PROVINCE OF BRITISH COLUMBIA

Minister of Highways and Public Works

PUBLIC WORKS REPORT

FOR THE FISCAL YEAR

1975/76

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1976

To Colonel the Honourable WALTER STEWART OWEN, Q.C., LL.D.,
Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

Herewith I beg respectfully to submit the Annual Report of the Department of Public Works for the fiscal year ending March 31, 1976, in compliance with the provisions of the *Public Works Act*.

ALEX. V. FRASER
Minister of Highways and Public Works

Office of the Minister of Highways and Public Works,
Parliament Buildings, December 30, 1976.

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"We must lead, not follow."

—Department of Public Works.

REPORT OF THE DEPUTY MINISTER

The Honourable Alex. V. Fraser,
Minister of Highways and Public Works,
Parliament Buildings,
Victoria, B.C.

Sir:

I have the honour to submit, for your consideration, the Annual Report of the Department of Public Works for the fiscal year ended March 31, 1976.

Elsewhere in this Report will be included those of the heads of divisions which set out the work accomplished and planned, tenders called and accepted, and Departmental accounts.

The Department of Public Works has been in continuous operation under that title since its inception in 1911, and, since this will be the last report as an independent department, it is appropriate, I believe, to reflect on the changes which have featured the service role carried out by the Department and its staff.

From its inception until 1955 the Department included the responsibility for the provision of highways within the Province. Since 1955, at which time the Department of Highways was structured, the Department has continued with its primary role of the provision of accommodation and other services to Government with, I believe, some considerable distinction.

Among the many achievements which the Department can point to with pride are:

- The changes in quality of Government office accommodation from the rigid cellular structures, exemplified in the Douglas Building and the Blanshard Building in Victoria, to the newer flexible open-plan acoustically corrected multi-purpose structures as exemplified in the Project 61 in Vancouver, and the new Health Building in Victoria.
- The vast improvement in the landscaping of Provincial buildings around the Province, as exemplified in the gardens adjoining the Prince Rupert Courthouse, the Justice Court in Vernon, and the area adjoining the Centennial Museum in Victoria.
- The initiation of functional programming which has been brought to a high degree of effectiveness with consequent benefit to many other departments of Government in assisting in the evaluation and definition of the building requirements for their programs.
- The initiation of an Art Policy which has received many favourable comments, and the provision of an Art Collection which is intended to be representative of the best of contemporary art.
- We have seen the results of this Department actively planning and working in conjunction with municipalities to enhance their communities, such as at Duncan, Smithers, and, latterly, the joint development (Project 400) with the City of Prince George.
- The initiation of a Tour Guide program in the Parliament Buildings which has entertained up to 179,000 visitors per year.

- The development of major planning studies such as the precinct report in Victoria, the results of which are at present taking shape.
- The development of a co-ordinated office furniture system which has encouraged British Columbia manufacturing capabilities.
- The sharing of expertise in construction with other departments with consequent build-up within these departments of design/construct cores of knowledge.
- The initiation of construction management techniques with benefit to the Crown at a time of rapidly escalating prices.
- The development of joint consultative and planning procedures with the construction industry resulting in the Joint Technical Planning Committee which meets regularly each month.

As we now pass the majority of the functions of this Department to the British Columbia Buildings Corporation, I have a deep sense of gratitude for being permitted the opportunity of serving the Government and the people of this Province as the 10th Deputy Minister in company with such distinguished contemporary and antecedent colleagues and would, at this time, extend my sincere thanks to all those staff members and consultants who have contributed to the developments with which this Department has been associated.

Respectfully submitted,
G. L. GILES, F.R.A.I.C.,
Deputy Minister

Public Works Maintenance Building, Kamloops.

REPORT OF THE DIRECTOR OF DESIGN

This report will be the last report from the Director of Design. The position has been divided into three new positions called Client Project Directors. The three groups of departments served by these Directors are currently as follows:

George H. Kerr will look after the Ministries of Agriculture and Economic Development, Mines, Forests, Environment, Recreation and Conservation, and Special Office Buildings. Hector L. McIntyre will look after the needs of the Ministries of Education, Health, Human Resources, Labour, Consumer and Corporate Affairs, and Municipal Affairs and Housing. I will continue to look after the Ministries of Attorney-General, Highways and Public Works, Energy, Transport and Communications, Provincial Secretary and Travel Industry, and Finance.

Ill health has forced J. A. Cochrane to resign his directorship and take the position of Senior Architect. His contribution to the Department has been immense and we are fortunate that he will continue to contribute in his present capacity.

Following this report is a table compiled from previous Annual Reports showing the number of projects and their distribution over a value scale. It will be apparent that the volume, both in number and value, has increased by well over 100 per cent. Concurrent with this increase in work load, there has been a virtual staff freeze over the majority of the period shown. The staff must be complimented for this high standard of production. They have always been ready to give one more push, and for this I thank them one and all.

Value of Projects ($000)	Number of Projects in Fiscal Year			
	1972/73	1973/74	1974/75	1975/76
Over 1,000,000	3	6	7	10
500,000 to 1,000,000	9	10	14	6
100,000 to 500,000	36	38	45	33
50,000 to 100,000	34	35	35	18
25,000 to 50,000	37	32	30	42
0 to 25,000	96	106	277	399
Total projects	215	227	408	508
Total budget	$22,000,000	$37,000,000	$41,000,000	$46,000,000

W. W. EKINS, B.ARCH., DIP.PUB.ADMIN.
Director of Design

REPORT OF THE CLIENT PROJECT DIRECTOR

WORK INITIATED AND CARRIED OUT FOR RESOURCE DEPARTMENTS, 1975/76 FISCAL YEAR

Agriculture

The design for a Laboratory Building in Abbotsford for the Department of Agriculture was commenced. Ron Howard, Consultant Architect, was retained to design the project.

R. Christoffer of Public Works was appointed Project Manager.

Alterations were made to Federal Agriculture Stations in British Columbia to accommodate the Provincial Agriculture facilities in the same buildings. These stations are located at Summerland, Prince George, Saanichton, and Creston.

Water Resources

An Environmental Laboratory Building for Water Resources is being planned on the University Endowment Lands. Negotiations were carried out to provide space in the laboratory in exchange for the site. H. G. Charania of Public Works was appointed Project Manager.

Recreation and Conservation

Construction on a trout hatchery commenced at Abbotsford. The building is known as the Fraser Valley Trout Hatchery.

Commonwealth Construction Ltd. is the general contractor, and Cedric Trueman of Public Works is the Project Manager. The project is expected to be completed at the end of 1976.

A new carving shed was completed in Thunderbird Park, as was interior alteration work in the Dogwood Building.

General Purpose Office Buildings

Alterations were completed in St. Ann's Academy for the benefit of the Department of Education, and for temporary housing of the Judiciary while alteration work is completed in the Law Courts Building. M. Lewis is the Project Manager for Public Works.

Extensive alterations were commenced in the Provincial Government Office Building at 411 Dunsmuir Street in Vancouver. Underwood, McKinley, Wilson and Smith, Architects, were appointed as the consultant architects. Ron Christoffer of Public Works is the Project Manager in charge. The project is expected to be completed and the building reoccupied by the end of 1976.

Provincial Government Office Building 3—
Burdett Avenue and Blanshard Street, Victoria

This Government Office Building designed by the Department commenced construction, the main contract being awarded on February 18, 1975, at a contract sum of $1.7 million.

D. Grey of Public Works is Project Manager. The building is now occupied by the Department of Housing.

Provincial Government Office Building 2—
Blanshard and Courtney Streets, Victoria

Construction of a major office building, at a total cost of approximately $18 million, was commenced. Eng and Wright and Hawthorn completed the design for the project, and M. Lewis is Project Manager for Public Works.

Construction is anticipated to take about two years from start of construction.

Provincial Government Office Building 1—
(Health Services Building), Pandora Avenue, Victoria

Construction well under way. Siddall Dennis Warner are the consultant architects and M. Lewis is Public Works Project Manager.

Cana Construction are Construction Managers. The building is expected to be completed in January 1977. This building will accommodate the entire Ministry of Health when Hydro complete a new building elsewhere, and the old Hydro Building is renovated and linked with the new building.

Alterations to the Old Dowell Building, Wharf Street

Commenced; design was carried out by M. Bawtinheimer of Public Works, with D. Grey as Project Manager. This building is expected to be completed at the end of 1976. Total cost of the work approximately $1.5 million.

Blocks 51, 61, 71 Project, Vancouver

Construction on site commenced on Block 61, of Blocks 51, 61, 71 Project in Vancouver.

Arthur Erickson, Architects, Concordia Management Company Ltd. is the Construction Manager, and Ron Christoffer is Owner's Representative for Public Works.

The traffic tunnels under Howe Street were completed, as was excavation on Block 61. Excavation also commenced on Block 71 for the Courthouse.

Furniture Study

A furniture study to provide standard furniture for all Provincial Government Office Buildings was undertaken by Geoff Shuttleworth of Public Works with Allan Bailey as Project Manager. It is expected that, as a result of this study, British Columbia furniture manufacturers will be able to manufacture and supply furniture directly to the Provincial Government for its many new and interesting office buildings.

G. H. KERR
Client Project Engineer

Law Courts (addition), Victoria.

REPORT OF THE SENIOR MECHANICAL ENGINEER

METRICATION AND THE DEPARTMENT

Now, most people in Canada have some awareness of the fact that Canada is changing to the Metric System of measurement.

It is interesting to note that the Metric System of measurement was devised in France in the late 18th century as a rational system of measurement to promote trade and commerce. Today for the same reason Canada has decided to adopt the system and promote its general use.

Although United States, Great Britain, and Canada recognized the advantages of the Metric System of measurement as early as 1873 and authorized its use as a second system of measurement, the Imperial System continued in common use; only the scientific sector of these countries adopted and used the Metric System.

In 1965, Canada became concerned about the use of the Imperial System and its effect on world trade when the British Government stated that it would be desirable for that country to change to the Metric System. By 1970, India, Australia, New Zealand, and South Africa were converted or actively converting to the Metric System. Well over 90 per cent of the world population is using the Metric System, leaving the North American continent as the only major population block still using the Imperial System.

In 1970 the White Paper on Metric Conversion in Canada was presented to Parliament and was endorsed by all political parties. The following year the Metric Commission was formed and work of planning the change in Canada started.

The Commission approached the process of conversion by considering that it consisted of four phases, i.e., investigation, planning, scheduling and implementation, and dividing the Canadian community up into 10 sectors of activity.

The Federal Government, upon setting up the Metric Commission, decided that the conversion to the Metric System in Canada would be done on a voluntary basis, and that the Government would guide the process. Following this policy, the Commission asked trade, industry, labour, and the Canadian community for volunteers to work with the Sector Managers of the Commission.

In the meantime the provinces and the territories were approached and asked to participate in the conversion process. They all agreed and appointed their representatives to work with the Commission.

In British Columbia, as with the other provinces, a Provincial Government Committee was formed with representatives from each department commission and board to co-ordinate the Provincial activity in the conversion process.

During 1972 and 1973 the Mechanical Branch of the Department did some experimenting with dual dimensioning on drawings, using a "soft" conversion of the imperial dimensions. The experience was illuminating. It demonstrated to us the need to think in new numbers, the need for standards in metric dimensions, and the ease of working in a decimal system. We were surprised at the lack of comment, both from people in the Department and from the contractors.

The 1974 Conference of Deputy Ministers of Public Works decided to set up a working committee to co-ordinate the metric conversion programs of Government construction and help to create the environment in which metric conversion could be effectively and economically achieved throughout the construction sectors of the economy.

The Department has its own Committee for Metric Conversion which is charged with the responsibility to disseminate information on the S.I. Metric System, planning and training.

The British Columbia Construction Association has also formed a Metric Conversion Committee and has asked the Department to participate. This committee is broader than just the Contractors' Association. It has representatives from Architectural Institute, Professional Engineers' Association, material suppliers, trades and labour.

The investigation phase is finished. The planning and scheduling phases are well under way. Many of the sectors have chosen target dates to start the implementation phase.

The construction industry has chosen January 1, 1978, for their date and most people connected with construction are now aware of that date.

The date chosen means that the Department will have to start design work in the metric mode in the summer of 1977.

Standards-writing bodies are very busy adapting standards.

Statutes and their attendant regulations are being worked on.

It appears that there will be some confusion to start, some misunderstandings will certainly arise, but the conversion process has been carefully planned and these problems should be minimal.

With the country-wide co-ordination taking place, in which I am pleased to say that the Department is taking its part, the transition period should not last too long, although it will be many years before Canada can completely drop the Imperial System of measurement.

GENERAL

This discipline has provided input either directly or through liaison with consulting firms in the private sector to the majority of projects listed elsewhere within this report. Projects basically mechanical in nature that have been designed include the Fraser Valley Trout Hatchery at Abbotsford and the Central Heating Plant at Kamloops. An early completion of design is anticipated on the Riverview Laundry. This office is continuing work with an architectural consultant on renovation work in the Parliament Buildings. Consideration is being given to converting some steam plants to hot-water operation.

In design projects in existing institutions, consultation with operating personnel provides a wealth of knowledge not otherwise obtainable. The appreciation of this office of the feedback thus obtained is herewith expressed.

W. E. MILLS, P.ENG.
Senior Mechanical Engineer

Provincial Government Building, Kimberley.

REPORT OF THE SENIOR CIVIL ENGINEER

ENERGY CONSERVATION

The writer served as Chairman of a Public Works Department committee instructed to prepare Energy Conservation Standards for the Department of Public Works. These standards are now completed and serve as a guideline to outside consultants and our own staff in the design of Government buildings.

With dwindling conventional energy supplies and attendant increases in cost, the question of energy conservation has the utmost priority at all levels of government. The Federal Government has begun a crash program on energy conservation, and has invited the provinces and outside industry to participate. The first concrete outcome of this program is scheduled to be the standardization of energy conservation regulations in the National Building Code of Canada. The Federal Government is taking the lead in the standardization of computer programs for working out the total energy requirements and criteria for buildings. Members of our staff are working with the Federal and Provincial authorities towards this goal.

Energy can be conserved to a certain extent by improvements in building standards such as more insulation, smaller windows, reuse and circulation of warm air, and a more efficient lighting layout. In the end, however, the reduction in comfort standards is the only way that further significant amounts of energy can be saved. The Department, in its new standards, has reduced the maximum heating temperature from 72°F to 68°F and reduced over-all lighting levels. In lighting design, we are concentrating on the concept of task lighting rather than over-all lighting.

Many of our modern buildings are designed to fight the climate, not to exist with it. In days before the widespread use of air-conditioning and cooling, many of the older buildings were designed to live with the climate. They had thick walls which tended to even out temperature extremes, small windows and sun shades on windows. Admittedly, there were a few unpleasantly hot days, especially in the Interior, but people got used to it or had no other choice than to bear it. If our buildings have to be heated to a lower temperature, we will have to put more clothes on. The increasing cost and scarcity of energy will change the whole ball game and we will have to learn to live within our means—energy-wise.

As an incentive to a reduction in the use of energy, many authorities are looking into tax concessions. In Florida, for example, it is mandatory for all new housing to provide connections for the installation of solar water-heaters. The State of California has passed a bill which outlines mandatory standards for the design of housing. This applies to new construction and stringently outlines the amount of energy that can be used in housing. They make an exception for non-depletable energy, such as solar and wind, to encourage its use. The U.S. Federal Government has issued energy standards along with many states, and many authorities are fostering the building of experimental houses and buildings embodying the use and part-use of solar and wind energy. That "the old order changeth" is exemplified in the new energy restrictions which illustrate that we must "live within our means."

I trust that my work will be as enjoyable and rewarding under the new system as it was, for the most part, under the old.

J. R. SIMPSON, P.ENG.
Senior Civil Engineer

REPORT OF THE SENIOR ELECTRICAL ENGINEER

Two significant conditions became apparent during the fiscal year 1975/76—a certain financial restraint and the restructuring of the organization of the Design Division in the Department of Public Works. The participative management organization showed its effects on the Electrical Engineering Branch in the same way as on the other branches, yet, I can proudly say that the members of the Electrical Engineering Branch coped with the new situation in a very positive manner.

Although it was regretted by all members of the Electrical Engineering staff that so many "glamorous" projects had been delegated to consultants, there was enough work to be tackled, work of a nature that just could not be farmed out since knowledge of and familiarity with local conditions available to our own staff members were of great importance. Still, these jobs had to be done with utmost attention and diligence.

The restoration of the Legislative Building was continued. A few pictures of the completed new Executive Council Chamber and its former look, when "Vital Statistics" still occupied the space, will show the significance of the change. The solution of the illumination problem should here be mentioned. Similar to the Legislative Chamber's restoration the year before, the character of the "Rattenbury" era was to be restored. And yet, adequate and comfortable lighting was to be provided, too. The two suspended chandeliers enhance the character of the room, and hidden light sources above the suspended canopy over the conference table provide the illumination necessary for the members of the Council to work comfortably. Dimming facilities of the lights give the Council members the possibility to adjust the light level to suit their needs.

While the Legislative Chamber's illumination was created by an internationally known expert, with the completion of the restoration of the Executive Council Chamber's illumination we have demonstrated that our own engineers are capable of doing an excellent job which compares well with the work of outsiders.

Other restoration projects are still under way, the restoration of the Revelstoke Courthouse and the Dowell Building at Wharf Street, Victoria. Our architects and engineers in fruitful co-operation are here again doing their best to bring these projects to a more than satisfactory completion.

Yet, where our engineers and staff really showed their perseverance was the many unnamed projects such as new Highways establishments and so many other projects throughout the Province. Preparation of hundreds of thousands of square feet of rented and purchased space for occupation by the various departments was carried out to satisfy their ever-differing needs. Special projects—computer expansion or underground power distribution systems—have been completed. One cannot make a great name for oneself with such work, but the work has to be done. This "everyday" work has been achieved by the staff of the Electrical Engineering Branch to the satisfaction of the management as well as the user departments.

In spite of the "shock" of reorganization, the staff of the Electrical Engineering Branch adjusted itself to the situation and has completed the work load in a most satisfactory manner. New changes are ahead and new tasks have to be completed. The Electrical Engineering Branch looks forward to the work ahead.

H. E. BEIER, P.ENG.
Senior Electrical Engineer

REPORT OF THE ARCHITECT PLANNER

With the commencement of the year under review, this office found itself in the position of being able to organize with a small staff a computer-oriented survey of building occupancy throughout the Province. This was in full swing from April to December 1975, during which time 50 per cent of leased and rented properties and 10 per cent of Crown-owned properties were measured, and the space occupancy recorded. Over and above this operation, a vacant and under-utilized space blitz was successfully performed throughout the Province, the high proportion of leases being "inherited" from client departments which had initiated contracts outside the scope of this Department and compounded the over-all space-use program by "walking away" from their agreements, and leaving Public Works to pick up the pieces. When completed, the library information will include dimensional floor plans, space use and departmental occupancy, together with colour photographic records. An inventory of Crown-owned properties was commenced in 1976 and will contain information on land improvements, colour photographs, legal descriptions, plot and site plans. Among its varied responsibilities, this office continued to offer draughting and drymount press services to all branches and divisions upon request.

This office continues to act as Departmental Representative on Socio-Economic and Intergovernmental Committees such as Provincial Guidelines for Coal Development, Urban and Regional Research, and Redistribution of Boundaries for Correctional Centres.

While the administrative sphere of the work attempts to handle the demands for special briefs, detailed analyses, syntheses, and policy advice in regard to planning matters including zoning, public hearings, legal agreements, development proposals, the total land use proceeds at a higher speed, and we are subject to pressures and demands from without the Government service as well as within. This is true of areas in Burnaby, Kamloops, and Victoria, where, a decade ago, building projects were minimal. Today that Crown acreage is fast disappearing, with major capital projects of high class design by this Department, together with the consequent large programs of maintenance and security.

The Province is in a cycle of building investment where we are compelled to undertake greater capital expenditures; however, the criteria for our building environment in the last quarter of this century demands that the most important factor be the people who inhabit any place, whether large or small. We must provide a suitable envelope for people's activities, for it is by these forces that townscape is shaped.

The growth of the population of this Province, and the Public Service, tied to this factor whether we like it or not, has, during the past two decades, risen at a speed second only to Ontario and Quebec. During this period the ratio of employee per 1,000 population has doubled to 13.3 per cent.

As we multiply more rapidly, man in his infinite wisdom has hit upon the most space-clogging form of community growth. Consumption of land-space is greater, *per capita,* than city growth.

Zoning is, at best, but a set of generalities and book guide-lines for intending entrepreneurs. It is not design, it is not plotting, it is not subdivision, it is certainly not town planning, it is specific space allocation, and therein lies the rub.

The modern changes in quality of public taste, townscape, and techniques have come with the alteration of function, so that there is little doubt that the ugliness of the modern cityscape can be related almost entirely to tax and restrictive loan policies.

As this report will be the last of a series of over 20 within the jurisdiction of the Department of Public Works as an authority on its own standing, and will mark the termination of a format initiated in 1957/58 by the then Deputy Minister and this office opening the way to use the abundant expertise of our technical and professional skills, untapped prior to that period, it is pertinent and appropriate to pay tribute to staff in this office who have exhibited a great devotion to duty, and a capability to produce only top-grade work under difficult conditions. This office has, during the preceding years, been most fortunate in being the recipient of an excellent rapport from all departments of Government in all tiers, as a constant communication is maintained with Canada, other Provincial authorities, Municipal Councils, Regional Boards, statutory corporations, and Town Planning Commissions.

