

## COUNCIL WORKSHOP ITEM

**ITEM:** Design Engineering Services for Grant Project:  
Fairview Avenue Resurfacing, Project 12-01

**DATE:** February 22, 2002

**PREPARED BY:** John J. Bajor, Jr., Director of Public Works  
Brian Parks, Senior Engineer, Department of Public Works

**PURPOSE:** Place award of contract for design engineering services to Civiltech Engineering, Inc. for the Fairview Avenue Resurfacing Project 12-01 on the March 19, 2002 Active Agenda.

### DISCUSSION:

The Village will receive Surface Transportation Program Federal grant construction funding through the DuPage Mayor and Managers Conference for the project:

Fairview Avenue Resurfacing, Project 12-01: Resurfacing Fairview Avenue between 55<sup>th</sup> Street and Ogden Avenue, tentatively scheduled for 2003 construction. The Village will receive 70%, or approximately \$507,000 of the total estimated \$724,000 construction cost.

The Village is responsible for the cost of engineering the project through the Federal process, as well as administration of the engineering contracts.

A request for Statements of Qualifications for engineering services for two grant projects (Fairview Resurfacing and Dunham Road Improvements) was sent to thirty (30) area firms. Eighteen (18) firms submitted Statements of Qualifications. The Village requested interviews from four (4) of these firms. Of the four (4) firms interviewed, Civiltech was chosen for the Fairview Avenue Resurfacing Project.

Civiltech is recommended for two reasons:

1. They are currently providing design services for the Main Street Resurfacing Project 10-00 scheduled for construction in 2003. Civiltech has suggested there could be a significant construction cost savings by combining the Fairview Avenue Project with the Main Street Project by using a single construction contractor to do the work. In addition, design costs would be realized as well since only one set of contract plans and bid documents would be prepared.

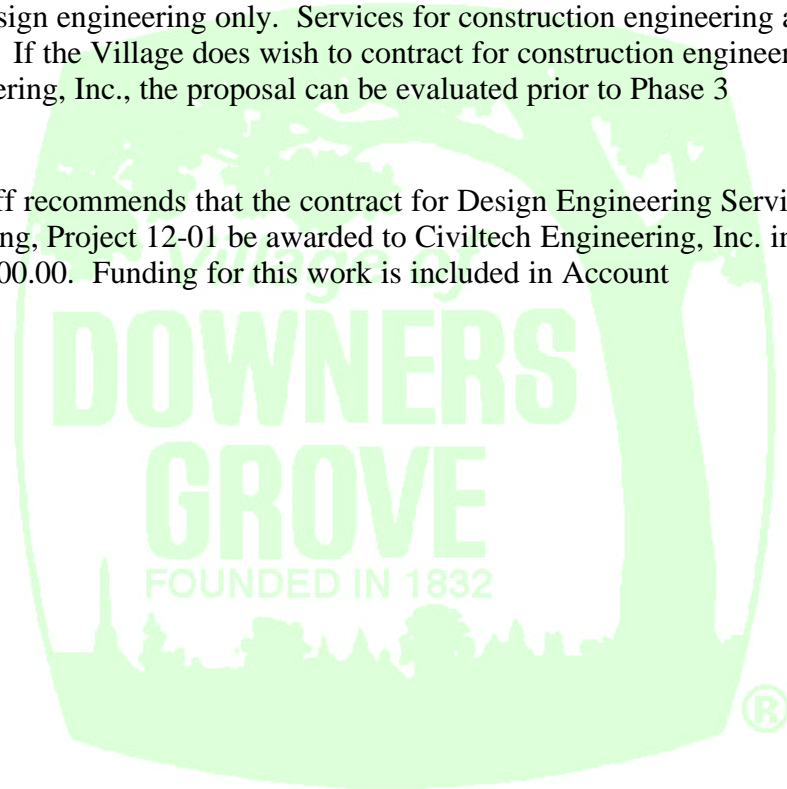
2. They have completed construction drawings for the Fairview Avenue Signal Interconnect between 59<sup>th</sup> Street and Lincoln Avenue to be bid this spring. Eighty percent (80%) of the topographic work is already gathered which will save valuable engineering time for design purposes.

Copies of the Civiltech Engineering, Inc. proposal and agreement are attached.

This recommendation is for design engineering only. Services for construction engineering are available as well upon request. If the Village does wish to contract for construction engineering services with Civiltech Engineering, Inc., the proposal can be evaluated prior to Phase 3 engineering.

