



ORDINANCE NO. 1770-17

AN ORDINANCE AUTHORIZING THE EXECUTION OF A CERTAIN AGREEMENT
WITH CHRISTOPHER B. BURKE ENGINEERING, LTD (CBBEL)

BE IT ORDAINED by the Mayor and Board of Trustees of the Village of Hawthorn Woods, Illinois, that the Mayor is hereby authorized to execute a certain Agreement with Christopher B. Burke Engineering, Ltd. (CBBEL), in substantially the form attached hereto as Exhibit "A", and, by this reference, made a part hereof.

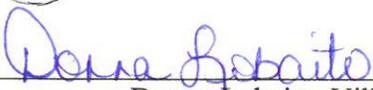
The foregoing Ordinance was adopted by a roll call vote as follows:

AYES: Kosik, Rizzo, Corrigan, DiMaggio, David

NAYS: 0

ABSENT AND NOT VOTING: 0

APPROVED: 
Joseph Mancino, Mayor

ATTEST: 
Donna Lobaito, Village Clerk

ADOPTED: June 26, 2017

APPROVED: June 26, 2017



CHRISTOPHER B. BURKE ENGINEERING, LTD.

9575 West Higgins Road Suite 600 Rosemont, Illinois 60018 TEL (847) 823-0500 FAX (847) 823-0520

June 6, 2017

Village of Hawthorn Woods
2 Lagoon Drive
Hawthorn Woods, IL 60047

Attention: Pamela Newton, Chief Operating Officer

Subject: Proposal to Perform Professional Engineering Services
Darlington Drive Culvert Replacement

Dear Ms. Newton:

As requested, Christopher B. Burke Engineering, Ltd. (CBBEL) submits this proposal to provide professional engineering services related to the design and construction, engineering, and permitting of the Darlington Drive Culvert Replacement Project. Included in this proposal are the Understanding of the Assignment, Scope of Services, and Estimated Fee.

UNDERSTANDING OF THE ASSIGNMENT

It is our understanding per our May 30, 2017 memo that based on the recent visual inspections performed by CBBEL staff, it appears the two center 58"x36" CMP culverts are in a state of failure. This failure is causing the aggregate subgrade to spill into the culvert thus creating a growing settlement of the driving surface. As CBBEL recommended on our conference call on Friday, May 26, 2017 with the Village, the roadway should be closed until either the emergency or permanent repairs are completed. Thus, the Village would like CBBEL to design a precast concrete box culvert to replace the existing four culverts. These culverts would include precast end sections with wingwalls with an 8-inch thick concrete pavement with stamped brick panes (if the Village desires). Along each side of the roadway and tied into the culvert headwall would be a concrete barrier wall.

SCOPE OF SERVICES

STORMWATER PERMITTING

Task 1 - Topographic Survey: As part of this task, CBBEL will perform 1) Full Topographic Survey Darlington Drive (100' LF North & South of Ditch Culvert), 2) Ditch Topographic Survey (100' LF East & West of Darlington Drive) & 3) Culvert Detail Survey. CBBEL will perform the following survey tasks within project limits:

Horizontal Control: Utilizing state plane coordinates, CBBEL will set recoverable primary control utilizing state of the art GPS equipment based on NGS Control Monumentation.

Vertical Control: CBBEL will establish benchmarks and assign elevations to the horizontal control points. This will be based on GPS observed McHenry County Control Monumentation (NAVD'88 vertical control datum).

Existing Right-of-Way: CBBEL will establish the approximate existing right-of-way of the roadways within the project limits based on monumentation found in the field, plats of highways, subdivision plats and any other available information.

Topographic Survey: CBBEL will field locate all pavements, driveways, curb and gutters, pavement markings, signs, manholes, utility vaults, drainage structures, utilities, driveway culverts, cross road culverts, etc. within the project limits. Establish all rim and invert elevations, utility sizes & type, depth subterranean structure, etc., at all points of access to below-grade utilities.

Cross Sections: CBBEL will survey cross sections along the project limits at 50' intervals, at driveways, and at all other grade controlling features. Survey will be obtained for 10 feet beyond the existing right-of-way line.

Utility Survey and Coordination: All existing storm and sanitary sewers will be surveyed to determine rim and invert elevations and pipe sizes. Above ground facilities of any additional underground utilities including water main, gas, electric, cable, etc. will also be located.

Tree Survey: CBBEL will locate lone trees over 6" inches in diameter and only the tree line for wooded areas, if any, within the limits associated with the project. The located trees will be identified by species (deciduous or coniferous) and the size.

Base Mapping: CBBEL will compile all of the above information onto one base map at 1'=20' scale that is representative of existing conditions for use as the base sheet for the construction of any public or private infrastructure subsequent to the findings of engineering/drainage analysis.

****NOTE: Boundary/Land Acquisition Survey, Plats of Easement, and Right-of-Way/Plat of Highway Scope of Services are not included in this proposal.***

Task 2 – Geotechnical Services: Two (2) soil borings will be obtained as part of the Geotechnical Exploration by Testing Services Corporation (TSC) at 30' deep for design of the box culvert and compliance with the Clean Construction Demolition Debris (CCDD). The report will give complete pavement and base surface thickness as well as subgrade description and laboratory test dates. Comments will also be made concerning proposed pavement overlay and/or maintenance.

