



CHRISTOPHER B. BURKE ENGINEERING, LTD.

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August 31, 2021

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

Attention: Mr. Ken Dado – Utilities Operations Manager

Subject: Proposal for Professional Engineering Services for the
La Reina Re'al Stormwater Improvements

Dear Mr. Dado:

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. This proposal includes our Understanding of the Assignment, Scope of Services and Estimated Fee.

UNDERSTANDING OF ASSIGNMENT

Alternative development and preliminary design of the stormwater improvements for the La Reina Re'al study area began in 2014, but were put on hold due to the impending reconstruction of 151st Street. The construction of 151st Street is now underway and the Village desires to develop alternatives to address the stormwater issues in the La Reina Re'al area and complete the preliminary design for them. This proposal has been updated from the 2014 version to reflect the work completed and tasks remaining. The Cameno Re'al subdivision 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.

SCOPE OF SERVICES

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

Task 1 – Update Topographic Survey: The survey will be used as a base map for design purposes and was completed in 2014. CBBEL proposes to update this survey with supplemental information and data as needed. 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 – Update Hydrologic and Hydraulic Modeling: Based on the data 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.

ESTIMATE OF FEE

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

Task	Description	Cost
1	Update Topographic Survey	\$12,750
2	Utility Coordination	\$ 5,100
3	Hydrologic and Hydraulic Modeling	\$ 8,500
4	Proposed Conditions Alternative Evaluation	\$ 9,350
5	Preliminary Stormwater Improvement Design Exhibit	\$ 5,950
6	Preliminary Cost Estimate	\$ 4,080
	Total	\$45,730

We will establish our contract in accordance with the Master Agreement and associated rates for the Village of Orland Park.

Please sign and return one copy of this agreement as an indication of acceptance and notice to proceed.

Sincerely,



Michael E. Kerr, PE
President

THIS PROPOSAL ACCEPTED FOR THE VILLAGE OF ORLAND PARK.

BY: _____

TITLE: _____

DATE: _____