

DISTRICTS: ALL

**VILLAGE OF LOMBARD
REQUEST FOR BOARD OF TRUSTEES ACTION**

For Inclusion on Board Agenda

 X Resolution or Ordinance (Blue) _____ Waiver of First Requested
____ Recommendations of Boards, Commissions & Committees (Green)
____ Other Business (Pink)

TO: PRESIDENT AND BOARD OF TRUSTEES

FROM: David Hulseberg, Village Manager

DATE: April 28, 2009 (COW) (B of T) **Date:** May 7, 2009

TITLE: South Booster Station
Design Engineering –Amendment #3

SUBMITTED BY: David A. Dratnol, P.E., Village Engineer *dsd*

BACKGROUND/POLICY IMPLICATIONS:

Additional tasks were performed beyond the scope of the existing contract agreements at the request of the Village in the amount of \$39,522.30, less the cost of contractual tasks not performed in the amount of \$21,260.98, resulting in a net contract increase of \$18,261.32. With the approval of this contract amendment, the total design engineering contract is \$280,213.84.

FISCAL IMPACT/FUNDING SOURCE:

Contract Amendment Amount: \$18,261.32- W/SCapRsv
Total Amended Contract Amount: \$280,213.84

HTE Project Number: 0707

PW Project Number: WA-07-01

Review (as necessary):

Village Attorney X _____ Date _____
Finance Director X _____ Date _____
Village Manager X _____ Date _____

NOTE: All materials must be submitted to and approved by the Village Manager's Office by 12:00 noon, Wednesday, prior to the Agenda Distribution.

InterOffice Memo

To: David Hulseberg, Village Manager
Through: Carl Goldsmith, Director of Public Works *CJ*
From: David A. Dratnol, P.E. – Village Engineer *DAL*
Date: April 28, 2009
Subject: South Booster Station
 Design Engineering- Amendment #3
 Project Number WA-07-01

This engineering agreement covered the design of the South Booster Station to accommodate transferring water between two pressure zones, and 5,500 feet of water transmission main. This facility will act as a pumping station when transferring water from the low pressure to high pressure zones, and as a pressure reducing station when transferring water from high to low pressure zones. Christopher B. Burke Engineering, Ltd (CBBEL), of Rosemont, was awarded the design engineering contract, currently in an amount not-to-exceed \$261,952.52, for the design and preparation of construction documents for the project (Phase I and Phase II engineering).

Services associated with separating the project into two stand alone projects, designing sanitary sewer requirements, evaluating hydraulic models, and modifying initial building layout and elevations, were not part of the original agreement because the project needs changed as new information became available. Inversely, services such as obtaining wetland and floodplain permits were part of the agreement but not required because of changes in design. The project scope of work additions and deductions are summarized in the following table.

Existing Contract Information			Design Amendment #3	
Scope of Work	Hours	Fee	Adjustment	Design
			Hours	Adjustments
Task 7.e. - DuPage County Wetland Permit (if required)	68	\$ 6,006.60	-68	\$ (6,006.60)
Task 7.f. - DuPage County Floodplain Permit (if required)	148	\$ 15,254.38	-148	\$(15,254.38)
	Subtotal			\$(21,260.98)
Task 14 - Additional Drawings & Specification Submittals				
A. Separate WTM and BS Contracts			59	\$ 7,874.04
B. Revised Bid Date from 3/6/08 - 5/2/08			90	\$ 11,743.11
Task 15 - Additional paving restoration design			6	\$ 710.56
Task 16 - 14th Street Sanitary Sewer Survey/Design			25	\$ 3,290.08
Task 17 - Church Building's Water Service Design			11	\$ 1,505.41
Task 18 - "Flat Roof" Revisions			20	\$ 2,556.61
Task 19 - Building Room Orientation and Piping Revisions			32	\$ 4,074.21
Task 20 - Hydraulic modeling and evaluation			47.25	\$ 7,607.11
SubConsultant Direct Costs				\$ 161.17
	Subtotal			\$ 39,522.30
Current Project Total		\$261,952.52		
Design Amendment #3 Total				\$ 18,261.32
Proposed Contract Amount		\$280,213.84		

The Engineering Division recommends an amendment to this contract in the amount of \$18,261.32, which will bring the total contract not-to-exceed amount to \$280,213.84. The Village Water/Sewer Capital Reserve Fund will fund this project.

