

May 30, 2017

Mr. Vijay Mehta
Managing Mechanical Engineer
633 W. Wisconsin Avenue
Suite 1000
Milwaukee, WI 53203



Re: Building Envelope Evaluation
Sherman Park Boys and Girls Club

Dear Vijay,

Thank you for the opportunity to submit a proposal for additional services for the above referenced project. Our proposal is based on the discussions and recommendations made by IBC during our last project meeting for the Sherman Park Boys and Girls Club HVAC Renovation project.

We propose to provide the additional services to conduct a building envelope evaluation for a Lump Sum fee of \$14,724. Our fee Calculation outlining our Tasks and anticipated labor hours is attached along with a proposal letter from our sub consultant, ZS, outlining their tasks and lump sum fee. Our assumptions & exclusions are also listed on the attachments. The scope of work is detailed in the ZS proposal letter.

We look forward to continuing our relationship with Milwaukee County with the execution of this project. If you have any questions regarding the content of this proposal, please call me at (262) 522-4417.

Sincerely,

IBC Engineering Services, Inc.

A handwritten signature in black ink that reads "Thomas J. King". The signature is written in a cursive, flowing style.

Thomas J. King, RD, LEED AP
Project Manager

encl

Project: MilwCo - Sherman Park Boys and Girls Club Envelope Investigation
 Preparer: MRR/TJK Date: 5/30/2017



Envelope Evaluation Report

Work Breakdown Structure	Assigned Project Team Role	Sr. Project Manager	Project Manager/Engineer	Designer	Sr Electrical Engineer	CAD Designer	Architect													Total Activity	
																				\$	
	Hourly Rate w/ OH & Profit	\$133.41	\$108.63	\$70.86		\$113.69	\$59.85	\$125.00													
1. Site Survey work for to Investigate Heating Issues			4																		435
2. Prepare report			6																		652
3. Meeting to Discuss Report with County			3																		326
4.																					
5. Meeting with County and Architect to discuss Envelope Deficiencies			3					3													701
6. Meeting with Architect on site to Conduct Envelope Deficiencies			3					3													701
7. Review Existing Architectural Drawings								16													2000
8. Conduct Site Investigation								10.2													1275
9. Thermal Modeling of Findings								12													1500
10. Prepare report to county for Envelope Deficiencies			4					16													2435
11. Meeting with County to Review Envelope Deficiencies Report			3					3													701
12.																					
13. Preprare Cost Estimate for Envelope Repairs								6													750
14. Prepare Marked up Drawings for Envelope Repairs								16													2000
15. Perform two (2) site visits with reports during repairs								10													1250
16.																					
17.																					
18.																					
19.																					
20.																					
Total Classification Hours			26					95.2													
Total Classification Dollars			\$2,824					\$11,900													

Total Labor Hours : 121.2
Total Labor \$'s : \$14,724

Reimbursable Expenses:	Cost \$	Unit	Quan.	Total \$
Photo Copies	\$0.10	sheet		
Plotting - Bond	\$1.00	sheet		
Travel				
Automobile Milage	\$0.62	mile		
Miscellaneous Expense		Cost		

Total Expenses:

Assumptions/Exclusions

Total: \$14,724



Building Envelope Consulting
BIM Consulting
Structural Engineering
Forensic Engineering

ZS LLC
10501 W. Research Drive
Milwaukee, WI 53226

Phone 414.727.5000
Fax 414.727.6666
Web zslc-us.com

May 22, 2017 *Revised*

Mr. Tom King
IBC Engineering Services, Inc.
N8W22195 Johnson Dr, Suite 180
Waukesha, WI 53186

PROPOSAL

RE: Building Envelope Investigation
Sherman Park Boys and Girls Club
Milwaukee, Wisconsin

ZS Proposal Number: 178106

Dear Mr. King:

Thank you for your interest in ZS's engineering services. At your request, we are submitting this proposal to perform an investigation of the building envelope aspects of a low interior temperature issue during cold temperatures at the Sherman Park Boys and Girls Club in Milwaukee, WI

PROJECT UNDERSTANDING

The subject facility is a two-story structure consisting of steel framing and masonry wall structure with masonry exterior cladding that was originally constructed in 1990. ZS understands that there has been an issue of low interior room air temperature at rooms with exterior walls during cold weather. The mechanical systems in the building have been recently evaluated by a mechanical engineer (IBC Engineering) and no apparent HVAC system issues associated with the space conditioning were uncovered. As a next step, IBC recommended the building enclosure of the structure be investigated in an attempt to establish whether a building envelope issue could be the root or contributory cause of this low interior air temperature condition.

