

VILLAGE OF LOMBARD
REQUEST FOR BOARD OF TRUSTEES ACTION
For Inclusion on Board Agenda

 X Resolution or Ordinance (Blue) _____ Waiver of First Requested


Other Business (Pink)

TO: PRESIDENT AND BOARD OF TRUSTEES

FROM: Tim Sexton, Acting Village Manager

DATE: September 25, 2013 (COW) (B of T) **Date:** October 3, 2013

TITLE: Transmission Main (Civic Center Reservoir to South Booster Station)
Design Engineering

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

BACKGROUND/POLICY IMPLICATIONS:

The Transmission Main (Civic Center Reservoir to South Booster Station) is programmed in the Capital Improvement Plan for construction in FY2014. This project is to construct a 16 inch diameter ductile iron watermain to connect the Civic Center Reservoir to the South Booster station. A request for proposals was made to the short list of engineering firms for design engineering services. Thomas Engineering Group, LLC has been determined to be the most qualified firm to perform the Design Engineering. The scope and fee were negotiated in the not to exceed amount of \$261,714.32.

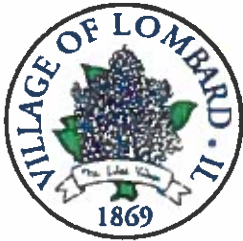
FISCAL IMPACT/FUNDING SOURCE:

Total Contract Amount: \$261,714.32 W/SCapRsv
Project Number: WA 16 02

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.



To: Tim Sexton, Acting Village Manager
Through: Carl S. Goldsmith, Director of Public Works
From: David A. Dratnol, P.E., Village Engineer
Date: September 25, 2013
Subject: Transmission Main (Civic Center Reservoir to South
Booster Station)
Design Engineering Contract

The current Capital Improvement Plan (CIP) has the Transmission Main programmed for Fiscal Years (FY) 14. The project comprises the installation of a 16" diameter ductile Iron watermain from the Civic Center Reservoir to the South Booster Station. Items of work include various structures needed for the transmission main such as valve vaults, adjustment of sewer and water services that are crossed, and roadway restoration.

A Request For Proposal (RFP) was sent to the Village's Design Engineering short list of firms consisting of five companies. Four companies submitted proposals. Thomas Engineering Group (TEG) was chosen as the most qualified firm. TEG has worked on various Village projects such as the Great Western Trail Bridges, and North Main Street Resurfacing. The project scope and fee was directly negotiated with TEG and agreed to by both parties.

The scope of work includes both preliminary and final engineering. Included in the preliminary engineering phase is; a complete topographic survey, evaluation of five alternative routes and selection of preferred route, assessment of underground utility structures, designing new watermain, and preparing a Project Development Report. Final engineering includes preparation of bid documents (plans, specifications and engineer's estimate of cost), and utility permitting.

This work will be performed for a total not to exceed engineering fee of \$261,714.32. The engineering costs will be paid through the Sewer and Water Capital Reserve Fund. The current CIP allots \$227,700.00 in FY 2014 for Design Engineering.

Please present this agreement and resolution for Design Engineering services to the President and Board of Trustees for their review at their regular meeting of October 3, 2013. If approved, please return one original signed copy of the agreement to Public Works-Engineering for further processing.

DAD/pfk

RESOLUTION

R _____ 13

**A RESOLUTION AUTHORIZING SIGNATURE OF
PRESIDENT AND CLERK ON AN AGREEMENT**

WHEREAS, the Corporate Authorities of the Village of Lombard have received an Agreement between the Village of Lombard, and Thomas Engineering Group regarding the Transmission Main (Civic Center Reservoir to South Booster Station) project as attached hereto and marked Exhibit "A"; and

WHEREAS, the Corporate Authorities deem it to be in the best interest of the Village of Lombard to approve such agreement.

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 Village President be and hereby is authorized to sign on behalf of the Village of Lombard said agreement as attached hereto.

