Memorandum

To:	Honorable Mayor and Members of the City Council
CC:	Members of Administration and Public Works Committee
From:	Christopher Venatta, Senior Project Manager
CC:	David Stoneback, Public Works Agency Director; Lara Biggs, City Engineer
Subject:	Approval of Change Order No. 1 to the Agreement with Civiltech Engineering, Inc. for the Church Street Pedestrian and Bicycle Improvements (RFQ 20-21)
Date:	October 11, 2021

Recommended Action:
Staff recommends the City Council authorize the City Manager to execute Change Order No. 1 to the agreement with Civiltech Engineering, Inc. (Two Pierce Place, Suite 1400, Itasca, IL 60143) for the Church Street Pedestrian and Bicycle Improvements (RFQ 20-21) in the amount of $93,062.81.

Funding Source:
Funding is available from the Capital Improvement Fund 2020 General Obligation Bonds (Account 415.40.4120.62145 – 420004), in the amount of $93,062.81. This funding exceeds the project budget, but funds are available from savings in other projects.

Council Action:
For Action

Summary:
On June 8, 2020, the City Council awarded the Phase 1 preliminary design engineering services for the Church Street Pedestrian and Bicycle Improvements project to Civiltech Engineering, Inc. The goal of the study is to identify pedestrian and bicycle improvements along the Church Street corridor from Dodge Avenue to the west City Limits and south from Church Street along the North Shore Channel to Dempster Street.

The section of the project along the North Shore Channel between Church Street and Dempster Street was noted in the 2014 Bike Plan Update as a gap in the City's channel path network. Based on the public outreach that has been performed to date, which has included advisory committee meetings, online surveys, a walk audit, a meeting with District 65, and one public

meeting; the desire to have safe connectivity between our trails was an important aspect of this project.

Many options for crossing Dempster Street have currently been evaluated, such as a pedestrian only traffic signal, a new traffic signal at McDaniel Avenue, and routing the bike network to the existing signal at Fowler Avenue. Due to this street falling under the jurisdiction of IDOT, the new traffic signal options are not feasible alternatives due to IDOT's design standards for signalized intersections. The option of routing the channel trail users to the intersection at Fowler Avenue and Dempster Street also presents multiple issues since the City has narrow sidewalks and limited available ROW on Dempster Street.

Therefore, it is recommended that an underpass option that goes below Dempster Street adjacent to the North Shore Channel is evaluated as a safe and effective crossing at this location. Having an underpass would not only safely connect the City's recreational trails but would also provide an easy and comfortable crossing for children and families using alternative transportation methods to access the two District 65 education buildings – Dr. Martin Luther King Jr. Literary and Fine Arts School and Joseph E. Hill Early Childhood Center.

Initial feasibility of this option was already investigated and found to merit further evaluation. Change Order No. 1 would provide for the additional services in order to evaluate a potential underpass option following the Phase 1 process for federal-aid projects. These expanded services include:
•Geotechnical Analysis
•Drainage Study
•Wetland Study
•Structural Evaluation
•Lighting Analysis

At the conclusion of the Phase 1 study and all of the associated public outreach, a preferred alternative for Church Street and the channel trail will be recommended to City Council and a contract for Phase 2 detailed design services for of the project will be brought to City Council for award. This project, including the underpass, is considered by staff to be a good candidate for multiple grant opportunities.

Legislative History:
On June 8, 2020, the City Council authorized the City Manager to sign the agreement with Civiltech Engineering Inc. for $293,650.41.

Attachments:
Change Order No. 1

Civiltech Engineering, Inc.
Two Pierce Place, Suite 1400
Itasca, IL 60143
630.773.3900

Scope of Services for Professional Engineering Services

Supplement #1

Church Street Pedestrian and Bicycle Improvements Phase I Study
Dodge Avenue to West City Limits
City of Evanston, Illinois | September 30, 2021

Following is a scope and fee estimate to provide supplemental services for the referenced project. This Supplement #1 covers professional engineering services to incorporate the evaluation of an underpass path alignment beneath the Dempster Street structure, along the east bank of the North Shore Channel, into the overall Phase I Study. Aside from tasks related to the Dempster Street Underbridge alternative, this supplement also includes tasks completed to date or other tasks anticipated to be necessary that are outside of the original scope of services. The original and expanded study corridor is depicted on **Exhibit 1**. All of the reports and documents that are prepared as part of this supplement will follow IDOT criteria and formats, as was the case for the original scope of services. This supplement does not change the original assumption that the improvement will be processed as a Federal-Approved Categorical Exclusion, including the preparation of a Project Development Report (PDR). See **Attachment A** for a detailed Cost Estimate of Consultant Services, and subconsultant information.

As noted in the original scope of services, it was anticipated that the original Phase I Study would take approximately 18 to 24 months to complete. It was noted that schedule might be extended if Structural Studies and Hydraulic Analyses became necessary at a later date. The original Phase I study was initiated around July 1, 2020; therefore, it has been in progress for approximately 14 months. A goal of the project is to obtain design approval by a date that will earn it the maximum amount of points toward being awarded a CMAQ/TAP-L grant. The next call for these grants is anticipated in January of 2023, with the application deadline anticipated in March of 2023. Historically, this application required that a Draft PDR be submitted by March to earn the most points. January 2023 is 15 months from now, and March 2023 is 17 months from now. The addition of the Dempster Street underpass alternative will not jeopardize the ability to obtain design approval in time for the 2023 CMAQ/TAP-L call for projects.