Please present this amendment to the agreement and resolution to the President and Board of Trustees for their review and approval at their regular meeting on May 7, 2009. If approved, please have both signed copies returned to Engineering for further processing.

cc: File: WA-07-01

RESOLUTION
R _____ 09

A RESOLUTION AUTHORIZING
AMENDMENT OF A PROFESSIONAL
SERVICES CONTRACT

WHEREAS, the Board of Trustees of the Village of Lombard on May 7, 2009 adopted a resolution authorizing signature of President and Clerk on an agreement between the Village of Lombard and Christopher B. Burke Engineering, Ltd (CBBEL); and

WHEREAS, an amendment to said contract is required to legally bind the parties; and

WHEREAS, Illinois law exempts professional engineering contracts from the requirements of Illinois Compiled Statutes, Chapter 720, Section 5/33E-9 regarding preparation of change orders.

NOW, THEREFORE, BE IT RESOLVED BY THE PRESIDENT AND BOARD OF TRUSTEES OF THE VILLAGE OF LOMBARD, DU PAGE COUNTY, ILLINOIS, as follows:

SECTION 1: That the President and Village Clerk are hereby directed and authorized to execute an amendment to the contract with CBBEL substantially in the form and manner of Exhibit "A" attached hereto and made a part hereof.

Adopted this 7th day of May, 2009.

Ayes: _____

Nays: _____

Absent: _____

Approved this 7th day of May, 2009.

ATTEST: _____
William J. Mueller
Village President

Brigitte O'Brien
Village Clerk

APPROVAL AS TO FORM:

Thomas P. Bayer
Village Attorney

AGREEMENT TO AMEND A CONTRACT

THIS AGREEMENT made and entered into this 7th day of May, 2009, by and between the **VILLAGE OF LOMBARD** (the "VILLAGE") and **Christopher B. Burke Engineering, Ltd** (the "CONSULTANT").

WHEREAS, on June 15, 2006 the VILLAGE and CONSULTANT executed a contract regarding certain engineering services relative to the South Booster Station, Design Engineering; and

WHEREAS, on January 4, 2006 and August 9, 2007, the VILLAGE and CONSULTANT executed contract amendments regarding certain engineering services relative to the South Booster Station, Design Engineering; and

WHEREAS, the VILLAGE and CONSULTANT have agreed to increase the amount of work to be performed by the CONSULTANT together with a resultant increase in the limit which the contract sum may not exceed;

NOW, THEREFORE, for and in consideration of the foregoing and various covenants in said agreement and the mutual covenants herein contained, it is agreed by and between the parties as follows:

SECTION 1: The aforementioned contract shall be amended to expand the scope of work as provided for in the CONSULTANT'S January 5, 2009 letter in the sum of \$39,522.30.

SECTION 2: The aforementioned contract shall be amended to eliminate work not performed showing a contract deduct in the sum of \$21,260.98.

SECTION 3: The aforementioned contract shall be amended to show a contract total sum not to exceed \$280,213.84.

SECTION 4: All other terms, covenants and conditions of said contract heretofore executed which are not amended or deleted herein shall remain in full force and effect.

IN WITNESS WHEREOF, the VILLAGE and CONSULTANT have caused this document to be signed by duly authorized officers who have set their hands and seals the day and year set forth above.

VILLAGE OF LOMBARD

By: _____
Village President

ATTEST:

By: _____
Village Clerk

and **ENGINEER**

By: _____

ATTEST:

By: _____

CONTRACT AMENDMENT

CONTRACT AMENDMENT CONTRACT WA-07-01 SOUTH BOOSTER STATION

January 5, 2009

CBBEL Project No. 06-357 – Contract Amendment:

Justification for Contract Amendment Tasks 14 - 20:

Task 14 – Additional Drawing and Specification Submittals:

A. Separate Water Transmission Main and Pump Station Contracts

The engineering design agreement was based upon providing three progress review submittals for the project as a single construction contract. The decision was made in September 07 to use separate construction contracts for the Water Transmission Main and the Pump Station; this offered several advantages to the Village in that the contract work could proceed independently, costs of general contractor mark-up would be eliminated on major sub-contract work, and the separate contracts would attract more bidders resulting in more competitive bidding. The use of 2 contracts effectively doubled the number of review submittals required from 3 to 6. Additional engineering time was required to develop drawings and specifications for the water main and pump station as standalone projects as well as other associated activities of defining contract match lines, IEPA Permitting, pre-bid meetings, bidding and pre-construction meetings.