The future is always uncertain, but if the pages of our Department Reports have any message in comparison to others, we might be permitted one last act of self-adulation in the phrase of the well-known advertisement: "You have come a long way B---Y." As to this office in particular, it has been a challenge to provide and produce a facet of the design prospect that was not in evidence prior to the 1950's, but what contribution we have been permitted to make may have had an effect that will sow some seed of advancement in the future. As far as the writer is concerned, the relevance is best translated in a quote from John Dryden (Poet Laureate, 1631–1700)—

Happy the Man, and happy he alone,
He, who can call today his own;
He who secure within, can say:
"Tomorrow do thy worst, for I have lived today.

Be fair, or foul, or rain, or shine,
The joys I have possessed, in spite of fate are mine.
Not heaven itself upon the past has power;
But what has been, has been, and I have had my hour."

W. D. LOUGHER-GOODEY,
F.R.T.P.I., F.I.L.A., M.I.F.L.A., M.C.P.I.,
M.A.S.P.O., A.I.STRUCT.E.
Architect Planner

Ministry of Housing Building, Victoria.

REPORT OF THE SENIOR QUANTITY SURVEYOR

During the first part of the fiscal year 1975/76, the volume of construction in the Province continued at a relatively high level, with a resulting increase in prices of approximately 15 per cent in the first six months. By September, however, the value of work being tendered had started to drop and, for the remaining six months, prices were virtually unchanged. Carpenters' wages, a group that can be regarded as indicative of all groups in the industry, increased by 11 per cent in the first six months and 16 per cent over the 12-month period. Material prices moved up by an average of 5 per cent over the year, although some, e.g., reinforcing steel, that had become overpriced in the 1973/74 period dropped by 20.25 per cent.

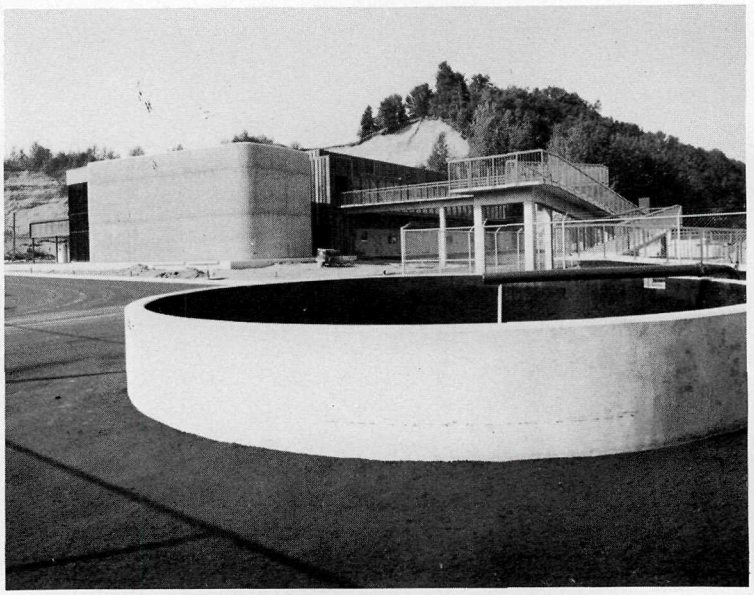
The outlook for the coming year is for a lower than normal volume of construction, with a resulting low increase in prices. If the Anti-Inflation Board guidelines are maintained and increases in wages are restrained accordingly, the increases in prices in the period 1976/77 should be in the range of 6 to 8 per cent.

The Branch introduced a system to show the flow of the expenditures of projects in design and construction. This enables the Directors to check at monthly intervals the financial status of their projects and thus to decide whether or not they can add new projects.

The projected payments are based on the assumption that monthly payments follow a normal distribution curve. During the year the projected payments are replaced by actual payments and new jobs added or cancelled projects withdrawn from the system. It is now possible to obtain within a few days the status of each Director's budget.

The computer program for the Department's cash flow system will be used as the basis for a program from which projected expenditures in the industry will be obtained. The data obtained from this will give an indication of how busy the construction industry will be in the following 12-month period. It is hoped to have the system operating by the end of 1976.

S. R. Toller, M.C.I.Q.S.
Senior Quantity Surveyor



Abbotsford Trout Hatchery.

REPORT OF THE PROPERTY SERVICES BRANCH

The Property Services Branch performs a variety of real estate services including property appraisals, negotiations for acquisition and leases, easements, property disposals, and expropriations.

Through its two offices in Victoria and Vancouver, the Property Services field staff handles all the appraisals and negotiations, while the small component at Headquarters provides the essential backup for formal documentation, handling day-to-day problems in leased premises, and liaising with senior staff of all departments.

Details of the volume of leasing and land acquisition is included within the Comptroller's Report. In addition, this Branch has provided extensive services to several departments, e.g., Education for college sites and related facilities, Attorney-General for sites for remand facilities and community correctional centres, and the Bureau of Transit in connection with land expropriated for their North Shore Terminus for the Burrard Inlet Ferry Crossing.

In connection with the last-mentioned project, it is interesting to note that, whereas determination of compensation to be paid to an expropriated owner is often a lengthy process at best, involving negotiations with owners and often their solicitors, the time involved in an arbitration procedure is a considerably lengthier process. A specific case in this project involved Arbitration Board hearings and an appeal involved two of the Branch's staff as well as the Departmental Solicitor exclusively for almost one month. Fortunately, only a small percentage of property acquisitions involve expropriation and, in most expropriations, settlement is often reached without resort to arbitration or courts.

Due recognition should be given to all Branch staff for the way in which the excessive work load has been handled during this period.

P. GREGORY, A.A.C.I.
Manager

REPORT OF THE SENIOR PROGRAMMER AND SPACE PLANNER

The formation of Programming Section was recorded in the 1971/72 Report. Programming is the objective function of developing the performance specifications for new buildings or major conversions to which designers respond. It is a service to Government, users, and designers which aims to ensure that the buildings the Department of Public Works creates respond economically and effectively to the ever-changing organizational, technical, and human needs of their occupants and visitors over the lifetime of the building.

Space planning is the process of preparing for the initial occupancy of new buildings and of monitoring layouts and managing change thereafter.

A significant part of the work of Programming Group during the period under review has been devoted to office buildings.

Three related projects undertaken by Programming Group serve well to illustrate the scope and practical nature of its contribution—to the development of better buildings and better working environments.

Much detailed experience accumulated in previous years' work on offices was consolidated in the development of a simple concise program and design criteria for general purpose office buildings. This program has been successfully applied by Department of Public Works Design Staff for an office building in Kamloops and by consultant architects for one in Prince George, speedily and economically to create schematic proposals for attractively different buildings, each appropriate to its urban setting. Yet both embody common innovative features which will ensure comfortable occupancy by a wide range of potential tenants, together with flexibility and reduced costs in use.

A second project was concerned with the development of performance specifications for a comprehensive system of Government office furniture appropriate for the larger and also the open-form-layout office buildings of which the first is scheduled for occupancy early in 1977. The project included a study of the existing furniture market. This indicated that no currently available system adequately responds to the over-riding economic requirements of Government or the particular needs of public servants and their visitors. These needs were identified by means of a program of observations and tests in which a representative group of public servants from all departments was invited to participate. Performance specifications were developed for a more appropriate system and, through the normal tendering procedures, industry was invited to respond. It did so with enthusiasm. The new system will be produced in British Columbia with more than 90 per cent British Columbia content and the successful supplier has expressed his intention to offer the system to the commercial market also.

Using the new furniture system, a space-planning team has been working with the "clients" and the design team to prepare for the occupancy of the new office building at the intersection of Blanshard Street and Pandora Avenue in which, at the beginning of 1977, the Ministry of Health will be able to consolidate its activities at present scattered over many small premises. Working in close collaboration with the future occupants, this space-planning team has devoted particular attention to the development of layouts which optimise organizational proximities and satisfy individual needs such that full advantage is taken of the opportunity to consolidate the Department and increase productivity.

Other projects undertaken by the Programming and Space Planning Section have included:

1. *For Hospital Programs*—In an evaluation of the Riverview Complex with a view to reorganizing in-patient grouping and improving internal design, planning, space, and amenity standards, a preliminary schematic proposal was prepared and presented to Riverview staff for review.

2. *For Community Health Service*—We commenced preparation of a functional program and design guide entitled *Public Health Facilities in Smaller Communities*. The guide will encompass four building types of varying size and function.

Extensive programmatic services have been rendered on behalf of the Corrections Branch of the Attorney-General Department.

Each year some 12,000 persons find their way into the Provincial Corrections system. These are held for varying lengths of time under varying degrees of security—from "maximum security" at one end of the scale to "open house" at the other. It is of interest to note that related accommodation varies from the highest to lowest cost per person of any other comparative ward of the Province, i.e., provisions by Health, Education, Human Resources, etc. For maximum security the cost per inmate may exceed $70,000, dropping to a low of $2,000 per inmate in an open-camp setting.

Recent changes in correctional philosophy have called for the provision of normal, humane surroundings, conducive to rehabilitation and with security as unostentatious as possible, compared to the previous concepts of brutal imprisonment. Additionally, a far higher percentage of sentenced persons are presently "out" on work release than at any other previous period. These persons are normally accommodated in the recently provided Community Correctional Centres.

Programmatic efforts have been directed toward the remodelling and upgrading of existing facilities and the provision of new facilities empathetic to new correctional philosophies.

The cost of security runs high, it will take approximately $40 million to replace the totally antiquated Lower Mainland Regional Correctional Centre (Oakalla) alone.

If and when funds become available, this Province could emerge with a Correctional system and facilities second to none.

G. W. SHUTTLEWORTH
Senior Programmer

Health Services Building, Victoria.

REPORT OF THE INTERIOR DESIGN ARCHITECT

The work of the Interior Design Branch is among some of the most varied activities in the Department of Public Works, not only in the type of work undertaken but also in the range of services offered. On many occasions our work would seem to overlap that of other branches such as Architectural, Programming, Specifications, and others, but this is always in a spirit of co-operation, with a successful outcome being the only motivating force.

The following descriptions of the work of this Branch assume a full service which may not be required or available in all cases.

Interior Design in New Buildings

1. Consultation with Project Architect in initial design stage with input into interior space arrangements.
2. Design or selection of structural surfacing materials, design of panelling or special features and built-in furniture or fitments.
3. Preparing both interior and exterior colour schemes.
4. Furnishing throughout. Consulting with user departments as to their special requirements, selecting and specifying furnishings, fabrics, and equipment; preparing requisitions for the Purchasing Commission.
5. Selecting and specifying carpet if not included under paragraph 2.
6. Selecting and specifying drapes.

Interior Design in Existing Buildings

At the request of other departments, the Interior Design Office performs any or all of the above services even though the furnishings or equipment may be charged to the client department. Requisitions or contract documents and drawings are prepared in this office for signature by the client.

Consultants

Briefing consultants on Government policy with regard to furnishings and procedures for obtaining same. Checking requisitions prepared by consultants or preparing requisitions based on consultants' selections.

Estimating

At any appropriate stage of work, estimates are prepared for budgeting or as a check against bids from suppliers.

Accounting

Evaluating bids on furniture and equipment and recommending placement of order from the Purchasing Commission. Checking purchase orders against requisitions. Checking invoices against delivery to consignee, against purchase orders, and recommending payment.

Contract Work

Apart from placing orders through the Purchasing Commission, much work is organized through Public Works Contracts Division, either as a formal or informal contract. Contract drawings and specifications are prepared and assistance is given to the Project Inspector on supervision of the work. Changes to the work during construction are handled either by change order or by letter as appropriate.

Architecture

In addition to strictly interior design, this division handles many renovations, alterations, and complete architectural projects.

Renovations being considered as changing interior spaces by removal of non-structural partitions for a different type of occupancy, refinishing and refurnishing.

Alterations being considered as changing the structure by wholesale gutting of the interior; adding elevators and staircases or additions to the building itself.

Architectural projects being complete new buildings such as the Fraser Valley Trout Hatchery.

Presentation

The Public Works model making activity for presentation of architectural designs is included in the Interior Design Division, and also the productions of architectural perspective renderings. Both these are not only prepared as a presentation to the client but also as an aid to the design team during the early development of the design.

Programming Assistance and Reports

Programming is mainly confined to interior design work, but can be extensive in an open-planning arrangement where several activities are performed in the same area. Reports on the condition of existing buildings, together with recommendations and estimates, are compiled together with those of the other divisions in the form of one report.

RALPH P. H. GILLETT, M.S.I.A.D., M.R.A.I.C.
Interior Design Architect

Rithet Building, Tourism British Columbia, Victoria.

REPORT OF THE DIRECTOR OF PERSONNEL SERVICES

The past year has been a particularly busy one for the Personnel Services Division. In addition to maintaining and upgrading our regular services of recruitment, job evaluation, and employee relations, we have been deeply involved in developing a complete safety program, assisting in the introduction of collective bargaining within the Public Service, and consulting on a significant organizational change with the Department.

Commencing with the appointment of the first full-time Safety Officer for Public Works, we have been able to organize a Safety Program that begins with the development of policy at the executive level and which involves the active participation of all staff at various levels throughout the Department. Already we are beginning to see a change in attitudes with regard to safety and health that is showing results in an improvement in our lost time due to accidents. Through continuous communication with all Safety Committees, we intend to improve upon the accomplishments to date.

In the field of labour relations we have assisted the Public Service Commission in representing the interests of management at the bargaining table with the B.C. Government Employees' Union and the B.C. Government Professional Employees' Association. In addition, we have acquainted the line management of this Department of the provisions of these collective agreements and have assisted in providing interpretations, resolving grievances, and preparing cases for arbitration. While we recognize the adversarial nature of the collective bargaining approach, we are proud of our record in establishing good working relationships with the bargaining agents of both employee groups.

Over the past year we have worked in concert with Departmental line managers in attempting to foster a more participative style of decision-making. While always being cognizant of management's right and obligation to make decisions, we believe the best decisions are those that have received the input of the best advice possible. To this end we have provided consulting advice in an attempt to ensure that all staff have an opportunity to make a significant contribution on those decisions that concern their responsibilities. We believe some success has been achieved both in terms of a better quality of decision-making and in the commitment of our staff toward the goals of this Department. We look forward to further gains in this direction within the forthcoming year.

As is our mission, we shall continue to improve upon the services delivered by this Division in an attempt to provide the best possible consulting services to line management.

M. V. COLLINS
Director of Personnel Services

REPORT OF THE DIRECTOR OF OPERATION SERVICES

One of the main preoccupations of the Department during the 1975/76 fiscal period has been to bring about a better utilization of space in both Government-owned and leased premises. The rapid expansion of Government departments in this and previous years had resulted in client departments obtaining their own accommodation, and in some instances projected space requirements in excess of the predictable immediate future requirements had occurred. In order to correct the poor utilization and waste of valuable space, a committee was formed and this Division's Superintendents of Works were charged with the responsibility of making an inventory of space with a view to locating and releasing unused space, encouraging client departments to consolidate their operations, and generally participate in all matters relating to the effective use of accommodation. In many instances the Superintendents of Works' in-house forces were used to carry out the finishing and partitioning of premises to effect their speedy utilization.

During the period under review new workshops and offices for Zone 4 were completed in Kamloops, which enabled us to vacate the outdated and inadequate accommodation available to us in the Tranquille Hospital grounds. Further, this move has promoted a sense of independence, together with the improved facilities now available which will enable us to serve our clientele better, both in the Kamloops area and throughout the zone. In addition, the Division was also fortunate in obtaining property at Terrace to relocate the subzone workshops and offices, thus vacating property within the Skeenaview Lodge site. The new location provides larger yard space and improved workshops, stores, and associated facilities, which will no doubt enable us to improve the economic function of this unit.

There were two major power failures in institutions during the year. In this respect, the BCIT at Burnaby experienced six cable insulation breakdowns in the primary circuits which caused a power outage for a period in excess of 24 hours. With the co-operation of B.C. Hydro Authority who were able to supply replacement cable at short notice, we were able to reduce that which might have been a severe disruption of the client's use of the total facilities. Similar help and co-operation were obtained in respect to an outage at Woodlands School, New Westminster. Although the Operations Section of this Division has only one Electrical Engineer in its employment, it was able to design and direct our field crews in the installation of a 250-kva generator set required to keep operative the Highways establishment at Meziadin Lake, in addition to giving advice to our Electrical Foremen and pinpointing many areas requiring attention to obtain the effective utilization of electric power sources.

The Technical Services Branch of the Division called tenders for some 77 projects during the period under review. The range of projects extended from small moving contracts, reroofing buildings, and carrying out more extensive building alterations to satisfy client use. In this respect the conversion of the old Liquor Store premises at 140 East Eighth Avenue, to provide accommodation for the Film Classification Branch, is an example of the scope of work carried out successfully by this section. In addition, the acquisition of property at 1190 Melville Street, Vancouver, previously under the control of a client department, necessitated the subdivision of some 50,000 square feet of office space and the subsequent release of lease space previously occupied by the new Government department tenants. Both the above projects were carried out by our personnel acting as Project Managers and the zone staff participating in the site construction,

and the promotion of the use of the space by client departments. Beside the above activity, the section continued to provide to our field organization drawings, specifications, and technical information for all types of work undertaken both in-house and by contract.

The Division's Regional Representatives have been kept busy implementing an energy conservation program, the operation of a pilot computerized cost system in Zone 3, and many support functions given to our field organization.

Although the Glendale Laundry total load has not appreciably increased during the period under review, our Laundry Administrator instituted an active program to obtain better utilization of both labour and machinery which has resulted in employee productive output being raised to 70 pounds per hour. The Assistant Director of Operations and the Laundry Administrator have continued throughout the year to promote the use of a linen service, also obtain a universal standard for the purchase of new linen supplies.

Our Security Section has, during the past year, developed a series of brief lectures for delivery to public servants on the first aid measures in extinguishing fires within premises, and has now completed the delivery to personnel in Government owned and leased premises in the Victoria area.

In conclusion, as this is the last independent report of the Department of Public Works, I would like to pay especial and sincere tribute to all staff in the Division, and the help we have received from members of this Department and other agencies of Government.

STANLEY LLOYD, M.R.A.I.C., A.R.I.B.A., DIP.PUB.ADMIN.
Director of Operation Services

Provincial Courts, 222 Main Street, Vancouver.

REPORT OF THE CO-ORDINATOR OF CONSTRUCTION

In my annual report for 1972/73 I mentioned that the Construction Branch had tackled its first project to be carried out on a "construction management" basis. I stated at that time that the industry was starting to move away from the traditional concept of general contracting, and mentioned that "flexibility, cost, and time-saving" were desirable features which were capable of achievement under the construction management system.

The following three years have amply proved out this capability, thanks to the efforts of the staff of the Construction Branch.

Since that report the Construction Branch has handled some 21 management-type projects to a value of $53 million, of which 15 have now been completed.

All of these projects were brought in under budget, and, with one exception, ahead of schedule.

We have evolved an eminently successful system for packaging contracts, scheduling, budget analysis, cost control, and construction supervision. We have been able to educate a succession of "first-time" construction managers from the ranks of the industry to operate within the system and have then been able to enforce the close control which is an absolute essential for success in this type of contracting method. Perhaps the most notable major project completed to date is the Multi Discipline Building at the Burnaby Vocational School at a cost of $4.8 million. The net cost per square foot is less than $23, which, when one considers that the average office building costs $40 to $50 per square foot, is an outstanding success. Much of the credit for this extremely low cost goes to the capable designers from our Design Division.

Another very significant feature of the work of the branch has been an unbroken string of successful management projects carried out by our own "in house" staff.

Several former project inspectors have been trained in construction management methods, and have proved to be very capable; the essential back-up and type of service normally found in a contractor's office has been provided by the branch headquarters staff. Much credit must be given to the Assistant Co-ordinator and the Quantity Surveyor, who have provided invaluable service with great dedication. Credit must also be given to the Electrical Inspector who has kept under very tight control the provision of temporary services, problems arising from contract overlap, and all of the unexpected electrical problems inherent in construction management.

Some of the more prominent "in-house" managed projects are the conversion of a former bowling alley at 914 Yates Street, Victoria ($500,000); Jordan River Correctional Camp ($208,000); CLEU Building, Vancouver ($556,000); Detox Centre, Vancouver ($250,000); Provincial Building, Kimberley ($350,000); Revelstoke Courthouse renovations and alterations ($1,200,000); and restoration and renovations to the Dowell Building, Victoria ($1,500,000).

Of particular interest is the Jordan River Correctional Camp which was put into action three months after the Construction Branch was asked to handle it—without drawings and without water, supply, or power. We rented equipment to clear the site and excavate, sank a well, ran an overhead power system, requisitioned trailers and set them up, installed a septic tank and drainage field, complete in 12 weeks.