We recommend that the CCDD/USFO facility destination to be used for a particular project be contacted to verify the analytical parameters proposed will be sufficient.

The objectives of the Study are to determine whether the associated laboratory analysis provide a basis for TSC to sign IEPA Form LPC-663, Unincorporated Soil Certification by a Licensed Professional Engineer.

Uncontaminated soil including uncontaminated soil mixed with clean construction for demolition debris (CCDD) accepted at a CCDD fill operation must be certified to be uncontaminated soil in accordance with Section 22.51(f)(2)(B) of the Environmental Protection Act {415 ILCS 5/22 (f)(2)(B)}. Uncontaminated soil accepted at an uncontaminated soil fill operation (USFO) must be certified to be uncontaminated soil in

accordance with Section 22.51a(d)(2)(B) of the Environmental Protection Act {415 ILCS 5/22.51a(d)(2)(B)}. These certifications must be made by a licensed professional engineer or geologists (PE/PG) using the attached Form LPC-663 when the soil is removed from a site which is determined by the PE/PG to be a "Potentially Impacted Property" (PIP) based on review of readily ascertainable property history, environmental databases and site reconnaissance. Uncontaminated soil from a site which is not identified as a PIP by the PE/PG may be certified by either the source site owner or operator using LPC-662 with pH analysis only.

A summary report will be prepared which describes the sampling procedures followed and presents results of the analytical laboratory testing. If all analytical results meet their respective MACs, Form LPC-663 will be filled out and signed by a Licensed Professional Engineer or Geologist. The report will be included.

Task 3 – Watershed Development and Floodway Construction Permit: The project is located in the regulatory floodplain and floodway of Indian Creek. The culvert replacement project consists of a public development project in the floodplain and floodway. A Watershed Development Permit (WDP) from Lake County Stormwater Management Commission (SMC) and Permit 3708 Floodway Construction Permit from the Illinois Department of Natural Resource – Office of Water Resources (IDNR-OWR).

CBBEL will prepare the hydraulic calculations for the culvert replacement to verify that the proposed development is hydraulically equivalent to the existing culvert. We assume that hydraulic modeling will not be required as part of the permit submittals.

CBBEL will prepare the WDP submittal and Floodway Construction Permit submittal include the required narrative, calculations and exhibits.

WETLAND/WATERS DELINEATION AND PERMITTING

The following services for a wetland assessment and report are proposed to comply with Section 404 of the Clean Water Act and Lake County Watershed Development Ordinance.

Task 4 – Field Reconnaissance: An investigation of the project site will be completed to determine the limits of any wetlands or waters of the United States present. The delineation will be completed based on the methodology established by the U.S. Army Corps of Engineers. Also during the site visit, wildlife and plant community qualities will be assessed. The limits of the wetland community will be field staked, and located using a handheld sub meter accuracy GPS unit so that they can be located in relation to the project coordinate system.

Task 5 – Letter Report: The results of the field reconnaissance will be summarized in a letter report. The wetlands' generalized quality ratings, per the Swink and Wilhelm Methodology (1994), will be included along with exhibits depicting the approximate wetland and project boundaries, National Wetland Inventory, Soil Survey, floodplain, USGS topography, site photographs and their locations, and the U.S. Army Corps of Engineers (COE) Routine On-Site Data Forms. If the delineation is field surveyed, that will be used as our base wetland boundary map, otherwise we will use the best available aerial photograph.

Task 6 – U.S. Army Corps of Engineers (USACE) Regional Permit Application Preparation and Submittals: The culvert replacement project will require authorization from the USACE under Regional Permit 3. CBBEL will prepare the required exhibits, specifications, data and project information to support the Regional Permit application

package and will submit the application to the USACE. We will coordinate development of documents with you and other project team members.

Task 7 – Lake County Wetland Submittal Preparation: CBBEL will prepare wetland and buffer portions of the WDP Application. This information will include the required exhibits, specifications, data and project information.

Task 8 – Wetland Review Agency Coordination (if necessary): Before and during the permit review process, we expect to have meetings with the regulatory agencies, project engineer, and client. We also expect to have to prepare responses to comments received during the review process. We have budgeted for attendance at three meetings and included budget to cover the cost of submittal of one response to comments. If additional meetings, or responses to comments, are required they will be billed on a time and materials basis.

