ITEM	22
MANAGER'S REPORT NO.	41
COUNCIL MEETING	88/06/13

RE: REMOVAL OF ASBESTOS CONTAINING MATERIAL (ACM) FROM MUNICIPAL HALL

MUNICIPAL MANAGER'S RECOMMENDATION:

1. **THAT this report be received for information purposes.**

* * * * * * *

SUMMARY

In pursuing the formulation of a "Compliance Plan" in order to satisfy the requirements of the Workers' Compensation Board Order with respect to removal of asbestos from the Municipal Hall ceilings, it became progressively more apparent to the staff committee formed for this purpose that there were considerable savings to be realized if asbestos removal were to be integrated with any possible expansion or renovation works. The last renovation work was completed in 1975. We are now looking at all of the ramifications of integrating any renovation work that may be involved. This is a progress report in that respect.

REPORT

Council, at its meeting of 1986 December 08, approved of the recommendations in Item 15, Manager's Report No. 72, (copy attached) relating to removal of asbestos in the Municipal Hall.

Subsequently, a staff committee with representation from all Departments was formed to develop a strategy that would serve as a Compliance Plan to meet the requirements of the Workers' Compensation Board Order relating to asbestos removal. An architect, well-experienced in asbestos removal, was engaged to assist and advise the committee in its endeavors.

At its meeting of 1987 December 14, Council received a report (Item 10, Manager's Report #77, copy attached) from the Director Planning & Building Inspection which recommended the engagement of a consultant to identify present and future space requirements within the Municipal complex consisting of Municipal Hall, West Building and Justice Building. The motion to adopt the recommendation was tabled pending a meeting between the Municipal Council and senior staff, which has not yet been held. The report mentions on page two that asbestos removal, among other things, has a relationship to the need for a space requirements study.

The only building in the precinct with asbestos containing material is the Municipal Hall, so the efforts of the staff committee were confined to the Municipal Hall. During its early deliberations, the committee was guided extensively by

(Cont'd.)

the need to develop a compliance plan which would satisfy the Board Order regarding asbestos removal. However, in carrying out the detailed work required to assess the extent and nature of the asbestos problem in the various parts of the Municipal Hall, a number of other building deficiencies became obvious. These deficiencies can be grouped under the main categories of building code upgrade, systems upgrade, renovation, and overall space needs. There is a complete lack of any space to temporarily accommodate staff during the removal process and there is therefore a necessity to create temporary building space at considerable expense outside the Hall. Not only is it expensive to provide that space but an equally important factor is the attendant disruption to the public. If it should be determined that renovations are required immediately, it would be highly desirable to have only one interruption, i.e., to carry any renovation work coincident with the asbestos removal.

Although the estimates available at this time were only preliminary ones, there is a strong indication that savings in the order of 25% could be realized through integration of the various work facets discussed in the foregoing paragraph. Depending upon the extent of what work is finally concluded, the savings could represent $2 million on an integrated project, with approximately $3/4 million coming from the asbestos removal portion of the project.

The asbestos order of the Workers' Compensation Board is the key consideration in being able to undertake an integrated approach. The most effective integrated program is one which requires the Board to agree to a delay of about seventeen months from the date contained in the present Order for commencement of removal operations. It should be noted that we intend, during any postponement, to maintain our maintenance and custodial control program (MCCP). This program includes the prohibition of any disturbance of the ACM material and the provision for sampling and inspection reports from an independent consultant which, to date, has resulted in no positive readings for asbestos. Our request for approval in principle has been made of the Board and a response is expected in the early part of the week of June 13.

Some additional staff work is required which would be preparatory to the engagement of a consultant referred to in the previous Council Report (Item #10, Manager's Report #77, Council Meeting 1987 December 14). It is the intent to do this work starting immediately which, together with the expected approval in principle from the Workers' Compensation Board for the time extension, will come together in a detailed report to Council sometime late in August or during the first half of September.