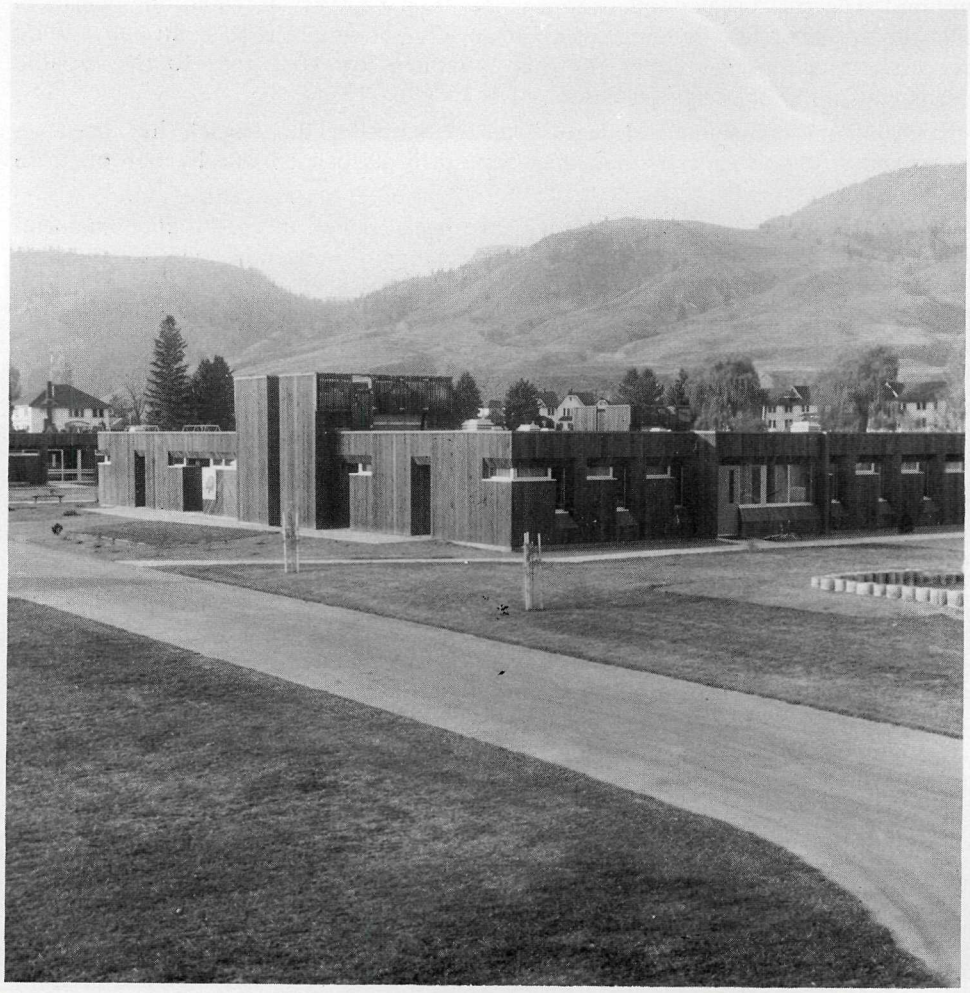
The conversion of the former Dowell Building warehouse was an even greater challenge, since the existing building consisted of a broken-down old brick ware-

house without power or heating, having an old leaking roof, decrepit wood windows, and rotted beams. On this project the unexpected was the norm, but thanks to the efforts of the Design Team, Field Manager, the Quantity Surveyor, and others of the Construction Branch, it has been brought in under budget. It is now a high quality, showpiece building, the construction of which epitomized the flexibility and lack of friction which is characteristic of a good management-type project.

I have stressed the management methods, but would be remiss if I did not mention that, during this period, we also supervised a large number of conventional contracts which have been satisfactorily concluded.

In conclusion, on behalf of the staff of the Construction Branch, I wish to express my thanks to the entire Design Division, together with the management and staff of the Operations and Services Division, for their co-operation.

D. GREY, M.C.I.Q.S., DIP.PUB.ADMIN.
Co-ordinator of Construction



Stsmemelt Village, Tranquille.

REPORT OF THE ASSISTANT DIRECTOR OF OPERATION SERVICES

GLENSHIEL HOTEL

The Glenshiel Hotel property at 606 Douglas Street in Victoria was acquired in December 1972 to protect the Government's land assembly interest in the precinct. Pending other use, its operation as a hotel has continued under the direction of a professional manager and a committee composed of Department of Public Works employees.

The Manager is Bert Hanson and the committee consists of H. J. Greig (Chairman), A. E. Rhodes, S. Lloyd, and M. V. Collins.

The facility has 75 rooms to let, and offers a transient hotel service and dining-room as well as board and room at monthly rates. A staff of 22 is permanently employed.

The hotel is fortunate in having secured the services of Bert Hanson as Manager. Mr. Hanson has had extensive training and experience in the hotel business, latterly in Kamloops, and the Management Committee is confident that the affairs of the hotel are in good hands. Mr. Hanson assumed his position officially on May 1, 1975. George Ford, who was acting Manager since September 1974, continued on staff as part-time auditor.

Gross revenue for the year was up $12,000 to $217,493.58, but expenses rose $24,000 to $218,497, resulting in a net operating loss of $1,004.22.

On May 27, 1975, a collective agreement was signed between the hotel and the Beverage Dispensers and Culinary Workers Union, Local 835. This was the standard agreement in effect at other Victoria hotels which are members of the B.C. Hotel Association. The agreement expires April 30, 1976.

As a result of this agreement, the average wage of the employees has increased by 50 per cent; for instance, a waitress earning $2.50 an hour prior to May 27 received $3.73 an hour in January 1976, which includes health and welfare payment of 13 cents an hour and pension contribution of 9 cents an hour.

The management has minimized the effect of this drastic rise in operating cost by reducing work time wherever possible. Total hours in 1974 were 42,940; total hours in 1975 were 38,741, a reduction of 4,199 hours, with no reduction of service to the guests. As most of the reduction occurred during the latter half of the period, it is expected that the next full year's operation will show a further 1,000 hours' reduction.

This stringent economy in the use of labour has resulted in only a 10.7-per-cent rise in the total payroll expense this year.

A new schedule of rates was put into effect November 1, 1975, averaging a 10-per-cent increase in room rent and a 20-per-cent increase in meal charges.

The Management Committee does not consider the Glenshiel Hotel to have the potential to become a viable commercial enterprise, either under present management or if it was in private hands. Therefore, the objective of breaking even financially while maintaining the physical asset and providing economical room and board for elderly people is considered to be a worthy one.

GLENDALE LAUNDRY

In May 1975 the Glendale Laundry assumed the final increment of the Royal Jubilee Hospital linen load, enabling that institution to retire its obsolete equipment and use the old laundry space for more productive purposes. Laundry workers at Jubilee were given the opportunity to transfer to Glendale and many did so.

In August, L. Balmer joined the staff as Laundry Manager. He is a very experienced laundry executive who was previously Manager of the Royal Inland Hospital Linen Services, Kamloops.

A total of 6,619,836 pounds of linen was processed, about 50 per cent from Royal Jubilee Hospital, and the balance from seven other customers. Total cost of the service was $1,254,615.66, and total credits received from customers were $1,359,019.53. Average cost per pound of linen processed was $0.1895.

Total Credits to March 31, 1976

	$
Royal Jubilee Hospital (19370)	622,723.62
Glendale Lodge	344,927.13
Saanich Peninsula Hospital	39,210.46
Gorge Road Hospital	185,592.67
Royal Jubilee Hospital (18436) (Memorial Pavilion)	149,809.74
Camosun College	3,374.60
Regional Correction Centre	9,404.49
Glenshiel Hotel	2,470.00
Detoxification Centre	1,456.82
Hospital Programs	50.00
	1,359,019.53

Increased efficiency resulting from programs initiated by Mr. Balmer made possible a reduction in staff from 104 at the beginning of the period to 94 in March 1976. Further economies will be effected as modernization of the plant continues and adjustments are made in the linen and clothing processed. Improvements to the soiled linen area were made during this fiscal period to facilitate unloading, weighing, and sorting operations.

Discussions have been initiated with the customer hospitals regarding the establishment of a Linen Service to replace the existing Laundry Service. If the talks are productive, linen will be standardized as to type, dimensions, and colour throughout the hospitals dealing with Glendale Laundry, and, hopefully, throughout the Capital Region District. Bulk purchasing will be by the Linen Service and present quotas will be delivered to each customer daily. Linen will be withdrawn from use by the Linen Service Manager when it is unfit and unrepairable, and the cost of linen replacement will be averaged over the budget period and charged out at a unit cost per pound of linen processed. This modern system permits economies in bulk purchasing and requires a great deal less handling labour in the laundry, as sorting by customer is not necessary. An improvement in the usage factor of the washers is another benefit, as full loads of similar items requiring special treatment can be processed.

LIONS GATE TOURIST COURT

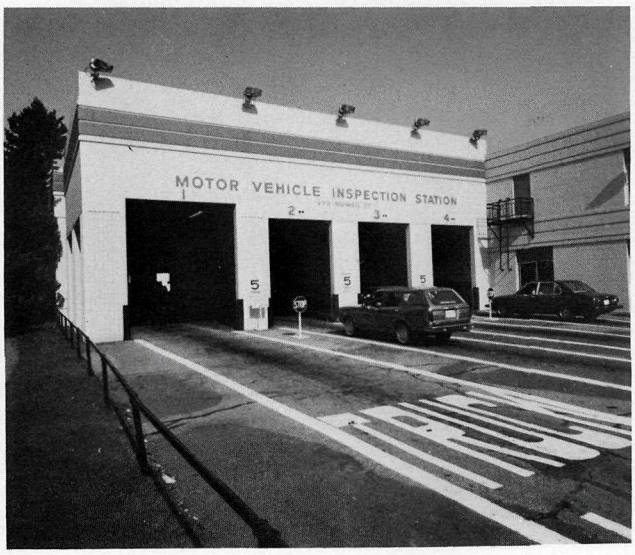
The Lions Gate Tourist Court, 329 Marine Drive, West Vancouver, was purchased by the Department of Highways to protect that Department's interests in the event of reconstruction of approaches to the First Narrows Crossing. Pending redevelopment, it is operated by a Committee of the Department of Public Works, who employ a resident Manager.

The Manager is F. McBain, and the Committee members are H. J. Greig (Chairman), S. Lloyd, A. E. Rhodes, and E. W. Mabbett.

The motel consists of 18 units of an older type which rent at the low end of the scale. A staff of four are employed and full municipal taxes are paid. A surplus of $11,293.27 was achieved in the year under review.

H. J. GREIG
Assistant Director of Property Services

Provincial Government Office Building, Broughton and Blanshard Streets, Victoria, under construction.



Motor-vehicle Station, Vancouver.

REPORT OF THE CO-ORDINATOR OF TECHNICAL SERVICES

The Technical Services Branch during the year provided technical support and specialized services to the zone areas on matters of concern related to maintenance, repairs, renovations, or alterations to buildings and the operation of the building plants and services. Specific technical studies and reports were also prepared for the Director of Operations Services, the Assistant Director, and the Regional Representatives.

During the year, contracts were awarded for 77 projects, and in addition designs and drawings were prepared for work projects carried out by the field trade forces. Throughout the year frequent field trips were made by staff members to survey building installations and provide advice and assistance to Zone Superintendents and their staffs on a wide variety of operational and maintenance problems.

The Architectural Section undertook projects ranging from moving contracts, demolition contracts, reroofing jobs, and both minor and major building renovations and alterations. Extensive alterations were made in converting a former Liquor Store at 140 West Eighth Avenue for use by the Film Classification Branch. Another extensive project undertaken involved space development and the complete interior reconstruction of a seven-storey 50,000-square-foot building located at 1190 Melville Street, Vancouver. Section staff members were the Project Managers on both the above projects.

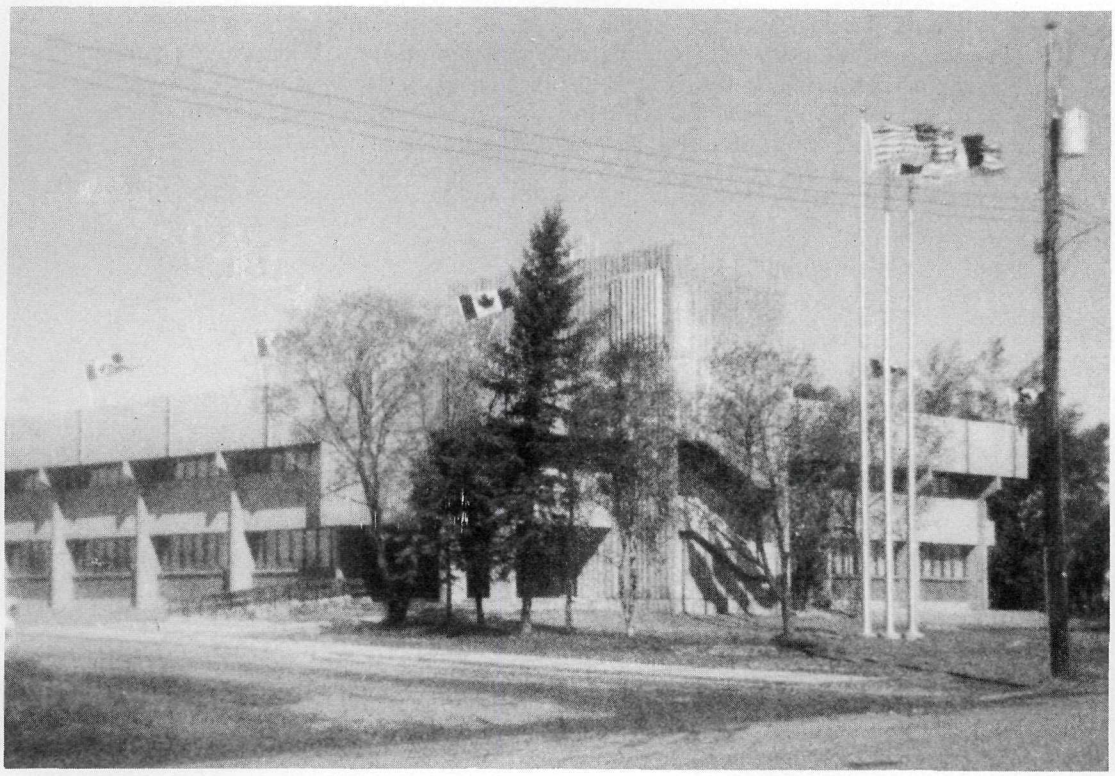
The Electrical Section, in addition to providing electrical designs incorporated into general contracts for building alterations, provides for the upgrading and alteration of electrical plants and services. Notable of which was the rebuilding of the overhead system in the Highways Maintenance Establishment, Cloverdale; Protective Relay Co-ordination Study at BCIT; installation of a 250-kva diesel generator plant at the Highways Maintenance Establishment, Meziadin Lake; modifications to the electrical generating plant at the Highways Maintenance Establishment, Bob Quinn Lake. The latter two jobs were carried out by Departmental trades staffs under the site direction and assistance of this Section's Electrical Engineer.

The Civil and Structural Section conducted investigations and studies to determine the structural capabilities of Highways maintenance establishments at Prince Rupert, Bella Coola, Pouce Coupe, and Revelstoke for existing and proposed added loadings. Surveys and designs were carried out for retaining-walls and road-widening work at the B.C. Vocational School, Burnaby; Valley Hospital; and Duncan. Improvements to drainage systems were made to the Alouette River Unit, Maple Ridge, and the Northern Training Centre, Smithers, as well as at various locations in the Victoria area. Personnel of this section made regular visits to sewage treatment plants to instruct operators on proper methods of operation and maintenance and on modifications required to provide efficient plant operation, and to ensure that regulatory requirements were being met on these and other waste-disposal systems.

The Mechanical Section designed and awarded contracts for 15 projects for upgrading and renovations to mechanical systems, and in addition provided designs for incorporation in general building alteration contracts. Many of the older Highways maintenance establishments do not have adequate systems for exhausting the vehicle exhaust fumes from their buildings. A program was started this year for the upgrading of these systems. Three such systems were completed and planning

for others started. One project of note was the redesign of the steam-heating system in the old Powell River Courthouse. This redesign was precipitated by the decision of the pulp-mill to discontinue steam supply to this building from their central steam plant. To preclude the simple expedient of installing our own steam plant which would require additional labour costs for licensed boiler plant operation, it was advisable to provide a hot-water system. To change from steam to hot water would normally require a complete renewal of the radiation and piping systems. However, in this instance, after feasibility studies, it was determined that a functional system could be provided with the renewal of the condensate return main only and the installation of a hot-water boiler. This conversion was therefore carried out with minimal prime and operating costs.

F. D. STURDY, P.ENG.
Co-ordinator of Technical Services



Provincial Government Building and Law Courts, Fort St. John.

REPORT OF THE DIRECTOR OF SAFETY ENGINEERING SERVICES

In the activities undertaken by the Safety Engineering Services Division to meet the primary objective of providing a safe environment in the disciplines of boilers and pressure vessels, electricity, and gas, service-oriented programming has been emphasized.

To optimize the use of resources, the thrust toward an increased content of safety education was accentuated through an improved information system on safety for the industry and society. Within the scope of the individual branches there have been innovations in the form of seminars, technical bulletin releases, etc., to assist the industry in becoming well informed and knowledgeable on the latest safety standards. This activity provides for a sharing of responsibility with industry, thereby reducing pressure for increased inspectional forces.

While continuing to participate in the development and utilization of national standards to the greatest degree possible, advisory committees have been actively maintaining and developing requirements appropriate for environmental conditions in British Columbia. The system for developing and interpreting standards is under revision to provide for increased input from industry and society. Appeals procedures are being adopted to ensure that persons subject to rulings of enforcing authorities will be able to obtain an impartial hearing on any of their concerns.

To ensure that services are delivered in the most efficient and effective manner, decentralization was continued for decision-making and the provision of services. To coincide with this staff development, activities are under way so they will be better equipped to make prompt and knowledgeable decisions at the local level.

Specific branch activities include survey of plans and designs to ensure conformance with adopted safety standards, examination and certification of persons and equipment, investigations of accidents and fires, installation inspections, and educational functions which include standards development meetings, code seminars, and dissemination of information on new and amended requirements.

Following are selected statistical data for 1975/76:

Inspections conducted	202,474
Work permits issued	111,848
Equipment certified	12,956
Examinations given	7,975
Individuals or contractors certified	13,192
Investigations conducted	198
Plans examined or designs surveyed	8,163
Meetings or seminars conducted	284
Written recommendations and reports on defects and hazards (estimated)	71,000

G. W. LAWSON
Director of Safety Engineering Services

REPORT OF THE CHIEF BOILER INSPECTOR

The top priority goal for the Branch was to establish working boards with regular meetings where persons involved in design, manufacture, ownership, use, and operation of pressure plant equipment could discuss implications of the regulations and make recommendations for any changes as well as review the effectiveness of the programs in force. Accordingly, five boards and committees in the sectors for which we have regulations are in place and are holding scheduled meetings. Numerous briefs have been reviewed and minutes of all proceedings have been distributed to members and to supplemental lists of interested parties. Much still needs to be done to increase the levels of communication and to expand objective understanding of safety and the prevention of hazards by complying with the codes and standards.

Within the Branch, reorganization studies have been conducted to seek out better and more effective ways to administer and perform our activities. We are sadly lacking in supervisory capability and have plans to fill this vacuum. We have only begun to look at data processing and other means to streamline the host of documents in use, the records and the analytical tools and information we need to evaluate the activities and staffing requirements of the Branch. To continue to perform as we are at present doing will require additional personnel. The alternative would be to look for ways to place further onus upon contractors, trades people, and owners to meet the requirements of the regulations; then to administer such programs by audit surveys or other reporting methods.

There were five explosions involving pressure plant equipment during the year, resulting in property damage only; no fatalities or serious injuries to persons.

Many hazards and potential hazards were eliminated through the activities of the Branch—defective controls corrected, faulty safety valves repaired or replaced, equipment removed from service and cracks in tubes, shells, and tubesheets repaired. Full reports are on file of the explosions, hazardous conditions, and the investigation carried out.

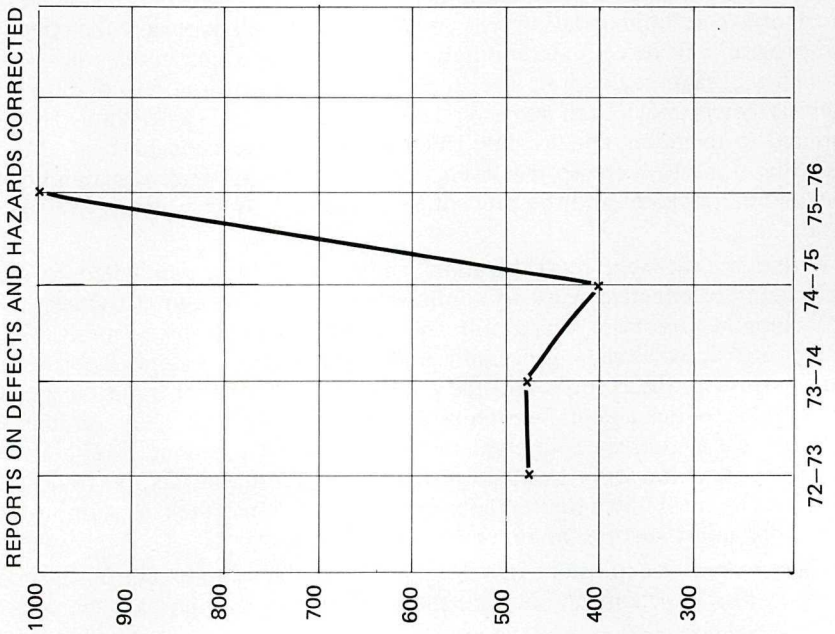
Activity charts are included.