B. Revised Bid Date From 3/6/08 to 5/2/08

Final documents were prepared for bidding the Water Transmission Main and Pump Station projects on 3/6/08. The bid date was subsequently revised to 5/2/08 to in order to finalize DCDOT permitting issues and to address the water system hydraulic modeling for the pump station. Two additional submittals were made for both the Water Main Transmission and Pump Station projects to address DCDOT comments, pump specifications, and additional Village comments prior to the advertisement and bidding of the projects. In all, a combined total of 14 review submittals were provided for the two projects. The submittals are summarized below:

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Pump Station Review Submittals:

No.	Date	Drawing Date	Description/Comment
1	03/06/07	03/06/07	65% Drawings (Included WM Drawings)
2	10/31/07	10/26/07	65 – 70% PS Drawings and Specifications (Re-submittal to address 80' x 80' site size with dedicated access from 14 th Street)
3	11/26/07	11/26/07	90% PS Drawings and Specifications
4	1/10/08	01/10/08	95% PS Drawings and Specifications
5	3/18/08	02/14/08	100% PS Drawings and Specifications (Drawings were ready for 2/14/08 delivery for bidding on March 6, 2008; bid date was continued by Village for hydraulic review and DCDOT WM Permit)
6	04/03/08	04/07/08	100% PS Drawings and Specifications for Village approval for Bidding.
7	4/10/08	04/07/08	100% PS Drawings and Specification sets delivered for Bidding

Water Transmission Main Review Submittals:

No.	Date	Drawing Date	Description/Comment
1	03/06/07	03/06/07	65% Drawings (Included with PS Drawings)
2	11/16/07	11/16/07	99% WM Drawings and Specifications
3	12/05/07	12/05/08	99% WM Drawings and Specifications (Re-submittal including Village Standards provided to CBEL 11/20/07)
4	01/10/08	01/10/08	99% WM Drawings and Specifications
5	03/18/08	02/14/08	100% WM Drawings and Specifications (Drawings were ready for 2/14/08 delivery for bidding on March 6, 2008; bid date was continued by Village for PS hydraulic review and DCDOT WM Permit).
6	04/4/08	04/07/08	100% WM Drawings and Specifications for Village approval for Bidding.
7	04/10/08	04/07/08	100% WM Drawings and Specification sets delivered for Bidding

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Task 15 – Additional Paving Restoration Design: Task 15 is for the engineering and drafting time required to add full pavement width milling and full pavement width surface overlay to the plan views and related details on the Drawings, add and modify the Specifications for the work and the payment quantities, and update of the Engineer's Opinion of Probable Construction Cost per the permitting requirement of the York Township Highway Department. The full pavement width restoration work applied to the 14th Street segment of the Water Transmission Main Contract. Before the change, 14th Street was designed for restoration of only the trench width disturbed by construction.

Task 16 – 14th Street Sanitary Sewer Survey/Design: During the planning and design of the Water Transmission Main for the South Booster Station, the Village conducted easement negotiations with the property owner at the southwest corner of 14th Street and Meyers Road. The easement discussions included providing sanitary sewer service to the property (on septic). Providing sanitary sewer service for the property entailed extending an existing sewer on 14th Street west of the South Booster site to the property (east) of the South Booster site. The design scope for South Booster project did not include providing a sewer extension to serve the property. Task 16 is for the engineering and drafting time expended in determining an alignment and profile for the sewer extension. The transmission mains were eventually located within the 14th Street right-of-way without using the easement under consideration and the sewer extension was not included construction contract work.

Task 17 – Church Building's Water Service Design: During the course of the South Booster design, the water service work for the Fellowship Church and Rectory was revised and expanded from providing a service stub off the new Meyers Road transmission main that would allow the Church to connect to the Village's system; to providing and tying in the Church and the Rectory with separate service lines from the existing Village main on 14th Street. The water service work also included adding specifications for abandoning the two wells that the Church used for its water supply. Task 17 is for the engineering and drafting time required to design and include on the Drawings and in the Specifications the details of the water service to the Fellowship Church.