The purpose of this report is to bring Council up to date on this subject and to advise that staff is actively engaged in addressing it.

* * * * * * *

ITEM 15
MANAGER'S REPORT NO. 72
COUNCIL MEETING 86/12/08

ITEM SUPPL 22
MANAGER'S REPORT NO. 41
COUNCIL MEETING 88/06/13

RE: ASBESTOS REMOVAL - MUNICIPAL HALL

MUNICIPAL MANAGER'S RECOMMENDATION:

1. THAT the recommendations of the Director Engineering be adopted.

* * * * * * *

TO: MUNICIPAL MANAGER

1986 DECEMBER 02

FROM: DIRECTOR ENGINEERING

SUBJECT: ASBESTOS REMOVAL - MUNICIPAL HALL

RECOMMENDATIONS:

1. **THAT** the Director Engineering be authorized to proceed with a process to remove asbestos containing material within the Municipal Hall as outlined in this report.

2. **THAT** a Tax Sale Bylaw in the amount of $950,000 for asbestos removal be brought forward.

S U M M A R Y

The insulation material applied to the ceilings throughout the Municipal Hall contains varying percentages of asbestos fibres. The Corporation has a legal obligation to comply with a W.C.B. order which requires that portions of the insulation be treated with a sealant or removed. Work procedures for sealing (encapsulation) or removal are essentially the same. It is recommended that the asbestos containing material (ACM) be totally removed as a final and permanent solution.

R E P O R T

Background

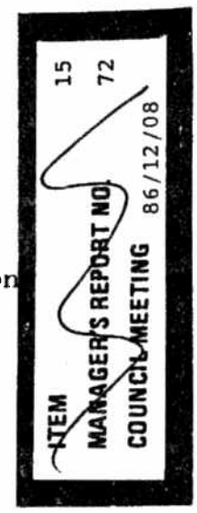
The ceiling insulation material above the suspended ceiling throughout the Municipal Hall contains asbestos fibres. Analysis of the insulation material has identified that from 5% to 20% chyrsotile asbestos fibres are present in the insulation material. The Workers Compensation Board of B. C., Industrial Health and Safety Regulations, lists asbestos as an airborne contaminant and the regulations control all operations involving the use of materials containing asbestos.

The W.C.B. has an outstanding order against the Corporation which states in part that:

> "Damaged asbestos insulation shall be treated with a sealant to reduce fibre release, or, where treatment is not possible, asbestos shall be removed."

This requirement, originally issued in 1983, has never been met. Staff has worked closely with the W.C.B. over the past few years in order to adequately address the requirements of the W.C.B.

(Cont'd.)



Various studies and analyses of the asbestos problem have culminated in the preparation of an independent consulting engineering report entitled, "Asbestos Hazard Assessment and an Abatement Program for Burnaby Municipal Hall". The recommendation of the report is that an abatement program involving complete removal of the asbestos containing material on all floors be undertaken.

200

Discussion

There are four recognized methods for controlling the potential health hazard associated with the presence of asbestos in a facility. These are removal, encapsulation, enclosures, and an attendant management and custodial control program associated with the encapsulation and enclosures options. Removal is the ultimate solution because it completely removes the health risk associated with the presence of asbestos. Encapsulation and enclosure are both methods which allow the ACM to remain in place but prevent it from being disturbed during normal building use; this does not, however, include disturbance caused by building maintenance and repair, hence, both methods must be accompanied by the fourth control method, management and custodial control. A Management and Custodial Control Program (MCCP) consists of a set of documented guidelines which strictly specify work methods, procedures, and equipment to be used by any person working in an area that contains asbestos.

The W.C.B. order requires, as a minimum, localized (spot) removal of previously damaged areas and encapsulation of the remaining areas together with an ongoing MCCP. Because encapsulation permits the ACM to remain in place, it has the following inherent drawbacks:

I. INCREASED OPERATING COSTS

A. Working above the ceiling is restricted to afterhours and weekends with attendant overtime labour rates.

B. Productivity is greatly reduced as work procedures require set-up of isolation tents when penetrating the ceiling system.

