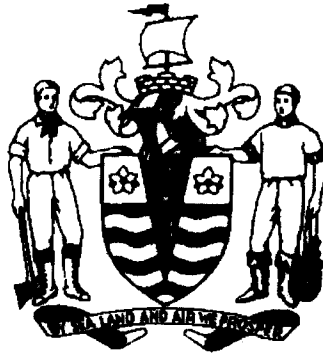


Appendix 2

Submission to the

2004

SUPPLEMENTARY
CAPITAL BUDGET



City of Vancouver
May 2004

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services – Facility Design & Management – Facilities Development

CATEGORY(Choose one of the following categories):

Facility:

Information Technology:

Other:

PROJECT DESCRIPTION: Upgrade Human Resources Training Centre in City Hall

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

HR Training Centre

In 1999 the Training Centre for Human Resources had to move from a 2,100 SF office on the second floor of the VanCity building to accommodate the SAP Consultant Team. Renovations were quickly undertaken in a 4,612 SF space formerly occupied by Information Technology on the subground level of City Hall to house the HR Training Centre and classrooms for SAP Training. This was an interim measure until the Training Centre could move to a permanent facility in 450 West Broadway. In addition, this subground space was being reserved to service Council's desire for a large committee room in City Hall. In the past five years, priorities have changed and the interim solution is not working well. HR's staff and Organizational Development Team (S&OD) and SAP training staff have developed a joint program and plan to upgrade the existing space. (contd on page 2)

OBJECTIVES:

To collocate the eight members of the S&OD team; to upgrade the space to an efficient functional layout and environment suitable for classrooms and training activities; and to improve the separation of training rooms.

BUDGET (include functional breakdown):

Renovation (hard and soft costs):	\$560,000
Furniture and Equipment:	\$162,000
TOTAL:	\$722,000

TIMING :

Start :

Completion:

COST SAVING AND OTHER BENEFITS:

Improved team coordination; improved learning environment and increased ability to schedule and use the facility.

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: \$722,000

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other(please specify): _____

2004 Supplementary Capital Budget Requested:

\$722,000

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 1

DEPARTMENT: Corporate Services – Facility Design & Management – Facility Development

PROJECT DESCRIPTION: Upgrade Human Resources Training Centre in City Hall

PROJECT SUMMARY (continued)

HISTORY: (contd)

This renovation would collocate eight S&OD staff and two SAP staff. Facilities would continue to include: two S&OD training rooms including a large room for 30 people and a small room for 18, two SAP computer classrooms for 12 students each, large meeting room (10 staff), small meeting room (6 staff), breakout rooms, storage and preparation rooms, reception and offices in an efficient layout.

Considerable upgrading is required to provide adequate acoustic separations and individual controls for heating, cooling, ventilation and lighting in classrooms and training areas. The estimated cost of the renovation including soft costs is \$560,000. In addition, replacement of desks, chairs, tables with ergonomic furniture and equipment has been estimated at a cost of \$162,000.

Total cost of the project is estimated at \$722,000

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: City Clerk's - Microfilm (Division moves from Engineering to Clerk's Dec 1/03)

CATEGORY(Choose one of the following categories):

Facility: X Information Technology: Other:

PROJECT DESCRIPTION:

MICROFILM OFFICE ALTERATIONS

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)
HISTORY:

Health, safety and ergonomic problems have been identified in the Microfilm area by Andrew Ross, Occupational Hygiene Coordinator for Engineering (see attached reports)

OBJECTIVES:

Bring area into WCB OH&S compliance from an air quality perspective; create ergonomically correct workstations and storage (staff currently have computers on table tops and very poor storage of boxes requiring heavy lifting)

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : \$60,300 (see attached)

TIMING :

Start : ASAP (not yet known)

Completion:

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: \$60,300

Funding From Other Sources:

Senior Government: _____
Property Owners: _____
Other (please specify): _____

2004 Supplementary Capital Budget Requested: \$ \$60,300

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 2

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT:

Engineering Services

CATEGORY (Choose one of the following categories):

Facility: X

Information Technology:

Other:

PROJECT DESCRIPTION:

Renovation to make space for new staff positions, set up a Departmental Printing Area, and provide secure access to technology support area.

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The Information Services Branch of the Engineering Department continues to build technology products to support the Department's business process. Two new staff members are being hired to help support the growth in this area. Desk space can be made available by moving the current printing area to the map vault. The current Printing area is seeing a two fold increase in use over the past year based on the new technology products being made available and a reconfiguration of the area is needed to handle the additional volume and to deal with the noise and general disruption of adjacent offices.

The Information Services Branch also provides network support services for the Department. Consequently, there are dozens of hardware devices stored and prepared in this area on an ongoing basis. A higher level of security is needed to properly secure these resources

OBJECTIVES:

- To make space for new full time permanent staff
- To respond to growing demands for printing
- To provide secure areas for computer hardware storage

BUDGET (include functional breakdown):

Direct Labour: 30,000
Materials : 20,000
Equipment : 10,000
Other : 5,000
Total : 65,000

TIMING :

Start : March 2004

Completion: April 2004

COST SAVING AND OTHER BENEFITS:

Provide office space for new staff. Provide sufficient space for printing. Avoid loss of equipment (up to \$50,00 per event)

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$0	\$0	\$0

PROJECT COST:

Total Cost: 65,000

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other (please specify): _____

2004 Supplementary Capital Budget Requested: \$ _____

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 3

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Repair Seating in Museums/PSC Lower Auditorium

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The seating in the Museums/PSC complex lower auditorium are worn to the point where the foam has collapsed making them very uncomfortable to sit in for long periods of time. There are numerous complaints from customers and this situation is deterring return bookings resulting in loss of revenue,

OBJECTIVES:

To rebuild the seating making the Auditorium comfortable and marketable.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding

Completion: 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other(please specify): _____

2004 Supplementary Capital Budget Requested:

\$ 51,000 _____

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 4

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Exterior Restoration Museum/Planetarium

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The exterior surfaces of the Vancouver Centennial Museum, HR McMillan Planetarium have deteriorated to the point where restoration cleaning and sealing must be done. Failed caulking on the concrete joints at roof level is allowing moisture penetration to inside surfaces.

The surfaces of the facility has deteriorated to the point of becoming an eyesore, this is highlighted even more with the contrast between the new Walley addition and the old weathered façade.

OBJECTIVES:

A thorough cleaning and sealing of the concrete surfaces would provide protection preventing further damage and allow for cost effective cleaning in the future.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding

Completion: 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____
Property Owners: _____
Other(please specify): _____

2004 Supplementary Capital Budget Requested: \$ 120,000 _____

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 5

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Engineering – Yards Branch

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION:

Replace Manitoba Works Yard Emergency Power Genset

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The Emergency Generator Set (Genset) at Manitoba Works Yard is now over 40 years old. Although it is not used daily, it is part of our City of Vancouver Emergency Equipment. It is of an age where repair parts are no longer available and should it fail, our electrical service for emergency response will be compromised.

