

RE: MECHANICAL AND VENTILATION ALTERATIONS
BURNABY MUNICIPAL HALL

MUNICIPAL MANAGER'S RECOMMENDATION:

1. *THAT the report of the Chief Building Inspector be received for information purposes.*

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TO: MUNICIPAL MANAGER 1981 AUGUST 27
FROM: CHIEF BUILDING INSPECTOR
RE: MECHANICAL & VENTILATION ALTERATIONS
BURNABY MUNICIPAL HALL

RECOMMENDATION:

1. THAT this report be received for the information of Council.

REPORT:

Included in the 1980 C.I.P. for the Municipal Hall were funds for a consultant study of anomalies in the heating and ventilation systems of the Hall. The anomalies had become apparent over the past five years since the building was renovated in 1975/1976 in the form of uneven heating in the various office areas, uneven ventilation in some office areas, excess morning heat gain to the offices on the east side of the building, and intake of cafeteria odours into ventilation systems of the short block.

It should be recalled that the extensive renovations undertaken in 1975/1976 introduced to the Municipal Hall a comprehensive ventilation system, complete with air conditioning chiller for summertime, to operate year-round in conjunction with the former perimeter hot water, wall fin convection heating system. The design for the ventilation/air conditioning requirements for the building was dependent on sealing the building by closing all opening windows, and by adding a precast concrete shade screen to the exterior of the long block, and a vine trellis to the short block. Because of architectural compromise for esthetic reasons, and for preservation of sight lines from the building, the precast shade screen does not fully provide early morning sun control and heat gain to the east side of the long block. Similarly, the lack of vine growth over the trellis still does not protect the short block against excess heat gain during the day. Although the air handling system initially installed with the renovations in 1975/1976 was balanced, it has become apparent that variation from the "design" supply air quantities is necessary between the east side and west side of the long block and the north and south sides of the short block to achieve optimum working conditions in the various office areas in the building.

The perimeter heating system was left mainly intact during the former renovations. It was a simple system that modulates water temperature from outdoor sensors to three perimeter heating zones. One of the zones particularly, containing the east side and north end of the long block and the north side of the short block, has proven too large to permit the flexibility necessary to retain adequately uniform heating temperatures in the variety and number of offices served.

Hence, in brief, for the anomalies which have become necessary to correct, it was planned to engage the Consultant, J.D. Kern, F.Eng., at the beginning of 1981 to study the conditions and to prepare the necessary drawings and other data by which to have the conditions corrected. This study was delayed by the three-month civic strike and could not be commenced until June of this year. The consultant completed his report with recommendations and estimates of cost on 1981 August 14.

The work involved falls into two main trade areas - mechanical piping changes to the perimeter heating system; and sheet metal changes including relocation of variable air volume boxes, and rebalancing of the air-handling system. The scope of the repairs is scattered throughout the building and is considered to best be undertaken by reliable contractors who have a knowledge of the building. To this end the consultant's drawings were given to a mechanical contractor and a sheet metal contractor who independently took off the estimated costs of the respective items of work. Their estimated costs were in line with the estimates supplied by the consultant and purchase orders have been issued for the respective work.

The costs of the work by purchase orders issued to cover the comprehensive repairs are:

Mechanical modifications to heating system	\$21,500
Modifications to air-handling system (including rebalance)	20,400
Insulation film application to east side windows, 2nd and 3rd floors	2,665
Repairs to broken/cracked windows, east side, 2nd and 3rd floors	<u>752</u>
Sub Total:	\$45,317
Work Order to municipal forces to remove and reinstall wall fin cabinet covers, close openings in cafeteria ceiling to Parks Department, cut concrete floor opening, wait on trades	<u>5,000</u>
Estimated Total:	<u>\$50,317</u>

Included in the 1981 Recast Budget for Municipal Hall Maintenance is the sum of \$55,000 to cover the above-noted work.

The fees for the consultant for preparation of the drawings, specifications, and covering report are provided for in the Municipal Hall Renovations Reserve Fund in the amount of \$12,000.

The insulation film application to the east side windows, commenced on 1981 August 24 after window repairs had been completed.

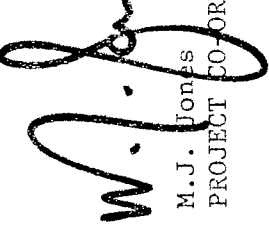
The sheet metal work has commenced with shop fabrication of necessary components and ordering of V.A.V. boxes for which delivery is expected in six weeks' time. On-site installation will commence at the beginning of September.

The mechanical modifications to the heating system will commence later in September in co-ordination with the finishing of the sheet metal work, the installation of controls, and the balancing of the air system.

The foregoing is submitted for the information of Council.

MJJ:1m

c.c. MUNICIPAL TREASURER


M.J. Jones
PROJECT CO-ORDINATOR