**RECOMMENDATION:** Staff recommends that the contract for Design Engineering Services for Fairview Avenue Resurfacing, Project 12-01 be awarded to Civiltech Engineering, Inc. in the not-to-exceed amount of \$63,300.00. Funding for this work is included in Account 220.522.0000.5707.

Attachments





**PROPOSAL/AGREEMENT TO FURNISH  
PHASE II ENGINEERING SERVICES  
FAIRVIEW AVENUE RESURFACING  
55<sup>th</sup> Street to Ogden Avenue  
DG Project # 12-01  
February 15, 2002**

Following is our Proposal/Agreement to Furnish Professional Engineering Services to study, plan and design the rehabilitation of the segment of Fairview Avenue from 55<sup>th</sup> Street to Ogden Avenue. As discussed in the Village's Request For Qualifications, the improvements are anticipated to be constructed with Federal Funds through the LAPP Program of the DuPage Mayors' and Manager's Conference. Our submittal has been divided into eleven parts. We have first provided a description of the proposed improvements, including a discussion of items that we believe need to be addressed in detail during our suggested Preliminary Engineering Phase and may not have been highlighted in the Village's RFQ (Part I). We then present a summary description of the background of our firm, our related project experience, qualifications of our proposed project staff that is followed by a description of the engineering services that we envision for this project (Parts II, III, IV & V). Finally, we have included discussions regarding subconsultant services, fee structure (compensation), the project schedule, disputes/litigation, Village responsibilities and general agreement provisions.

**I. Proposed Improvement/Areas of Concern**

As described in the Village's Request for Qualifications, this Fairview Avenue Resurfacing Improvement is anticipated to include partial removal and replacement of the existing bituminous surface course ( $\pm 2\frac{1}{2}$ " ), patching (removal & replacement) of the existing curb & gutter and patching of the existing pavement base course. The improvements will likely include the installation of area reflective crack control and the potential replacement of the some of the existing traffic signal "pavement" loop detectors.

As the Village is aware from their on-going Main Street LAPP Project, there are several advantages to completing the resurfacing of a major collector roadway using the LAPP implementation process. These advantages include:

- Field survey for the project could be limited to a "wheel survey", checking gross project dimensions, digitizing the existing plans and an additional day or two to verify existing plan information and pick up any missing or changed information. (Note: If the project were processed as a "standard" STP project, the Illinois Department of Transportation would require full right-of-way survey.)
- A Project Development Report is not used to grant Design Approval for a LAPP project; rather, a single page approval form would be completed and presented for approval at an IDOT-FHWA coordination meeting. The project is automatically processed as a Categorical Exclusion.
- Confirmation of traffic signal warrants for existing signalize intersections is not required for LAPP processing.

- Detailed drainage studies are not required, nor are the analysis and justification of the existing inlet spacing.
- Environmental studies, including air quality and noise analyses are not required.

Completing the resurfacing of Fairview Avenue at this time has two significant advantages. First, the Village is in the process of completing a traffic signal upgrade/interconnect improvement along a majority of this corridor. As you are aware, this Federally-funded project is tentatively scheduled for a March 2002 contract letting. The advantage to the Village is that as part of Civiltech's preparation of the contract plans for the traffic signal project, a majority of the field survey, as well as CADD base drawings, have been completed between 59<sup>th</sup> Street and Lincoln Avenue. The CADD drawings would also serve as the base drawings for this LAPP Project; thereby limiting our field survey work between 55<sup>th</sup> Street and Lincoln Avenue to pavement, curb and sidewalk inspection for documenting patching limits.

We envision a second, major advantage to proceeding with the Fairview Avenue resurfacing project at this time. The Village has an opportunity to realize a significant cost savings by combining the Fairview Avenue LAPP Project with the Main Street LAPP Project currently being readied for bidding by Civiltech. While Main Street is scheduled for a March 2003 letting and the Village is projecting a July 2003 letting for Fairview Avenue, we believe there is sufficient time available to complete the Fairview Avenue LAPP Project for the March 2003 letting. Not only would there be a resulting construction cost savings, but coordination of the projects could be streamlined since only a single construction contractor would be selected. Some design cost savings would likely be realized since only one set of contract plans and bid documents would be prepared. We do recognize that it will likely be important to stagger the actual construction of these two, main collector roadways. However, work restrictions and/or construction staging details could be included in the plans and bid documents to minimize disruption along these routes.

## **II. Background of the Firm**

Civiltech Engineering was formed in 1988 to provide civil consulting engineering services to municipalities, governmental agencies and private clients. Civiltech currently operates from two office locations. Civiltech's main office is located in Itasca, Illinois and the branch office is located in Chicago, Illinois. The work for this project will be completed from our main office in Itasca. We specialize in the areas of traffic and transportation engineering, highway design, construction engineering, structural engineering, wetland assessments and landscape architecture. During the execution of each project, the firm adheres to four professional principles: technical excellence, responsive service, close communication and assured quality.