OBJECTIVES:

To replace unit and assure available, reliable emergency power for another 20 to 30 years

BUDGET (include functional breakdown):

Direct Labour: \$ 10,000
Materials : \$108,000
Equipment : _____
Other : _____
Total : \$118,000

TIMING :

Start : 2004

Completion: 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: \$118,000

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other(please specify): _____

2004 Supplementary Capital Budget Requested: \$ _____

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 6

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services/Facilities Design & Management/Building Services

CATEGORY (Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Power Vacuum Ventilation Ductwork

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

Power vacuum ventilation ductwork from the points where air enters the system to the points where the air is discharged from the system. The supply and return air grilles, return air ducts, interior surfaces of the air handling unit, mixing box, coil compartment, condensate drain pans, turning vanes filter housings reheat coils, transfer fans and dedicated exhaust systems. This facility has supply and exhaust air systems as well as 162 heat pumps each with their own associated ductwork. 2120 Cambie has now been occupied 24 hours a day seven days a week for 10 years.

OBJECTIVES:

As required by WCB Indoor Air Quality Regulations and identified in maintenance inspections by our staff a power vacuum of the HVAC ductwork is due.

To remove contaminants from ductwork this if airborne will constitute a health hazard and breach of WCB Regulation.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials: _____
Equipment: _____
Other: _____
Total: _____

TIMING:

Start: Upon receipt of funding

Completion: 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other (please specify): _____

2004 Supplementary Capital Budget Requested: \$ 54,000

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 7

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Four Corners Bank Basement Ventilation

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

As part of the basement is currently being used as office space the the fresh air being supplied to the area is being supplied from the alley at a very low elevation of approx. three feet elevation which may encounter vehicle exhaust and human debris and excrement It is recommended this current system be replaced .

OBJECTIVES:

To provide HVAC to lower basement area ,to meet WCB air quality standards

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding Completion: 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:
Senior Government: _____
Property Owners: _____
Other(please specify): _____

2004 Supplementary Capital Budget Requested: \$ 52,000

FOR INTERNAL USE ONLY PROJECT NO.: 8
Order Group: Order Number:

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Replace City Hall Daycare Ventilation System to Adhere to Current Code

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The current method of ventilation at City Hall Daycare is undersized and offers very little climate control ,there are several electric radiant panels that are in use but are not capable of the meeting existing environmental temperature conditions .There is very little make up air to the three main areas in the daycare and various stale air and odors are prevalent through out the facility . Due to the design of the building there is no cross ventilation through use of windows nor does the existing system supply any method of air conditioning.

OBJECTIVES:

The proposed upgrade would involve the installation of three air cooled heat pumps to provide heating and air conditioning controlled via a Building Automation System

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding

Completion: 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____
Property Owners: _____
Other(please specify): _____

2004 Supplementary Capital Budget Requested: \$ 53,000

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 9

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility:

Information Technology:

Other:

PROJECT DESCRIPTION: Dig new pit to allow access and replace shutoff valve and backflow preventors

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

To build a concrete pit and replace or rebuild the 6" main backflow prevention valves located off 10th. Avenue serving the grounds on the north side of City Hall. This includes the cost of excavating, cost of rebuilding or replacing the upstream 6" shutoff valve which is passing water, the 6" downstream valve which is passing water, constructing an 8 foot deep concrete pit with room to get down to the valves for servicing each year as required by the plumbing code and fabricating a tamper and vandal proof steel cover for the pit. The current installation does not meet code requirements, the shutoff valves are leaking and cannot be serviced due to the small size and unsafe condition of the pit. This project should be undertaken to prevent contamination of the domestic water main under 10th Avenue.

OBJECTIVES: The current installation does not meet code requirements, the shutoff valves are leaking and cannot be serviced due to the small size and unsafe condition of the pit. This project should be undertaken to prevent contamination of the domestic water main under 10th Avenue.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding

Completion: Fall 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____ \$51,000 _____

Funding From Other Sources:

Senior Government: _____
Property Owners: _____
Other(please specify): _____

2004 Supplementary Capital Budget Requested:

\$ 51,000 _____

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 10

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION:

Replace Obsolete Heat Pumps at Gathering Place

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The industry standard designed life expectancy for air-source heat pumps is 10 to 15 years. The equipment at the Gathering Place is now 10 years old and unit compressors are starting to fail. It is more economical to replace than attempt repairs. A schedule for replacement should begin immediately.

OBJECTIVES:

To ensure adequate ventilation and climate control according to WCB indoor air quality standards.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding

Completion:

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other(please specify): _____

2004 Supplementary Capital Budget Requested:

\$ 53,000.00

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 11

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY (Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION:

Replace shower piping and hot water tanks

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The timed showers for clients at the Gathering Place have been a constant source of complaints and leak damage since the building was commissioned. The current system has a solenoid installed in the hot water line before the pipe goes to the shower diverter valve. This causes the shower to run cold when the time expires and allows a cross connection between the shower supply and the adjacent shower giving too much cold water to the second shower. The solenoid valves are located in the closet in the hallway which means there is an extra 12 to 25 feet the hot water must travel to get to the shower causing an undesirable loss of energy. We propose to open the walls and ceilings to allow re-piping of the showers with the solenoid valves being relocated in an access box within the individual shower stalls.

OBJECTIVES:

To ensure reliable service as required

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start :

Completion:

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other (please specify): _____

2004 Supplementary Capital Budget Requested:

\$ 51,000

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 12

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Install Emergency Generator at Maritime Museum

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The Maritime Museum does not have any emergency power. In power outages the facility is in complete darkness and it has been necessary to call in a pumper truck to lower the levels in sump pumps located in the basement. This leaves Museum artifacts in extremely vulnerable circumstance.

OBJECTIVES:

To install an emergency generator capable of powering required emergency lighting, sewage pumps, sump pumps, heating circulator pumps, boiler in the event of a power outage.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : _____ Completion: _____

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____
Property Owners: _____
Other(please specify): _____

2004 Supplementary Capital Budget Requested: \$ 53,000 _____

FOR INTERNAL USE ONLY

PROJECT NO.: 13

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Museum Conservation Lab Ventilation

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The exhaust system in the conservation lab is not up to current OH&S standards. The system is original to the facility and designed to standards no longer acceptable. Solvents and epoxies are constantly being used in the restoration work and the system must be upgraded.