Task 18 – Pump Station Roof Revisions: The South Booster initial submittal used a low profile pitched roof with an overhanging eave to provide a similar look to the York Center Elementary School while using a lower maintenance pitched roof. Although some Village staff favored the maintenance considerations of a pitched roof, review of the appearance of the building dictated that a flat roof design be used. Task 18 is the engineering and drafting

CONTRACT AMENDMENT

time required to modify Drawings and Specifications for the roof design from a low profile pitched wood truss shingle roof to a steel truss supported, metal deck with a TPO roofing membrane.

Task 19 – Pump Station Orientation and Piping Revisions: The layout and orientation for the South Booster station initial submittal was based upon a legal description provided for the site that was 117' x 233'. The site had an existing asphalt access and drive from 14th Street. The station layout and orientation was prepared with a parking area off the existing access south of the building with the main building entry also from the south side of the building. It was later identified that the South Booster station was to be located on an 80' x 80' easement on the site. The easement dimensions required the construction of a new access from 14th Street with parking and the main building entry from the north side of the building. The flipped parking and entry required changing the elevation views of the station, the orientation of the control room and the generator room as well as the piping layout and electrical plan drawings. Task 19 is for the engineering and drafting time required to revise the pump station orientation, piping, and electrical drawings to accommodate locating the building on the 80' x 80' easement.

Task 20 – Hydraulic Modeling and Evaluation: The operation of the South Booster station was hydraulically modeled prior to the award of the engineering design contract. The modeling work included a recommended specification condition for the pumps and the design of the South Booster station was to be prepared based upon the recommended specification condition. During the design of the South Booster, review of the station hydraulics lead to additional modeling of the operating conditions for the South Booster. The additional modeling was used in the selection of the specification conditions for the pumps and station controls. Task 20 is for the engineering time for reviewing the station hydraulics, modeling and meeting with the Village's modeling consultant.

A Work Effort and Fee spreadsheet for Tasks 14 - 20 is attached.

**SCOPE REVISION - CONTRACT WA-07-01
WORK EFFORT AND FEE STRUCTURE
SOUTH BOOSTER STATION**

August 19, 2008

Revised January 6, 2009

	Personnel & Hours				Total Hours	Total Cost	Total Fee
	Project Engineer (Eng V) \$61.95	Design Engineer (Eng IV) \$53.05	Drafting (Eng III) \$25.00	Rate			
Additional Work							
Task 14 - Additional Drawing & Specification Submittals							
A. Separate Water Transmission Main and Pump Station Contracts							
i. Standalone Drawings for WM Contract		17	8		25	\$1,101.85	\$2,986.01
ii. Standalone Specifications for WM Contract		24			24	\$1,273.20	\$3,450.37
iii. Standalone IEPA Permit and Pre-con Meeting for WM Contract		10			10	\$530.50	\$1,437.66
B. Revised Bid Date From 3/6/08 to 5/2/08							
i. 2 WM Submittals & 2 PS Submittals 3/6/08 - 5/2/08	4	69	17		90	\$4,333.25	\$11,743.11
ii. Added Paving Restoration		4	2		6	\$262.20	\$710.56
Task 15 - Sanitary Sewer 14 th Street		21	4		25	\$1,214.05	\$3,290.08
Task 16 - Church Water Service Lines		10			10	\$555.50	\$1,505.41
Task 17 - Revise for Flat Roof	12				12	\$943.40	\$2,566.61
Task 18 - Revise Access and Orientation	16	4	12		32	\$1,503.40	\$4,074.21
Task 19 - System Hydraulics and Modeling	44		3.25		47.25	\$2,807.05	\$7,607.11
Subtotal	76	159	55.25		290.25	\$14,524.40	\$39,361.12
Total Hours	20.2%	54.8%	19.0%				
Total Cost	\$4,708.20	\$8,434.95	\$1,381.25				
Multiplier							
Sub-Consultant (None)							
Direct Costs							\$0.00
Total Fee (Task 14 - 20)							\$161.17
Total Fee (Contract Scope Changes - Task 9 - Task 20)							\$39,522.29