Civiltech Engineering is prequalified by the Illinois Department of Transportation to perform a variety of transportation related design and inspection services including "Environmental Studies and Reports: Simple E.A. and Complex E.A." and "Plans, Specifications and Estimates: Roads & Streets". Civiltech maintains a staff of 78 people, which includes 56 engineers (including one structural engineer), 1 landscape architect and 14 technicians and drafters.

Similar to the other consultants under consideration for this project, Civiltech brings an excellent reputation for engineering services as well as a list of satisfied clients. We believe, however, we are uniquely qualified for the transportation engineering services needed by the Village because of the special strengths we bring to this project. Civiltech offers the following:

- Substantial relevant experience and technical competence in all of the engineering and environmental disciplines required for this project;
- A proven track record in implementing Federal-Aid projects, especially for Local projects administered through the Illinois Department of Transportation/District 1;
- A cooperative and productive working relationship with clients that produces high quality products both on time and within budgets;
- Enthusiasm for practical, yet creative, design/engineering solutions; and
- An ability to commit a specific team of experienced individuals to the Project who have personally taken part in the projects listed as relevant experience.

### III. Firm Experience and References

Civiltech is highly qualified and experienced in providing roadway planning and design services for projects similar to the Village of Downers Grove's Fairview Avenue STP Improvement Project. Following is a list of five recent projects that the key personnel proposed for this Project have completed and involved key elements similar to this Project:

- Calumet Station STP Improvement  
Villages of East Hazel Crest, Hazel Crest & Homewood
- 147<sup>th</sup> Street/Central Avenue STP Intersection Improvement  
City of Oak Forest
- Prince Crossing Road Phase I & II  
City of West Chicago
- 2000 & 2001 Street Rehabilitation Program  
Village of Bloomingdale
- St. Charles Road/Grace Street Intersection  
Village of Lombard

In addition to these projects, Civiltech is currently embarking on the completion of contract plans and supporting documents for two LAPP Project that are essentially identical to this Fairview Avenue Project. The first project is Main Street in the Village of Lombard and includes the segment between Illinois Route 38 and St. Charles Road. The improvements are to be constructed with Federal Funds through the LAPP Program of the DuPage Mayors' and Manager's Conference. This Main Street Resurfacing Improvement is anticipated to include partial removal and replacement of the existing bituminous surface course ( $\pm 2\frac{1}{2}$ " ), patching (removal & replacement) of the existing curb & gutter and patching of the existing pavement base course. The improvements will also include the potential replacement of the existing traffic signal "pavement" loop detectors with video detection equipment. While this project was originally programmed for a Spring 2002 construction, the project has been delayed until Spring 2003 to avoid conflicts with other ongoing projects within the Village. Our lead contact in the Village is Mr. David Dratnol, Village Engineer, who can be reached at 1-630-620-5740.

The second LAPP project is the segment of Main Street in the Village of Downers Grove between Prairie Street and Ogden Avenue. These improvements are also to be constructed with Federal Funds through the LAPP Program of the DuPage Mayors' and Manager's Conference. Similar to the above project in Lombard, this Downers Grove LAPP Project was originally programmed for a Spring 2002 construction, but has been delayed until Spring 2003 to avoid disruptions in the downtown area to the south.

#### **IV. Project Staff Qualifications**

We ask that you pay particular attention to the experience and capabilities of the key personnel that we would assign to this Project. The Project staff which we will assign to this Project has all of the specialized expertise that will be required to successfully coordinate implementation of all the anticipated design elements. This section summarizes the capabilities of the following key personnel that we will assign to this Project:

Project Coordinator : Harry L. Gilmore, Jr. P.E.  
Project Manager: Amy S. McKenna, P.E.  
Design Engineer: Shirley J. Choi  
QC/QA Engineer: John L. Breitsameter P.E.

