations. A report will include a concept level opinion of probable cost will be prepared summarizing the evaluation.

**Task 11 – Westmore-Meyers Road Drainage Evaluation:** It is our understanding that the Village has a STP project scheduled for Westmore-Meyers Road that will include underground work to be completed in advance of the street reconstruction. North of Madison Street, the Westmore-Meyers Road drains to the Village's combined sewer system. The Village's goal is have a new storm sewer system be installed to drain the roadway drainage to the proposed Gatz Pond (Westmore Woods) outlet storm sewer that will be located along North Broadway. As part of CBBEL's North Broadway road reconstruction design project, a concept level analysis of how draining Westmore-Meyers Road to the proposed Gatz Pond outlet storm sewer would impact the diameter of the proposed storm sewer is being completed. The concept study will only provide an order of magnitude answer. This task will provide a further refinement of this concept level study. Using the Village's aerial topography, the existing drainage patterns will be revealed to determine how much of the roadway drainage can be directed to the proposed Gatz Pond outlet storm sewer. Based on the aerial topography, roadway subbasins will be delineated. Based on the proposed roadway cross-section, a drainage calculation will be completed to determine the 10-year flow rate for each

subbasin. A Hydra model will be used to size a concept level storm sewer along Westmore-Meyers Road that will drain to the proposed Gatz Pond outlet storm sewer. A report will include a concept level opinion of probable cost will be prepared summarizing the evaluation.

**Task 12 – Gatz Pond Outlet Storm Sewer:** CBBEL previously studied the proposed Gatz Pond outlet storm sewer. The various alternative alignments and lengths were evaluated along with using SCADA operation. The currently proposed alignment will have the new storm sewer following a westerly route along the southside of Maple Street, turning south along the Westside of Chase Avenue, turning west along the southside of North Broadway and extending as far as Fairfield Avenue. At this point a pump station was envision which would allow pumpage to an upgraded Grace Avenue storm sewer when capacity was available, overflows would be discharged by gravity to the existing Fairfield Avenue 96-inch combined sewer. The SCADA system would be used to direct the Gatz Pond outlet storm sewer flow to the appropriate location depending on downstream flow conditions. It is our understanding that the Village would like CBBEL to analyze two other possible downstream discharge points for the Gatz Pond outlet storm sewer. A hydrologic and hydraulic analysis of the existing Ash Street and Hickory Street storm sewers will be completed to determine if sufficient capacity is available under certain conditions to allow discharge of the Gatz Pond outlet storm sewer. If it is determined that it is feasible to discharge to these existing storm sewers, then a concept level sizing of the storm sewers needed to convey the pumped Gatz Pond outlet storm sewer flows to the existing storm sewers will be completed. A report will include a concept level opinion of probable cost will be prepared summarizing the evaluation. Under a separate agreement with the Village, CBBEL is currently preparing plans for the North Broadway road reconstruction that includes the design of a portion of the Gatz Pond outlet storm sewer. This task will be scheduled in conjunction with the North Broadway road reconstruction project.

**Task 13 – Finley Road Pond Expansion:** CBBEL staff will meet with the Village staff to discuss the objectives of enlarging the Finley Road Pond. The Village of Lombard aerial topographic mapping will be used to develop an existing conditions elevation-storage relationship. Field surveying will be performed of the outlet and downstream conveyance path. A TR-20 hydrologic model of the area tributary to the pond will be developed and various storm frequency ISWS Bulletin 70 rainfall depths will be simulated. A field reconnaissance of the pond area will be completed to determine possible ways of increasing the effective stormwater management storage.

Alternatives for increasing the pond's stormwater management storage will be prepared and presented to the Village staff for initial review and approval. For the alternatives that are approved by the Village staff, TR-20 hydrologic modeling will be used to determine the effectiveness of providing stormwater storage and reducing downstream flows. Opinion of probable construction costs will be developed for each alternative.

A draft report will be prepared summarizing the analysis and presenting a recommended plan. A meeting with Village staff will be held to discuss the findings of the study. After receiving Village staff's comments the draft letter report will be finalized.

**PROPOSED FEE**

Attachment A is the proposed work effort.