Task 9 – Plan Sheets, Specifications, and Estimates: CBBEL will prepare plan sheets and specifications for the proposed work in accordance with IDOT standards. We have assumed the Village will utilize a typical IDOT guardrail instead of the existing wall. The plan sheets and specifications will be submitted to the Village for review. The following will be completed:

| SHEET | # OF SHEETS | MANHOURS/ SHEET | TOTAL HOURS |
|---|-------------|-----------------|-------------|
| Cover Sheet | 1 | 10 | 10 |
| General Notes and Summary of Quantities | 1 | 12 | 12 |
| Existing conditions and Removal Sheet | 1 | 12 | 12 |
| Proposed Plan | 1 | 12 | 12 |
| Box Culvert General Plan and Elevation | 1 | 16 | 16 |
| Structural Details and Notes | 1 | 6 | 6 |
| Railing Details | 1 | 12 | 12 |
| Wingwall/Headwall Details | 2 | 12 | 24 |
| SE/SC and Landscaping Plan | 1 | 12 | 12 |
| Specifications | | | 6 |
| Engineers Opinion of Probable Cost | | | 6 |
| | | | 128 |

Task 10 – Bidding Assistance: CBBEL will advertise for bidding, distribute plans and specifications to all bidders, and hold a bid opening. CBBEL will review and tabulate all of the bids and make a recommendations of award.

Task 11 – Construction Observation: CBBEL will provide a Resident Engineer who will perform the following tasks:

- Verify the profile and alignment of the culvert provided by the Contractor.
- Check the Contractor’s layout at regular intervals.
- Observe the progress and quality of the executed work and determine if the work is proceeding in accordance with the Contract Documents. The Engineer will keep the

Village informed of the progress of the work, guard the Village against defects and deficiencies in the work, advise the Village of all observed deficiencies of the work, and advise when the Village should disapprove or reject all work failing to conform to the Contract Documents.

- Serve as the Village's liaison with the Contractor working principally through the Contractor's field superintendent.
- Assist contractors in dealing with any outside agencies.
- Attend all construction conferences. Arrange a schedule of progress meetings and other job conferences as required. Maintain and circulate copies of records of the meetings.
- Post weekly status reports to the Village that can be used on websites, emails or in flyers to the residents.
- Review the Contractor's schedule on a weekly basis. Compare actual progress to Contractor's approved schedule. If the project falls behind schedule, work with the Contractor to determine the appropriate course of action to get back on schedule.
- Maintain orderly files for correspondence, reports of job conferences, shop drawings and other submissions, reproductions or original contract documents including all addenda, change orders, and additional drawings issued subsequent to the award of the contract.
- Record the names, addresses and phone numbers of all contractors, subcontractors and major material suppliers in the diary.
- Keep an inspectors daily report book as outlined in the IDOT Project Procedures Guide, which shall contain a daily report and quantity of hours on the job site, weather conditions, list of visiting officials, daily activities, job decisions and observations as well as general and specific observations and job progress.
- Prepare payment requisitions and change orders for the Village's approval, review applications for payment with the Contractor for compliance with established procedures for their submission and forward them with recommendations to the Village.
- Prior to final inspection, submit to the Contractor a list of observed items requiring correction and verify that each correction has been made.
- Review the record drawings prepared by contractor for acceptance.
- Coordinate and conduct the final inspection with the Village. Prepare a final punchlist.
- Verify that all the items on the final punchlist have been corrected and make recommendations to the Village concerning acceptance.
- Except upon written instructions of the Village, the Resident Engineer or Inspector shall not authorize any deviation from the Contract Documents.
- Determine if the project has been completed in accordance with the Contract Documents and that the Contractor has fulfilled all of his obligations.

CBBEL shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work since these are solely the Contractor's responsibility under the contract for construction.

ESTIMATED FEE

| | |
|---|-----------------|
| Task 1 – Topographic Survey | \$ 4,500 |
| Task 2 - Geotechnical Services | \$ 8,000 |
| Task 3 – Watershed Development and Floodway Construction Permit | \$ 4,000 |
| Task 4 – Field Reconnaissance | \$ 525 |
| Task 5 – Letter Report | \$ 1,200 |
| Task 6 – USACE Regional Permit | \$ 1,500 |
| Task 7 – Lake County Wetland Submittal Preparation | \$ 1,000 |
| Task 8 – Wetland Review Agency Coordination (if necessary) | \$ 1,000 |
| Task 9 – Plan Sheets, Specifications, and Estimates | \$14,000 |
| Task 10 – Bidding Assistance | \$ 500 |
| Task 11– Construction Observation | <u>\$20,000</u> |
| Total | \$56,225 |

We will bill you at the hourly rates specified in our previously agreed upon Schedule of Charges and establish our contract in accordance with the previously agreed upon General Terms and Conditions. Direct costs for blueprints, photocopying, mailing, overnight delivery, messenger services and report compilation are included in the Estimated Fee. We will not exceed the fee without written permission of the client. The General Terms and Conditions are expressly incorporated into and are an integral part of this contract for professional services.

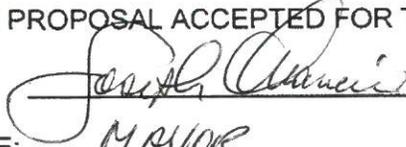
Please sign and return one copy of this agreement as an indication of acceptance and notice to proceed. Please feel free to contact us anytime.

Sincerely,



For : Christopher B. Burke, PhD, PE, D.WRE, Dist.M.ASCE
President

THIS PROPOSAL ACCEPTED FOR THE VILLAGE OF HAWTHORN WOODS:

BY:  _____

TITLE: MAYOR _____

DATE: June 26, 2017 _____