We propose to assign Mr. Harry L. Gilmore, Jr., to serve as the Project Coordinator. Mr. Gilmore has over 25 years of experience in both environmental/location-design studies and highway design for projects ranging from simple intersection improvements to major roadway corridor projects. He has completed numerous Federal-Aid bridge and roadway projects, and is currently serving the same role on the two previously mentioned LAPP Projects being completed by Civiltech. Mr. Gilmore is a registered Professional Engineer in Illinois, and as an Associate with Civiltech is a major stockholder of the firm. Mr. Gilmore would serve as the primary point of contact at Civiltech for the project and would be actively involved in the day-to-day engineering and planning aspects of the study for the duration of the project. He will be responsible for disseminating all information obtained from the Village to his staff, and furthermore must ensure that Village's schedule and budget requirements are maintained by his staff. At a minimum, communications will include monthly progress reports submitted to the Village, which will address project schedule, project budget, and upcoming work activities. He will also be responsible for the quality of work being performed for the Village. This quality control is not limited to the design activities being performed, but includes ensuring that the work being performed is in accordance with the negotiated scope of work.

Ms. Amy S. McKenna will serve as the Phase II Project Manager for the project. She will oversee the day-to-day project activities and will be responsible for the regular coordination with the Village during the design phases of the project. Ms. McKenna has eight years of experience in the preparation of contract documents for local street improvements, as well as construction inspection, and is also serving a similar role on the two previously mentioned LAPP Projects being completed by Civiltech. Ms. McKenna is a registered Professional Engineer in Illinois.

To assist Ms. McKenna during the Phase II portion of the project, we propose to assign Ms. Shirley J. Choi as the Design Engineer. She has four years of design and construction inspection experience, and has aided in the completion of several street rehabilitation and/or reconstruction projects. Ms. Choi is currently serving as the design engineer on the Main Street/Lombard LAPP Project.

Mr. John L. Breitsameter will provide both the Quality Control/Quality Assurance and the pavement/curb-and-gutter field inspection for the project. Mr. Breitsameter is a registered Professional Engineer in Illinois, and a Principal of Civiltech. Mr. Breitsameter has 27 years experience in the direct oversight and/or management of roadway improvements including parking lots, traffic signals, expressways, utility improvements and more. Along with the Project Manager, his review of the contract documents not only includes the identification of missing pay items but also includes a review from the perspective of project constructability.

## **V. SCOPE OF SERVICES - Phase II Engineering**

### **A. Preliminary Engineering Phase**

The primary objective of this phase of the project is to develop a conceptual improvement plan that responds to the needs of the area, is cost effective, and fulfills the requirements of the Village of Downers Grove. Often times the scope of services included below is merely considered a part of the overall "Phase II/Design Engineering Services", but we recommend that this work item be tracked separately in order to a) maintain close communications with the Village during the early stages of the project in order to avoid conflicts, confusion or misunderstanding, and b) to assure that the project schedule and budget are maintained. The following major work items will likely be required to complete the preliminary engineering phase of the project:

Item 1 - Early Coordination and Data Collection - This work item would include collecting existing plans, aerial photographs, utility atlases, previously completed drainage studies, soils reports and right-of-way (including subdivision plats from either the Village or DuPage County). This item would also include an initial meeting with Village Staff to review available data, review and refine anticipated design elements of the project, and refine the project schedule. Once a review of all available project records and data has been completed, we would develop a detailed project scope and task list. The project scope and task list would be submitted for Village review & concurrence, and would serve, in part, as a basis for the completion of the contract plans and supporting documents. In addition, the data collection for this project would include a complete photolog in order to document existing conditions prior to construction. The data collection phase for this project will also include obtaining GIS mapping data from the Village/County.

Item 2 - Field Survey - For the portion of the project between 55<sup>th</sup> Street and Lincoln Avenue, Civiltech will use the topographic information that was compiled as part of the Fairview Avenue Traffic Signal Interconnect project. For the remainder of the project (Lincoln Avenue to Ogden Avenue), Civiltech will perform a topographic survey to obtain the necessary information. Most of the work will be completed by Civiltech staff, but a subconsultant, TFW Surveying and Mapping, will establish GPS control prior to data collection by Civiltech staff. Their proposal is included as Attachment A. This work item would also include entering topographic information into a computer-aided design (CAD) work station using AutoCAD software.

Item 3 - Conceptual Plan - This item includes developing a preliminary improvement plan that addresses the goals of the Village as well as other improvement needs that may be identified through a review of the condition and needs of the existing facilities. The

preliminary design will confirm the need to rehabilitate the existing pavement and develop design parameters to either meet or exceed current Village, as well as IDOT, standards. Based upon our review of the proposal data, combined with our site inspection of the project, we believe the following major items need to be addressed in preparing the Conceptual Improvement Plan:

