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0702
September 8, 2009
VIA FAX: 467-2155

Kenora Fire and Emergency Services
Station 1 350 Second St S
Kenora, Ontario

ATTN: Mr. Warren Brinkman, Fire Chief

**RE: City of Kenora Fire & Emergency Services Facility
Tender Report**

Dear Mr. Brinkman;

We have proceeded with a value engineering exercise with Jarnel Contracting Ltd. on the Fire and Emergency Services Facility. The purpose of this exercise was: to determine where the tenders were in excess of the Class C cost estimate; to find monetary savings without negatively impacting the performance and integrity of the building; and to make a recommendation on how to proceed with the project.

In early May at the request of Council, Nelson Architecture retained Hanscomb Limited to provide a Class C cost estimate for the building and site. Hanscomb have offices across the country and issue an annual costing guide that is an industry standard. Later that month, Hanscomb returned a project cost estimate of \$5.2M based on pre-tender documents. When the low bid from tender returned at \$6.4M in late August, our office asked Hanscomb for their analysis. The following is a summary of their comments:

“... lack of adequate competition appears to have had quite a significant impact. Our experience is that in cases where only 1 bidder bids for a project the cost can go as high as 30% higher than we would otherwise expect in a competitive setting. Reduction of bidders from 3 to 2 can give rise to up to 20% increase in cost of construction. This affects both the GC and Subcontractors. That seems to have been the case with Electrical especially in this project.”

Hanscomb indicates decreased General Contractor competition as a major factor in the final result. This also extends to all of the sub-trades and materials in and around the building. During the tender period, many general contractors who declined to bid indicated so due to a full workload. Federal infrastructure money has started to flow, which affects all aspects of the project.

From the tender results, we see that the Mechanical sub-contractor price is approximately 35% above the Hanscomb estimate. The Electrical tender price is even greater, at 58% above the estimate.

Additionally we believe that the recent influx of infrastructure funding from the federal and provincial government has had an effect on the outlook for construction through 2011. The construction sector can be characterized as very optimistic which was not the case in may of this year.

We do not believe that re-tendering of the project without significant changes to scope would be a reasonable strategy to attempt to reduce costs. We wouldn't anticipate increased interest from general contractors. The time and effort required to re-design and re-tender would result in additional fees and escalation. Construction time would be extended, and we would also risk alienating the contractors who had already submitted bids.

We have met with Jarnel Contracting Limited, MCW/AGE, P. Kaudewitz Landscape Architect, and LDA Structural Engineers to discuss how to most effectively reduce the project costs. The following items are areas of attention:

#	ITEM	COST SAVING
1	Reduce size and material of skylights	11,000
2	Utilize swing doors rather than sliding doors at main entry	12,000
3	Change pavement from 80mm to 50mm & HD from 120mm to 80mm	39,000
4	Various mechanical reductions	110,190
5	Various electrical reductions	65,149
6	Change interior masonry walls with steel stud and gypsum	28,000
7	Seal concrete Apparatus floor in lieu of epoxy floor	20,000
8	Delete interior signage	5,500
9	Lower main floor elevation by 1 foot	25,000
10	Delete concrete aprons in front of garage doors	12,000
11	Use galvanized roof deck in lieu of painted steel deck	15,000
12	Delete half of landscaping plants and trees	7,000
13	Change multipurpose room divider from wood to vinyl or fabric	8,000
14	Move eqpmnt racks, hose lift, flag pole, & lockers to furniture budget	46,900
15	Use alternate floor drainage system in Apparatus floor	4,000
16	Change all second floor sealed unit glazing to non-tempered	10,170
17	Reduce below slab insulation	12,000
18	Change roofing system	21,000
	Sub-Total	451,909
	Original Tender Price	6,390,000
	Revised Tender Price	5,938,091

The various mechanical items noted in Item 4 are composed of details proposed by the mechanical sub-trade and approved by the mechanical engineer. They include; deletion of pipe and duct insulation where appropriate; change of controls manufacturer; change of plumbing fixture manufacturer; delete Heat Recovery Ventilator and air compressor (can be added back in at a later date if required); in lieu of 3 boilers, delete 1 boiler and install 2 larger units; delete infrared heaters in Apparatus area.

The electrical credit noted in Item 5 consists of the following: delete CCTV system; delete security alarm system; delete car plugs and site lighting on west side.

One could potentially reduce the performance specification on individual finish items in order to reduce costs further. However, it is our view that life cycle, performance and operations would be adversely affected. For example, a cheaper lighting package could be installed i.e. without occupant sensors, and with less efficient ballasts. However, our electrical engineer notes that the premium on the specified equipment has a payback of approximately 10 years. This strategy was used as a general guide when considering potential savings. We have however deleted the heat recovery ventilator in the garage area worth 49,000.. MCW / Age has applied for a grant from Union Gas which may allow us to implement this heat recovery during the contract period.

Also considered was the deletion of the cistern and associated equipment for a savings of approximately \$21,000. We believe that the cistern is not only a wise strategy to utilize water run-off rather than filling trucks with treated water, but is also symbolic of the facility and its commitment to efficient resource usage. Water usage from Station 1 last year was 162,00 gallons at a cost of \$10,882, 2/3 of which is required to fill trucks. Without taking into account the water usage for Station 3, this item would have a less than 3 yr payback.

Reducing the building area was also examined as a potential strategy to reduce cost. In order to meet the programming requirements of the Fire and Emergency Services, now and into the future, this is not recommended.

In summary, we believe that the methods noted above are appropriate and do not compromise the integrity of the designed purpose and programming of the facility. The current Fire Hall on Second Street has stood for over one hundred years, and we believe that this facility will follow in that tradition. The building has been designed from a systems perspective to remain functioning during disaster as required by Code for this building type and as such one would expect a premium on those affected systems.

It is our opinion that Jarnel Contracting Ltd is capable of performing the work as defined by the tender documents. Therefore, we recommend that the City enter into a standard stipulated sum contract with Jarnel Contracting Ltd. for the sum of \$5,938,091.

If you have any questions, or if I can be of further assistance to you, please do not hesitate to contact me.

Yours truly

Nelson Architecture Inc.

David Nelson, OAA, MRAIC