C. Inconvenience and loss of productivity for staff affected by ventilation, air conditioning, or lighting system failure which cannot be investigated or repaired until afterhours.

D. Either an increase in staff or a reallocation of effort would be required to fulfill the requirements of a management and custodial control program, which requires:

i) regular daily, weekly, or monthly visual observations

ii) regular monthly cleaning using special equipment and procedures

iii) thorough initial cleaning using special equipment and procedures

iv) revised procedures that will intercept outside contractors and inhouse staff prior to having them do work in ACM areas so that these workers will be trained to use the proper work procedures and have provided to them proper equipment and personal respiratory protective equipment

v) emergency cleanup of minor amounts of ACM debris

(Cont'd.)

II. PRESENCE OF ACM SEVERELY CONSTRAINS BUILDING FLEXIBILITY AND INCREASES RISKS OF BUILDING USE

A. Past records indicate that many alterations have occurred within the facility since the building was erected. In the past these were done with no consideration being given to the presence of ACM and the generation of elevated fibre concentrations through contact damage. Today, work of this type in a facility containing ACM must be done using rigidly controlled work procedures and specialized equipment which increases the cost of the work and places constraints on the scheduling and duration of alteration work.

B. It will become increasingly difficult, if not impossible to obtain liability insurance on facilities containing ACM.

The risk of major unauthorized disturbance of the ACM with the associated generation of excessive asbestos fibre concentrations is ever-present.

i) at the discretion of the WCB, a sizable area surrounding the infraction location will require cleaning using special ACM equipment and techniques

ii) adverse publicity could result in negative effects, both from political and public health points of view

iii) there will be associated costs, both human and financial

D. As long as the ACM is in place, it will remain as a potential issue between management and employees.

E. Being a municipal government, this facility will be in use for the long term with little chance of relocating to new premises; hence, there is no merit in initiating low-cost short-term control because the hope of relocating to new premises in the near future is virtually non-existent.

F. There would be an inherent difficulty of determining with any appreciable degree of certainty whether or not any given future health problem resulted from the presence of ACM in the Municipal Hall.

G. There is a finite amount of ACM within facilities in the region and there are presently a number of contractors that are concentrating on providing asbestos control services. The number of qualified contractors will dwindle as the volume of untreated ACM decreases and it will get progressively more difficult and expensive to have the work done.

From discussions with the WCB, the work area decontamination procedures for the Spot Removal and Encapsulation would be the same as those for Total Removal until an extensive air monitoring program verified that the fibre concentration generated by the Spot Removal and Encapsulation are so low that less restrictive work methods could be used. Until such a point is reached the cost and disruption associated with Total Removal would not be significantly higher than that associated with Spot Removal and Encapsulation. It is generally recognized that when costs are evaluated on a life-cycle-cost basis, Total Removal becomes the best long-term solution.

(Cont'd.)

Costs and Methodology

Our consultant has provided cost ranges for two alternative abatement programs, i.e.:

a) Spot Removal and Encapsulation
b) Total Removal

The costs for initial treatment are estimated as follows:

	Alternative 1 Spot Removal and Encapsulation $	Alternative 2 Total Removal $
Contractor Costs	341,000 - 460,000	605,000 - 855,000
Engineering, Construction Administration & Supervision Fees	51,000 - 60,000	79,000 - 95,000
TOTALS	392,000 - 520,000	684,000 - 950,000

In addition to the initial treatment costs shown under Alternative 1, it would be necessary for that Alternative only to include the long term costs associated with a management and custodial control program. These costs are essentially unknown due to the significant inherent variance in estimating the extent of future building alteration and maintenance requirements. However, it is not unreasonable to assume that an additional operating cost of $30,000 per year would be incurred dealing with ACM in place which, over a 10-year period, extends to $300,000. In any event, specialized removal of the asbestos would, with little doubt, have to be undertaken at the time of building demolition. We are of the opinion that from an overall perspective, Alternative 2 is rendered the preferred option.