I. Proposed Scope of Services

1. Data Collection and Early Coordination

a. A kick-off meeting with IDOT/District 1 staff was held on October 12, 2020 at which the proposed scope of improvements, the scope of the Phase I study, anticipated level of environmental processing, design criteria, project schedule, and other items were discussed.

At the time, a Dempster Street Underpass alternative was not contemplated. Due to the modification of the potential scope of improvements, these items may change and it may be necessary to attend a second IDOT kick-off meeting to discuss the changes. The need for a second kick-off meeting will be determined once existing conditions (topo survey, etc.) are quantified in the area of the Dempster Street Underbridge alternative. This task is a second kick-off meeting with IDOT to present these items for discussion if necessary.

b. Conduct an additional field visit focusing on the area around and beneath the Dempster Street bridge over the North Shore Channel, and prepare a photo log.
c. After original study initiation, it became necessary to expand the study area into the neighborhood to the east of McDaniel Avenue, and to the south of Dempster Street along Fowler Avenue, Crain Avenue, and into Harbert Park. This required additional work in preparation of the ESR as shown in orange on **Exhibit 1**. This also resulted in additional alignment alternatives, cross-sections, preliminary analyses, and exhibit preparation in the expanded area.
d. An Environmental Survey Request (ESR) was prepared and submitted to IDOT on January 18, 2021. Updated exhibits were sent in April. At the time of the submittal, there was no in-stream work anticipated, and thus the "in-stream work" box was not checked. Now, the Dempster Underbridge alternative may require temporary work within the North Shore Channel. Temporary work may include the need for a cofferdam to allow for the construction of the concrete structure that will support the underbridge trail. The need for the cofferdam and in-stream work will be confirmed once the supplemental topographic survey and preliminary structural and hydraulic analyses are complete. However due to the extensive time it takes IDOT to process ESRs, it will be important to submit an Addendum ESR with the "in-stream work" box checked as soon as possible (if/as soon as this supplement is approved). The AESR will cover the boundaries shown in **Exhibit 1**.

2. Field Survey and Preparation of Base CAD File

In order to evaluate structural, hydraulic, and geometric requirements for the Underbridge path alternative; develop accurate construction costs; and determine the limits of any necessary easements or right-of-way, supplemental detailed topographic survey will be required. The supplemental survey will be necessary along the east side of the North Shore Channel, from a point approximately 250 feet south of the Dempster Street bridge, to a point 250 feet north of it as shown in **Exhibit 1**. In addition, stream sections will be required in the North Shore Channel for use in hydraulic analyses. Sections will be needed at the face of the Dempster Street Bridge, and at a point 100 feet, 250 feet, 500 feet, and 1000 feet to the north and south of the bridge. This work item will also include inputting the supplemental topographic information into a computer-aided design

(CAD) workstation. Civiltech will supplement previously prepared base sheets with the new information.

Environmental Design International, Inc. (EDI) prepared the original topographic survey and is proposed to perform the supplement detailed topographic survey services. This item includes time for Civiltech coordination with the sub-consultant. An estimate of EDI's fee is contained in **Exhibit A-1c** in **Attachment A**.

3. Crash Studies

The current crash analysis that has been completed covered the five-year study period of 2014-2018. It is anticipated that IDOT will require the analysis to be updated one more time before design approval to include the latest 5-year set of crash data available. This scope item consists of work required to update the crash analysis.

4. Traffic Studies

No supplemental work is anticipated at this time.

5. On-Street Parking Studies

No supplemental work is anticipated at this time.

6. Geometric Studies

This item will first include a feasibility study and technical memorandum evaluating the feasibility of the underbridge alternative. It will preliminarily evaluate structural, hydraulic, and geometric feasibility, including a review of similar installations at other locations along the North Shore Channel. Note that this item has already been completed and an underbridge alternative is determined to be feasible enough to warrant further study.

Secondly, geometric studies will need to be expanded to cover the underbridge path alignment, from a point in Harbert Park to the south, to a point in the southwest corner of the District 65 property to the north. This will include plan, profile, and cross-section analyses to ensure that the path is designed in accordance with applicable standards. This also includes evaluating additional right-of-way and environmental impacts of the underbridge alternative.

In addition, because the Dempster Street Structure is under the maintenance and jurisdiction of the Illinois Department of Transportation, the underbridge design will need to be reviewed by IDOT. The submittals and reviews are included under the Structural Studies item.

7. Lighting Studies

This item is a preliminary evaluation of lighting alternatives for the underbridge alternative for use in conceptual design and cost estimating purposes.

8. Geotechnical Studies

The original scope of services includes four soil borings for roadway modifications. As part of this supplement, one 30-foot deep structural boring will be needed south of Dempster Street near the existing abutment. An existing structure boring is available from the 2004 design plans for the bridge, located on the north side of Dempster Street adjacent to the existing abutment. The old and new structure borings will be summarized in a Structure Geotechnical Report (RGR) that will include soil properties and foundation recommendations for the underbridge retaining wall structure.