Following are selected statistical data for 1975/76:

Boiler Safety Branch

Inspections conducted	12,500
Work permits issued	800
Equipment certified	7,371
Examinations given	6,733
Individuals or contractors certified	6,607
Investigations conducted	70
Plans examined or designs surveyed	784
Meetings or seminars conducted	140
Written recommendations and reports on defects and hazards	7,000

B. W. Cole
Chief Boiler Inspector


REPORTS ON DEFECTS AND HAZARDS CORRECTED
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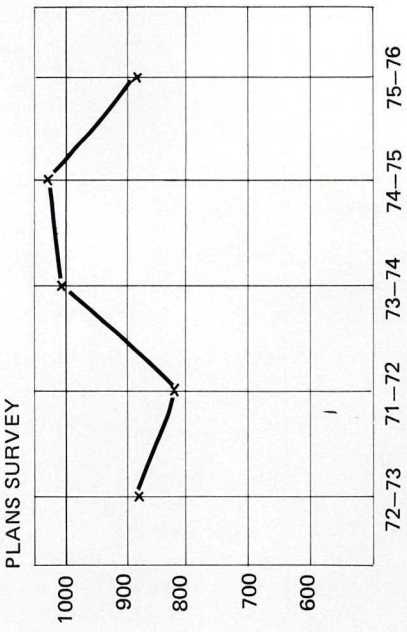
PLANS SURVEY
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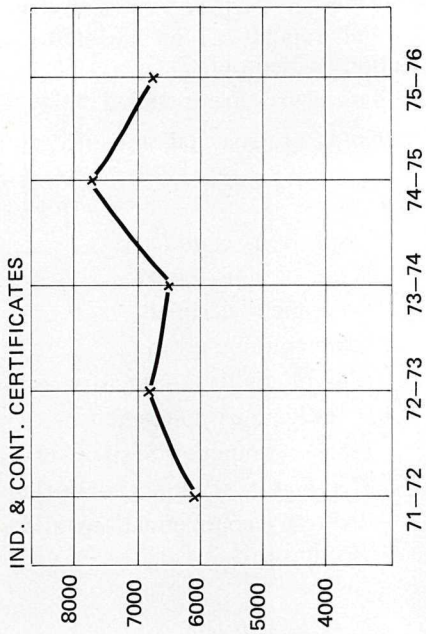
IND. & CONT. CERTIFICATES
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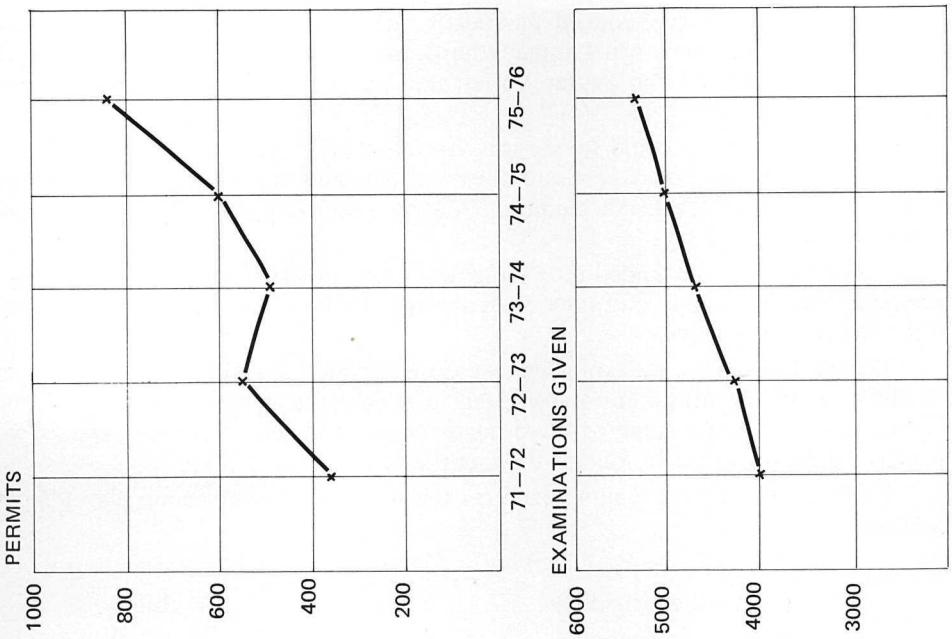
71–72
72–73
73–74
74–75
75–76


PERMITS
1000
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72–73
73–74
74–75
75–76
EXAMINATIONS GIVEN
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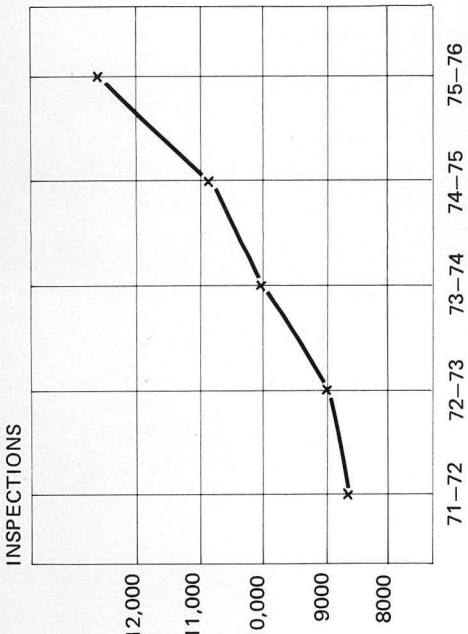
5000
4000
3000


INSPECTIONS
12,000
11,000
10,000
9000
8000
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72–73
73–74
74–75
75–76

REPORT OF THE CHIEF GAS INSPECTOR

The Gas Safety Branch continued to maintain a high work load during the past year despite a slowdown in the construction industry in some areas of the Province.

The Branch has reorganized its staff in the Lower Mainland and, with the location of a new inspector in Langley, the Branch is better able to give service to the areas requiring it. The Fraser Valley still has the heaviest work load in the Province.

No changes were made to the Act or regulations, although many bulletins were sent to the trade to cover requirements of new and varied types of equipment that are coming into British Columbia. Changes to the gas regulations are contemplated for later this year.

Gas service was extended into three new areas in the Kootenays, i.e., Salmo, Fruitvale, and Montrose, and they all requested the Gas Safety Branch to undertake the inspection service.

During the year, nine explosions were investigated, two of them resulting in fatalities. Also, 24 fires were investigated in which nine fatalities occurred. The reports are on file and some of these incidents are still under investigation. Two alleged suicides resulted in four of the fatalities.

The number of gas permits issued for the whole Province was up about 7 per cent over last year.

Summary of Work

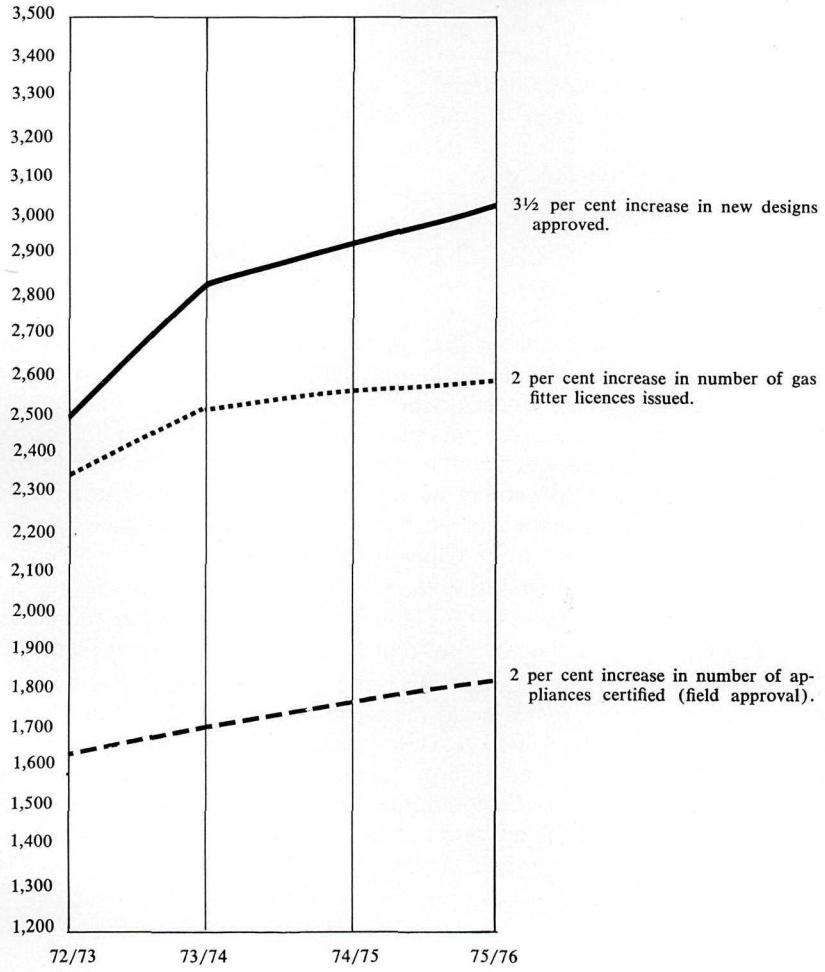
New designs checked	3,040
Appliance certifications	1,800
Gas permits (including municipalities)	32,200
Gas fitter examinations	565
Gas fitter licences issued (new)	343
Gas fitter licences renewed	2,540
Gas contractor licences issued (new)	93
Gas contractor licences renewed	675
Inspections (all types)	over 90,000
Special investigations—	
Explosions (two fatalities)	9
Fires (nine fatalities)	24
Number of meetings conducted (including regional meetings)	24

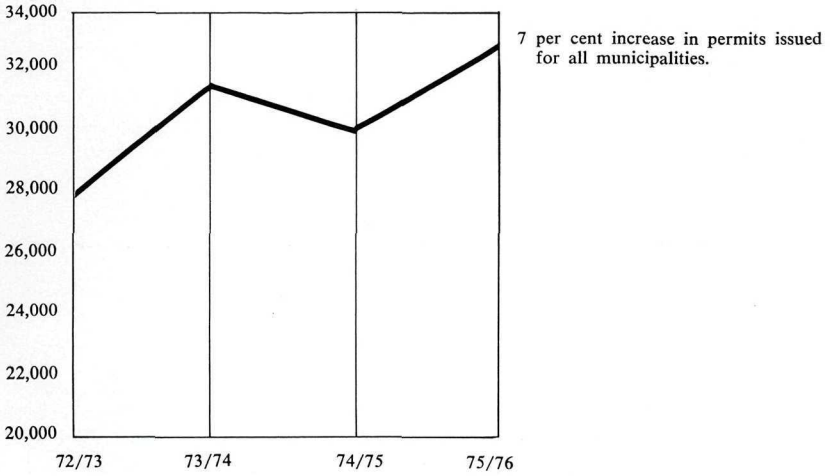
W. R. MONTGOMERY, P.ENG.
Chief Gas Inspector

MAJOR ACTIVITY CHARTS

GAS SAFETY BRANCH

(Comparison with previous years)





REPORT OF THE CHIEF ELECTRICAL INSPECTOR

Published building permit statistics indicate the value of construction projects throughout the Province as $1,458,500, or approximately 29 per cent above the value for the previous fiscal year. The Electrical Safety Branch experienced an increased demand for its services.

The number of examinations for certificates of competency decreased by 4 per cent over the number of examinations held during the previous fiscal year; the total number held, however, was 677, and represents a significantly high level. The number of certificates of competency issued throughout the year totalled 2,934; distribution of these certificates was

A—257	B—388	C—416
PA—347	PB—517	PC—748
RA— 11	RB— 22	RC—288

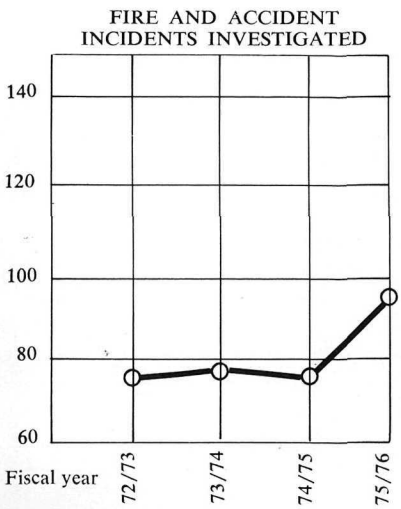
As a means of reducing paper flow, greater stress was placed upon multiple use of permit forms. Where separate permits had previously been issued to cover functions such as temporary construction services, temporary connections, and main permits, these were, wherever possible, combined into one permit related to a specific installation. In consequence, the physical count of permits issued decreased to 78,848; the estimated total number of permits based on previous practice would approach 95,000. The number of inspections performed totalled 99,974, an increase of 19.3 per cent over the previous fiscal year.

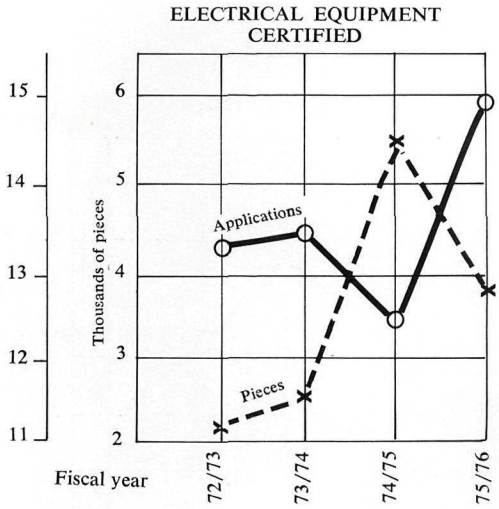
Plans received for approval during the year totalled 1,693 sets with the number of individual drawings totalling 4,339. These statistics indicate an increased number of smaller installations of a class or kind requiring the submission of plans.

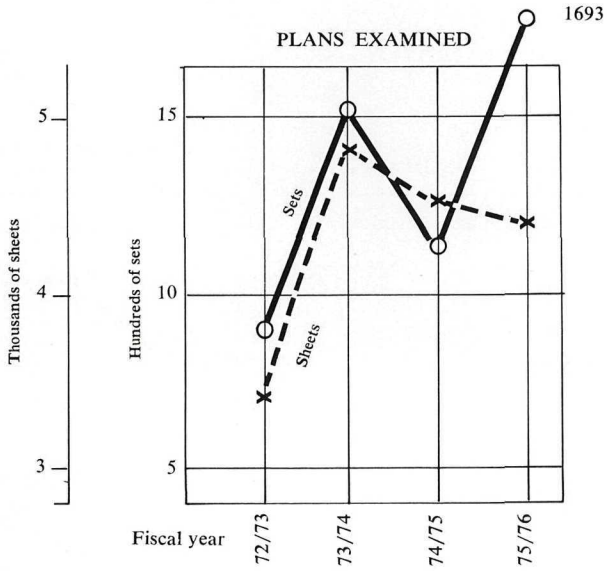
During the year the Branch met with representatives of the electrical industry to discuss ways of improving service to the trade and industry. From these meetings was born the Electrical Safety Review Board. This board struck a subcommittee, the Electrical Wiring and Equipment Standards Committee, to assist with review of codes and standards; the committee held meetings to receive and consider proposals to be included in the adoption of the 12th Edition of the Canadian Electrical Code.

A. R. LUCK, P.ENG.
Chief Electrical Inspector

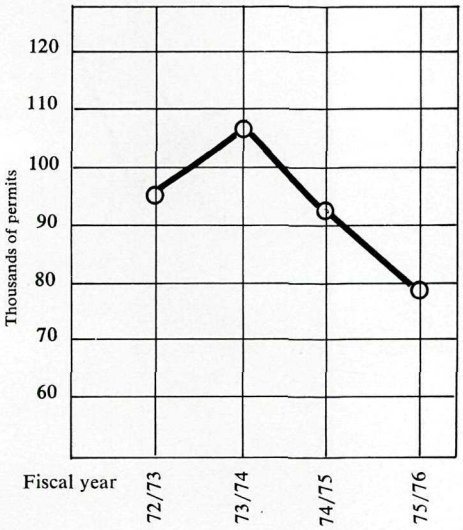
ELECTRICAL BRANCH STATISTICS



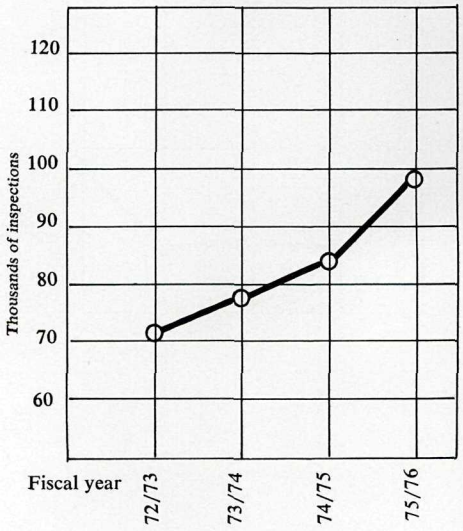




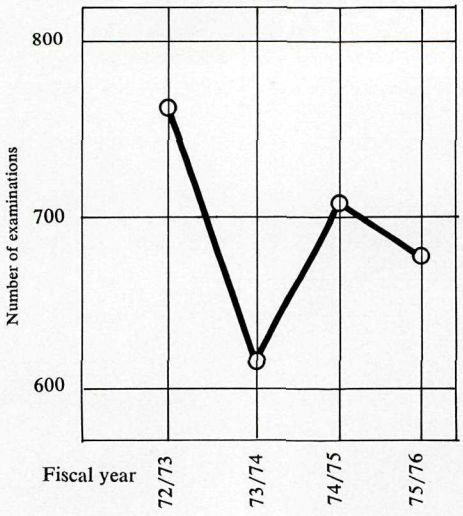
PERMITS ISSUED



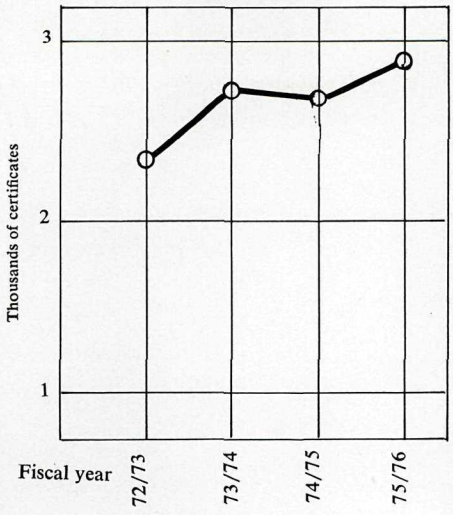
INSPECTIONS



EXAMINATIONS HELD



CONTRACTOR CERTIFICATES ISSUED



REPORT OF THE RESEARCH, STANDARDS, AND SPECIFICATIONS BRANCH

The past year has been extremely eventful for this office, with ever-increasing expansion of our varied functions. There was considerable polarization, resulting in the virtual separation of work involving specifications from that dealing with codes.

In the field of specifications, the effect of the general cutback in projects was drastic, although without this cutback, our staff shortage would have made the situation impossible. Greater emphasis was placed on alterations, restorations, and contract management types of contracts. These place a much higher work load on a Specification Writer than normal contracts, a point which is seldom appreciated. Staff in this area were also involved in the development of performance specifications and several minor contracts were dealt with on this basis to decrease design time, make use of outside developers, and take advantage of the competition prevailing in the prefabricated-building industry.

It was hoped to establish a master specification, utilizing the services of a consultant, but this did not proceed, possibly fortunately in view of future organization changes.

The other aspects of our work which received little publicity under our old title will, I am sure, be given due credit and more work when we are separated as the Building Standards and Research Branch, a branch of Safety Engineering. Hopefully at that time additional staff can be employed, allowing us to give a full technical support service to the whole building industry.

We provide the support necessary for the Building Code Appeal Board, the busiest and most effective in the country, which was involved in 104 appeals during the year. About a third more were settled by discussion, avoiding the submission of appeals. Our role with the board has become widely known and we have now been discovered by the legal profession. At one point we narrowly avoided being the sandwich-filling in a court case between a developer and a municipality. At another, an appeal decision resulted in discussions with a surprising number of law offices, we now find ourselves in the interesting position of giving legal advice to lawyers.

Our contact with code users throughout the Province has expanded tremendously, both by mail and telephone. We provide a technical advisory service to municipalities, prepare periodical summaries of appeal decisions and circulate these to all concerned. Our mailing list includes, apart from municipalities, design offices, associations within the construction industry, every province and territory in Canada, Federal organizations such as the CMHC and the National Research Council, and we are now receiving requests for inclusion from lawyers. The list is in process of being computerized for simplicity. We receive telephone calls for information from throughout Canada and a surprising number from the United States, even from as far as their East Coast. The new Provincial Advisory Committee on the National Building Code was formed and is now finding its feet. I represent British Columbia on this committee, which promises to be the most powerful in the country in the field of building regulations. We are represented on the Canadian Building Officials Advisory Council and are finding this also to be developing into an extremely busy function, dealing with, among many other things, mobile homes, certification of building materials, factory fabrication, and the education of building officials.

Two members of this office have made a tremendous effort in the preparation of building requirements for the handicapped. The first draft should soon be avail-

able for public comment. It is hoped that a final draft will be available by the end of the year, ready for adoption as part of the B.C. Building Code.

With building standards our involvement is immense. It is doubtful whether most people realize the extent to which their lives are governed by such standards. We participate in the writing of probably over 200 of these at present, by membership of steering committees and individual standard writing committees. Our approach has been realistic and critical, resulting in considerable improvement to these standards, a fact for which we have received written appreciation from the bodies concerned. The Standards Council of Canada, responsible for publishing the new range of National Standards, written by four accredited organizations, is very active. They are also involved in the preparation of international standards, in which we assist. We provide one of the five-man Canadian content on a newly formed international committee of this body.