- Pavement Condition/Design - A thorough review of the available geotechnical reports will be supplemented by a detailed visual inspection of the pavement condition. A detailed field inspection of the existing pavement and appurtenances will be made to obtain a detailed accounting of the limits of the surface removal and replacement, full-depth bituminous surface removal and replacements, as well as curb-and-gutter and sidewalk reconstruction.
- Roadway Geometrics - It is anticipated that the existing horizontal alignments will remain unaltered along all of the proposed roadway segments. As part of this sub-item we will evaluate the sidewalks to ensure that the profile of the walkways meet current ADA accessibility standards. We will also evaluate the sight distance at each intersecting street to determine the need to trim and/or remove any of the existing landscaping.
- Roadway Drainage - Since no widening of the existing pavement or extension of the existing sidewalks are anticipated, coordination with DuPage County will likely not be required. We will review the video tapes completed by the Village for any existing storm sewer systems, and provide recommendations for any repairs or replacements.
- Construction Cost Estimate - A detailed construction cost estimate will be completed which will have subtotals for major improvement items (e.g., drainage, paving, landscaping, etc.). In addition, if the initial estimate of construction cost does not fall in line with either firm or preliminary Village budgets, stage construction scenarios will be investigated and presented to the Village as part of the design report.
- Design Report - A technical memorandum/report will be prepared which summarizes the studies completed, the improvement recommendation, and the estimated construction costs. A draft copy of the report will be prepared for Staff reviews, with a final report presented to the Village Board for their action, if necessary. This sub-item also includes the preparation, submittal and monitoring the processing of IDOT's LAPP Approval Report (BLR Form 5251).

Item 4 - Coordination - We anticipate holding two staff meetings: a) project kick-off meeting to review scope of work and schedule, and b) review meeting to obtain comments on the concept plan/design (including design report). The final concept plan/design report will be presented to the Village Board and/or Public Works Committee for their formal approval prior to completion of the actual contract plans and supporting documents.

## **B. Final Design Phase**

The design engineering services will consist of the preparation of contract plans and specifications in sufficient detail to secure competitive bids and accomplish the proposed roadway resurfacing. In addition, a detailed Engineer's Estimate of Cost, as well as Estimate of Construction Time, will be prepared. Contract plans for Fairview Avenue will conform to the Village of Downers Grove standards and shall meet the requirements of the Illinois Department of Transportation (IDOT) and the Federal Highway Administration (FHWA) under the guidelines for Local Agency Pavement

Preservation (LAPP) project processing. The following major work items will likely be required to complete the design phase of the project:

Item 1 - Pre-Final Plans, Special Provisions and Engineer's Estimate of Cost and Item 2 - Submittals & Review - Civiltech will prepare pre-final contract plans in accordance with IDOT and FHWA guidelines, policies and standards, as well as in accordance with the requirements of the Village of Downers Grove. The plans will likely contain the following drawings:

- Title Sheet/Index of Sheets/State Standards
- General Notes
- Summary of Quantities
- Typical Sections
- Plan View Sheets (scale: 1" = 20') ("double" plan view)
- Details

Civiltech will coordinate with the Village of Downers Grove during the development of the pre-final plans. It is anticipated that preliminary contract plans will be submitted to the village for review when the plans are approximately 50% complete. The pre-final plans will be submitted to IDOT after the 50% review by the village and when the plans are approximately 95% complete.

Once pre-final contract documents (95%) have been completed, we will submit the documents concurrently to the Village of Downers Grove and IDOT - Bureau of Local Roads & Streets. At this time we will also submit the pre-final plans to the utility companies in the project area for the purpose of ascertaining any conflicts between the proposed improvement and existing or planned facilities. We will meet with the Village, IDOT or other agencies to discuss review comments or resolve utility conflicts if possible.

Item 3 - Final Plans, Special Provisions and Engineer's Estimate of Cost Preparation - After completion of the Village's review and resolution of other agencies' concerns, the contract plans, special provisions and Engineer's Estimate of Cost will be finalized. We will furnish to IDOT all necessary final documents and forms, including an "Estimate of Time," as required to advertise for the contract letting. We will furnish the original contract plans and special provisions to IDOT since they will be conducting the contract letting (based upon FHWA regulations). The Village will be furnished two (2) sets of all documents for their files. Additional copies of the plans and special provisions will be provided by IDOT for use by the contractor and the Resident Engineer during the construction phase of the project.

## **VI. Proposed Subconsultants**

We propose to perform all work required for this project with our own personnel, with the exception of the G.P.S. ground control which will be provided by TFW Surveying & Mapping, Inc.

## **VII. Compensation**

We propose to perform the work on the basis of cost plus a fixed fee, with a not-to-exceed maximum. The fee will include reimbursement of direct labor costs, overhead and indirect costs, fringe benefit and salary burden costs, plus a net fee for profit. Direct expenses will be reimbursed

at their actual cost. The maximum "not-to-exceed" fee for our services is \$63,300 .00 This fee is based upon our Cost Estimate of Consultant Services, as well as our detailed manhour estimate for this project, which are included as Attachment A.