OBJECTIVES: To ensure Museums and WCB ventilation standards are met

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding

Completion: 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____
Property Owners: _____
Other(please specify): _____

2004 Supplementary Capital Budget Requested: \$ 65,000

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 14

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Replace Electrical Substation at Orpheum Theatre

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

In conjunction with work being done by BC Hydro on September 10, 2001 it was discovered that the chain drive had broken during a switching process in the BC Hydro cell. After taking the appropriate safety steps the chain was repaired and the equipment placed in operating condition.

OBJECTIVES: As this equipment is dated and unreliable it is recommended that immediate consideration be given to replacing the electrical substation

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding

Completion: Fall 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other(please specify): _____

2004 Supplementary Capital Budget Requested:

\$ 125,000.00

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 15

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Orpheum HVAC Modifications

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The installation of two transfer ducts would be required to provide return air from upper balcony areas thus reducing the drafts at the stage level and providing improved air circulation.

The balance of the project is to install small slide dampers on the supply air cones located under the seating. This would only be done on the lower third of the theater and dampers would be installed on the under side of the slab.

These changes are not visible and should not affect the Heritage status of the facility, all actuated controls would be integrated with the existing building automation system.

OBJECTIVES:

- 1) Provide higher comfort level
- 2) Improve air circulation with in the theatre
- 3) Reduce air drafts at the stage level
- 4) Allow the HVAC system to operate more efficiently.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding

Completion: 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other(please specify): _____

2004 Supplementary Capital Budget Requested:

\$ 54,000

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 16

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Playhouse Theatre Lobby Cooling

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

Although heated and ventilated the Lobby of the Playhouse Theatre has never been mechanically cooled. With the efficiency of the newer chillers and advances in control systems it is possible to extend the existing chilled water lines, install cooling coils, valves and controls to allow mechanical cooling of the Lobby.

The Lobby faces West and with full height windows is very vulnerable to solar gain which results in high, uncomfortable temperatures.

OBJECTIVES:

Not only would this project provide cooling for the Lobby it would also put an additional load on the chiller. This would allow the machine to run to it's optimum capacity greatly increasing the equipment life.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding

Completion: Spring 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other(please specify): _____

2004 Supplementary Capital Budget Requested:

\$ 65,000 _____

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 17

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Police Forensic Garage Life Safety Upgrade

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

At the request of the Police Facilities Manager and Safety Officer Building Services commissioned Gage Babcock & Associates to conduct a Life Safety Evaluation of the Police Garage at 342 Alexander. Fire, Sprinkler, Ventilation, Hazardous Material handling systems are all non-compliant with existing codes and require upgrading.

OBJECTIVES:

To bring the fire and life safety systems at 342 Alexander street into compliance with the 1999 Vancouver Building Bylaw and the 1999 Vancouver Fire Bylaw

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : _____ Completion: _____

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____
Property Owners: _____
Other(please specify): _____

2004 Supplementary Capital Budget Requested: \$ 195,000

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 18

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION:

Replace Water Cooled AC Unit serving 312 Main Systems Computer Room

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)
HISTORY:

The air-conditioning unit serving the computer room which accesses the national police data-base is at the end of it's designed life. It is also water-cooled which in now not compliant with current code and the City's Policy toward Green Buildings.

OBJECTIVES:

Replace existing non-compliant aged system with new air cooled unit.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding Completion: ASAP

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____
Property Owners: _____
Other(please specify): _____

2004 Supplementary Capital Budget Requested: \$ 60,000.00

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 19

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY (Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Replace Aged Domestic Water Piping at QET

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The copper domestic water piping is original to the facility and is constantly in need of repair due to pin hole leaks. There is growing potential for pipe breakage resulting in major damage to the facility. Spot repairs will become infeasible as the age of the piping has worn it too thin to repair, then clamps are used. This is not a prudent repair method and should only be used on a temporary basis in an emergency. Entire sections of piping must be replaced to ensure water damage does not cause a disruption of service

OBJECTIVES: To minimize damage to property and disruption of events due to water leaks.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding

Completion: 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other(please specify): _____

2004 Supplementary Capital Budget Requested: \$ 53,000

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 20

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Replace Boiler Serving Van-City Building

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The boiler serving the heat pump loop and radiators is original to the building and as recommended by the Provincial Boiler Inspector should be replaced. On routine summer maintenance it was discovered that burner components have experienced metal fatigue to the point where continued repairs are no feasible.

OBJECTIVES: To ensure safe reliable heat source.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : Upon receipt of funding

Completion: 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____
Property Owners: _____
Other(please specify): _____

2004 Supplementary Capital Budget Requested: \$ 65,000

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 21

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Library Board

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other: **X**

PROJECT DESCRIPTION:

Shelving replacement at Marpole Branch

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

This shelving is 25 years old and is not meeting the needs of the branch. Taller stacks with deeper shelves are required to properly house the collection. The new shelves will also be sciesmically braced, increasing the safety for the public and staff.

OBJECTIVES:

To replace the shelving at Marpole.

BUDGET (include functional breakdown):

Direct Labour:	<u>1,000</u>
Materials :	<u>55,600</u>
Equipment :	<u> </u>
Other :	<u> </u>
Total :	<u>56,600</u>

TIMING :

Start : 2004 Completion: 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$0	\$0	\$0

PROJECT COST:

Total Cost: 56,600

Funding From Other Sources:

Senior Government:

Property Owners:

Other(please specify):

2004 Supplementary Capital Budget Requested: \$ 56,600

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 22

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Library Board

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other: **X**

PROJECT DESCRIPTION:
Shelving replacement at Britannia Branch

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)
HISTORY:

The wooden shelves at this branch are 26 years old. They are wobbly and appear unsafe. The wood shelves are hard to adjust and cause splinters when shelving. Newer, sciesmicall braced shelves are required.

OBJECTIVES:
To replace the shelving at Britannia.

BUDGET (include functional breakdown):

Direct Labour:	<u>1,000</u>
Materials :	<u>85,000</u>
Equipment :	<u> </u>
Other :	<u> </u>
Total :	<u>86,000</u>

TIMING :
Start : 2004 Completion: 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$0	\$0	\$0

PROJECT COST:
Total Cost: 86,000

Funding From Other Sources:
Senior Government:
Property Owners:
Other(please specify):

2004 Supplementary Capital Budget Requested: \$ 86,000

FOR INTERNAL USE ONLY PROJECT NO.: 23

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Fire and Rescue Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: To complete the outfitting and mounting of equipment and fire hose in the three Dedicated Fire Protection System hose containers and Hydrosub deck at #1 Firehall.

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY: The Dedicated Fire Protection System hose pods need to have the outfitting, mounting of equipment and installation of fire hose completed.

These hose and equipment containers are an alternate hose distribution system replacing the Hose Wagon Fire Trucks deferred in 1995.