All this work has required a tremendous amount of technical research by members of this office. There are numerous meetings, mostly in the east, but with those for international standards in Europe, we deal with most issues by correspondence, but utilize different people to attend meetings when attendance is critical.

Metric conversion is another issue with which we are deeply involved. We serve, at their request, on the Provincial Construction Metric Conversion Committee. We have agreed to act as a communication channel between them and all municipal building officials through a regular newsletter which we plan to publish.

I have skimmed over our activities, lack of space prevents me doing otherwise, I have also refrained from mentioning a number of other essential tasks on which work is at a standstill due to shortage of staff.

In essence, the main role of the new branch, when established, will be to provide a complete technical support service for all building officials and other code users, covering both the code and all standards.

J. C. Currie, A.R.I.C.S.
Branch Head

REPORT OF THE COMPTROLLER OF EXPENDITURE

The following pages present in detail the expenditures relating to the construction, alterations, and repairs on the various Government buildings and institutions, etc., coming under the management, charge, and direction of the Minister of Highways and Public Works.

A. E. RHODES
Comptroller of Expenditure

STATEMENT OF EXPENDITURE, FISCAL YEAR 1975/76

ADMINISTRATION AND MAINTENANCE VOTES

(For details, *see* Public Accounts)

		$
Vote 231—Minister's Office		72,904.60
Vote 232—General Administration		1,128,891.53
Vote 233—Government Buildings	(gross)	27,224,358.97
Vote 235—Rentals	(gross)	14,841,979.53
Vote 236—Safety Inspection Division		3,465,534.42
Vote 237—Glendale Laundry Operation	(gross)	810,993.10
Vote 238—Salary Contingencies		3,122,986.93
Less credits—		
Items recovered from the Department of Education *re* technical and vocational schools (Government Buildings Vote)		*3,753,915.21*
Items recovered from various departments, commissions, etc. (Rentals Vote)		*803,954.04*
Items recovered from various departments (Glendale Laundry Operation Vote)		*11,342.95*
		46,098,436.88

CAPITAL VOTES

Vote 234—Construction of Provincial Buildings (*see* expenditure by building)	(gross)	46,499,595.16
Vote 23855 (Fund)—British Columbia Government Building Fund (Vancouver), Special Fund, *Revenue Surplus Appropriation Act, 1969*		12,461,633.27
Less credits—Items recovered from the Department of Education *re* technical and vocational schools		*4,902,363.48*
		54,058,864.95

SUMMARY

Gross expenditure, Department of Public Works—	
Administration, maintenance, and salary contingencies	50,667,649.08
Capital	58,961,228.43
Gross expenditure	109,628,877.51
Less credits—	
Maintenance	*4,569,212.20*
Capital	*4,902,363.48*
Net expenditure	100,157,301.83

VOTE 234—CONSTRUCTION OF PROVINCIAL BUILDINGS

Project	Description	Expenditure
	Abbotsford—	$
1-2-B1	Courthouse	880.00
1-18-B1	Fraser Valley Trout Hatchery	4,000,822.92
5-5-B1	Allison Pass—Highways establishment	76,249.10
26-0	Bella Coola—Purchase of property	35,000.00
122-5-B1	Bob Quinn Lake—Highways establishment	31,896.33
29-5-B1	Brannan Lake—Duplex residence, Island Youth Centre	511.66
	Burnaby—	
	Lower Mainland Regional Correctional Centre—	
11-10-B1	Isolation cells	36,032.70
11-31-B1	Women's Main Building	29,225.30
	Willingdon Avenue School—	
20-0-B1	West Complex electrical distribution system	45,481.34
20-29-B1	Renovations	21,607.66
20-50-B1	Dairy Laboratory	4,061.40
20-103-B1	Dogwood Lodge	71,148.18
	Tenant improvements—	
20-502-R1	4455 Juneau Street	34,410.52
20-504-R1	4240 Manor Street	7,851.31
20-508-R1	3876 Norland Avenue	7,314.07
20-592-R1	4211 Kingsway/4288 Grange Street	3,180.46
32-509-R1	Campbell River—Tenant improvements—Provincial Safety Building	1,385.00
46-9-B1	Chetwynd—Weighmaster's residence	5,939.24
36-1-B1	Chilliwack—Courthouse renovations	85,895.89
38-69-B1	Cloverdale (Surrey)—Sheriff's Office	94,566.93
41-1-B1	Courtenay—Alterations—Provincial Government Building	6,019.39
	Cranbrook—	
	Tenant improvements—	
42-506-R1	St. Eugene School	19,808.91
42-516-R1	1517 Baker Street	4,829.04
	Dawson Creek—	
50-51-B1	Provincial Building	28,359.45
50-51-B2	Landscaping	40,655.14
145-512-R1	Delta—Tenant improvements—Delta Shopping Mall, 80th Avenue and 80th Street	1,707.20
	Duncan—	
51-0	Purchase of property—Community Correctional Centre	*140,000.00*
51-5-B1	Provincial Building and Law Courts	7,785.62
	Essondale—	
	Riverview Hospital—	
12-0-B1	Sewer and pumping work	233,949.41
12-3-B1	Boiler plant	2,803.18
12-10-B1	East Lawn Building renovations	2,358.48
12-14-B1	North Lawn Building	58,965.25
12-15-B1	Pennington Hall	7,978.05
	Colony Farm—	
12-17-B1	Riverside Building	8,361.33
14-0-B1	Drainage and dyke improvements	24,668.17
14-54-B1	Dairy building	38,085.71
14-71-B1	Cow barn	28,138.27
54-6-B1	Fernie—Highways establishment	528,866.35
	Fort St. John—	
56-1-B1	Old Government Building	33,092.51
56-7-B1	Provincial Building	127,357.72

VOTE 234—CONSTRUCTION OF PROVINCIAL BUILDINGS—*Continued*

Project	Description	Expenditure
	General—	$
19-480-B1	Standard/Stock items for buildings (coats of arms, etc.)	15,836.66
19-480-B2	Furnishings for rental buildings	108,229.08
19-480-B3	Provincial Art Collection	178,119.22
19-484-B1	Well-drilling—Various locations	1,565.81
19-485-B1	First aid stations—Various locations	6,327.71
19-490-B1	General expenses	437,443.25
19-490-B2	Wages and expenses—Casual design staff	1,870,438.85
19-490-B4	COSBO expenses	17,293.30
19-490-B5	Expenses—Building openings and ceremonials	9,126.45
19-490-B6	Fees and expenses—Building land appraisal	22,549.10
	Golden—	
61-10-B1	Highways establishment	23,833.23
61-21-B1	Visitor Reception Centre	28,049.60
	Haney—	
10-19-B1	Kitchen and dining-room—Alouette River Unit (freezer installation)	2,377.71
10-501-R1	Tenant improvements—22460 Dewdney Trunk Road (Public Safety Building, Courtroom)	568.07
70-1-B1	Invermere—Provincial Building	5,523.95
69-2-B1	Jordan River—Jordan River Correctional Camp—Emergency water system	7,096.89
	Kamloops—	
	Site development—	
17-0-B1	Columbia Street	161,443.69
17-0-B2	Notre Dame Road	69,801.98
17-14-B1	Land Registry Office	8,662.10
17-25-B1	Central heating plant	3,779.99
17-28-B1	Ponderosa Lodge, Columbia Street (formerly personal care home)	139,590.82
17-81-B1	Public Works maintenance building	172,432.63
71-3-B1	Kaslo—Highways equipment building	4,673.63
73-3-B1	Kimberley—Provincial Building	357,158.32
	Lillooet—	
79-0	Purchase of property	10,000.00
79-2-B1	Highways establishment	2,112.80
17-122-B1	Logan Lake—Highways equipment building	294.00
110-71-B1	McLeese Lake—Highways equipment building	10,145.40
83-502-R1	Merritt—Tenant improvements—Nicola Valley Indian Services Association Building	2,017.20
122-4-B1	Meziadin Lake—Highways establishment	120,423.58
	Nanaimo—	
89-0	Purchase of property	46,410.45
89-1-B1	Courthouse	9,328.11
89-51-B1	Motor-vehicle inspection station	47.80
	Nelson—	
90-2-B1	Forestry Building	19,012.55
90-51-B1	Provincial Building, Ward Street	22,290.61
90-506-R1	Tenant improvements—Public Health Laboratory, Kootenay Lake District Hospital	82,051.00
	New Denver—	
91-7-B1	Personal care facility	387,644.93
91-15-B1	Highways maintenance establishment (Credit)	*12,000.00*
92-15-B1	New Haven—Workshop Building—New Haven Correctional Centre (Burnaby)	5,693.87

VOTE 234—CONSTRUCTION OF PROVINCIAL BUILDINGS—*Continued*

Project	Description	Expenditure
	New Westminster (Woodlands School)—	$
13-2-B1	Swimming-pool	20,946.68
13-8-B1	Academic and Activity Building	49,926.75
13-21-B1	Fraserview Building and Beech Cottage	151,971.81
96-0	Oliver—Purchase of property	2,712.55
	Penticton—	
102-1-B1	Provincial Building	5,392.89
102-10-B1	Offices, 152 Main Street (Annex)	136.28
103-21-B1	Pouce Coupe—Weigh-scale station	152.73
	Powell River—	
104-1-B1	Old Courthouse	33,122.06
104-2-B1	Provincial Building	9,641.01
	Prince George—	
	Tenant improvements—	
106-51-B1	Public Works Building	12,897.75
106-520-R1	Oxford Building	41,690.18
106-522-R1	IWA Building, 1777 Third Avenue	5,885.50
106-523-R1	Public Health Unit, Tabor Boulevard	33,869.09
	Prince Rupert—	
107-1-B1	Courthouse	7,555.68
107-3-B1	Forestry Building	1,902.94
107-13-B1	Land Registry	136,762.58
107-51-B1	Highways establishment	19.72
107-510-R1	Tenant improvements—Second Avenue and Second Street	1,414.01
	Quesnel—	
110-51-B1	Highways establishment	5,400.36
110-17-B1	Transport and Communications Trailer Office	1,023.87
112-1-B1	Revelstoke—Courthouse	128,123.15
126-71-B1	Salvus—Storage shed (Highways)	4,149.58
118-12-B1	Smithers—Provincial Buildings	84,716.35
54-21-B1	Sparwood—Highways equipment building	131,602.87
121-510-R1	Squamish — Tenant improvements — 38040 Cleveland Avenue (Health)	29,338.62
	Surrey—	
38-0	Purchase of property	1,278,975.97
	Tenant improvements—	
38-515-R1	10344-56, 137A Street	2,511.86
38-518-R1	Mental Health Unit	45,805.40
47-3-B1	Tatogga Lake—Highways equipment building	5,622.49
	Terrace—	
126-0	Purchase of property	442,012.19
126-49-B1	Weighmaster's residence	14,072.59
	Tranquille—	
15-48-B1	Barn complex	274.33
15-92-B1	20 bed and training units	294,229.86
4-4-B1	Trout Lake—Highways establishment	33,171.10
141-503-R1	Ucluelet—Tenant improvements—Davison Plaza	27,521.78
	Vancouver—	
16-0	Purchase of property	1,874,610.85
16-1-B1	Courthouse (includes court work in Pacific Centre)	5,052.19
	Jericho Hill School—	
16-3-B1	Fire-alarm system	56,412.39
16-14-B1	Centennial Gymnasium	3,427.20
16-110-B1	Site work	5,333.10
16-26-B1	411 Dunsmuir Street—Renovations	150,532.30
16-31-B1	Motor-vehicle inspection station	17,002.64
16-35-B1	Government Office Building, 501 West 12th Avenue	12,662.59

VOTE 234—CONSTRUCTION OF PROVINCIAL BUILDINGS—*Continued*

Project	Description	Expenditure
	Vancouver—*Continued*	$
	Pearson Hospital—	
16-39-B1	Emergency power (Polio Pavilion)	176.03
16-39-B2	Boiler plant	71,952.93
16-39-B3	Site works	10,327.27
16-44-B1	Dogwood Lodge, West 57th Avenue	35,463.05
16-48-B1	Willow Building	31,019.19
16-162-B1	Improvements—1190 Melville Street (Vancouver City College)	220,272.14
16-176-B1	Offices, 140 East Eighth Avenue	59,437.81
16-181-B1	Purchase of hangar—Pacific Western Airlines, Vancouver International Airport	223,894.36
16-236-B1	Provincial Court facilities, 222 Main Street	209,209.46
	Purchase of property—	
16-236-B2	222 Main Street	2,500,000.00
16-237-0	Unified Family Courts, Richmond	827,017.12
16-237-B1	Unified Family Courts, Richmond	75,317.30
	Tenant improvements—	
16-505-R1	635 Burrard Street	2,300.00
16-532-R1	Court facilities, Pacific Centre	30,711.31
16-606-R1	1620 West Eighth Avenue	11,595.84
16-614-R1	Offices, Library Development Commission, 1525 West Eighth Avenue	19,138.20
16-616-R1	Consumer Services, 370 East Broadway	709.00
16-627-R1	CLEU Building, 214/250 West Seventh Avenue	485,069.28
16-630-R1	805 West Broadway	73,106.80
16-637-R1	Detox Centre, 59/65 West Pender Street (Credit)	*9,447.43*
	Vernon—	
18-1-B1	Provincial Building	57,063.25
18-512-R1	Pollution Control Building, 3301—43rd Avenue	12,396.05
	Victoria—	
19-0	Purchase of property	2,882,120.44
19-1-B1	Parliament Buildings	2,669,658.18
19-4-B1	Alterations, Finance Building	9,738.02
19-7-B1	Douglas Building	203,604.14
19-33-B1	Mines Analytical Laboratory (Precinct)	15,363.47
19-34-B1	No. 4 Temporary Building, 544 Michigan Street	18,249.91
19-35-B1	Data Processing Centre, 421 Menzies Street	205,402.81
19-49-B1	Government House	14,520.24
19-73-B1	Dogwood Building, 1019 Wharf Street	7,317.63
19-83-B1	Law Courts Building	914,161.19
19-96-B1	B.C. Museum Complex	327,146.34
19-96-B2	B.C. Museum, moving of artifacts	17,431.76
10-100-B1	Thunderbird Park and buildings	94,451 10
19-101-B1	Eric Martin Institute	2,338.26
19-103-B1	Health Services Building, Pandora Avenue and Blanshard Street	5,360,607.26
19-129-B1	Offices, 914 Yates Street	132,988.80
19-133-B1, 19-134-B1	St. Ann's Complex	548,480.82
19-135-B1	Broca Building, 2588 Cadboro Bay Road	48,824.33
19-136-B1	Office Building, Courtney and Blanshard Streets	2,510,635.41
19-141-B1	Offices, 1113 Wharf Street	854,929.75
19-144-B1	Office Building 3, Burdett Avenue and Blanshard Street	1,675,465.58
19-146-B1	Offices, 2631 Douglas Street	176,650.17
19-159-B1	Premises, Wharf Street at Government Street	33,070.50
19-224-B1	Provincial Government Service Centre	30,039.66
19-224-B2	Provincial Government Service Centre (purchase)	75,000.00
19-483-B1	Alarm systems—Various locations	16,162.41
19-489-B1	Motorized overhead doors, Highways establishments—Various locations	313.01
19-499-B1	Mobile homes and trailers—Various zones	19,816.63

VOTE 234—CONSTRUCTION OF PROVINCIAL BUILDINGS—*Continued*

Project	Description	Expenditure
	Victoria—*Continued*	$
	Tenant improvements—	
19-501-R1	Weiler Building, 609 Broughton Street	2,527.64
19-506-R1	777 Broughton Street	13,370.94
19-526-R1	International House, 880 Douglas Street	5,921.27
19-527-R1	Offices, 2840 Nanaimo Street	45,315.85
19-533-R1	534 Broughton Street (Nordick House)	2,022.38
19-541-R1	345 Quebec Street, Harbour Towers (mechanical alterations)	19,437.49
19-547-R1	535 Yates Street (Bastion Arcade)	18,074.34
19-574-R1	1016 Langley Street	19,739.02
19-596-R1	878 Viewfield Road	1,129.34
19-619-R1	929 Ellery Street	2,485.79
19-641-R1	1006 Fort Street	380.08
39-10-B1	Glendale Laundry, Colquitz	86,342.60
39-15-B1	Glendale Lodge, Markham Road, Colquitz	20,152.16
39-19-B1	Tillicum Lodge, Interurban Road, Colquitz	64,564.14
101-1-B1	Hangars, International Airport, Pat Bay	41,051.15
101-4-B1	Highways establishment, Keating Cross Road	434,291.55
146-1-B1	Whistler—Highways equipment building	1,354.93
135-16-B1	Williams Lake—Predator control and storage building	3,176.00
137-1-B1	Yahk—Weigh-scale station	11,610.76
	British Columbia Institute of Technology, Burnaby—	
20-15-B1	Cafeteria, Food Training Centre	10,310.81
20-18-B1	Alterations, Cafeteria Building	183,671.64
20-19-B1	Classroom Administration Building	126,049.15
20-23-B1	Central heating plant	252,364.63
20-23-B4	Sundry work and ancillary site work	1,249.89
20-48-B1	Library	78.40
20-53-B1	Portable classroom and similar units	28,918.46
20-107-B1	Classroom Laboratory Building	3,339,203.73
	British Columbia Vocational School, Burnaby—	
20-102-B1	Horticultural Training Building	216.47
20-105-B1	Multi Discipline Building	820,259.89
	British Columbia Vocational School, Kelowna—	
72-7-B1	Classroom conversion	475.44
72-22-B1	Welding shop	690.94
90-13-B1	British Columbia Vocational School, Nelson—Electrical underground systems	40,056.77
	British Columbia Vocational School, Terrace—	
126-22-B2	Fire alarm and emergency lighting	5,333.05
126-24-B1	Dormitory and cafeteria	23,700.99
	General—	
	Structural alterations—	
19-491-B1	Zone 1	49,903.76
19-492-B1	Zone 2	65,384.18
19-493-B1	Zone 3	130,047.51
19-494-B1	Zone 4	65,891.97
19-495-B1	Zone 5	40,122.95
19-496-B1	Zone 6	45,285.25
19-491-B4	Minor work—Zone 1	27,089.90
19-496-B4	Zone 6	10,188.15
	Planned/Proposed Projects—	
	Abbotsford—	
1-2-3	Provincial Government Building, Landscaping	182.87
1-5-1	Lay house alterations	687.75
1-13-1	Animal Pathology Laboratory irrigation	326.63
1-17-2	Poultry Testing Station, mechanical update	686.70
1-21-0	Agriculture Centre	19,434.98

VOTE 234—CONSTRUCTION OF PROVINCIAL BUILDINGS—*Continued*

Project	Description	Expenditure
	Planned/Proposed Projects—*Continued*	$
1-22-0	Bradner—Tourist Centre	4,409.70
1-517-1	Matsqui—Courthouse renovations (Justice Building) 32203 S. Fraser	426.11
3-0-0	Alert Bay—Pump house (electrical design only)	314.86
4-0-2	Shelter Bay—Water system	7,205.03
	Trout Lake—	
4-4-2	Highways equipment building, landscaping	32.49
4-4-4	Highways diesels	9.70
4-922-101	Galena Bay—Roadside rest area irrigation	270.19
5-22-1	Manning Park—Pinewood Lodge (concession) renovations	406.21
6-922-112	Ashcroft—Courthouse	183.63
	Haney—	
10-37-1	Steam plant repair, Alouette River	98.10
10-50-1	Woodland Recreation Camp relocation	3,618.27
10-151-2	Twin Maples Camp, sewage site	620.22
10-151-3	Twin Maples Camp fire alarm	153.57
11-5-1	Oakalla—Prison Report and Licence Plate Shop	3,693.57
	Essondale—	
12-1-1	Riverview (Riverside) "Annex" Remodelling	2,212.26
12-3-0	Access roads and steam lines	2,183.43
12-4-1	Centre Lawn renovations	1,601.78
12-63-1	Coquitlam Regional Laundry	134,315.81
12-63-2	Regional Laundry equipment	9,886.44
12-832-1	Site updating (plans)	858.50
12-895-1	Garbage handling	170.75
	Woodlands—	
13-0-3	Frontage road (Queens Park)	2,497.47
13-1-0	Paging systems (sound system)	301.78
13-4-3	Water supply	118.85
13-21-3	Electrical distribution (Queens Park)	46.83
13-21-4	Steam distribution, Fraser Building to Queens Park Hospital	442.76
13-351-3	Reposition trailer, Attorney-General, Coquitlam	34.04
13-503-1	Simon Fraser Health	80.24
14-56-0	Colony Farm, pig barn	45.43
14-80-1	Sewage pump station	195.42
	Tranquille—	
15-0-0	Miscellaneous requirements	2,026.79
15-0-1	Transformer Station	152.73
15-45-1	Substantial addition to laundry	1,461.30
	Vancouver—	
16-3-2	Jericho Hill School—Boiler renewal	68.65
16-8-1	Auditorium	1,443.23
16-8-2	Lawrence Hall Temporary Boiler	1,185.96
16-26-2	411 Dunsmuir Street, alterations and renovations	456.05
16-38-7	Pearson Hospital, Polio Section, investigations of floor settlements	882.40
16-50-1	Jericho Hill School, new workshop, McDonald Hall	1,896.88
16-93-0	Liquor Administration, renovations and additions, 3100 E. Broadway	46,734.04
16-110-3	Jericho Hill School, cafeteria and infirmary, landscaping	1,933.92
16-112-1	UBC Public Safety Building	1,405.03
16-114-1	Remand Centre 1	2,447.47
16-152-0	Jericho Hill School, covered play area, Lawrence Hall addition	21.19
16-160-1	Water Resources (Environmental Laboratory)	9,688.31