#### **VIII. Project Schedule**

We have reviewed the schedule provided by the Village in the RFQ and will be able to commit the necessary personnel to meet that schedule. However, as previously discussed under our Section II of our Statement of Qualifications we believe it may be in the best interest of the Village to revise the schedule of either this Fairview Avenue LAPP Project and/or the Main Street LAPP Project such that both roadways could be included in a single contract letting. This could result in a bid letting date for a joint project as early as March 2003.

#### **IX. Disputes / Litigation**

Civiltech Engineering, Inc. has no disputes or litigations resulting from engineering services performed in the past year.

#### **X. Village's Responsibilities**

The Village shall assist the Engineer by placing at his disposal all available information pertinent to the Project including previous reports and any other data relative to the scope of the Project.

Furnish to Engineer, as required by him for performance of his basic services, data prepared by or services of others obtained or prepared by the Village prior to execution of this contract such as core borings, probings and sub-surface explorations, laboratory tests and inspections of samples; all of which Engineer may rely upon in performing his services.

Guarantee access to and make provisions for Engineer to enter upon public and private property as required for Engineer to perform his services.

#### **X. General Conditions**

This Agreement may be terminated by either party upon seven (7) days written notice.

In the event the Village shall terminate or abandon the engineering services contracted for by this Agreement or to abandon any portion of the Project for which services have already been performed the following provisions shall govern:

- (a) In the event the Village shall abandon all or any part of the services to be rendered by the Engineer, the Engineer shall be notified in writing. Immediately upon receiving such notice the Engineer shall discontinue the work abandoned by the Village under this Agreement and shall proceed to close and terminate operations.

(b) Upon termination or abandonment by the Village of the Engineer's services the Engineer shall deliver to the Village all drawings, specifications, reports and studies theretofore completely or partially completed by him together with all unused materials advanced or supplied by the Village and shall appraise the work he has completed and submit his appraisal to the Village for evaluation.

(c) If this Agreement is terminated by the Village upon the completion of any phase of the basic services, progress payments due Engineer for services rendered through such phase shall constitute total payment for such services.

All documents or copies thereof including, but not limited to tracings, drawings, estimates, field notes, investigations, design analysis, and studies which are prepared in the performance of this Agreement are to be and remain the property of the Village and are to be delivered to the Director of Public Works of the Village before the final payment is made to the Engineer. However, if the Engineer wishes, he may retain the original drawings and supply the Village with reproduces on cloth or mylar and may keep copies of the above mentioned documents. All drawings are also to be provided on computer disc in a format acceptable to the Village. The Engineer shall endorse by his professional engineering seals all plans, specifications, and engineering data furnished by him.

The Engineer shall obtain and maintain during the course of this Agreement with the Village, at the sole expense of the Engineer, such insurance as shall protect the Village from all claims for bodily injury, death or property damage which might arise from negligent performance of engineering services to be rendered hereunder by the Engineer or any of his employees. The Engineer shall also maintain such insurance as will cover all of Engineer's employees' claims under the Workman's Compensation Act of Illinois. Copies of certificate of insurance affording such coverage shall be filed with and approved by the Village prior to commencement of any work hereunder.

The Engineer shall defend, indemnify and save harmless the Village from any and all claims and causes of action against said Village for damages for any person or property arising solely out of or in connection with the negligent performance or negligent acts of the Engineer or agent or employees of same under the terms of this AGREEMENT.


The Village and Engineer each binds himself and his partners, successors, executors, administrators and assigns to the other party of this Agreement and to the partners, successors, executors, administrators and assigns of such other party, in respect to all covenants of this Agreement; except as above, neither Village nor Engineer shall assign, sublet or transfer his interest in this Agreement without the written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body which may be a hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than Village and Engineer.

This Agreement shall be full force and effect only when it has been approved by the Village, and when executed by its duly authorized officials.

If this Proposal/Agreement is acceptable, please endorse one (1) copy and return it to our office. We thank you for the opportunity to submit this Proposal/Agreement and look forward to the possibility of continuing to serve you and the Village on this project.

Very truly yours,

**CIVILTECH ENGINEERING, INC.**



Harry L. Gilmore, Jr.