SECTION 2: That the Village Clerk be and hereby is authorized to attest said agreement as attached hereto.

Adopted this 3rd day of October, 2013.

Ayes: _____

Nays: _____

Absent: _____

Approved this 3rd day of October, 2013.

**Keith Giagnorio
Village President**

ATTEST:

**Sharon Kuderna
Village Clerk**

VILLAGE OF LOMBARD CONTRACT

CONTRACT DOCUMENT NUMBER WA-16-02

This agreement is made this 3rd day of October, 2013, between and shall be binding upon the VILLAGE of Lombard, an Illinois municipal Corporation hereinafter referred to as the "VILLAGE" and Thomas Engineering Group hereinafter referred to as the "ENGINEER" and its successors.

Witnessed, that in consideration of the mutual promises of the parties delineated in the contract documents, the ENGINEER agrees to perform the services and the VILLAGE agrees to pay for the following services as set forth in the contract documents:

Preliminary and Design Engineering Services for the Transmission Main (Civic Center Reservoir to South Booster Station)

1. This contract shall embrace and include all of the applicable contract documents listed below as if attached hereto or repeated herein:
 - a. VILLAGE'S Request for Qualifications for Short-List for Engineering Services Dated January 13, 2012
 - b. ENGINEER'S Statement of Qualifications Dated February 3, 2012
 - c. ENGINEER'S Proposal Dated August 30, 2013
 - d. ENGINEER'S Work Effort and Fee submittal Dated September 25, 2013
 - e. Required Certificates and Signatures and Certificate of Insurance
2. The VILLAGE agrees to pay, and the ENGINEER agrees to accept as full payment for the services which are the subject matter of this contract in accordance with the General Provisions.
3. This Contract represents the entire agreement between the parties and may not be modified without the written approval of both parties.

IN WITNESS WHEREOF, the Village of Lombard, Illinois by the Village President, and the ENGINEER have hereunto set their hands this 3rd day of October, 2013.

If an individual or partnership, all individual names of each partner shall be signed or if a corporation, an officer duly authorized shall sign here:

Civiltech Engineering Inc.

Accepted this _____ day of _____, 2013.

Individual or Partnership _____ Corporation _____

By _____ Position/Title

By _____ Position/Title

THE VILLAGE OF LOMBARD, ILLINOIS

Accepted this 3rd day of October, 2013.

Village President

Attest: _____
Village Clerk

**VILLAGE OF LOMBARD
ENGINEER'S CERTIFICATION**

_____, having been first duly sworn depose and states as follows:
(Officer or Owner of Company)

Thomas Engineering Group, having submitted a proposal for: Transmission Main (Civic Center Reservoir to South Booster Station) to the Village of Lombard, hereby certifies that said ENGINEER:

1. has a written sexual harassment policy in place in full compliance with 775 ILCS 5/2-105(A) (4).
2. is not delinquent in the payment of any tax administered by the Illinois Department of Revenue, or if it is:
 - a. it is contesting its liability for the tax or the amount of tax in accordance with procedures established by the approve Revenue Act; or
 - b. it has entered into an agreement with the Department of Revenue for payment of all taxes due and is currently in compliance with that agreement.
3. is in full compliance with the Federal Highway Administration Rules on Controlled Substances and Alcohol Use and Testing, 49 CFR Parts 40 and 382 and that

(Name of employee/driver or "all employee drivers")
is/are currently participating in a drug and alcohol testing program pursuant to the aforementioned rules.

By:

Officer or Owner of Company named above

Subscribed and sworn to
before me this _____
day of _____, 2013.

Notary Public

September 25, 2013

Mr. Paul Kuehnlenz, P.E.
Project Manager
Village of Lombard
1051 S. Hammerschmidt Avenue
Lombard, Illinois 60148-3926

Re: Proposal for Contract Document Number WA 16-02
Transmission Main (Civic Center to South Booster)

Dear Mr. Kuehnlenz:

Thomas Engineering Group, LLC (TEG) respectfully submits the enclosed proposal to the Village of Lombard to provide Design Engineering Services for the Transmission Main Project between the Civic Center Reservoir and the South Booster Station. Please refer to the attachments summarizing the total work effort to complete our services. Differences between the original proposal dated August 30, 2013 and this submittal are described in the attached Appendix.