Very truly yours,

Christopher B. Burke, PhD, PE
President

## WORK EFFORT
## ADDITIONAL SERVICES
## VILLAGE OF LOMBARD

| Task Number | Task Description | Principal | Senior Engineer | Engineer IV | Senior Engineering Technician | Senior Environmental Resource Specialist | Environmental Resource Specialist III | Land Surveying Manager | Senior Project Surveyor | Project Surveyor | Staff Surveyor | Word Processor | Total By Task | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Hours | % of Hours | Salary Cost | Total Cost |
| Avg. Rate | (S/hr) | $60.00 | $55.40 | $35.51 | $30.50 | $36.34 | $26.56 | $45.50 | $38.50 | $26.25 | $18.90 | $19.39 | | | | |
| 8 | Charles Lane Pond Enhancement | 1 | 4 | | 8 | 40 | 40 | | | | | 4 | 97 | 10.1% | $3,119.16 | $7,704.33 |
| 9 | Hammerschmidt Basin Outlet Evaluation | 1 | 12 | 96 | 24 | | | 4 | 8 | 8 | 8 | 4 | 165 | 17.2% | $5,794.52 | $14,312.46 |
| 10 | Washington Street Drainage Evaluation | 1 | 12 | 96 | 24 | | | 4 | 8 | 8 | 8 | 4 | 165 | 17.2% | $5,794.52 | $14,312.46 |
| 11 | Westmore-Meyers Road Drainage Evaluation | 1 | 12 | 88 | 24 | | | | | | | 4 | 129 | 13.5% | $4,659.24 | $11,508.32 |
| 12 | Gatz Pond Outlet Storm Sewer | 1 | 12 | 120 | 24 | | | 4 | 8 | 8 | 8 | 4 | 189 | 19.7% | $6,646.76 | $16,417.50 |
| 13 | Finley Road Pond Expansion | 1 | 12 | 120 | 24 | | | 4 | 16 | 16 | 16 | 4 | 213 | 22.2% | $7,315.96 | $18,070.42 |
| Subtotal | (Hours) | 6 | 64 | 520 | 128 | 40 | 40 | 16 | 40 | 40 | 40 | 24 | 956 | | | |
| % of Hours | | 0.6% | 6.7% | 54.3% | 13.4% | 4.2% | 4.2% | 1.7% | 4.2% | 4.2% | 4.2% | 2.5% | | | | |
| Total Salary Cost | | $360.00 | $3,545.60 | $18,465.20 | $3,904.00 | $1,453.60 | $1,062.40 | $728.00 | $1,540.00 | $1,050.00 | $756.00 | $465.36 | | | | $33,330.16 |
| Multiplier (2.47) | | | | | | | | | | | | | | | | $82,325.50 |
| Direct Cost | | | | | | | | | | | | | | | | $2,675.00 |
| Total Cost | | | | | | | | | | | | | | | | $85,000.50 |

Direct Cost: Mileage: 500 @ $0.365 = $175
Reproduction = $2,500

**RESOLUTION**
**R_____04**

**A RESOLUTION AUTHORIZING AMENDMENT OF A PROFESSIONAL SERVICES CONTRACT**

**WHEREAS,** the Board of Trustees of the Village of Lombard on August 17, 2000 adopted a resolution authorizing signature of President and Clerk on an agreement between the Village of Lombard and Christopher B. Burke Engineering, Ltd.; and

**WHEREAS,** an amendment to said contract is required to legally bind the parties; and

**WHEREAS,** Illinois law exempts professional engineering contracts from the requirements of Illinois Compiled Statutes, Chapter 720, Section 5/33E-9 regarding preparation of change orders.

NOW, THEREFORE, BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF LOMBARD, DU PAGE COUNTY, ILLINOIS, as follows:

**SECTION 1:** That the President and Village Clerk are hereby directed and authorized to execute an amendment to the contract with Christopher B. Burke Engineering, Ltd. substantially in the form and manner of Exhibit "A" attached hereto and made a part hereof.

Adopted this 15th day of January, 2004.

Ayes;_____

Nays:_____

Absent:_____

Approved this 15th day of January, 2004.

_____
**William J. Mueller**
**Village President**

**ATTEST:**

_____
**Barbara Johnson**
**Deputy Village Clerk**

**APPROVAL AS TO FORM:**

_____
**Thomas P. Bayer**
**Village Attorney**

# AGREEMENT TO AMEND A CONTRACT

**THIS AGREEMENT** made and entered into this 15th day of January, 2004, by and between the **VILLAGE OF LOMBARD** (the "VILLAGE") and **Christopher B. Burke Engineering, Ltd.** (the "CONSULTANT").

**WHEREAS,** on August 17, 2000 the VILLAGE and CONSULTANT executed a contract regarding certain engineering services relative to the 2010 Stormwater Management Study; and

**WHEREAS,** the VILLAGE and CONSULTANT have agreed to revise the scope of work to be performed by the CONSULTANT;

**NOW, THEREFORE,** for and in consideration of the foregoing and various covenants in said agreement and the mutual covenants herein contained, it is agreed by and between the parties as follows:

**SECTION 1:** The aforementioned contract shall be amended to expand the scope of work to include tasks 11 and 12 as provided for in the CONSULTANT'S January 6, 2004 letter.

**SECTION 2:** The aforementioned contract sum shall not be amended.

**SECTION 3:** All other terms, covenants and conditions of said contract heretofore executed which are not amended or deleted herein shall remain in full force and effect.

**IN WITNESS WHEREOF,** the VILLAGE and CONSULTANT have caused this document to be signed by duly authorized officers who have set their hands and seals the day and year set forth above.

**VILLAGE OF LOMBARD**

By: _____
Village President

ATTEST:

By: _____
Village Clerk

and **Christopher B. Burke Engineering, Ltd.**

By: _____

ATTEST:

By: _____