CHRISTOPHER B. BURKE ENGINEERING, LTD.
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July 30, 2014

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 (Phase I Engineering) for La Reina Re'al Study Area – 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 Cameno Re'al Subdivision, commonly known the La Reina Re'al Study Area. This proposal includes our Understanding of the Assignment, Scope of Services and Estimated Fee.

UNDERSTANDING OF ASSIGNMENT

The La Reina Re'al study area is a continuation of the work performed as part of the Orland Park Flood Risk Reduction Assessment (Assessment). The study area evaluated as part of the Assessment is located at the northeast corner of 151st Street and West Avenue in the Mill Creek Watershed. The primary area that reported flooding was a cluster of homes located along La Reina Re'al that has extremely flat topography and poorly defined, modified, blocked or missing overland flow routes.

It is our understanding that the Village would like CBBEL to evaluate the flooding problems in the La Reina Re'al Study Area and determine potential alternatives to address these issues. Additionally, the reconstruction of 151st Street is currently in design and any proposed alternatives should be coordinated with these efforts.

SCOPE OF SERVICES

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

PHASE I ENGINEERING

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 conveyance pipes, swales and storage and other pertinent data related to the top of foundations and overland flow paths needed to analyze the system and prepare proposed alternatives. 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 date collected in Task 1, CBBEL will prepare a hydrologic and hydraulic model of the entire study area. This will include the detailed characteristics of the Cameno Re'al Subdivision watershed and 151st Street drainage area. Once the model has been prepared, CBBEL will calibrate the model for existing conditions based on historical data and/or surveyed water marks to accurately depicts the flooding conditions.

Task 4 – Proposed Conditions Alternative Evaluation: Once Task 3 has been completed, CBBEL will utilize the model to evaluate various alternatives to reduce the risk of future flooding for the study area. Alternatives may include additional storm sewers, modification or creation of overland flow routes, detention storage, a combination of all three, or other alternatives as needed to provide the additional protection desired. Once the various alternatives have been prepared and evaluated, CBBEL will summarize each alternative and the resulting flood reduction associated with it in a technical memorandum to the Village. CBBEL will meet with Village staff to review the proposed alternatives and assist in selecting a preferred improvement to reduce the risk of future flooding at La Reina Re'al.

Task 5 – Preliminary Stormwater Improvement Design Exhibit: Based on the results of Task 4, CBBEL will prepare an overall Preliminary Stormwater Improvement Design Exhibit illustrating the proposed design alternative selected. This exhibit will serve as the basis of design for the future development of design plans and bidding documents (Phase II Engineering).

Task 6 – Preliminary Cost Estimate: Based on Task 5, CBBEL will prepare a Preliminary Engineer's Estimate of Probable Cost for the proposed project.

FEE

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

TASK	DESCRIPTION	COST
1	Topographic Survey	$55,000
2	Utility Coordination	$ 5,000
3	Hydrologic and Hydraulic Modeling	$14,500
4	Proposed Conditions Alternative Evaluation	$ 8,500
5	Preliminary Stormwater Improvement Design Exhibit	$ 6,000
6	Preliminary Cost Estimate	$ 4,000
	Total	**$93,000**

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,

Christopher B. Burke, PhD, PE, D.WRE, Dist.M.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

Personnel	Charges* ($/Hr)
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.