If you have any questions or require additional information, please call me at (847) 815-9500 or by e-mail at kevinv@thomas-engineering.com.

Sincerely,
thomas engineering group, llc



Kevin C. VanDeWoestyne, P.E.
Principal

Attachments

cc/email: Mr. David Dratnol, P.E., Village Engineer
Mr. Thomas Gill, P.E., Thomas Engineering Group, LLC
Mr. Jay Dahlberg, Thomas Engineering Group, LLC



Village of Lombard
Contract Document Number WA 16-02
Transmission Main (Civic Center to South Booster)

Summary of Proposed Work Effort and Fee

Appendix to Written Proposal

The following pages, rates, and tables represent what Thomas Engineering Group, LLC (TEG) has developed in terms of our design engineering work effort and fee. TEG proposes to provide Design Engineering Services in accordance with the written Proposal dated August 30, 2013 and changes noted in this Appendix. This Appendix is based on discussions held between the Village of Lombard Public Works Department and TEG proposed project manager following the award notification.

We believe that the proposed work effort and fee accurately reflects the scope of work as described in our Proposal and expected by the Village.

Preliminary Engineering Phase

This phase, as described in the Proposal, consists of all preliminary design studies and route data collection for five alternative transmission main routes. Based on discussion with the Village, the work effort and fee for this phase has been modified as follows:

1. Five alternatives are briefly described in the Proposal. Two of the least probable TEG-provided alternatives will be dropped from discussion, and two Village-provided alternatives added for consideration.
2. Route data collection is inclusive of acquisition and evaluation of utility atlases. Therefore, abbreviated subsurface utility engineering is needed to thoroughly evaluate each of the five alternative routes. Work effort and fee have been assigned to this task for acquiring and recording base maps for private and County-owned utilities, of which findings will play a role in determining the preferred route.

Design Engineering Phase

The design phase, as described in the Proposal, consists of data collection and analysis, topographic survey, utility structure survey, manhole inspections, geotechnical analysis, and preparation of contract plans, specifications, and estimates. Based on discussion with the Village, the work effort and fee for this phase has been modified from as follows:

1. The use of Ground Penetrating Radar (GPR) scanning is recommended in the written Proposal for identifying buried or unknown municipal (i.e. sanitary sewer services) and private utilities (i.e. gas and electric) for resolving discrepancies between record data and field conditions. TEG proposes the use of GPR related detection tools, by Ground Penetrating Radar Systems, Inc., to provide Quality Level "B" utility locating services only where needed. A direct expense cost is included in the attached work effort and fee tables for this allowance. We understand that the Village may assist TEG with municipal utility locating by potholing buried utilities, therefore, only two days have been included for GPR related investigations.

Village of Lombard
Contract Document Number WA 16-02
Transmission Main (Civic Center to South Booster)



Summary of Proposed Work Effort and Fee

Design Schedule

Given a notice to proceed later than originally shown in the Proposal, and based on aforesaid changes, the design schedule was adjusted accordingly.

