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June 13, 2014

Reginald A. Spinello, Mayor
City of Glen Cove
City Hall
9 Glen Street
Glen Cove, NY 11542

RE: Technical Scope of Work and Cost Proposal
Environmental Engineering Support, Residential Areas
Surrounding Crescent Beach
Glen Cove, New York

Dear Mayor Spinello:

As requested by the City of Glen Cove (City), D&B Engineers and Architects, P.C., (D&B) is pleased to submit this technical scope of work and cost proposal to provide the City with continued environmental engineering services in support of the potential implementation of public sanitary sewers, or for purposes of enhanced sanitary code enforcement, within the residential areas surrounding Crescent Beach. D&B has organized this project into the following tasks:

Task 1A – Storm Water Investigation Program

The objective of this program is to further investigate storm water quality and possible illicit discharges that may exist within the residential areas surrounding Crescent Beach which could be contributing to the exceedances of the water quality standards, primarily fecal coliform and enterococci levels, in these areas. The water quality standard for total coliform, as established by 6 NYCRR Part 703.4 (a) for Class SA waters, states that the median value in any series of representative samples (typically not less than 5 samples collected over a 30-day period) shall not be in excess of 70 MPN. A water quality standard for fecal coliform is not established for Class SA waters, although it should be noted that the water quality standard for total coliform is very stringent. The water quality standard for enterococci, as established by 6 NYCRR Part 703.4 (a) for Class SA waters, states that the log average in any series of representative samples (typically not less than 5 samples collected over a 30-day period) shall not be in excess of 35 MPN, with no single event being above 104 MPN.

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Field Investigation

In an effort to further investigate coliform and enterocci levels, D&B proposes a sampling program consisting of collection of routine samples from six independent locations (to be selected in consultation with the City) from the existing storm water conveyance system in these areas. Samples will be collected once a month for a period of 4-months (June 2014 through September 2014) and analyzed for fecal coliforms and enterococcus. For the purposes of this cost estimate a total of 24 samples have been budgeted. Sample analysis will be performed by Long Island Analytical Laboratories Inc., located in Holbrook, New York for fecal coliforms, and enterococci utilizing Standard Methods SM 18-20 9221E (99) and enterolert respectively. In addition, at the request of the City, it has also been assumed that up to a total of six (6) samples will be collected and analyzed for TKN, nitrate and nitrite with the Total Nitrogen value calculated.

Report Preparation

After the completion of each month, D&B will prepare a letter report summarizing the field program and sample results to date for submission to the City. The letter report will include recommendations for further sampling, if warranted, and or additional measures that could be instituted.

Task 1B – Geographic Information System Analysis

As part of this task, D&B will conduct Geographic Information System (GIS) analysis of the residential areas surrounding Crescent Beach to obtain the following information in support of evaluating the potential implementation of public sanitary sewers in these areas: residential parcel distribution, roadways, locations of nearby public sanitary sewers (if available), groundwater elevations and flood plain/floodway. A general summary of findings will be provided to the City upon completion, along with a set of hard copy maps and electronic map files with the related GIS data files (e.g., Shapefiles). It should be noted that the GIS attribute data associated with this analysis can be subsequently updated for future use to include information gathered by City in support of this effort (i.e., private sanitary cesspool locations, groundwater monitoring data, etc.).

Task 1C – Groundwater Monitoring Well Installations

As part of this task, D&B will coordinate with drilling subcontractors to allow for the installation of up to three (3) small diameter groundwater monitoring wells within the residential areas surrounding Crescent Beach. Based on our discussions with the City, it is understood that these wells will be utilized primarily to monitor groundwater quality and elevations in these areas in support of evaluating the potential implementation of public sanitary sewers. Groundwater is anticipated to be between 20-30 feet below ground surface. Therefore, each well will be installed to a terminal depth of approximately 40-feet below ground surface. Each groundwater monitoring well will be completed with 10 feet of 0.020 inch slot screen and 30 feet of Schedule 40 2-inch PVC riser. Installation of the