In either case, the works would be undertaken by a contractor specializing in asbestos treatment and removal. It would also be necessary for the Corporation to retain a consultant to provide engineering advice in this specialized field. At this time it would appear that the work would best be undertaken primarily on weekends in order to minimize disruption of municipal services and minimize costly temporary displacement of employees; however, all options of work methods would be explored at or prior to the time of tender call.

The work of asbestos removal would be expected to take up to two years to complete. Asbestos removal must be considered a project in its own right because no major renovations are likely to take place in the next 5 to 10 years which could have been integrated with this project.

Financing

All of the financing alternatives were considered and the Director Finance concluded that the $950,000 highest estimated cost of the project should be funded as follows: First, from 1986 general revenue fund surplus, if any, after allocation of the $1 million needed for carry forward as revenue for 1987. Second, from 1986 capital surplus, if any, and finally, the balance from the Tax Sale Reserve.

However, the amount of surplus available will not be known until after year-end 1986, i.e. early in 1987, and because the full

(Cont'd.)

ITEM	15
MANAGER'S REPORT NO.	72
COUNCIL MEETING	86/12/08

ITEM	SUPPL	22
MANAGER'S REPORT NO.		41
COUNCIL MEETING		88/06/13

amount of funding has to be in place prior to commencement of the project, it is recommended that the $950,000 be authorized by a Tax Sale Bylaw. In actual fact, the Tax Sale Reserve account will only be used to the extent needed, after utilization of available surplus funds. The net amount from tax sale would be repaid over 20 years at prevailing interest rates.

The Tax Sale Bylaw requires a two-thirds approval of full Council as well as Ministerial approval.

No revenue sharing or assistance grants from senior levels of government are available for projects of this nature.

Conclusion

The presence of asbestos containing materials in buildings and other structures is a problem which has confronted many public and private employers. "Removal" orders are not uncommon and have been enforced in such public areas as Vancouver Planetarium, B. C. Ferries, Vancouver International Airport, B.C.I.T., and B. C. Hydro buildings. The Corporation has a legal requirement to comply with the regulations of the W.C.B. Overall asssessment of the options available leads to the conclusion and recommendation that Total Removal of the ACM is the preferred solution in the long term.

E E Olsen

DIRECTOR ENGINEERING

WCS:ml

cc: ( ) Director Finance
( ) Medical Health Officer
( ) Municipal Solicitor

ITEM	SUPPL	22	
MANAGER'S REPORT NO.		41	
COUNCIL MEETING		88/06/13	

ER'S REPORT NO.	10	
L MEETING	77	
	87/12/14	

RE: ENGAGEMENT OF CONSULTANT - PREPARATION OF DEVELOPMENT STUDY ANALYSIS AND FACILITY PROGRAM FOR MUNICIPAL COMPLEX (PRECINCT)

204

MUNICIPAL MANAGER'S RECOMMENDATION:

1. THAT the recommendation of the Director Planning & Building Inspection be adopted.

* * * * * * *

TO: Municipal Manager

1987 November 26

FROM: Director Planning & Building Inspection

SUBJECT: ENGAGEMENT OF CONSULTANT - PREPARATION OF DEVELOPMENT STUDY ANALYSIS AND FACILITY PROGRAM FOR MUNICIPAL COMPLEX (PRECINCT)

==========

RECOMMENDATION:

1. THAT staff be authorized to pursue the engagement of a consultant to complete a development strategy analysis and facilities program to identify the present and future space requirements within the Municipal complex consisting of Municipal Hall, West Building and Justice Building.