The Hydrosub which is a large portable water pump capable of pumping 4500 litres of water per minute from a water source 60 metres from the pump, will need to have its hose pod and equipment box fitted to the deck and the outfitting, mounting of a winch, and small equipment need to be completed. The Crane truck, which carries the Hydrosub and hose pods, needs to have an engine brake retarder added, to aid in stopping a fully loaded unit. (continued on page 2)

OBJECTIVES: Provide a system to lay large volumes of fire hose 1700 meters of 5 inch hose from each of three hose pods in the event of a disaster.

BUDGET (include functional breakdown):

Direct Labour:	_____	
Materials :	_____	
Equipment :	_____ 150,450	
Other :	_____	
Total :	_____ 150,450	see attached breakdown of costs.

TIMING :

Start : April 1, 2004 Completion: August 30, 2004

COST SAVING AND OTHER BENEFITS:

Hose Pods will be used in lieu of requesting 4 additional Hose Wagons.

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$ 150,450	\$ ---	\$ ---

PROJECT COST:

Total Cost: _____ 150,450

Funding From Other Sources:

Senior Government:	_____
Property Owners:	_____
Other (please specify):	_____

2004 Supplementary Capital Budget Requested: \$ _____ 150,450

FOR INTERNAL USE ONLY

PROJECT NO.: 24

2004 SUPPLEMENTARY CAPITAL BUDGET (continued)

PROJECT NO.: 24

DEPARTMENT: Fire and Rescue Services

PROJECT DESCRIPTION: To complete the outfitting and mounting of equipment and fire hose in the three Dedicated Fire Protection System hose containers and Hydrosub deck at #1 Firehall.

PROJECT SUMMARY (continued)

Construction of the DFPS was approved by Council in 1992 as part of a \$48 million dollar project to provide an alternate pressurized water supply for fire protection in the event of an earthquake or other emergency, and Council further approved a revised scope of work to the Dedicated Fire Protection System in 1995.

This Council Report recommended that the available funds for the purpose of the Fire Dept. support vehicles be re-allocated to the Coal Harbour Pump Station construction. Capital funds for the purchase of support vehicles would have to be added to a subsequent capital budget. Engineering has confirmed that no capital funds remain to complete this project.

These changes will allow Vancouver Fire & Rescue Services to lay up to 1700 metres (1 mile) of 123mm (5") fire hose from each of the three hose pods using the Dedicated Fire Protection System or city hydrants, without tying up multiple fire suppression apparatus and or personnel.

DEDICATED FIRE PROTECTION SYSTEM – FIRE DEPT. FIRE HOSE PODS – COSTS		
FIRE HOSE PODS	125mm hose X 15M 50 Lengths	\$ 25,000.00
	65mm hose X 15M 40 Lengths	\$ 12,000.00
	38mm hose X 15M 40 Lengths	\$ 6,000.00
	2- Portable lights x 3 pods = 6 @ \$750	\$ 4,500.00
	2 – Power cords x 3 pods = 6	\$ 600.00
	12-38mm and 65mm Nozzles	\$ 12,000.00
	Nozzle/fitting Holders	\$ 1,200.00
	Tiles & Ladder	\$ 500.00
	6 – 4' x 4' Heavy Duty Tray Sliders	\$ 4,500.00
	6 Additional Vancouver Valves	\$ 30,000.00
	Add Hose Jumpers 12 @ 1,500 - 3,500	\$ 18,000.00
CRANE TRUCK	Add lifting blocks and grippers etc.	\$ 1,000.00
	Add additional chains and tie downs	\$ 1,000.00
	Install battery charger	\$ 1,500.00
	Install vehicle engine retarder	\$ 10,000.00
HYDROSUB	Add a Backwater Valve	\$ 2,000.00
	200 ft. of 5/16" cable	\$ 500.00
	Hydraulic winch to life pump head	\$ 1,800.00
	Hydraulic hose and valving	\$ 750.00
	Install battery charger	\$ 1,500.00
	6 – 4' x 4' heavy duty Tray Sliders	\$ 1,500.00
LABOUR	Raise hose dividers 18" X 3 Pods	\$ 3,600.00
	Install heavy duty trays x 6	\$ 2,500.00
	Mount equipment	\$ 1,500.00
	Install decals and striping	\$ 1,000.00
HYDROSUB	Mount fire extinguisher x 3 pods	\$ 1,500.00
	Mount hose container and rails	\$ 500.00
	Mount Hydrosub	\$ 500.00
	Mount Trays x 2	\$ 500.00
	Mount equipment	\$ 1,000.00
CRANE TRUCK	Mount winch and tie downs	\$ 1,500.00
APPARATUS/BUDGET/ DFPS 2004	TOTAL	\$ 150,450.00

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Vancouver Police Department - FINANCIAL CRIME

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Equipment and associated Software to do Internet and Computer analysis investigations

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The Financial Crime Section has requested funding in the amount of \$86,900.00 to upgrade hardware and software for the Computer Forensic Laboratory and the Internet Investigator's position. This equipment is mission critical in order for the Vancouver Police Department to maintain an acceptable level of public service and to provide support for critical investigations. This funding will provide both of these essential technical support units with the necessary tools to keep pace with emerging technology and will result in significant cost, human resource and functional efficiencies in both areas. The following will briefly outline the rationale underlying this request.

BUDGET (include functional breakdown):

Direct Labour: _____
 Materials : \$86,900
 Equipment : _____
 Other : _____
 Total : \$86,900

TIMING :

Start : _____ Completion: _____

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$86,900	\$	\$

PROJECT COST:

Total Cost: _____ 86,900 _____

Funding From Other Sources:

Senior Government: _____
 Property Owners: _____
 Other(please specify): _____

2004 Supplementary Capital Budget Requested: \$ _____

FOR INTERNAL USE ONLY

Order Group: _____

Order Number: _____

PROJECT NO.: 25

DEPARTMENT:

VANCOUVER POLICE – FINANCIAL CRIME

PROJECT DESCRIPTION: Equipment and associated Software to do Internet and Computer analysis investigations**PROJECT SUMMARY (continued)****Overview**

The Computer Investigative Support Unit began operation officially in March of 2000. The Unit was initially envisaged as a sub-component of what was then the Commercial Crime Unit. The Forensic Laboratory was equipped, via donations and sponsorships, with very basic hardware and equally basic software. The mandate was narrow; forensic analysis of computers used to commit fraud. The Internet Investigator's position was created shortly thereafter in response a public outcry over the emerging trend of Internet fraud. The Computer Investigative Support Unit was the first such unit created and staffed by a municipal police agency in British Columbia.