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wells will be completed using direct-push technology. A No. 2 sandpack will be installed from the bottom of each well to approximately 1-foot above the top of the well screen. A bentonite seal will be subsequently installed above the sand pack. Each well will be finished at grade with a flush-mounted well cover. A locking compression plug will also be installed at each well location. All underground and overhead utilities, including electric, telephone, cable TV, sewers, water, etc., shall be identified prior to any intrusive site work by the drilling subcontractor. New York State's One-Call system will be utilized for utility markouts on public property. *For the purpose of this proposal, it is assumed that the City will be responsible for coordinating reasonable access to allow for the installation of each proposed groundwater monitoring well.*

Upon completion, each installed well shall be properly developed to ensure that they are in hydraulic communication with the surrounding aquifer. Development of these monitoring wells shall be accomplished by pumping and surging each well for approximately two hours or until the turbidity of the groundwater is reduced to at least 50 NTUs (nephelometric turbidity units). All water generated as part of the well development activities shall be containerized in 55-gallon drums for proper off-site transportation and disposal. For budgetary purposes, it is assumed that one (1) round of groundwater samples will be collected from the installed groundwater monitoring wells and analyzed for fecal coliforms and enterococcus. In addition, at the request of the City, each sample collected shall also be analyzed for TKN, nitrate and nitrite with the total nitrogen value calculated. Sample analysis will be performed by Long Island Analytical Laboratories Inc. located in Holbrook, New York. A letter report summarizing as-built information for each installed well and sampling results shall be prepared upon completion of well installation/sampling activities for submission to the City.

Based on the level of effort required to undertake the scope of work described above, Attachment 1 presents the estimated total project cost and provides a breakdown of the level of effort by task and discipline. If you have any questions or require additional information please do not hesitate to give me a call at 516-364-9890 Ext 3064.

Very Truly Yours



Frank DeVita
Senior Associate

FD/nc

cc: B. Peebles (City of Glen Cove)
D. Belyea (GCPR)
E. Reilley (GCCDA)
R. Walka (D&B)

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ATTACHMENT 1

Technical Scope of Work and Cost Proposal
Environmental Engineering Support, Crescent Beach Area
Glen Cove, New York

Estimated Level of Effort / Cost

Labor Category / Title	Task 1A		Task 1B		Task 1C		Total	
	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
Senior Vice President / Proj. Director	0		0		0		0	
Senior Associate / Proj. Manager	8		2		8		20	
Senior Associate / Sr. Engineer	4		8		2		14	
Associate	0		40		0		40	
Scientist I / Proj. Scientist	48		0		32		88	
Drafter	6		0		2		8	
Engineering Aide I	2		4		2		8	
Subtotal Direct Labor	68	\$7,190	54	\$7,500	46	\$4,960		\$19,650
Subcontractors								
Long Island Analytical Laboratories Inc. (36 Samples for Fecal Coliform and Enterococcus) (6 Samples for Total Nitrogen)		\$0		\$0		\$0		\$0
Clean Globe Environmental (Driller)		\$1,488		\$0		\$72		\$330
		\$660		\$0		\$9,900		\$10,302
		\$0		\$0		\$0		\$0
Subtotal Subcontractors		\$2,148		\$0		\$10,302		\$12,450
Expenses								
Travel (i.e., railroad, taxi, etc.)		\$0.00		\$0.00		\$0.00		\$0.00
Car / Van Rental		\$0.00		\$0.00		\$0.00		\$0.00
Mileage		\$150.00		\$0.00		\$50.00		\$200.00
Tolls		\$0.00		\$0.00		\$0.00		\$0.00
Meals		\$0.00		\$0.00		\$0.00		\$0.00
Lodging		\$0.00		\$0.00		\$0.00		\$0.00
Reproduction		\$0.00		\$0.00		\$0.00		\$0.00
Express Mail		\$0.00		\$0.00		\$0.00		\$0.00
Miscellaneous Field Supplies		\$300.00		\$0.00		\$150.00		\$450.00
Subtotal Expenses		\$450.00		\$0.00		\$200.00		\$650.00
TOTAL		\$9,788		\$7,500		\$15,462		\$33,915