As in the original scope, we propose to use GSG Consultants, Inc. (GSG) as a subconsultant to perform supplemental geotechnical services. This item includes time for Civiltech coordination with the subconsultant. A scope of services and fee estimate for GSG's services is contained in **Exhibit A-2**.

9. Special Waste Studies

No supplemental work is anticipated at this time.

10. Wetlands Studies

The North Shore Channel is a regulated Waters of the U.S. (WOUS). As part of the original scope of services, a wetlands delineation report was completed and submitted to IDOT on April 27, 2021. No impacts (permanent or temporary) were identified. The proposed under bridge trail connection at Dempster Avenue will require temporary impacts to the North Shore Channel if cofferdam construction is needed. We will prepare and submit an updated IDOT Wetland Impact Evaluation, including text, exhibits, and tables, once these impacts are quantified.

11. Drainage Studies

The original scope of services includes the preparation of an Existing Drainage Plan, a Proposed Drainage Plan (PDP), and a Technical Memorandum. Additional services, specifically a hydraulic analysis is required to evaluate the potential floodplain impacts of the proposed underbridge path alignment beneath the Dempster Street Bridge as follows

Hydraulic Analyses/Report - The North Shore Channel flows beneath the Dempster Street structure east of McCormick Boulevard, is a mapped FEMA floodplain, and is owned and operated by MWRD. The east abutment slope wall of the structure may be modified to accommodate a bicycle/pedestrian facility along the east side of the North Shore Channel, passing beneath the Dempster Street Bridge. Therefore, a detailed standard IDOT Hydraulic Report will be required in order to demonstrate compliance with IDOT design criteria as well as IDNR and MWRD floodway permitting requirements. We will use the regulatory detailed hydraulic modeling developed for the FEMA Flood Insurance Study or any other studies as the basis for the analysis. The USACE has developed a HEC-RAS model for the North Shore Channel that was used in a previous MWRD Watershed Plan and is the best available information. The tasks that will be completed for this item include the following:

a. Obtain the existing regulatory floodplain model and or USACE HEC-RAS model for the North Shore Channel.
b. Review the regulatory hydraulic analysis and create an updated existing condition hydraulic model and analysis using additional surveyed cross sections upstream and downstream of the bridge.
c. Develop the proposed condition hydraulic analysis and the required proposed condition waterway opening based on the proposed conditions.
d. Evaluate proposed conditions for impacts to existing hydraulic profiles upstream and downstream of the bridge.
e. Evaluate any floodplain encroachments and the need and locations for floodplain compensatory storage (if required).
f. Prepare standard District One Hydraulic Report, including narrative, all required exhibits and documenting analysis, results, and recommendations.

12. Section 4(f) Evaluation and Documentation

No supplemental work is anticipated at this time.

13. Draft Project Development Report

With the addition of the Dempster Street Underbridge alternative, it is anticipated that the environmental study process will still result in a determination that the proposed improvements will cause no significant environmental impacts and thus, would still meet the requirements of a Categorical Exclusion. As in the original scope of services, it is still anticipated that this project would require a Federal Approval. Therefore, this work task will still involve integration of project data and engineering studies into a Draft Project Development Report (PDR) that meets IDOT requirements as contained in BLR Form 22110. The addition of the Underbridge alternative will require additional effort to prepare the Draft Project Development Report beyond that included in the original scope of services. This work item will include the following tasks:

a. Additional and expanded report tables and exhibits
b. Expanded construction cost estimate.
c. Expanded writing, proofreading, and editing of the Draft PDR.

14. Agency Coordination

No supplemental work is anticipated at this time, beyond the IDOT Kick-Off Meeting #2 described in Item #1.

15. Community Engagement

This supplement assumes that no additional Public Involvement Meetings or Hearings are necessary because of adding the Dempster Street Underbridge alternative. However, it is proposed that illustrative visualizations of the Underbridge alternative be prepared for presentation at the second Public Information Meeting that is scoped as part of the original contract. Civiltech will produce two photorealistic rendered views of the proposed underbridge at Dempster, utilizing ground level or drone photographs as background. For this task, we will utilize CAD generated linework of a preliminary layout design to develop a 3D model that will include the roadway bridge, ped/bike underbridge, adjacent North Shore Channel and surrounding vegetation/park space. Once we have a developed model we will generate previews of the two proposed views for review and approval, and then capture matching drone and/or ground level photography. Drone photography will be captured by one of Civiltech's drone pilots. The views will then be rendered in greater detail and be finalized with people, cyclists, landscaping, fencing and other design details.

16. Final Project Development Report

The addition of the Underbridge alternative will require additional effort to prepare the Final Project Development Report beyond that included in the original scope of services. This work item will include the following tasks:

a. Additional revisions to Draft PDR tables and exhibits.
b. Additional revisions to construction cost estimate.
c. Additional revisions to Draft PDR text, proofreading, and editing.
d. Additional revisions to Pre-Final PDR text, proofreading, and editing.

17. Supervision, Administration, and Project Coordination

This item is comprised of project setup, monthly invoicing and preparation of status reports, bi-weekly client coordination meetings as needed and in-house coordination meetings. This item also includes implementation of Civiltech's quality control/quality assurance in-house review process.