During the first year of operation, the Forensic Laboratory analyzed 8 computers. The amount of data contained in these units totaled less than 50 gigabytes. These investigations focused almost exclusively on counterfeit currency and credit cards, however one unit was seized from a sexual predator. In June of 2000, Detective-Constable Wray successfully recovered dozens of deleted pornographic photos from a computer owned by a known pedophile. This was to be an early indication of what would lie ahead. During the same period the Internet Investigator was assigned roughly 30 cases, all related to electronic fraud.

Evolution

Between the inception of the CISU and today, we have seen exponential growth in both the number of computers seized, their processing power and their storage capacity. In the last eighteen months alone the unit has investigated approximately 47 cases. These cases have involved one hundred and two computers, and over three terabytes (3000 gigabytes) of data. The scope of the work has also expanded. It is increasingly apparent that forensically recovered data will provide evidence in virtually every case wherein a perpetrator has access to a computer.

At present, the Computer Laboratory has on hand for examination, 12 machines seized during homicide investigations, 20 from the Domestic Violence Unit, 5 from the Sexual Offence Squad, 10 from Financial Crime and 12 from the Vice Unit. These are all "in the queue" awaiting comprehensive technical reports. These seizures are primarily related to crimes of violence, or situations where the threat of violence is present. Many involve the sexual exploitation of children. In such sensitive cases a lengthy delay pending analysis and/or data recovery is not an attractive option. In fact, to prevent harm to the victim(s) and to avoid significant public embarrassment for the Department, I submit that it is not an option.

In addition to computers, the Forensic Laboratory is now tasked with the electronic analysis and data recovery from a range of items such as Personal Digital Assistants, credit card skimmers, digital cameras, fax machines, cell phones and pagers. The Laboratory was never designed or equipped for this type of work and we have been forced to improvise with existing equipment.

The Internet Investigator has, this year, investigated 185 fraud allegations alone. In addition he has participated in roughly the same number of investigations with and for other Vancouver Police Divisions and our external partners. These are often critical matters and involve cases of child pornography, kidnapping, extortion, luring children for a sexual purpose, Internet bullying, stalking, threatening, identity theft, and denial of service attacks on major corporations. Clearly, each of these matters warrants immediate attention.

DEPARTMENT:

VANCOUVER POLICE – FINANCIAL CRIME

PROJECT DESCRIPTION: Equipment and associated Software to do Internet and Computer analysis investigations**PROJECT SUMMARY (continued)****OBJECTIVES:****Current Issues**

It is significant to this discussion that during the period from March 2000, to present, there has been no new equipment (hardware or software) provided to either functionality. What this has meant, in essence, is that we are now forcing old technology to try to keep pace with new and evolving technology. The results are both predictable and inevitable.

The Department has fallen behind, and this trend will only accelerate unless the requested upgrades are realized.

We currently experience lengthy and unavoidable delays in performing forensic analysis on seized computers.

We have no ability to properly analyze computers with Linux, Mac, or the latest versions of Windows operating systems.

We have no inventory of hard drives upon which to image, and no DVD burner to archive this data. Without becoming overly technical it is now common to see multiple hard drive machines with 80-100 gigabyte capacities. The Forensic Laboratory has no equipment capable of imaging this size of unit.

We currently have no ability to go off-site to image and seize computers that are “up and running”, which, for our purposes, is the ideal situation.

Our analysis software (EnCase) is out of date and potentially subject to court challenge. We lack adequate licenses for this software.

The sheer volume of units seized for electronic analysis has caused the Section to assign a second investigator to support both the Laboratory and the Internet Investigator. This effectively reduces the capacity of the Financial Crime Section.

We have only one computer for Internet Crime and one computer for Forensic Analysis. Both are outdated. Both are, for lack of better terminology, agonizingly slow. Imaging a large hard drive can now take up to a day, during which time the technician is unable to pursue other work.

The Computer in the Forensic Laboratory is electronically unstable due to overuse. In brief the hard drive is failing.

Consequences and Opportunities

If the Computer Forensic Laboratory is not upgraded, longer delays are unavoidable. In very real terms we may have to turn away vital and urgent forensic analysis of machines holding key evidence in regard to homicide investigation, sexual offences, criminal harassment, and other crimes of violence.

With inadequate sized hard drives for imaging, our examiner will, one day, be confronted by a machine that he cannot analyze. This request ensures that we have an ample supply of 250-gigabyte drives, suitable for any machine that we would normally encounter.

The machines requested will effectively quadruple the speed at which the technician can image and analyze a hard drive. This cuts the analysis time by several orders of magnitude and, because we would have multiple units, the

DEPARTMENT:

VANCOUVER POLICE – FINANCIAL CRIME

PROJECT DESCRIPTION: Equipment and associated Software to do Internet and Computer analysis investigations**PROJECT SUMMARY (continued)**

member is free to conduct several examinations at one time. Results are available in minutes instead of days or weeks. In some types of investigations minutes are critical to success or failure.

New and up to date software for the Laboratory and the Internet position is urgently required. This would speed up investigations and avoid a potential court challenge. I cite following case reported to me from Detective-Constable Wray as an example:

“I had a Vice case where a judge ordered the return of a seized computer containing child porn because it hadn't been fully analyzed in the initial 3 month seizure period. The suspect had contested when Vice applied for an extension to the 5.2 in Court and the Judge then ordered the return of the computer (with the child porn). Albeit the Judge was acting on his own ill-informed opinions as to the ease and length of time taken to actually analyze a computer hard drive, it still could have been prevented.”

The Internet Investigator has similar challenges with respect to volume. Cybercrime in all its various forms is expanding rapidly. The former “Nigerian Letter” fraud is but one example where an old scam has “gone electronic”.

The Internet position requires an adequate stand-alone machine and a laptop for field use, as well as some highly sophisticated tracing software. A recent kidnapping, where the suspect communicated by email, required an immediate field response. In this particular case the offender was unsophisticated and was quickly identified by his IP address. Had he used his own “stealth” technology it is unlikely that our investigator could have located him using our current software.

Conclusion and Recommendation

The comprehensive list of requested equipment is quite technical and Insp. Meanley is prepared to discuss it in detail should that be necessary.

The crimes that our members investigate, or assist other investigators to pursue, are not “victimless crimes”. Many are violent. Many involve children. Many demand immediate responses. All involve a level of technical expertise that must be adequately supported to be effective.

Inspector McQuiggin of our Information Technology Section has reviewed all the items referenced in this request. His comments are as follows:

“This equipment and software appears to me to be absolutely essential for the work that has evolved in the areas of computer forensics, data analysis, technological crime, electronic communications and Internet crime. These are huge problems for policing today and we haven't given them the attention they deserve, so we are really playing catch-up. From a technical perspective I give this my full and unqualified support. In fact, if anything, this is a minimal request. You should probably be looking towards something considerably bigger such as a mirrored array and large rack servers. That is a very expensive proposition. Your costs seem to me to be quite reasonable but I have my staff doing a workup for you. Wherever possible our Sections should use the same supplier and standard interchangeable items. We may be able to shave a few dollars off the bottom line, but these figures are right in the ballpark”.