VOTE 234—CONSTRUCTION OF PROVINCIAL BUILDINGS—*Continued*

Project	Description	Expenditure
	Planned/Proposed Projects—*Continued*	
	Vancouver—*Continued*	$
16-160-2	Water Resources (Environmental Laboratory), landscaping	246.62
16-161-1	Provincial Health Laboratory (Shaughnessy)	5,798.69
16-172-0	Jericho Hill School Laundry, landscaping	56.19
16-173-0	Transit Building, North Vancouver	729.29
16-182-1	10 Day Care Centres	4,689.03
16-205-1	2625 Yale Street, Remand Centre and Family Court	874.98
16-206-1	Provincial Building, Chemically Dependent Adults, China Creek Health Centre, Seventh Avenue	7,204.65
16-634-0	525 Seymour, office alterations	384.57
16-922-22	Greenhouse	217.82
16-922-112	Courthouse	840.17
16-922-412	Lower Mainland Custody Facility, 60 beds	278.70
	Kamloops—	
17-12-0	Health Centre	28,943.61
17-22-0	Field Service Centre, Fish and Wildlife	1,103.80
17-24-1	Incinerator Pyrolysis and Gasification	81,206.69
17-26-1	Provincial Government Office Building	5,089.56
17-27-1	Department of Highways Geotechnical Laboratory	263.10
17-28-6	Ponderosa Lodge—Rectification	1,052.90
17-28-7	Emergency Lighting and Fire Alarm	78.63
17-55-0	Correction Centre—Administration Centre	1,195.06
17-55-1	Sewerage	3,144.23
17-89-0	Motor-vehicle Inspection Station	25.57
17-122-2	Logan Lake, Highways establishment start-up costs	23.59
17-126-1	Courthouse	989.65
17-151-1	Clearwater, Bear Creek, Attorney-General's mobile units	224.60
17-921-1	Future buildings, development programs	9,480.39
17-922-0	Gas Pyrolysis Study	161.15
17-922-112	Clearwater Courthouse	119.53
17-922-212	Courthouse	2,501.28
	Vernon—	
18-1-3	Provincial Government Office Buildings, Probation Staff and Courtroom renovations	1,569.85
18-6-1	Dellview Hospital—Emergency Lighting	916.26
18-21-1	Public Health Centre	3,945.82
	Victoria—	
19-8-2	Emergency lighting generator (boiler house)	2,987.50
19-30-1	Queen's Printer Office renovations	65.26
19-32-1	525 Superior Street, Forestry renovations	118.74
19-41-1	Photo Laboratory, Forestry, 527 Michigan Street	704.49
19-42-1	Queen's Printer Quonset Hut renovations	88.97
19-92-1	780 Blanshard Street, Water Resources Building	90.19
19-94-1	Windermere Building	715.46
19-97-1	Archives Art Gallery, lighting	237.96
19-97-3	Archives security alarm, Art Gallery	23.26
19-98-1	Curatorial Tower sundry alterations	93.43
19-98-2	Salt-water tank aquarium	1,135,31
19-98-3	Curatorial condensation problems	59.48
19-112-1	Attorney-General's Headquarters Building	113,879.93
19-128-1	B.C. Resources Building, Humboldt Street	1,951.38
19-131-0	Museum Storage, 800 Viewfield Road	4,737.37
19-138-1	Spencer House, alterations	448.39
19-143-0	Transit Centre	2,910.05
19-155-2	Todd House, 2564 Heron Street, restorations	100.72
19-156-1	Day Care Centre, 433 Kingston Street	398.39
19-160-1	Craigflower School, curb and drain	141.54
19-160-2	Craigflower School	23.74

VOTE 234—CONSTRUCTION OF PROVINCIAL BUILDINGS—*Continued*

Project	Description	Expenditure
	Planned/Proposed Projects—*Continued*	
	Victoria—*Continued*	$
19-172-1	512/514 Fort Street, renovations	2,821.60
19-224-3	Government Service Centre, art storage and Gardener's Office	99.22
19-227-0	Saanich Highways Office Building, 280 West Burnside Road	16,133.05
19-227-1	Saanich, Highways Regional Office, 280 West Burnside Road, landscaping	2,710.53
19-228-1	Point Ellis House, security and fire alarm	331.09
19-351-3	Repositioning trailer, Cloverdale to Hope	42.00
19-481-1	Radio Relay Buildings—Various locations	10,715.02
19-490-7	Metric conversion	4,916.18
19-499-0	Dental Services Mobile Clinics	46.52
19-499-2	Highways, temporary accommodation, Government Street	43.19
19-921-0	James Bay guidelines	37.00
19-922-22	Greenhouse	172.65
19-922-114	Park and ride site	110.08
	Burnaby—	
20-30-1	Youth Development Centre, renovations to three cottages	270.92
20-37-0	B.C. Vocational School Auto Paint and Fibreglass Shop	1,357.43
20-60-1	Youth Development Centre—Male dormitories	1,952.98
20-62-1	Closed TV	146.90
20-71-2	Motor-vehicle Inspection Station, extension	80.80
20-103-4	Dogwood Lodge, fencing	42.08
20-500-0	Preliminary, property transfer of BCIT	533.99
20-922-1	Willingdon site study for area	1,061.27
25-1-1	Barkerville—Bowron Lake storage building	324.94
28-1-1	Burns Lake—Courthouse renovations	234.36
28-509-1	Houston—Shopping centre alterations	252.77
28-922-212	Courthouse	16.65
29-11-2	Brannan Lake—Youth Centre, Phase 2	137.14
29-11-3	Youth Centre site works, Campbell Building	1,390.00
32-31-0	Campbell River—Fish and Wildlife storage	16.39
32-922-112	Snowden—Correction Branch mobile unit replace	8.92
33-5-0	Castlegar—Guardrail building (fabrication shop)	2,379.85
33-922-101	Brilliant—Roadside rest area	83.56
33-922-112	Castlegar—Courthouse	83.56
35-2-1	Chase—Courthouse	41.50
36-55-0	Atchelitz Creek—Tourist Centre	3,096.64
36-502-1	Chilliwack—Public Health Centre	5,456.80
38-61-0	Surrey—Motor-vehicle Inspection Station	397.35
38-63-0	Highways establishment building, Pike Road	14,083.71
38-65-2	Cloverdale—Highways, storage, Pike Road	25.49
38-67-1	Surrey—Pike Road, Highways District maintenance establishment building	1,045.32
38-69-1	Cloverdale—Small Claims Court (LCB)	6,550.92
39-2-1	Colquitz—Regional Correctional Centre Office conversion	7,245.66
39-3-1	Conversion of Warden's residence to Community Correction Centre	263.28
39-7-1	Staff Building kitchen alterations/decorations, Wilkinson	368.47
39-15-3	Glendale Lodge, Markham Road (pressure valves)	94.49
39-922-1	Purchase trailer, site works, Wilkinson	761.65
41-922-117	Courtenay—Mental Health building suitability (investigate only)	554.65
42-0-3	Fort Steele—Electrical underground distribution	1,975.41
42-1-1	Cranbrook—Courthouse renovation to court facilities	1,769.82
42-22-0	Fish and Wildlife Control Station	114.74
42-922-101	Rampart—Rest area, Highways Region 3	149.82

VOTE 234—CONSTRUCTION OF PROVINCIAL BUILDINGS—*Continued*

Project	Description	Expenditure
	Planned/Proposed Projects—*Continued*	$
42-922-112	Cranbrook—Courthouse	3,321.55
43-3-0	Creston—Courthouse renovations (existing)	6,607.68
43-504-1	Federal Agriculture Station, Department of Agriculture Office	1,866.68
46-21-1	Mackenzie—Provincial Building	155.78
46-922-212	Courthouse	804.77
47-3-0	Tatogga Lake—Generator	247.44
51-7-0	Duncan—Highways equipment/storage office	34.51
51-12-0	Motor-vehicle Inspection Station	9.95
52-2-0	Enderby—Highways equipment/storage/office	3,133.08
54-1-0	Fernie—Courthouse, landscaping	157.68
54-11-1	Old hospital conversion	594.06
54-31-1	Sparwood—Day Care Centre	5,394.85
54-922-101	Fernie—Kikomun Creek Rest Area, Highways Region 3	149.82
54-922-201	Olson—Roadside rest area	83.56
58-31-0	Fort Nelson Weigh-scale Station	781.52
61-21-0	Golden—Information Centre—Landscaping	2,261.95
61-21-3	Flagpole	47.18
61-922-101	Braisher Creek—Roadside rest area	83.56
61-922-201	Doyle Creek—Roadside rest area	83.56
64-15-1	Hutda—Baldy Hughes Recreation Centre	3,705.37
65-3-1	Kitwanga—Highways sewer and water	72.14
67-22-1	Hope—Salt shed	206.67
67-922-101	Alexander Creek rest station	177.31
69-2-0	Jordan River—Colquitz Temporary Remand Centre	2,260.56
69-8-1	Gymnasium/Office/Storage/new building	2,776.54
72-43-1	Kelowna—Day Care Centre	401.16
73-3-2	Kimberley—Courthouse, landscaping	939.74
73-4-0	LCB alterations	362.01
73-922-101	Wasa—Roadside rest area	83.56
74-1-1	Kitimat—Provincial Building	32.03
77-1-0	Lumby—Health Centre	2,955.77
78-3-2	Langford—Paint Shop	1,382.14
78-3-3	Sign shop addition	3,409.19
83-1-1	Merritt—Courthouse renovations (existing)	189.80
84-1-1	Mission—Courthouse irrigation (existing)	57.41
84-2-1	Highways yard-site	340.16
86-2-1	Mayne Island—Medical Centre	3,535.55
87-922-101	Nakusp—Summit Lake, rest area, Highways Region 3	222.28
89-52-0	Cassidy—Equipment/Storage/Office/Highways, guardrail facilities	23,929.56
89-53-0	Nanaimo—Public Health Centre	1,796.05
89-54-0	Fish and Wildlife, Field Service Centre	190.46
89-922-112	Courthouse	89.42
90-1-2	Nelson—Courthouse renovations, 320 Ward Street (existing)	1,076.70
90-1-3	Courthouse, landscaping	338.67
90-4-1	Old Land Registry Building	275.26
90-6-1	Geotechnical Survey Laboratory, 302 Ward Street	801.55
90-9-1	BCIT classroom and laboratory reroofing	40.00
90-18-1	Highways District Office extension	1,952.17
90-25-1	Vocational School of Arts, Selkirk College	243.34
90-51-4	Provincial Building, Ward Street, Landscaping	1,210.74
90-74-0	Fish and Wildlife Field Service Centre	106.55
90-75-2	Highways equipment storage office building	11,695.39
90-75-3	Highways site works	208.41
90-922-101	Stewart Creek—Rest area, Highways Region 3	150.27
90-922-113	Nelson—Arterial highways, irrigation	1,405.20
90-922-121	Provincial Government Office Building	76.92
91-7-0	New Denver Centre	8,806.76

VOTE 234—CONSTRUCTION OF PROVINCIAL BUILDINGS—*Continued*

Project	Description	Expenditure
	Planned/Proposed Projects—*Continued*	$
91-922-101	Lemon Creek—Roadside rest area	83.56
92-0-1	New Haven—Electrical distribution	444.10
92-0-2	Borstal School	104.55
92-2-2	Site works, Correctional Centre	11.63
92-12-1	Convert Director's residence to Correctional Centre	585.81
92-16-1	Dormitory, Correctional Centre	44,464.36
	New Westminster—	
93-1-1	Courthouse renovations, Room 301, Attorney-General	5,605.84
93-2-0	Courthouse Judicial Building, alterations and renovations	3,052.39
93-11-0	Provincial Government Office Building (100,000 sq. ft.)	74.48
93-922-112	Courthouse	12,168.50
96-922-101	Anarchist—Rest area, Highways Region 3	1,329.43
101-1-3	Pat Bay—Airport Hangar 1, alterations to office	91.09
101-5-1	Salt shed	752.98
102-501-0	Penticton—Public Health Offices	34.01
105-1-1	Princeton—Courthouse, air-conditioning	1,213.78
106-1-1	Prince George—Feasibility study, Provincial Government Office Building, steam heating	1,501.22
106-6-2	Correctional Centre water system	1,030.78
106-12-1	New Caledonia—College, Prince George, boiler study	83.70
106-14-1	Prince George—Weigh-scale Station	11.03
106-35-0	Public Health Centre	1,122.64
106-91-1	Office building (100,000 sq. ft.)	4,768.28
106-537-1	Federal Agriculture Station, Agriculture Office	3,877.86
107-14-0	Prince Rupert—Portable dental unit	929.28
107-52-1	Pending Highways maintenance establishment	535.65
107-52-2	Highways Yard-site	127.44
107-922-313	Highways crew accommodation	137.48
110-9-2	Quesnel—Courthouse (existing)	196.91
110-9-3	Boiler replacement, Government Building	131.12
113-1-1	Rossland—Courthouse, landscaping (existing)	2,939.52
113-1-2	Sheriff's Office	78.84
113-922-112	Courthouse	697.86
113-922-113	Highways maintenance establishment	11.03
114-922-112	Rayleigh—Replacement for Correction Branch (mobile) (Credit)	*43.05*
115-4-1	Port Hardy—Provincial Government Office Building	174.85
116-1-1	Salmon Arm—Courtroom (air-conditioning)	654.85
116-6-1	Highways fire alarm	235.69
116-7-1	Provincial Government Office Building	118.01
118-12-5	Smithers—Provincial Government Office Building, landscaping and irrigation	336.89
118-011-0	Fish and Wildlife storage extension	106.55
121-5-1	Diamond Head—Shelter, check consult design	169.90
122-7-1	Meziadin Lake—Highways, trailer crew quarters	12.19
126-1-1	Terrace—Courthouse, office building, move personnel	442.85
126-51-0	Public Health Centre	17,502.46
126-51-1	Landscaping	1,620.70
126-63-0	Skeenaview Personal Care Home, 75 beds	5,637.71
130-12-1	Fort St. James—Government Office Building, Court Registry	89.73
130-13-1	Residence, Government Agent	8.32
130-922-212	Vanderhoof—Courthouse	44.49
134-2-0	Trail—Government Office Building (20,000 sq. ft.)	32,663.37
135-31-0	Williams Lake—Weighmaster's residence	242.25
135-922-121	Provincial Government Office Building	1,211.27
141-3-1	Ucluelet—Residence, Government Agent	167.37
142-1-1	Summerland—Trout hatchery, modify pumps/effluent outfall	136.24
144-1-1	Pender Harbour—Public Health Centre	18.50
200-2-0	Likely—Highways office equipment/storage office	736.41

VOTE 234—CONSTRUCTION OF PROVINCIAL BUILDINGS—*Continued*

Planned/Proposed Projects—*Continued*

Project	Description	$ Expenditure
200-7-0	Bridge Lake—Highways office/storage	1,575.93
200-21-1	100 Mile House—Salt shed	312.70
214-8-0	Essondale—Valleyview Hospital, renovations	8,484.71
536	Conferences and seminars—Technical	4,697.03
537	Professional	4,920.72
556	B.C. Government Professional Employees' Association	880.33
800	General policies	1,361.70
801-2-0	Master specifications	1,344.18
801-5-0	National Building Codes and Standards	34,892.81
801-6	Plumbing Advisory Council	284.46
801-6-1	Cross Connection Control Committee	518.30
809-0-1	Quantity Surveyors, pricing planning	1,807.73
811-3-0	Health policies, planning (Mental)	8,922.74
811-3-1	Department of Health, Development Group	9,130.58
811-3-2	General Public Health planning	1,148.21
813-0-0	Office plants (general, interior decorating)	2,450.09
865-0-0	Power Systems Study	338.00
881	Energy Program Solar	8,218.36
895-1-18	Corrections liaison, planning	749.73
895-002-1	Justice Development Commission Studies	30,033.02
895-2-18	Court facilities in general	340.46
895-3-0	Hospital Program, general and liaison	21,718.16
895-006-2	Highways water supply and sewerage, 25 sites	532.71
895-322-1	Miscellaneous administration duties—Architectural	1,641.51
895-322-2	Structural	118.03
895-322-3	Electrical	109.26
895-322-4	Mechanical	802.10
895-322-6	Construction Services	1,445.85
895-420-0	Cash Flow Program—Departmental	100.43
895-420-1	Industry research	888.94
895-561-0	British Columbia Government Employees' Union (negotiations)	278.37
895-922-00	Gas pumps—Various locations	227.40
895-922-1	Reports on buildings and sites for miscellaneous requirements and repairs	9,468.36
895-922-3	Estimates for departments other than Public Works	817.65
895-922-101	Okanagan Basin—Trout hatchery	1,203.81
895-922-120	Design fees for motor-vehicle licence-plate shops, location not determined	1,727.51
921-1-1	Cost in use, administration	6,878.27
921-1-2	Pilot Study	904.96
922-0-0	Accommodations Study	4,908.12
922-1-0	Recreation and Conservation, liaison time	108.32
922-5-0	Human Resources Development Program	20,138.50
922-11-0	Department of Education, policies planning	9,941.19
922-13-0	Department of Highways, planning and liaison	222.46
922-19-0	Department of Housing, liaison	7,782.35
	Retroactive Pay Clearing Account	325,574.69
	Salary contingencies adjustments and revisions (Credit)	*5,412.00*
	Total gross expenditure	46,499,595.16

MAJOR TENDERS RECEIVED AND CONTRACTS AWARDED FOR BUILDINGS

Project No.	Location, Description of Work, and Names of Tenderers	Amount	Remarks
	ABBOTSFORD		
1-18-B1	FRASER VALLEY TROUT HATCHERY		
	Construction, Two-storey Hatchery Building:	$	
	Commonwealth Construction Co. Ltd.	5,654,803.00	Awarded.
	Van Construction (Div. of Van Vliet Construction Co. Ltd.)	5,771,192.00	
	Canada Construction Co. Ltd.	5,779,000.00	
	Northern Construction Co. (Div. of Morrison Knudson Co. Ltd.)	6,175,000.00	
	Walter Cabitt Construction Co. Ltd.	6,265,000.00	
	Dillingham Corp. (Canada) Ltd.	6,668,718.00	
	Instrumentation:		
	Commonwealth Construction Co. Ltd.	219,000.00	Awarded.
	Canadian Process & Control Ltd.	227,900.00	
	Johnson Controls Ltd.	264,064.00	
	Aquaria and Stream Tank:		
	Condor Engineering Ltd.	34,807.87	Not awarded.
	Aquaria and Stream Tank (retender):		
	Webb & Trace Ltd.	33,933.00	Awarded.
	Condor Engineering Ltd.	35,307.87	
	Ichthyological Exhibit:		
	John Ritchel	6,575.00	Awarded.
	Lindsay Models & Design Consultants Ltd.	9,810.00	
	BURNABY		
20-502-R1	*4455 Juneau Street, Audio-Visual Services:*		
	Allan & Viner Construction Ltd.	18,160.00	Awarded.
	Turnbull & Gale Construction Co. Ltd.	18,673.00	
	Seaward Construction Ltd.	19,236.00	
	F. & A. Construction Ltd.	21,567.00	
	Creighton Construction Co. Ltd.	23,820.00	
	Artek Contracting Ltd.	27,442.00	
20-18-B1	BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY		
	Cafeteria Alterations:		
	Bengal Construction Co. Ltd.	167,855.00	Awarded.
	Double V Construction Ltd.	173,202.00	
	Bent Construction Ltd.	194,446.00	
20-23-B1	*Central Heating Plant Boiler Installation:*		
	Commonwealth Construction Co. Ltd.	108,741.00	Awarded.
	Comstock International Ltd.	143,636.00	
	H. S. Crombie Ltd.	146,031.00	
	Avitan Mechanical Installations Ltd.	189,887.00	
20-105-B1	BRITISH COLUMBIA VOCATIONAL SCHOOL MULTI DISCIPLINE COMPLEX		
	Concrete Paths and Roads (Contract 32):		
	Imperial Paving Ltd.	16,569.00	Awarded.
	Pacific Shotcrete Installations Ltd.	16,660.60	
	Columbia Bitulithic Ltd.	25,500.00	
	Winvan Paving Ltd.	27,894.00	
	Janitorial Clean-up Service (Contract 34):		
	Perfect Building Maintenance Ltd.	13,295.00	Awarded.
	Best Cleaners & Contractors Ltd.	13,340.00	
	Ackron Building Maintenance	16,657.00	
	Service Master of Vancouver Ltd.	23,600.00	
20-107-B1	BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY CLASSROOM AND LABORATORY BUILDING		
	Sundry Labour (Contract CLB 5):		
	Allan & Viner Construction Ltd.	Per cent mark-ups	Awarded.
	Sun Screens (Contract CLB 7):		
	Ancient Mariner Industries Ltd.	90,531.00	Not awarded.
	Sun Screens (Contract CLB 7) (retender):		
	Arrow Tent & Awning Co. Ltd.	63,742.00	Awarded.
	Ancient Mariner Industries Ltd.	75,239.30	
	Metal Cladding (Contract CLB 12):		
	Weiss Industries Ltd.	85,881.00	Not awarded.
	J. K. Campbell & Associates Ltd.	92,231.00	
	Westeel Rosco Ltd.	96,167.00	
	Robertson Building Systems Ltd.	130,500.00	

