



**CHRISTOPHER B. BURKE ENGINEERING, LTD.**

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July 5, 2012

Village of Orland Park  
Public Works Department  
15655 Ravinia Avenue  
Orland Park, IL 60462

Attention: Mr. John Ingram – Infrastructure Maintenance Director

Subject: Proposal for Professional Engineering Services for  
Parkview Estates – Stormwater Improvements

Dear Mr. Ingram:

Christopher B. Burke Engineering, Ltd. (CBBEL) is pleased to submit this proposal to provide professional engineering services for the design of stormwater improvements for the Parkview Estates Subdivision. This proposal includes our Understanding of the Assignment, Scope of Services and Estimated Fee.

**UNDERSTANDING OF ASSIGNMENT**

CBBEL previously completed a conceptual level hydrologic and hydraulic model of the Parkview Estates Subdivision and surrounding areas to determine the level of impact that several stormwater improvement alternatives could have in reducing the risk of flooding. The Parkview Estates Subdivision is subject to flooding from a large upstream tributary area that flows through the development's online detention basin and a substantial amount of undetained runoff from unincorporated Palos Township. Based on the results of the analysis, the Village would like to proceed with the design of several alternatives to reduce the risk of residential structures being inundated during future storm events.

Specifically, CBBEL will proceed with the design of a collection and conveyance system to divert the undetained stormwater runoff from Palos Township to the detention basin, modifications to the outlet control structure of the Parkview detention basin to more effectively and predictably control the water surface elevations, and the creation of additional stormwater detention storage. The additional stormwater detention may include multiple locations based on more detailed survey that will be collected during the proposed design. Additionally, CBBEL will collect the additional survey data required to connect the Parkview Estates hydrologic and hydraulic model to the modeling prepared for Mill Creek. This will provide the Village with a

valuable resource for the application of a Letter Of Map Revision (LOMR) to potentially reduce the floodplain and for analyzing future development.

### **SCOPE OF SERVICES**

Based on our experience with similar projects, our anticipated scope of services is detailed below:

**Task 1 – Topographic Survey:** The survey will be used as a base map for design purposes. The survey will include potential sites for additional stormwater detention, downstream areas of Mill Creek and other pertinent data related to the top of foundations and overland flow paths needed to complete the design. Included are the following survey tasks:

1. Horizontal Control: Utilizing state plane coordinates (NAD '83, Illinois East Zone, 1997 Adjustment); CBBEL will establish recoverable primary control.
2. Vertical Control: Establish site benchmarks for construction purposes, tied to the NAVD 88 Vertical Datum. A level circuit will be run throughout the project, establishing benchmarks and assigning a vertical datum on the horizontal control points.
3. Research at the Cook County Recorder's Office.
4. Field recon and survey to locate existing monumentation and Right-of-way evidence.
5. Analyze Record and Field Data necessary to compute approximate Right-of-Way throughout project limits.
6. All trees of 6 inch caliper or greater to be surveyed. Provide tree size, location and elevation on survey.
7. All above and below ground utilities including, but not limited to: water, sanitary sewer, storm sewer, telephone, electric, cable and gas, etc. Identify size, type, rim, and invert elevations.
8. Existing hardscape improvements located in the project limits including paving, curbs, light fixtures, walks, street signs, parking, fencing and gates, approximate R-O-W, and adjacent building façade & overhangs (if any).
9. Office calculations and plotting of field and record data.
10. Office contouring of field data and one foot contour intervals.
11. Drafting of existing conditions Plan at a scale of 1"=20'.

**Task 2 – Utility Coordination:** CBBEL will identify utilities that may have facilities within the project limits and send a Preliminary Utility Request to all known utility companies to obtain pertinent information. Based on the information received from the utility companies, CBBEL will include locations of all facilities on the plans, identify potential conflicts with the proposed project and design the proposed improvements to minimize utility conflicts.

**Task 3 – Hydrologic and Hydraulic Modeling:** Based on the data collected in Task 1, CBBEL will update the hydrologic and hydraulic modeling to reflect the actual field conditions. CBBEL will then revise the design of the proposed conveyance system, Parkview detention basin outlet, and additional storage to reduce the ponding of runoff along Strawberry Lane and associated areas. CBBEL will also utilize the updated hydrologic and hydraulic modeling and the additional data to create a complete model for Mill Creek upstream of Southwest Highway.

**Task 4 – Preliminary Engineering:** CBBEL will prepare preliminary plans, specifications and cost estimates for the project areas. We assume all the project areas will all be included into one set of construction documents to be completed under a single contract.

We estimate the following plan sheets will be required with associated work hours:

| SHEET HOURS                                            | NO. OF SHEETS | AVG. HOURS<br>PER SHEET | HOURS       |
|--------------------------------------------------------|---------------|-------------------------|-------------|
| Title Sheet                                            | 1             | 6                       | 6           |
| General Notes/ Summary of Quantities/ Typical Sections | 3             | 16                      | 48          |
| Alignment Ties & Benchmarks                            | 2             | 8                       | 16          |
| Sewer Plan & Profile 1"=20'                            | 3             | 24                      | 72          |
| Grading Plans 1"=50'                                   | 3             | 24                      | 72          |
| Outlet Modification Plan                               | 1             | 12                      | 12          |
| Erosion Control & Landscaping Plans & Details 1"=50'   | 3             | 12                      | 36          |
| Cross-Sections                                         | 3             | 16                      | 48          |
| Construction Details                                   | 1             | 8                       | 8           |
| Specifications                                         | -             | -                       | 16          |
| Cost Estimates/Quantity Calculations                   | -             | -                       | 20          |
| QA/QC Reviews                                          | -             | -                       | 8           |
| <b>Total</b>                                           | <b>20</b>     |                         | <b>362*</b> |

*\* Represents hours to complete Tasks 4 and 7.*

Preliminary Plans, Specifications and a Cost Estimate will be submitted to the Village for review. This task includes one review meeting with Village Staff.

**Task 5 – MWRD Coordination:** Although the Village owns the detention basins where the majority of the additional storage is proposed, they have been previously permitted by the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) and it is anticipated that a significant amount of coordination will be required during the design and construction of the proposed stormwater improvements to obtain MWRDGC concurrence. CBBEL will meet and coordinate with MWRDGC throughout the design process to determine any potential

conflicts with MWRDGC's requirements.

Task 6 – Permitting: In addition to the MWRDGC, CBBEL will prepare a Stormwater Pollution Prevention Plan (SWPPP) consistent with the requirements of the Village's NPDES Phase II permit and submit it to the Illinois Environmental Protection Agency (IEPA).

Task 7 – Final Engineering: Upon meeting with the Village Staff to review their comments on the preliminary submittal, CBBEL will revise and finalize the contract documents and cost estimate. During this task the exact letting date will be determined and an estimated construction schedule will be provided.

Task 8 – Bid Assistance: CBBEL will assist the Village in advertising for bids, distribute plans and specifications to all bidders, and be present at the bid opening. CBBEL will review and tabulate all of the bids and make a recommendation of award.

**FEE**

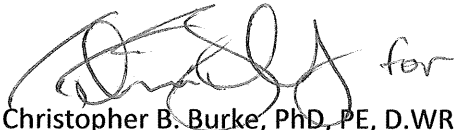
The estimated costs for the tasks provided above are as follows:

| TASK | DESCRIPTION                       | COST             |
|------|-----------------------------------|------------------|
| 1    | Topographic Survey                | \$ 32,000        |
| 2    | Utility Coordination              | \$ 2,200         |
| 3    | Hydrologic and Hydraulic Modeling | \$ 9,800         |
| 4    | Preliminary Engineering           | \$ 32,000        |
| 5    | MWRDGC Coordination               | \$ 4,000         |
| 6    | Permitting                        | \$ 2,900         |
| 7    | Final Engineering                 | \$ 18,000        |
| 8    | Bid Assistance                    | \$ 1,000         |
|      | Direct Costs                      | \$ 500           |
|      | <b>Total</b>                      | <b>\$102,400</b> |

We will bill you at the hourly rates specified on the attached Schedule of Charges and establish our contract in accordance with the previously accepted General Terms and Conditions for Orland Park.

Please sign and return one copy of this agreement as an indication of acceptance and notice to proceed. Please feel free to contact us anytime.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Burke", followed by the word "for" in a smaller, cursive script.

Christopher B. Burke, PhD, PE, D.WRE, F.ASCE  
President

Attachment: Standard Charges

THIS PROPOSAL, SCHEDULE OF CHARGES AND GENERAL TERMS & CONDITIONS ACCEPTED FOR  
THE VILLAGE OF ORLAND PARK:

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

**CHRISTOPHER B. BURKE ENGINEERING, LTD.**  
**STANDARD CHARGES FOR PROFESSIONAL SERVICES**  
**JANUARY, 2007**

| <u>Personnel</u>                       | <u>Charges*</u><br><u>(\$/Hr)</u> |
|----------------------------------------|-----------------------------------|
| Principal                              | 219                               |
| Engineer VI                            | 192                               |
| Engineer V                             | 157                               |
| Engineer IV                            | 126                               |
| Engineer III                           | 117                               |
| Engineer I/II                          | 95                                |
| Survey V                               | 157                               |
| Survey IV                              | 120                               |
| Survey III                             | 115                               |
| Survey II                              | 90                                |
| Survey I                               | 70                                |
| Resource Planner V                     | 107                               |
| Resource Planner IV                    | 101                               |
| Resource Planner III                   | 92                                |
| Resource Planner II                    | 84                                |
| Engineering Technician IV              | 120                               |
| Engineering Technician III             | 99                                |
| Engineering Technician I/II            | 91                                |
| CAD Manager                            | 126                               |
| Assistant CAD Manager                  | 120                               |
| CAD II                                 | 117                               |
| CAD I                                  | 91                                |
| GIS Specialist III                     | 112                               |
| GIS Specialist I/II                    | 63                                |
| Environmental Resource Specialist V    | 140                               |
| Environmental Resource Specialist IV   | 126                               |
| Environmental Resource Specialist III  | 107                               |
| Environmental Resource Specialist I/II | 87                                |
| Environmental Resource Technician      | 82                                |
| Administrative                         | 82                                |
| Engineering Intern                     | 48                                |
| Survey Intern                          | 48                                |
| Information Technician III             | 88                                |
| Information Technician I/II            | 56                                |

Direct Costs

Outside Copies, Blueprints, Messenger, Delivery Services, Mileage      Cost + 12%

- Charges include overhead and profit

Christopher B. Burke Engineering, Ltd. reserves the right to increase these rates and costs by 5% after December 31, 2007.