DEPARTMENT:

VANCOUVER POLICE – FINANCIAL CRIME

PROJECT DESCRIPTION: Equipment and associated Software to do Internet and Computer analysis investigations

PROJECT SUMMARY (continued)

K. McQuiggin, Inspector,
I/C Information Technology Section

This funding, if approved, will provide us with the necessary tools to continue our important work in this field. It will reap additional rewards in terms of efficiency, productivity and capacity. It will give us technology on par with the criminals that we are attempting to suppress.

FORENSIC LAB

(note prices are broken down in US and CAN funds based on the supplier)

Hardware

Item	Required	Cost	Total
Sony Vaio Laptop PCGTR2AP3	1	3700	3700
Vaio USB Optical Mouse PCGAUMS5	1	60	60
AC adapter TR-Series PCGAAC16V6	1	150	150
Logitech wireless keyboard/mouse	2	100	200
Various cables/connectors/HD storage cases		500	500
Western Digital 250 GB Harddrives	20	400	8000
HP colour laser printer	1	2000	2000
Canon Mini DV camcorder	1	2000	2000
Canon compact digital camera	1	1000	1000
		Canadian \$	\$17,610.00
		taxes @ 14.5%	\$2,553.45
			<hr/> \$20,163.45
Digital Intelligence NoWrite FlashBlock	2	500	1000
Digital Intelligence NoWrite Write Blocker	6	300	2100
Digital Intelligence FireFly Read Only	1	150	150
Digital Intelligence FireFly Read/Write	1	150	150
Digital Intelligence FireChief	2	500	1000
SmartView MultiScreen Dual Display KVM Switch SVMS4	3	500	1500
		US \$	\$5,900.00
		(current exchange @ 1.4) Canadian \$	\$8260.00

Forensic Computers

Lian Li PC 6077 Aluminum Tower PC case	6
Lian Li RH 600 IDE removable bays	12
Asus Dual Processor P4 Mother Boards	6
Intel Dual P4 3.2 GigHertz Processor	6

DEPARTMENT: VANCOUVER POLICE – FINANCIAL CRIME

PROJECT DESCRIPTION: Equipment and associated Software to do Internet and Computer analysis investigations

PROJECT SUMMARY (continued)

	6		
1 GB RAM			
3.5" Floppy	6		
CD-ROM	6		
LGE GSA 4040B DVD Burner	6		
Power units, fans, thermostats and cabling	6		
Samsung LCD 181T monitors	4		
CAN\$ (including taxes)			\$24,000.00

Software

Paraben Email Examiner	2	110	220
Paraben PDA Seizure	2	200	400
Paraben PDA Seizure Toolkit	2	300	600
ClikView File Viewer	2	35	75
AccessData Forensic Toolkit	2	700	1400
SMART for Linux	2	650	1300
Encase v4	3	2000	6000
Microsoft XP Pro	2	400	800
Microsoft XP Pro Office	2	400	800
SecurDataStor Platinum	2	160	320
HP iPAQ Pocket PC h5550	2	650	1300
US \$			\$13,215.00
(current exchange @ 1.4) Canadian \$			\$18,501.00

Total in CAN funds for Forensic Lab \$70,924.45

Note: cost does not include shipping

DEPARTMENT:

VANCOUVER POLICE – FINANCIAL CRIME

PROJECT DESCRIPTION: Equipment and associated Software to do Internet and Computer analysis investigations**PROJECT SUMMARY (continued)**INTERNET INVESTHardware

Item	Required	Cost	Total
Western Digital 250 GB Harddrives	5	400	2000
HP iPAQ Pocket PC h5550	1	910	910
Sony Vaio Laptop PCGTR2AP3	1	3700	3700
Vaio USB Optical Mouse PCGAUMS5	1	60	60
AC adapter TR-Series PCGAAC16V6	1	150	150
Logitech wireless keyboard/mouse	2	100	200
Various cables/connectors/HD storage cases		500	500
		CAN\$	\$8,320.00
		taxes @ 14.5%	\$1,206.40
			<u>\$9,526.40</u>

Internet Computer

Lian Li PC Aluminum Tower PC case	1		
Modem & Network card	1		
Asus Dual Processor P4 Mother Boards	1		
Intel Dual P4 3.2 GigHertz Processor	1		
1 GB RAM	1		
3.5" Floppy	1		
CD-ROM	1		
LGE GSA 4040B DVD Burner	1		
Power units, fans, thermostats and cabling			
Samsung LCD 181T monitors	1		
Router			
			\$3,920.00
		taxes @ 14.5%	\$568.40
			<u>\$4,488.40</u>

Software

Microsoft XP Pro Office	2	500	1000
Microsoft XP Pro	1	500	500
Visual Route	3	70	210
			\$1,710.00
		taxes @ 14.5%	\$247.95
			<u>\$1,957.95</u>

Total in CAN funds for Internet Investigator\$15,972.75

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Vancouver Police Department

CATEGORY (Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION:
Help Desk Software Replacement

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY: The VPD IT Section currently lacks functional help desk software. In 2000 a student developed a spreadsheet and associated macros, and a small Access database, that were intended to manage help desk calls for service and generate statistics. This system provides minimal functionality and several aspects of it do not work. Help desk staff now use a spreadsheet to manage calls for service. There is no facility whereby users can enter requests on their own, and they have to rely on the telephone or email to interact with IT to get their problem resolved. Call assignment through the spreadsheet is problematic, as it prioritization, effective resolution, information sharing, and statistical reporting.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : \$150,000

TIMING :
Start : January 2004 Completion: Spring 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
------------------------------------	-------------	-------------	-------------

Resolution time for user calls for service is expected to improve by at least twenty-five percent due to the capability of self-initiation of calls, automatic assignment and problem tracking, and better inventory management. VPD IT receives almost 10,000 service requests per year, this will result in better utilization of staff time and free up staff to work on their project portfolios, which they carry in addition to their individual call load responsibilities.

PROJECT COST:
Total Cost: \$150,000

Funding From Other Sources:
Senior Government: _____
Property Owners: _____
Other (please specify): _____

2004 Supplementary Capital Budget Requested: \$150,000

FOR INTERNAL USE ONLY Order Group: _____ Order Number: _____ **PROJECT NO.: 27**

DEPARTMENT:

Vancouver Police Department

PROJECT DESCRIPTION:

Help Desk Software Replacement

PROJECT SUMMARY (continued)

OBJECTIVES: The objective is to replace the current system with industry-standard help desk software that will allow users to initiate calls for service on their own through a web-based interface, manage the calls for service efficiently, allow prioritization and assignment to help desk staff, standardize record keeping, and generate full statistics. The proposed system also contains an inventory/asset management component that will help the IT Section, the Facilities Section, and the Fleet, track equipment and other resources. The solution includes a problem tracking component that will simplify production of "FAQ" (frequently-asked questions) documents for the users. This solution will also assist the Department in asset management, inventory control, and software upgrades, with consequent improvements in response time and efficiency.