MAJOR TENDERS RECEIVED AND CONTRACTS AWARDED—*Continued*

Project No.	Location, Description of Work, and Names of Tenderers	Amount	Remarks
	BURNABY—*Continued*		
20-107-B1	BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY		
	CLASSROOM AND LABORATORY BUILDING—*Continued*		
	Metal Cladding (Contract CLB 12) (retender):	$	
	E. A. Stark Applicators Ltd.	41,695.00	Awarded.
	J. K. Campbell & Associates Ltd.	49,890.00	
	Weiss Industries Ltd.	64,756.00	
	Roofing and Flashings (Contract CLB 15):		
	Maurice Fox & Associates Ltd.	31,188.00	Awarded.
	Aetna Roofing (1965) Ltd.	35,194.00	
	Campbell & Grill Ltd.	40,912.00	
	Seaboard Sheet Metal Ltd.	43,858.00	
	Fluid Applied Membranes (Contract CLB 16):		
	Duron (B.C.) Ltd.	17,975.00	Awarded.
	Industrial Waterproofing Systems (B.C.) Ltd.	19,787.00	
	Acoustical Treatment (Contract CLB 18):		
	F. Drexel Co. Ltd.	18,176.00	Awarded.
	Chalkboards and Tackboards (Contract CLB 20):		
	Component Structures Ltd.	14,777.00	Awarded.
	Shanahan's Ltd.	15,334.00	
	Northwood Mills Ltd.	18,078.00	
	Special Folding Doors (Contract CLB 21A):		
	Stanley-Taymouth Ltd.	12,379.00	Awarded.
	Panel Products	14,704.00	
	Shanahan's Ltd.	14,950.00	
	Finish Carpentry and Millwork (Contract CLB 23):		
	Nikolai Millwork Industries Ltd.	92,750.00	Awarded.
	Sigurdson Millwork Co. Ltd.	96,492.00	
	Creighton Construction Co. Ltd.	96,609.00	
	Rough Carpentry (Contract CLB 27):		
	Creighton Construction Co. Ltd.	23,024.00	Awarded.
	Gadicke Construction Co. Ltd.	55,700.00	
	Miscellaneous Metals II (Contract CLB 28):		
	Pearson Iron Works Ltd.	57,544.00	Awarded.
	Carpet and Resilient Flooring (Contract CLB 29):		
	Johnston Floor Co. Ltd.	52,672.00	Awarded.
	Jordans Commercial Furnishings Ltd.	53,240.00	
	Craftsman Floors (B.C.) Ltd.	59,776.00	
	Atlas Floors Ltd.	66,000.00	
	Painting and Decorating (Contract CLB 30):		
	Burrard Painting & Decorating Ltd.	59,980.00	Awarded.
	L. O. Hansen Ltd.	69,640.00	
	Kerschbaumer Coating Inc.	72,145.00	
	Laboratory Benches (Contract CLB 33):		
	Art Laboratory Furniture Ltd. (metal)	83,554.00	Awarded.
	McGaw Supply Ltd. (metal)	91,279.00	
	Nikolai Millwork Industries Ltd. (wood)	123,726.00	
	Nikolai Millwork Industries Ltd. (metal)	140,143.00	
	Creighton Construction Co. Ltd. (wood)	126,548.00	
	Plumbing (Contract CLB 34):		
	Hodgson Plumbing & Heating Ltd.	22,824.00	Awarded.
	H. S. Crombie Ltd.	23,183.00	
	Outside Finishing Work (Contract CLB 37):		
	Turnbull & Gale Construction Co. Ltd.	151,951.00	Awarded.
	Creighton Construction Co. Ltd.	159,634.00	
	Van Construction (Div. of Van Vliet Construction Co. Ltd.)	167,029.00	
	Bengal Construction Co. Ltd.	167,761.00	
	Doyle Construction Co. Ltd.	182,800.00	
	Duron (B.C.) Ltd.	206,661.00	
	CLOVERDALE		
19-493-B4	*Highways Maintenance Establishment Power Distribution System:*		
	Trans-Power Construction Ltd.	19,619.00	Awarded.
	Canem Systems Ltd.	33,672.00	
38-69-B1	CIVIL COURTS		
	Mechanical Alterations:		
	United Power Ltd.	38,553.00	Awarded.
	D. C. Festing & Sons Ltd.	39,500.00	
	Electrical Alterations:		
	Blitz Electric Ltd.	17,721.00	Awarded.
	Summit Electric Ltd.	18,276.00	
	Christopherson Electric Ltd.	18,806.00	
	United Power Ltd.	20,970.00	
	Jensen Electric Ltd.	24,935.00	

MAJOR TENDERS RECEIVED AND CONTRACTS AWARDED—*Continued*

Project No.	Location, Description of Work, and Names of Tenderers	Amount	Remarks
	COLQUITZ (VICTORIA)		
39-10-B1	*Glendale Lodge Laundry Alterations:*	$	
	H. E. Fowler & Sons Ltd.	56,530.00	Awarded.
	Hunter Construction Ltd.	64,660.00	
	Australian Construction Ltd.	67,000.00	
	ESSONDALE		
12-14-B1	*Riverview Hospital, North Lawn Building Kitchen Renovations:*		
	Jepsen Mulder Construction Ltd.	83,507.94	Awarded.
	D. C. Festing & Sons Ltd.	87,945.00	
	Seaward Construction Ltd.	92,820.00	
	Bengal Construction Co. Ltd.	96,357.00	
	Gadicke Construction Co. Ltd.	118,724.00	
	KAMLOOPS		
17-1-B1	*Provincial Government Precinct, New Boilers:*		
	Babcock & Wilcox (Canada) Ltd.	347,600.00	Not awarded.
	Foster Wheeler Ltd.	420,000.00	
	Bacon Engineering Ltd.	458,920.00	
	Volcano Ltd.	571,684.00	
	KIMBERLEY		
73-3-B1	PROVINCIAL GOVERNMENT BUILDING, PHASE 2		
	Framing (Contract 1):		
	Bill Carson Building Services Ltd.	22,928.00	Not awarded.
	Carron Construction Ltd.	30,928.00	
	Phillmac Enterprises Ltd.	32,412.00	
	Tri Square Construction Ltd.	39,847.00	
	Framing and Sundry Labour (Contract 1) (retender):		
	Discrimination Construction Co.	29,828.00	
	Phillmac Enterprises Ltd.	32,350.00	Awarded.
	Carron Construction Ltd.	32,983.00	
	Plumbing (Contract 3):		
	Philpot Plumbing Ltd.	11,882.00	Awarded.
	M. & K. Plumbing & Heating Ltd.	13,650.00	
	Fred's Mechanical Contractors Ltd.	17,600.00	
	G. & D. Plumbing & Heating Ltd.	18,416.00	
	Setter-Donaldson Mechanical Ltd.	19,450.00	
	T. Schmidt Plumbing & Heating Ltd.	20,907.00	
	Electrical (Contract 4A):		
	Tri-Ron Electrical Ltd.	37,300.00	Awarded.
	Inducom Electrical Installations Ltd.	37,740.00	
	Johnson Electric Corp.	47,900.00	
	Interior Industrial Electric	50,000.00	
	Columbia Electrocentre Ltd.	52,400.00	
	Mountain View Electric	57,938.00	
	Marysville Electric	62,946.00	
	Concrete Work (Contract 5):		
	Trowelex Concrete Contractors Ltd.	17,881.00	Awarded.
	Mechanical (Contract 6):		
	E.K. Plumbing & Heating Ltd.	63,955.00	Awarded.
	Keith Plumbing & Heating Ltd.	67,400.00	
	Finish Carpentry and Sundry Work (Contract 7):		
	Phillmac Enterprises Ltd.	57,682.00	Awarded.
	Drywall and Acoustical (Contract 8):		
	Phillmac Enterprises Ltd.	24,857.00	Awarded.
	MAYNE ISLAND		
86-2	*Community Medical Clinic Building:*		
	H. E. Fowler & Sons Ltd.	60,847.00	Not awarded.
	D. C. Festing & Sons Ltd.	64,945.00	
	Australian Construction Ltd.	71,900.00	
	NANAIMO		
T & C	*Cottle Hill, Steel Building, Radio Repeater Station Renovations:*		
	Wheaton Construction Ltd.	14,873.00	Awarded.
	D. Robinson Construction Ltd.	16,252.00	
	T. & B. Construction Ltd.	19,500.00	
	NELSON		
90-51-B1	*Provincial Office Building Exterior Concrete Work:*		
	Trowelex Concrete Contractors Ltd.	15,200.00	Awarded.
	Fame Construction Ltd.	31,912.00	
	Granby Installations Ltd.	49,017.00	

MAJOR TENDERS RECEIVED AND CONTRACTS AWARDED—*Continued*

Project No.	Location, Description of Work, and Names of Tenderers	Amount	Remarks
	NEW DENVER		
91-7-B1	***Personal Care Facility Alterations and Renovations:***	$	
	Seaward Construction Ltd.	370,000.00	Awarded.
	Braniff Construction Ltd.	409,155.00	
	Pacific Coast Construction Co. Ltd.	414,800.00	
	Boundary Industries Ltd.	562,300.00	
	NEW WESTMINSTER		
13-8-B1	*Woodlands School Covered Playground:*		
	Gadicke Construction Co. Ltd.	28,428.00	Awarded.
	Westar Construction Corp.	45,000.00	
	100 MILE HOUSE		
19-494-B1	*Highways Maintenance Establishment Water Conditioning and Pressure Booster System:*		
	Morrison Mechanical Contracting Ltd.	13,330.00	Awarded.
	Dave's Plumbing & Heating (1962) Ltd.	14,570.00	
	POWELL RIVER		
104-1-B1	*Courthouse and Office Building Hot-water Boiler and Heating Alterations:*		
	McNeil Plumbing & Heating Ltd.	31,600.00	Awarded.
	PRINCE GEORGE		
106-523-R1	*Public Health Centre, Tabor Boulevard Alterations:*		
	Wayne Watson Construction Ltd.	32,468.00	Awarded.
	Norcan Construction Co. Ltd.	33,275.00	
	Dezell Construction Co. Ltd.	35,544.00	
	F. Hedges Construction Ltd.	36,700.00	
	Crossroads Construction Co. Ltd.	37,236.00	
	PRINCE RUPERT		
107-13-B1	*Land Registry Offices Alterations:*		
	D. C. Festing & Sons Ltd.	177,500.00	Awarded.
	Marogna Bros. Construction Ltd.	287,700.00	
	QUESNEL		
233	***Provincial Office Building, Installation of New Boilers:***		
	Dave's Plumbing & Heating (1962) Ltd.	25,000.00	Awarded.
	Keith's Plumbing & Heating Ltd.	27,345.00	
	REVELSTOKE		
233	*Highways Maintenance Establishment Fume Exhaust Work:*		
	D & D Mechanical Contractors Ltd.	26,050.00	Awarded.
	McKinnon Plumbing & Heating (1973) Ltd.	26,235.00	
	O.K. Plumbing & Heating (1971) Ltd.	30,813.00	
	D. C. Cross Ltd.	40,000.00	
112-1-B1	COURTHOUSE ALTERATIONS AND RENOVATIONS, PHASE 3		
	Renovations (Contract 1):		
	Braniff Construction Ltd.	36,906.00	Awarded.
	Elevators (Contract 2):		
	Otis Elevator Co. Ltd.	46,470.00	Not awarded.
	Elevators (Contract 2) (retender):		
	Montgomery Elevator Co. Ltd.	39,728.00	Awarded.
	SMITHERS		
118-1-B1	*Provincial Office Building and Courthouse Outside Concrete Work:*		
	Mount Concrete & Lumber Ltd.	14,268.00	Awarded.
	Smithers Concrete Products Ltd.	15,400.00	
	SURREY		
38-518-R1	*Mental Health Unit, 10677 King George VI Highway, Improvement Work:*		
	Westward Construction Ltd.	44,479.00	Awarded.
	Jepsen Mulder Construction Ltd.	46,438.00	
	Commercial Construction Co. Ltd.	47,200.00	
	Bengal Construction Ltd.	49,999.00	
	Allan & Viner Construction Ltd.	51,230.00	
	Onyx Contractors Ltd.	52,691.00	
	Kirkham Bros. Construction Ltd.	53,000.00	
	Seaward Construction Ltd.	53,941.00	
	Double V Construction Ltd.	54,562.00	
	Bent Construction Ltd.	55,981.00	
	Anton High Rise Ltd.	85,676.00	

MAJOR TENDERS RECEIVED AND CONTRACTS AWARDED—*Continued*

Project No.	Location, Description of Work, and Names of Tenderers	Amount	Remarks
	UCLUELET		
14-503-R1	*Court Facilities Renovations:*	$	
	Turner Contracting (Alberni) Ltd.	24,392.00	Awarded.
	Port Alberni Home Builders Ltd.	28,366.00	
	VANCOUVER		
16-93-B1	*Liquor Administration Branch, 3200 East Broadway, Alterations, Phase 1:*		
	Bengal Construction Ltd.	489,737.00	Awarded.
	Allan & Viner Construction Ltd.	494,300.00	
	Turnbull & Gale Construction Ltd.	501,853.00	
	D. C. Festing & Sons Ltd.	507,270.00	
	Fairview Construction Ltd.	509,202.00	
	Smith Bros. & Wilson Ltd.	509,905.00	
	Bent Construction Ltd.	514,123.00	
	Seaward Construction Ltd.	517,762.00	
	Pacific Coast Construction Co. Ltd.	534,849.00	
16-206-B1	*China Creek Centre for Chemically Dependent Adults:*		
	Chimo Structures Ltd.	239,525.00	Not awarded.
16-236-B1	*222 Main Street, Provincial Court, Additional Washroom Facilities:*		
	Turnbull & Gale Construction Co. Ltd.	10,794.00	Awarded.
	Allan & Viner Construction Ltd.	13,990.00	
	Seaward Construction Ltd.	15,266.00	
	Jepsen Mulder Construction Ltd.	16,782.00	
16-20	BLOCKS 51, 61, 71 PROJECT (GEORGIA, HOWE, NELSON, HORNBY STREETS)		
	Precast-concrete Double "T" Units, Blocks 51, 61 (Contract BCB43):		
	Con-Force Products Ltd.	360,435.00	Awarded.
	Bordignon Masonry Ltd.	367,500.00	
	North Footings, Blocks 51, 61, and Substructure, Blocks 51, 61, 71 (Contract BCB47):		
	Bird Construction Co. Ltd.	2,082,904.00	Awarded.
	Dawson & Hall Ltd.	2,378,415.00	
	Van Construction (Div. of Van Vliet Construction Co. Ltd.)	2,493,138.00	
	Biely Construction Co. Ltd.	2,605,000.00	
	Dillingham Corp. (Canada) Ltd.	2,647,000.00	
	H. Haebler Co. Ltd.	2,927,000.00	
	Miscellaneous Metals for Substructure, Blocks 51, 61 (Contract BCB48):		
	Alpine Steel Ltd.	31,304.00	Awarded.
	Pearson Ironworks Ltd.	37,699.00	
	Surrey Ironworks Ltd.	38,433.00	
	Temporary Power, Phase 3 (Contract BCB49):		
	Trans-Power Construction Ltd.	27,647.00	Awarded.
	Arcrite Electric Ltd.	29,990.00	
	Asphalt Paving, Truck and Car Tunnels (Contract BCB51):		
	Standard General Construction Ltd.	12,390.00	Awarded.
	Columbia Bithulithic Ltd.	15,900.00	
	Crane Track, Block 61 (Contract BCB52):		
	A. & B. Rail Contractors Ltd.	32,800.00	
	Railcon Construction Ltd.	36,283.50	Awarded.
	Pacific Northern Rail Construction Corp.	46,839.00	
	Elevators and Escalators, Blocks 51, 61 (Contract BCB53):		
	Montgomery Elevator Co. Ltd.	659,245.00	Awarded.
	Otis Elevator Co. Ltd.	754,190.00	
	Westinghouse Canada Ltd.	874,795.00	
	Dover Corp. (Canada) Ltd. (elevator only)	428,000.00	
	Bulk Excavation and Shoring, Block 71 (Contract BCB54):		
	United Contractors Ltd.	1,108,029.00	Awarded.
	Fownes Construction Co. Ltd.	1,130,989.00	
	Dillingham Corp. (Canada) Ltd.	1,164,175.00	
	Dawson Construction Ltd.	1,173,227.00	
	Miller Cartage & Contracting Ltd.	1,193,278.00	
	Standard General Construction Ltd.	1,689,530.00	
	Waterproofing Smithe Street Underpasses (Contract BCB56):		
	Davis Foundation Spray Ltd.	31,390.00	Awarded.
	Coast Hudson Ltd.	34,883.00	
	Duron (B.C.) Ltd.	37,489.00	
	Gillan Waterproofing Ltd.	40,200.00	

MAJOR TENDERS RECEIVED AND CONTRACTS AWARDED—*Continued*

Project No.	Location, Description of Work, and Names of Tenderers	Amount	Remarks
	VANCOUVER—*Continued*		
16-20	BLOCKS 51, 61, 71 PROJECT (GEORGIA, HOWE, NELSON, HORNBY STREETS)—*Continued*		
	Public Pavilion and Covered Walkway, Miscellaneous and Structural Metal (Contract BCB62):	$	
	George Third & Son Ltd.	7,962.00	Qualified bid.
	Ancient Mariner Industries Ltd.	11,325.42	
	Surrey Ironworks Ltd.	14,425.00	Awarded.
	Alpine Steel Ltd.	16,923.00	
	Westeel Rosco Ltd.	17,236.00	
	Metro Construction Co. Ltd.	17,900.00	
	Tower Crane (Contract BCB65) (monthly rental):		
	Jasco Equipment Supply Ltd.	11,800.00	Awarded.
	F. B. Kroll A/S	11,900.00	
	Bordingnon Masonry Ltd.	17,600.00	
	Precast-concrete "U" Beams and Floor Planks, Blocks 51, 61 (Contract BCB68):		
	Con-Force Products Ltd.	1,492,200.00	Awarded.
	Bordingnon Masonry Ltd.	2,182,000.00	
	Electrical, Blocks 51, 61 (Contract BCB69):		
	D. Thompson (Western) Ltd. / The State Electric Co. Ltd. (joint venture)	2,605,163.00	Awarded.
	Flanders Installations Ltd.	2,771,453.00	
	Commonwealth Construction Co. Ltd.	3,020,832.00	
	Reinforced-concrete Superstructure, Blocks 51, 61 (Contract BCB70):		
	Dawson & Hall Ltd.	4,727,838.00	Awarded.
	Poole Construction Ltd.	4,970,108.00	
	Van Construction (Div. of Van Vliet Construction Co. Ltd.)	5,017,046.00	
	Bird Construction Ltd.	5,408,189.00	
	Northern Construction Co. (Div. of Morrison Knudson Co. Ltd.)	6,321,530.00	
	Dillingham Corp. (Canada) Ltd.	7,224,000.00	
	Commonwealth Construction Co. Ltd.	7,662,827.00	
	Fire Protection, Blocks 51, 61 (Contract BCB75):		
	Kal Sprinkler Co. Ltd.	369,990.00	Awarded.
	Automatic Sprinkler Ltd.	468,105.00	
	Viking Sprinkler Co. Ltd.	519,819.00	
	Grinnell Fire Protection Co. Ltd.	559,805.00	
	Waterproofing, Vertical Walls Below Grade, Blocks 51, 61 (Contract BCB86):		
	Davis Foundation Spray Ltd.	29,250.00	Awarded.
	Duron (B.C.) Ltd.	31,888.00	
	Coast Hudson Ltd.	42,500.00	
	Aetna Roofing (1954) Ltd.	105,840.00	
16-26-B1	411 DUNSMUIR STREET ALTERATIONS AND RENOVATIONS		
	Phase 1:		
	Turnbull & Gale Construction Co. Ltd.	68,856.00	Awarded.
	Pacific Coast Construction Ltd.	78,319.00	
	Allan & Viner Construction Ltd.	80,430.00	
	H. Haebler Co. Ltd.	85,500.00	
	International Construction Co. Ltd.	97,449.00	
	Double V Construction Ltd.	98,124.00	
	Phase 2:		
	Allan & Viner Construction Ltd.	476,200.00	Awarded.
	Turnbull & Gale Construction Co. Ltd.	489,914.00	
	Smith Bros. & Wilson Ltd.	492,946.00	
16-176-B1	140 EAST EIGHTH AVENUE, FILM CLASSIFICATION BOARD		
	Heating and Ventilation:		
	McNeil Plumbing & Heating Ltd.	19,000.00	Awarded.
	Fenk Plumbing & Heating Ltd.	20,595.00	
	Partitions:		
	Benton & Overbury Ltd.	15,520.00	Awarded.
	Whitehall Contracting Ltd.	23,157.00	
	Installation of Lighting:		
	Ross Morrison Electrical Ltd.	10,298.00	Awarded.
	Arcrite Electric Ltd.	10,443.00	
	Fred Moore Electrical Services Ltd.	13,555.00	