18. Structural Studies

The potential Dempster Street Underbridge alternative will add a shared-use trail within the east abutment slope wall beneath the bridge carrying Dempster Street over the North Shore Channel. In order to accomplish this work, the slope wall will need to be cut back and a retaining wall will need to be constructed on the left and/or right side of the path beneath the structure. This item is comprised of the following tasks.

a. Site visit to verify existing conditions.
b. Review existing data such as soil borings and bridge plans.
c. Retaining wall type study to determine the preferred wall type based on constructability and estimated cost.

The addition of a shared-use path and retaining walls under the eastern span of the Dempster Street Bridge over the North Shore Channel (SN 016-2773) is not anticipated to affect the bridge and therefore neither a Bridge Condition Report (BCR) nor a Type, Size & Location (TSL) plan is required for the bridge. The superstructure was replaced in 2003 and according to IDOT's structures database the bridge is in good condition with a Sufficiency Rating of 100. In addition, a TSL will not be required for the proposed retaining walls since they are not anticipated to exceed 10-ft in height measured from top of wall to bottom of footing.

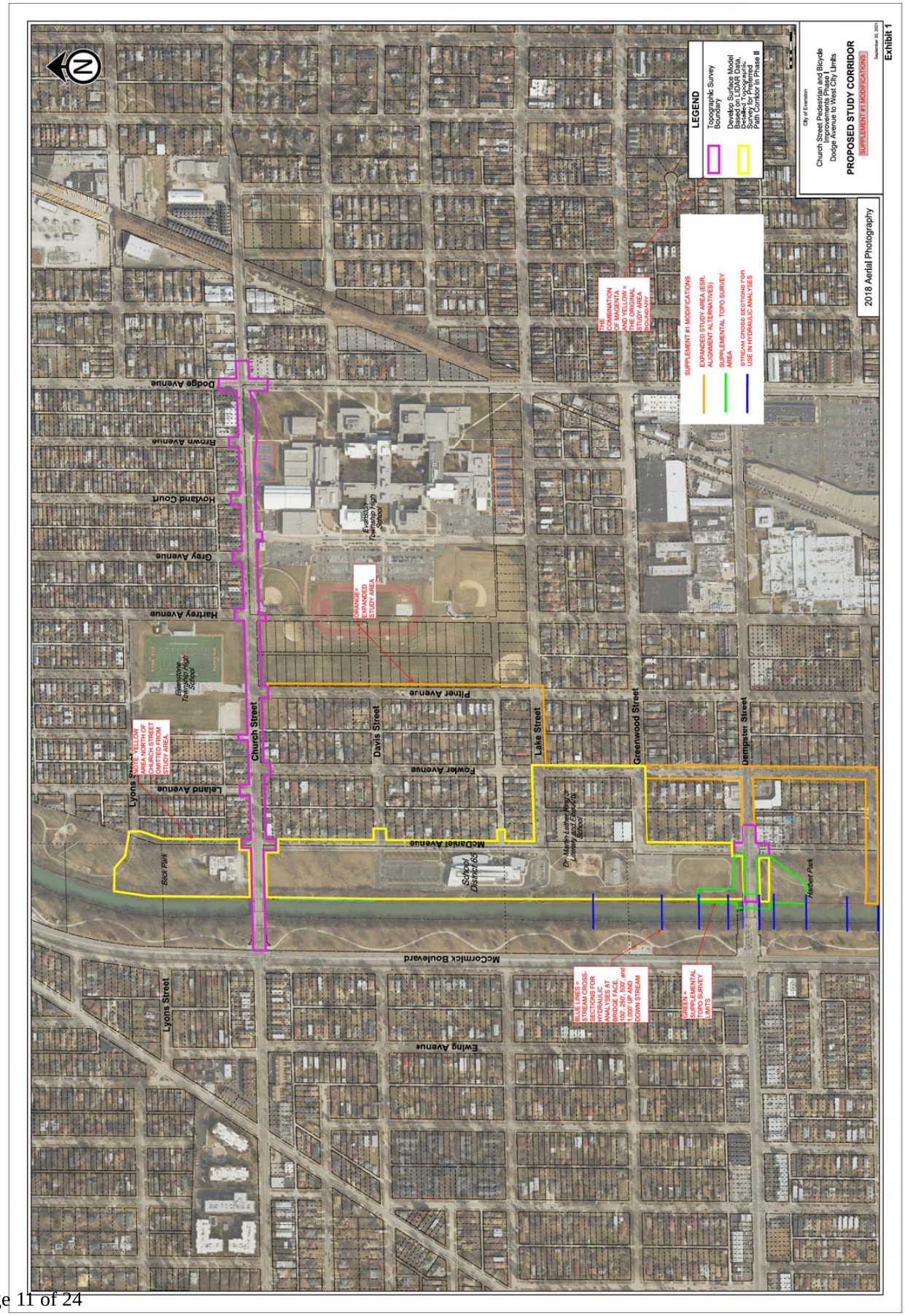
Temporary cofferdams may be required for the construction of the Underbridge alternative in order to keep required excavations dry and as erosion control.

III. Anticipated Project Schedule

Please see introductory paragraphs for a discussion of the anticipated schedule.