SCOPE OF WORK

To complete the requested services, ZS will specifically perform the following service tasks:

Task 1 – Review of Available Original Documents. As an initial step, the available documents related to the original construction will be reviewed, evaluated, and then considered during the field investigation. Specific documents of interest include the original professional design contract documents, project submittals, construction observation reports, field testing reports, and other available items related to the completed work. These documents will be evaluated for consistency with the conditions in field, the written installation instructions of the manufacturer, and applicable industry standard

Task 2 – Field Observation. A field observation of the reported and observed building envelope issues will be performed. Comprehensive fieldwork is the backbone of the ZS forensic investigation philosophy. The field observation will consist of a thorough visual assessment of the existing conditions at the interior and exterior of the facility, interviews with pertinent and available onsite personnel, and a comparison of the conditions with the design intent established in our review of the original construction documents. Multiple testing methods may be used through the course of the investigation including infrared thermography, moisture detection equipment, and other similar instrumentation. All field conditions will be fully documented including a photographic record.

Task 3 – Thermal Modeling. As a tool for evaluating the performance of the as-built construction configuration at targeted locations, computer thermal modeling developed for that purpose will be utilized during the investigation. The specific program will be established based on the building components being modeled. The results of the modeling will be considered during the investigation as it relates to the nature of the current issue and typical architectural standards for building construction.

Task 4 – Data Analysis and Forensic Investigation Report. The data collected during the investigation will be analyzed to draw conclusions regarding the reported phenomenon and establish recommendations for remediation. Engineer’s estimate of probable construction costs will be provided for recommendation given in the report. A written report including applicable descriptions, sketches, photographs, tables, graphs, and attachments will be developed with an initial “DRAFT” copy submitted to the client for review. Following the incorporation of client corrections related to the “DRAFT” report, a final report will be submitted to the client for their consideration. ZS has include two (2) meetings with the owner to review the findings and report recommendations.

Task 5 – Repair Recommendations and Identification. As part of the report, ZS will provide marked up plans for building envelope repairs related to the investigation findings. The documents will include marked up plans, technical specification, and details. The documents will not be suitable for bidding however will be suitable to make envelope repairs including insulation repairs, sealant repairs, vapor barrier repairs and air sealing repairs. Major envelope upgrades are not included in this fee including window replacements, roof replacement, door replacement, exterior wall cladding replacement.

Task 6 – Construction Observation. ZS will perform two site visits during the repairs. A site report will be issued for each visit.

COMPENSATION

ZS Building Envelope Investigation – Tasks 1, 2, 3, 4, 5, and 6

\$11,900.00

COMMENTARY

Based on our current understanding of the project we have, to the best of our ability, matched our services with the needs of the project. Should the need arise for us to expand our services to include any necessary additional field testing, laboratory testing, storm drainage investigation/analysis, site surveying, we would under your direction, submit a separate proposal for consideration.

SCHEDULE


Based on our current workload, ZS is able to complete Tasks 1 – 5 in this proposal by June 9, 2017.

ACCEPTANCE

To accept this Proposal as written, please execute by signing below and return a copy to ZS within 30 days of the date hereof.

This Proposal shall become an Agreement only after execution by both parties.

By execution with signature below, Client indicates that they have read, understand and agree to the terms of this Proposal in its entirety and has the authority to enter into this Agreement on behalf of Client. ZS will abide by the standard Milwaukee County Terms and Conditions

Company:	_____	ZS LLC	
Signature:	_____	Signature:	
Name (Print) :	_____	Darin C. Rickert, AIA, RRC, LEED AP	
Title:	_____	Senior Architect and Building Envelope	
		Consultant	
Date:	_____	Date: May 4, 2017	