	Project Milestones	Estimated Duration	Completion Date
Preliminary Engineering	Consultant Selection – Board of Trustees Approval	N/A	10/3/2013
	Notice to Proceed	N/A	10/4/2013
	Kick-Off Meeting	N/A	10/14/2013
	Conceptual Transmission Main Design & Comparative Feasibility Assessment	4 Weeks	11/11/2013
	Draft PDR	2 Weeks*	11/18/2013
	Village Review – Draft PDR	1 Week	11/25/2013
	Selection of Preferred Alternative/Final PDR	1 Week	12/2/2013
	Project Milestones	Estimated Duration	Completion Date
Final Design Engineering	Data Collection/Data Analysis/Design Stage J.U.L.I.E.	4 Weeks**	1/6/2014
	65% Plan Preparation	4 Weeks	2/3/2014
	Village Review/Consensus Reached	1 Week	2/10/2014
	Utility Coordination/Relocation Letters	1 Week*	2/10/2014
	95% Plans, Specifications, and Estimates Preparation	3 Weeks	3/3/2014
	Village Review	1 Week	3/10/2014
	IEPA, IDOT, and necessary Governmental Agency Permit Applications and Preliminary Submission	1 Week	3/17/2014
	Final Plans/Bid Documents	2 Weeks	3/31/2014
	Advertise for Bidding	4 Weeks	3/31/2014 4/28/2014
	Bid Opening		4/28/2014
	Village Board Approval		May 2014
	IEPA Permit Approval Anticipated	60-90 Days from Submission	5/26/2014
	Preconstruction Meeting		May 2014
	Begin Construction		June 2014

*Succeeding task begins prior to preceding task completion.

**Data Collection is scheduled during December and January. Collecting this field data (surveying the selected corridor) is weather dependent and could impact the schedule if the survey cannot be performed.



Client: Village of Lombard
 Project: Transmission Main - South Booster to Civic Center Reservoir

Date: 9/25/2013

Task	PERSONNEL AND MANHOURS										TOTAL HOURS	% OF PROJECT	PAYROLL X 2.70 DLM
	PM	LEAD ENGR	PROJ ENGR	SURVEY CHIEF	SURVEY TECH	DRAFT TECH	SURVEY TECH	INTERM TECH	INTERM TECH	TOTAL HOURS			
PRELIMINARY ENGINEERING PHASE	132.00	140.00	48.00	0.00	0.00	80.00	40.00	0.00	0.00	440.00	20%	\$ 54,745.20	
DESIGN ENGINEERING PHASE	208.00	372.00	344.00	140.00	180.00	312.00	180.00	108.00	108.00	1794.00	80%	\$ 196,575.12	
TOTAL HOURS	340.00	462.00	392.00	140.00	180.00	392.00	220.00	108.00	108.00	2234.00	100%		
TOTAL LABOR COST													\$ 251,320.32
DIRECT COSTS													\$ 10,394.00
TOTAL ENGINEERING FEE													\$ 261,714.32

Project Report / Direct Costs				n/r=not required	
	Item		Costs	Quantity	
1	Printing and Shipping				
a.	Project Development Report (PDR)				
	8.5" x 11" (color) - 50 copies a \$0.50	50	\$ 0.50	\$ 25.00	
	11" x 17" Copies (color) - 25 copies at \$2.00	25	\$ 2.00	\$ 50.00	
			Unit Cost	\$ 75.00	
	Draft PDR			8	\$ 600.00
	Final PDR			8	\$ 600.00
				Subtotal =	\$ 1,200.00
b.	11" x 17" Plan Reproductions w/ Shipping				
	11" x 17" Copies (B/W) - 50 copies at \$0.60	50	\$ 0.60	\$ 30.00	
	Mailing/Shipping Overnight - \$40/Each	1	\$ 40.00	\$ 40.00	
			Unit Cost	\$ 70.00	
	Utility Coordination			8	\$ 560.00
	IEPA Construction Permit Application			2	\$ 140.00
	IDOT/County Permit Applications			10	\$ 700.00
				Subtotal =	\$ 1,400.00
c.	24" x 36" Plans, Specifications & Estimates				
	24" x 36" Copies (B/W) - 57 copies at \$4.50/Sheet	57	\$ 4.50	\$ 256.50	
	8.5" x 11" (B/W) - 100 copies at \$0.15	100	\$ 0.15	\$ 15.00	
			Unit Cost	\$ 271.50	
	65% PS&E Review			4	\$ 1,086.00
	95% PS&E Review			4	\$ 1,086.00
	Final Bid Documents			8	\$ 2,172.00
				Subtotal =	\$ 4,344.00
			TOTAL PRINTING AND SHIPPING = \$ 6,944.00		
	Item		Costs	Quantity	
2	Survey Equipment Expenses				
a.	Travel				n/r
b.	Topcon GRS-1 GPS or Total Station/EDM				
	\$30 Per Day	1	\$ 30.00	\$ 30.00	
			Unit Cost	\$ 30.00	
	Alternative Route Data Collection			5	\$ 150.00
	Topographic Survey (12 - 10 hour days @ 750 LF/day)			10	\$ 300.00
				Subtotal =	\$ 450.00
			TOTAL SURVEY EQUIPMENT EXPENSES = \$ 450.00		
			TOTAL DIRECT COSTS = \$ 7,394.00		