REPORT

At its meeting of 1987 September 22, the Management Committee accepted the recommendation from the Project Co-ordinator to pursue the engagement of a consulting firm experienced in space analysis to determine the most efficient and effective use of existing office space within the municipal precinct and the necessity for immediate or future expansion.

It has become increasingly apparent during the last three years that the available space and functional layout within the existing municipal hall may no longer answer the needs of the staff or the community. The M.I.S. report prepared by Robert Liley & Associates dated 1984 April, confirmed the need for additional office space for approximately 11 to 18 persons within the Information Services Department by 1986. At the time of implementation, it was identified that there would be an introduction of significant amounts of new equipment and associated staff within the municipal hall and west building that were already very nearly at maximum capacity. A survey of department requirements for future growth indicated that minimum growth was anticipated due to the possible continuation of a difficult economic climate. It was therefore concluded that the specified equipment and personnel would be accommodated within the existing facilities realizing that some additional crowding might result.

It now appears that the anticipated future requirements relating to both staffing and equipment were underestimated. A review of the requirements for computer equipment and associated furniture, subsequent to that identified in the "Liley" report, has revealed the need for substantial space increases, resulting in areas which cannot provide for future expansion or, indeed, satisfy present space and functional needs.

Several departments are presently considering renovations, while others have recently undertaken interior renovations within their existing defined floor areas in an effort to accommodate computer implementation and to better utilize the space available to them. Spaces previously considered available for future expansion have now in part been utilized and areas presently required for meetings, public circulation and storage have been reduced to a critical level to accommodate this growth.

Similar space and functional concerns have been identified in the West building and, to a lesser extent, the Justice building. To identify overall current and future space requirements which may, if future expansion is necessary, affect development on the site of the municipal precinct, it is proposed that these facilities be included in a study of municipal space requirements.

A number of additional items that are being considered at this time clearly indicate this to be an appropriate time to clarify our short and long term space requirements:

1. Fire protection and acoustical material containing asbestos is scheduled to be removed from the entire municipal hall building in 1988.

2. As a result of renovations which have occurred in the municipal hall over the years, upgrading of building components such as exits is necessary to meet the requirements of the current B. C. Building Code.

3. The Council Chambers are being reviewed to improve the sound, lighting and aesthetic qualities as well as the public seating capacity which cannot be achieved given the restriction of the existing floor space.

4. The landscaping in the north-east section of the Municipal precinct site is being considered for re-development.

5. The functional effectiveness of departments such as Information Services, Finance and Parks has been reduced because portions of these departments are located remote from their main facilities.

6. The installation of additional wiring and equipment is scheduled relative to computer implementation.

7. A computerized information kiosk in the main entry lobby has been proposed.

Clearly defined and understood objectives outlining current and future spatial needs and functional relationships for the various departments and buildings are necessary. A facility program outlining the short and long term direction necessary to achieve these objectives is also needed.

ITEM 10
ITEM SUPPL 22
MANAGER'S REPORT NO. 41
COUNCIL MEETING 88/06/13

Current and envisaged workloads preclude the use of staff to complete this type of review and program. It is therefore proposed that the initial defining of our space and functional requirements be addressed by the consulting firm now to be selected.

206

This facility program study would require an expenditure of approximately $45,000.00 and could be completed within 4 to 6 months. The necessary funds have been provided in the capital contingency account in the 1987 capital budget.

The study will describe the space requirements for each department and each space within each department as well as the functional relationship between departments. The program will also identify the need for location and treatment of high profile public areas. In considering present and future needs, it will be essential to identify the suitability of the existing site and building systems to accommodate any necessary expansion or alteration. The completed documents will be in a form suitable to establish a short and long term course of action and could lead to recommendation for the engagement of architectural services to undertake the necessary design for implementation.

A. L. PARR
DIRECTOR PLANNING &
BUILDING INSPECTION

GRH/jce

cc: Chief Building Inspector
Director Administrative & Community Services
Director Planning & Building Inspection
Director Engineering
Director Finance
Director Recreation & Cultural Services