Attachments

**Accepted By:** \_\_\_\_\_

**Title:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Attachment A**

**Civiltech Engineering, Inc.**

**COST ESTIMATE OF CONSULTANT SERVICES  
DETAILED MANHOUR/DIRECT COST ESTIMATE  
TFW Surveying & Mapping, Inc. Proposal**

**COST ESTIMATE OF CONSULTANT SERVICES**

**FAIRVIEW AVENUE IMPROVEMENT PROJECT  
PHASE II ENGINEERING  
VILLAGE OF DOWNERS GROVE - PROJECT # 12-01**

WORK ITEM DESCRIPTION	Consultant: Civilteltech Engineering, Inc.										Date: February 18, 2002			
	SR. PROJ. MANAGER \$50.00	PROJECT ENGINEER \$29.00	DESIGN ENG. \$24.00	SENIOR DRAFTER \$24.00	DRAFTER \$20.00	SURVEY CHIEF \$26.50	QA/QC \$50.00	CLERICAL \$14.00	Total Hours	Payroll	Overhead & Fringe Benefit Cost *	Direct Costs	Fixed Fee **	Total Cost
<b>A. Preliminary Engineering</b>														
1. Early Coord. & Data Collection	2	12	10	0	0	0	0	0	24	\$688	\$799	\$80	\$229	\$1,796
2. Field Survey	0	0	0	0	0	48	0	0	48	\$1,272	\$1,477	\$1,100	\$424	\$4,273
3. Conceptual Plan	8	28	32	12	0	0	4	0	84	\$2,468	\$2,865	\$70	\$823	\$6,226
4. Coordination	7	4	0	0	0	0	0	0	11	\$466	\$541	\$40	\$155	\$1,202
<b>B. Final Design</b>														
1. Pre-Final PS&E	22	132	128	134	60	0	24	3	503	\$13,658	\$15,854	\$0	\$4,555	\$34,067
2. Submittals and Review	20	20	14	32	12	0	0	0	98	\$2,924	\$3,394	\$930	\$975	\$8,223
3. Final PS&E	12	12	20	16	0	0	24	0	84	\$3,012	\$3,496	\$0	\$1,005	\$7,513
<b>Phase II Totals</b>	<b>71</b>	<b>208</b>	<b>204</b>	<b>194</b>	<b>72</b>	<b>48</b>	<b>52</b>	<b>3</b>	<b>852</b>	<b>\$24,488</b>	<b>\$28,426</b>	<b>\$2,220</b>	<b>\$8,167</b>	<b>\$63,300</b>

\* 116.08% of Payroll

\*\* Based on (DOT-approved formula): Fixed Fee = .145(2.3 + Complexity Factor)(Labor Costs)

(Note: Assume Complexity Factor = 0 for this project)

**ESTIMATED HOURS AND DIRECT COSTS**  
**Phase II Engineering Services for**  
**Fairview Avenue STP - LAPP Improvement**  
**Village of Downers Grove**  
**Engineering Estimate**  
**Page 1 of 3**

**A. PRELIMINARY ENGINEERING**

	<u>Estimated Hours</u>	<u>Direct Costs</u>
<b><u>Item 1: Early Coordination and Data Collection</u></b>		
• Review Existing Plans	4	
• Review Sidwell Property Maps	2	
• Review Aerial Photographs	2	
• Prepare Photolog	12	
<i>Direct costs for vehicle expense and photo developing</i>		\$80
• Review Utility Atlases	4	
<b>Subtotal Item 1</b>	<b>24</b>	<b>\$80</b>
<b><u>Item 2: Field Survey</u></b>		
• Topographic Survey:		
-Approximately 1600 feet of roadway (from north of Lincoln Ave. to Ogden Ave.)	48	
<i>Direct costs for vehicle expense (\$35/day) and subconsultant</i>		\$1,100
<b>Subtotal Item 2</b>	<b>48</b>	<b>\$1,100</b>
<b><u>Item 3: Conceptual Plan</u></b>		
• Assess condition of pavement, drainage system, and sanitary sewers	24	
<i>Direct costs for vehicle expense</i>		\$20
• Prepare design memorandum and preliminary cost estimate	20	
• Obtain IDOT Concurrence for LAPP Processing	40	
<i>Direct costs for deliveries or vehicle expense</i>		\$50
<b>Subtotal Item 3</b>	<b>84</b>	<b>\$70</b>

**ESTIMATED HOURS AND DIRECT COSTS**  
**Phase II Engineering Services for**  
**Fairview Avenue STP - LAPP Improvement**  
**Village of Downers Grove**  
**Engineering Estimate**  
**Page 2 of 3**