September 24, 2013

Thomas Engineering Group
Attn: Jay Dahlberg
55 W 22nd St
Lombard, IL 60148
Phone: 815-545-0648
Email: jayd@thomas-engineering.com

Re: Investigation and Inspection of Utilities – Lombard, IL

PROPOSAL

We appreciate the opportunity to provide this proposal to you for your project in Lombard, IL. Please forward all communication to your assigned representative. The representative that has been assigned to your project is:

GPRS Inc.
Attn: Nathan Machel, Regional Director
Phone: 847-514-2277
Email: nathan.machel@gp-radar.com

SCOPE OF WORK

We understand the scope of this project to be locating underground utilities and other significant anomalies in a residential neighborhood in Lombard, IL. A new 16" pipe is to be installed in a corridor measuring approximately 8000 linear feet. The proposed path of the pipe will be scanned to detect any underground utilities which could be damaged by or interfere with the excavation. The locations of any utilities and other significant anomalies detected will be marked directly at the site with paint, flags, or other appropriate means. No additional reporting has been requested for this project.

The total length of the proposed excavation is approximately 8000'. This is a densely-populated residential neighborhood, and there will be numerous laterals from the main lines to the houses; each lateral will need to be detected and marked. The detection time for laterals can vary greatly depending on their size (i.e. if they are large enough to be detected with GPR), whether they take a tracer signal from the main line or need to be traced individually, if another detection technique such as echolocation must be used, etc. Because the time can vary so greatly, we will need to perform this work on a T&M basis. We estimate the worst-case scenario to be an average of about 800' per man-day, for a total of 10 man-days.

The following equipment will be used on this project:

- GSSI Ground Penetrating Radar – This device transmits an electromagnetic pulse through the ground and displays the reflection on a screen for interpretation.

- 400 MHz antenna – This antenna typically allows for GPR signal penetration 5'-7' through the ground, depending on soil conditions.
- RD-7000 locator – This device detects live power and RF signals underground, allowing us to locate electrical or telephone lines even if they are below the minimum size requirements to be detected by GPR. It also allows us to detect utilities via induction or conduction with an exposed or known surface of the utility.
- Acoustic Pipe Locator (APL) – This echo locator detects pipes through echolocation, detecting echoes which indicate voids or liquid-filled pipes. This system is primarily used for detecting non-metallic pipes which are harder to see with GPR and untraceable with the RD.

Our company provides Ground Penetrating Radar Services. GPR is a great tool for utility locating; however, it is not without its limitations. In general, our maximum depth penetration is 5'-7' deep, however, this depth is completely dependent on the composition of soils in the area being inspected. Wet or damp soil is not conducive to electromagnetic waves. *In the event of soil saturation we advise rescheduling the work to allow the soil to dry.* A good rule of thumb is for every foot deep the pipe/utility is buried it must be at least one inch in diameter. For example, at 4 ft. deep the pipe would need to be at least 4 inches in diameter. With these factors in mind we CANNOT guarantee we will be able to locate ALL utilities on site. Please keep this in mind as you review our services.

EQUIPMENT LIMITATIONS

- Size of target – typically, a target (utility) must be at least 1" in diameter per 1' of depth in order for it to be located with GPR. IE, a pipe at 7' in depth will need to be at least 7" in diameter in order to be located with GPR. This limitation increases to 2" in diameter per 1' of depth when using the 270 MHz antenna.
- Soil conditions – wet soil or soil which contains high amounts of debris can limit the effectiveness of GPR.
- Surface conditions – brush, standing water, metal plating, or anything which blocks direct access to the area to be scanned limits the ability to perform GPR. If any of these conditions exist please notify us so we can discuss appropriate action.

REPORTING

The locations of any utilities or other significant anomalies will be marked directly at the site. No additional reporting has been requested for this project.

COMPANY INFORMATION

Corporate Headquarters:
 Ground Penetrating Radar Systems, Inc
 6800 W. Central Ave.
 Suite E-1
 Toledo, OH 43617
 Phone: (419)490-8460

Fed ID: 31-1803412

All W9 and Insurance information can be found at gp-radar.com/forms.html

COST TO CONDUCT INSPECTION

Please have the areas to be scanned CLEARLY MARKED AND IDENTIFIED on the surface prior to our arrival. Failure to do so may incur additional costs.

<u>Thomas Engineering – Lombard IL Utility Locate</u>	
Utility Locate, per man per day:	\$1500
Report:	n/a
<hr/>	
Total, estimate of 10 man-days:	\$15,000
*(price includes mobilization and 3 hours scanning with appropriate equipment)	

Optional Services – Please initial next to requested services. We will need notification of request of these services at least 1 week prior to the start of work. Additional fees to be determined.

- Report*:** Int _____
 *(includes a detailed description of the scope of work, inspection methods, and equipment used. Also includes visuals such as site locations, images of data, and site photos.)
- GPS Mapping of located utilities/items*:** Int _____
 *(includes GPS coordinates of located items and reference items. Please let us know in what format you would like the drawing. For example, Google Earth Image Overlay)
- CAD Mapping of located utilities/items*:** Int _____
 *(Please supply us with a CAD drawing of the area that we can add to. This is considered an add-on service in conjunction to the GPS Mapping noted above.)
- Scanning with 200/270MHz Antenna*:** Price T.B.D.
 *(Scanning with the 200-270MHz antenna could add 20-25% to our maximum depth penetration listed above. If interested please contact us with project details to determine feasibility.)

TERMS & CONDITIONS

- GPRS provides utility locating services in accordance with ASCE Standard 38-02, Quality Level "B" that includes Ground Penetrating Radar (GPR) services. GPR is a good tool for utility locating; however, it is not without its limitations. In general, our maximum depth penetration is 3-7' deep, however, this depth is completely dependent on the composition of soils in the area being surveyed. Customer fully understands that for every foot in depth penetration with the GPR equipment, the pipe/utility must be at least 1" in diameter to be located. For example, at 4 feet in depth, the pipe/utility must be 4" or larger to be detected. Some types of pipes are very difficult to locate, such as clay or concrete pipes, and empty pvc type pipes. Given these factors, GPRS CANNOT guarantee it will be able to locate ALL utilities on site.
- Our goal is to provide you with the answers to your questions regarding what lies below the surface, and where it is located. Customer acknowledges it understands that our answers are based upon an interpretation of retrieved data and are what GPRS believes lies below the surface. The decision to proceed with cutting, coring, drilling, boring, or excavation is left entirely up to the customer.
- GPRS does not accept liability for an inaccurate interpretation or any other reason, and customer agrees to release and indemnify GPRS and its owners and agents from all losses and damages from all alleged negligence and/or contract claims by customer or any third party.
- If for some reason the technician arrives on site and the work is canceled there will be a charge of \$500.00.
- Payment is due upon receipt of project invoice.

By signing below you agree to the terms and conditions as mentioned above,

Print Name _____

Signature _____

Date _____

PO # _____ Job # _____