Over the past four months IT staff have researched several solutions, evaluated three products, and conducted site visits in order to determine viability of each solution. The chosen package meets Departmental needs and is extensible to allow it to be used by other Sections including Human Resources, Facilities, the Fleet, and Finance. The chosen product, called "Remedy", balances features and facilities with cost, is an industry leader, and will meet the IT Section's needs for the future.

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Vancouver Police Department

CATEGORY(Choose one of the following categories):

Facility:

Information Technology:

Other:

PROJECT DESCRIPTION:

Emergency Backup Server Facility

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY: The VPD IT Section currently lacks a backup server facility. In the event of fire, water ingress, earthquake, or other unexpected event at 312 Main Street, all Departmental computing services would be disrupted. The computer network linking all Departmental facilities would be down, communications with E-Comm would be disrupted, advanced telephone services would be non-existent, email would be unavailable, and the servers housing important evidence and investigative information for all police members would be unavailable. In short, the effective operation of the police department would be almost totally negated.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : \$141,000

TIMING :

Start : January 2004

Completion: Fall 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET: 2004 2005 2006

Significant staff time will be required in completion of this project both for 2004 and 2005, but no direct impact on the operational budget is anticipated. The potential cost to the Department, the City, and the public in the event of an unrecoverable disaster, however, is huge, and would likely be felt in terms of a significant increase in hours worked.

PROJECT COST:

Total Cost: \$141,000 in 2004, and \$108,000 in 2005.

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other(please specify): _____

2004 Supplementary Capital Budget Requested:

\$141,000

FOR INTERNAL USE ONLY

Order Group:

Order Number:

PROJECT NO.: 28

DEPARTMENT:

Vancouver Police Department

PROJECT DESCRIPTION:

Emergency Backup Server Facility

PROJECT SUMMARY (continued)

While the backup procedure for all Departmental data ensures that email, data files, databases, and other information is safely and securely backed up and stored securely offsite, resumption of business following a disaster such as described above would be dependent on acquisition and setup of computer servers and network hardware to restore these backup tapes to. The current estimate for resumption of major Departmental services is three to four weeks, based on availability of servers and network equipment.

At the present time, a network-attached storage device that mirrors critical Departmental data from 312 Main is located in a mechanical room at 2120 Cambie St. This device was purchased and installed in late 2001, and while it meets minimal real time data backup needs, no backup servers exist. In the event of a disaster at 312 Main, our data would be safe, but we would have no servers with which to make that data available to Departmental staff.

The current facility contains water and other pipes, lacks air conditioning and adequate electrical power, and robust network connections. It is also too small in size. As a mechanical room, shared access is implied, and this presents a security risk for Departmental data. The current facility needs to be replaced.

OBJECTIVES: The objective of this project is to establish a backup server facility at the Police Service Building (PSB) at 5 E 8th Avenue, that will include backup email, database, web, telephone system, network, and other servers, as well as mirror all departmental data in real time. The current network storage device at 2120 Cambie will be moved to this facility and augmented by additional disk storage and backup servers. The existence of this facility will allow quick resumption of Departmental operations without loss of data should a natural disaster or other calamity render the computer room at 312 Main St. inoperative.

Over the past six months IT Section staff have conducted research and developed a valid plan for creation of this backup/emergency facility. The total capital cost of this project is estimated at \$249,000 dollars but has been split into two portions that may be implemented in 2004 (infrastructure and the most critical servers/facilities) and 2005 (remaining servers/facilities).

The PSB has sufficient space to house this backup server facility on the main floor of the building behind the security desk. The proposal includes building a secure room in this space, upgrading electrical and air conditioning to support the facility, extending network connections and performing other related work.

The physical aspects of this plan have been reviewed by Ms. Trisha Begg, VPD Facilities Manager, and she has indicated that such work is viable at the PSB. She has spoken to Mr. Clyde Hosein, COV Facilities Director, about this plan, and funding for the physical/renovations portion of this project is available through other channels. This request deals only with the IT aspects of the project.

DEPARTMENT:

Vancouver Police Department

PROJECT DESCRIPTION:

Emergency Backup Server Facility

PROJECT SUMMARY (continued)

The project for 2004 may be broken down as follows:

Data communications and related Equipment	\$10,000
Cable trays	\$1,500
Electrical work	\$8,000
Uninterruptible Power Supply (UPS)	\$22,000
Equipment racks	\$1,500
3 servers	\$27,600
Tape library	\$65,000
Peripheral equipment	\$5,000
TOTAL:	\$140,600 (\$141,000)

This figure does not include renovation costs for the PSB, which will be submitted in a separate request from COV/VPD Facilities.

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Vancouver Police Department

CATEGORY (Choose one of the following categories):

Facility: **Information Technology:** **Other:**

PROJECT DESCRIPTION:
Storage Area Network

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The VPD internal computer network includes approximately 500 GB of disk space. This disk space is shared by all Departmental employees. Networked storage is used to store investigative files, administrative data, email, and related information. The disk space is provided through a network-attached storage device at 312 Main St. A second identical storage device mirrors the first device, and is located in a mechanical room at 2120 Cambie St. This mirroring is intended to backup the data in real time so that in the event of loss of either device, Departmental operations can quickly be resumed. The data on these devices is also backed up to tape on a daily basis and stored securely offsite, to permit recovery in the event of a major natural or other disaster. These mirrored storage devices were purchased in late 2001.

The Department is quickly approaching 500 GB of stored data, the limit for the current devices. While older data is being archived to tape as quickly as possible in order to free up online storage, user adoption of new techniques such as document imaging (scanning printed and other material) is growing quickly and it is expected that device capacity will be exceeded by March, 2004.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : \$200,000

TIMING :

Start : January 2004

Completion: Fall 2004

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET: 2004 2005 2006

PROJECT COST:

Total Cost: \$200,000

Funding From Other Sources:

Senior Government: _____
Property Owners: _____
Other (please specify): _____

2004 Supplementary Capital Budget Requested: \$200,000

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Order Group:

Order Number:

PROJECT NO.: 29

DEPARTMENT:

Vancouver Police Department

PROJECT DESCRIPTION:

Storage Area Network

PROJECT SUMMARY (continued)

OBJECTIVES: The existing storage devices are significantly expandable, so a simplistic solution is to purchase additional disk drives in order to increase networked storage capacity. However, this is not the most cost-effective solution.