IV. Cost Estimate of Consultant Services

In order to calculate our "not-to-exceed" fee, we estimated workhours to complete the individual tasks outlined in the Pre-Phase I Study. Our approved IDOT overhead rate for fiscal year ending December 31, 2020 is 117.73%. Using this approved IDOT overhead rate and the IDOT profit formula results is an overall billing factor of 2.4930. Compensation for our work will be based upon actual labor dollars expended times **2.4930** to cover actual payroll, overhead and indirect costs, payroll burden and fringe benefit costs and profit. Direct costs such as printing, vehicle expenses, and sub-consultant expenses will be billed at their actual cost. Please reference the Cost Estimate of Consultant Services and workhour/direct expense calculations in **Exhibit A-1.** Our proposed maximum "not-to exceed" supplemental fee is **$93,062.81.**


PROPOSED STUDY CORRIDOR
Church Street Pedestrian and Bicycle Improvements Phase I
Dodge Avenue to West City Limits
City of Evanston
SUPPLEMENT #1 MODIFICATIONS
Exhibit 1
LEGEND
Topographic Survey Boundary
Develop Surface Model Based on LIDAR, Supplemental Detailed Topographic Survey for Preferred Path Corridor of Phase II
SUPPLEMENT #1 MODIFICATIONS
EXPANDED STUDY AREA (ESRI, ALIGNMENT ALTERNATIVES)
SUPPLEMENTAL TOPO SURVEY AREA
STREAM CROSS SECTIONS FOR USE IN HYDRAULIC ANALYSES
2018 Aerial Photography
THE COMBINATION OF MAGENTA AND YELLOW = THE ORIGINAL STUDY AREA BOUNDARY
ORANGE= EXPANDED STUDY AREA
YELLOW AREA NORTH OF CHURCH STREET OMITTED FROM STUDY AREA
BLUE LINES = STREAM CROSS-SECTIONS FOR HYDRAULIC ANALYSES AT RIDGE LAKE: 100', 250', 500', and 1,000' UP AND DOWN STREAM
GREEN = SUPPLEMENTAL TOPO SURVEY LIMITS
Dodge Avenue
Brown Avenue
Hovland Court
Grey Avenue
Hartrey Avenue
Leland Avenue
Church Street
Lyons Street
Ewing Avenue
McCormick Boulevard
McDaniel Avenue
Fowler Avenue
Pitner Avenue
Davis Street
Lake Street
Greenwood Street
Dempster Street
Harbert Park
Block Park
Evanston Township High School
Dr. Martin Luther King Jr. Lab School
School District 65

ATTCHMENT A

Detailed Scope of Services and Cost Estimate of Consultant Services

Exhibit A-1 – Civiltech CECS

Church Street Pedestrian and Bicycle Improvements Phase I Study
City of Evanston

Cost Estimate of Consultant Services (Supplement #1)

Civiltech Engineering, Inc.

Work Item	Staff Classifications, Direct Labor Rate and Workhours												Total Workhours	% of Workhours	Direct Labor Cost
	Senior PM & QC/QA	Project Manager	Sr. Proj. Eng. Urban Design	Design Engineer II	Environmental Scientist III	Landscape Architect	Digital Rendering Artist	Chief Structural Engineer	Structural Engineer III	Water Resources Manager	Water Resources Engineer III	Senior Design Technician			
Labor Rate	$70.00	$63.00	$54.00	$34.50	$39.00	$50.00	$70.00	$36.50	$40.00	$70.00	$43.00	$39.00			
Item 1 - Data Collection and Early Coordination	0	12	14	22	0	0	0	4	4	0	0	14	**70**	**12%**	**$3,123.00**
Item 2 - Field Survey and Preparation of Base CAD File	0	6	4	16	0	0	0	0	0	0	0	4	**30**	**5%**	**$1,302.00**
Item 3 - Crash Studies	0	2	2	4	0	0	0	0	4	0	0	0	**12**	**2%**	**$532.00**
Item 4 - Traffic Studies	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**	**$0.00**
Item 5 - On-Street Parking Studies	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**	**$0.00**
Item 6 - Geometric Studies	0	10	10	44	0	0	0	4	0	4	0	0	**72**	**12%**	**$3,114.00**
Item 7 - Lighting Studies	0	4	0	0	0	0	0	0	0	0	0	0	**4**	**1%**	**$252.00**
Item 8 - Geotechnical Studies	0	4	0	0	0	0	0	0	0	0	0	0	**4**	**1%**	**$252.00**
Item 9 - Special Waste Studies	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**	**$0.00**
Item 10 - Wetlands Studies	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**	**$0.00**
Item 11 - Drainage Studies - Hydraulic Report	0	0	0	0	0	0	0	0	0	16	116	0	**132**	**22%**	**$6,108.00**
Item 12 - Section 4(f) Evaluation and Documentation	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**	**$0.00**
Item 13 - Draft Project Development Report	2	4	6	24	0	0	0	0	0	0	0	4	**40**	**7%**	**$1,700.00**
Item 14 - Agency Coordination	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0%**	**$0.00**
Item 15 - Community Engagement	0	0	0	0	0	8	40	0	0	0	0	8	**56**	**9%**	**$3,512.00**
Item 16 - Final Project Development Report	2	4	8	28	0	0	0	0	0	0	0	4	**46**	**8%**	**$1,946.00**
Item 17 - Supervision, Administration, and Project Coordinatior	2	10	2	10	0	0	0	0	0	0	0	0	**24**	**4%**	**$1,223.00**
Item 18 - Structural Studies	0	8	0	0	0	0	0	38	68	0	0	0	**114**	**19%**	**$4,611.00**
Total Workhours by Staff Classification:	**6**	**64**	**46**	**148**	**0**	**8**	**40**	**46**	**76**	**20**	**116**	**34**	**604**		
Percentage of Total Workhours:	**1%**	**11%**	**8%**	**25%**	**0%**	**1%**	**7%**	**8%**	**13%**	**3%**	**19%**	**6%**	**100%**		
Direct Labor Cost by Staff Classification:	**$420.00**	**$4,032.00**	**$2,484.00**	**$5,106.00**	**$0.00**	**$400.00**	**$2,800.00**	**$1,679.00**	**$3,040.00**	**$1,400.00**	**$4,988.00**	**$1,326.00**			

Church Street Pedestrian and Bicycle Improvements Phase I Study
City of Evanston

Cost Estimate of Consultant Services (Supplement #1)

Civiltech Engineering, Inc.

Work Item	Staff Classifications, Direct Labor Rate and Workhours												Total Workhours	% of Workhours	Direct Labor Cost
	Senior PM & QC/QA	Project Manager	Sr. Proj. Eng. Urban Design	Design Engineer II	Environmental Scientist III	Landscape Architect	Digital Rendering Artist	Chief Structural Engineer	Structural Engineer III	Water Resources Manager	Water Resources Engineer III	Senior Design Technician			
Labor Rate	$70.00	$63.00	$54.00	$34.50	$39.00	$50.00	$70.00	$36.50	$40.00	$70.00	$43.00	$39.00			

Total Direct Labor Cost:	**$27,675.00**
Total Overhead Cost[(1)]:	**$32,581.78**
Total Fixed Fee[(2)]:	**$8,737.23**
Total In-House Direct & Subconsultant Costs (see separate calculation):	**$24,068.80**

PROJECT TOTALS:	**604**	**100%**	**$93,062.81**

[(1)] **Civiltech's IDOT-Approved Overhead Rate:** 117.73%
[(2)] **Using IDOT BLRS Cost Plus Fixed Fee Method 2:** 14.5%[DL+R(DL)+ OH(DL)+IHDC]

R = Complexity Factor = 0 OH = Overhead Rate IHDC = In-House Direct Costs (Use $0)

Church Street Pedestrian and Bicycle Improvements Phase I Study
City of Evanston

Workhour Summary (Supplement #1)

Civiltech Engineering, Inc.

Work Item and Sub-items	Staff Classifications & Workhours												Total Workhours	% of Workhours
	Senior PM & QC/QA	Project Manager	Sr. Proj. Eng. Urban Design	Design Engineer II	Environmental Scientist III	Landscape Architect	Digital Rendering Artist	Chief Structural Engineer	Structural Engineer III	Water Resources Manager	Water Resources Engineer III	Senior Design Technician		
Item 1 - Data Collection and Early Coordination														
By Civiltech														
a. Kick-off meeting #2 with IDOT.		2	2	2								2	**8**	11.4%
b. Field visit to inspect Dempster underbridge area.		4	4					4	4				**16**	22.9%
c. Expanded study area to east of McDaniel.		2	4	4								4	**14**	20.0%
d. Addendum ESR submittal for in-stream work.		4	4	16								8	**32**	45.7%
Subtotal:	**0**	**12**	**14**	**22**	**0**	**0**	**0**	**4**	**4**	**0**	**0**	**14**	**70**	**100%**
Item 2 - Field Survey and Preparation of Base CAD File														
Primarily By Environmental Design International, Inc.														
a. Civiltech coordination with subconsultant.		4											**4**	13.3%
b. Prepare base CAD file and plan and profile sheets.		2	4	16								4	**26**	86.7%
Subtotal:	**0**	**6**	**4**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**30**	**100.0%**
Item 3 - Crash Studies														
By Civiltech														
a. Update to crash analysis to reflect latest 5-year study period.		2	2	4					4				**12**	100.0%
Subtotal:	**0**	**2**	**2**	**4**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**12**	**100.0%**
Item 4 - Traffic Studies														
No additional work as part of this supplement.														
Subtotal:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0%**
Item 5 - On-Street Parking Studies														
No additional work as part of this supplement.														
Subtotal:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0%**
Item 6 - Geometric Studies														
By Civiltech														
a. Feasibility study for underbridge alternative.		6	6	4				4		4			**24**	33.3%
b. Underbridge plan, profile, cross-section analyses.		4	4	40									**48**	66.7%
Subtotal:	**0**	**10**	**10**	**44**	**0**	**0**	**0**	**4**	**0**	**4**	**0**	**0**	**72**	**100.0%**
Item 7 - Lighting Studies														
By Civiltech														
a. Preliminary evaluation of lighting for underbridge.		4											**4**	100.0%
Subtotal:	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0.0%**

Church Street Pedestrian and Bicycle Improvements Phase I Study
City of Evanston

Workhour Summary (Supplement #1)

Civiltech Engineering, Inc.

Work Item and Sub-items	Staff Classifications & Workhours												Total Workhours	% of Workhours
	Senior PM & QC/QA	Project Manager	Sr. Proj. Eng. Urban Design	Design Engineer II	Environmental Scientist III	Landscape Architect	Digital Rendering Artist	Chief Structural Engineer	Structural Engineer III	Water Resources Manager	Water Resources Engineer III	Senior Design Technician		
Item 8 - Geotechnical Studies														
Primarily by GSG Consultants, Inc.														
a. Civiltech coordination with subconsultant.		4											**4**	100.0%
Subtotal:	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**100.0%**
Item 9 - Special Waste Studies														
No additional work as part of this supplement.														
Subtotal:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0%**
Item 10 - Wetlands Studies														
By Civiltech														
a. Quantify wetland (WOUS/North Shore Channel) impacts once a geometric concept is finalized.													**0**	
b. Prepare and submit an updated Wetland Impact Evaluation (WIE) to IDOT.													**0**	
Subtotal:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0%**
Item 11 - Drainage Studies - Hydraulic Report														
By Civiltech														
a. Obtain Regulatory Model											8		**8**	6.1%
b. Review Model and Create Updated Ex. Condition HEC-RAS										2	16		**18**	13.6%
c. Proposed Condition HEC-RAS analysis										2	16		**18**	13.6%
d. Review Model analyis results and analysis of alternatives										2	16		**18**	13.6%
e. Floodplain Encroachment Analysis										2	12		**14**	10.6%
f. HR Narrative, Exhibits, Analysis Documentation										8	48		**56**	42.4%
Subtotal:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**116**	**0**	**132**	**100.0%**
Item 12 - Section 4(f) Evaluation and Documentation														
No additional work as part of this supplement.														
Subtotal:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0%**
Item 13 - Draft Project Development Report														
By Civiltech														
a. Additional and expanded report tables and exhibits.		1	3	8								4	**16**	40.0%
b. Expanded construction cost estimate.		1	1	8									**10**	25.0%
c. Expanded writing, proofreading, editing Draft PDR text.	2	2	2	8									**14**	35.0%
Subtotal:	**2**	**4**	**6**	**24**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**40**	**100.0%**

Church Street Pedestrian and Bicycle Improvements Phase I Study
City of Evanston

Workhour Summary (Supplement #1)

Civiltech Engineering, Inc.

Work Item and Sub-items	Staff Classifications & Workhours												Total Workhours	% of Workhours
	Senior PM & QC/QA	Project Manager	Sr. Proj. Eng. Urban Design	Design Engineer II	Environmental Scientist III	Landscape Architect	Digital Rendering Artist	Chief Structural Engineer	Structural Engineer III	Water Resources Manager	Water Resources Engineer III	Senior Design Technician		
Item 14 - Agency Coordination														
No additional work as part of this supplement.														
Subtotal:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.0%**
Item 15 - Community Engagement														
Supplemental Work By Civiltech														
a. Capture drone photography in underbridge area.												8	**8**	14.3%
b. Prepare rendered photovisualizations of underbridge concept.						8	40						**48**	85.7%
Subtotal:	**0**	**0**	**0**	**0**	**0**	**8**	**40**	**0**	**0**	**0**	**0**	**8**	**56**	**100.0%**
Item 16 - Final Project Development Report														
By Civiltech														
a. Additional revisions to Draft PDR tables and exhibits.		1	3	8								4	**16**	34.8%
b. Additional revisions to construction cost estimate.		1	1	8									**10**	21.7%
c. Additional revisions to Draft PDR text, proofreading, and editing.	1	1	2	6									**10**	21.7%
d. Additional revisions to Pre-Final PDR text, proofreading, and editing.	1	1	2	6									**10**	21.7%
Subtotal:	**2**	**4**	**8**	**28**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**46**	**100.0%**
Item 17 - Supervision, Administration, and Project Coordination														
By Civiltech														
a. Project setup and monthly invoicing.		2		2									**4**	16.7%
b. Client coordination meetings or updates (assume 2x per month for 24 months).		6		6									**12**	50.0%
c. General QC/QA.	2	2	2	2									**8**	33.3%
Subtotal:	**2**	**10**	**2**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**24**	**100.0%**
Item 18 - Structural Studies														
By Civiltech														
a. Site visit.								4	4				**8**	7.0%
b. Review existing Dempster Bridge Plans & Soil Borings								4	4				**8**	7.0%
c. Underbridge Retaining Wall Type Study at Dempster Bridge		8						30	60				**98**	86.0%
Subtotal:	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**38**	**68**	**0**	**0**	**0**	**114**	**100.0%**
Total:	**6**	**64**	**46**	**148**	**0**	**8**	**40**	**46**	**76**	**20**	**116**	**34**	**604**	
% of Workours:	**0.99%**	**10.60%**	**7.62%**	**24.50%**	**0.00%**	**1.32%**	**6.62%**	**7.62%**	**12.58%**	**3.31%**	**19.21%**	**5.63%**		

Church Street Pedestrian and Bicycle Improvements Phase I Study
City of Evanston

Summary of In-House Direct & Subconsultant Costs (Supplement #1)

Item No.	Work Item	In-House Direct Cost	Sub-Consultant Cost
Item 1 - Data Collection and Early Coordination			
Mileage: 2 trips @ 60 mi./round trip @ $0.56/mi.		$67.20	
	Item 1 Subtotal	**$67.20**	
Item 2 - Field Survey and Preparation of Base CAD File			
Sub-Consultant: Environmental Design International, Inc.			$15,000.00
	Item 2 Subtotal		**$15,000.00**
Item 8 - Geotechnical Studies			
Sub-Consultant: GSG Consultants, Inc.			$8,500.00
	Item 8 Subtotal		**$8,500.00**
Item 10 - Wetlands Studies			
Mileage: 2 trips @ 60 mi./round trip @ $0.56/mi.		$67.20	
	Item 10 Subtotal	**$67.20**	
Item 11 - Drainage Studies - Hydraulic Report			
Data Request: FEMA Floodplain Model		$300.00	
Mileage: 2 trips @ 60 mi./round trip @ $0.56/mi.		$67.20	
	Item 11 Subtotal	**$367.20**	
Item 15 - Community Engagement			
Mileage: 2 trips @ 60 mi./round trip @ $0.56/mi.		$67.20	
	Item 15 Subtotal	**$67.20**	

Church Street Pedestrian and Bicycle Improvements Phase I Study
City of Evanston

Summary of In-House Direct & Subconsultant Costs (Supplement #1)

Item No.	Work Item	In-House Direct Cost	Sub-Consultant Cost
Item 18 - Structural Studies			
Mileage:	2 trips @ 60 mi./round trip @ $0.56/mi.	$67.20	
	Item 18 Subtotal	**$67.20**	
	Total In-House Direct Costs:	**$568.80**	-
	Total Subconsultant Costs:	-	**$23,500.00**
	TOTAL IN-HOUSE DIRECT & SUBCONSULTANT COSTS:	**$24,068.80**	

Prepared by: Civiltech Engineering, Inc.
Printed: 9/30/2021

Exhibit A-1c
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Exhibit A-2 – GSG Consultants, Inc.

GSG CONSULTANTS, INC.

735 Remington Road
Schaumburg, IL 60173
Tel: 630.994.2600
www.gsg-consultants.com

September 28, 2021

Mr. James R. Wood, PE, PTOE
Project Manager
Civiltech Engineering, Inc.
Two Pierce Place, Suite 1400
Itasca, IL 60143

Proposal for Geotechnical Engineering Services - Supplement
Church Street Pedestrian and Bicycle Improvements
Dodge Ave West to City Limits
Evanston, IL

Dear Mr. Wood:

GSG Consultants, Inc. (GSG) is pleased to provide this proposal to provide geotechnical engineering support services for the above referenced project. Our proposal is based on the information provided in the email correspondence on September 24, 2021 and the North Shore Channel Bridge drawing set provided.

PROJECT DESCRIPTION

GSG understands that the project includes the improvements to the pedestrian and bike path alignment below the Dempster Street Bridge over the North Shore Channel. The improvements will include cutting into the east slope wall beneath the bridge rather than an at-grade crossing. Borings have previously been completed by others for the bridge and were provided for review and use. GSG will complete the following for the geotechnical services for the project:

A. Review underground utilities and layout the soil borings within the project limits. GSG will coordinate with Civiltech and City of Evanston for site access and will also contact JULIE prior to starting the field activities and clear underground utilities at the site.

B. Advance a total of 1 soil borings to a depth of 30 feet at the southeast corner of the existing bridge. The boring will be performed in accordance with the most recent edition of the ASTM standards including D1586 and D1587.

C. GSG's field representative will log the SPT results for the geotechnical borings and will inspect soil samples and prepare soil boring logs, provide soil description by color, texture, and consistency in accordance with the USCS classification system. GSG will also

measure the depth to groundwater and depth of existing pavement, topsoil and/or fill materials present at the site. A calibrated hand penetrometer will be used to determine the unconfined compressive strength of cohesive samples in the field.

D. Perform laboratory testing on select soil samples obtained during the subsurface investigation. The type of the laboratory testing program is normally dependent upon the type of soil encountered at the site. The amount of laboratory testing to be performed will be determined after completion of drilling activities and will be based on the materials encountered and what we anticipate will be required to perform the geotechnical analysis and prepare the reports. GSG's laboratory testing program may include performing the following:

    a. Atterberg Limit testing per ASTM D4318
    b. Grain Size Analysis per ASTM C136
    c. Particle Size Analysis per ASTM D422

E. Complete engineering analysis and provide a report giving geotechnical recommendations for the design and construction of the proposed improvements based on the results of the subsurface soil investigation and laboratory test results. The geotechnical report will include information about the site investigation activities, providing copies of the boring locations, soil boring logs, laboratory data, soil and groundwater condition at the site. The recommendations will include allowable bearing capacity and anticipated settlement for the proposed retaining wall, slope stability analysis, and provide recommendations regarding design considerations, site excavation, subgrade preparation, fill placement and compaction, and other construction related considerations.

BUDGET

GSG's estimated budget to complete the work outlined in this proposal is $8,500.

SCHEDULE

Upon written notice to proceed field services can be scheduled within 2 weeks of receiving a written Notice to Proceed, provided site access is also obtained.

Sincerely,
GSG CONSULTANTS, INC

Dawn Edgell, P.E.
Sr. Project Engineer

Ala E. Sassila, Ph.D, P.E.
Principal