MAJOR TENDERS RECEIVED AND CONTRACTS AWARDED—*Continued*

Project No.	Location, Description of Work, and Names of Tenderers	Amount	Remarks
	VANCOUVER—*Continued*		
16-627-R1	CO-ORDINATED LAW ENFORCEMENT UNIT BUILDING, 214/250 WEST SEVENTH AVENUE		
	Framing (Contract 1):	$	
	Allan & Viner Contruction Ltd.	49,960.00	Awarded.
	Double V Construction Ltd.	52,247.00	
	Seaward Contruction Ltd.	54,769.00	
	Gadicke Construction Ltd.	67,600.00	
	Structural Steel (Contract 2):		
	Mitchell Sheet Metal & Steel Fabricators Ltd.	14,353.00	Not awarded.
	Key Installations Ltd.	15,900.00	
	Brenda Steel Ltd.	16,825.40	
	AIM Steel Ltd.	20,219.00	
	A. & K. Construction Ltd.	24,035.00	
	Alpine Steel Ltd.	25,127.00	
	Dominion Bridge Co. Ltd.	42,560.00	
	Structural Steel (Contract 2) (retender):		
	Royal City Iron Works Ltd.	12,885.00	Awarded.
	Allan & Viner Contruction Ltd.	20,760.00	
	AIM Steel Ltd.	23,667.00	
	Electrical (Contract 5):		
	The J. H. McRae Co. Ltd.	121,250.00	Awarded.
	D. Thompson (Western) Ltd.	127,635.00	
	Canadian Electrical Construction Ltd.	127,754.00	
	Canem Systems Ltd.	129,800.00	
	Houle Electric Ltd.	134,810.00	
	N.B. Electric Ltd.	139,980.00	
	I.C.R. Electric Ltd.	143,535.00	
	Paragon Electric Co. Ltd.	148,511.00	
	Masonry (Contract 6):		
	Elligott Masonry Ltd.	13,843.00	Not awarded.
	H. Banka Masonry Ltd.	14,337.00	
	Alton & Nerheim Masonry Ltd.	15,800.00	
	Letch Masonry	19,500.00	
	Drywall and Ceilings (Contract 15):		
	Chalifour Bros. Ltd.	21,986.00	Awarded.
	W. R. Shields Ltd.	29,720.00	
	Western Lathing & Plastering Ltd.	35,429.00	
	Allan & Viner Construction Ltd.	35,850.00	
	A.K. Construction Ltd. and Central Drywall	57,240.00	
	Painting (Contract 16):		
	Alpine Painting Ltd.	12,981.00	Awarded.
	A. Krigg & Sons	14,474.00	
	Combined Painting Ltd.	14,898.00	
	L. O. Hansen Ltd.	14,940.00	
	W. W. Bittel Painting & Decorating	16,101.00	
	Acme Commercial Painting Ltd.	17,692.00	
	Kerchbaumer Coatings Inc.	21,900.00	
	Rino Painting Ltd.	29,188.00	
	Sprayed Fireproofing (Contract 18):		
	Chalifour Bros. Contruction Ltd.	11,500.00	Awarded.
	Gallagher Bros. Contractors Ltd.	15,205.00	
	Plumbing (Contract 19A):		
	Fenk Plumbing & Heating Ltd.	32,825.00	Awarded.
	H. & A. Plumbing & Heating	33,848.00	
	Mechanical (Contract 19B):		
	Haakon Industries (Canada) Ltd.	92,983.00	Awarded.
	Argus Installations Ltd.	117,926.00	
	Fenk Plumbing & Heating Ltd.	117,992.00	
	Canem Systems Ltd.	119,700.00	
	B.& B. Plumbing & Heating Contractors Ltd.	124,000.00	
	Fire Alarm System (Contract 20A):		
	Standguard Electronic Systems Ltd.	20,232.68	Awarded.
	The J. H. McRae Co. Ltd.	20,600.00	
	Resilient Flooring and Carpets (Contracts 26, 27):		
	Hal H. Paradise Ltd.	18,448.00	Awarded.
	Woodward's Contract Sales Division	20,440.18	
	Johnson Floors Ltd.	22,800.00	
	Maxwell Floors Ltd.	23,062.00	
	F. M. Beatty Floors Ltd.	23,461.00	
	East India Carpets Ltd.	23,666.00	

MAJOR TENDERS RECEIVED AND CONTRACTS AWARDED—*Continued*

Project No.	Location, Description of Work, and Names of Tenderers	Amount	Remarks
	VANCOUVER—*Continued*		
16-637-R1	DETOXIFICATION CENTRE, 59 WEST PENDER STREET		
	Carpentry (Contract 2):	$	
	Ballarin Bros. Contruction Co. Ltd.	24,650.00	Awarded.
	Cabinet Work (Contract 3):		
	Calwood Industries Ltd.	11,412.00	Awarded.
	Nikolai Millwork Industries Ltd.	12,769.00	
	B.C. Millwork Products Ltd.	14,500.00	
	Ballarin Bros. Construction Co. Ltd.	16,730.00	
	Steel Stud and Drywall (Contract 6):		
	Chalifour Bros. Contruction Ltd.	27,790.00	Awarded.
	Coral Contracting Ltd.	28,800.00	
	Food and Service Equipment (Contract 13):		
	Terminal Sheet Metal (Div. of Arbutus Buscombe Co.)	14,809.00	Awarded.
	Russell Food Equipment Ltd.	15,667.85	
	Mechanical (Contract 15):		
	Boulevard Plumbing & Heating Ltd.	57,575.00	Awarded.
	B. & B. Plumbing & Heating Contractors Ltd.	60,828.00	
	Keller Plumbing & Heating Ltd.	62,640.00	
	Hodgson Plumbing & Heating Ltd.	91,133.00	
	Electrical (Contract 16):		
	D. Thompson (Western) Ltd.	32,643.00	Awarded.
	Adanac Electric Ltd.	36,400.00	
	Sprinkler System (Contract 19):		
	L. & L. Plumbing & Heating Ltd.	13,500.00	Awarded.
	Canem Systems Ltd.	14,975.00	
	B. & B. Plumbing & Heating Contractors Ltd.	15,000.00	
	VICTORIA		
19-1-B1	*Parliament Buildings Exit Stair, Centre Block South, Ironwork (Contract 102):*		
	United Engineering Ltd.	10,450.00	Awarded.
	Edwards Welding Ltd.	11,530.00	
19-34-B1	*546 Michigan Street, No. 4 Temporary Building Alterations:*		
	Hunter Contruction Ltd.	10,728.00	Awarded.
	Australian Contruction Ltd.	11,150.00	
19-100-B1	*Thunderbird Park Carving Shed:*		
	Dalziel Construction Ltd.	84,665.00	Awarded.
	Australian Contruction Ltd.	88,370.00	
19-146-B1	*Office Building, 2631 Douglas Street, Minor Modifications:*		
	Australian Contruction Ltd.	12,160.00	Awarded.
	Laupland & Louie Construction Ltd.	14,850.00	
19-224-B1	*Service Centre, 3285 Oak Street, Alterations:*		
	Laupland & Louie Construction Ltd.	19,678.00	Awarded.
	Australian Contruction Ltd.	20,200.00	
	H. E. Fowler & Sons Ltd.	20,758.00	
	Coulter & Associates Construction Ltd.	22,320.00	
19-574-R1	*Offices, 1016 Langley Street, Renovations:*		
	Australian Contruction Ltd.	15,368.00	Awarded.
	Liddell Construction Ltd.	16,743.00	
	H. E. Fowler & Sons Ltd.	17,557.00	
	B.C. Gypsum Dry-Wall Systems Ltd.	17,997.00	
	Laupland & Louie Construction Ltd.	18,762.00	
19-35-B1	421 MENZIES STREET, DATA PROCESSING CENTRE		
	Computer Installation:		
	Laupland & Louie Construction Ltd.	174,661.00	Awarded.
	H. E. Fowler & Sons Ltd.	185,682.00	
	Australian Construction Ltd.	198,000.00	
	Alarm Systems:		
	Walter Kidde & Co. of Canada Ltd.	53,755.00	Not awarded.
	Trilec Installations Ltd.	58,975.00	
	H. J. Langdon & Sons (1970) Ltd.	61,137.00	
19-73-B1	1019 WHARF STREET, DOGWOOD BUILDING		
	Floor Covering:		
	Jordan's Contract Sales (B.C.) Ltd.	34,021.00	Not awarded.
	Eaton's Contract Sales	35,938.43	
	Woodward's Contract Sales Division	37,140.31	
	Maxwell Floor Co. Ltd.	40,996.00	
	Atlas Floors Ltd.	42,224.00	
	Edgar & Miner Contract Interiors Ltd.	46,505.00	
	Floor Covering (retender):		
	Jordan's Contract Sales (B.C.) Ltd.	29,530.00	Awarded.
	Eaton's Contract Sales	29,683.92	
	Edgar & Miner Contract Interiors Ltd.	36,351.00	

MAJOR TENDERS RECEIVED AND CONTRACTS AWARDED—*Continued*

Project No.	Location, Description of Work, and Names of Tenderers	Amount	Remarks
	VICTORIA—*Continued*		
19-83-B1	LAW COURTS		
	Additions and Alterations:	$	
	Cana Construction Co. Ltd.	1,869.700.00	Awarded.
	H. E. Fowler & Sons Ltd.	1,899,363.00	
	Dura Construction Ltd.	1,957,000.00	
	Farmer Construction Ltd.	1,968,300.00	
	Temporary Courts, St. Ann's Academy, Millwork:		
	Somerby Woodworkers Ltd.	11,827.00	Awarded.
	D. Mowat & Son Ltd.	13,855.00	
19-103-B1	PROVINCIAL OFFICE BUILDING, PANDORA AVENUE/BLANSHARD STREET		
	Electrical (Contract 8):		
	Flanders Installations Ltd.	975,513.00	Awarded.
	Commonwealth Construction Co. Ltd.	1,004,510.00	
	Canem Systems Ltd.	1,016,849.00	
	Mott Electric Ltd.	1,153,453.00	
	Mechanical (Contract 9):		
	Whittick Mechanical Contractors Ltd.	1,842,500.00	Awarded.
	Keith Plumbing & Heating Co. Ltd.	1,892,585.00	
	Fred Welsh Ltd.	1,896,600.00	
	Canem Systems Ltd.	1,905,000.00	
	Precast-concrete (Contract 10):		
	Con-Force Products Ltd.	429,487.00	Awarded.
	Materials Hoist (Contract 12):		
	Swing Stage Rentals & Sales Ltd.	18,110.00	Awarded.
	Wajax Industries Ltd.	24,940.00	
	Roofing (Contract 13):		
	Concrete Sealants (1965) Ltd.	145,485.00	Not awarded.
	Food Services Equipment (Contract 17):		
	Standard Metal Products Ltd.	132,554.00	Awarded.
	Arbutus Buscombe Co.	135,380.00	
	Russell Food Equipment Ltd.	143,799.70	
	Acoustical Panel Ceilings (Contract 18):		
	F. Drexel Co. Ltd.	137,890.00	Awarded.
	Canadian Johns Manville Co. Ltd.	141,909.00	
	Benton & Overbury Ltd.	145,780.00	
	B.C. Gypsum Dry-Wall Systems Ltd.	148,634.00	
	Carpets (Contract 19):		
	The Robert Simpson Co. Ltd.	268,000.00	Awarded.
	Jordan's Contract Sales (B.C.) Ltd.	274,999.00	
	Eaton's Contract Sales	277,735.00	
	Edgar & Miner Contract Interiors Ltd.	278,900.00	
	Woodward Stores (Vancouver) Ltd.	280,848.00	
	The Johnston Floor Co. Ltd.	284,107.00	
	Ceramic Tile (Contract 20):		
	Star Tile Co. Ltd.	43,706.00	Awarded.
	C. & S. Ceramic Tile Contractors Ltd.	53,882.00	
	Darlington, Haskins & Co. Ltd.	61,039.00	
	Steel Studs and Drywall (Contract 21):		
	Whitehall Contracting of B.C. Ltd.	224,444.00	Awarded.
	Thomas M. Smith Contractors Ltd.	225,900.00	
	Houliston Contruction Ltd.	248,000.00	
	Chalifour Bros. Construction Ltd.	260,413.00	
	Island Drywall Ltd.	284,097.00	
	B.C. Gypsum Dry-Wall Systems Ltd.	325,767.00	
	Western Lathing & Plastering Ltd.	333,800.00	
	Curtain Wall and Windows (Contract 22):		
	PPG Industries (Canada) Ltd.	325,733.00	Awarded.
	Canadian Pittsburgh Industries (Div. of Pilkington Glass Ltd.	380,280.00	
	Roofing (Contract 24):		
	Pacific Coast Insulation & Roofing Co. Ltd.	75,937.00	Awarded.
	More-Ply Roofing & Sheet Metal Ltd.	97,529.00	
	Resilient Floor (Contract 27):		
	B. & E. Floor Coverings Ltd.	20,800.00	Awarded.
	Quarry Tile (Contract 28):		
	C. & S. Ceramic Tile Contractors Ltd.	48,838.00	Awarded.
	Star Tile Co. Ltd.	55,270.00	
	Darlington, Haskins & Co. Ltd.	59,359.00	
	Wm. O'Neil Tile Ltd.	61,500.00	

MAJOR TENDERS RECEIVED AND CONTRACTS AWARDED—*Continued*

Project No.	Location, Description of Work, and Names of Tenderers	Amount	Remarks
	VICTORIA—*Continued*		
19-103-B1	PROVINCIAL OFFICE BUILDING, PANDORA AVENUE/BLANSHARD STREET—*Continued*		
	Elevator (Contract 30):	$	
	Montgomery Elevator Co. Ltd.	359,740.00	Awarded.
	Otis Elevator Co. Ltd.	392,950.00	
	Dover Corp. (Canada) Ltd.	419,600.00	
	Pressed Steel Doors and Frames (Contract 35):		
	Shanahan's Ltd.	23,322.00	Awarded.
	Campbell & Grill Ltd.	25,575.00	
	Waco Associated Distributors Ltd.	28,061.00	
	Hardware (Contract 37):		
	Allmar Distributors Ltd.	13,220.00	Awarded.
	Acklands Ltd.	13,663.65	
	Waco Associated Distributors Ltd.	14,425.00	
	Metal Siding (Contract 43):		
	J. K. Campbell & Associates Ltd.	25,998.00	Awarded.
	Robertson Building System Ltd.	26,420.00	
	Westeel Rosco Ltd.	29,320.00	
	E. A. Stark Applicators Ltd.	44,500.00	
	Rough Carpentry (Contract 44) and Structure (Contract 7):		
	Dura Contruction Ltd.	2,254,700.00	Awarded.
19-129-B1	OFFICE BUILDING, 914 YATES STREET		
	Partitioning, Main Floor:		
	B.C. Gypsum Dry-Wall Systems Ltd.	12,477.00	Awarded.
	Benton & Overbury Ltd.	18,790.00	
	Pacific Partitions Ltd.	21,200.00	
	General Alterations:		
	Laupland & Louie Construction Ltd.	20,453.00	Awarded.
	H. E. Fowler & Sons Ltd.	22,391.00	
19-133-B1	GOVERNMENT OFFICES, ST. ANN'S ACADEMY		
	Carpeting:		
	The T. Eaton Co. Ltd.	30,952.50	Awarded.
	Hourigan's Carpets & Linos Ltd.	32,812.50	
	Jordan's Contract Sales Division (*a*)	34,137.00	
	Jordan's Contract Sales Division (*b*)	37,137.00	
	Gold Safe & Office Equipment Ltd.	35,755.00	
	L. Frederick Interiors Ltd.	37,160.00	
	B. & E. Floor Coverings Ltd.	37,874.00	
	Elevator:		
	Dover Corp. (Canada) Ltd.	39,495.00	Awarded.
	Otis Elevator Co. Ltd.	43,220.00	
	Montgomery Elevator Co. Ltd.	55,362.00	
	Paving:		
	Victoria Paving Co. Ltd.	24,419.00	Awarded.
	O.K. Paving Co. Ltd.	45,935.00	
19-136-B1	PROVINCIAL OFFICE BUILDING, COURTNEY/BLANSHARD STREETS		
	Construction Management Services:		
	Dawson & Hall Ltd.	486,000.00	
	Concordia Management Co. Ltd.	530,840.00	Awarded.
	Cana Construction Co. Ltd.	540,000.00	
	Pentagon Construction (1969) Co. Ltd.	561,200.00	
	Spantec Ltd.	575,000.00	
	Turnkey Development Engineering & Contract Management Ltd.	658,000.00	
	Stevenson Construction Co. Ltd.	720,000.00	
	Pacific Coast Construction Ltd.	897,236.00	
	Farmer Construction Ltd.	954,000.00	
	Construction Hoarding (Contract VO2):		
	H. E. Fowler & Sons Ltd.	18,833.00	Awarded.
	Dura Construction Ltd.	31,880.00	
	Australian Construction Ltd.	39,000.00	
	Excavation (Contract VO3):		
	Webb & Trace Ltd.	2,044,500.00	Awarded.
	Farmer Construction Ltd.	2,147,333.00	
	Chew Excavating Ltd.	2,277,000.00	
	Fownes Construction Co. Ltd.	2,324,782.00	
	Elevators (Contract VO4):		
	Dover Corp. (Canada) Ltd.	498,930.00	Awarded.
	Montgomery Elevator Co. Ltd.	483,897.00	
	Otis Elevator Co. Ltd.	529,095.00	
	Armor Elevator (Canada) Ltd.	599,426.00	

MAJOR TENDERS RECEIVED AND CONTRACTS AWARDED—*Continued*

Project No.	Location, Description of Work, and Names of Tenderers	Amount	Remarks
	VICTORIA—*Continued*		
19-136-B1	PROVINCIAL OFFICE BUILDING, COURTNEY/BLANSHARD STREETS—*Continued*		
	Structural Concrete (Contract VO5):	$	
	Farmer Construction Ltd.	4,680,376.00	Awarded.
	Dawson & Hall Ltd.	4,716,893.00	
	Poole Construction Ltd.	4,965,295.00	
	Cana Construction Co. Ltd.	5,090,000.00	
	Cascade Builders Ltd. / Government Street Development Ltd. (joint venture)	5,186,000.00	
	Dillingham Corp. (Canada) Ltd.	5,248,000.00	
	D. Robinson Construction (1962) Ltd.	5,488,000.00	
19-141-B1	OFFICE BUILDING, 1113/1121 WHARF STREET (DOWELL)		
	Renovations (Contract 6):		
	Farmer Construction Ltd.	63,266.00	Awarded.
	H. E. Fowler & Sons Ltd.	64,747.00	
	Australian Construction Ltd.	78,690.00	
	Liddell Construction Ltd.	84,383.00	
	Exterior Renovations (Contract 7):		
	Farmer Construction Ltd.	40,550.00	Awarded.
	H. E. Fowler & Sons Ltd.	43,298.00	
	Australian Construction Ltd.	52,500.00	
	Main Structural (Contract 8):		
	Farmer Construction Ltd.	239,760.00	Awarded.
	H. E. Fowler & Sons Ltd.	248,211.00	
	Plumbing (Contract 9):		
	Mmajja Holdings Ltd. (Oak Bay Plumbing & Heating)	52,893.00	Awarded.
	Fairway Plumbing & Heating Co. Ltd.	58,446.00	
	M. Rogers Plumbing & Heating Ltd.	62,116.00	
	Rawlings Plumbing & Heating Co. Ltd.	71,200.00	
	Gordon Cooper Plumbing & Heating (1970) Ltd.	77,442.00	
	M. Griffin Ltd.	78,700.00	
	Mechanical (Contract 10):		
	Fairway Plumbing & Heating Co. Ltd.	201,200.00	Awarded.
	Gordon Cooper Plumbing & Heating Ltd.	213,217.00	
	M. Rogers Plumbing & Heating Ltd.	216,377.00	
	M. Griffin Ltd.	219,883.00	
	Rawlings Plumbing & Heating Ltd.	220,430.00	
	Electrical (Contract 11):		
	Canem Systems Ltd.	168,766.00	Awarded.
	Ricketts Sewell Electric Ltd.	184,484.00	
	Masonry (Contract 12):		
	Boogaars Masonry Ltd.	58,535.00	Awarded.
	M. J. Peddlesden Ltd.	59,592.00	
	Farmer Construction Ltd.	69,545.00	
	Ken Toby Ltd.	90,772.00	
	Carpentry and Casework (Contract 13):		
	H. E. Fowler & Sons Ltd.	183,434.00	Awarded.
	Farmer Construction Ltd.	184,900.00	
	Steel Stud, Dry Wall, and Plaster (Contract 15):		
	Chalifour Bros. Construction Ltd.	63,756.00	Awarded.
	Island Drywall Ltd.	109,000.00	
	Victoria Drywall & Stucco Ltd.	116,200.00	
	Gallagher Bros. Contractors Ltd.	119,920.00	
	Integrated Ceilings (Contract 20):		
	F. Drexel Co. Ltd.	26,584.00	Awarded.
	Benton & Overbury Ltd.	27,779.00	
	Benton & Overbury Ltd. (alternative)	23,069.00	
	B.C. Gypsum Dry-Wall Systems Ltd.	31,470.00	
19-144-B1	PROVINCIAL OFFICE BUILDING, BURDETT AVENUE/BLANSHARD STREET		
	Excavation:		
	Southwest Contracting Ltd.	48,800.00	Awarded.
	H.B. Contracting Ltd.	71,925.00	
	Farmer Construction Ltd.	77,550.00	
	Webb & Trace Ltd.	88,852.00	
	Chew Excavating Ltd.	98,994.00	
	O.K. Paving Co. Ltd.	150,332.00	
	Construction of Building:		
	Dura Construction Ltd.	1,701,780.00	Awarded.
	Farmer Construction Ltd.	1,704,700.00	
	H. E. Fowler & Sons Ltd.	1,776,900.00	
	Wheaton Construction Ltd.	1,884,692.00	

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