**Item 4: Coordination**

• Attend project kick-off meeting	3	
<i>Direct costs for vehicle expense</i>		\$20
• Attend conceptual plan review meeting (2 people @ 4 hrs.)	8	
<i>Direct costs for vehicle expense</i>		\$20
<b>Subtotal Item 4</b>	<b>11</b>	<b>\$40</b>
<b>PRELIMINARY ENGINEERING SUBTOTAL</b>	<b>167</b>	<b>\$1,290</b>

**B. FINAL DESIGN PHASE**

**Item 1: Pre-Final Plans, Special Provisions, and Engineer's Estimate of Cost**

<u>Number of Sheets</u>	<u>Description</u>	<u>Manhours</u>			<u>Total</u>	<u>Direct Costs</u>
		<u>Eng.</u>	<u>Draft.</u>	<u>Cler.</u>		
1	Title Sheet/Index	2	2	1	5	
1	General Notes/Summary of Quantities	8	8	2	18	
1	Typical Sections	16	20	0	36	
8	Plan View Sheets	200	160	0	360	
1	Details	2	2	0	4	
5	IDOT District 1 Details	<u>2</u>	<u>2</u>	<u>0</u>	<u>4</u>	
(17 sheets)	<b>Subtotals Item 2</b>	<b>230</b>	<b>194</b>	<b>3</b>	<b>427</b>	
	Special Provisions				20	
	Quantities				40	
	Estimates of Construction Cost and Time				16	
	<b>Subtotal Item 1</b>				<b>503</b>	<b>\$0</b>

**ESTIMATED HOURS AND DIRECT COSTS**  
**Phase II Engineering Services for**  
**Fairview Avenue STP - LAPP Improvement**  
**Village of Downers Grove**  
**Engineering Estimate**  
**Page 3 of 3**

	<u>Estimated Hours</u>	<u>Direct Costs</u>
<b><u>Item 2: Submittals and Review</u></b>		
• Preparation & Delivery of 3 submittals - Plans @ 50%, 95%, and 100% complete <i>Direct costs for deliveries or vehicle expenses</i>	30	\$300
• Printing Costs 1 mylar set of plans (17 sheets @ \$9.00 per sheet) 36 paper sets of plans (17 sheets @ \$0.60 per sheet)		\$153 \$367
• Pre-Final Plan Review Meetings with IDOT, Village & other agencies <i>Direct costs for vehicle expenses</i>	20	\$50
• "Plan-in-Hand" Field Check with Village to determine limits of patching, sidewalk, and curb replacement <i>Direct costs for vehicle expenses</i>	20	\$20
• Utility/Railroad Coordination	12	
• Final Plan Review Meetings with IDOT, Village & other agencies <i>Direct costs for vehicle expenses</i>	16	\$40
<b>Subtotal Item 2</b>	<b>98</b>	<b>\$930</b>
<b><u>Item 3: Final Plans, Special Provisions, and Estimate of Cost</u></b>		
• Completion of contract plans and specifications	60	
• Quality Assurance/Quality Control	24	
<b>Subtotal Item 3</b>	<b>84</b>	<b>\$0</b>
<b>FINAL DESIGN SUBTOTAL</b>	<b>685</b>	<b>\$930</b>
<b>PHASE II TOTALS: HOURS &amp; DIRECT COSTS</b>	<b>852</b>	<b>\$2,220</b>

# TFW SURVEYING & MAPPING INC.

LAND SURVEYING • TOPOGRAPHIC MAPPING • CONSTRUCTION LAYOUT

## FAX COVER SHEET

DATE: 2/5/02

TIME: 8:31AM

FROM: THOMAS F. WASILEWSKI

TO: Ms. Amy S. McKenna, P.E.  
Civiltech Engineering, Inc.  
450 E. Devon Ave, Suite 300  
Itasca, IL. 60143

630-773-3900 MAIN  
630-773-3975 FAX

RE: G.P.S. CONTROL & PROCESSING

PROJ: ANY PROJECT

PAGES: 1 (Including cover sheet)

MESSAGE: AS REQUESTED BY MR. TOM ATKINS. G.P.S. CONTROL FOR ANY JOB.

1 MAN - 8 HOURS SET CONTROL & COLLECT G.P.S. SIGNAL DATA	\$712.00
1 MAN - 2 HOURS POST PROCESSING, FAX & E-MAIL DATA TO CLIENT	<u>\$178.00</u>
TOTAL FOR 1 DAYS WORTH OF CONTROL	\$890.00

c.c.: Mr. Tom Atkins, P.L.S.

ATTACHMENT A

888 E. BELVIDERE ROAD, UNIT 409 GRAYSLAKE, ILLINOIS 60030  
847 548-6600 FAX 847 548-6699 E-MAIL tfwsurvey1@aol.com