Study by IT staff has determined that a more appropriate solution to the problem is to upgrade the Department's storage methodology to a "storage area network" (SAN) that would improve flexibility and performance, and automate storage management, thus improving the Department's position in the longer term. The existing devices can be integrated into the new approach thus preserving our investment.

The new approach will allow storage media of different types to be integrated seamlessly into the Department's network. Little used data may be automatically backed up to CD, DVD, or a tape library, and restored on demand, without IT staff or user intervention, using a technique called "Hierarchical Storage Management" (HSM). Full HSM is planned as a follow-up project in 2005, but this current proposal will establish a workable framework towards that goal. HSM was removed from this proposal in order to cut costs for 2004.

Performance will improve through the use of faster new technology that allows servers to access networked storage at much higher speeds. This will reduce network overhead, increase the speed of backups, and introduce the capability of mirroring server-side data as well as networked storage. This means that in the event of disaster, new servers will be immediately bootable rather than having to be configured from scratch by IT Section personnel.

This approach is identical to that proposed by COV IT as the direction for servers and data on the corporate network. IT staff consulted with COV IT in their research and in the development of this proposal.

VPD IT is conducting a data usage and network storage audit that will further analyze current storage utilization, user trends, and the specifics of the SAN architecture necessary to support Departmental needs well into the future.

The general approach to storage management as described in this request is consistent with storage technology developments in industry, and COV IT has recently adopted a similar approach.

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Vancouver Police Department

CATEGORY (Choose one of the following categories):

Facility:

Information Technology: X

Other:

PROJECT DESCRIPTION:

Upgrade to Software Management Service

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY: The VPD internal computer network encompasses approximately eight hundred personal computers and two hundred other pieces of peripheral equipment. Most machines run the Microsoft Windows operating system.

Software on these computers must frequently be updated. An application called SMS allows these updates to be installed remotely. SMS also allows our help desk to troubleshoot user problems interactively. SMS is a valuable and cost effective tool in desktop management.

The version of SMS being used within the Department is out of date and in need of upgrade. The current version has limitations that preclude certain updates, such as security patches, from being done centrally through SMS. For example, two recent security patches to the Windows operating system could not be distributed automatically to all machines by our old version of SMS. As a result, IT staff had to physically visit each of 800 computers and manually install the updates. This took 11 staff members the better part of a day. Costs in staff time and lost productivity amounted to \$11,000 for this exercise.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : \$52,000

TIMING :

Start: January 2004

Completion: Spring 2004

COST SAVING AND OTHER BENEFITS:

As described above. A single non-distributable operating system patch cost the Department \$11,000 through the necessity of doing a manual install on 800 computers.

IMPACT ON OPERATING BUDGET: 2004 2005 2006

Potentially \$11,000 savings per security patch or other necessary upgrade.

PROJECT COST:

Total Cost: \$52,000

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other (please specify): _____

2004 Supplementary Capital Budget Requested:

\$52,000

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Order Group:

Order Number:

PROJECT NO.: 30

DEPARTMENT:

Vancouver Police Department

PROJECT DESCRIPTION:

Upgrade to Software Management Service

PROJECT SUMMARY (continued)

OBJECTIVES: The objective of this request is to upgrade the Department's systems and network to the latest version of SMS. This will enable remote updates as described above, and also enhance our help desk's troubleshooting and diagnostic capabilities when dealing with user problems.

This will save money in the long run and improve the effectiveness of police administrative and investigative operations.

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Vancouver Police Department

CATEGORY(Choose one of the following categories):

Facility:

Information Technology:

Other:

PROJECT DESCRIPTION: SECURITY POLICE BUILDINGS - EVIDENCE STORAGE. INSTALL CARD ACCESS SECURITY SYSTEM IN EVIDENCE STORAGE AREAS OF 312 MAIN AND 324 ALEXANDER

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

\$68,000. To install a card access security system to the VPD's Property Office evidence storage areas in 312 Main and 324 Alexander to provide controlled access and handling of evidence as directed by the City of Vancouver's Internal Audit report. These areas include the drug, alcohol and firearms areas as well as the cash and valuables areas. The VPD's storage of evidence is at risk for loss due to uncontrolled access and handling. There is a concern for the compromising of investigation cases and the concern for evidence used for court purposes.

The City's Internal Audit division has completed an audit of the evidence storage areas and recommended that monitored security systems and video monitoring be investigated.

The VPD is responsible for the care and control of evidence through legislation. There is no doubt that the current methods of storage and handling of evidence do not meet reasonable security requirements.

This security request has been discussed with the input and recommendations of the City of Vancouver's Security Office and/or the recommendations as outlined in the City of Vancouver's Internal Audit Office

OBJECTIVES:

BUDGET (include functional breakdown):

Direct Labour: _____
 Materials : _____
 Equipment : _____
 Other : _____
 Total : _____

TIMING :

Start :

Completion:

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$	\$	\$

PROJECT COST:

Total Cost: \$68,000

Funding From Other Sources:

Senior Government: _____
 Property Owners: _____
 Other(please specify): _____

2004 Supplementary Capital Budget Requested:

\$ 68,000

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PROJECT NO.: 31

Order Group:

Order Number:

2004 SUPPLEMENTARY CAPITAL BUDGET

DEPARTMENT: Corporate Services Facilities Design & Management/Building Services

CATEGORY(Choose one of the following categories):

Facility: Information Technology: Other:

PROJECT DESCRIPTION: Police Support 5 East 8th Emergency Generator Replacement

PROJECT SUMMARY: (Consider History, Objectives, Timing, Costs, & Functional breakdown)

HISTORY:

The emergency generator serving the Police Support Facility at 5 East 8th Avenue is not currently distributed serve the emergency load. It is more economical to place the entire facility on emergency power with a larger generator than to rewire emergency circuits within the facility for current load and anticipated future changes.

Also this would allow relocation of staff and equipment within the facility without future consideration of configuring emergency power supply to suit. It would be available anywhere. Anytime, greatly reducing future costs.

OBJECTIVES:

To bring 5 East 8th Avenue emergency generator up to a standard capable of providing the required service.

BUDGET (include functional breakdown):

Direct Labour: _____
Materials : _____
Equipment : _____
Other : _____
Total : _____

TIMING :

Start : _____ Completion: _____

COST SAVING AND OTHER BENEFITS:

IMPACT ON OPERATING BUDGET:	2004	2005	2006
	\$ _____	\$ _____	\$ _____

PROJECT COST:

Total Cost: _____

Funding From Other Sources:

Senior Government: _____

Property Owners: _____

Other(please specify): _____

2004 Supplementary Capital Budget Requested: \$ 320,000

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PROJECT NO.: 32

Order Group:

Order Number: