PROVINCE OF BRITISH COLUMBIA

Minister of Highways

REPORT

FOR THE FISCAL YEAR

1963/64

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in right of the Province of British Columbia.
1964

To Major-General the Honourable GEORGE RANDOLPH PEARKES,
V.C., P.C., C.B., D.S.O., M.C.,
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 Highways for the fiscal year ended March 31, 1964, in compliance with the provisions of the *Department of Highways Act*.

P. A. GAGLARDI,
Minister of Highways.

Office of the Minister of Highways,
Parliament Buildings, September 1, 1964.

VICTORIA, B.C., August 25, 1964.

The Honourable P. A. Gaglardi,
Minister of Highways, Victoria, B.C.

Dear Mr. Gaglardi:

I have the honour to submit herewith the Annual Report for the Department of Highways for the fiscal year ended March 31, 1964.

A summary of capital works will be found in the Chief Engineer's report, and a summary of maintenance, administration, and day-labour projects will be found in the Assistant Deputy Minister's report.

I wish to record the efficient and cheerful co-operation of the Department's staff and crews both at headquarters and in the field.

Respectfully submitted.

H. T. MIARD,
Deputy Minister.

TABLE OF CONTENTS

	Page
Assistant Deputy Minister	9
Bridge Engineer	12
Bridges and Ferry-landings Constructed or Reconstructed	15
Chief Engineer	10
Classified Highways	126
Communications	59
Construction, Director of	25
Design and Planning Engineer	42
Equipment	54
Expenditure, Comptroller of	133
Expenditures, Statement of	135
Ferries	55
Highway-construction Contracts, Progress of	27
Highway Work Completed or in Progress	107
Insurance and Safety Officer	60
Location Branch	42
Maintenance Engineer	79
Materials Testing Branch	48
Mileage and Type of Surface of Highways	125
Paving Engineer	31
Personnel, List of	7
Personnel Officer	62
Regional Reports	82
Right-of-way Agent	54
Snow-removal Costs	132
Superintendent of Equipment	54
Tenders Received and Contracts Awarded—	
Bridges, Ferries, and Ferry-landings	68
Highways	63
Miscellaneous	77
Paving	65
Traffic Branch	51

DEPARTMENT OF HIGHWAYS PERSONNEL AS AT MARCH, 31, 1964

Victoria

H. T. Miard, Deputy Minister (Chairman, Highway Board).
F. A. MacLean, Assistant Deputy Minister (Member, Highway Board).
D. D. Godfrey, Chief Engineer (Member, Highway Board).
E. B. Wilkins, Design and Planning Engineer (Member, Highway Board).
J. H. Harding, Senior Traffic Engineer.
, Senior Materials Engineer.
E. C. Webster, Director of Construction.
J. W. Kerr, Senior Paving Engineer.
J. A. Dennison, Senior Maintenance Engineer.
W. R. Workman, Records and Estimates Engineer.
E. W. Hall, Statistics Engineer.
N. R. Zapf, Director of Location.
J. W. Pomeroy, Assistant Location Engineer.
L. J. Moore, Chief Right-of-way Agent.
N. C. Tattrie, Assistant Chief Right-of-way Agent.
F. E. Dembiske, Special Projects Engineer.
J. Alton, Senior Bridge Engineer.
L. C. Johnson, Bridge Design Engineer.
W. A. Bowman, Bridge Construction Engineer.
J. H. Smythe, Superintendent of Equipment.
H. K. Gann, Superintendent of Ferries.
J. A. Lonsbury, Insurance and Safety Officer.
W. F. Conlan, Superintendent of Communications.
A. E. Rhodes, Comptroller of Expenditure.
H. C. Davies, Personnel Officer.
R. J. Baines, Administrative Officer.
F. Howland, Chief Clerk.

Region No. 1

M. G. Elston, Regional Highway Engineer, 1690 Main Street, North Vancouver.
W. C. Mercer, Regional Maintenance Engineer, 1690 Main Street, North Vancouver.
E. J. Garrett, Regional Construction Engineer, 1690 Main Street, North Vanocuver.
A. G. Tranfield, Regional Superintendent of Location, 1690 Main Street, North Vancouver.
A. J. Montador, Regional Materials Engineer, 1690 Main Street, North Vancouver.
V. A. Drew, H. R. MacKenzie, and E. F. Thompson, Regional Right-of-way Agents, North Vancouver.
W. R. Jeffs, Regional Mechanical Superintendent, Victoria.
J. P. Hague, District Engineer, 280 Burnside Road West, Victoria (Esquimalt, Saanich).
P. B. MacCarthy, District Engineer, Courtenay (Comox).
R. W. Gittins, District Engineer, New Westminster (Burnaby, Delta, Dewdney (West), New Westminster).
W. M. Underwood, District Superintendent, North Vancouver (North Vancouver, Mackenzie, Vancouver-Point Grey, Lillooet (South)).
J. W. Morris, District Superintendent, Nanaimo (Alberni, Nanaimo-Islands, Cowichan-Newcastle).
R. B. Gilmour, District Superintendent, Chilliwack (Chilliwack, Dewdney (East)).

Region No. 2

J. W. Nelson, Regional Highway Engineer, Kamloops.
A. W. Slater, Regional Maintenance Engineer, Kamloops.
, Regional Construction Engineer, Kamloops.
A. W. G. Smith, Divisional Engineer, Location Branch, Kamloops.
L. DeBoer, Regional Materials Engineer, Kamloops.
A. C. Brown, Regional Right-of-way Agent, Kamloops.
, Regional Mechanical Superintendent, Kamloops.
H. F. Coupe, District Engineer, Salmon Arm (Salmon Arm).
P. E. Bishop, District Engineer, Penticton (Similkameen).
I. J. Stewart, District Engineer, Revelstoke (Revelstoke).
A. L. Freebairn, District Engineer, Kelowna (South Okanagan).
C. S. Shaw, District Superintendent, Merritt (Yale).
H. F. Blunden, District Superintendent, Williams Lake (Cariboo (South)).
J. R. Krushnisky, District Superintendent, Kamloops (Kamloops).
J. E. Steven, District Superintendent, Lillooet (Lillooet (North)).
W. G. Helmsing, District Superintendent, Vernon (North Okanagan).

Region No. 3

D. F. Martin, Regional Highway Engineer, Nelson.
W. M. Sproul, Regional Maintenance Engineer, Nelson.
L. A. Broddy, Regional Construction Engineer, Nelson.
C. A. Scarborough, Regional Superintendent of Location, Nelson.
M. Merlo, Regional Materials Engineer, Nelson.
G. Fraser, Regional Right-of-way Agent, Nelson.
A. R. Irving, Regional Mechanical Superintendent, Nelson.
R. G. White, District Engineer, Nelson (Nelson-Creston).
H. J. Kelsall, District Engineer, Grand Forks (Grand Forks-Greenwood).
G. Austin, District Superintendent, Cranbrook (Cranbrook).
D. C. Westaway, District Superintendent, New Denver (Kaslo-Slocan).
A. E. Staite, District Superintendent, Rossland (Rossland-Trail).
M. C. K. Struve, District Superintendent, Fernie (Fernie).
R. Veitch, District Superintendent, Golden (Columbia).

Region No. 4

R. G. Harvey, Regional Highway Engineer, Prince George.
R. G. Mulcaster, Regional Maintenance Engineer, Prince George.
D. C. MacVicar, Regional Construction Engineer, Prince George.
E. A. Beaumont, Regional Location Engineer, Prince George.
E. A. Lund, Regional Materials Engineer, Prince George.
N. Allan, Regional Right-of-way Agent, Prince George.
H. O. George, Regional Mechanical Superintendent, Prince George.
P. J. Carr, District Engineer, Pouce Coupe (South Peace River).
G. W. Harper, District Superintendent, Quesnel (Cariboo (North)).
S. J. Sviatko, District Superintendent, Smithers (Skeena (East)).
P. A. Tondevold, District Superintendent, Fort St. John (North Peace River, Atlin (North)).
R. E. McKeown, District Superintendent, Prince Rupert (Prince Rupert, Atlin (South)).
J. P. O'Toole, District Superintendent, Terrace (Skeena (West)).
G. R. Kent, District Superintendent, Vanderhoof (Omineca (East)).
P. S. Dunn, District Superintendent, Burns Lake (Omineca (West)).
A. Park, District Superintendent, Prince George (Fort George).

HIGHWAYS REPORT

REPORT OF THE ASSISTANT DEPUTY MINISTER

VICTORIA, B.C., August 24, 1964.

Mr. H. T. Miard,
Deputy Minister of Highways,
Parliament Buildings, Victoria, B.C.

SIR,—Herewith are submitted district reports for the fiscal year 1963/64.

A summary of the mileages of highways shows that there are 25,024 miles under the jurisdiction of this Department, and, of these, 3,706 miles are classed as trunk highways, 1,752 miles as main highways, and 19,565 miles as other highways. In addition to this there are 769 miles of classified highways (arterial and secondary), of which 381 miles are trunk highways, 191 miles are main highways, and 197 are other highways.

The total expenditure on maintenance of roads, ferries, and bridges was $19,443,167.

The cost of snow removal was $2,521,409, a 39-per-cent increase over that of the previous year. This increase was due principally to a much heavier than usual snowfall in the Interior. The mileage of roads kept open was 19,882, an increase of 315 miles.

There are 52 ferries operating under the supervision of the Department. They carried a total of 2,008,692 vehicles and 5,087,565 passengers including drivers.

The total mileage of roads constructed or reconstructed by day labour was 348. Improvements or minor betterments were made to 759 miles.

There were 625 right-of-way settlements negotiated during the year, the cost of which amounted to $1,033,679.

There was a considerable increase in the number of subdivision plans handled and also in the number of permits issued during the 1963 calendar year compared to the previous year. The total number of subdivisions handled was 3,166, and, of these, 504 were adjacent to controlled-access highways.

There were 390 permits issued for entrances on controlled-access highways, 908 for entrances on non-controlled-access highways, and 2,078 for other works on Crown lands.

F. A. MACLEAN,
Assistant Deputy Minister.

REPORT OF THE CHIEF ENGINEER

VICTORIA, B.C., August 24, 1964.

Mr. H. T. Miard,
Deputy Minister of Highways,
Parliament Buildings, Victoria, B.C.

SIR,—Submitted herewith are reports from the Senior Bridge Engineer, the Design and Planning Engineer, the Director of Construction, and the Senior Paving Engineer.

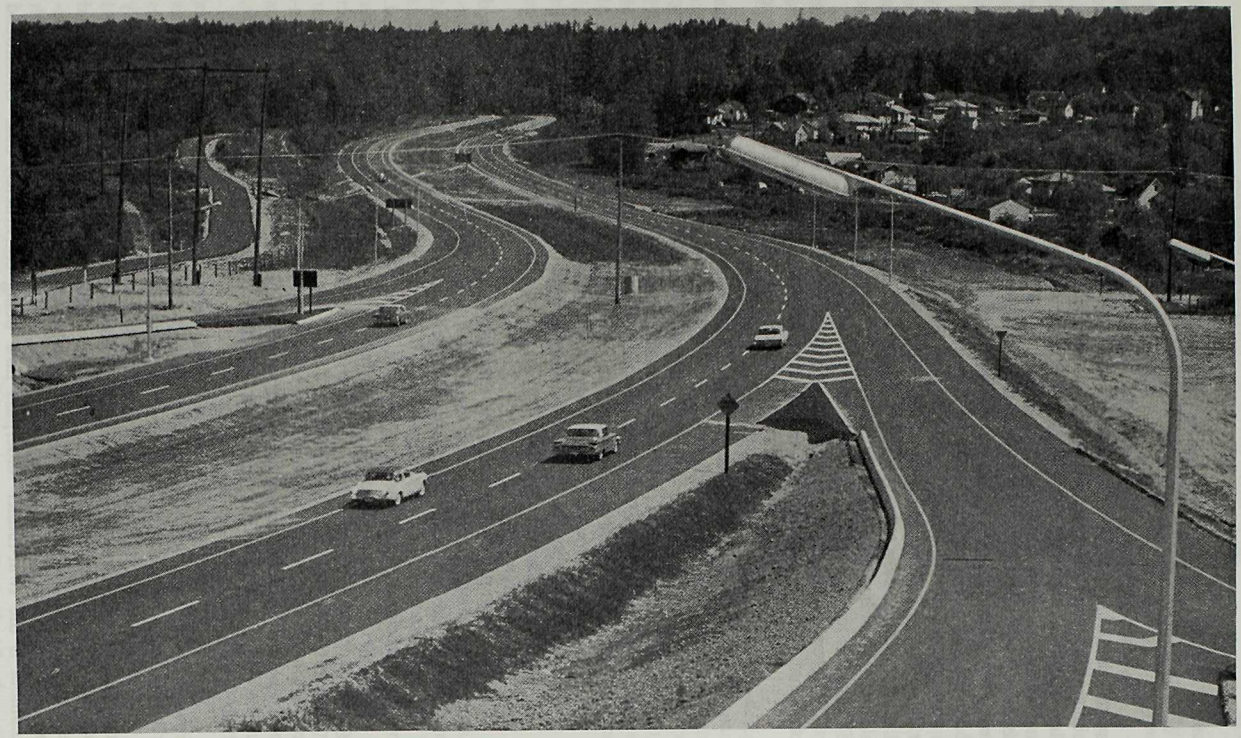
The total length of roads constructed or reconstructed by contract was 173 miles, which is 57 miles more than in the previous year.

The paving programme continued to expand, particularly in regard to bituminous plant-mix pavement, of which 361 miles were laid. This is an increase of 129 miles over that in the previous year. In addition to this 278 miles of road-mix pavement were laid.

Although the total expenditure on bridge construction was only 80 per cent of that in the 1962/63 fiscal year, 55 structures were completed and construction was in progress on 31 others, as compared to 43 and 33 respectively in the year 1962/63. This is due to the reduced average size of the bridges now being built. Structures on the Trans-Canada Highway included in the above are 26 completed and 11 in progress.

The length of final highway-location surveys completed during the year was 259 miles, and the length of office design complete with estimates was 172 miles. Of the latter, 5.6 miles were urban street design.

D. D. GODFREY,
Chief Engineer.



Burnaby Freeway looking west from Willingdon Interchange.

REPORT OF THE SENIOR BRIDGE ENGINEER

The year under review saw a continuation of the heavy programme of bridge construction, there being 55 new or reconstructed structures completed during the year and a further 31 structures under construction at the conclusion of the year. The total gross expenditure of $15,760,000 compares with $19,800,000 expended on bridge construction during 1962/63, when 43 new or reconstructed structures were completed and 33 were under construction, the reduction in average cost of structures being due to the smaller average size of bridge being built now that most of the major bridges required have been built.

Twenty-six of the structures completed this year are Trans-Canada Highway bridges, as are 11 of those under construction at the end of the year. The completion of the latter will bring to a conclusion the present phase of bridge construction on this highway, although planned modernization of certain sections thereof will require still more structures in due time.

Reference to the tabulations appended will give detailed information of the completed structures, and of those under construction but of special interest are

(1) the completion of the major crossing of the Fraser River near Prince George for the relocated Cariboo Highway;
(2) the widening and strengthening of nine bridges on the western end of the Hope–Princeton Highway;
(3) the completion of the many diverse structures required for the Trans-Canada Highway in Burnaby Municipality;
(4) the strengthening of Chemainus and Cowichan River Bridges as part of the programme to bring all bridges on the Vancouver Island section of the Trans-Canada Highway up to fully modern standards; and
(5) the completion of the 624-foot-long Nimpkish River Bridge on the Port McNeill–Beaver Cove Highway in the developing of the North Vancouver Island area.

It is gratifying to report that the experience of the 1961/62 winter showed that the Department's snowsheds on the Rogers Pass Highway fulfilled their important function, the only untoward happening being avalanche overflows at each end of the 1,000-foot-long Lanark Snowshed. The recurrence of such overflows has now been precluded by the construction of high guide-walls at each end of this shed.

Arising out of the increasing need to provide safe passage for pedestrians over high-speed highways, the Bridge Branch was called on to design and construct a pedestrian overpass crossing the Upper Levels Highway in North Vancouver near Pemberton Avenue, and in view of its location it was required that particular attention be paid to æsthetics as well as function in the design. Both these requirements may be said to have been fully complied with in the graceful coiled-spring structure, which is pictured elsewhere in this Report.

The year saw the great Port Mann Bridge, carrying the relocated Trans-Canada Highway over the Fraser River near Vancouver, virtually completed, and this strikingly unique facility will be opened to traffic early in 1964. Further examples of British Columbia pioneering in new bridge-construction ideas are the highly individualistic prestressed concrete bridge now building to carry the relocated Southern Trans-Provincial Highway over the Columbia River near Kinnaird and the unprecedented suspension bridge with prestressed concrete deck under construction over the Peace River near Hudson Hope. Another interesting first for British Columbia is the twin-tunnel underpass now being constructed near Greenwood where the Southern Trans-Provincial Highway passes under the Canadian Pacific

Railway tracks in tunnels driven through a high embankment without interference to railway traffic and without the need to construct the usual costly "shoo-fly" trestle to carry the track during construction. A new technique was developed here which may well have many future applications in like circumstances.

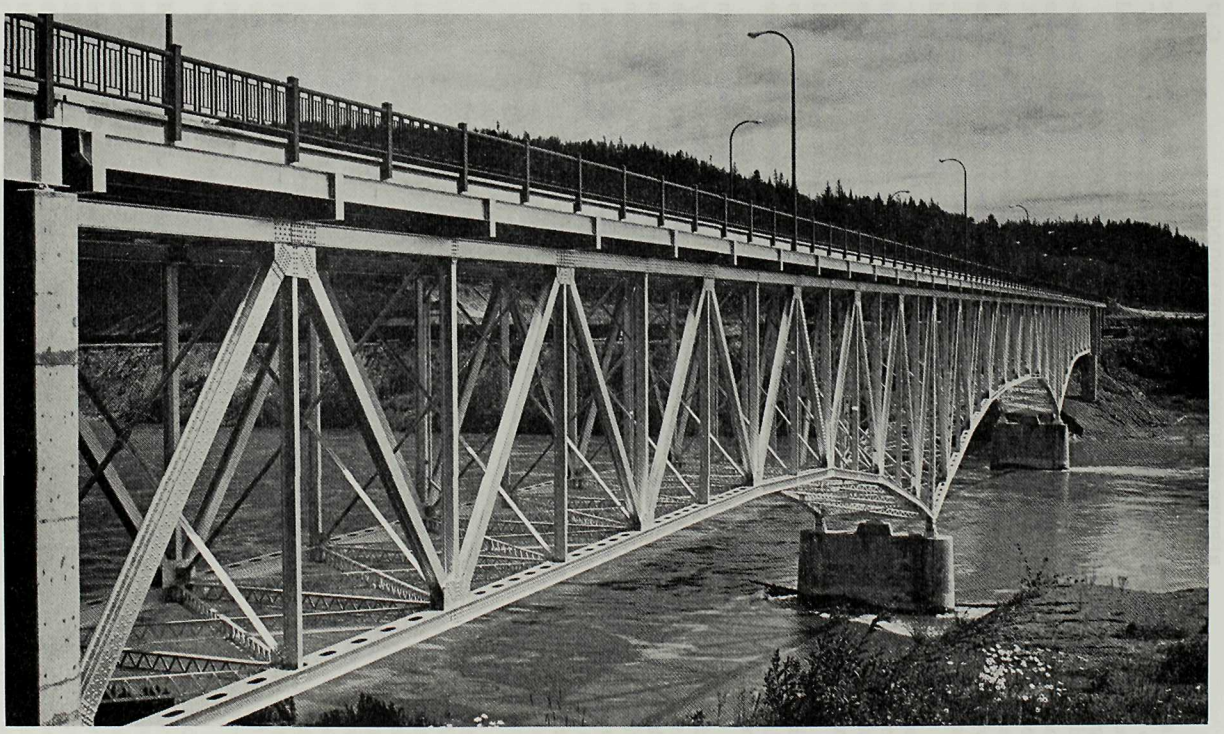
Weather conditions during the year were generally propitious for bridge-construction operations, and apart from the occasional loss of a minor wooden bridge, no damage was suffered from floods to the bridges on the highway system. Soundings were taken at major river crossings, and remedial action taken where evidence of scour appeared. Our district forces showed their usual ability in the work of maintaining the many older timber bridges which have to be kept in service.

Construction materials continued in plentiful supply throughout the year, and keen competition was in evidence among contractors tendering for bridge-construction projects. It speaks well for the contractors of the Province that they are able to meet any demands that the constantly changing bridge-construction technique makes on them.

As in previous years, the services of private consulting engineers were employed during the year to augment the Bridge Engineer's staff in the design and supervision of construction of the large volume of work undertaken for present and future projects.

In line with the Department's road-construction programme, bridge-design activities at the end of the year were directed toward the planning of the many diverse structures needed on the Northern Trans-Provincial Highway, the North Thompson Highway, the Stewart–Cassiar Highway, and the Kootenay–Columbia Highway, as well as important isolated projects, such as replacement of the Taghum Bridge near Nelson and the Fraser River Bridge at Quesnel by modern structures.

In summary, a busy, fruitful year in bridge construction in the Province can be reported, with yet another in prospect.



Fraser River Bridge on the relocated Cariboo Highway 2 miles south of Prince George.
Length, 1,286 feet; width of roadway, 28 feet; two 4-foot sidewalks.

DETAILS OF PRINCIPAL BRIDGES AND FERRY-LANDINGS CONSTRUCTED OR RECONSTRUCTED DURING THE FISCAL YEAR 1963/64

Name	Location	Electoral District	Type, Description of Work, and Remarks
Tahlton Bridge	Telegraph Creek Road	Atlin	123-ft. bridge consisting of one 80-ft. spliced treated timber glulam span *and two 19-ft. untreated timber approach spans, supported on* untreated timber crib piers and abutments, untreated timber deck with a 14-ft. 9-in. roadway.
Tuya Bridge	Telegraph Creek Road	Atlin	254-ft. bridge consisting of two 80-ft. spliced treated timber glulam spans, three 19-ft. untreated and two 15-ft. untreated timber spans, supported on three untreated timber crib piers and three untreated timber pile bents with untreated timber deck and 14-ft. 9-in. roadway.
Boundary Road Overpass	Trans-Canada Highway, Mile 71.75	Burnaby	Four-lane 349-ft. bridge with a two-lane 170-ft. access ramp, consisting of two parallel structures, each comprised of two 49-ft. precast, pretensioned concrete-beam spans, two 72-ft. and one 106-ft. precast, post-tensioned concrete-beam spans, supported on a reinforced-concrete substructure, the piers of which are founded on reinforced-concrete caissons and the abutments on steel H-piles; reinforced-concrete deck with two 35-ft. 8-in. roadways and a 26-ft. 8-inch roadway on the access ramp.
Clydesdale St. Underpass	Trans-Canada Highway, Mile 72.00	Burnaby	305-ft. bridge consisting of three 44-ft. precast, pretensioned concrete box-girder spans, one 73-ft. and one 96-ft. precast, post-tensioned concrete box-girder spans, supported on a reinforced-concrete substructure; asphalt wearing surface with a 36-ft. roadway and two 5-ft. sidewalks.
Deer Lake Underpass	Trans-Canada Highway, Mile 74.86	Burnaby	677-ft. bridge and 100-ft. approach ramp consisting of seven 54-ft. precast, pretensioned concrete-beam spans, one 70-ft. pretensioned box-girder span, one 43-ft. pretensioned box-girder span, and two 93-ft. post-tensioned box-girder spans, supported on reinforced-concrete substructure, all except one pier and one abutment being founded on prestressed concrete piles, with a 64-ft. roadway and two 5-ft. sidewalks.
Sprott St. Underpass	Trans-Canada Highway, Mile 74.38	Burnaby	514-ft. bridge consisting of two 60-ft. and two 80-ft. precast, pretensioned concrete box-girder spans and four 58-ft. precast, pretensioned concrete-beam spans, supported on reinforced-concrete substructure, all except one pier and one abutment being founded on prestressed concrete piles, with a 36-ft. roadway and two 5-ft. sidewalks.
Willingdon St. Underpass	Trans-Canada Highway, Mile 72.72	Burnaby	763-ft. bridge consisting of nine 50-ft. precast, pretensioned concrete-beam spans and four 77-ft. precast, post-tensioned concrete box-girder spans, supported on a reinforced-concrete substructure, the piers of which are founded on prestressed concrete piles, with a 64-ft. roadway and two 5-ft. sidewalks.

DETAILS OF PRINCIPAL BRIDGES AND FERRY-LANDINGS CONSTRUCTED OR RECONSTRUCTED DURING THE FISCAL YEAR 1963/64—*Continued*

Name	Location	Electoral District	Type, Description of Work, and Remarks
P.G.E. Overhead at 100 Mile House	Cariboo Highway	Cariboo	290-ft. bridge consisting of five 50-ft. and one 40-ft. steel-stringer spans, supported on a reinforced-concrete substructure, the piers and one abutment of which are founded on steel H-piles, with reinforced-concrete deck and 40-ft. roadway.
Marshall Creek Bridge	Frontage Road	Chilliwack	56-ft. bridge consisting of two 28-ft. precast concrete-stringer spans, supported on treated timber substructure; asphalt wearing surface with 22-ft. roadway.
No. 3 Road Underpass	Trans-Canada Highway, Mile 120.85	Chilliwack	375-ft. bridge consisting of four 67-ft and two 53-ft. prestressed concrete-stringer spans, supported on a reinforced-concrete substructure, the piers of which are founded on composite timber piles; reinforced-concrete deck with a 28-ft. roadway and one 5-ft. sidewalk.
Nimpkish River Bridge	Port McNeill–Beaver Cove Highway	Comox	624-ft. bridge consisting of one 200-ft. steel truss and six 70-ft. steel-beam spans, supported on reinforced-concrete substructure, piers of which are founded on prestressed concrete piles; reinforced-concrete deck with a 24-ft. roadway.
Chemainus River Bridge	Trans-Canada Highway, Mile 43.57	Cowichan-Newcastle	The strengthening, by demolition of existing deck and redecking with light-weight concrete, of a 253-ft. bridge consisting of one 250-ft. through truss, supported on reinforced-concrete abutments which are founded on untreated timber piles; reinforced-concrete deck with a 24-ft. roadway.
Cowichan River Bridge	Trans-Canada Highway, Mile 35.62	Cowichan-Newcastle	The strengthening, by demolition of existing deck and redecking with light-weight concrete, of a 253-ft. bridge consisting of one 250-ft. through truss supported on reinforced-concrete abutments which are founded on untreated timber piles; reinforced-concrete deck with a 24-ft. roadway.
Carvolth Road Underpass	Trans-Canada Highway, Mile 92.44	Delta	406-ft. bridge consisting of six 54-ft. and two 41-ft. prestressed concrete-stringer spans, supported on a reinforced-concrete substructure, the piers of which are founded on steel H-piles; reinforced-concrete deck with a 26-ft. roadway and one 5-ft. sidewalk.
Clover Valley Road Underpass	Trans-Canada Highway, Mile 89.19	Delta	324-ft. bridge consisting of six 54-ft. prestressed concrete-girder spans, supported on a reinforced-concrete substructure; reinforced-concrete deck with a 26-ft. roadway and one 5-ft. sidewalk.
Fly-over at Hjorth Road	Trans-Canada Highway, Mile 87.37	Delta	372-ft. bridge consisting of seven 53-ft. prestressed concrete-stringer spans and reinforced-concrete substructure; reinforced-concrete deck with a 30-ft. roadway.
Glover Road Underpass	Trans-Canada Highway, Mile 95.77	Delta	300-ft. bridge consisting of six 50-ft. prestressed concrete-stringer spans, supported on a reinforced-concrete substructure founded on treated and untreated timber composite piles; reinforced-concrete deck with a 26-ft. roadway and one 5-ft. sidewalk.

Johnston Road Underpass	Trans-Canada Highway, Mile 85.98	Delta	235-ft. bridge consisting of four 44-ft. and one 58-ft. prestressed concrete-stringer spans, supported on a reinforced-concrete substructure; reinforced-concrete deck with a 40-ft. roadway and one 5-ft. sidewalk.
Latimer Road Underpass	Trans-Canada Highway, Mile 91.26	Delta	325-ft. bridge consisting of six 54-ft. prestressed concrete-stringer spans, supported on a reinforced-concrete substructure, the piers of which are founded on steel H-piles or treated timber piles; reinforced-concrete deck with a 26-ft. roadway and one 5-ft. sidewalk.
Livingstone Road Underpass	Trans-Canada Highway, Mile 96.82	Delta	436-ft. bridge consisting of six 58-ft. and two 44-ft. prestressed concrete-girder spans, supported on a reinforced-concrete substructure, the piers of which are founded on treated and untreated composite timber piles; reinforced-concrete deck with a 26-ft. roadway and one 5-ft. sidewalk.
Pike Road Underpass	Trans-Canada Highway, Mile 87.11	Delta	262-ft. bridge consisting of four 49-ft. and two 33-ft. prestressed concrete-stringer spans, supported on a reinforced-concrete substructure; reinforced-concrete deck with a 26-ft. roadway and one 5-ft. sidewalk.
Hunter Creek Bridge	Trans-Canada Highway, Mile 157.40	Dewdney	177-ft. bridge consisting of one 85-ft. prestressed concrete-girder span and two 46-ft. cast-in-place reinforced-concrete spans, supported on reinforced-concrete substructure; reinforced-concrete deck with a 30-ft. roadway and one 5-ft. sidewalk.
King Edward Ave. Overpass	Trans-Canada Highway, Mile 80.30	Dewdney	Four-lane 93-ft. bridge consisting of two parallel structures, each comprised of one 45-ft. prestressed, post-tensioned reinforced-concrete slab and two 24-ft. reinforced-concrete approach slabs, supported on a reinforced-concrete substructure, founded on prestressed concrete piles, with two 34-ft. 8-in. roadways.
Fraser River Bridge at Prince George	Cariboo Highway	Fort George	1,286-ft. bridge consisting of a continuous steel deck truss comprised of two 301-ft. side spans and one 417-ft. centre span and three 60-ft. and one 72-ft. steel-stringer approach spans, supported on a reinforced-concrete substructure, all piers and abutments of which are founded on steel H-piles; reinforced-concrete deck with a 28-ft. roadway and two 4-ft. sidewalks.
Cedar Creek Bridge	Balfour–Kaslo Highway	Kaslo-Slocan	46-ft. bridge consisting of one steel-stringer span, supported on reinforced-concrete abutments; reinforced-concrete deck with a 30-ft. roadway.
Arrow Creek Bridge	Southern Trans-Provincial Highway	Nelson-Creston	213-ft. bridge consisting of three 70-ft. steel-stringer spans, supported on reinforced-concrete substructure; reinforced-concrete deck with a 28-ft. roadway.
Bayonne Creek Culvert	Southern Trans-Provincial Highway	Nelson-Creston	200-ft. reinforced-concrete arch culvert with a 35-ft. span; reinforced-concrete end walls and wing walls.
C.P.R. Underpass at Creston	Southern Trans-Provincial Highway	Nelson-Creston	45-ft. single-track railway bridge consisting of a plate-girder span; reinforced-concrete substructure with a waterproof concrete deck.
Beatton River Bridge	Rose Prairie Road	North Peace River	390-ft. bridge consisting of two 120-ft. and one 150-ft. welded steel plate-girder spans, supported on a reinforced-concrete substructure, the piers of which are founded on steel H-piles and abutments on treated timber piles; reinforced-concrete deck with a 12-ft. roadway.

DETAILS OF PRINCIPAL BRIDGES AND FERRY-LANDINGS CONSTRUCTED OR RECONSTRUCTED DURING THE FISCAL YEAR 1963/64—*Continued*

Name	Location	Electoral District	Type, Description of Work, and Remarks
Pemberton Pedestrian Overpass	Trans-Canada Highway, Mile 63.93	North Vancouver	Reinforced-concrete pedestrian overpass comprised of a 67-ft. 6-in. main span with helicoidal approach ramps, supported on circular *columns and two abutments.*
Squamish Bridge "L"	Vancouver–Squamish Highway	North Vancouver	103-ft. bridge consisting of one 51-ft. glulam and three 17-ft. treated timber-stringer spans, supported on reinforced-concrete substructure; laminated creosoted timber deck with asphalt wearing surface and 26-ft. roadway.
Lanark Shed Avalanche Guide-walls	Trans-Canada Highway, Mile 505.13	Revelstoke	Reinforced light-weight concrete guide-walls approximately 120-ft. long and 25-ft. high over each end of Lanark Avalanche Shed, extending into earth dykes behind the shed.
C.P.R. Underpass at Kinnaird	Southern Trans-Provincial Highway	Rossland-Trail	140-ft. single-track railway bridge consisting of two 43-ft. and one 52-ft. steel-stringer spans; reinforced-concrete substructure with a waterproofed concrete deck.
Haguelgate Bridge Redecking	Hazelton High Level Road	Skeena (East)	The supply, erection, and field painting of an open-type steel deck for the 460-ft. main span of the existing suspension bridge; redecking of timber approach spans.
Hazelton Overhead Crossing	Northern Trans-Provincial Highway	Skeena (East)	230-ft. bridge consisting of five 46-ft. steel-stringer spans, supported on reinforced-concrete substructure, two piers of which are founded on treated timber piles; reinforced-concrete deck with a 28-ft. roadway.
Mudflat Creek Overhead	Northern Trans-Provincial Highway	Skeena (East)	138-ft. bridge consisting of three 46-ft. steel-stringer spans, supported on reinforced-concrete substructure; reinforced-concrete deck with a 28-ft. roadway.
Furlong Creek Culvert	Terrace–Kitimat Highway	Skeena (West)	Reinforced-concrete box culvert with reinforced-concrete wing walls and aprons; culvert barrel 96 ft. long, 40 ft. wide, and 14 ft. high.
First Ave. Overpass	Trans-Canada Highway, Mile 71.12	Vancouver East	Four-lane bridge consisting of two parallel structures, each 225 ft. long, and comprised of one 38-ft., two 46-ft, and one 54-ft. precast, pretensioned concrete-beam spans and two 20-ft. reinforced-concrete settlement slabs, supported on a reinforced-concrete substructure, with the piers being founded on reinforced-concrete caissons and the abutments on prestressed concrete piles; reinforced-concrete deck with two 35-ft. 8-in. roadways.
G.N.R. Overpass No. 2	Trans-Canada Highway, Mile 71.63	Vancouver East	Four-lane bridge with a two-lane egress ramp, consisting of two structures, one of which is 437 ft. long, comprised of four 47-ft., two 61-ft., and one 103-ft. precast, pretensioned concrete-beam spans and a 20-ft. cast-in-place reinforced-concrete slab, and the other is 391 ft. long, comprised of three 47-ft., two 61-ft., and one 103-ft. precast, pretensioned concrete-beam spans and a 20-ft. cast-in-place reinforced-concrete slab, supported on a reinforced-concrete substructure, all except two abutments and four piers of which are founded on piles; reinforced-concrete deck with two 35-ft. 8-in. roadways and a 26-ft. 8-in. roadway on the egress ramp.

American Creek Bridge	Trans-Canada Highway, Mile 181.4	Yale	The widening and strengthening of a 303-ft. bridge consisting of three 67-ft. and one 100-ft. steel plate-girder spans, supported on reinforced-concrete abutments, with a roadway which was widened from 24 to 28 ft.
Canyon Creek Bridge	Southern Trans-Provincial Highway	Yale	The widening and strengthening of a 50-ft. bridge consisting of a steel-stringer span, supported on reinforced-concrete abutments, with a roadway which was widened from 24 to 42 ft.
Eight Mile Creek Bridge	Southern Trans-Provincial Highway	Yale	The widening and strengthening of a 25-ft. bridge consisting of a steel-stringer span, supported on reinforced-concrete abutments, with a roadway which was widened from 24 to 42 ft.
Eleven Mile Creek Bridge	Southern Trans-Provincial Highway	Yale	The widening and strengthening of a 30-ft. bridge consisting of a steel-stringer span, supported on reinforced-concrete abutments, with a roadway which was widened from 24 to 42 ft.
Hells Gate Structure	Trans-Canada Highway, Mile 201.0	Yale	A reinforced-concrete tilted barrel arch retaining structure with maximum span of approximately 230 ft.
Hope Overhead Crossing	Trans-Canada Highway, Mile 166.26	Yale	210-ft. bridge consisting of three 70-ft. steel-stringer spans, reinforced-concrete substructure, the piers of which are founded on steel H-piles; reinforced-concrete deck with 40-ft. roadway and one 5-ft. sidewalk.
Nicolum Creek Bridge	Southern Trans-Provincial Highway	Yale	The widening and strengthening of a 60-ft. bridge consisting of a steel-stringer span, supported on reinforced-concrete abutments, with a roadway which was widened from 24 to 30 ft.
Nineteen Mile Creek Bridge	Southern Trans-Provincial Highway	Yale	The widening and strengthening of a 25-ft. bridge consisting of a steel-stringer span, supported on reinforced-concrete abutments, with a roadway which was widened from 24 to 32 ft.
Silver Creek Bridge	Trans-Canada Highway, Mile 162.0	Yale	The reconstruction on existing substructure of a 135-ft. bridge consisting of one half-through plate-girder span supported on reinforced-concrete abutments; light-weight reinforced-concrete deck with a 30-ft. roadway.
Skagit River Bridge No. 1	Southern Trans-Provincial Highway	Yale	The widening and strengthening of a 120-ft. bridge consisting of two 30-ft. and one 60-ft. steel-stringer spans, supported on reinforced-concrete substructure, with roadway widened from 24 to 30 ft.
Skagit River Bridge No. 2	Southern Trans-Provincial Highway	Yale	The widening and strengthening of a 129-ft. bridge consisting of two 34-ft. and one 60-ft. steel-stringer spans, supported on a reinforced-concrete substructure, with a roadway widened from 26 to 32 ft.
Skaist Creek Bridge	Southern Trans-Provincial Highway	Yale	The widening and strengthening of a 105-ft. bridge consisting of one 25-ft., one 30-ft., and one 50-ft. steel-stringer spans, supported on a reinforced-concrete substructure, with a roadway widened from 24 to 30 ft.
Two Mile Creek Bridge	Southern Trans-Provincial Highway	Yale	The widening and strengthening of a 60-ft. bridge consisting of a steel-stringer span, supported on reinforced-concrete abutments, with a roadway which was widened from 24 to 42 ft.

DETAILS OF PRINCIPAL BRIDGES AND FERRY-LANDINGS CONSTRUCTED OR RECONSTRUCTED DURING THE FISCAL YEAR 1963/64—*Continued*

Name	Location	Electoral District	Type, Description of Work, and Remarks
Ferry-landings			
Barnston Island Ferry-landing	Ferry operating between Hjorth Road and Barnston Island	Delta	A ferry-landing consisting of eight 17-foot bays of untreated timber trestle ramp with slipway fendering of untreated timber.
Gabriola Island Ferry-landing	Ferry operating between Nanaimo and Gabriola Island	Nanaimo and The Islands	The reconstruction of the existing ferry-landing to provide a fixed pile-driven tower with a 70-ft. ramp, and utilizing pile-driven wing walls and two sets of three 21-pile guide dolphins.
Nanaimo Ferry-landing	Ferry operating between Nanaimo and Gabriola Island	Nanaimo and The Islands	The reconstruction of the existing ferry-landing to provide a floating pontoon-type landing with fixed pile-driven wing walls and three guide dolphins.

DETAILS OF PRINCIPAL BRIDGES AND FERRY-LANDINGS UNDER CONSTRUCTION BUT NOT COMPLETED DURING THE FISCAL YEAR 1963/64

Name	Location	Electoral District	Type, Description of Work, and Remarks
Canal Flate Bridge	Kootenay–Columbia Highway	Columbia	402-ft. bridge consisting of four 100-ft. continuous plate-girder spans, supported on reinforced-concrete substructure, the piers of which are founded on steel H-piles; reinforced-concrete deck with a 28-ft. roadway and one 5-ft. sidewalk.
Fairmont Bridge	Kootenay–Columbia Highway	Columbia	159-ft. bridge consisting of one 30-ft., one 44-ft., and one 84-ft. prestressed concrete-stringer spans, supported on a reinforced-concrete substructure, the piers of which are founded on untreated timber piles and the abutments on treated timber piles; reinforced concrete deck with a 28-ft. roadway.
Fairmont Overhead	Kootenay–Columbia Highway	Columbia	183-ft. bridge consisting of three 61-ft. prestressed concrete-stringer spans, supported on a reinforced-concrete substructure; reinforced-concrete deck with a 28-ft. roadway and one 5-ft. sidewalk.
Yoho Bridge Revisions	Trans-Canada Highway, Mile 674.9	Columbia	The reconstruction on 12-degree curves of the ends of the existing 694-ft. seven-span steel-truss and plate-girder deck bridge with a reinforced-concrete deck and a 26-ft. roadway.
Big Tree Creek Bridge	Island Highway	Comox	105-ft. bridge consisting of one plate-girder span, supported on reinforced-concrete abutments; reinforced-concrete deck with a 40-ft. roadway.
Haslam Creek Bridge	Trans-Canada Highway, Mile 59.0	Cowichan-Newcastle	The strengthening, by demolition of existing deck and redecking with light-weight concrete, of a 135-ft. steel arch bridge, supported on reinforced-concrete abutments which are founded on untreated timber piles; reinforced-concrete deck with a 24-ft. roadway.
Holmes Creek Bridge	Trans-Canada Highway, Mile 37.1	Cowichan-Newcastle	The widening and strengthening of a 33-ft. bridge consisting of a steel-stringer span, supported on reinforced-concrete abutments which are founded on steel H-piles, with a roadway which was widened from 30 to 44 ft.
Koksilah Bridge	Trans-Canada Highway, Mile 34.0	Cowichan-Newcastle	The widening and strengthening of a 185-ft. bridge consisting of one 70-ft., two 40-ft., and one 35-ft. steel-stringer spans, supported on reinforced-concrete abutments and treated timber pile bents, with a roadway which was widened from 24 to 54 ft. and one 5-ft. sidewalk.
Whitehouse Creek Bridge	Trans-Canada Highway, Mile 43.1	Cowichan-Newcastle	The widening and strengthening of a 40-ft. bridge consisting of one steel-stringer span, supported on reinforced-concrete abutments which are founded on timber piles, with a roadway which was widened from 26 to 44 ft.
G.N.R. Overpass	Deas Tunnel Throughway	Delta	Four-lane bridge consisting of two parallel structures, each 350 ft. long and consisting of five 70-ft. steel-stringer spans, supported on reinforced-concrete abutments and pier footings which support structural-steel bents, the piers being founded on treated timber piles; reinforced-concrete deck with two 36-ft. roadways.

DETAILS OF PRINCIPAL BRIDGES AND FERRY-LANDINGS UNDER CONSTRUCTION BUT NOT COMPLETED DURING THE FISCAL YEAR 1963/64—*Continued*

Name	Location	Electoral District	Type, Description of Work, and Remarks
King George VI Highway Underpass	Deas Tunnel Throughway	Delta	Four-lane bridge consisting of two adjacent structures, each 300 ft. long and consisting of four 45-ft. and two 60-ft. prestressed concrete-stringer spans, supported on reinforced-concrete substructure, the piers of which are founded on treated timber piles; reinforced-concrete deck with two 28-ft. roadways and two 5-ft. sidewalks.
Port Mann Bridge	Trans-Canada Highway, Mile 82.18	Delta and Dewdney	6,870-ft. bridge consisting of a 1,200-ft. steel stiffened tied arch span, two 360-ft. steel flanking spans, two 675-ft., four 525-ft., and four 375-ft. three-span continuous steel girders, supported on a reinforced-concrete pile-supported substructure; a 54-ft. roadway and two 4-ft. sidewalks; main and flanking spans have a steel-plate deck with asphalt wearing surface and approach spans have reinforced-concrete deck.
Goldstream Bridge	Trans-Canada Highway, Mile 9.6	Esquimalt	The widening and strengthening of a 66-ft. bridge consisting of a steel-stringer span, supported on reinforced-concrete abutments, with a roadway which was widened from 30 to 32 ft.
Wilkinson Bridge	Trans-Canada Highway, Mile 24.8	Esquimalt	The widening and strengthening of a 217-ft. bridge consisting of one 100-ft. deck truss and four 29-ft. steel-stringer spans, supported on reinforced-concrete substructure, with a roadway which was widened from 26 to 28 ft. and one 3-ft. sidewalk.
Greenwood Underpass	Southern Trans-Provincial Highway	Grand Forks-Greenwood	124-ft. steel- and concrete-lined double-tunnel underpass with concrete headwalls, concrete lining and curbs, two 13-ft. roadways, and two 3-ft. sidewalks.
Lemieux Creek Bridge	North Thompson Highway	Kamloops	60-ft. bridge consisting of one prestressed concrete-stringer span, supported on reinforced-concrete abutments, which are founded on timber piles; reinforced-concrete deck with a 32-ft. roadway and one 5-ft. sidewalk.
Lemon Creek Bridge	Slocan Highway	Kaslo-Slocan	105-ft. bridge consisting of two 52-ft. steel-stringer spans, supported on reinforced-concrete substructure; reinforced-concrete deck with a 32-ft. roadway.
Mamquam Blind Channel Bridge	Britannia Beach–Squamish Highway	Lillooet	192-ft. bridge consisting of one 130-ft. welded plate-girder span and two 30-ft. steel-beam spans, supported on reinforced-concrete abutments, the piers and one abutment of which are founded on timber piles; reinforced-concrete deck with a 28-ft. roadway and two 5-ft. sidewalks.
Peace River Bridge (at Hudson Hope)	Chetwynd–Hudson Hope Highway	North Peace River and South Peace River	1,079-ft. bridge consisting of one 680-ft. precast, prestressed concrete suspension span, one 192-ft. and one 207-ft. unloaded backstays, reinforced-concrete substructure, reinforced-concrete towers with galvanized-steel suspension cables; concrete wearing surface with a 28-ft. roadway.
Second Narrows Bridge Median Barrier	Trans-Canada Highway	North Vancouver	The removal of existing concrete median curbs and replacement with 3,587 ft. of galvanized steel median barrier and reinforced-concrete median barriers at light standards.

Stuart River Bridge	Vanderhoof–Fort St. James Road	Omineca (East)	530-ft. bridge consisting of two 200-ft. treated timber deck trusses and two 60-ft. glulam beam spans; reinforced-concrete substructure, two piers of which are founded on steel H-piles.
Sheraton Overhead	Northern Trans-Provincial Highway	Omineca (West)	318-ft. bridge consisting of six 53-ft. steel-stringer spans, supported on reinforced-concrete substructure, the piers of which are founded on treated timber piles; reinforced-concrete deck with a 28-ft. roadway.
Columbia River Bridge at Kinnaird	Southern Trans-Provincial Highway	Rossland-Trail	1,196-ft. bridge consisting of fiv 150-ft. prestressed concrete suspended spans, supported by two reinforced-concrete abutments and four reinforced-concrete hollow-girder sections 114 ft. long, which are part of four reinforced-concrete pier frames on reinforced-concrete pier bases, which are founded on prestressed concrete piles; reinforced-concrete deck with a 28-ft. roadway and two 5-ft. sidewalks.
Salmon River Bridge	Trans-Canada Highway, Mile 413.0	Salmon Arm	The widening and strengthening of a 96-ft. bridge consisting of three 32-ft. steel-stringer spans, supported on reinforced-concrete abutments founded on timber piles and treated timber pile bents, with a roadway which was widened from 26 to 30 ft.
Tulameen River Bridge	Princeton–Merritt Highway	Similkameen	225-ft. bridge consisting of one stiffened tied arch span, supported on reinforced-concrete abutments; reinforced-concrete deck with a 28-ft. roadway and two 5-ft. sidewalks.
Boulder Creek Bridge No. 9	Northern Trans-Provincial Highway	Skeena (East)	187-ft. bridge consisting of two 53-ft. and one 80-ft. steel-stringer spans, supported on reinforced-concrete substructure, the piers of which are founded on untreated timber piles; reinforced-concrete deck with a 28-ft. roadway.
Copper River Bridge	Northern Trans-Provincial Highway	Skeena (West)	396-ft. bridge consisting of a three-span continuous plate girder with three 113-ft. spans and two 28-ft. cast-in-place reinforced-concrete spans, supported on reinforced-concrete substructure founded on steel H-piles; 28-ft. roadway and two 3-ft. sidewalks.
Hatchery Creek Bridge	Terrace–Kitimat Highway	Skeena (West)	60-ft. bridge consisting of one steel-stringer span, supported on reinforced-concrete abutments; reinforced-concrete deck with a 52-ft. roadway and one 4-ft. sidewalk.
Williams Creek Bridge	Terrace–Kitimat Highway	Skeena (West)	154-ft. bridge consisting of one 150-ft. through truss, supported on reinforced-concrete abutments which are founded on treated timber piles; concrete deck with a 28-ft. roadway and one 5-ft. sidewalk.
Alexandra North Arch	Trans-Canada Highway, Mile 196.38	Yale	A reinforced-concrete barrel arch structure with 140-ft. span; 44-ft. roadway between guard-walls.
Ferry-landings			
Little River Ferry-landing	For ferry service between Comox and Westview	Comox	A ferry-landing consisting of a hydraulically dredged sand-fill causeway, with a select material filter blanket and armour rock. The landing consists of a 90-ft. ramp supported by fixed pile-driven towers and bulwarked with a fixed pile-driven wing wall and three 21-pile guide dolphins.

J. ALTON,
Senior Bridge Engineer.

Southern Trans-Provincial Highway, Christina Lake–Kinnaird section.

REPORT OF THE DIRECTOR OF CONSTRUCTION

ROAD CONSTRUCTION (CONTRACTS)

The mileage of highway completed by contract on all highways was 173.1 miles, of which 6.6 miles were multi-lane (four lanes). The Trans-Canada Highway construction and reconstruction included in these mileages was 13.1 miles (5.1 miles being multi-lane).

Grading excavation in all contracts totalled 19,578,061 cubic yards of solid rock and other materials. Included in this amount were 3,682,636 cubic yards for the Trans-Canada Highway.

An important connection in the Provincial highway system was completed this year—namely, the Salmo–Creston section of the Southern Trans-Provincial Highway (length, 41.8 miles). Construction has been in progress since 1956. The elevation of 5,819 feet on this section is the highest road elevation in British Columbia. Paving was completed on 28.9 miles and base processing on an additional 3.8 miles.

Construction on the Trans-Canada Highway multi-lane section (Route No. 401), from West Vancouver to Agassiz Junction, has been completed (75.9 miles). Paving is virtually completed, except on the section from Port Mann Bridge to Springbrook Road (12.1 miles), which is in progress. The two road contracts here include portland cement base stabilization throughout.

All bridges are completed except the Port Mann Bridge across the Fraser River, which is scheduled to open next summer.

Construction progress to date between Tabor Lake and Lamming Mills on the Northern Trans-Provincial Highway east of Prince George is as follows: Grading completed, 27.6 miles; clearing and grubbing completed, 34.7 miles; and not started, 49.6 miles (totalling 111.9 miles). Completion of this section will bridge the gap between Prince George and McBride. However, all of Route No. 16 from Lamming Mills to the Alberta Border (95 miles) is yet to be reconstructed, as well as from Tabor Lake west to the Fraser River near Prince George (12 miles). The section from Tête Jaune to the Alberta Boundary (51 miles) is proposed to be started next year.

A start has been made on the reconstruction of the Chetwynd–Hudson Hope route to provide direct access to the Peace River dam. A contract is in progress from Hudson Hope south, 12.67 miles.

On the North Thompson Highway the section from Little Fort to Black Pool (Project No. 1279) is almost completed and partly base-processed. This practically completes Route No. 5 from Kamloops to Vavenby to a fair standard (94 miles). Project No. 1361, Vavenby to MacMurphy (14.80 miles), has been started. The remaining distance to Tête Jaune (103 miles) is yet to be reconstructed, and it is proposed to award contracts on this section next year.

Progress to date on the Stewart–Dease Lake section of the Stewart–Watson Lake (Cassiar) Highway is as follows: Grading completed to Mile 26 (although partly substandard, day labour); Mile 26 to Mile 58, 81 per cent completed; Mile 58 to Mile 147, to be started next year; Mile 147 to Mile 187, 93 per cent completed; Mile 187 to Mile 269, completed. The equivalent completed mileage from Stewart to Mile 260 is 171 miles. The existing road from Dease Lake to Cassiar Junction, 55 miles, is substandard and requires reconstruction. The remaining 77 miles to the Alaska Highway at Mile 401 is a fair standard mining-road.

A summary of the progress to date of other major areas of construction and reconstruction, by contract, is as follows: Sheep Lake–Rossland Cut-off, completed

11.1 miles (equivalent), in total 17.45 miles; Fraser Canyon, Trans-Canada Highway (three tunnel contracts), completed 6.14 miles, in total, 6.64 miles; Bloedel to Sayward, Island Highway (two contracts), completed 23.58 miles, in total, 30.62 miles; Terrace to Sheraton on Highway No. 16 west of Prince George (five contracts, 1962 and later), completed 24.82 miles, in total, 34.67 miles; Skookumchuck to Radium, Kootenay–Columbia Highway (four contracts, 1962), completed 38 miles, in total, 44.05 miles; east approach to Fraser River Bridge at Prince George (Prince George By-pass), completed 5.59 miles, in total, 6.43 miles.

During the fiscal year, quantities in road-construction contracts were as follows:—

Solid rock	cu. yd.	4,444,700[1]
Other materials	cu. yd.	15,133,361[1]
Clearing and grubbing	ac.	2,571
Large culverts and cattle-passes (structural-steel plate)	lin. ft.	3,675
Other culverts (all types), 10 to 72 inches in diameter	lin. ft.	94,801
Concrete for tunnels, retaining-walls, and drainage structures	cu. yd.	23,904
Foundation excavation, all materials	cu. yd.	80,169
Riprap (loose and hand-laid)	cu. yd.	22,573
Fencing	rods	16,223
Gates		66
Guard-rail (steel and reinforced concrete)	lin. ft.	29,106
Two-lane tunnel excavation (not included in above grading quantities)	lin. ft.	2,074
Gravel (base and surfacing)—		
Pit-run and 3-inch	tons	2,861,462
Crushed (¾- to 2-inch)	tons	1,512,431

[1] Trans-Canada Highway quantities included were 1,144,676 and 2,537,960 cubic yards respectively.

PROGRESS OF HIGHWAY-CONSTRUCTION AND MISCELLANEOUS CONTRACTS DURING THE FISCAL YEAR 1963/64

Project No.	Highway and Section	Total Length (Miles)	Miles Completed Present Fiscal Year	Miles Completed to Date	Remarks	Per Cent Completed to Date
	TRANS-CANADA HIGHWAY					
	(a) Continuing Contracts Let before 1963/64					
885	Vancouver–Fraser River, Blue Mountain Road–Port Mann Bridge (Contract No. 2)	2.25*	0.07*	2.25*	Project completed (for connections *see* Other Highways)	100
885	Vancouver–Fraser River, Burnaby Lake–Blue Mountain Road (Contract No. 3)	4.07*	0.08*	4.07*	Project completed (for connections *see* Other Highways)	100
885	Vancouver–Fraser River, Carlton Ave.–Burnaby Lake (Contract No. 4)	3.22*	0.39*	3.22*	Project completed (for connections *see* Other Highways)	100
885	Vancouver–Fraser River, Cassiar St.–Carlton Ave. (Contract No. 5)	1.60*	0.11*	1.60*	Project completed (for connections *see* Other Highways)	100
1036	Mount Lehman Road–Springbrook Road	10.32*	0.31*	10.32*	Project completed (for connections *see* Other Highways)	100
1123	Halls Prairie Road–Springbrook Road	6.97*	1.67*	6.06*	Work continuing (for connections *see* Other Highways	87
1131	Yale–Bell Crossing	1.44	1.00	1.44	Work continuing (includes tunnel) (*See also* 1963 extension)	97
1186	Abbotsford–Vedder River	10.64	0.74	10.64	Project completed (two lanes being added to existing two lanes) (for connections *see* Other Highways)	100
1187	Port Mann Bridge–Halls Prairie Road	5.13*	2.82*	5.13*	Project completed (for connections *see* Other Highways)	100
1210	Hedstrom Hill–Hope	1.40	0.29	1.40	Project completed	100
1258	Alexandra north	2.05	1.33	1.72	Work continuing (includes tunnel)	82
1260	China Bar–Hells Gate	2.66	1.99	2.55	Work continuing (includes tunnel)	96
1294	Yoho Bridge approaches	0.64	0.20	0.30	Work continuing	47
	(b) Contracts Let, 1963/64					
1131	Extension (Yale–Bell Crossing)	0.49	0.43	0.43	Work continuing	97
1340	Lighting at interchanges (Springbrook Road–Mount Lehman Road and Abbotsford–Vedder sections)	.....	.....	.....	Project completed	100
1352	Lighting at interchanges (Vancouver–Fraser River, Mile 75.58 to Mile 81.91 (Contract No. 1))	.....	.....	.....	Project completed	100
1352	Lighting at Interchanges (Vancouver–Fraser River, Mile 70.77 to Mile 75.88 (Contract No. 2))	.....	.....	.....	Work continuing	95
1354	Highway lighting at junction of Highways Nos. 1 and 3 (Hope)	.....	.....	.....	Project completed	100
1356	Chase By-pass	1.90	1.67	1.67	Work continuing	88
	Total miles, contracts let, Trans-Canada Highway, 1963/64	2.39				
			5.14*			
			7.96			
	Total miles built by contract, Trans-Canada Highway, 1963/64	.....	13.10			

* Multi-lane (four lanes or more).

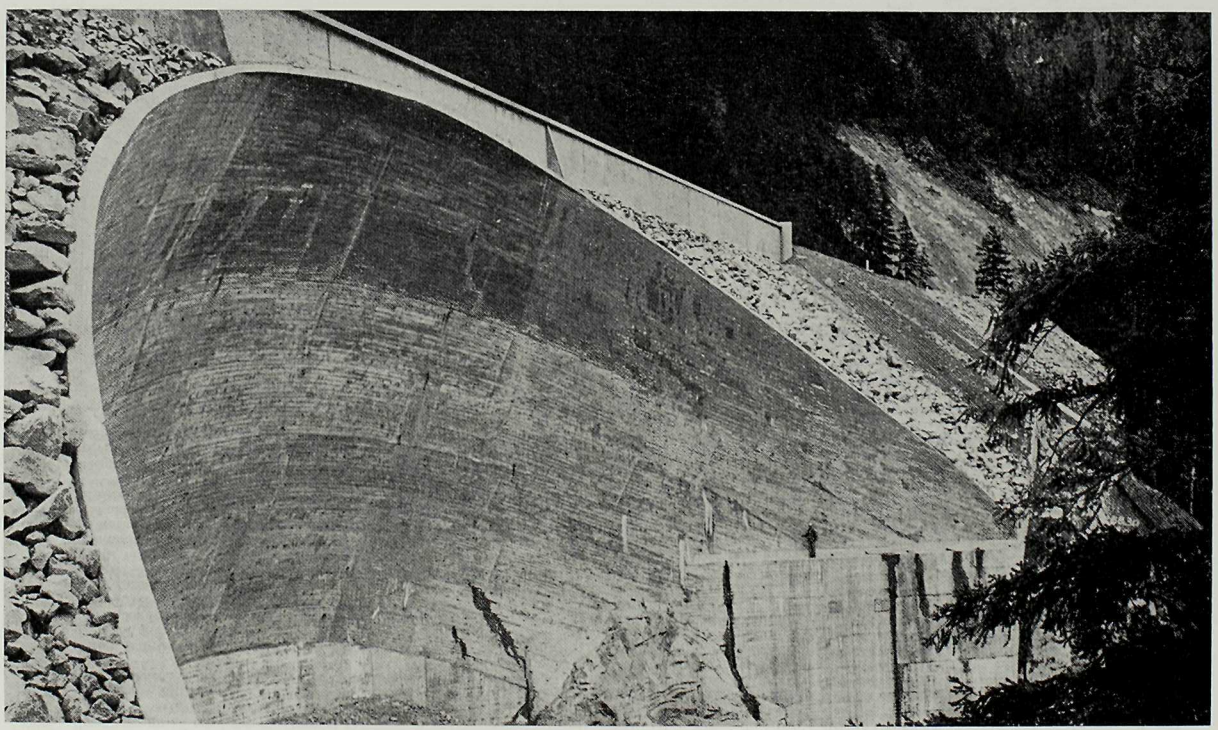
PROGRESS OF HIGHWAY-CONSTRUCTION AND MISCELLANEOUS CONTRACTS DURING THE FISCAL YEAR 1963/64—*Continued*

Project No.	Highway and Section	Total Length (Miles)	Miles Completed Present Fiscal Year	Miles Completed to Date	Remarks	Per Cent Completed to Date
	OTHER HIGHWAYS					
	(*a*) *Continuing Contracts Let before 1963/64*					
779	Lamming Mills–West Twin Creek extension, Northern Trans-Provincial Highway	0.46	0.03	0.46	Project completed	100
885	*Interchanges and connections to Trans-Canada Highway and Lougheed* Highway revision at Maillardville (Contract No. 2)	2.58	0.08	2.58	Project completed (*see also* Trans-Canada Highway)	100
885	Interchanges and connections to Trans-Canada Highway (Contract No. 3)	4.31	0.09	4.31	Project completed (*see also* Trans-Canada Highway)	100
885	Interchanges and connections to Trans-Canada Highway (Contract No. 4)	4.42	0.53	4.42	Project completed (*see also* Trans-Canada Highway)	100
885	Interchanges and connections to Trans Canada Highway (Contract No. 5)	2.70	0.19	2.70	Project completed (*see also* Trans-Canada Highway)	100
908	Crowsnest–Summit Lake, Southern Trans-Provincial Highway	1.33	1.11	1.24	Work continuing	93
1036	Interchanges and connections to Trans-Canada Highway	4.78	0.14	4.78	Project completed (*see also* Trans-Canada Highway)	100
1039	Bear Pass extension, Stewart–Cassiar Highway	3.13	0.44	3.13	Project completed	100
1095	Summit Lake to junction with Highway No. 6 (Section 2), Southern Trans-Provincial Highway	10.68	0.21	10.68	Project completed	100
1100	Summit Lake–Blazed Creek, Southern Trans-Provincial Highway	12.87	2.45	12.87	Project completed	100
1123	Interchanges and connections to Trans-Canada Highway	10.44	2.50	9.08	Work continuing (*see also* Trans-Canada Highway)	87
1138	Strohn Creek–Bell Irving River, Stewart–Cassiar Highway	31.87	13.38	28.04	Work continuing	88
1186	Connections to Trans-Canada Highway	14.64	1.02	14.64	Project completed (*see also* Trans-Canada Highway)	100
1187	Interchanges and connections to Trans-Canada Highway	11.53	6.34	11.53	Project completed (*see also* Trans-Canada Highway)	100
1197	Terrace–Lakelse, Kitimat Highway	11.93	1.06	11.93	Project completed	100
1214	*Eddontenajon Lake–Burrage River, Stewart–Cassiar Highway*	40.12	21.66	38.11	Work continuing	95
1215	Menzies Bay–Roberts Lake, Island (Sayward) Highway	15.27	5.96	10.69	Work continuing	70
1216	Roberts Lake–Sayward, Island (Sayward) Highway	15.35	7.06	12.89	Work continuing	76
1257	Clearing and grubbing, Rossland–Sheep Lake Cut-off (Sections 2 and 3)	.....	.....	.....	Project completed	100
1269	G.N.R. Overpass approach embankments, Deas Tunnel Throughway	0.41*	0.02*	0.41*	Project completed	100
1279	Little Fort–Black Pool, North Thompson Highway	10.83	8.12	10.83	Work continuing (*see also* 1963 extension)	95
1283	Windermere–Dutch Creek, Kootenay–Columbia Highway	12.83	6.42	12.83	Project completed	100
1285	Rossland–Sheep Lake Cut-off (Section 2)	6.31	3.28	3.28	Work continuing	52
1286	*Tibbets Creek–Priestly Overhead, Northern Trans-Provincial Highway*	*6.21*	*2.98*	*5.65*	*Work continuing*	91
1287	Canal Flats–Skookumchuck, Kootenay–Columbia Highway	15.44	14.20	14.82	Work continuing	96
1288	Lot 5181–Usk, Northern Trans-Provincial Highway	8.07	6.86	8.07	Project completd, except base process	97
1289	Perow–Lot 1167, Northern Trans-Provincial Highway	9.46	6.62	7.47	Work continuing	79
1290	Crescent Spur–West Twin Creek, Northern Trans-Provincial Highway	12.39	3.84	3.96	Work continuing	32
1291	Copper (Zymoetz) River Bridge approaches, Northern Trans-Provincial	3.16	2.02	3.16	Project completed	100

1337	Dutch Creek–Canal Flats, Kootenay–Columbia Highway	12.50	8.00	8.25	Work continuing	66
1338	Sinclair Canyon–Lot 8208, Kootenay–Columbia Highway	3.28	2.10	2.10	Work continuing	64
	Radium Junction–Kootenay Park Gate, Highway No. 93	0.75	0.48	0.48	Work continuing	64
	Connections to the above	0.50	0.32	0.32	Work continuing	64
1341	Rossland–Sheep Lake Cut-off (Section 3)	6.05	2.78	2.78	Work continuing	46
	(b) Contracts Let, 1963/64					
1279	Extension, Little Fort–Black Pool, North Thompson Highway	1.22	0.62	0.62	Work continuing	95
1282	Gravel-crushing, miscellaneous sites, Squamish–Alta Lake Highway	-----	-----	-----	For day-labour construction, Cheekeye–Pemberton	-----
1284	Bolivar Road–Whitehouse Corner, Highway Route No. 1 (Arterial No. 2R, Surrey)	1.60*	1.44*	1.44*	Work continuing (includes curb and gutter and plant-mix paving)	90
1292	Osoyoos Junction west (and extension), Richter Pass Highway	4.76	1.95	1.95	Work continuing	41
1355	Long Harbour–Scott Road Junction, Long Harbour–Vesuvius Road (Saltspring Island)	2.67	2.67	2.67	Project completed	100
1357	Lot 1944–Fraser River, Cariboo Highway (Prince George By-pass)	6.43	5.59	5.59	Work continuing	87
1358	Mile 183 to Mile 164, John Hart Highway	18.77	3.94	3.94	Work continuing	21
1361	Vavenby–McMurphy, North Thompson Highway	14.80	5.48	5.48	Work continuing	37
1363	Clearing and burning deleterious material from Lakelse Lake	-----	-----	-----	Work continuing	-----
1379	Mudflat Creek Overhead–Seaton, Northern Trans-Provincial Highway	7.77	0.47	0.47	Work continuing	6
1382	Dome Creek–Crescent Spur (Section 1), Northern Trans-Provincial Highway	10.04	1.81	1.81	Work continuing	18
1377	Hudson Hope–Chetwynd (Section 1), Hudson Hope–Chetwynd Highway	12.67	1.01	1.01	Work continuing	8
1389	Prince George Pulp-mill Road	3.15	0.38	0.38	Work continuing	12
B-422	Greenwood Underpass and approaches, Southern Trans-Provincial Highway	0.91	0.32	0.32	Work continuing (bridge contract includes road approaches)	35
B-439	Tulameen River Bridge and approaches, Princeton–Kamloops Highway No. 5 (*Princeton By-pass*)	1.27	1.27	1.27	Work continuing (bridge contract includes approaches, plant-mix paving, curb and gutter) (the approach roads are completed)	-----
B-446	100 Mile Overhead and approaches, Cariboo Highway	0.80	0.80	0.80	Project completed (bridge contract included road approaches)	100
-----	Construction of power-line near Cache Creek (3.3 miles)	-----	-----	-----	Project completed	100
-----	Construction of power-line near Nelway (2.65 miles)	-----	-----	-----	Project completed	100
-----	Lighting of Thompson River Bridge, Ashcroft	-----	-----	-----	Project completed	100
		1.60*				
		85.26				
	Total miles, contracts let, other highways, 1963/64	86.86				
			1.46*			
			158.58			
	Total miles built by contract, other highways, 1963/64	-----	160.04			
		1.60*				
		87.65				
	Total miles, contracts let, all highways, 1963/64	89.25				
			6.60*			
			166.54			
	Total miles built by contract, all highways, 1963/64	-----	173.14			

* Multi-lane (four lanes or more).

E. C. WEBSTER,
Director of Construction.



Hells Gate structure, Mile 201 on the Trans-Canada Highway, 7 miles south of Boston Bar. Tilted barrel arch retaining structure; span, 230 feet.

REPORT OF THE SENIOR PAVING ENGINEER

GENERAL

Progress of work on the paving programme this year was delayed by adverse weather during the summer and poor distribution of work load within the paving industry. Fortunately, a spell of fine weather in September allowed contractors to make good progress on most jobs and bring a number to final completion, for a total length of 335.33 miles of hot plant-mixed pavement, of which 25.41 miles were four-lane construction. Bidding for contract paving work was very competitive, with resulting low prices. Some contractors were much more successful than others in submitting low bids and obtaining work. As a result, the successful bidders tended to be overloaded with work, while other contractors had idle plants within the Province. This uneven distribution of work load in relation to available plant capacity reduced the possible total production of asphalt mix and pavement construction.

BASE STRENGTHENING AND HOT-MIX ASPHALT-PAVING CONSTRUCTION

Eight continuing projects were finalized. Although Contract S-6662 (Prince Rupert sections) was substantially completed in 1963, the project was continued into the 1964/65 season to cover sand-sealing of the pavement to exclude water. Twenty-six new paving projects were started, of which 13 were completed during the year and 13 projects were carried over to 1964/65. Very poor weather from October onwards prevented completion of paving on Burnaby Freeway, East Hastings Street, and Marine Drive in West Vancouver, but fair spring weather permitted substantial completion of paving on the west end of Burnaby Freeway by the end of March, 1964. On Project S-0563 (Marine Drive, West Vancouver) an experimental open-graded carpet-coat was laid with the intention of sealing the old pavement and at the same time reducing the glare from reflected headlights on rainy nights. This surface proved hard to lay and joint in cold weather, and an attempt to complete the project under unfavourable conditions so that the road could be declassified resulted in some surface failures which had to be corrected the following summer.

No cement-treated base was constructed this year on paving projects, although it was done on two grading projects, Nos. 1123 and 1187. However, base strengthening with asphalt concrete was done on several projects, and granular base strengthening was included in 19 of the 26 new paving contracts, so that this type of work may be regarded as the rule rather than the exception now.

SURFACE TREATMENTS

Sand-seal surface treatment was performed between Pouce Coupe and the Alberta Boundary and on the Wasa–Fort Steele Road, for a total distance of approximately 27.4 miles. A trial 1-mile section of slurry seal was laid on Metchosin Road for observation. Seal-coat chips were crushed and stockpiled on the Northern Trans-Provincial Highway west of Prince George (Project S-7163) in readiness for chip-sealing work planned for 1964.

DEPARTMENTAL PULVIMIXERS

Once again the pulvi-mixer crew stationed in Region 4 was handicapped by bad weather, mixing and laying only 25.35 miles during the season. However, the

second crew, working in Regions 2 and 3 where weather was more favourable, succeeded in remixing approximately 17 miles of roadway and mixed 41.41 miles of new surface, for a total of approximately 58.41 miles of pulvi-mix, in addition to the 15.4 miles of sand-sealing which this crew completed between Wasa and Fort Steele. Approximately $74,000 was allocated to maintenance districts for road mixing by district forces. During the winter a policy decision was taken to disband the pulvimix crew normally allocated to Region 4 and to distribute the equipment to maintenance districts.

IN-SERVICE TRAINING

Annual proficiency examinations were held as usual in March, 1963, but little in-service training of paving personnel was done this year as those retained over the winter were dispersed for employment in other branches, such as grade and bridge construction.

PAVEMENT BURNER

In the spring the District Superintendent at Nanaimo used the pavement burner to remove excess asphalt from patches of pavement on the Island Highway and Trans-Canada Highway between Nanoose and Ladysmith. Otherwise no pavement in the Province required burning. In the Fort George District an attempt was made to use the burner for drying gravel in place on the road prior to pulvimixing, but this use of the burner proved too costly for the results obtained.

DEVELOPMENTS AND OTHER ACTIVITIES

Reorganization

On October 1, 1963, the Paving Section of the Construction Branch was detached from the Construction Branch and established once again as an independent branch, with the Senior Paving Engineer reporting directly to the Chief Engineer.

Specification Revisions

Bituminous Materials for Highway Use

A meeting was held in December, 1963, with representatives of the various oil companies supplying asphalt materials to the Province of British Columbia to discuss revisions to Specification Section 311, "Bituminous Materials for Highway Use." The meeting was also attended by observers from the Department of Highways of Alberta and Saskatchewan. As a result of this preliminary meeting and further discussions and correspondence, a revised and advanced specification was prepared in which asphalt cements and liquid asphalts are now described in terms of fundamental units of viscosity. A revised specification was issued, effective March 1, 1964.

Bituminous-concrete Paving

In January, 1964, a meeting was held with the Heavy Construction Association of British Columbia to discuss provisions for a revision of Standard Specification No. 223, "Bituminous Concrete Paving." The meeting was characterized by a spirit of goodwill and co-operation in an endeavour to improve the standard and control of contract paving work in as fair a manner as possible, and several valuable suggestions and contributions were made by representatives of the association. The revised specification was issued March 1, 1964.

Granular Surfacing—Base and Sub-base

A draft specification for surfacing, base and sub-base, was prepared in co-operation with the Director of Construction, Director of Location, and Senior Materials Engineer with a view to consolidating Specification Section 202, " Crushed Granular Base," and Section 227, " Select Granular Base." This draft was still under revision at the end of the fiscal year.

Special Design

An extensive programme of testing and design was undertaken by the Branch in the spring to produce asphalt mixtures meeting the special design requirements specified by the consulting engineers for Port Mann Bridge deck.

Preliminary Design Work and Testing

Preliminary design and testing work was carried out in all regions to ascertain suitability of various aggregate sources which might be used for base and pavement construction in 1964 paving projects. This preliminary work is considered valuable in reducing the contractor's risk when bidding for work and considerably assists in the planning of projects and preparation of contract provisions. Concurrent with this work, tests were carried out in Nelson and Prince George to evaluate the different coating and stripping-resistant characteristics of asphalts from various crude sources when combined with aggregates under test. Preliminary results from these tests indicated that polar characteristics of asphalts may have a significant bearing on the stripping of asphalt from various aggregates and the life of pavements. Further tests may indicate a need for a change in the present methods of evaluating bids for the supply of asphalt to various projects. The preliminary testing work was also used for in-service training of future laboratory technicians to be employed on project work.

Senior Paving Engineer

During the year the Senior Paving Engineer visited Seattle and Tacoma to study new pavement types and paving techniques. The use of electronic screed controls was observed and discussed with engineers and contractors. Hot-mixed seal-coat pavements were studied, leading to the trial use of open-graded carpet-coat construction on Marine Drive, West Vancouver.

The Senior Paving Engineer also attended the annual general meeting of the Canadian Technical Asphalt Association, at which he was elected second vice-president; attended a meeting of the Committee on Road Materials of the Canadian Government Specification Board to discuss revisions to bituminous-materials specifications; and attended the technical sessions of the annual general meeting of the Association of Asphalt Paving Technologists, gaining information of immediate value concerning electronic paver controls and design of slurry seals.

MATERIALS REMOVED, USED, OR SUPPLIED BY CONTRACT

Excavation and base construction—		
Common excavation	cu. yd.	34,911
Trench	cu. yd.	4,968
Blending and blanket sand	tons	31,569
Select granular base and pit-run	tons	328,757
1¼-inch base gravel	tons	11,599
¾-inch base gravel	tons	869,049
Base processing	sq. yd.	713,193
¾-inch shoulder gravel	tons	290,373
Asphaltic concrete—		
Hot mix levelling course	tons	34,369
Hot mix f.o.b. the plant	tons	9,667
Hot mix, Type A	tons	259,101
Hot mix, Type B	tons	717,697
Hot mix, Type C	tons	5,757
Asphalt curb	lin. ft.	128,293
Asphaltic materials—		
A.C.	tons	55,507
R.C.	gal.	123,261
M.C.	gal.	2,960,369
S.C.	gal.	24,006
R.S.	gal.	38,526
S.S.	gal.	12,084
Concrete work—		
Concrete curb and gutter	lin. ft.	14,475
Precast light reflecting curb	lin. ft.	20,075
Precast no-post guard-rail	lin. ft.	6,595
Drainage—		
Highway drainage basins installed		110
Standard catch basins installed		44
Standard manholes installed		2
8-inch corrugated iron pipe installed	lin. ft.	4,064

PAVING PROGRAMME FOR THE FISCAL YEAR 1963/64

PLANT-MIX PAVING CONTRACTS

Project No.	Highway and Section	Total Length (Miles)	Miles Completed Present Fiscal Year	Miles Completed to Date	Remarks
	TRANS-CANADA HIGHWAY				
	(a) Continuing Contracts Let before 1963/64				
1294	Yoho Bridge approaches	0.64			Work continuing (road contract includes plant-mix paving).
S-8462	Springbrook Road–Mount Lehman Road	10.32*	2.39*	10.32*	Project completed (for connections *see* Other Highways).
S-8762	Fraser Canyon sections—				
	Anderson Creek Bridge	0.31	0.16	0.16	Project completed (remainder of this contract shown in last year's Report).
	Hope Intersection	0.38	0.38	0.38	One lift only (*see also* Project S-8363).
	(b) Contracts Let, 1963/64				
S-8162	Vancouver–Fraser River—Sections 4 and 5 (Cassiar St. to Burnaby Lake)	4.82*	4.82*	4.82*	Project completed (for connections *see* Other Highways).
S-8262	Vancouver–Fraser River—Sections 1, 2, and 3 (Burnaby Lake to Port Mann Bridge)	6.59*	6.59*	6.59*	Project completed (for connections *see* Other Highways).
S-8562	Abbotsford–Vedder River	10.64*	10.64*	10.64*	Project completed (two lanes paved and existing two lanes recapped) (for connections *see* Other Highways).
S-0263 (Part)	Cloverdale St. to junction with Patricia Bay Highway (Saanich Arterial 212R)	0.33*	0.33*	0.33*	Section completed (recap) (*see also* Other Highways).
S-8263	Port Mann Bridge–Springbrook Road	12.10*	3.30*	3.30*	Work continuing (for connections *see* Other Highways).
S-8363	West approach of Hunter Creek Bridge to Fraser River Bridge at Hope	8.15	8.15	8.15	Section completed (one to three lifts and partly recap) (*see also* Project S-8762).
S-8363	Yale–Bell Crossing	1.44	0.60	0.60	Work not completed at Yale Tunnel.
S-8563 (Part)	Trans-Canada Highway sections (*see also* Other Highways)—				
	Campbell Creek Underpass approaches	0.77	0.77	0.77	Section completed (partly included granular base).
	Chase Creek Bridge west	11.30	11.30	11.30	Section completed (partly included select and crushed granular base).
	Truck lane, Navy Road east to junction with Highway No. 5 (west to Kamloops)	2.00	2.00	2.00	Section completed, one lane (included select and crushed granular base).
	Truck lane, Commercial Transport Site to McIntosh Lookout (west of Kamloops)	0.80	0.80	0.80	Section completed, one lane (included select and crushed granular base).
		34.48*			
		24.46			
	Total miles, plant-mix paving contracts let, Trans-Canada Highway, 1963/64)	58.94			
			28.07*		
			24.16		
	Total miles, plant-mix paving contracts completed, Trans-Canada Highway, 1963/64		52.23		

* Multi-lane (four lanes or more).

PAVING PROGRAMME FOR THE FISCAL YEAR 1963/64—*Continued*

PLANT-MIX PAVING CONTRACTS—*Continued*

Project No.	Highway and Section	Total Length (Miles)	Miles Completed Present Fiscal Year	Miles Completed to Date	Remarks
	OTHER HIGHWAYS				
	(*a*) *Continuing Contracts Let before 1963/64*				
S-2362	Okanagan Highway, Kelowna–Peachland sections—				
	Westside Road Junction to Westbank	6.40	5.10	6.40	Section completed (recap).
	Powers Creek–Peachland	5.81	2.90	5.81	Section completed.
	Former Okanagan Highway (Arterial 40R), Trepanier to South Peachland Junction (and frontage roads)	3.78	3.78	3.78	Section completed (recap).
S-6662	Northern Trans-Provincial Highway, Prince Rupert–Galloway Rapids (Port Edward Junction)—				
	Fairview Bay Ferry Terminal approach	0.17	0.17	0.17	Section completed.
	Prince Rupert (Arterial 122R) and east, from Second Ave. to Galloway Rapids	7.48	7.48	7.48	Section completed (recap).
	Port Edward Highway, junction with Highway No. 16 to Port Edward	2.92	2.92	2.92	Completed (recap).
	Cassiar Road	0.34	0.34	0.34	Completed.
S-8462	Interchanges and connections to Trans-Canada Highway, Springbrook Road to Mount Lehman Road	6.43	3.66	6.43	Project completed (*see also* Trans-Canada Highway).
	(*b*) *Contracts Let, 1963/64*				
B-439	Princeton–Kamloops Highway No. 5, Tulameen Bridge approaches at Princeton	1.27	.....	.....	Work continuing (bridge contract includes road approaches, plant-mix paving, curb and gutter).
1284	Present Trans-Canada Highway Route No. 1 (Arterial 2R, Surrey), Bolivar Road–Whitehouse Corner	1.60*	0.83*	0.83*	Work continuing (road contract includes plant-mix paving, curb and gutter).
S-8162	Interchanges and connections to Trans-Canada Highway, Cassiar St.–Burnaby Lake	4.37	4.37	4.37	Project completed (*see also* Trans-Canada Highway).
S-8262	Interchanges and connections to Trans-Canada Highway, Burnaby Lake–Port Mann Bridge	6.89	6.89	6.89	Project completed (*see also* Trans-Canada Highway).
S-8562	Interchanges and connections to Trans-Canada Highway, Abbotsford–Vedder River	20.25	20.25	20.25	Project completed (*see also* Trans-Canada Highway).
S-0163	Alberni–Tofino and Ucluelet–Tofino Highways—				
	Thunder Bridge west to Ucluelet Junction	4.20	4.20	4.20	Section completed (included crushed granular base).
	Ucluelet Wharf to Radar Station Road (including Arterial 192R)	19.29	19.29	19.29	Section completed (included crushed granular base except Ucluelet Arterial, 1.30 miles).
	Extension, Radar Station to Tofino Wharf (including Arterial 86R)	6.00	1.40	1.40	Work continuing (includes crushed graular base except on Tofino Arterial, 1.40 miles).
S-0263 (Part)	Miscellaneous sections in Saanich and Esquimalt Electoral Districts (*see also* Trans-Canada Highway)—				
	West Saanich Road, Royal Oak Ave.–Keating Crossroad	6.40	6.40	6.40	Section completed (recap).
	Craigflower Road, Lampson St. (Esquimalt) to Admirals Road	1.30	1.30	1.30	Section completed (generally included crushed granular base).
	Island Highway No. 1A, west of Admirals Road toward Colwood Junction	2.50	2.50	2.50	Section completed (mostly over concrete pavement and widening with crushed granular base). Thetis interchange=Mile 1.50.
	Island Highway No. 1A, Colwood Junction–Peatt Road (Langford)	1.60	1.60	1.60	Section completed (mostly over concrete pavement and widening with crushed granular base).

* Multi-lane (four lanes or more).

PAVING PROGRAMME FOR THE FISCAL YEAR 1963/64—*Continued*

PLANT-MIX PAVING CONTRACTS—*Continued*

Project No.	Highway and Section	Total Length (Miles)	Miles Completed Present Fiscal Year	Miles Completed to Date	Remarks
	OTHER HIGHWAYS—*Continued*				
	(*b*) *Contracts Let, 1963/64*—Continued				
	Miscellaneous sections in Saanich and Esquimalt Electoral Districts—*Continued*				
S-0263 (Part)	Admirals Road, Craigflower Road–Esquimalt Boundary	0.80	0.80	0.80	Section completed (recap).
S-0363	Lougheed Highway—				
	Harris Road to Sixth Ave., Haney	4.00	4.00	4.00	Section completed (mostly two lifts and partly included crushed granular base).
	9½ Ave., Haney, to Stave River	9.30	9.30	9.30	Section completed (mostly two lifts and partly included crushed granular base).
S-0463	East Hastings St. Route No. 7A, Burnaby–Holdum Ave.–Cliff Ave.	1.01	0.60	0.60	Work continuing (includes select and crushed granular base, curb and gutter).
S-0563	Marine Drive, West Vancouver (Arterial 132R), 17th St.–Horseshoe Bay Overpass	8.00	8.00	8.00	Project completed (carpet course recap).
S-1163	Crushing and stockpiling granular base and asphalt paving aggregate, Chilcotin–Bella Coola Highway	.....	.....	.....	Work continuing.
S-2163	Southern Trans-Provincial Highway, Skaist Creek east (Allison Pass)	11.97	11.97	11.97	Project completed (partly included crushed granular base).
S-2263	Okanagan Highway—				
	Kaleden–Skaha	4.24	4.24	4.24	Section completed.
	Ekhardt Ave. Bridge (Penticton) to Trout Creek	5.55	5.55	5.55	Section completed (recap).
	Trout Creek–Summerland	2.63	2.63	2.63	Section completed (recap).
S-4163	Southern Trans-Provincial Highway, junction with Highway No. 6 to Summit Lake	14.74	14.74	14.74	Project completed.
S-4263	Southern Trans-Provincial Highway—				
	Blazed Creek to Creston Access Road	13.97	13.97	13.97	Section completed.
	Creston Access to present Route No. 3 at Creston	0.70	0.70	0.70	
	Former Route No. 3 (now No. 3A) from Creston west toward Wynndel, commencing at Mile 1.17 west of Learmouth Ave.	1.37	1.37	1.37	Section completed.
	Route No. 3 in Creston, from Mile 0.27 east to Mile 0.85 west of Learmouth Ave.	1.12	1.12	1.12	Section completed (recap).
S-4363	Former Southern Trans-Provincial Highway No. 3 (now No. 3A)—				
	Nelson Bridge west to Baker St. (Nelson)	1.76	1.76	1.76	Section completed (recap).
	Beasley section, west from Mile 1 west of Taghum Bridge	2.93	2.93	2.93	Section completed (recap).
	South Slocan section (Road Contract No. 898)	2.18	2.18	2.18	Section completed.
	Shoreacres Bridge approaches	0.94	0.94	0.94	Section completed.
	Nelson–Nelway Highway No. 6—				
	Part Arterial 275R, Silica and Ward Sts. (Nelson)	0.24	0.24	0.24	Section completed.
	South boundary of Nelson to Mile 1.2 south of Apex Crossing	8.33	8.33	8.33	Section completed (recap).
S-4463	Kootenay–Columbia Highway, South Vermilion–Harrogate	26.00	26.00	26.00	Section completed (recap).
S-6263	Cariboo Highway (Prince George By-pass), Spruce St. to Highway No. 16	0.53	0.27	0.27	Project completed (partly included crushed granular base). Work continuing.

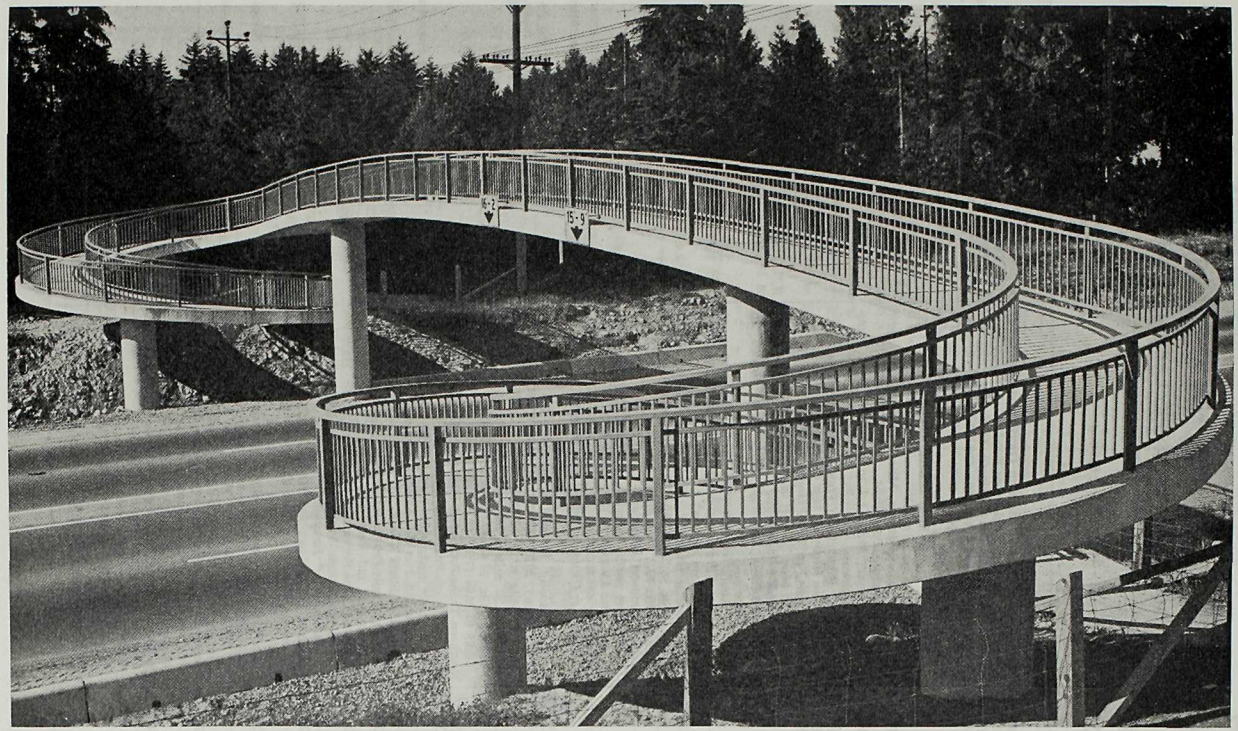
* Multi-lane (four lanes or more).

PAVING PROGRAMME FOR THE FISCAL YEAR 1963/64—*Continued*

PLANT-MIX PAVING CONTRACTS—*Continued*

Project No.	Highway and Section	Total Length (Miles)	Miles Completed Present Fiscal Year	Miles Completed to Date	Remarks
	OTHER HIGHWAYS—*Continued*				
	(*b*) *Contracts Let, 1963/64*—Continued				
	John Hart Highway (Prince George By-pass)—				
	Highway No. 16 to 5th Ave.	1.92*	0.96*	0.96*	Work continuing.
	5th Ave. to Nechako Bridge approach	0.40	0.20	0.20	Work continuing.
	Connections	1.40	1.40	1.40	Completed.
	John Hart Highway, Salmon River Bridge to Summit Lake	11.80	11.80	11.80	Section completed (includes crushed granular base).
S-6263	John Hart Highway, P.G.E. Railway Crossing to Silver Sands Creek	33.55	16.20	16.20	Work continuing (includes crushed granular base).
S-6463	Dawson Creek–Alberta Boundary Highway No. 2, Bissette Creek to Dawson Creek	5.50	5.50	5.50	Project completed (partly included select and crushed granular base, and curb and gutter in Pouce Coupe, 0.4 mile).
S-6563	Northern Trans-Provincial Highway, Rose Lake Road to MacEvoy Creek (Perow)	19.70	19.70	19.70	Section completed.
S-6663	Northern Trans-Provincial Highway, New Hazelton–Mudflat Creek section	7.20	.....	.....	Work continuing (includes crushed granular base).
S-6763	Fort St. John arterials—				
	McKenzie St. (279R) from Alaska Highway	1.26	1.26	1.26	Section completed (partly included select and crushed granular base).
	Central Ave. (142R)	1.55	1.55	1.55	Section completed (partly included select and crushed granular base).
S-6863	Hudson Hope Road—				
	Hudson Hope west to Peace River dam-site	11.80	0.90	0.90	Work continuing (includes select and crushed granular base).
	Hydro Camp-site Road, from the above road	1.00	1.00	1.00	Section completed (includes select and crushed granular base).
	Hudson Hope Airstrip	0.80	.....	.....	Work continuing (includes select and crushed granular base).
S-8263	Interchanges and connections to Trans-Canada Highway, Port Mann Bridge–Springbrook Road	21.97	10.70	10.70	Work continuing (*see also* Trans-Canada Highway).
S-8563 (Part)	Tranquille Highway, west boundary of North Kamloops to Tranquille School	7.50	7.50	7.50	Project completed (included select and crushed granular base) (*see also* Trans-Canada Highway).
		3.52*			
		321.81			
	Total miles, plant-mix paving contracts let, other highways, 1963/64	325.33			
			1.79*		
			293.90		
	Total miles, plant-mix paving contracts completed, other highways, 1963/64	.....	295.69		
		38.00*			
		346.27			
	Total miles, plant-mix paving contracts let, all highways, 1963/64	384.27			
			29.86*		
			318.06		
	Total miles, plant-mix paving contracts completed, all highways, 1963/64	.....	347.92		

* Multi-lane (four lanes or more).



Pemberton Avenue Pedestrian Overpass, Mile 63.93 on the Trans-Canada Highway in North Vancouver.
Length, 67 feet 6 inches, plus two helicoidal approach ramps.

PAVING PROGRAMME FOR THE FISCAL YEAR 1963/64—*Continued*

PULVIMIX (BASE PROCESS) BY CREWS OF THE PAVING ENGINEER

Project No.	Highway and Section	Miles Completed Present Fiscal Year	Remarks
.....	Trans Canada Highway	*Nil*	
PP-1-63	Sorrento–Eagle Bay Road, from Trans-Canada Highway	4.00	
PP-2-63	Holding Road, from Anglemont Road	5.00	
PP-3-63	Vernon–Slocan Highway (North Okanagan Electoral District)—Mile 5.9 to Mile 7.7 (1.80 miles), Mile 10.7 to Mile 15.55 (4.85 miles), Mile 16.25 to Mile 18.25 (2.00 miles), Mile 31.4 to Mile 31.6 (0.20 mile), Mile 31.7 to Mile 32.0 (0.30 mile), Mile 32.15 to Mile 32.95 (0.80 mile)	9.95	All remix. Mile 0.0=7.1 miles east of Shuswap Ave., Lumby.
PP-4-63	North Thompson Highway, Mile 0.4 to Mile 5.8 north of Birch Island Access Road	5.44	
PP-5-63	Anglemont Road, Mile 11.3 to Mile 11.7 from Trans-Canada Highway	0.40	Remix.
PP-6-63	Salmon River Road, from Trans-Canada Highway	2.60	Remix.
PP-7-63	Vernon–Slocan Highway, east of Monashee Pass	8.54	Remix.
PP-9-63	Southern Trans-Provincial Highway—		
	Mile 0.1 to Mile 2.3 east of Hazel Creek	2.20	Includes 0.45 mile truck lane.
	Arrow Creek Bridge detour	0.40	
	Creston–Porthill Highway, Goat River Bridge approaches	0.20	Mile 2.5 from Creston.
	Mallory Road, from Creston–Porthill Highway	2.00	
PP-10-63	Southern Trans-Provincial Highway, Blazed Creek west (Salmo–Creston section)	3.80	
PP-11-63	Vernon–Slocan Highway (Kaslo-Slocan Electoral District), Mile 36.75 to Mile 38.5 (1.75 miles) and Mile 39.5 to Mile 40.2 (0.70 mile)	2.45	
PP-12-63	North Thompson Highway—		
	Little Fort north, Mile 0.0 to Mile 2.95 (2.90 miles) and Mile 3.9 to Mile 7.4 (3.50 miles)	6.40	
	Frontage roads	0.62	
	Clearwater Crossing, Mile 1.0 to Mile 1.5	0.50	Clearwater Post Office=Mile 0.8.
PP-13-63	Joe Rich Road. Rutland south—Mile 6.3 to Mile 6.6 (0.30 mile), Mile 6.7 to Mile 6.9 (0.20 mile), Mile 7.55 to Mile 10.25 (2.70 miles), Mile 11.95 to Mile 12.25 (0.30 mile), Mile 15.35 to Mile 15.55 (0.20 mile), Mile 16.45 to Mile 16.60 (0.15 mile), Mile 16.85 to Mile 17.15 (0.30 mile)	4.15	All remix. Remix for the district from district funds. Mile 0.0=Rutland Fire Hall.
PD-1-63	Northern Trans-Provincial Highway, Houston east	2.69	
PD-2-63	Northern Trans-Provincial Highway—		
	Burns Lake east, Mile 1.0 to Mile 1.04 (0.04 mile) and Mile 5.0 to Mile 6.08 (1.08 miles)	1.12	Remix. Mile 0.0=Francois Lake Road.
	Tintagel–Tibbets Creek	4.05	
PD-3-63	Northern Trans-Provincial Highway, Boulder Creek Bridge east and west	0.26	Near Seaton.
PD-5-63	Northern Trans-Provincial Highway, South Hazelton Overhead section, Mile 1.25 to Mile 1.9 west of New Hazelton "Y" Junction	0.65	
PD-6-63	Northern Trans-Provincial Highway, Carnaby–Skeena Crossing, Mile 7.1 to Mile 12.78 west of South Hazelton	5.68	Remix. Mile 0.0.=Grandview Hotel.
PD-7-63	Northern Trans-Provincial Highway (present Route No. 16), Mile 2.0 to Mile 8.1 west of Giscome—Mile 2.0 to Mile 2.3 (0.30 mile), Mile 2.3 to Mile 4.75 (2.45 miles), Mile 4.75 to Mile 8.1 (3.35 miles)	6.10	Remix. Willow River Bridge =Mile 4.15.
PD-8-63	Former Cariboo Highway (Quesnel–Strathnaver), from Highway No. 97 near Quesnel Airport	1.00	
.....	Barkerville Road, Mile 1.25 to Mile 5.90	4.65	Remix for the district.
PD-9-63	Vanderhoof–Stuart Lake Road, Mile 6.0 to Mile 8.0	2.00	
PD-11-63	Northern Trans-Provincial Highway—		
	Bulkley River Bridge east	0.80	Near Smithers.
	Mile 2.4 to Mile 3.4 east of Bulkley River Bridge	1.00	
	Total miles pulvimixed, all highways, 1936/64	88.65	

PAVING PROGRAMME FOR THE FISCAL YEAR 1963/64—*Continued*

BITUMINOUS SEAL-COAT PROJECTS

Project No.	Highway and Section	Miles Completed Present Fiscal Year	Remarks
S-6461	Dawson Creek–Alberta Boundary Highway No. 2, Alberta Boundary west	11.00	Sand-seal by regional crews.
S-0663	Metchosin Road, Sooke Road–Lagoon Road	0.94	Slurry seal-coat (contract).
S-7163	Northern Trans-Provincial Highway, Prince George west	.....	Crushed-gravel stockpiling by contract.
PD-8-63	Miscellaneous sand-seal by crews of the Paving Engineer—		
	Fort Steele–Wasa (No. 93), Fort Steele north	10.00	
	Kootenay–Columbia (No. 95)—		
	Mile 1.4 to Mile 2.3 north of Cranbrook-Fernie District Boundary	0.90	
	Mile 8.1 to Mile 8.3 north of Highway No. 3	0.20	
	Southern Trans-Provincial Highway, Fort Steele Junction east	0.70	
	Jim Smith Lake, Mile 1.5 to Mile 2.6 from Highway No. 3	1.10	
	King St. and Cobb St., C.P.R. Crossing, Cranbrook	1.40	Unorganized area.
	Green Bay Road, Mile 0.1 to Mile 2.1 from Highway No. 3	1.10	North end of Moyie Lake.
	Total miles, bituminous seal-coat, all highways, 1963/64	27.34	

SUMMARY OF PAVING PROGRAMME

Type of Work	Trans-Canada Highway	Other Highways	All Highways
	Miles	Miles	Miles
Bituminous plant-mix paving[1]—			
By contract	28.07*	1.79*	29.86*
	24.16	293.90	318.06
By district crews	.....	12.92	12.92
	28.07*	1.79*	29.86*
	24.16	306.82	330.98
Total plant-mix paving	52.23	308.61	360.84
Bituminous base process or paving (pulvimix or road mix)[2]—			
Included in road contracts	.....	41.59	41.59
Included in paving contracts	(3)	(3)	(3)
By crews of the Paving Engineer	.....	88.65	88.65
By district crews	.....	147.56	147.56
Total bituminous base process (or paving)	.....	277.80	277.80
Bituminous seal-coat (maintenance)—			
By crews of or under direction of Paving Engineer	.....	27.34	27.34
By district crews	.....	49.26	49.26
Total bituminous seal-coat	.....	76.60	76.60
Bitumnous surface treatment by district crews[4]	.....	88.47	88.47

* Multi-lane (four lanes or more).
1 High-cost pavement.
2 Generally base process, later topped with plant mix (portland cement base stabilization is not included).
3 Not recorded.
4 Calcium chloride treatment not included.

J. W. KERR,
Senior Paving Engineer.

REPORT OF THE DESIGN AND PLANNING ENGINEER

LOCATION BRANCH

N. R. Zapf, Director of Location

Highway location surveys and design completed during the fiscal year are listed in the following report, totalling 283.87 miles of preliminary line, 259.11 miles of location line, and 171.78 miles of office design and estimates of which 5.62 miles were urban street (curb and gutter and storm sewer) design.

The total cost of surveys amounted to $1,208,285.40, which is detailed as follows:—

Trans-Canada Highway, surveys	$99,292.30
General Highways—	
Surveys	930,775.90
Legal Surveys	180,445.27
Mining-roads, surveys	35,410.80
Total	$1,208,285.40

SURVEY AND DESIGN SECTION

The projects surveyed and designed are listed below. An asterisk indicates that design drawings and estimates have been completed.

	Preliminary Line	Location Line	Office Design
Trans-Canada Highway	Miles	Miles	Miles
Koksilah Bridge	.....	0.66	0.93*
Mill Bay section	.....	1.35	1.20*
Duncan (curb and gutter)	1.26	1.37	0.84*
McDermott Interchange	0.60	.....	.....
Tank Hill	.....	1.50	1.00*
Kamloops By-pass	.....	.....	1.20
Salmon Arm By-pass	2.60	2.60	0.50
Kay Falls Bridge elimination	.....	.....	0.63
Golden–Yoho Bridge	.....	5.63	5.02
Yoho Bridge–Park Bridge	5.80	2.68	.....
Cypress Creek–Horseshoe Bay	3.40	.....	.....
Chase By-pass	.....	.....	0.90*
Yale–Bell Crossing (Section 2)	.....	.....	0.65*
Totals	13.66	15.79	12.87
Southern Trans-Provincial Highway			
Richter Pass	.....	.....	0.87*
West Grand Forks Underpass	.....	.....	0.62*
Brilliant–Thrums	.....	4.50	4.07
Ootischenia–Brilliant	.....	.....	2.87
Kinnaird–Champion Creek	.....	3.97	.....
Goatfell–Goatfell River (Section 2)	.....	.....	8.00
Creston Underpass	.....	.....	0.65*
Hosmer–16 Mile Hill	8.00	8.00	7.81*
Fernie-Hosmer	.....	.....	3.00*
Michel–Crowsnest	11.15	5.97	.....
Sparwood–Michel	4.73	5.41	.....
South Fork–Salmo	.....	5.50	.....
Cranbrook (curb and gutter)	2.17	.....	.....
Totals	26.05	33.35	27.89

SURVEY AND DESIGN SECTION—*Continued*

	Preliminary Line	Location Line	Office Design
Vancouver Island Highways	Miles	Miles	Miles
Kelsey Bay ferry approaches	.....	1.40	.....
Sayward–Brasseau Bay	.....	9.20	.....
Sooke River Bridge	3.40	3.10	.....
Beaver Creek–Cumberland	12.50	13.60	.....
Nanoose Overhead–Craigs Crossing	.....	4.23	.....
Mud Bay–Black Creek	16.10	4.50	.....
Port Alice–Rumble Beach	3.00	3.00	.....
River Road, Alberni (curb and gutter)	2.50	.....	0.80
Anderton Road–Little River	1.11	1.11	.....
Trunk Road, Duncan (curb and gutter)	0.35	.....	.....
Nanaimo River Bridge, Cedar	0.56	1.57	.....
Oyster River	.....	.....	0.80*
Totals	39.52	41.71	1.60
Lower Mainland Highways			
Pacific Highway	3.00	.....	.....
South-west Marine Drive	.....	2.50	.....
Hastings St. (curb and gutter)	.....	.....	0.80
Pitt River–Stave River	15.13	.....	.....
University of British Columbia (curb and gutter)	0.70	.....	0.50*
Langley By-pass	3.70	2.40	2.78*
Springbrook Road	3.10	1.90	.....
Simon Fraser University	7.20	1.10	.....
Britannia–Squamish	.....	1.70	.....
Wedge Creek–Pemberton	.....	0.50	.....
Ladner–Tsawwassen Interchange	0.40	0.90	.....
Culliton Creek	.....	.....	0.10*
Powell River Bridge	.....	.....	0.37*
Langdale West	.....	.....	.....
Whalley (curb and gutter)	1.50	.....	0.10*
McCallum Road (curb and gutter)	2.20	.....	0.42
North Road (curb and gutter)	0.80	.....	0.91*
Livingston Interchange–Glover Road	.....	.....	0.80
Totals	37.73	11.00	6.78
Miscellaneous Highways			
Lytton arterials	.....	1.34	.....
Long Harbour–Scott Road Junction	.....	.....	2.67*
Annable–Trail	.....	0.50	0.50
Trail Bridge	.....	.....	0.28*
Minette Bay–Kitimat Indian Village	.....	.....	3.51*
John Hart Highway, Mile 183 to Mile 163.7	.....	.....	5.90*
Hudson Hope–Chetwynd (section 1)	.....	.....	12.93*
Prince George Pulp-mill Road	.....	4.20	3.20*
Hudson Hope–Chetwynd (section 2)	.....	.....	4.00
Scott Road–Vesuvius Bay Road	1.60	2.20	.....
Duncan Lake Access	.....	1.16	.....
Trail (curb and gutter)	.....	0.81	0.50
Totals	1.60	10.21	33.49
Okanagan Highway			
Sicamous–Grindrod	18.30	.....	.....
Vernon South	8.70	6.00	.....
Vaseux Lake–Osoyoos	26.70	20.20	.....
Sicamous Junction	.....	.....	0.78*
Totals	53.70	26.20	0.78
Kootenay–Columbia Highway			
Wasa–Kootenay River	.....	2.89	3.80
Parsons By-pass	3.00	2.00	.....
McMurdo–Golden	10.70	10.80	.....
Totals	13.70	15.69	3.80

SURVEY AND DESIGN SECTION—*Continued*

	Preliminary Line	Location Line	Office Design
Northern Trans-Provincial Highway	Miles	Miles	Miles
Red Pass–Alberta Border	1.60	1.40	.....
Tête Jaune–Red Pass	1.60	2.30	.....
Willow River–Hungary Creek	.....	.....	5.00
Hazelton East Overpass	.....	.....	0.46
Crescent Spur–Ptarmigan Creek	.....	.....	10.04*
Ptarmigan Creek–Hungary Creek	.....	.....	9.00
Mudflat Creek–Seaton	.....	.....	7.81*
Copper River–Usk	.....	.....	4.80*
Boulder Creek	.....	3.06	0.41*
Terrace–Copper River	.....	2.60	3.60
Tyee–Green River	4.60	2.70	.....
Prudhomme Lake	4.60	3.80	.....
Prince Rupert By-pass	6.90	4.20	.....
Oliver Creek	.....	1.90	.....
Woodcock–Coyote Creek	0.20	3.10	.....
Prince George–Tabor Lake	6.60	11.10	.....
Beaver River–Tête Jaune	32.00	32.00	.....
Burns Lake (curb and gutter)	.....	.....	0.10*
Fraser River Interchange	.....	0.50	.....
John Brown Creek	.....	.....	0.59*
Seaton Overhead	.....	2.50	.....
Prince George By-pass	.....	0.50	.....
Vanderhoof (curb and gutter)	1.00	.....	0.10
Prince Rupert–Terrace bridge-sites	.....	5.00	.....
Endako Overhead and Bridge	2.80	2.80	.....
Totals	61.90	79.46	41.91
Cariboo Highway			
Clinton Underpass	2.90	.....	.....
Clinton (curb and gutter)	1.70	.....	.....
100 Mile Crossing extension	.....	.....	0.34*
100 Mile (curb and gutter)	.....	.....	0.55*
Lot 1944–Fraser River	.....	.....	2.30*
Dog Prairie–Macalister	22.70	3.80	.....
Totals	27.30	3.80	3.19
North Thompson Highway			
Blue River–Chappell Creek	1.27	1.27	.....
Black Pool extension	.....	.....	1.22*
Vavenby–McMurphy	.....	.....	11.25*
McMurphy–Six Mile Crossing	5.00	6.90	20.00
Chappell Creek–Albreda	1.80	6.60	.....
Kamloops–Heffley Creek	0.64	7.13	.....
Totals	8.71	21.90	32.47
Stewart–Cassiar Highway			
Burrage River–Ningunsaw River	.....	.....	7.00
Totals	.....	.....	7.00
Grand totals	283.87	259.11	171.78

PLANNING SECTION

During the past fiscal year, approximately 16.600 acres of reconnaissance-type mapping was procured for route investigation on the following projects: (1) Cascade–Christina Lake, Highway No. 395; (2) Midway–Spencer Hill, Southern Trans-Provincial Highway; (3) Sparwood–Crowsnest, Southern Trans-Provincial Highway; (4) Tadanac–Trail and Rossland, Highway No. 3A; (5) Grindrod–Armstrong, Okanagan Highway; (6) Skeena Crossing–Hazelton, Northern Trans-Provincial Highway.

This mapping was produced from existing photography already in hand taken by the British Columbia Government or air-photo consultants.

Aerial mapping of a high-order accuracy was obtained for projection layouts and design on three projects: (1) Fraser River Crossing at Quesnel; (2) Langley By-pass; (3) Three Valley snowshed area.

This mapping was produced from previously procured photography with the exception of the Three Valley mapping, which was produced by using the relatively new method of mapping very steep slopes utilizing terrestrial photography.

Reports were prepared and submitted on Golden By-pass (Kootenay–Columbia Highway), Cascade–Christina Lake (Highway No. 395), and Vernon By-pass (Okanagan Highway).

Planning studies and preliminary layouts on the following projects were completed in the past year: (1) Alternative scheme, Pitt River–Coquitlam (Lougheed Highway); (2) Golden By-pass (Kootenay–Columbia Highway); (3) Kamloops East (Trans-Canada Highway); (4) Cascade–Christina Lake (Highway No. 395); (5) Vernon By-pass (Okanagan Highway); (6) Nelson Toll Plaza; (7) weigh-scale site near Flood (Trans-Canada Highway); (8) Premier Mine–Granduc Mine (photo study of route only); (9) Skeena Crossing–Hazelton (Northern Trans-Provincial Highway); (10) alternative scheme, Penticton By-pass Okanagan Highway); (11) Tadanac–Rossland (Southern Trans-Provincial Highway); (12) design mapping only, Three Valley snowsheds (Trans-Canada Highway).

Planning studies are currently in progress on the following projects: (1) Scott Road (Surrey Municipality); (2) Lions Gate Bridge, Trans-Canada Highway (West Vancouver Municipality); (3) Simon Fraser University Access (Burnaby Municipality); (4) Haney By-pass (Lougheed Highway); (5) Langley By-pass (Highway No. 10); (6) Sparwood–Crowsnest (Southern Trans-Provincial Highway); (7) Midway–Spencer Hill (Southern Trans-Provincial Highway); (8) Tadanac–Trail (Southern Trans-Provincial Highway); (9) Grindrod–Armstrong (Okanagan Highway).

Final contract design and drawings were completed on Vavenby–McMurphy (North Thompson Highway), Ardwell Road–Swartz Bay (Highway No. 17), Mud-flat Creek–Seaton (Northern Trans-Provincial Highway), Langley By-pass (Highway No. 10), and are continuing on Golden–Yoho Bridge (Trans-Canada Highway).

Computer Section

During the year the I.B.M. 650 computer was replaced by an I.B.M. 1620. Testing of the new programmes required increased computer time but reduced the amount of productive work accomplished. The actual operations performed by the computers were as follows:—

I.B.M. 650: D.T.M. II—four projects for a total of 150 miles; Earthwork IV—two projects for a total of 30 miles; Surmap O2N—18 traverses.

I.B.M. 1620: D.T.M. III—two projects for a total of 25 miles; Surmap S 13—10 traverses.

The new earthwork programme, which is now operational, has been used so far only for test projects. It provides more flexibility of operation and accomplishes six times as much work as the earthwork programme previously used on the I.B.M. 650 computer.

Legal Survey Section

Total expenditure for the legal survey of highway rights-of-way as follows:—

Legal survey vote	$174,770.45
Construction project votes	73,520.47
Toll Authority	490.00
Total	$248,780.92

Legal Surveys Vote

Highway No. 1—
- Adanac Street to Boundary Road.*
- Hope Bridge to Haig Overhead.*
- American Creek to Emory Creek Park.*
- North Boundary of Klickkumcheen Indian Reserve No. 18 to south boundary.
- Lytton Indian Reserve No. 16A.
- Donald to Blaeberry River.
- Park Bridge easterly to Plan R 272 (near Yoho Park).

Highway No. 3—
- Waterman Hill to Okanagan Falls.*
- Midway to Boundary Falls and International Boundary.*
- Goatfell to Curzon Junction.

Highway No. 5—
- Through District Lots 2808 and 448 (Courtenay Lake).*
- Knutsford to Trans-Canada Highway.
- South boundary of Lot 810 (Chinook Cove) to north boundary of Lot 1693.
- South boundary of Lot 1694 to south boundary of Lot 1818 (Little Fort).
- North boundary of Lot 1713 to east boundary of Lot 4038 (Birch Island).

Highway No. 7—
- Harrison River Bridge to Pumphouse Bridge.†
- Widenings in District Lot 438, Group 1 (Stave River Bridge).
- Widenings in District Lot 403, Group 1 (near Haney).
- Sumas Indian Reserve No. 8 to Harrison Indian Reserve No. 3.†

Highway No. 12—
- Through Nuuautin Indian Reserve No. 2A.
- Through Sections 23 and 24, Township 15, Range 27.
- East boundary of South-west Quarter of Section 27 to north boundary of Lytton Indian Reserve No. 3A.
- Through Nesikep Indian Reserves Nos. 6 and 6A.

Highway No. 14—
- Canadian National Railway to Metchosin Road.†
- Otter Point Road to Grant Road.†
- Otter Point to west boundary of Section 7, Otter District.*
- Through Sections 55 and 87, Renfrew District.

Highway No. 16—
- Round Lake to Houston.
- Burns Lake Townsite easterly to Lot 4169.
- West boundary of Lot 6781 (Bednesti Lake) to east boundary of Lot 9764.

Highway No. 95—
- Fort Steele to Wasa.
- South boundary of Lot 9576 (Radium) to north boundary of Lot 353.

Highway No. 97—
- Peachland to east boundary of Lot 449.
- Through Sections 34 and 35, Township 26 (Finn's Corner, Kelowna).
- Oyama to north boundary of Section 31, Township 10.*
- South boundary of Section 15 to north boundary of Section 34, all in Township 20, Range 8 (Mara Lake).

* Continuing surveys.
† Continuing surveys now complete.

Highway No. 97—*Continued*
Through part of Lot 1967 (Red Rock).
Widenings in Lots 1451, 1468, 1469, and 1471 (Pine River Hill).
Highway No. 99—
South boundary of Lot 2895 to north boundary of Lot 3041.
South boundary of Lot 3086 to north boundary of Lot 4073.
Through Kowtain Indian Reserve.*
Highway No. 101—
North boundary of Lot 4578 to west boundary of Lot 2739.†
Through part of Slizmmon Indian Reserve.
Miscellaneous Highways and Roads—
Chetwynd–Hudson Hope Road, through North-east Quarter of Section 13, Township 81, Range 26.
Pingel Creek Road, Alaska Highway to Pine River.
Rolla Road (No. 3) from south boundary of Section 4, Township 79, Range 14, to Rolla.
Manse Road, Pacific Refinery to Road No. 3 (Dawson Creek).
Soda Creek Ferry Approach Road.
Blackwater Road, north boundary of Lot 4500 to south boundary of Lot 1122.
Bella Coola–Chilcotin Road, Hagensborg to Bella Coola.
Rock Creek–Westbridge Road, south boundary of Lot 820 (S.) to Kettle River.*
Rennie Road, McNeill Road to Pitt Lake.
Albion Ferry Approach Road.
Belcarra Park Road, Main Avenue to Belcarra Road.*
New McLellan Road, widening in Section 1, Township 4 (Endersby Hill).
Paradise Valley Road, through Cheakamus Indian Reserve.
Francis Peninsula Road, Highway No. 101 to north boundary of Lot 997.
West Road, Quadra Island, through Lots 205, 206, and 207.
Ostby and St. John Point Roads, Hornby Island.
Little River Ferry Approach Road.
Lighthouse Trail Road through Saturna Island Indian Reserve No. 7.
Cowichan Bay Road, Trans-Canada Highway to Esquimalt District boundary.
Heatherbell Road, Colwood.
Telegraph Road, Kilmalu Road to Esquimalt District boundary.†

Project Votes

Highway No. 1—
Project No. 885—Vancouver–Fraser River.*
Project No. 1123—Halls Prairie–Springbrook.*
Project No. 1186—Abbotsford–Vedder Canal.*
Project No. 1284—Bolivar Road–Whitehouse Corner.
Project No. 1187—Port Mann–Halls Prairie.*
Project No. 1356—Chase By-pass.
Bridge Project No. 432—Hunter Creek Bridge approaches.
Highway No. 3—
Project No. 1095—Junction of Highway No. 6 to Summit Lake.*
Project No. 1099—Rossland–Sheep Lake, Section 1.†

* Continuing surveys.
† Continuing surveys now complete.

Project Votes—Continued

Highway No. 3—*Continued*
Project No. 1100—Summit Lake–Blazed Creek.*
Project No. 1285—Rossland–Sheep Lake, Section 2.*
Highway No. 5—
Project No. 1279—Little Fort–Black Pool.
Project No. 1361—Vavenby–McMurphy.
Highway No. 16—
Project No. 1288—Lot 5181 to Usk.*
Project No. 1291—Copper River Bridge approaches.
Highway No. 95—
Project No. 1283—Windermere–Dutch Creek.*
Project No. 1287—Canal Flats–Skookumchuck.*
Project No. 1337—Dutch Creek–Canal Flats.*
Other Highways—
Project No. 1207—Ardwell Road–Bazan Bay.†
Project No. 1355—Long Harbour–Scott Road.*
Project No. 1357—Lot 1944 to Fraser River.*

British Columbia Toll Highways and Bridges Authority (Ferry Service)

Village Bay Ferry foreshore lot.
Langdale Ferry foreshore lot.
Deas Tunnel Refit Basin foreshore lot.
Long Harbour foreshore lot.
Sturdies Bay foreshore lot.
Fulford Harbour foreshore lot.

TESTING BRANCH

The main duties of the Testing Branch are to investigate soil and rock problems for the other Highway Department branches and to test the materials used for highway purposes.

Soil Mechanics Problems

The Branch endeavours to make a soil survey of every important new highway during the planning stage. One hundred miles of such surveys made during the year included the Kicking Horse area on the Trans-Canada Highway, the Blue River area on the proposed Jasper–Kamloops Highway, and from Chetwynd to Hudson Hope in the Peace River area. In some cases the soils were sampled using rotary drills, in others portable power-augers, but 30 miles were investigated using seismic methods.

Since gravel is essential to provide strength or frost resistance to the highways, possible sources were investigated at the same time. These were tentatively located from a study of aerial photographs, then confirmed by drilling. For locations where gravel was scarce or construction work was hampered by wet weather, the Branch designed portland cement base mixtures, which have generally permitted a saving in gravel thickness of 50 per cent. One such location was on the Port Mann Freeway, where 10 miles in an area of weak marine clays were treated.

No large landslides occurred during the year, but several smaller problems were encountered. In the Prince George area several older highway fills slumped

* Continuing surveys.
† Continuing surveys now complete.

owing to a gradual weakening by soil-moisture movements. A study showed that to build stable fills with the local silty soils, various combinations of berms, flat side-slopes, and gravel foundation drainage blankets would be necessary. On the Port Mann Freeway a troublesome fill in a zone of weak marine clays was stabilized by installing a 270-foot-wide berm at the toe of the sliding mass to act as a counter-weight.

The Branch prepared foundation designs for 36 highway bridges, the largest of which, over the Upper Fraser River at McBride, has to be founded where the soils consist of more than 200 feet of clay with a shear strength of about 600 pounds per square foot.

An extensive drilling investigation was made at Horseshoe Bay to obtain the pre-engineering data for proposed extensions to the ferry terminal.

Other investigations were made for two water-supply installations and three small dams.

The soil investigations for these projects entailed 800 drill-holes aggregating 23,000 feet.

Other Investigations

Engineers from the Branch investigated an unusual problem near Stewart where the Bear Glacier impounds a mountain lake. Each spring the snow-melt would raise the lake-level until a sudden break-through occurred in the ice dam, then the torrent of released water would wash out sections of the Stewart–Cassiar Highway downstream. The remedial action taken was to excavate a deep cut across the toe of the glacier and draw off the melt-water before a dangerous level was reached.

Each spring the Branch operates a testing programme to assist the District Engineers in deciding when to impose or lift load restrictions when the frost is leaving the highway subgrades. The strength of the highways at control sections in each district is computed weekly by measuring with a Benkelman beam the amount that the weakened surfaces deflect under a standard wheel load. This method determines the maximum loads that trucks may carry without permanently damaging the highways.

The Branch also semi-annually evaluates the condition of the pavements throughout the Province. This programme is co-ordinated with similar research programmes in other Provinces under the direction of the Canadian Good Roads Association.

Research on soil pressures at culverts and retaining-walls was continued. The laboratory developed a new type of flat pressure cell made from fibreglass, which is mounted at selected locations during construction. These cells are filled with an anti-freeze solution and connected by tubing to Bowden gauges mounted on a consol at a convenient location. Later, after the installations are backfilled, the soil pressures can be monitored as desired. Gauges were installed on culverts at Dutch Creek in the Columbia Valley, Bayonne Creek on the Salmo–Creston Highway, and a retaining-wall at Yale. The Branch is planning other installations.

During the year, personnel in the headquarters concrete laboratory designed concrete mixtures to fit the characteristics of local aggregates for 30 bridges and 7 Government buildings throughout the Province. As an additional check on the quality of the concrete mixtures used in these structures, test cylinders were obtained during the pouring operation and tested at the nearest regional laboratory.

The headquarters paint laboratory tested paints for motor-vehicle licence-plates, buildings, highway-marking, and ferries. Experiments showed that licence-plates could be produced more efficiently by changing the manufacturing process. Previously the plates were chemically cleaned and painted with several coats follow-

Resurfacing deck, Lions Gate Bridge.

ing the embossing stage, but by changing to sheet steel that was pre-painted at the steel mill, several operations with their attendant problems were dispensed with.

One large project the Branch undertook was the resurfacing of Lions Gate Bridge in Vancouver. During its 25 years the concrete deck had worn seriously, and as one result its slippery condition in wet weather created a serious accident rate. The problem was to restore its surface without overloading the deck, which, over spans totalling 2,800 feet, is only 3 inches thick. This ruled out the use of portland cement and asphaltic concretes. After extensive tests in the laboratory and on the bridge, it was decided to apply a ⅛-inch-thick coat of coal tar epoxy and emery granules, a relatively new process which had only been used on a few large bridges in the United States. This mixture had stringent application requirements: the surface had to be scrupulously clean and dry, the materials had to be mixed and applied within 15 minutes, and the finished surface had to be heat-cured within a narrow temperature range. The job encountered several substantial obstacles: the contaminated deck was extremely difficult to clean, the construction forces took some time to acquire the necessary skills for the new process, and a heavy flow of vehicular traffic had to be maintained. Periodic tests of the adhesion and frictional properties of the surface are being carried on.

Another project the Branch undertook was to attempt to waterproof two short tunnels in the Fraser Canyon where stresses following construction had resulted in leaks during the wet seasons. As an experiment a chemical grout, AM9, was tried, and its results are being observed.

Training

The Branch published a handbook on the hydraulics, design, and installation of highway culverts for use by the field engineers.

Resurfacing deck, Lions Gate Bridge.

The Branch co-operated with the Department of Education by supplying an engineer and several drillers to serve as instructors for a diamond-driller's course at the Nanaimo Vocational School.

Engineers from the Branch also organized an evening lecture course on soil mechanics subjects for other engineers in the Government service.

TRAFFIC BRANCH

J. H. Harding, Senior Traffic Engineer

1963 traffic volumes exceeded the 1962 volumes by 29 per cent in Northern British Columbia, 9 per cent in the Southern Interior, 7 per cent in the Fraser Valley, and 8 per cent on Vancouver Island. These volumes were ascertained from short

counts recorded annually at 700 locations distributed over the Province. Sixteen new stations of this type were added this year. Daily counts were taken at 14 permanent stations, with one additional site being developed recently. Special counts were observed at 40 sites where local problems had developed and additional data were required. A traffic-count volume was published to summarize this information. In addition, many requests for traffic-count information from the public were answered.

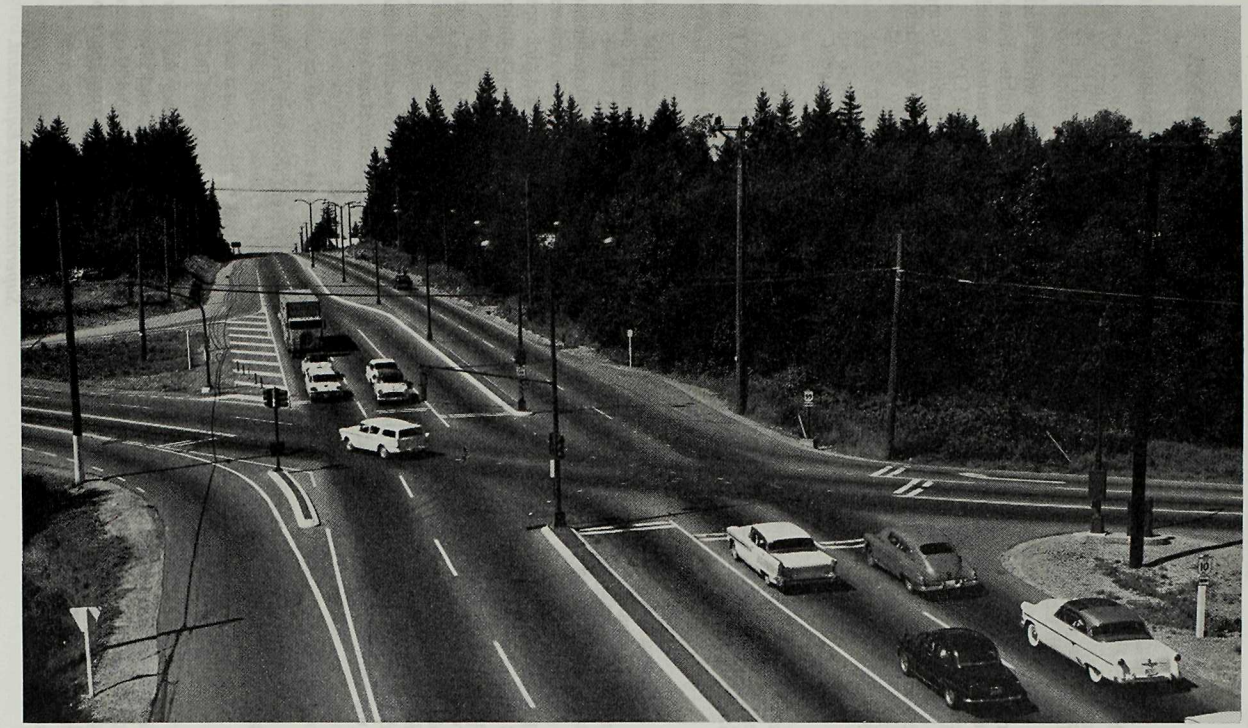
Considerable effort was directed toward highway lighting during the year. Approximately 450 fluorescent luminaires were installed on the Vancouver–Port Mann Bridge section of the Trans-Canada Highway. At Whalley the reconstruction of the King George VI Highway involved the placing of fifty-five 400-watt mercury-vapour luminaires. Extensive testing and evaluation were done on various designs of fluorescent rail-lighting fixtures for the Port Mann Bridge to enable a decision on the particular type of fixture. The completed lighting system on this bridge constitutes the largest installation of its type in North America and represents the first trial in British Columbia of this design. Lighting was placed on the Ashcroft Bridge and at various intersections, railway crossings, and bridge approaches. Considerable work was spent on the design of lighting for the Yale, Alexandra, and Ferrabee tunnels in the Fraser Canyon, together with luminaire evaluations.

Along the King George VI Highway at Whalley, a system of five co-ordinated actuated traffic signals was constructed. Volumes of traffic in each direction along the highway are ascertained and fed into a master controller consisting of two small analog computers which determine and assign the optimum timing for the existing traffic condition to each intersection controller. The design of a lane-use signal system for Lions Gate Bridge and adjacent roadway through Stanley Park was instigated. Four flashing beacons and nine new traffic signals were made in addition to minor alterations to signals at various intersections. Eight railway crossings on Provincial highways were signalized during the year in co-operation with the Board of Transport Commissioners. Investigations and reports were made on many requests for traffic signals at various sites.

During the year seven map-type directional signs were erected near major highway junctions. Freeway directional signing was designed and installed on the Vancouver–Port Mann Bridge section of the Trans-Canada Highway. Numerous changes were made to speed-limits throughout the Province. Radar speed checks taken at a number of points were useful to ensure that posted speed-limits were realistic. A number of intersection problems were investigated, and improvements designed and installed in several cases.

The Senior Traffic Engineer continued to represent the Department on the British Columbia Safety Council, Capital Region Planning Board, and the Canadian Good Roads Association Council on Uniform Traffic Control Services for Canada.

E. B. WILKINS,
Design and Planning Engineer.



Intersection of King George VI Highway and Highway No. 10.

REPORT OF THE CHIEF RIGHT-OF-WAY AGENT

During the 1963/64 fiscal year a total of 625 settlements was negotiated. One claim was submitted to arbitration proceedings for adjudication.

The expenditure for rights-of-way and for other properties acquired by the Department totalled $1,033,678.62. This included holdings purchased on behalf of the British Columbia Toll Highways and Bridges Authority.

There were 15 sales by public tender or public auction of lands which were surplus to highway requirements and of buildings to be cleared from rights-of-way, with a recovery of funds totalling $7,602.29. Gross revenue from rentals, which included rentals prior to disposal of lands and buildings, totalled $63,021.09.

There were 102 properties under short-term lease or rental agreement during the year. Sales by public tender and auction are now being increased in an endeavour to place these properties under private ownership.

L. J. MOORE,
Chief Right-of-way Agent.

REPORT OF THE SUPERINTENDENT OF EQUIPMENT

EQUIPMENT

During the year a net total of $4,651,870.42 was expended to cover the cost of labour, repairs, fuel, and garage overhead required to operate equipment owned by the Government and operated by the Department of Highways.

The sum of $2,026,123.99 was expended on the purchase of new equipment, as follows: 18 graders, 9 crawler-tractors, 18 rubber-tired loaders, 5 tractor mowers, 1 1¼-yard crawler shovel, 76 4-ton dump trucks, 8 1-ton panels, 4 ¾-ton pick-ups, 18 ½-ton panels, 5 3-ton dump trucks, 6 1-ton dump trucks, 14 compact station wagons, 52 ½-ton pick-ups, 2 four-wheel-drive pick-ups, 2 roadside sprayers, 1 street-sweeper, 2 tilt-bed trailers, 3 tank-car heaters, 2 asphalt-distributors, 2 portable steam generators, 6 vibrating rollers, 3 self-propelled rollers, 2 pull-type pneumatic rollers, 4 caboose trailers, 14 5–6-cubic-yard sand-spreader bodies, 2 truck-mounted shovels, 2 pull-type scrapers, 1 rotary snow-plough, and sundry small equipment, such as truck-mounted snow-ploughs, garage equipment, etc.

MIXING PLANTS

Two Departmental mixing plants operated in 45 different locations, producing 34,825 cubic yards of asphalt patching material.

SIGN-SHOP

A total of 37,199 metal and plywood signs was produced during the year. Metal signs range in size from 12 by 12 inches to 30 by 30 inches, and plywood signs range in size from 36 by 36 inches to 20 by 8 feet. A total of 83,400 square feet was purchased and applied during the same period. A net expenditure of $212,988.15 was incurred in the production of these signs.

J. H. SMYTHE,
Superintendent of Equipment.

REPORT OF THE SUPERINTENDENT OF FERRIES

Fifty-two ferries were operated under the jurisdiction of the Department of Highways during the 1963/64 fiscal year. Of these, 12 were Government-owned major ferries, 14 were Government-owned cable ferries, 15 were Government-owned reaction ferries, and 7 were privately owned subsidized ferries. There were also 4 Government-owned miscellaneous ferries.

TRAFFIC

Traffic total for the year showed that 2,008,692 vehicles and 5,087,565 passengers were carried. This represents a decrease of 33,934 vehicles and 141,238 passengers over the preceding year. The Castlegar Ferry carried 887,656 vehicles and 1,195,378 passengers, which amounts were far in excess of the totals carried by any other ferry.

MAINTENANCE

All ferries were inspected during the year, and necessary repairs and renewals were carried out with a minimum of inconvenience to the travelling public. Wherever possible, relief ferries were used during overhaul periods. All major ferries were dry-docked during this period.

NEW CONSTRUCTION AND MAJOR RENEWALS

Delta District.—A new 36-foot steel tug was built for the Barnston Island Ferry to replace the old wooden tug. A new landing is being built on Barnston Island for this ferry.

North Peace River District.—New propulsion machinery was installed in the Hudson Hope Ferry.

Comox District.—A new breakwater and landing has been built on Denman Island for the Hornby Island Ferry.

A contract has been awarded for the construction of a 150-foot diesel ferry which will operate between Comox and Westview. Work is proceeding with the landings for this ferry.

Nelson-Creston District.—A new 26-foot steel tug was built for relief ferry service in the West Kootenay. It is stored at Nelson and moved by trailer to any area where it is required.

The Nicks Island Ferry service has been replaced by a bridge, and the barge has been transferred to the Arrow Lakes for use as a relief ferry.

Toll collection on the Kootenay Lake Ferries has been discontinued.

Mackenzie District.—A new 400-passenger ferry was built for the Woodfibre–Darrell Bay service. This vessel is 110 feet long and carries 18 vehicles. It is the latest addition to the fleet and replaces the former M.V. " Garibaldi."

Nanaimo-Islands District.—The former Woodfibre Ferry M.V. " Garibaldi " has been completely refitted and reconditioned for the Nanaimo–Gabriola Island services. This vessel replaces the former vessel M.V. " Eena," which has been retired from service.

FERRY REVENUE

Albion	$84,904.40
Arrow Lakes	25,855.24
Barnston	33.00
Denman Island	11,654.00
Francois Lake	190.00
Gabriola Island	30,739.81
Kootenay Lake	191,074.26
North Bend	8,511.95
Quathiaski Cove	56,563.40
Thetis	7,517.00
Woodfibre	68,669.50
Total	$485,712.56

RECORD OF FERRY TRAFFIC, FISCAL YEAR 1963/64

Ferry	Type	Number of Round Trips	Automobiles	Passengers, Exclusive of Driver	Trucks, All Types	Trailers and Semi-trailers	Motor-buses	Motor-cycles and Bicycles	Rigs	Tons of Freight	Live Stock	Miscellaneous Vehicles	Total Vehicles Carried
Albion	Power	15,301	177,584	143,830	10,079	1,523	36	132	.....	.....	.....	.....	189,354
Arrow Lakes (Upper)	Power	1,871	9,071	9,266	633	270	12	10	.....	.....	.....	65	9,996
Arrow Lakes (Lower)	Power	105	114	224	26	4	1	.....	.....	15	.....	21	145
Arrow Park (East)	Power-cable scow	24,189	24,989	129,181	19,852	326	1,165	.....	.....	.....	16	8	46,332
Barnston Island	Power	20,820	23,842	58,302	13,914	209	850	74	.....	.....	1,132	38	38,889
Big Bar	Pontoon (reaction)	918	57	1,350	349	.....	.....	.....	.....	.....	16,871	.....	406
Black Pool	Pontoon (reaction)	5,354	2,571	7,677	2,664	30	.....	.....	.....	.....	36	107	5,265
Brentwood	Power	4,463	39,570	47,727	1,218	240	34	65	.....	.....	.....	.....	41,127
Castlegar	Power-cable scow	65,592	675,340	1,195,378	189,939	14,280	7,821	276	.....	.....	908	.....	887,656
Cedarvale	Pontoon (reaction)	7,485	2,120	12,208	1,497	2	.....	.....	2	.....	.....	5	3,619
Clayhurst	*Tug and pontoon*	*10,341*	*11,909*	*28,850*	*11,658*	*412*	.....	*6*	.....	.....	*631*	*277*	23,985
Copper City	Pontoon (reaction)	1,539	113	2,783	134	.....	.....	.....	.....	.....	12	.....	247
Creston	Power-cable scow	28,793	18,618	43,739	19,680	.....	413	.....	.....	.....	169	32	38,711
Denman Island	Power	4,225	24,254	39,611	1,628	365	6	8	.....	.....	16	.....	26,261
Dodge Cove	Launch	86	.....	751	.....	.....	.....	.....	.....	.....	.....	.....	.....
Francois Lake	Power	4,010	26,522	58,321	6,147	151	9	.....	.....	.....	17	91	32,829
Gabriola Island	Power	3,502	22,674	67,117	1,217	177	7	9	9	.....	3	.....	24,084
Glade	Power-cable scow	14,297	14,041	75,242	11,649	.....	.....	.....	.....	.....	18	.....	25,690
Gravelle	Pontoon (reaction)	2,074	517	4,701	802	1	337	2	6	.....	137	65	1,659
Hansard	Pontoon (reaction)	5,551	6,853	12,686	2,946	109	2	3	.....	.....	4	.....	9,913
Harrop	Power-cable scow	25,561	58,853	130,179	12,761	728	817	676	.....	.....	1,336	108	73,835
Hornby Island	Power	2,295	7,827	11,616	433	176	.....	.....	.....	.....	.....	8	8,436
Hudson Hope	Tug and barge	7,295	17,103	41,228	10,632	1,943	418	.....	.....	.....	10	42	30,096
Isle Pierre	Pontoon (reaction)	3,688	1,941	6,381	1,610	31	1	.....	.....	.....	.....	2	3,583
Kitwanga	Pontoon (reaction)	5,720	4,326	1,921	1,404	48	.....	3	.....	.....	6	9	5,781
Lasqueti Island	Power	445	.....	1,553	.....	.....	.....	.....	.....	142	.....	.....	.....
Kootenay Lake	Power	5,260	108,880	208,685	20,899	10,069	949	79	1	.....	63	.....	140,876
Little Fort	Pontoon	6,992	1,535	14,882	1,512	.....	.....	.....	.....	.....	681	44	3,047
Lytton	Pontoon (reaction)	12,622	6,145	53,130	3,332	34	544	86	944	.....	2,741	.....	10,141
Macalister	Pontoon (reaction)	8,995	4,721	15,866	4,427	19	2	2	20	.....	825	27	9,171
McLure	Pontoon (reaction)	5,013	3,203	10,692	1,322	.....	.....	.....	.....	.....	1,647	.....	4,525
Needles	Power-cable scow	19,088	28,089	72,305	15,291	1,317	809	8	.....	.....	1,202	.....	45,514
North Bend	Aerial ferry	41,602	35,838	86,560	14,591	92	408	30	.....	.....	15	72	50,959
Quathiaski Cove	Power	4,744	40,993	123,920	13,607	2,973	47	83	2	.....	.....	46	57,703
Renata	Power-cable scow	6,765	8,208	25,672	3,022	75	377	14	.....	.....	11	.....	11,696
Shuswap Lake	Tug and barge	190	8	1,212	140	87	.....	.....	.....	2,712	12	76	235
Soda Creek	Pontoon (reaction)	6,000	2,447	9,182	3,296	.....	.....	.....	.....	.....	.....	.....	5,743
Texada	Power	708	3,530	9,319	360	69	.....	16	.....	.....	.....	1	3,975
Stikine	Power-cable scow	1,257	459	2,743	619	158	.....	.....	.....	.....	.....	31	1,236

RECORD OF FERRY TRAFFIC, FISCAL YEAR 1963/64—*Continued*

Ferry	Type	Number of Round Trips	Automobiles	Passengers, Exclusive of Driver	Trucks, All Types	Trailers and Semi-trailers	Motor-buses	Motor-cycles and Bicycles	Rigs	Tons of Freight	Live Stock	Miscellaneous Vehicles	Total Vehicles Carried
Thetis Island	Power	2,410	7,991	39,508	1,127	66	2	14	.....	.....	.....	.....	9,200
Twelve Mile	Power-cable scow	24,761	30,321	77,609	19,305	1,177	830	6	.....	.....	.....	83	51,639
Twenty-four Mile	Power-cable scow	21,484	28,383	62,083	14,997	1,091	1,340	8	.....	.....	.....	221	45,819
Usk	Pontoon (reaction)	7,730	4,310	11,287	229	.....	.....	.....	.....	.....	.....	.....	4,539
Woodfibre	Power	4,274	21,086	122,396	2,880	738	.....	71	82	82	.....	.....	24,775
Totals	.....	445,415	1,506,956	3,078,873	443,828	38,990	17,237	1,681	1,004	2,951	28,519	1,479	2,008,692

H. K. GANN,
Superintendent of Ferries.

REPORT OF THE SUPERINTENDENT OF COMMUNICATIONS

During the year the communication network in the West Kootenay was re-routed to give adequate communication over new highway routes, and three remote sites were developed in this connection. Communication was also extended from New Denver into the Nakusp area.

A site was developed near Cache Creek to give more adequate highway coverage and to enable a communication extension into the Pemberton area. Communication was also extended from Squamish north to the Pemberton area.

A repeater was installed near Prince Rupert to cover district highways and to establish communication to the Queen Charlotte Islands.

Stations were established at Cache Creek and Hope for traffic-control purposes on the Fraser Canyon section of the Trans-Canada Highway.

Some 127 mobile units were added to the system.

Design work was undertaken and completed on a battery-operated repeater running off a thermal generator fired by propane. These units have no moving parts and, being housed in fibreglass buildings, are capable of a lift into position by helicopter on any mountain site. Three of these units are presently in operation on site and provide communications between Williams Lake and Anahim, Prince George and McBride, and from Revelstoke into the Trout Lake country.

Antenna de-icing equipment designed by the Department has been an unqualified success in eliminating outages due to ice conditions, and these units are being installed at all mountain sites where this problem exists.

Preliminary radio surveys were undertaken on the Stewart–Cassiar Road from the Yukon Border to Stewart and on the North Thompson Highway from Kamloops to Tête Jaune Cache.

Co-operation with other departments continued during the year, and our sites are being made available to the Royal Canadian Mounted Police, Canadian National Railways, West Kootenay Power and Light Company, British Columbia Forest Service, British Columbia Hydro and Power Authority, Civil Defence, and British Columbia Telephone Company.

W. F. CONLAN,
Superintendent of Communications.

REPORT OF THE INSURANCE AND SAFETY OFFICER

The number and cost of traffic accidents involving Government vehicles were as follows:—

Total number of accidents		641[1]
Number of claims in which we recovered our repair costs	100=	$16,565.37
Recoveries pending	27=	17,607.17
Total		$34,172.54
Number of property damage claims in which we paid out	111=	$23,042.30
Number of bodily injury claims in which we paid out	4=	1,180.18
Various claims pending	16=	4,921.45
Total		$29,143.93

[1] In 1962/63 there were 534 accidents.

Motor-vehicles Involved in Accidents

(1962/63 figures in parentheses.)

Department	Number of Accidents	Number of Vehicles	Percentage of Vehicles	Percentage of Accidents
Agriculture	3 (14)	75 (97)	1.6 (2.1)	0.5 (2.6)
Attorney-General	26 (24)	168 (148)	3.6 (3.3)	4.1 (4.5)
Education	6 (1)	70 (1)	1.5 (1)	0.9 (1)
Finance	8 (8)	76 (74)	1.6 (1.6)	1.2 (1.5)
Forest Service	105 (94)	961 (958)	20.4 (21.1)	16.4 (17.5)
Health Services and Hospital Insurance	52 (43)	267 (203)	5.7 (4.5)	8.1 (8.0)
Highways	367 (267)	2,424 (2,280)	51.4 (50.3)	57.3 (49.7)
Lands and Water Resources	4 (4)	105 (120)	2.2 (2.6)	0.6 (0.8)
Provincial Secretary	3 (1)	68 (1)	1.4 (1)	1.4 (1)
Public Works	9 (16)	74 (64)	1.6 (1.4)	3.6 (2.8)
Recreation and Conservation	23 (33)	245 (262)	5.2 (5.8)	3.7 (6.2)
Social Welfare	24 (12)	107 (109)	2.3 (2.4)	1.7 (2.3)
All others	11 (22)	72 (220)	1.5 (4.9)	0.5 (4.1)
Totals	641 (537)	4,712 (4,535)	100.0 (100.0)	100.0 (100.0)

[1] Included with all others in previous years.

Total assessments (184) recommended, $2,025.00.

Comparison by Years of Claims Paid by the Government

1960/61	$34,224.00	1962/63	$28,352.00[2]
1961/62	24,281.00[1]	1963/64	24,222.00[3]

[1] One claim pending. [2] Two claims pending. [3] Sixteen claims pending.

Damages Recovered by the Government

1960/61	$15,034.00[1]	1962/63	$12,642.00[3]
1961/62	16,970.00[2]	1963/64	16,565.00[4]

[1] One claim pending. [2] One claim pending. [3] Three claims pending. [4] Twenty-seven claims pending.

Damage Cost

Estimated damage to Government vehicles	$89,825.00
Less damage recovered or pending	34,173.00
Net cost to repair Government damage	$55,652.00
Add third-party claims paid or pending	29,144.00
Estimated total damage cost resulting from accidents	$84,796.00
Estimated total damage cost resulting from accidents, 1962/63	87,516.00

Totals for all types of claims processed through this office: Recovered, $87,852; paid out, $54,131.

Premiums Paid for Insurance Placed during 1963/64

Department of Highways	$7,832.40
British Columbia Toll Highways and Bridges Authority	182,476.08
All other departments	37,324.37
Total	$227,632.85

SAFETY PROMOTION

A greater effort must be put into the promotion and practice of safety in most regions and districts if a generally improved frequency and severity rate is to be reflected. The minutes of the meetings of the District Accident Prevention Committee reflect a sustained interest in the subject-matter, but closer checking and follow-up on recommendations is indicated.

Fifteen crews qualified for bronze safety awards during the year, seven crews qualified for silver awards, and the Albion Ferry crew qualified for a gold award.

The Co-ordinator of Accident Prevention has worked in close liaison with all regions and districts.

There were six fatal accidents in the reporting year. One employee fell from the First Narrows Bridge; a member of a survey crew was electrocuted; one man was killed by a vehicle passing on the highway at high speed; another employee was burned to death when gasoline which was being siphoned into a tank was ignited; a tractor overturned on an employee; and another employee died of asphyxia in a repeater station.

The Interdepartmental Safety Committee held 16 meetings to examine reports of accidents involving Government-owned motor-vehicles. Good attendance at the meetings was generally the case and willing co-operation given by the members, for which the Chairman expresses his thanks to the members.

J. A. LONSBURY,
Insurance and Safety Officer.

REPORT OF THE PERSONNEL OFFICER

POSITION COMPETITIONS

The Civil Service Commission posted 28 Departmental competitions, and this office posted 34 internal competitions.

APPLICATIONS

A total of 1,148 applications was received and processed.

PROMOTIONS

Most important promotion during the year was that of Mr. D. D. Godfrey, from Regional Highway Engineer, North Vancouver, to Chief Engineer, Victoria.

JOB EVALUATIONS

There were 12 job reviews conducted by this office, all resulting in reclassification.

SAFETY

Regional Safety Officers appointed for the forthcoming year were Mr. R. B. Gilmour, Chilliwack (Region 1); Mr. H. Francis, Kamloops (Region 2); Mr. W. M. Sproul, Nelson (Region 3); and Mr. G. R. Kent, Vanderhoof (Region 4).

ORGANIZATION

The Paving Branch, formerly under the Director of Construction, was separated, Mr. J. W. G. Kerr becoming the Branch head with direct responsibility to the Chief Engineer.

TRAINING

There has been great interest created by our Regional Highway Engineers in workshop procedures of training. All regions conducted foreman workshops, which are providing greater technical knowledge and understanding of Departmental activities and functions.

The engineer-in-training programme is proceeding at a steady pace, and we are gradually producing a good number of professional engineers who have obtained a practical knowledge of all operations within the Department.

MANUAL OF PERSONNEL ADMINISTRATION

A new manual was completed in the year with a new format, enabling the field to provide more efficient local personnel administration. Mr. A. R. Limacher, Regional Office Manager, Prince George, was responsible for the extensive detailed work required to produce the manual and is to be highly complimented for his dedicated and sincere efforts on behalf of the Department.

H. C. DAVIES,
Personnel Officer.

TENDERS RECEIVED AND CONTRACTS AWARDED, FISCAL YEAR 1963/64

HIGHWAYS

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. 1284—Arterial 2R (Route No. 1), Reconstruction, Bolivar Road–Whitehouse Corner (1.60 Miles):		Four-lane project, including plant-mix pavement, curb and gutter.
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	$550,892.75	Awarded.
Winvan Gravel & Supply Ltd.	564,098.18	
Dawson Construction Ltd.	601,920.12	
Columbia Bitulithic Ltd.	684,239.65	
Project No. 1292—Richter Pass Highway, Construction, Osoyoos Junction West (3.89 Miles):		
Emil Anderson Construction Co. Ltd.	598,954.10	Awarded.
Peter Kiewit Sons Co. of Canada Ltd.	600,135.00	
P. F. Law Construction Ltd.	639,034.00	
W. C. Arnett & Co. Ltd.	645,025.00	
Dawson Construction Ltd.	691,657.60	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	698,257.00	
View Construction Co. Ltd.	784,243.00	
Project No. 1341—Rossland–Sheep Lake Highway, Construction, Rossland–Sheep Lake Section 3 (6.05 Miles):		
P. F. Law Construction Ltd.	819,957.70	Awarded.
View Construction Co. Ltd.	821,764.20	
Emil Anderson Construction Co. Ltd.	924,295.00	
Peter Kiewit Sons Co. of Canada Ltd.	948,609.00	
Square M Construction Ltd. and Coleman Collieries Ltd.	994,992.00	
Bedford Construction Co. Ltd.	966,999.40	
W. C. Arnett & Co. Ltd.	1,026,016.00	
McNamara Construction (Western) Ltd.	1,039,701.00	
Dawson Construction Ltd.	1,073,117.70	
General Construction Ltd.	1,130,496.50	
Project No. 1355—Long Harbour–Vesuvius Highway, Construction, Long Harbour–Scott Road Junction (2.67 Miles):		Saltspring Island.
McPhail's Construction Co. Ltd.	263,183.50	Awarded.
Dawson Construction Ltd.	280,906.40	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	281,285.00	
Nanaimo Bulldozing Co. Ltd.	295,753.62	
Bedford Construction Co. Ltd.	392,646.00	
Project No. 1356—Trans-Canada Highway, Reconstruction, Chase By-pass (1.90 Miles):		
Atlas Crushing Co. Ltd.	182,924.00	Awarded.
View Construction Co. Ltd.	193,274.46	
New West Construction Co. Ltd.	213,936.00	
Emil Anderson Construction Co. Ltd.	216,232.75	
W. C. Arnett & Co. Ltd.	217,071.50	
United Contractors Ltd.	237,314.00	
Dawson Construction Ltd.	243,189.30	
McPhail's Construction Co. Ltd.	265,780.00	
Peter Kiewit Sons Co. of Canada Ltd.	266,230.00	
Project No. 1357—Cariboo Highway, Construction, Lot 1944–Fraser River (6.43 Miles):		Prince George By-pass.
Ben Ginter Construction Co. Ltd.	817,392.00	Awarded.
Peter Kiewit Sons Co. of Canada Ltd.	830,834.50	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	842,109.00	
Dawson Construction Ltd.	899,713.30	
W. C. Arnett & Co. Ltd.	956,172.00	
Emil Anderson Construction Co. Ltd.	1,129,652.00	
Bedford Construction Co. Ltd.	1,221,925.50	

HIGHWAYS—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. 1358—John Hart Highway, Reconstruction, Mile 183.0 to Mile 163.7 (18.77 Miles):		
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	$1,517,485.00	Awarded.
W. C. Arnett & Co. Ltd.	1,557,145.00	
Ben Ginter Construction Co. Ltd.	1,618,576.50	
Emil Anderson Construction Co. Ltd.	1,640,898.00	
Dawson Construction Ltd.	1,645,646.70	
Bedford Construction Co. Ltd.	2,145,397.30	
Peter Kiewit Sons Co. of Canada Ltd.	2,185,739.00	
Reg Pearen Ltd.	2,229,688.00	
Project No. 1361—North Thompson Highway, Reconstruction, Vavenby–McMurphy (14.80 Miles):		
Ben Ginter Construction Co. Ltd.	1,089,611.45	Awarded.
Peter Kiewit Sons Co. of Canada Ltd.	1,196,065.00	
W. C. Arnett & Co. Ltd.	1,212,856.75	
Emil Anderson Construction Co. Ltd.	1,292,189.00	
New West Construction Co. Ltd.	1,299,522.00	
Dawson Construction Ltd.	1,309,948.00	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	1,407,876.00	
United Contractors Ltd.	1,435,451.85	
Project No. 1377—Hudson Hope–Chetwynd Highway, Construction, Hudson Hope–Chetwynd, Section 1 (12.67 Miles):		
Ben Ginter Construction Co. Ltd.	1,033,405.00	Awarded.
United Contractors Ltd.	1,037,911.75	
McPhail's Construction Co. Ltd.	1,079,484.90	
Peter Kiewit Sons Co. of Canada Ltd.	1,136,639.60	
W. C. Arnett & Co. Ltd.	1,157,713.00	
Reg Pearen Ltd.	1,177,053.00	
Dawson Construction Ltd.	1,190,473.60	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	1,334,528.00	
McNamara Construction (Western) Ltd.	1,367,152.00	
Project No. 1378—Trans-Canada Highway, Reconstruction, Tank Hill Washouts (0.82 Mile):		Not awarded 1963/64.
Emil Anderson Construction Co. Ltd.	276,557.50	
Dawson Construction Ltd.	285,629.10	
Interior Contracting Co. Ltd.	298,336.40	
W. C. Arnett & Co. Ltd.	312,082.00	
A. C. McEachern Ltd.	337,118.40	
Peter Kiewit Sons Co. of Canada Ltd.	385,633.50	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	506,510.20	
Northern Construction Co. and J. W. Stewart Ltd.	548,149.00	
Project No. 1379—Northern Trans-Provincial Highway, Reconstruction, Mudflat Creek Overhead–Seaton (7.77 Miles):		
Dawson Construction Ltd.	894,629.70	Awarded.
Ben Ginter Construction Co. Ltd.	945,586.50	
Peter Kiewit Sons Co. of Canada Ltd.	1,054,542.50	
W. C. Arnett & Co. Ltd.	1,076,029.00	
Project No. 1382—Northern Trans-Provincial Highway, Construction, Dome Creek–Crescent Spur, Section 1 (10.04 Miles):		
Ben Ginter Construction Co. Ltd.	934,364.10	Awarded.
Square M Construction Ltd. and Coleman Collieries Ltd.	957,677.70	
Dawson Construction Ltd.	1,161,685.50	
Peter Kiewit Sons Co. of Canada Ltd.	1,569,841.00	
Project No. 1389—Prince George Pulp-mill Road, Construction (3.15 Miles):		
United Contractors Ltd.	328,221.00	Awarded.
Reg Pearen Ltd.	367,309.00	
McPhail's Construction Co. Ltd.	377,753.60	
Dawson Construction Ltd.	390,839.00	
Ben Ginter Construction Co. Ltd.	391,762.00	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	443,737.50	

PAVING

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. S-8162—Trans-Canada Highway, Vancouver–Fraser River Section, Mile 70.77 to Mile 75.59 (4.82 Miles):		Bituminous plant-mix pavement (four lanes and interchanges, etc.).
E. R. Taylor Construction Co. Ltd.	$271,007.00	Reawarded.
City Construction Co. Ltd.	256,884.30	Awarded then released.
Dawson Construction Ltd.	299,095.80	
Marwell Construction Ltd. and Jamieson Construction Co. Ltd.	322,346.50	
Peter Kiewit Sons Co. of Canada Ltd.	359,960.00	
Project No. S-8262 — Trans-Canada Highway, Vancouver–Fraser River Section, Mile 75.59 to Mile 81.91 (6.32 Miles):		Bituminous plant-mix pavement (four lanes and interchanges, etc.).
Dawson Construction Ltd.	226,059.00	Awarded.
Columbia Bitulithic Ltd.	230,292.50	
Winvan Gravel & Supply Ltd.	254,449.00	
City Construction Co. Ltd.	265,582.00	
Jack Cewe Ltd.	268,502.70	
General Construction Co. Ltd.	274,332.50	
Marwell Construction Ltd.	284,792.50	
Peter Kiewit Sons Co. of Canada Ltd.	301,085.00	
McNamara Construction (Western) Ltd.	306,360.00	
Project No. S-8562—Trans-Canada Highway, Abbotsford–Vedder River, Mile 113.60 to Mile 124.24 (10.64 Miles):		Bituminous plant-mix pavement (four lanes and interchanges, etc.) and part crushed-gravel base.
Columbia Bitulithic Ltd.	290,745.50	Awarded.
Dawson Construction Ltd.	306,052.00	
Western Paving Ltd.	369,560.00	
General Construction Co. Ltd.	379,383.50	
Peter Kiewit Sons Co. of Canada Ltd.	402,990.00	
Project No. S-0163—Ucluelet–Tofino and Alberni–Tofino Highways, Ucluelet to Mile 19.5 North and Junction of Ucluelet–Tofino Highway Eastward 4.2 Miles to Thunder River Bridge (23.7 Miles):		Bituminous plant-mix pavement and crushed granular base.
Western Paving Ltd.	291,080.00	Awarded.
Columbia Bitulithic Ltd.	344,815.00	
Dawson Construction Ltd.	359,754.40	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	379,298.00	
Peter Kiewit Sons Co. of Canada Ltd.	454,580.00	
Project No. S-0263—Miscellaneous Sections in Saanich and Esquimalt Electoral Districts (12.5 Miles):		Bituminous plant-mix pavement and part crushed granular base.
Dawson Construction Ltd.	193,028.20	Awarded.
E. R. Taylor Construction Co. Ltd.	198,265.00	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	208,020.00	
Peter Kiewit Sons Co. of Canada Ltd.	231,460.00	
Project No. S-0363—Lougheed Highway, Harris Road to Stave River Section (13.2 Miles):		Bituminous plant-mix pavement and crushed granular base.
Columbia Bitulithic Ltd.	229,030.00	Awarded.
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	255,140.00	
Peter Kiewit Sons Co. of Canada Ltd.	266,140.00	
Marwell Construction Ltd.	278,470.00	
Dawson Construction Ltd.	284,207.00	
Project No. S-0463—East Hastings St., Holdum Ave. to Cliff Ave. (1.01 Miles):		Bituminous plant-mix pavement, curb and gutter, select and crushed granular base.
Columbia Bitulithic Ltd.	191,659.75	Awarded.
Winvan Gravel & Supply Ltd.	195,500.15	
Dawson Construction Ltd.	215,964.15	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	222,817.11	
Tide Bay Dredging Co. Ltd.	228,288.26	
City Construction Co. Ltd.	233,535.67	

PAVING—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. S-0563—Marine Drive (132R), 13th St. to Horseshoe Bay Overpass, West Vancouver (9.4 Miles):		Bituminous plant-mix pavement.
Columbia Bitulithic Ltd.	$46,635.00	Awarded.
The Jamieson Construction Co. Ltd.	59,400.00	
B.A. Blacktop Ltd.	67,841.08	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	76,800.00	
Project No. S-1163—Chilcotin–Bella Coola Highway, Crushing and Stockpiling ¾-inch Granular Base and Asphalt Paving Aggregate:		
Midvalley Construction Ltd.	93,640.00	Awarded.
Diamond Construction Co. Ltd.	94,267.32	
Western Paving Ltd.	95,900.00	
City Construction Co. Ltd.	100,726.00	
Central Gravel Supplies Mission Ltd.	101,400.00	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	108,350.00	
S. & W. Gravel Crushing Co. Ltd.	109,300.00	
E. R. Taylor Construction Co. Ltd.	124,489.00	
Dawson Construction Ltd.	148,425.00	
Project No. S-2163—Southern Trans-Provincial Highway, Skaist Creek–Cambie Creek Section, Mile 26.93 to Mile 38.90 (11.97 Miles):		Bituminous plant-mix pavement and part crushed granular base.
Western Paving Ltd.	173,445.00	Awarded.
City Construction Co. Ltd.	181,092.42	
General Construction Co. Ltd.	185,290.00	
Dawson Construction Ltd.	188,173.50	
Columbia Bitulithic Ltd.	192,434.00	
Marwell Construction Ltd.	214,997.00	
Peter Kiewit Sons Co. of Canada Ltd.	243,005.00	
Project No. S-2263—Okanagan Highway, Kaleden–Summerland Hill Section (11.78 Miles):		Bituminous plant-mix pavement.
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	122,138.00	Awarded.
Marwell Construction Ltd.	131,555.00	
City Construction Co. Ltd.	135,664.81	
Columbia Bitulithic Ltd.	152,910.00	
Peter Kiewit Sons Co. of Canada Ltd.	157,830.00	
E. R. Taylor Construction Co. Ltd.	163,597.60	
G. R. Dawson Holdings Ltd.	172,965.70	
Project No. S-2363—Cariboo Highway, Mile 49.35 to Mile 68.63 (19.3 Miles):		Bituminous plant-mix pavement and select and crushed granular base. Not awarded in 1963/64.
Columbia Bitulithic Ltd.	332,840.00	
Marwell Construction Ltd.	407,900.00	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	413,512.00	
Western Paving Ltd.	413,835.00	
Mid-West Construction (1958) Ltd.	420,136.00	
G. R. Dawson Holdings Ltd.	498,257.40	
Peter Kiewit Sons Co. of Canada Ltd.	541,105.50	
City Construction Co. Ltd.	550,852.17	
Project No. S-4163—Southern Trans-Provincial Highway, Junction of Highway No. 6 to Summit Lake (14.74 Miles):		Bituminous plant-mix pavement and crushed granular base.
Marwell Construction Ltd.	200,498.00	Awarded.
Dawson Construction Ltd.	206,344.60	
City Construction Co. Ltd.	213,432.60	
Project No. S-4263—Southern Trans-Provincial Highway, Creston–Blazed Creek and Creston Arterials (17.29 Miles):		Bituminous plant-mix pavement and part crushed granular base.
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	207,791.00	Awarded.
City Construction Co. Ltd.	211,835.80	
Marwell Construction Ltd.	212,198.60	
Dawson Construction Ltd.	230,833.80	
Peter Kiewit Sons Co. of Canada Ltd.	233,282.00	
McNamara Construction (Western) Ltd.	234,450.04	
Mannix Co. Ltd.	270,315.62	

PAVING—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. S-4363—Miscellaneous Sections, Nelson (14.31 Miles):		Bituminous plant-mix pavement and part select and crushed granular base.
Dawson Construction Ltd.	$203,705.69	Awarded.
Marwell Construction Ltd.	212,937.50	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	236,531.00	
Western Paving Ltd.	239,760.00	
Columbia Bitulithic Ltd.	251,689.00	
Project No. S-4463—Kootenay–Columbia Highway, South Vermilion–Harrogate (26 Miles):		Bituminous plant-mix pavement and crushed granular base.
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	158,969.00	Awarded.
Columbia Bitulithic Ltd.	171,870.00	
Marwell Construction Ltd.	176,868.00	
Peter Kiewit Sons Co. of Canada Ltd.	190,085.00	
Poole Engineering (1958) Ltd.	221,861.00	
Dawson Construction Ltd.	237,952.00	
Project No. S-6263—Cariboo and John Hart Highways, Prince George By-pass and Salmon River Bridge to Summit Lake Section (15.2 Miles):		Bituminous plant-mix pavement and part pit-run and crushed granular base.
City Construction Co. Ltd.	235,694.60	Awarded.
Dawson Construction Ltd.	244,142.00	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	253,317.00	
Western Paving Ltd.	259,160.00	
Columbia Bitulithic Ltd.	260,840.00	
Marwell Construction Ltd.	276,720.00	
Peter Kiewit Sons Co. of Canada Ltd.	291,785.00	
Poole Engineering (1958) Ltd.	367,432.00	
Project No. S-6363—John Hart Highway, P.G.E. Railway Crossing to Silver Sands Creek, Mile 115.6 to Mile 148.8 (33.2 Miles):		Bituminous plant-mix pavement and crushed granular base.
Columbia Bitulithic Ltd.	476,473.00	Awarded.
Dawson Construction Ltd.	491,820.10	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	549,859.00	
City Construction Co. Ltd.	559,299.72	
Poole Engineering (1958) Ltd.	647,966.00	
Project No. S-6463—Dawson Creek–Alberta Boundary Highway No. 2, N.A. Railway Crossing Northerly to South Boundary of Dawson Creek (6.8 Miles):		Bituminous plant-mix pavement and part select and crushed granular base, with curb and gutter in Pouce Coupe.
Gibbs Construction Co. Ltd.	279,198.25	Awarded.
Poole Engineering (1958) Ltd.	285,494.00	
Dawson Construction Ltd.	326,333.54	
Columbia Bitulithic Ltd.	330,058.80	
Project No. S-6563—Northern Trans-Provincial Highway, Rose Lake–MacEvoy Section (19.3 Miles):		Bituminous plant-mix pavement and select and crushed granular base.
Dawson Construction Ltd.	289,917.25	Awarded.
Peter Kiewit Sons Co. of Canada Ltd.	311,755.00	
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	337,207.00	
City Construction Co. Ltd.	341,101.81	
Western Paving Ltd.	346,470.00	
Columbia Bitulithic Ltd.	362,870.00	
Poole Engineering (1958) Ltd.	436,705.00	
Project No. S-6663—Northern Trans-Provincial Highway, New Hazelton–Mudflat Creek Section (7.2 Miles):		Bituminous plant-mix pavement and crushed granular base.
Dawson Construction Ltd.	142,704.00	Awarded.
Mid-West Construction (1958) Ltd.	149,240.00	
Columbia Bitulithic Ltd.	167,492.00	
City Construction Co. Ltd.	190,884.50	
Project No. S-6763—Fort St. John Arterials 142R and 279R (2.7 Miles):		Bituminous plant-mix pavement and select and crushed granular base.
Columbia Bitulithic Ltd.	104,779.00	Awarded.
Poole Engineering (1958) Ltd.	136,320.00	
Midvalley Construction Ltd.	152,267.00	

PAVING—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. S-6863—Hudson Hope to Gold Bar Road and B.C. Hydro Camp Road (12.8 Miles):		Bituminous plant-mix pavement and select and crushed granular base.
Peter Kiewit Sons Co. of Canada Ltd.	$272,245.00	Awarded.
Poole Engineering (1958) Ltd.	297,090.00	
Dawson Construction Ltd.	329,125.60	
Project No. S-8263 — Trans-Canada Highway, Port Mann Bridge–Springbrook Road, Mile 85.12 to Mile 97.22 (12.10 Miles):		Bituminous plant-mix pavement (four lanes and interchanges, etc.).
Dawson Construction Ltd.	428,582.50	Awarded.
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	473,204.00	
Columbia Bitulithic Ltd.	480,187.50	
Mid-West Construction (1958) Ltd.	530,000.00	
Marwell Construction Ltd.	545,734.00	
Poole Engineering (1958) Ltd.	622,075.00	
Project No. S-8363—Trans-Canada Highway, Hunter Creek–Hope Sections:		Bituminous plant-mix pavement and part crushed granular base.
Columbia Bitulithic Ltd.	103,325.00	Awarded.
Peter Kiewit Sons Co. of Canada Ltd.	104,275.00	
Project No. S-8563—Trans-Canada and Tranquille Highways, Campbell Creek Underpass and Pritchard–Chase Sections, and North Kamloops to Tranquille (19.57 Miles):		Bituminous plant-mix pavement and part select and crushed granular base.
Dawson Construction Ltd.	326,368.30	Awarded.
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd., and Peter Kiewit Sons Co. of Canada Ltd.	362,345.00	
Columbia Bitulithic Ltd.	373,400.00	
McNamara Construction (Western) Ltd.	399,353.00	

BRIDGES, FERRIES, AND FERRY-LANDINGS

Project No. 22—Contract No. 14, Steel Fences for Divers Highway Bridges:		Supply, fabrication, and shop painting.
Coast Steel Fabricators Ltd.	$19,412.34	Awarded.
Columbia Steel Fabricating & Engineering Ltd.	20,136.25	
Pacific Welding & Metal Works Ltd.	21,367.74	
Brittain Steel Fabricators Ltd.	22,160.13	
Surrey Ironworks Ltd.	22,971.00	
United Engineering Works Ltd.	23,437.94	
Westminster Iron Works Ltd.	23,544.52	
A.I.M. Steel Ltd.	24,646.72	
Tryson & Son Iron Works Ltd.	24,906.80	
Dominion Bridge Co. Ltd., Vancouver Branch	24,956.10	
Canada Iron Foundries Ltd., Western Bridge Division	25,733.40	
Project No. 22—Contract No. 15, Aluminum Pipe Railings for Divers Highway Bridges:		Supply and fabrication of aluminum pipe-railing material.
Brittain Steel Fabricators Ltd.	30,734.19	Awarded.
Pacific Welding & Metal Works Ltd.	18,714.79	Tender withdrawn.
Canada Iron Foundries Ltd., Western Bridge Division	33,612.68	
Tryson & Son Iron Works Ltd.	35,395.20	
Dominion Bridge Co. Ltd., Vancouver Branch	35,471.72	
Project No. 22—Contract No. 16, Supply, Fabrication, and Delivery of Steel Median Barrier and Railing for Port Mann Bridge and Second Narrows Bridge, Trans-Canada Highway:		
Dominion Bridge Co. Ltd.	155,136.42	Awarded (Alternative "B").
Project No. 22—Contract No. 17, Steel Fences for Divers Highway Bridges:		
Coast Steel Fabricators Ltd.	25,285.85	Awarded.
New Westminster Iron Division of Cargate Westminster Industries Ltd.	26,108.73	
Columbia Steel Fabricating & Engineering Ltd.	26,317.50	

BRIDGES, FERRIES, AND FERRY-LANDINGS—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. 22—Contract No. 17, Steel Fences for Divers Highway Bridges—Continued		
Steel-bilt Contractors Ltd.	$26,635.90	
North Coast Welding Co. Ltd.	26,697.70	
Tryson & Son Iron Works Ltd.	27,038.10	
Canada Iron Foundries Ltd., Western Bridge Division	27,471.70	
Brittain Steel Fabricators Ltd.	27,492.48	
A.I.M. Steel Ltd.	27,869.99	
Surrey Ironworks Ltd.	28,443.00	
Gilchrist Steel Ltd.	29,490.90	
Dominion Bridge Co. Ltd.	31,616.82	
Project No. 183—Alexandra Bridge, Contract No. 4, Painting Superstructure Steelwork:		Lump-sum contract.
J. Boshard & Son Ltd.	23,677.58	Awarded.
Burrard Painting & Decorating Ltd.	24,657.00	
Johnson & Neven Ltd.	24,715.00	
Harry Webster	24,850.50	
West Coast Painting Co. Ltd.	28,224.00	
Kootenay Decorators	28,842.00	
C. H. Brawn & Son Ltd.	56,000.00	
M. Sleightholme & Co. Ltd.	70,307.00	
Project No. 255—Contract No. 1, General, C.P.R. Underpass at Creston:		
D. J. Manning Construction Ltd.	76,789.00	Awarded.
Kenyon & Co. Ltd.	86,763.74	
Kryski Bros. Contracting Co. Ltd.	96,921.00	
Tollestrup Construction Co. Ltd.	99,634.90	
Bennett & White Construction Co. Ltd.	100,722.01	
Poole Construction Co. Ltd.	106,455.00	
Benray Bridge Co. Ltd.	107,726.45	
Vancouver Pile Driving & Contracting Co. Ltd.	108,539.10	
Project No.255—Contract No.2, C.P.R. Underpass at Creston:		Fabrication of steel superstructure.
A.I.M. Steel Ltd.	10,111.50	Awarded.
Dominion Bridge Co. Ltd.	10,372.05	
Canada Iron Foundries Ltd., Western Bridge Division	11,367.00	
Brittain Steel Fabricators Ltd.	12,726.25	
Project No. 267—Contract No. 8, Port Mann Bridge, Fencing, Catwalks, and Miscellaneous Steelwork:		
Dominion Bridge Co. Ltd.	264,173.50	Awarded.
Westminster Iron Works Ltd.	267,595.32	
Canada Iron Foundries Ltd., Western Bridge Division	268,837.70	
A.I.M. Steel Ltd.	283,094.04	
Tryson & Son Iron Works Ltd.	285,074.88	
Project No. 267—Contract No. 9, Port Mann Bridge, Concrete Paving of the Approach Spans:		
Northern Construction Co. and J. W. Stewart Ltd.	170,986.00	Awarded.
Sansan Installations Ltd. and J. Bruno & Sons Ltd.	188,620.00	
Project No. 267—Contract No. 11, Port Mann Bridge (Fraser River), Trans-Canada Highway, Cleaning, Priming, and Sealing of Steel Deck, Supply and Installation of Concrete Sidewalks:		Not awarded 1963/64.
Sansan Installations Ltd. and J. Bruno & Son Ltd.	165,014.78	
Northern Construction Co. and J. W. Stewart Ltd.	211,400.00	
Vancouver Pile Driving & Contracting Co. Ltd.	239,914.00	
Project No. 315—Contract No. 1, Stuart River Bridge, Vanderhoof–Stuart Lake Road, Substructure:		
Vancouver Pile Driving & Contracting Co. Ltd.	53,968.80	Awarded.
Benray Bridge Co. Ltd.	56,124.25	
Duncan Baynes Ltd.	71,761.00	
Narod Construction Ltd.	71,867.00	
Interior Contracting Co. Ltd.	78,427.60	
Project No. 335—Contract No. 4, Avalanche Sheds, Trans-Canada Highway, Lanark Shed, Avalanche Guide Walls:		
Astra Construction Co. Ltd.	62,210.00	Awarded.
Prime Construction Ltd.	66,624.00	
Burns & Dutton Construction (1962) Ltd.	75,340.00	

BRIDGES, FERRIES, AND FERRY-LANDINGS—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. 395—Contract No. 1, General, G.N.R. Overpass, Deas Tunnel Throughway:		
Grimwood Construction Co. Ltd.	$57,396.10	Awarded.
John Laing & Son (Canada) Ltd.	62,931.00	
Biely Construction Co. Ltd.	66,763.72	
Narod Construction Ltd.	69,388.12	
Vancouver Pile Driving & Contracting Co. Ltd.	71,466.00	
D. J. Manning Construction Ltd.	71,839.60	
Tide Bay Dredging Co. Ltd.	76,274.25	
Marpole Construction Co. Ltd.	77,641.00	
Project No. 395—Contract No. 2, G.N.R. Overpass, Deas Tunnel Throughway:		Fabrication and erection of structural steelwork.
Brittain Steel Fabricators Ltd.	175,793.20	Awarded.
A.I.M. Steel Ltd.	181,643.90	
Dominion Bridge Co. Ltd.	188,313.60	
Canada Iron Foundries Ltd., Western Bridge Division	191,449.00	
Project No. 403—Contract No. 1, General, Lemon Creek Bridge, Slocan Highway:		
Kenyon & Co. Ltd.	39,593.15	Awarded.
Creighton Construction Co. Ltd.	42,809.65	
D. J. Manning Construction Ltd.	44,049.50	
Vancouver Pile Driving & Contracting Co. Ltd.	46,109.50	
Tide Bay Dredging Co. Ltd.	50,430.80	
Interior Contracting Co. Ltd.	50,487.30	
Project No. 403—Contract No. 2, Lemon Creek Bridge, Slocan Highway:		Fabrication of steel superstructure.
A.I.M. Steel Ltd.	17,754.39	Awarded.
Westminster Boiler & Tank Co. Ltd.	18,610.76	
Brittain Steel Fabricators Ltd.	18,611.82	
Ross & Howard Iron Works Co. Ltd.	19,931.20	
Pacific Welding & Metal Works Ltd.	20,025.50	
Dominion Bridge Co. Ltd.	20,714.70	
Canada Iron Foundries Ltd., Western Bridge Division	21,213.00	
Gilchrist Engineering & Sales Ltd.	21,477.50	
Columbia Steel Fabricating & Engineering Ltd.	23,419.00	
Tryson & Son Iron Works Ltd.	24,006.40	
Project No. 411—Contract No. 2, Nimpkish River Bridge, Port McNeill–Beaver Cove Highway:		Erection of structural steelwork.
Bickerton Bridge & Steel Erectors Co.	33,876.92	Awarded.
Jones-Cote Construction Ltd.	35,400.00	
Dominion Bridge Co. Ltd.	36,160.00	
Canada Iron Foundries Ltd., Western Bridge Division	37,400.00	
Amerada Bridge & Steel Erectors Ltd.	42,769.00	
Project No. 411—Contract No. 3, Nimpkish River Bridge, Port McNeill–Beaver Cove Highway:		Deck.
Vancouver Pile Driving & Contracting Co. Ltd.	42,716.80	Awarded.
Tide Bay Dredging Co. Ltd.	56,958.00	
Marpole Construction Co. Ltd.	59,125.00	
Project No. 412—Contract No. 1, King George VI Highway Underpass, Deas Tunnel Throughway:		
Grimwood Construction Co. Ltd.	87,911.65	Awarded.
Narod Construction Ltd.	91,222.69	
Chapman-Long Construction Ltd.	92,332.60	
Biely Construction Co. Ltd.	94,045.88	
John Laing & Son (Canada) Ltd.	95,371.60	
Burns & Dutton Construction (1962) Ltd.	109,100.85	
Dawson Construction Ltd.	114,298.15	
Vancouver Pile Driving & Contracting Co. Ltd.	118,622.00	
Northern Construction Co. and J. W. Stewart Ltd.	126,513.00	
Project No. 412—Contract No. 2, King George VI Highway Underpass, Deas Tunnel Throughway:		Manufacture and erection of prestressed concrete stringers.
Superior Concrete Products Ltd.	54,514.00	Awarded.
Graybar Precast Ltd.	58,894.00	
Con-Force Products Ltd.	82,598.00	

BRIDGES, FERRIES, AND FERRY-LANDINGS—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. 419—Contract No. 1, General, Arrow Creek Bridge, Southern Trans-Provincial Highway:		
Vancouver Pile Driving & Contracting Co. Ltd.	$34,312.40	Awarded.
Kenyon & Co. Ltd.	38,052.55	
D. J. Manning Construction Ltd.	39,031.00	
Chapman-Long Construction Ltd.	42,908.00	
Bennett & White Construction Co. Ltd.	43,755.05	
Inland Construction Co. Ltd.	47,975.45	
Astra Construction Co. Ltd.	48,108.00	
Tollestrup Construction Co. Ltd.	49,613.20	
Louis Salvador & Son Ltd.	50,837.00	
Poole Construction Co. Ltd.	54,033.60	
Benray Bridge Co. Ltd.	54,470.80	
Kryski Bros. Contracting Co. Ltd.	55,861.70	
Project No. 419—Contract No. 2, Arrow Creek Bridge, Southern Trans-Provincial Highway:		Fabrication and erection of structural steelwork.
A.I.M. Steel Ltd.	54,336.20	Awarded.
Canada Iron Foundries Ltd., Western Bridge Division	55,690.00	
Dominion Bridge Co. Ltd., Vancouver Branch	55,731.80	
Westminster Boiler & Tank Co. Ltd.	57,865.00	
Brittain Steel Fabricators Ltd.	60,634.05	
Project No. 420—New Steel Tug for Barnston Island Ferry:		Lump-sum contract.
Allied Shipbuilders Ltd.	24,465.00	Awarded.
John Manly Ltd.	28,558.00	
McKenzie Barge & Derrick Ltd.	32,700.00	
Project No. 422—Greenwood Underpass and Approaches, Southern Trans-Provincial Highway:		Second call for tenders. Awarded.
Interior Contracting Co. Ltd.	118,524.50	
Kenyon & Co. Ltd.	122,843.36	
Benray Bridge Co. Ltd.	123,675.00	
D. J. Manning Construction Ltd.	133,096.00	
Kryski Bros. Contracting Co. Ltd.	146,122.70	
Project No. 423—Contract No. 2, Copper River Bridge Northern Trans-Provincial Highway:		Fabrication and erection of structural steelwork.
Dominion Bridge Co. Ltd., Vancouver Branch	152,451.59	Awarded.
Brittain Steel Fabricators Ltd.	154,431.73	
A.I.M. Steel Ltd.	156,829.75	
Canada Iron Foundries Ltd., Western Bridge Division	157,324.70	
Project No. 424—Haguelgate Bridge Redecking, Hazelton High Level Road:		
Bickerton Bridge & Steel Erectors Co.	58,283.98	Awarded.
D. J. Manning Construction Ltd.	61,305.00	
Dominion Bridge Co. Ltd., Vancouver Branch	68,530.75	
A.I.M. Steel Ltd.	73,565.97	
Canada Iron Foundries Ltd., Western Bridge Division	75,330.40	
Project No. 429—Improvements to Nine Bridges on Southern Trans-Provincial Highway (Western Sector of Hope–Princeton Highway):		
D. J. Manning Construction Ltd.	167,850.70	Awarded.
Kenyon & Co. Ltd.	168,827.59	
Narod Construction Ltd.	176,352.33	
Chapman-Long Construction Ltd.	184,411.65	
Interior Contracting Co. Ltd.	185,799.75	
Project No. 439—Contract No. 1, Tulameen River Bridge, Princeton–Merritt Highway:		First call for tenders (not awarded).
Kenyon & Co. Ltd.	58,986.07	
D. J. Manning Construction Ltd.	67,453.00	
Marpole Construction Co. Ltd.	67,793.00	
Chapman-Long Construction Ltd.	74,518.50	
Interior Contracting Co. Ltd.	75,818.87	
Narod Construction Ltd.	90,183.88	
Vancouver Pile Driving & Contracting Co. Ltd.	93,529.50	
Project No. 439—Contract No. 1, Tulameen River Bridge, Princeton–Merritt Highway:		Second call for tenders (includes approaches and paving).
Interior Contracting Co. Ltd.	232,615.43	Awarded.
General Construction Co., Division of Standard Gravel & Surfacing of Canada Ltd.	236,210.00	
Kenyon & Co. Ltd.	237,631.03	
Peter Kiewit Sons Co. of Canada Ltd.	241,497.35	
John Laing & Son (Canada) Ltd.	256,966.70	

BRIDGES, FERRIES, AND FERRY-LANDINGS—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. 439—Contract No. 2, Tulameen River Bridge, Princeton–Merritt Highway:		Fabrication and erection of steel superstructure.
A.I.M. Steel Ltd.	$188,135.26	Awarded.
Dominion Bridge Co. Ltd.	191,993.81	
Canada Iron Foundries Ltd., Western Bridge Division	194,943.72	
Brittain Steel Fabricators Ltd.	213,074.32	
Project No. 445—Contract No. 1, General, No. 3 Road Underpass, Trans-Canada Highway:		
Biely Construction Co. Ltd.	64,921.08	Awarded.
Vancouver Pile Driving & Contracting Co. Ltd.	65,665.50	
Northern Construction Co. and J. W. Stewart Ltd.	69,855.00	
D. J. Manning Construction Ltd.	74,868.00	
Chapman-Long Construction Ltd.	81,680.00	
Project No. 445—Contract No. 2, No. 3 Road Underpass, Trans-Canada Highway:		Manufacture and erection of prestressed concrete stringers.
Superior Concrete Products Ltd.	31,062.00	Awarded.
Graybar Precast Ltd.	37,954.00	
Project No. 446—Contract No. 1, General, P.G.E. Overhead Crossing at 100 Mile House:		Includes approaches.
Reg Pearen Ltd.	189,287.00	Awarded.
Vancouver Pile Driving & Contracting Co. Ltd.	189,607.30	
Jarvis Construction Co. Ltd.	202,563.50	
Narod Construction Ltd.	211,390.23	
Kenyon & Co. Ltd.	220,197.89	
General Construction Co. Ltd.	222,267.00	
Interior Contracting Co. Ltd.	223,778.06	
Benray Bridge Co. Ltd.	245,162.08	
Project No. 446—Contract No. 2, P.G.E. Overhead Crossing at 100 Mile House:		Fabrication and erection of steel structure.
Dominion Bridge Co. Ltd., Vancouver Branch	55,961.10	Awarded.
Canada Iron Foundries Ltd., Western Bridge Division	60,025.00	
Brittain Steel Fabricators Ltd.	61,433.32	British steel.
Brittain Steel Fabricators Ltd.	63,709.20	
Westminster Boiler & Tank Co. Ltd.	63,757.50	
A.I.M. Steel Ltd.	64,245.40	
Project No. 447—Contract No. 1, General, Silver Creek Bridge Improvements, Trans-Canada Highway:		
D. J. Manning Construction Ltd.	33,973.90	Awarded.
Narod Construction Ltd.	54,088.59	
Project No. 447—Contract No. 2, Silver Creek Bridge Improvements, Trans-Canada Highway:		Fabrication and erection of structural steelwork.
Brittain Steel Fabricators Ltd.	76,068.01	Awarded.
A.I.M. Steel Ltd.	76,870.50	
Dominion Bridge Co. Ltd., Vancouver Branch	78,073.90	
Canada Iron Foundries Ltd., Western Bridge Division	79,010.00	
Project No. 448—Construction of 110-ft. Steel Auto Ferry, Nanaimo–Gabriola Island Service:		Lump-sum contract.
McKenzie Barge & Derrick Co. Ltd.	179,877.00	Awarded.
Allied Shipbuilders Ltd.	197,400.00	
Yarrows Ltd.	219,098.25	
Project No. 449—Dismantling and Re-erection of Nicks Island Ferry:		Lump-sum contract.
John Manly Ltd.	9,900.00	Awarded.
Jones-Cote Construction Ltd.	10,275.00	
Burrard Shipyard & Marine Ways Ltd.	13,750.00	
Dominion Bridge Co. Ltd., Vancouver Branch	14,245.00	
Project No. 451—Tug for Relief Ferry Service, Arrow Lakes and Kootenay Lake:		Lump-sum contract.
Allied Shipbuilders tLd.	10,395.00	Awarded.
B.C. Marine Engineers & Shipbuilders Ltd.	12,840.00	
John Manly Ltd.	14,648.00	
Project No. 452—Contract No. 1, General, Mudflat Creek Overhead Crossing:		
Chapman-Long Construction Ltd.	30,490.00	Awarded.
Peter Kiewit Sons Co. of Canada Ltd.	44,886.00	
Benray Bridge Co. Ltd.	49,837.00	
D. Robinson Construction (1952) Ltd.	51,022.04	

BRIDGES, FERRIES, AND FERRY-LANDINGS—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. 452—Contract No. 2, Mudflat Creek Overhead Crossing:		Fabrication and erection of structural steelwork.
Canada Iron Foundries Ltd., Western Bridge Division	$23,931.50	Awarded.
A.I.M. Steel Ltd.	24,280.88	
Dominion Bridge Co. Ltd.	24,454.91	
Brittain Steel Fabricators Ltd.	25,095.58	
Westminster Boiler & Tank Co. Ltd.	31,659.62	
Project No. 453—Contract No. 1, General, Lemieux Creek Bridge, North Thompson Highway:		
Marpole Construction Co. Ltd.	36,821.32	Awarded.
Vancouver Pile Driving & Contracting Co. Ltd.	39,642.80	
Narod Construction Ltd.	49,706.94	
Kenyon & Co. Ltd.	52,065.12	
Interior Contracting Co. Ltd.	57,081.74	
Chapman-Long Construction Ltd.	69,130.28	
Project No. 453—Contract No. 2, Lemieux Creek Bridge, North Thompson Highway:		Manufacture and erection of prestressed concrete stringers.
Con-Force Products Ltd.	10,325.00	Awarded.
Superior Concrete Products Ltd.	11,232.00	
Graybar Precast Ltd.	12,430.00	
Project No. 454—Contract No. 1, General, Sheraton Overhead Crossing, Northern Trans-Provincial Highway:		
Vancouver Pile Driving & Contracting Co. Ltd.	68,841.70	Awarded.
Poole Construction Co. Ltd.	69,087.00	
Duncan Baynes Ltd.	70,195.40	
Chapman-Long Construction Ltd.	77,500.55	
Marpole Construction Co. Ltd.	79,800.60	
Kenyon & Co. Ltd.	84,179.26	
Narod Construction Co. Ltd.	90,439.00	
Peter Kiewit Sons Co. of Canada Ltd.	107,362.00	
Benray Bridge Co. Ltd.	112,552.50	
Project No. 454—Contract No. 2, Sheraton Overhead Crossing, Northern Trans-Provincial Highway:		Fabrication and erection of structural steelwork.
A.I.M. Steel Ltd.	54,116.83	Awarded.
Dominion Bridge Co. Ltd.	54,640.23	
Canada Iron Foundries Ltd., Western Bridge Division	56,292.60	
Brittain Steel Fabricators Ltd.	57,591.67	
Westminster Boiler & Tank Co. Ltd.	58,253.00	
Westminster Iron Works Ltd.	67,640.00	
Project No. 455—Contract No. 1, General, Big Tree Creek Bridge, Island Highway:		
Tide Bay Dredging Co. Ltd.	37,144.00	Awarded.
Marpole Construction Co. Ltd.	41,987.00	
D. J. Manning Construction Ltd.	43,328.00	
Chapman-Long Construction Ltd.	47,398.00	
Dawson Construction Ltd.	49,540.00	
Project No. 455—Contract No. 2, Big Tree Creek Bridge, Island Highway:		Fabrication and erection of structural steelwork.
Westminster Boiler & Tank Co. Ltd.	50,649.51	Awarded.
Canada Iron Foundries Ltd., Western Bridge Division	53,497.39	
Dominion Bridge Co. Ltd., Vancouver Branch	54,422.90	
Brittain Steel Fabricators Ltd.	55,604.30	
A.I.M. Steel Ltd.	56,056.01	
Project No. 456—Contract No. 1, General, Boulder Creek Bridge, Northern Trans-Provincial Highway:		
Chapman-Long Construction Ltd.	39,745.70	Awarded.
Benray Bridge Co. Ltd.	63,012.40	
D. Robinson Construction (1952) Ltd.	65,222.71	
Peter Kiewit Sons Co. of Canada Ltd.	68,087.00	
Project No. 456—Contract No. 2, Boulder Creek Bridge, Northern Trans-Provincial Highway:		Fabrication and erection of structural steelwork.
Canada Iron Foundries Ltd., Western Bridge Division	49,343.80	Awarded.
Westminster Boiler & Tank Co. Ltd.	49,567.00	
Dominion Bridge Co. Ltd., Vancouver Branch	51,351.88	
A.I.M. Steel Ltd.	53,468.72	

BRIDGES, FERRIES, AND FERRY-LANDINGS—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. 457—Contract No. 1, General, Pemberton Ave. Pedestrian Overpass, Trans-Canada Highway:		
Mainland Installations Ltd.	$10,706.70	Awarded.
Brockbank & Hemingway Ltd.	10,922.00	
Smith Bros. & Wilson Ltd.	11,940.80	
Chapman-Long Construction Ltd.	13,851.75	
Vancouver Pile Driving & Contracting Co. Ltd.	15,565.00	
Duncan Baynes Ltd.	18,596.00	
Frank Stanzl Construction Ltd.	21,419.73	
Howe Construction Co. Ltd.	108,064.50	
R. F. Shaver	115,003.82	
Project No. 457—Contract No. 2, Pemberton Ave. Pedestrian Overpass, Trans-Canada Highway:		Fabrication, erection, and field painting of steel fences.
Columbia Steel Fabricating & Engineering Ltd.	8,661.00	Awarded.
Tryson & Son Iron Works Ltd.	10,645.00	
Brittain Steel Fabricators Ltd.	13,737.59	
Project No. 458—Contract No. 1, General, Fairmont Bridge, Kootenay–Columbia Highway:		
Kenyon & Co. Ltd.	51,149.18	Awarded.
Chapman-Long Construction Ltd.	52,190.80	
Marpole Construction Co. Ltd.	55,583.00	
Duncan Baynes Ltd.	72,323.80	
Vancouver Pile Driving & Contracting Co. Ltd.	74,552.50	
Poole Construction Co. Ltd.	86,081.10	
Project No. 458—Contract No. 2, Fairmont Bridge, Kootenay–Columbia Highway:		Manufacture and erection of prestressed concrete stringers.
Superior Concrete Products Ltd.	31,118.00	Awarded.
Con-Force Products Ltd.	31,063.00	
Project No. 459—Fairmont Overhead Crossing, Kootenay–Columbia Highway:		
Vancouver Pile Driving & Contracting Co. Ltd.	72,884.13	Awarded.
Duncan Baynes Ltd.	74,372.88	
Kenyon & Co. Ltd.	77,053.06	
Chapman-Long Construction Ltd.	75,754.06	
Marpole Construction Co. Ltd.	78,307.84	
Poole Construction Co. Ltd.	82,232.90	
Project No. 460—Contract No. 1, General, Williams Creek and Hatchery Creek Bridges, Terrace–Kitimat Highway:		
Benray Bridge Co. Ltd.	132,461.00	Awarded.
D. Robinson Construction (1952) Ltd.	151,814.50	
Tide Bay Dredging Co. Ltd.	156,225.62	
Chapman-Long Construction Ltd.	168,679.30	
Peter Kiewit Sons Co. of Canada Ltd.	170,034.00	
Vancouver Pile Driving & Contracting Co. Ltd.	194,323.50	
Project No. 460—Contract No. 2, Williams Creek and Hatchery Creek Bridges, Terrace–Kitimat Highway:		Fabrication and erection of structural steelwork.
Canada Iron Foundries Ltd., Western Bridge Division	85,212.66	Awarded.
Dominion Bridge Co. Ltd.	87,354.66	
Tryson & Son Iron Works Ltd.	89,567.25	
A.I.M. Steel Ltd.	96,030.00	
Project No. 463—Peace River Bridge at Hudson Hope:		
Hans Mordhorst Ltd.	1,626,850.00	Awarded (Alternative II).
Tide Bay Dredging Co. Ltd.	1,718,678.52	
Northern Construction Co. and J. W. Stewart Ltd.	1,828,610.00	
Square M Construction Ltd., Coleman Collieries Ltd., and Dufresne Engineering Co. Ltd.	1,836,813.47	
Vancouver Pile Driving & Contracting Co. Ltd.	1,874,529.20	
Narod Construction Ltd. and Jones-Cote Construction Ltd.	1,899,400.63	
Universal Construction (B.C.) Ltd., Vancouver and Edmonton	1,977,936.00	
Mamczasz Bridge Construction	1,992,460.80	
John Laing & Son (Canada) Ltd.	1,999,023.20	
Burns & Dutton Construction (1962) Ltd.	2,223,193.70	
McNamara Construction (Western) Ltd.	2,268,972.20	

BRIDGES, FERRIES, AND FERRY-LANDINGS—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. 464—Improvements to Cowichan River, Chemainus River, and Haslam Creek Bridges, Trans-Canada Highway:		
Vancouver Pile Driving & Contracting Co. Ltd.	$96,273.50	Awarded.
Narod Construction Ltd.	119,996,07	
D. J. Manning Construction Ltd.	121,499.00	
John Laing & Son (Canada) Ltd.	126,140.40	
Nanaimo Bulldozing Co. Ltd.	139,996.00	
D. Robinson Construction (1952) Ltd.	143,316.42	
Project No. 468—Lions Gate Bridge, Resurfacing:		
Northern Construction Co. and J. W. Stewart Ltd.	119,000.00	Awarded.
Sansan Installations Ltd. and J. Bruno & Sons Ltd.	187,718.00	
Burns & Dutton Construction (1962) Ltd.	367,966.60	
Project No. 469—Improvements to Goldstream Bridge, Wilkinson Bridge, Koksilah Bridge, Holmes Creek Bridge, and Whitehouse Creek Bridge, Trans-Canada Highway:		
John Laing & Son (Canada) Ltd.	143,202.93	Awarded.
D. J. Manning Construction Ltd.	150,154.76	
Dominion Bridge Co. Ltd.	150,692.55	
Grimwood Construction Co. Ltd.	155,674.43	
D. Robinson Construction (1952) Ltd.	161,362.92	
Narod Construction Ltd.	178,272.57	
Vancouver Pile Driving & Contracting Co. Ltd.	187,464.20	
Project No. 471—Improvements to American Creek Bridge, Trans-Canada Highway:		
Narod Construction Ltd.	48,352.56	Awarded.
Vancouver Pile Driving & Contracting Co. Ltd.	52,800.00	
D. J. Manning Construction Ltd.	54,342.00	
Marpole Construction Co. Ltd.	65,603.00	
Chapman-Long Construction Ltd.	69,117,50	
Project No. 472—Improvements to Salmon River Bridge, Trans-Canada Highway:		
Vancouver Pile Driving & Contracting Co. Ltd.	20,854.00	Awarded.
Interior Contracting Co. Ltd.	21,909.10	
Kenyon & Co. Ltd.	22,554.47	
Narod Construction Ltd.	24,757.81	
Project No. 476—Contract No. 1, General, Canal Flats Bridge, Kootenay–Columbia Highway:		
Remington Construction Co. Ltd.	118,697.00	Awarded.
Burns & Dutton Construction (1962) Ltd.	122,071.00	
Kenyon & Co. Ltd.	136,412.84	
Mamczasz Bridge Construction	137,898.50	
Narod Construction Ltd.	146,780.07	
Interior Contracting Co. Ltd.	163,838.50	
Vancouver Pile Driving & Contracting Co. Ltd.	167,262.50	
John Laing & Son (Canada) Ltd.	172,673.50	
Poole Construction Co. Ltd.	180,441,25	
Project No. 477—Concrete Wearing Surface for Kootenay River, Kootenay Old Channel, and Summit Creek Bridges, Southern Trans-Provincial Highway:		
D. J. Manning Construction Ltd.	47,165.60	Awarded.
Interior Contracting Co. Ltd.	47,862.54	
Vancouver Pile Driving & Contracting Co. Ltd.	49,131.70	
Burns & Dutton Construction (1962) Ltd.	56,623.36	
Project No. 479—Furlong Creek Culvert, Terrace–Kitimat Highway.		
Walter Cabbott Construction Ltd.	57,100.00	Awarded.
Chapman-Long Construction Ltd.	63,945.00	This contract later assigned to Chapman-Long Construction Ltd.
Granby Construction & Equipment Ltd.	65,987.00	
Vancouver Pile Driving & Contracting Co. Ltd.	68,549.50	
Dawson Construction Ltd.	73,922.00	
Benray Bridge Co. Ltd.	85,883.00	
Project No. 481—Comox–Westview Ferry:		Lump-sum contract.
Victoria Machinery Depot Co. Ltd.	485,177.70	Awarded.
Yarrows Ltd.	596,105.00	
Allied Shipbuilders Ltd.	633,880.00	
Burrard Dry Dock Co. Ltd.	725,415.00	

BRIDGES, FERRIES, AND FERRY-LANDINGS—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. 482—Contract No. 1, Little River Ferry Terminal Causeway and Breakwater:		
Nanaimo Bulldozing Co. Ltd.	$396,900.00	Awarded.
Pacific Piledriving Co. Ltd. and Wakeman & Trimble Contractors Ltd.	448,840.00	
John Laing & Son (Canada) Ltd.	449,800.00	
Dawson Construction Ltd.	450,960.00	
British Columbia Bridge & Dredging Co. Ltd.	451,550.00	
McKenzie Barge & Derrick Co. Ltd.	489,690.00	
Northern Construction Co. and J. W. Stewart Ltd., and Marine Pipeline & Dredging Ltd.	532,960.00	
Project No. 484—Cleaning and Painting of Walhachin, Okanagan Lake, Old Spences Bridge, and Stirling Creek Bridges:		Not awarded 1963/64.
Harry Webster	4,572.50	
West Coast Painting Co. Ltd.	8,964.12	
Johnson & Neven Ltd.	16,806.00	
J. Boshard & Son Ltd.	16,667.04	
Project No. 485—Cleaning and Painting of Duncan Wagon Bridge:		Not awarded 1963/64. Lump-sum contract.
West Coast Painting Co. Ltd.	1,132.50	
K. J. Howe, Industrial Painting Contractors	1,200.00	
Burrard Painting & Decorating Ltd.	1,485.00	
Johnson & Neven Ltd.	1,837.00	
Project No. 486—Contract No. 1, General, Mamquam Blind Channel Bridge, Britannia Beach–Squamish Highway:		
John Laing & Son (Canada) Ltd.	56,956.80	Awarded.
Biely Construction Co. Ltd.	76,443.30	
A. R. Grimwood Ltd.	76,450.50	
Narod Construction Ltd.	80,110.85	
D. J. Manning Construction Ltd.	83,201.00	
Vancouver Pile Driving & Contracting Co. Ltd.	84,341.50	
Chapman-Long Construction Ltd.	85,417.20	
Marpole Construction Co. Ltd.	87,757.00	
Commonwealth Construction Co. Ltd.	110,403.34	
Project No. 488—Contracts Nos. 1 and 2, Nanaimo and Gabriola Terminals, Wing Wall and Dolphin Remodifications:		
Pacific Piledriving Co. Ltd.	23,650.00	Awarded.
Victoria Pile Driving Co. Ltd.	24,841.00	
Vancouver Pile Driving & Contracting Co. Ltd.	25,729.00	
Greenlees Piledriving Co. Ltd.	28,160.00	
Fraser River Pile Driving Co. Ltd.	29,400.00	
Project No. 491—Erection of Steel Median Barrier and Railing on Port Mann Bridge and Second Narrows Bridge, Trans-Canada Highway:		
Tryson & Son Iron Works Ltd.	27,937.93	Not awarded 1963/64.
Dominion Bridge Co. Ltd.	39,869.37	
Canada Iron Foundries Ltd., Western Bridge Division	53,508.98	
Coast Steel Fabricators Ltd.	59,154.46	
Brockbank & Hemingway Ltd.	71,920.00	

BRIDGES, FERRIES, AND FERRY-LANDINGS—*Continued*

Toll Highways and Bridges Authority (Ferry System)

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Village Bay Ferry Terminal, Dolphin Remodifications—Contract No. 2:		
Vancouver Pile Driving & Contracting Co. Ltd.	$57,490.00	Awarded.
Greenlees Piledriving Co. Ltd.	61,212.00	
Fraser River Pile Driving Co. Ltd.	61,259.00	
Pacific Piledriving Co. Ltd.	69,700.00	
Departure Bay Ferry Terminal, Secondary Berth—Contract No. 1:		
Fraser River Pile Driving Co. Ltd.	244,467.50	Awarded (1962/63 fiscal year).
Vancouver Pile Driving & Contracting Co. Ltd.	248,525.00	
Greenlees Piledriving Co. Ltd.	263,591.00	
Long Harbour Ferry Terminal—Contract No. 1:		
Fraser River Pile Driving Co. Ltd.	199,326.59	Awarded.
Greenlees Piledriving Co. Ltd.	212,770.00	
Vancouver Pile Driving & Contracting Co. Ltd.	238,295.00	
Deas Maintenance Facility Berths—Contract No. 1:		
Fraser River Pile Driving Co. Ltd.	199,843.00	Awarded.
John Laing & Son (Canada) Ltd.	219,846.00	
Greenlees Piledriving Co. Ltd.	228,803.00	
Vancouver Pile Driving & Contracting Co. Ltd.	248,117.50	
Departure Bay Ferry Terminal, Reconstruction and Repair of Main Berth:		
Fraser River Pile Driving Co. Ltd.	95,829.00	Awarded.
Pacific Piledriving Co. Ltd.	119,460.00	
Vancouver Pile Driving & Contracting Co. Ltd.	119,500.00	
Greenlees Piledriving Co. Ltd.	141,167.00	

MISCELLANEOUS

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. 1282—Gravel-crushing, Squamish–Alta Lake, Miscellaneous Sites:		
Atlas Crushing Co. Ltd.	$98,900.00	Awarded.
Central Gravel Supplies Mission Ltd.	127,790.00	
Midvalley Construction Ltd.	189,350.00	
S. & W. Gravel Crushing Co. Ltd.	224,480.00	
Project No. 1340—Lighting at the Interchanges of Trans-Canada Highway, Springbrook–Mount Lehman Road and Abbotsford–Vedder River Sections:		
F. B. Stewart & Co. Ltd.	28,500.00	Awarded.
The Tide Co. (B.C.) Ltd.	30,333.00	
Paragon Electric Co. Ltd.	41,209.00	
Project No. 1352—Contract No. 1, Lighting at the Interchanges of the Trans-Canada Highway, Vancouver–Fraser River Section, Mile 75.58 to Mile 81.91:		Lump-sum contract.
Trans-Power Construction Ltd.	51,800.00	Awarded.
F. B. Stewart & Co. Ltd.	58,800.00	
The Tide Co. (B.C.) Ltd.	64,660.00	
C. H. E. Williams Co. Ltd.	69,616.00	
Paragon Electric Co. Ltd.	73,665.00	
Project No. 1352—Contract No. 2, Lighting at the Interchanges of the Trans-Canada Highway, Vancouver–Fraser River Section, Mile 70.77 to Mile 75.58:		Lump-sum contract.
F. B. Stewart & Co. Ltd.	70,000.00	Awarded.
Paragon Electric Co. Ltd.	74,000.00	
Trans-Power Construction Ltd.	74,685.00	

MISCELLANEOUS—*Continued*

Description of Work and Names of Tenderers	Amount of Tenders at Unit Rates Based on Estimated Quantities	Remarks
Project No. 1354—Lighting at the Junction of Highways Nos. 1 and 3 at Hope (Trans-Canada and Southern Trans-Provincial Highways):		Lump-sum contract.
Paragon Electric Co. Ltd.	$7,277.00	Awarded.
K. Moore & Co. Ltd.	8,300.00	
Ricketts-Sewell Electric Ltd.	9,000.00	
Economy Electric Ltd.	10,400.00	
Hope Electric Ltd.	12,132.84	
Project No. 1363—Clearing and Burning Deleterious Material at Lakelse Lake:		
Blakeburn Construction Ltd.	48,200.00	Awarded.
Daisy Lake Clearing Ltd.	49,200.00	
The Cattermole-Trethewey Contractors Ltd.	97,899.25	
Lakelse Construction Co. Ltd.	218,500.00	
Lighting of Thompson River Bridge at Ashcroft:		Lump-sum contract.
Trans-Power Construction Ltd.	5,735.00	Awarded.
J. Johnson & Co. Ltd.	5,899.00	
Paragon Electric Co. Ltd.	6,259.00	
Betts Electric Ltd.	6,273.50	
The J. H. McRae Co. Ltd.	6,475.00	
Camosun Electric Co. (1963) Ltd.	7,920.00	
Construction of Power-line near Cache Creek (approximately 3.3 Miles):		Lump-sum contract.
K. Moore & Co. Ltd.	15,900.00	Awarded.
Trans-Power Construction Ltd.	19,500.00	
R. B. McCullough Electric	19,960.00	
Betts Electric Ltd.	23,231.00	
Hume & Rumble Ltd.	29,920.00	
Peterson Electrical Construction Co. Ltd.	32,891.00	
Mayne Estates Ltd.	36,000.00	
Construction of Power-line near Nelway (approximately 2.65 Miles):		Lump-sum contract.
K. Moore & Co. Ltd.	17,000.00	Awarded.

REPORT OF THE SENIOR MAINTENANCE ENGINEER

Another very successful year has been completed by the Maintenance Branch.

The total expenditure for all maintenance of highways, bridges, and ferries amounted to $19,443,167. This was an increase of $1,567,622 over the previous year's expenditures.

Over 19,000 miles of roads were kept open during the winter and maintained during the remainder of the year. This mileage is being increased each year, with the addition of roads in subdivisions, access roads, and the construction of new main routes. Last winter we added the new Salmo–Creston route, with its 5,800-foot summit. This route is an extremely important link in our highway system, and, except for very minor closures due to snowslides or heavy snow, it remained open all winter. Over 500 inches of snow fell on this pass. We also experienced extremely heavy snowfalls on the Allison Pass, Rogers Pass, Blueberry–Paulson Highway, and John Hart Highway, but these were kept open with the Departmental-designed equipment, which surely proved itself. Besides keeping the roads clear of snow through the use of chemicals, we have been able to keep most of the main highways ice-free for a good portion of the winter.

Summer maintenance of both roadway and roadsides has increased and improved in quality. The asphalt-patching school was expanded, with one being held at Vernon as well as at Courtenay. The growth of weeds and brush was kept in check with increased labour and equipment, and with a greatly increased amount of sterilants and weed and brush killers.

With the coming of the freeways, the roadside maintenance chore of mowing of rights-of-way has increased tremendously, and we have had to expand our mowing fleet.

To combat dust on side roads and on main roads not already paved, we have expanded the use of dust-layers for the convenience of the travelling public, crop-growers, and residents.

Our radio network continues to be of great help in fast communication and proper administration, and we are continuing to expand the network and to improve the coverage in spotty areas. Service during the winter operations has been vastly improved by the radio network.

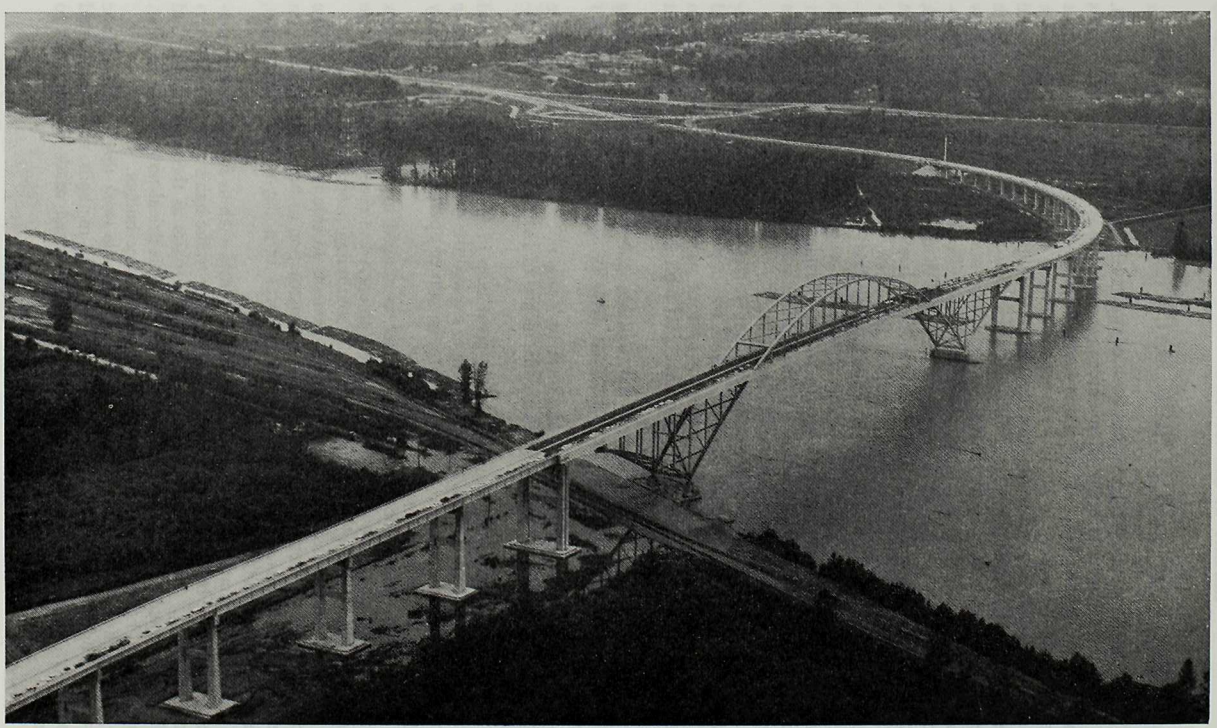
Our bridge crews, located in each district, continued to maintain all bridges in a satisfactory condition and, where required, to carry out reconstruction. Where possible, bridges are replaced by culverts in a continuing programme.

There is an increasing demand for improvements to side roads because of the increased traffic on them. In most cases the reconstruction or minor betterments on these roads are carried out by Departmental forces in a day-labour programme, amounting to $6,000,000 in the last fiscal year.

Also, with increased traffic and up-to-date facilities such as freeways and interchanges, we have had to take on an increasing load of traffic lights and general intersection lighting. Besides the chore of mechanical repairs to the traffic lights and bulb replacements, we also have the fixed charges of electrical-power costs to bear. These are all being taken care of out of our maintenance budget.

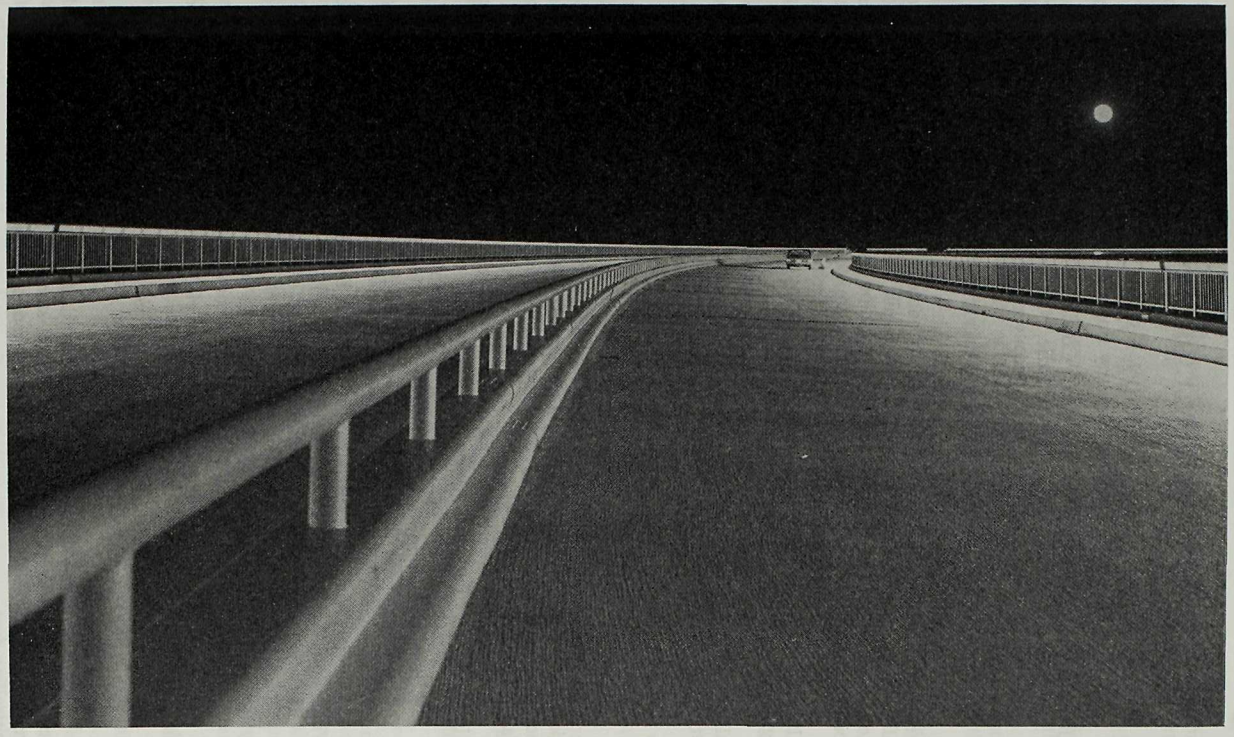
Generally speaking, I am extremely pleased with the work that has been done in the past by the maintenance crews, and with improved methods, supervision, and machinery, we can look forward to even better-maintained roads in the years to come.

J. A. DENNISON,
Senior Maintenance Engineer.



Port Mann Bridge, Trans-Canada Highway.

(Courtesy George Allen Photos Ltd.)



New indirect rail lighting, Port Mann Bridge, Trans-Canada Highway.

REGIONAL REPORTS

REGION No. 1

(M. G. Elston, Regional Highway Engineer, North Vancouver)

Alberni, Burnaby, Chilliwack, Comox, Cowichan-Newcastle, Delta, Dewdney, Esquimalt, Lillooet (South), Mackenzie, Nanaimo-Islands, New Westminster, North Vancouver, Saanich, and Vancouver-Point Grey Electoral Districts.

Alberni District

The Bamfield area was opened to traffic when the construction of a bridge over the Pachena River and 4 miles of road to connect with logging-roads between Alberni and Bamfield were completed. A 5-mile section of the Ucluelet–Tofino Road near Tofino was reconstructed in preparation for paving. A truck lane was constructed on the Alberni–Parksville Highway to accommodate east-bound traffic.

A programme of shoulder-widening was carried out on many roads in the Alberni Valley. A power brushing crew was employed throughout the year clearing rights-of-way to full width where possible.

Snow and ice conditions were handled successfully. There was a total snowfall of 293 inches on the Alberni–Tofino Road. Ice conditions were rather critical on the summit of the Alberni–Parksville Highway during the winter months.

Burnaby District

Roads

Maintenance.—Roads were maintained in good condition throughout the district. Soil sterilant was spread around all guard-rails and sign-posts. The crew was increased and extra machinery has been received in preparation for the Trans-Canada Freeway.

Construction.—Left-turn slots were built at Brighton Avenue on the Lougheed Highway and at Patterson Avenue on Kingsway.

An access road was built by the district for Simon Fraser University.

A general clean-up was started on the Trans-Canada Freeway.

The shoulders of the Grandview-Douglas Highway between Boundary Road and Westminster Avenue were widened.

Materials have been purchased for a median barrier from Gilmore Avenue to Willingdon Avenue on the Lougheed Highway.

Fencing and paving of the maintenance yard were completed.

Snow Removal.—Traffic flow was maintained at all times during the winter by the use of salt.

Bridges

Normal maintenance and repairs were carried out to all the bridges in the district.

Chilliwack District

Roads

Maintenance.—All roads were well maintained during the year. The chemical weed-spraying programme and the use of soil sterilants for weed control was increased. Calcium chloride and salt were applied to gravel roads for the purpose of controlling dust.

A considerable amount of gravelling and also clearing of right-of-way was done on roads in the Columbia Valley area. Extensive mowing was required on the Trans-Canada Highway.

Construction.—Construction was 85 per cent completed on 1.74 miles of the Chilliwack Lake Road.

On the Trans-Canada Highway an off-ramp was constructed at the intersection with the Agassiz–Rosedale Highway and an access road was constructed to the Hunter Creek weigh-scale site.

Paving.—A total of 3.26 miles of hot plant-mix pavement was laid on Sumas Mountain Road, Clayburn–Straiton Road, Chilliwack Lake Road, and roads in the Popkum area.

Snow Removal.—Snowfall was light and all roads were kept open and in good condition throughout the winter.

Bridges

All bridges throughout the district were maintained in good condition.

Comox District

Roads

Maintenance.—Regular maintenance was carried out on all roads. Snow-removal and salting costs were above average.

New Construction.—On the Port McNeill–Beaver Cove Road 5.50 miles of new road were constructed between the Nimpkish River Bridge and Beaver Cove. Two miles of gravelling remain to complete construction to Beaver Cove.

Between Rumble Beach and Port Alice approximately 1 mile of road was constructed and a considerable amount of clearing carried out. The total length of road to be constructed is 3.10 miles, much of which is located in solid rock.

The Bold Point Road on Quadra Island was completed, except for some minor gravelling. A bridge was constructed across Village Bay Lake.

Reconstruction.—At Port Hardy 3.76 miles of Byng Road were reconstructed and paved.

On Quadra Island 2.43 miles of West Road were reconstructed and paved, thus completing the paving between Quathiaski Cove and Heriot Bay.

In the Campbell River area 6.50 miles of the Old Campbell River Road were reconstructed between the Argonaut Road and Upper Campbell Lake. This work eliminated the use of a portion of a private logging-road and also a detour by the Strathcona Dam. Side roads in the Willow Point area were reconstructed and paved.

At Courtenay 1.63 miles of Anderton Road and 1.22 miles of Gainsberg Road were reconstructed and paved, and on Denman Island 1.50 miles of East Road were reconstructed.

In the Parksville area 1.05 miles of Winchester Road and 1.51 miles of Claudet Road were reconstructed and paved.

In addition to the above, reconstruction and paving were completed on 9.62 miles of minor roads.

Bridge Elimination.—Simms Creek Bridge No. 413 was replaced by a culvert and fill.

Paving.—Road-mix pavement was laid on a total of 18.79 miles of road, and seal-coating was carried out on 1.70 miles of Denman Road.

Bridges

Theimer Creek Bridge and Bay Bridge were constructed on the Port McNeill–Beaver Cove Road.

Byng No. 2 Bridge over the Quatse River was reconstructed.

All other bridges throughout the district were maintained.

Ferries

Normal ferry service was maintained throughout the year between Campbell River and Quadra Island and between Buckley Bay and Denman Island.

A new floating lead for the Quathiaski Cove ferry-landing was installed, utilizing steel pontoons instead of cedar logs. An additional pile dolphin was installed at the Campbell River ferry-landing.

A new breakwater and landing were installed at Gravelly Bay for the Hornby Island Ferry.

Comox (South) District

Shoulders on the Island Highway north of Nanaimo were widened. Left-turn slots were installed on the Lantzville Road at both the north and south junctions with the Island Highway.

A considerable amount of road-mix asphalt pavement was laid on roads in residential areas. The expansion of residential areas has created the need for extensive drainage works, and a programme to provide adequate drains was carried out.

During the winter light snow and ice conditions were dealt with satisfactorily by the use of chemicals.

Cowichan-Newcastle District

Reconstruction and paving of farm-to-market routes was given considerable attention, and a total of 4.75 miles of new pavement was laid.

On the chipper-truck route from Lake Cowichan to Crofton, shoulders were improved and levelling courses laid on the pavement.

Ditches were moved back on the Trans-Canada Highway north of Duncan to provide a wider shoulder and better drainage.

A light winter snowfall was encountered and handled successfully.

Delta District

Roads

Maintenance.—Roads were maintained to the usual high standard throughout the district.

Approximately 20 miles of road were treated with brush-killer, while all bridge abutments, guard-rails, and sign-posts were treated with soil sterilant. In the summer, grass-cutting has become an increasingly important maintenance problem.

Extensive ditching was completed on the Westminster Highway, recently taken under our control for maintenance.

Construction.—The district forces worked on the general clean-up, landscaping, and seeding of the Deas Tunnel Throughway from the G.N.R. Overpass to the International Boundary during the early part of the year, and commenced a general clean-up on the new Trans-Canada Freeway at the end of the year.

Left-turn slots were constructed at Nichol Road and Roebuck Road on the Trans-Canada Highway and at Vulcan Way on No. 5 Road.

In conjunction with the Municipality of Surrey's drainage scheme, twin 6-foot-diameter culverts were installed near Manson Road on Scott Road.

Major improvements were made on the curves on the Ladner Trunk Highway east of Oliver Road and on Scott Road hill south of River Road.

The shoulder-widening and relocation of concrete no-post guard-rail was completed on Tsawwassen Causeway.

Some of the buildings in Cloverdale were extended and painted; also a new oil-shed was erected. The parking area for the employees was paved.

Snow Removal.—In comparison to other years the total 14-inch snowfall did not present many problems.

Bridges and Ferry-landings

The bridge crew erected a Bailey bridge over the Tsawwassen Highway for use as a temporary overpass.

The widening to four lanes of the Bear Creek Bridge on the King George VI Highway was completed.

Materials were purchased for redecking Fraser Avenue Bridge.

A new ferry-landing was constructed on Barnston Island.

The north approach spans of Canoe Pass Bridge were redecked.

Three large culverts on the Ladner Trunk Highway were widened.

Widening of the Serpentine Bridge on the Trans-Canada Highway was started.

All the other bridges and ferry installations in the area received normal maintenance.

Ferries

A new tug was bought for the Barnston Island Ferry.

Dewdney (East) District

Roads

Maintenance.—All roads in the district were well maintained throughout the year.

An effective programme of weed control by chemical spraying was carried out. On side roads a considerable amount of brushing was done.

Oil was laid on a number of gravel roads to eliminate the dust nuisance.

Shoulders on the Lougheed Highway were widened. Morris Valley Road was widened and gravelled.

Construction.—Widening and gravelling were completed on 1.2 miles of Stave Lake Road and 1 mile of roads at Hatzic Prairie.

Paving.—A total of 3.75 miles of pavement was laid on various roads in the district.

Snow Removal.—In comparison to other years the total 14-inch snowfall did throughout the winter.

Bridges

All bridges were maintained in good condition. A new bridge was constructed at McConnel Creek. Peterson Bridge No. 11-126 was replaced by a culvert and fill.

Dewdney (West) District

Roads

Maintenance.—The roads were maintained in a good travelling condition, and the side roads received constant grading.

Considerable shoulder widening and improvement was made on the Lougheed Highway from Stave River to Harris Road before and after the recap and strengthening of the pavement.

A dust-layer, using Bunker B oil, was applied in the early summer to the side roads.

The new maintenance yard was cleared, gravelled, and fenced; materials were purchased for the equipment-shed.

Construction.—One block of curb and gutter was constructed on St. Johns Street in Port Moody.

Telosky Hill, on Lougheed Highway east of Haney, was widened to three lanes.

Left-turn slots were constructed at Powerline Road, Harris Road, and Third Avenue, Haney, on the Lougheed Highway; also one was constructed at the junction of Ioco Road and the Barnet Highway.

Roads in the Bedwell Bay and Ioco area received many improvements, and a 1-mile section of the Bedwell Bay Road from First Avenue to the British Columbia Hydro and Power Authority thermal plant road was road-mixed.

Bank protection on the Coquitlam River was commenced, the rock being obtained from our own pit.

Snow Removal.—When the temperatures approached the freezing point, a 24-hour patrol was maintained, which enabled the district, by the quick application of salt, to provide bare-pavement travelling conditions.

Bridges

Government and School Bridges on the Ioco Road were redecked, and a sidewalk was added to both.

A Bailey bridge was erected as a pedestrian overpass at Westwood Racetrack.

A treated timber bridge was built for access to the G.N.R. property as a right-of-way settlement of property required for the Trans-Canada Freeway.

Ferries

An application was made for a gold certificate from the British Columbia Safety Council for the combined crews of the Albion and Barnston Island Ferries.

Esquimalt District

Roads

Maintenance.—Roads were maintained in generally good condition throughout the year. Many of the side roads were regravelled and a considerable mileage of roads was oiled to alleviate dust conditions.

Construction.—A 0.8-mile section of Admirals Road was reconstructed by the district, underdrainage was installed, and minor improvements made on 5.7 miles of Highway No. 1A prior to paving by contract.

Reconstruction was carried out on 1.25 miles of Shawnigan and Renfrew Roads.

On the West Coast Road, crushed gravel was placed on 15 miles of the 26-mile section from Jordan River to Port Renfrew.

Snow Removal.—Snowfall was very light. Night patrols were instituted to combat icing conditions, utilizing bulk salt on all main routes.

Bridges

On the Harris Cove Bridge several tower bents and log-stringer spans washed out by storms were reconstructed.

Halhead Bridge at Shawnigan Lake was reconstructed with creosoted timber bents and precast concrete stringers.

Neal Bridge on the Sooke Road was reconstructed with concrete abutments, creosoted timber pier, and precast concrete stringers.

Several other minor bridges were reconstructed or repaired.

Lillooet (South) District

Roads

Maintenance.—All roads were maintained adequately throughout the year.

Construction.—The construction of approximately 35 miles of the 50-mile section of the Pemberton Road from Squamish was continued and is 65 per cent completed.

The Diamond Head Road was reconstructed for the Department of Recreation and Conservation.

An additional parking-lot was constructed at Darrell Bay.

Snow Removal.—All roads were kept open and in good condition.

Bridges

Necessary maintenance was carried out on all bridges.

Mackenzie District

Roads

Maintenance.—Roads were maintained in fair to good condition throughout the year. A number of side roads were widened and gravelled.

Construction.—Work continued on the reconstruction of the Chilcotin–Bella Coola Highway between Hagensborg and Bella Coola and is now 90 per cent completed.

Work also continued on the reconstruction of a 3-mile section of the road between Powell River and Lund. It is 90 per cent completed.

Reconstruction of the Gillies Bay Road and Blubber Bay Road on Texada Island was completed.

Snow Removal.—All roads were kept open and in good condition during the year.

Bridges

Normal bridge maintenance was performed during the year. Lower Roberts Creek Bridge was replaced by a new structure.

Nanaimo-Islands District

A programme of providing dust-free conditions in developed areas was followed, and 12 miles of road-mix and double flush-coat asphalt were laid.

Reconstruction and paving were carried out on each of the following islands: Saltspring, Galiano, Mayne, Pender, Thetis, Saturna, and Gabriola. It was a tight schedule to move the equipment from island to island, but the programme was completed satisfactorily. The programme was one of main-type road development across each island.

Snow conditions were extremely light and handled successfully.

New Westminster District

Roads

Maintenance.—Normal maintenance was carried out on all streets in District Lot 172. A section of ditch on Edinburgh Street was piped.

Snow Removal.—Salt was applied when necessary, and traffic flow was maintained at all times.

North Vancouver District

Roads

Maintenance.—All roads were maintained throughout the year.

Snow Removal.—All roads were kept open and in good condition.

Bridges

The "L" Bridge on the Squamish Highway was reconstructed. This bridge had been washed out by typhoon "Frieda."

Saanich District

Roads

Maintenance.—Roads were maintained in good condition during the year. Several of the side roads were improved and oiled.

Construction.—The West Saanich Road was reconstructed from Royal Oak to Keating Cross Road, a distance of 6.5 miles, prior to paving by contract. On Lochside Drive a 0.5 mile section was reconstructed. A third lane was installed on the Patricia Bay Highway at Swartz Bay.

Snow Removal.—Snow removal was practically *nil.* Night patrols were necessary to combat icing conditions utilizing bulk salt.

Ferries

Normal maintenance was performed on the ferry-landings.

Vancouver-Point Grey District

Roads

Maintenance.—Roads were maintained in good condition throughout the year.

Snow Removal.—All roads were kept in good condition during the winter.

Toll-bridge Superintendent

The year's work consisted of the usual general maintenance of toll and toll-free bridge structures and interconnecting highways and repairs and maintenance for the British Columbia Ferry Authority.

Additional emergency work was carried out on the Middle Arm Bridge as a result of swing-span trouble and hydraulic leaks.

Tolls were removed from First Narrows Bridge, Second Narrows Bridge, Agassiz–Rosedale Bridge, and Kelowna Bridge.

The First Narrows Bridge was painted up to the top railings. The remainder is to be painted during the next year.

A new bridge-tender's house was built at Middle Arm Bridge to replace the old one.

REGION No. 2

(J. W. Nelson, Regional Highway Engineer, Kamloops)

Cariboo (South), Kamloops, Lillooet (North), North Okanagan, Revelstoke, Salmon Arm, Similkameen, South Okanagan, and Yale Electoral Districts

Cariboo (South) District

Roads

Maintenance.—A better surface was maintained on the Cariboo Highway by continuous patching until freeze-up.

A higher standard of work on gravel and dirt roads was helped by a dry summer. This included extensive ditching, culvert installation, brushing, and gravelling.

An irrigation dam on Doctors Lake broke and washed out the Chilcotin Highway at Pablo Creek. Traffic was interrupted for 20 hours.

Construction.—On the Cariboo Highway, truck-lane approaches were built to the new 100 Mile Overhead.

Widening from Mile 76 to Mile 97 was completed in preparation for repaving.

On the Chilcotin Highway the Sword Creek Hill relocation of the Western approach to the Fraser River was cleared and grubbed.

Four and four-tenths miles of Canim Lake Road No. 318 and 2.5 miles of Lake Road No. 252 were reconstructed, as were a further 14.1 miles of sundry roads. In addition, major improvements were made on 37 miles of road.

Paving.—The Exeter Station Road was road-mixed for its length of 2.1 miles.

Snow Removal.—Snowfall was light, except in the Likely and Anahim Lake areas. Some 440 inches of snow fell west of Anahim. Above-normal temperatures caused icing conditions, which continued our trend toward the use of considerably greater amounts of sand and chemicals each year.

Bridges

The 100 Mile Overpass, eliminating the P.G.E. level crossing on the Cariboo Highway, was completed. Minor bridges Meldrum No. 2 (No. 375), Swift Creek No. 2 (No. 416), Swift Creek No. 3 (No. 426), and Whitehorse Creek (No. 516) were replaced with new structures. Normal maintenance and repairs were carried out on other bridges.

Kamloops District

Roads

Trunk and Main Highways.—General maintenance was carried out on all trunk and main highways. Special emphasis was placed on patching, sign maintenance, shoulder restoration, and general right-of-way "housekeeping."

Records of costs of maintenance by sections were continued and sent to the Design and Planning Engineer for comparison with other years and study. We had a great number of snowfalls, which necessitated continual ploughing, sanding, and chemical applications. The use of chemical proved satisfactory and brought about bare pavement in a relatively short time after a freeze. There were no load restrictions on the Trans-Canada Highway; however, during a short period overload permits were rescinded.

Other Highways and Roads.—Routine maintenance was carried out on other roads. Our programme of trying to coat many of our busier roads with gravel to

eliminate the dust problem was accelerated. Snowfalls were heavy, but at no time were school-bus routes not opened within a four-hour period. We had one of the best spring break-ups to date, and none of the roads were restricted other than for legal loads.

Day-labour Construction.—On the North Thompson Highway 1.6 miles were constructed to standard and 5.3 miles were gravelled and repaired for pulvimixing. The pulvimixing was carried out by the headquarters crew and completed. Between Blue River and Albreda 5.5 miles were improved by realignment and gravelling.

On the Highland Valley Road the remaining 3 miles were completed (except for the approach to Ashcroft Bridge) and 26 miles were gravelled and pulvimixed in record time.

Sundry Roads.—A considerable amount of slashing, widening, ditching, and spot gravelling was carried out on approximately 60 miles of roads. Bunker B oil was applied to all gravel subdivision roads in Valleyview, Brocklehurst, Westsyde, Powers Addition, Barriere, Clearwater, and Blue River. Road-mix pavement was laid on 6.5 miles of other subdivision roads.

Bridges

All bridges were inspected to determine replacement and repair requirements.

The following bridges were redecked, complete with cross-ties, and stringers checked and replaced as required: Berwick Creek (No. 20), Campbell Creek, Canyon No. 2 (No. 42), Deadman No. 3 (No. 79), Deadman No. 6 (No. 82), Dunn Creek (No. 86), Kulston Creek (No. 125), Last Chance Creek (No. 127), Snowball Creek (No. 193), Spahats Creek (No. 194), Blue River (No. 125), Jamieson Creek (No. 118).

Two bridges were reconstructed—Campbell Creek No. 4 (No. 37) and Whitewood Creek (No. 208), which was raised 8 feet to tie in with the new road grade and alignment. The landscaping and general approach work to Overlanders Bridge (No. 208) was completed, and concrete slabs were poured under the overpass to stabilize the slopes.

Ferries

All ferries were checked, painted, and ramps repaired or replaced where necessary. There were short interruptions in service during high water and icing conditions.

Lillooet (North) District

Roads

Maintenance.—General maintenance was carried out on all district roads. A self-contained unit was used for weed-burning on the right-of-way, this consisting of a truck mounting a spray bar and tanks and the fuel being ignited and sprayed out of four jets along the bar. This method proved successful.

Large amounts of rock were cleared off the " Big Slide " area, 12 miles south of Lillooet. Many slides were also cleared along the Lillooet–Pioneer Highway.

Construction and Surfacing.—There were 3.8 miles of road surfaced by blade mix on Highway No. 12, 17 miles south of Lillooet, climaxing heavy construction of this section over the past three years. A further 1½ miles of road were advanced on the Bralorne–Pemberton route. One mile of the Back Valley Road along Cache Creek was reconstructed to by-pass two small bridges.

Some 40,000 cubic yards of slide material were taken off the Six Mile Slide south of Clinton on the Cariboo Highway.

Reconstruction.—Eighteen miles of road were realigned and regravelled throughout the district, some 2 miles of this being fairly heavy rock work on the Pemberton–D'Arcy Road. Five miles of Green Lake Road were straightened and regravelled. Realignment and some paving were done on the Clinton and Lillooet subdivision streets.

Snow Removal.—Lillooet District had three times the amount of snowfall over the previous few years. This necessitated considerable overtime expenditure.

Bridges

Four new bridges were built during the year. One was on the Upper Hat Creek Road; another was on the Lillooet–Cache Creek Highway at Gillon Creek, this bridge removing a washout problem; and another bridge of some 130 feet span was on the Lillooet–Seton Lake Road, being built in conjunction with the Forest Service. Another new bridge was built over Cinnabar Creek in the Gold Bridge area, this being for the Department of Mines and Petroleum Resources.

Ferries

The Big Bar reaction ferry continues handling all manner of traffic, from sheep to hunters, a cage on the cable being used during winter tie-up.

North Okanagan District

Roads

Maintenance.—We have been able to maintain a high standard of maintenance throughout the district. The brushing programme has been continued along with shouldering and burning. All curves on Highways Nos. 97, 97A, and 97B considered hazardous for night driving have now been delineated. Patching crews have been extremely busy maintaining a good standard of patching.

On June 29, 1963, we lost a section of Highway No. 6 at Heckman Creek due to a serious land-slip. Drill crews were brought in and test-holes drilled to determine the source of the trouble. We have since made an effort to stabilize the slide area, and it appears to be successful at this time.

Snow Removal.—Although snowfall was well above the 10-year average, we were able to maintain a good standard of maintenance and service. The Monashee Pass section of Highway No. 6 was maintained, with the added help of a bulldozer for widening.

Construction.—Improvements were carried out on 16.95 miles of road, and of this total 9.45 miles were paved by pulvimix and the balance of 7.5 miles by road mix.

Bridges

One small and one major timber bridge were completely renewed, and two other bridges were replaced by multi-plate pipe culverts on a bridge-elimination programme. Major repairs were made to a 123-foot timber bridge with open deck, and general maintenance was carried out on several others.

Revelstoke District

Roads

District Roads.—Maintenance crews concentrated on various side roads, ditching, gravelling, etc., and snow was removed from the sides of roads. The Revel-

stoke–Arrowhead Road was widened, and major gravelling and ditching undertaken; calcium chloride was used on this road for dust control.

Trans-Canada Highway.—A portion of the Trans-Canada Highway—Sicamous east, totalling 5 miles—was prepared for seeding. All snow-removal maintenance was worked out on a three 8-hour shift system with minor closures on the Trans-Canada Highway resulting from slope slides and snowslides. Except for Silver Creek Slide area, no exceptional maintenance on slides was required. The Highways Department maintained all snow removal through Revelstoke National Park, and the Parks Board maintained from Albert Canyon easterly.

Day-labour Construction.—Work was continued on the reconstruction of the Galena Pass Road. The Solsqua–Sicamous Road was relocated, and construction started on 2.23 miles. On Highway No. 97A, 0.47 mile from the intersection of Trans-Canada Highway south was constructed.

Bridges

Major construction was carried out on Goldstream (No. 89), Spikers Creek (No. 69), Eagle River (No. 323) at Sicamous, and Tum Tum (No. 351) bridges. Two new bridges were constructed—namely, Crawford Creek (No. 427) and Silvertip Falls (No. 61), the latter being 30 per cent completed.

Ferries

The M.V. " Lardeau " was pulled out of the water in May for its yearly check-up. New propellers and shafts were installed and minor repairs made.

No trouble was experienced from ice conditions at either Twelve Mile or Twenty-four Mile ferries.

Salmon Arm District

Roads

Maintenance.—General maintenance was carried out on all highways and side roads throughout the district. A programme of shoulder-widening on the Kamloops–Vernon Highway was undertaken, with 2 miles being completed. Brush control, both by hand labour and by use of spray, was carried out along the Trans-Canada Highway. Simazine was again used around the guard-rails for weed control. Less calcium was used as a dust preventive, and more oil used in its place.

Reconstruction.—Sorrento–Eagle Bay Road (No. 67), Mile 4.0 to Mile 4.7 was reconstructed to 30-foot subgrade, and 6 inches of pit-run gravel were applied.

Shuswap–Chase Creek Road (No. 202), Mile 1.3 to Mile 2.3 was reconstructed to 30-foot subgrade, and 6 inches of pit-run gravel were applied.

Old Spallumcheen Road (No. 4), Mile 0.5 to Mile 1.3 was reconstructed to a width of from 18 to 24 feet, and pit-run gravel was applied.

Notch Hill Road (No. 410), Mile 0.0 to Mile 2.0 was reconstructed to 30-foot subgrade, and 6 inches of pit-run gravel were applied.

On Holding Road (No. 451), from Mile 0.0 to Mile 5.0, 6 inches of crushed gravel were applied in preparation for base processing.

Squilax–Anglemont Road (No. 446), Mile 19.5 to Mile 21.5 was reconstructed to 30-foot subgrade, and pit-run gravel was applied.

Snow Removal.—Snowfall was greater than the previous year, but all roads were kept open. With the use of salt and the fact that the crews were on shift work, it was possible to keep our trunk highways virtually clear of ice and snow at all times.

Bridges

Mattey Bridge (No. 55) and Baker Bridge (No. 126) were completely rebuilt. Sicamous Bridge (No. 11) was demolished; timbers and two beams were stored in Palmer Pit. Materials for redecking Squilax Bridge (No. 38) were purchased and delivered to the site. Major repairs were made to seven other bridges. Minor repairs and flood-control measures were carried out at numerous other locations.

Ferries

Shuswap Lake ferry service operated satisfactorily as usual.

Similkameen District

Roads

Maintenance.—Routine maintenance was carried out on all roads in the district. Emphasis was placed on widening of shoulders, weed control, and installation of delineator posts on sharp curves. A total of 32.5 miles of orchard roads was oil-sprayed for dust control.

Paving.—A total of 6.7 miles of road was road-mixed. Twelve miles of the Hope–Princeton Highway were recapped by contractor, and 9.8 miles of Highway No. 97 between Kaleden and Summerland were also recapped by contract. Eighty miles of side roads were sand-sealed.

Construction and Reconstruction.—There were 8.3 miles of third lane built on the Hope–Princeton Highway by district forces. The district also constructed 4,386 feet of asphalt guard-rail on the Hope–Princeton Highway.

A total of 6.7 miles of side road was reconstructed for paving.

A 96-inch multi-plate culvert was installed to replace an old bridge on the Princeton–Summerland Road.

Snow Removal.—Snowfall was extremely heavy throughout the district, where 500 inches of snow, the highest recorded, fell at Allison Pass. As temperatures were relatively high, a very large amount of salt and sand was used throughout the district.

Bridges

Bridges throughout the district were repaired, painted, and cleaned by district forces.

A major repair job on the West Bench Overpass consisted of replacing the pilings with concrete footings.

Approaches and footings for the new Tulameen Bridge at Princeton were completed by contract.

South Okanagan District

Roads

Maintenance.—An increase of normal maintenance and preventive maintenance has greatly improved the serviceability and appearance of numerous district roads. This work includes shoulder improvement and widening, drainage improvements, patching, signing, and improved as well as more frequent grading. Very satisfactory results have been obtained, using both soil sterilants and brush-kill, and it is the intention to extend the coverage to all roads where spray is permissible.

Reconstruction.—Improvements involving realignment and grade revision were completed on 21 miles of the Joe Rich Road.

Shoulders were widened to 10 feet on the remainder of Highway No. 97 from Westbank north for 8 miles.

Reconstruction was carried out on 11.2 miles of various side roads preparatory to paving.

The McKinley Landing Road was relocated and constructed a distance of 0.75 mile to permit enlargement of the Glenmore irrigation-water storage.

Paving.—A total of 21.8 miles was road-mixed, using district forces. Of this total, 18 miles was on the Joe Rich Road.

Snow Removal.—Although an above average snowfall was recorded, all roads were kept open and in good condition.

Bridges

Sawmill Creek Bridge No. 2 was replaced with concrete abutments and steel stringers as a commencement of a bridge-replacement programme.

Camp Creek Bridge No. 5 was rebuilt.

All fencing and lamp standards on the Okanagan Lake Bridge were painted. An emergency lighting plant was placed on the lift span to operate warning signals in case of power failure.

Yale District

Roads

Maintenance.—General maintenance was carried out on all roads in the district. Weed and brush killer was applied on the Trans-Canada Highway.

A special pavement-patching crew was formed, and methods of patching upgraded considerably.

On November 26, 1963, heavy rains and high temperatures caused extensive storm damage and flooding on the Trans-Canada and Hope–Princeton Highways, as well as on side roads in the Hope area, principally on the Silver Skagit Road (No. 150). Short delays were in effect while debris was cleared away. On December 23, 1963, once again rain and high temperatures caused a reoccurrence of the November conditions, with the addition of numerous small slides, which caused minor delays. It took three months to complete clearing and mopping-up operations.

Snowfall was triple the amount of the previous year, and icing conditions were severe. No road closures were experienced, and numerous letters of appreciation were received from the public.

Forty thousand lineal feet of guard-rail were painted on the Trans-Canada Highway. Mile-posts were installed on the Trans-Canada, Spences Bridge, and Hope–Princeton Highways.

Major Construction and Reconstruction.—Reconstruction and major gravelling were carried out on Coalmont streets (No. 16), Silver Skagit Road (No. 150), Matthew Road (No. 51), and Quilchena Creek Road (No. 69), a total of 11 miles. Seven miles of shouldering were completed on the Merritt–Kamloops Road.

Bituminous Pavement.—Road-mix pavement was laid on a total of 2.65 miles on Collettville streets (No. 19), Collettville Road (No. 18), North Bend streets (No. 142), Silver Skagit Road (No. 150), and Silver Creek Subdivision streets (No. 156).

A total of 3.75 miles was strengthened and recapped by road-mix on Lytton South approach (No. 1A), Kamloops–Princeton (No. 5), and Merritt–Spences Bridge (No. 8) Roads.

Bridges

Major repairs were effected on the following bridges: Collettville (No. 261), Kingsvale No. 2 (No. 337), Coalmont (No. 175), Coquihalla (No. 51), and three bridges on the Silver Skagit Road.

Sidewalks were constructed on Mill Creek Bridge (No. 283) and Ten Mile (No. 246).

Extensive minor repairs were carried out on numerous other bridges.

Ferries

Main cables and haul-back cable were replaced on North Bend aerial ferry. General repairs were carried out on ramps, towers, etc., on all ferries. Restrooms were constructed on Boston Bar side of the river at North Bend ferry.

REGION No. 3

(D. F. Martin, Regional Highway Engineer, Nelson)

Columbia, Cranbrook, Fernie, Grand Forks-Greenwood, Kaslo-Slocan, Nelson-Creston, and Rossland-Trail Electoral Districts

Columbia District

Roads

Maintenance.—Maintenance on the Trans-Canada Highway consisted of cleaning ditches and culverts, removing rockslides, and repairing pavement and guard-rail.

Older sections of the Kootenay–Columbia Highway were severely affected by spring break-up, and a considerable amount of effort was required to repair this highway.

The Big Bend Highway (No. 1A) was maintained in conjunction with loggers using the road. The Department's work consisted primarily of grading and installing culverts.

All other roads were maintained to a satisfactory degree.

Construction.—Base-strengthening gravel was placed and ditching carried out on the Kootenay–Columbia Highway prior to repaving between South Vermilion and Harrogate.

Road-mix paving was laid on townsite streets in Canal Flats, Edgewater, and on Invermere Cemetery Road.

Golden Cemetery Road was reconstructed.

Pavement was recapped on part of Westside Road between Athalmer and Wilmer.

General improvements, straightening, and widening were carried out on Toby Road.

Snow Removal.—Snowfall was near average throughout the district. Crews were maintained on a round-the-clock basis throughout the winter in the Golden area, and no unusual problems were encountered. The use of salt as a snow- and ice-removal agent was tried experimentally. Results were good under optimum weather conditions.

Flooding of rivers and creeks was normal.

Bridges

Passiooks Bridge (No. 169), Mineral Creek Bridge (No. 208), Dola Bridge (No. 206), and Falls Creek Bridge (No. 240) were reconstructed. Sullivan Bridge (No. 255) was partially reconstructed prior to the onset of winter. All other bridges were maintained as required.

Buildings

An electric hot-water tank and ancillary wiring was installed in the Golden garage.

CRANBROOK DISTRICT

Roads

Maintenance.—General maintenance, including pavement patching, grading, culvert installation, and minor ditching, was carried out on all district roads.

Dust-laying measures were carried out on a similar basis to last year due to the increased number of subdivision roads and area growth in outlying districts.

Spring break-up conditions were normal.

Construction.—Some gravel was placed on Highway No. 93, Fort Steele–Eager Hill project, and the balance of the rock was blasted and removed.

Approximately 1.3 miles of reconstruction were completed on Highway No. 95 south of Wycliffe Bridge. It is now ready for road-mix pavement.

Road-mix pavement was laid on the Green Bay, Pinecrest Subdivision, Munroe Lake, Smith Lake, St. Joseph Creek, and Mission Roads.

The Black Bear Road was reconstructed, and road-mix pavement laid on 0.30 mile.

Plant-mix pavement was laid on 0.77 mile of Cranbrook arterial (No. 354R).

Minor roads in the vicinity of Cranbrook were widened and gravelled.

Snow Removal.—Heavy snowfall and mild weather created severe ice conditions. More extensive use of salt provided bare pavement on most sections of main routes for most of the winter.

Bridges

All bridges were maintained as required. Palmer Bar (No. 114) and Perry Creek Slough (No. 138) Bridges were replaced by culverts.

Buildings

At Yahk an assembly room, a washroom, and a foreman's office were constructed.

Improvements were made to the heating system in the Cranbrook garage.

FERNIE DISTRICT

Roads

Maintenance.—General maintenance was carried out on all district roads, and included in this was a considerable amount of clearing on curves in order to increase sight distance.

Weed and brush spraying was done on the Southern Trans-Provincial Highway from Wardner to Crowsnest and on the Elko–Roosville Highway. A soil sterilant was applied to the shoulders of the Southern Trans-Provincial Highway between Wardner and Fernie and of the Elko–Roosville Highway. This treatment seems to be very effective.

Steel guard-rail on the Southern Trans-Provincial Highway was repainted.

Construction.—A 3.7-mile section of the Southern Trans-Provincial Highway between Hosmer and Olson Crossing was widened to a width of 48 feet between shoulders.

A total of 14.3 miles of seal-coating was carried out on various roads.

Snow Removal.—An extra heavy snowfall was experienced this season, with 198 inches at Fernie and 204 inches at Hosmer. The snow came early in November and continued through the season. In spite of the heavy snowfall the usual wet snowslide did not occur at Morrissey, which must be attributed to the early snow cover, which prevented frost from penetrating the ground and the lack of the usual heavy rains in December and January.

Bridges

Sheep Creek Bridge No. 2 was rebuilt, and Morrissey Bridge was strengthened with a running deck, and two pony bents were installed to withstand heavy logging traffic.

All other bridges were maintained satisfactorily.

Buildings

A two-bay equipment-shed and oil-house with a foreman's office were constructed on a 2-acre lot at Jaffray. The lot was completely fenced.

Grand Forks-Greenwood District

Roads

Maintenance.—General maintenance was carried out on all roads, with increased attention being given to cleaning up right-of-way on the Southern Trans-Provincial Highway to improve appearance and weed control. Shoulder-widening was continued on the Anarchist Mountain section of the Southern Trans-Provincial Highway.

Improvements consisting of widening narrow sections and gravelling were carried out on Rock Creek–Kelowna (No. 44), Summit–Phoenix (No. 67), Boundary Creek (No. 7), Rock Creek–Bridesville (No. 65), Grand Forks–Franklin (No. 30), and Christina Lake West (No. 17) roads.

Construction.—On the Southern Trans-Provincial Highway, Grand Forks–Greenwood section, 1.6 miles of reconstruction were completed. This section plus 3.21 miles constructed last year were completed with road-mix paving.

On Boundary Creek Road (No. 7) a 0.91-mile section was improved and completed with road-mix paving.

An additional 1.98 miles of road-mix paving were completed on Grand Forks–Franklin Road (No. 30). A total of 5.35 miles of new penetration-seal paving and 18.16 miles of bituminous seal-coating was carried out on local roads in the Grand Forks, Christina Lake, Midway, and Greenwood areas.

Snow Removal.—All district roads were kept open and well sanded. Snowfall was higher than the average over the past eight years and considerably higher than last year, resulting in an increase in the ploughing and sanding required. A number of snowslides occurred on the Christina–Kinnaird section of the Southern Trans-Provincial Highway in the late spring but caused no serious traffic delays.

Bridges

Complete deck systems were renewed on Boundary Smelter (No. 36), Carmi (No. 18), and Wilkinson (No. 19) bridges. Fourteen other bridges received various repairs, and 22 bridges received minor repairs, including painting and washing.

Buildings

A 12-foot extension was completed on the side of the Grand Forks shop to provide additional work space and storage.

Kaslo-Slocan District

Roads

A total of 6.15 miles of the Slocan–Vernon Highway was reconstructed. On the Summit Lake section 2.70 miles were realigned and widened and road-mix pavement laid on 0.75 mile of this. The remainder of the reconstruction on this highway took place on the Monashee section, where 3.45 miles were realigned, widened, and paved. On the Enterprise–Lookout section, rock-drilling has been completed over a length of 4.05 miles.

On the Balfour–Gerrard Highway a 0.5-mile section at Coffee Creek Bluffs was widened and 0.4 mile of road-mix pavement laid. A 0.5-mile section through Ainsworth was also widened.

Major improvements were carried out on the Kaslo–New Denver Road between the Rambler Hill and Retallack.

Snowfall was heavier than usual, but all roads were kept open. The use of salt helped to alleviate bad ice conditions.

Bridges

Swinging leads were mounted on a mobile shovel unit, and piles driven through the decks of the Howe-truss bridges over the Slocan River at Appledale, Vallican, and Winlaw.

The approach spans to the Perrys Bridge were replaced by fills, and the bridge was restored with new stringers, ties, and deck.

A new short timber span on abutments replaced a long trestle on the Galena Bay Road.

New piers were driven under the former railway bridge at Cooper Creek.

Many other bridges were repaired, and one at Boden Creek on Highway No. 6 replaced by a culvert and fill.

Ferries

The closures on the ferries at Needles and Arrow Park were kept mainly to late night periods, when the usual motor repairs were necessary. New wedge ramps were placed on the Needles approaches and the aprons modified to suit.

Nelson-Creston District

Roads

Maintenance.—Maintenance was carried out on all district roads. Particular emphasis was placed on skin patching to improve the riding quality and extend service life of older pavements. Air-powered rotary saws were purchased for slashing right-of-way, and greatly accelerated this phase of the maintenance opera-

tion. Extensive ditch-cleaning was required on the newly constructed portions of the Salmo–Creston Cut-off. Shouldering work was carried out on the Salmo–Fruitvale, Nelson–Castlegar, and Nelson–Balfour Highways.

Construction.—A further mile of the Beasley section of Highway No. 3A was completed and opened for traffic. Two miles of the Goatfell section of Highway No. 3 were reconstructed. Improvements were carried out on sundry roads.

Snow Removal.—Frequent snowfalls and the opening of the Salmo–Creston Cut-off resulted in increased snow-removal costs. Despite numerous snowslides and a snowfall in excess of 500 inches, maintenance crews working on multiple shifts from the South Fork Camp and from Creston were able to keep the Salmo–Creston section open during the winter. Minor delays resulted from the snowslides. Demands for sanding service at lower elevations were heavy because of frequent snowfalls and mild temperatures.

Bridges

Maintenance was carried out on all bridges in the district. The bridge across the Salmo River at Porcupine was reconstructed. The Corn Creek Bridge and the Twin Bridge on the West Creston Road were reconstructed. The Goat River Bridge was redecked. Rykerts Bridge was replaced with a culvert and fill.

Ferries

Ferry operation during the year was routine with a few exceptions. Considerable difficulty was experienced with the drive mechanism on the Harrop ferry. The Kootenay Lake ferries were operated on a 50-minute schedule during the summer months. Fares were removed from the Kootenay Lake ferries on November 1, 1963.

Rossland-Trail District

Roads

Reconstruction and road-mix paving were completed on 1.3 miles of the Southern Trans-Provincial Highway at Fruitvale.

Ditching, shoulder-widening, base-strengthening, and extensive pavement repairs were carried out between Beaver Creek Bridge in Fruitvale to the district boundary near Ross Spur.

Road-mix pavement was laid on several miles of subdivision roads at Blueberry, Genelle, and Riverdale. Three miles of side roads were reconstructed and paved.

Snow Removal.—A heavier than usual snowfall, worse ice conditions, an increase in traffic volume, and demand for service increased winter snow-removal costs over the previous year. Increased subdivision mileage with a new highway between Christina Lake and Kinnaird also increased winter costs considerably.

Ferries

A below normal run-off allowed continuous service with only minor delays.

Bridges

The Dog Creek Bridge at Renata was completely rebuilt, using log stringers and rock-filled cribs. Big Cayuse was completely rebuilt, using native log stringers and cribs.

Wooden sidewalk attached to the C.P.R. bridge in Castlegar was replaced by a new walk of the same design.

The bridge crew also constructed a concrete dam at Murphy Creek on the new Rossland–Sheep Lake Highway.

Buildings

At Castlegar the construction of a shop building was completed, the utilities installed, and a start was made on fencing the yard.

At Rossland, property has been purchased to relieve congestion in the yard there. A building was constructed for the storage of salt and calcium chloride.

REGION No. 4

(R. G. Harvey, Regional Highway Engineer, Prince George)

Atlin, Cariboo (North), Fort George, North Peace River, Omineca, Prince Rupert, Skeena, and South Peace River Electoral Districts

Atlin (North) District

Normal maintenance was carried out at Atlin and Telegraph Creek throughout the year. However, at Good Hope Lake the road crews are only able to work at approximately 60 per cent efficiency due to the great distances that have to be covered since more and more of the Stewart–Watson Lake Highway is taken over from the Construction Branch.

Yearly mucking-out of the ditches due to sloughing backslopes has been required in the past few years. The district feels the need for the establishment of a new camp at the south end of Dease Lake to be of the utmost importance.

Many tourists and prospectors use the Stewart–Watson Lake Highway, and the ferry at the Stikine River has been kept busy. The district has built cabins to house the ferry crew for the summer season.

The road beyond the Cassiar Mine Road is not kept open during the winter, nor is that from Dease Lake to Telegraph Creek.

Atlin (South) District

Increased logging and mining activity in the district, and particularly in the Alice Arm area, required a stepped-up maintenance programme. Numerous rock points were widened and gravelled, culverts replaced and some river bank protection work undertaken.

While snowfall was very heavy in the Stewart area little difficulty was experienced in meeting the public's demands.

A part of the new yard-site at Stewart was cleared and materials for fencing purchased.

Cariboo (North) District

Roads

Road Maintenance.—Routine maintenance was carried out on all district roads. An extensive programme was carried out on the shoulders of the Cariboo Highway. Catch basins and shoulder washouts were repaired and shoulders reshaped. Guardrail was repainted.

Calcium chloride was spread on 40 miles of the Barkerville Road for dust control.

Construction.—The Rawlings Road was extended by 3.5 miles of new construction.

On the Barkerville Road, improvements were carried out on 7.7 miles, of which 2.1 miles were pulvimixed and 2.1 miles were prepared for pulvimix.

On the Quesnel–Hixon Road, 3.5 miles were reconstructed and gravelled, of which 1.1 miles were pulvimixed.

On the Fraser Road the Dead Horse Bluff section was reconstructed.

Snow Removal.—Snowfall was lighter than average, but mild temperatures necessitated an increased sanding operation.

Bridges

The concrete piers for the Spehar Bridge were completed, and steel stringers erected on stage construction.

Ferries

An approach float for the Soda Creek ferry was built, and one for the Gravelle ferry was reconstructed. Two new life-boats were built for the Marguerite and Soda Creek ferries.

Fort George District

Roads

Maintenance.—A reasonably good spring break-up aided the general condition of the roads throughout the summer. Normal maintenance was carried out on all roads. An appreciable amount of high-grading and gravelling on the North Thompson Highway from Tête Jaune to Albreda has eliminated most of the spring break-up problems in that area. The McBride–Crescent Spur winter road had a good season, and service was extended to Dome Creek.

Construction.—The day-labour programme on the John Hart Highway followed by paving contracts brought this highway into good condition.

Rock work along Eagle Lake at Giscome made a marked improvement to this piece of road. Intermittent sections of Highway No. 16 east of McBride were high-graded and gravelled.

Several Lands Service access roads were constructed.

Snow Removal.—An exceptionally heavy snowfall was recorded north and east of Prince George, with readings of 135 inches at Aleza Lake, 257 inches at McLeod Lake, and 651 inches at the Pine Pass summit.

Bridges

A new bridge was built at Giscome. Six bridges on the John Hart Highway were replaced by culverts and fills.

Ferries

The Isle Pierre ferry operated until January, when the channel became frozen.

The Hansard ferry operated throughout the summer and fall, and with traffic being extremely heavy a double shift seven days a week was required.

North Peace River District

The 1962/63 winter was not exceedingly cold, but there was an unusually heavy snowfall; also numerous weather changes caused bad ice conditions on the roads.

The spring break-up was severe. Heavy rains in the autumn saturated the watersheds, and, consequently, when the rapid spring thaw took place, all run-off came at one time, causing many washouts. As a result, three large culverts were replaced with bridges and numerous culverts had to be reinstalled. The remaining break-up damage is still being repaired.

Further, with the B.C. Hydro project at Hudson Hope, it was necessary that the access road from Fort St. John receive heavy maintenance, consisting of gravelling with pit-run during the spring operations and later resurfacing with crushed gravel.

There were also reconstructed and gravelled numerous sections of farm and settlement roads in the Fort St. John area; also gravelling was done on school-bus routes.

The Department undertook and completed the following works for British Columbia Hydro and Power Authority: Construction and gravelling 4 miles of road being access to its project lookout, construction and gravelling one-half mile of subdivision road, and construction of the base on the Hudson Hope Airport.

For the Department of Mines and Petroleum Resources at Fort Nelson, the district constructed and gravelled approximately 2½ miles of road from the Fort Nelson River Bridge to the Kotcho Lake Road; also slash was burned along approximately 4½ miles of the Fort Nelson Bridge access right-of-way.

The district replaced two piers destroyed by spring ice and driftwood and erected four ice-breakers on the Fort Nelson River Bridge, also for the Department of Mines and Petroleum Resources.

The district installed approximately one-half mile of storm sewer on Mackenzie Street and Centre Avenue, Fort St. John, and constructed approximately 1 mile of a 10-foot average depth drainage ditch to carry water from the newly installed storm sewer to a nearby creek.

Furthermore and consequent to the heavy run-off in the spring of 1963, the Fish Creek fill, located at the north boundary of Fort St. John, was damaged, and, before replacement could be made, necessitated construction of a 2.8-mile combined detour and Fort St. John by-pass, which was constructed and gravelled in February and March of this year.

Omineca (East) District

Roads

Maintenance. — Normal maintenance was carried out on all district roads throughout the year, including considerable brushing and right-of-way clean-up on the Northern Trans-Provincial Highway. The programme of upgrading side roads by minor reconstruction was continued. Shale surfacing was again applied to several miles of the Vanderhoof–Stuart Lake Road.

Construction.—Two miles of the Vanderhoof–Stuart Lake Road were widened and realigned to standard, pit-run and crushed gravel applied, and the surface pulvimixed.

Snow Removal.—Snowfall generally was about average, but very heavy in the northern part of the district. Weather was mild, with heavy demand for ice control.

Bridges

Normal maintenance was carried out on all district bridges. Reconstruction of the Necoslie Bridge was completed, and a log-stringer bridge was built at Sylvester Creek, replacing the King truss.

Omineca (West) District

Roads

Maintenance.—An average break-up was experienced throughout the district. Heavy rainfall in early July caused considerable damage to road surfaces, especially in the eastern portion of the district, causing curtailment of all project and ditching operations. A further 15 miles of brush control was successfully conducted on the Northern Trans-Provincial Highway. Patching, gravelling, and sign maintenance were carried out throughout the district on a routine basis.

Construction. — Two sections of the Northern Trans-Provincial Highway—Houston east and Tintagel–Tibbett Creek (total, 6.8 miles)—were pulvimixed and completed by early summer. A total of 8.2 miles on the Colleymount Road (No. 21) was ditched and gravelled. Telkwa Secondary Road (No. 136B) was ditched and improved on a joint project with the Village of Telkwa. Ditching, shoulder-widening, and minor improvements were conducted by Department forces along a 20-mile section of the Northern Trans-Provincial Highway from Rose Lake to Perow in conjunction with a paving project.

Snow Removal.—An above average snowfall was experienced in most areas of the district. Persistent light snowfall increased the demand for snow-ploughing services, especially on the Northern Trans-Provincial Highway. The demand for sanding operations was about average. Chemicals did not prove too successful due to increased snowfall and low temperatures.

Bridges

Maintenance was conducted on all bridges throughout the district with extensive repairs carried out on Quick (No. 97) and Walcott (No. 128), two older structures over the Bulkley River.

Ferries

The Francois Lake ferry M.V. " Jacob Henkel " experienced a general increase of traffic throughout the year. Service was suspended for the usual 2½-week period in the spring for engine overhaul and refit. The docks received routine maintenance and also were completely painted. The causeway at the Southbank wharf was completed and paved.

Buildings

The exterior of the Houston garage, dry-shed, and oil-shed and the interior of the Burns Lake garage were completely repainted. A new roof over the annex of the Burns Lake garage was completed.

Prince Rupert District

Roads

Maintenance.—No difficulty was experienced in maintaining roads in the Prince Rupert and Queen Charlotte areas, with the exception of a period of exceedingly high tides which temporarily disrupted services in the vicinity of Masset.

New gravel surfacing was applied to 4.3 miles of road on the Queen Charlotte Islands.

Construction.—A causeway, 0.25 mile in length, utilizing culverts with flap gates, was constructed to replace Delkatla Bridge in the village of Masset.

In the City of Prince Rupert the Alaska Ferry approach road was reconstructed and widened to four lanes.

Snow Removal.—Heavy snowfall and severe icing conditions, particularly on the Northern Trans-Provincial Highway, extended the capacity of both men and available equipment to near their limits. Twenty-one feet of snow fell on the summit, 8 feet of which fell during the month of March.

Bridges

All bridges received routine cleaning and any necessary repairs.

Buildings

Port Clements yard-site was extended further by clearing. A new exhaust system was installed in the Prince Rupert garage.

Skeena (East) District

Roads

Maintenance.—Normal maintenance was carried out during the year. The gravelling of the Mud Creek section of the Northern Trans-Provincial Highway was completed in preparation for paving. Other day-labour work included base-strengthening and pulvimixing on Highway No. 16 from Carnaby to Skeena Crossing, reconstruction of a 3-mile section of Kispiox Road, and realignment and general improvements on the Babine Road.

Snow Removal.—Snowfall was considerably heavier this year, averaging 30 inches more than the previous winter. The additional snow along with an extended winter added considerably to costs. Straight chemicals were used for the first time in the populated areas around Smithers and Hazelton, with results varying from fair to good. Spring break-up in the area was not severe.

Bridges

Routine maintenance was carried out on all bridges. Six structures were completely reconstructed by the district crew.

Ferries

The reaction ferries at Cedarvale and Kitwanga provided normal service from April through to October. An aerial basket was installed at Cedarvale for pedestrian passengers during the winter months. New landing pontoons were constructed during the winter months at both sites.

Skeena (West) District

Roads

Maintenance.—District roads were maintained in fair condition all year. Spring load restrictions were applied April 1st and rescinded April 25th. Damage during break-up was light. Summer was relatively dry, and all gravelled roads received extensive gravel. In October and November, 12 miles of pulvimix pavement on Highway No. 25 broke up badly and required extensive repairs and maintenance.

Day-labour Construction.—A 5-mile road-construction project was undertaken in October to provide access from the Kitimat Indian Village to Minette Bay. This work which was through heavy solid rock, continued all winter.

Snow Removal.—Snowfall was relatively heavy throughout the district, with a 220-inch total fall at Kitimat and also at a point 30 miles west of Terrace. District forces were hard put several times to keep roads open. Snowslides on Highway No. 16 west of Terrace blocked the highway 14 times for periods up to four hours at a time.

Bridges

The deck systems on a number of Howe-truss bridges were replaced. The Terrace Bridge was completely redecked from the steel stringers up. Shames, Exstew, and Zimacord Bridges were redecked. Brauns Island Bridge was replaced by a Bailey bridge.

Ferries

Ferries were in service until December, when they were beached due to low water and floating ice. They were not returned to service before the end of the fiscal year.

South Peace River District

Roads

Maintenance.—Literally hundreds of culverts were blocked with ice due to alternating freezing and thawing temperatures during the winter months. Combined with an unusually heavy run-off as a result of the heavy snowfall, numerous washouts and extensive flooding of roads resulted. The first two or three months of the year were spent repairing damages to roads resulting from these flood conditions.

Where necessary, pavement-patching was carried out, and an extensive programme of crack-filling was completed on all paved highways in the district.

A total of 65.5 miles of side roads was high-graded, with culverts installed.

An extensive programme of signing on highways and side roads was carried out.

A programme of weed-spraying was in effect on right-of-way in farming areas, and a brush-spraying programme was carried out, mainly on trunk highways.

Construction.—An 11-mile section of the John Hart Highway, from Mile 138 to Mile 149 (Silver Sands Creek), was reconstructed, including widening, drainage improvements, and the application of base gravel, in preparation for paving.

Reconstruction was partially completed on the John Hart Highway from Mile 149 to Mile 158. This work included clearing right-of-way, widening, and drainage improvements.

A 5-mile section of Highway No. 2 from the south limits of Dawson Creek to Pouce Coupe was widened and strengthened with gravel base course in preparation for paving. This work included revisions on two curves just north of Pouce Coupe.

On Road No. 3, Rolla to Clayhurst, 16 miles were reshaped and regravelled. An additional 4 miles were also regravelled.

In addition, 11.5 miles of farm and settlement roads and school-bus routes were regravelled and 38.5 miles were newly gravelled.

Snow Removal.—The snowfall for the year was below average. No difficulty was experienced in keeping roads open throughout the district. Widespread ice conditions necessitated heavy use of sand and chemicals, particularly on trunk highways.

Bridges

Routine maintenance was carried out on most bridges in the district. Silver Sands Bridge (No. 13) was replaced by a steel multi-plate pipe arch culvert and Windrem Creek Bridge (No. 33) by a double steel-pipe arch culvert.

Ferries

The Clayhurst ferry operated most satisfactorily during the year. The hours of service were extended by three hours for the heavy haul period during August, September, and October. A new ferryman's residence was constructed near the south landing.

STATEMENT AS TO MAJOR HIGHWAY WORK COMPLETED OR IN PROGRESS (BY DAY LABOUR) DURING FISCAL YEAR 1963/64

Electoral District	Project No.	Name of Road	Extent of Work (Location of Work or Initial and Terminal Points)	Mileage of Work	Description of Work (New Construction, Reconstruction, Widening, etc.)	Date Commenced	Work Completed at Mar. 31, 1964
							Per Cent
Alberni	1295	Stirling Arm Drive		1.00	Reconstruction, widening, and ditching	July, 1963	100
	1295	Central Lake		0.50	Reconstruction, widening, and ditching	Apr., 1963	100
	1295	Ucluelet–Tofino		20.00	Reconstruction, widening, and ditching	July, 1963	100
	1295	Alberni–Kennedy Lake		2.00	Reconstruction and widening	Aug., 1963	90
	1295	Bamfield Access	Pachena River to Bamfield	4.00	New construction	June, 1963	100
	1295	Pearse, Chapman, and Fayette		1.00	Reconstruction	May, 1963	100
	1295	Alberni–Tofino		15.00	Reconstruction and gravelling	Sept., 1963	85
Atlin (North)	1335	McDame Creek	Mile 79 to Mile 87	8.00	Resurface with gravel	----	----
			Mile 68.5 to Mile 73.0	4.50	Backslope, widening and ditching, prepare surface for gravelling	July, 1963	100
Atlin (South)	1336	Kitsault River, No. 23	Mile 2 to Mile 10	0.50	Widen rock cuts	June, 1963	100
Burnaby	----	Kingsway, No. 1R	At Patterson Ave.	0.26	Reconstruction, widening for left turn and island	Nov., 1963	100
	----	Lougheed Highway, No. 17R	At Brighton Ave.	0.29	Reconstruction, widening, left turns	Nov., 1963	100
Cariboo (North)	----	Rawlings, No. 197	Mile 3.41 to Mile 6.88	3.47	New construction	----	100
	----	Michele, No. 80	Mile 0.00 to Mile 1.00	1.00	New construction	----	100
	----	Hanson Pit, No. 213	Mile 0.00 to Mile 0.08	0.08	New construction	Apr., 1963	100
	----	Barkerville, No. 38	Mile 1.25 to Mile 3.79	2.54	Reconstruction and widening	----	100
			Mile 3.79 to Mile 5.90	2.11	Reconstruction, base gravelling, and base processing	----	100
			Mile 15.42 to Mile 15.90	0.50	Reconstruction and widening	----	----
			Mile 21.10 to Mile 23.20	2.10	Reconstruction and preparation for base processing	----	----
			Mile 25.40 to Mile 25.70	0.30	Reconstruction and widening	----	----
			Mile 51.10 to Mile 51.30	0.20	Reconstruction and realignment	----	----
	----	Fraser, No. 32	Mile 60.95 to Mile 61.20	0.25	Reconstruction, widening, and grade revision	----	100
			Mile 57.85 to Mile 59.20	1.35	Reconstruction and new diversion	----	100
	----	Quesnel–Hixon, No. 23	Mile 0.00 to Mile 3.50	3.50	Reconstruction, base gravelling, and 1 mile of base processing	----	100
	----	Lepetich, No. 184	Mile 0.50 to Mile 1.00	0.50	Reconstruction and realignment	----	100
	----	Webster Lake, No. 157	Mile 0.00 to Mile 3.40	3.40	Reconstruction and widening	----	----
	----	Sisters Creek–Hill Lake, No. 172	Mile 0.00 to Mile 1.20	1.20	Reconstruction and widening	----	----
	----	Kaetler No. 2, No. 52	Mile 0.00 to Mile 0.20	0.20	Reconstruction, widening, and gravelling	----	----
	----	Beavermouth, No. 70	Mile 17.50 to Mile 18.00	0.50	Reconstruction and widening	----	----
	----	Ten Mile, No. 165	Mile 3.15 to Mile 3.95	0.80	Reconstruction and widening	----	----
	----	Jacobson, No. 131	Mile 1.45 to Mile 5.95	4.50	Reconstruction and new diversion	----	----

STATEMENT AS TO MAJOR HIGHWAY WORK COMPLETED OR IN PROGRESS—*Continued*

Electoral District	Project No.	Name of Road	Extent of Work (Location of Work or Initial and Terminal Points)	Mileage of Work	Description of Work (New Construction, Reconstruction, Widening, etc.)	Date Commenced	Work Completed at Mar. 31, 1964
							Per Cent
Cariboo (North)	.....	Nazko, No. 59	Mile 4.80 to Mile 12.40	7.60	Reconstruction, widening, and gravelling	.....	.....
	.....		Mile 23.3 to Mile 24.20	0.90	Reconstruction, widening, and gravelling	.....	.....
	.....	Bear Lake, No. 29	Mile 11.00 to Mile 16.20	1.10	Reconstruction, widening, and realignment	.....	.....
Cariboo (South)	.....	Likely, No. 15	Mile 52.00 to Mile 52.30	0.30	Reconstruction and realignment	Apr., 1963	100
	.....	Chilcotin–Bella Coola, No. 20	Mile 31.30 to Mile 33.20	1.90	Reconstruction and realignment	Oct., 1963	100
	.....	Buffalo Creek–Horse Lake, No. 315	Mile 0.00 to Mile 0.30	0.30	Reconstruction, widening, and grade revision	Aug., 1963	100
	.....	Canim Lake, No. 318	Mile 5.50 to Mile 9.90	4.40	Reconstruction, new diversion, and realignment	Aug., 1963	100
	.....	Deka Lake–Canim Lake, No. 319	Mile 2.30 to Mile 3.30	1.00	Reconstruction and realignment	Sept., 1963	100
	.....	Lake, No. 352	Mile 0.00 to Mile 2.50	2.50	Reconstruction and realignment	May, 1963	100
	.....	Mile 100–Roe Lake, No. 371	Mile 2.50 to Mile 3.00 and Mile 8.55 to Mile 9.35	1.30	Reconstruction and new diversion	June, 1963	100
	.....	Pigeon, No. 389	Mile 3.00 to Mile 8.80	5.80	Reconstruction and widening	Sept., 1963	100
	.....	Hatchery, No. 548	Mile 0.20 to Mile 0.70	0.50	Reconstruction and new diversion	Aug., 1963	100
	.....	Puntzi Lake, No. 618	Mile 3.80 to Mile 6.60	2.80	New construction	July, 1963	100
	.....	Lyne, No. 671	Mile 0.00 to Mile 0.17	0.17	New construction	Sept., 1963	100
	.....	Williams Lake–57 Mile, No. 37	Mile 6.50 to Mile 7.00, Mile 10.2 to Mile 14.9, and Mile 22.80 to Mile 24.10	6.50	Reconstruction and widening	May, 1963	100
	.....	Bluff Lake, No. 341	Mile 12.40 to Mile 12.80	0.40	Reconstruction and widening	Oct., 1963	100
	.....	Lone Butte–Watch Lake, No. 354	Mile 0.00 to Mile 4.00	4.00	Reconstruction and widening	Aug., 1963	100
	.....	Little Horsefly, No. 631	Mile 0.35 to Mile 1.95	1.60	Reconstruction and widening	Aug., 1963	100
	.....	Little Lake–Quesnel Lake, No. 639	Mile 0.00 to Mile 1.20	1.20	Reconstruction and widening	Apr., 1963	100
Chilliwack	1297	Chilliwack Lake	Mile 2.65 to Mile 4.39	1.74	New construction	Apr., 1963	85
	1297	Columbia Valley	Frost Creek Bridge to 2 miles south	2.00	Reconstruction	Apr., 1963	70
	.....	Off-ramp, Trans-Canada Highway, No. 1	Junction of No. 1 and No. 9 Highways	0.15	New construction	Feb., 1964	100
	1372	Trans-Canada Highway, No. 1	Hunter Creek weigh-scale	.....	New construction	Aug., 1963	100
Columbia	1319	Toby Road	Various sections	0.50	Reconstruction and widening	.....	100
Comox	1298	Anderton	Ryan Road to Waveland	1.63	Reconstruction and paving	Apr., 1963	100
	1298	Bold Point	Mar., 1963, construction to Village Bay	1.00	New construction	Apr., 1963	100
	1298	Byng	Hardy Bay Road, 3.36 miles	3.36	Reconstruction and paving	Apr., 1963	100
	1298	Alberni Highway	Random lengths	.....	Asphalt curb	May, 1963	100
	1298	Claudet	Northwest Bay Road to Marina Way	1.08	Paving	Apr., 1963	100
	1298	Marina Way	Claudet to Mile 0.43	0.43	Paving	Apr., 1963	100
	1298	East Road, Denman Island	Swan Road to Mile 1.50	1.50	Reconstruction	Apr., 1963	100

							Per Cent
	1298	Dove Creek	Mile 3.45 to Mile 4.89	1.44	Reconstruction and paving	Apr., 1963	100
	1298	Gainsberg	Island Highway to Mile 1.22	1.22	Reconstruction and paving	Apr., 1963	100
	1298	Gartley	Island Highway to Mile 0.16	0.16	Reconstruction and paving	July, 1963	100
	1298	Grafton Ave.	Coombs Station to Winchester	1.44	Reconstruction	Apr., 1963	80
	1298	Hilliers Road and Arterial	Qualicum to Coombs Road	1.77	Reconstruction	July, 1963	20
	1298	Island Highway	Flood control	.....	Random lengths	Apr., 1963	100
	1298	Marsden	Cumberland Road to Lake Trail	1.43	Reconstruction	May, 1963	5
	1298	Martindale	Island Highway to Shelly	0.43	Paving	July, 1963	100
	1298	Minto	Fraser Road to Royston Road	1.31	Reconstruction	Oct., 1963	5
	1298	Royston roads (Marine Drive)	Island Highway to Mile 0.23	0.23	Reconstruction and paving	May, 1963	100
	1298	Shelly	Island Highway to Mile 0.33	0.25	Paving	May, 1963	100
	1298	Spit	Island Highway to Mile 1.08	1.08	Reconstruction and paving	Apr., 1963	100
	1298	Swayne	Errington Road to Coombs Station	1.72	Reconstruction	Apr., 1963	20
	1298	Towler	Willemar Ave. to Mile 0.16	0.16	Paving	May, 1963	100
	1298	West Road (Quadra Island)	Mile 1.79 to Mile 4.22	2.43	Reconstruction and paving	May, 1963	100
	1298	Willow Point roads	Miscellaneous roads	1.08	Reconstruction and paving	Apr., 1963	100
	1298	Winchester	Alberni Highway to Grafton Ave.	1.05	Reconstruction and paving	Apr., 1963	100
	1298	Heriot Bay and west roads	Random lengths	0.34	Flush-coat	Oct., 1963	100
	1298	Gartley Point	Gartley Road to Mile 0.31	0.31	Reconstruction and paving	July, 1963	100
	1364	Port McNeill Road	Nimpkish River Bridge to Mile 4.86	4.86	New construction	Aug., 1963	50
	1364	Theimer Creek Bridge and Bay Bridge	Port McNeill Road	.....	Built two new bridges	Jan., 1964	100
	1381	Port Alice–Rumble Beach	Rumble Beach to Mile 0.63	0.63	New construction	Feb., 1964	20
	1346	Simms Creek Bridge replacement	Willow Point	.....	Replace bridge with culvert and fill	Oct., 1963	100
	430	White River Bridge	Island Highway	.....	New bridge completed	May, 1963	100
	467	Byng Bridge	Byng Road	.....	New bridge	Aug., 1963	100
	465	Hornby Island ferry-landing	Denman Island	.....	New breakwater and ramp	Sept., 1963	80
Comox (South)	1305	Fielding	Extension	0.30	New construction	July, 1963	100
	1305	Sebastian		0.30	Reconstruction	May, 1964	100
	1305	Uplands Drive		1.00	Reconstruction and paving	July, 1963	100
	1305	Highland Boulevard		0.50	Reconstruction and paving	Feb., 1963	100
	1305	Bay St.		0.25	Reconstruction	Jan., 1964	85
	1305	Lantzville area		1.00	Reconstruction and gravelling	June, 1963	100
	1305	Wellington area		0.25	Reconstruction and gravelling	Apr., 1963	100
	1305	Tunnah		0.25	Reconstruction and paving	June, 1963	100
Cowichan-Newcastle	1299	Hill		0.50	Reconstruction and paving	May, 1963	100
	1299	De Courcy		1.00	Reconstruction and paving	June, 1963	100
	1299	Akenhead		0.50	Reconstruction	Dec., 1963	100
	1299	Wilson		0.50	Reconstruction and gravelling	Apr., 1963	100
	1299	Koksilah		0.75	Reconstruction and paving	July, 1963	100
	1299	Cameron		1.00	Reconstruction and paving	June, 1963	100
	1299	Tzouhalem		1.00	Reconstruction and paving	May, 1963	100
	1299	Crofton		1.00	Reconstruction	Aug., 1963	100
	1299	Miller		0.50	Reconstruction and paving	Apr., 1963	100

STATEMENT AS TO MAJOR HIGHWAY WORK COMPLETED OR IN PROGRESS—*Continued*

Electoral District	Project No.	Name of Road	Extent of Work (Location of Work or Initial and Terminal Points)	Mileage of Work	Description of Work (New Construction, Reconstruction, Widening, etc.)	Date Commenced	Work Completed at Mar. 31, 1964
							Per Cent
Cranbrook	1320	*Eager Hill–Fort Steele, No. 93*		*5.00*	*Reconstruction and realignment*	Mar., 1963	60
	1320	Kootenay–Columbia, No. 95	Mile 6.50 to Mile 7.80	1.30	Reconstruction (new diversion)	Apr., 1963	90
	1320	St. Mary Lake, No. 18	Mile 12.00 to Mile 16.00	4.00	Reconstruction, widening, and realignment	July, 1963	100
	1320	Black Bear, No. 113	Mile 1.95 to Mile 2.25	0.30	Reconstruction, widening, and road-mix paving	July, 1963	100
	1320	St. Joseph St., No. 187	Mile 0.00 to Mile 0.50	0.50	Reconstruction, widening, and road-mix paving	Aug., 1963	100
	1320	Summer Subdivision, No. 95-4-S	Mile 0.00 to Mile 3.00	3.00	Reconstruction, widening, and gravelling	Aug., 1963	75
	1320	Reservoir, No. 191	Mile 0.00 to Mile 0.50	0.50	Reconstruction, widening, and gravelling	Aug., 1963	100
	1320	Kootenay orchards, No. 12	Mile 0.75 to Mile 1.85	1.10	Reconstruction, widening, and gravelling	Aug., 1963	100
	1320	Pine Crest Subdivision, No. 94-1-S	Mile 0.00 to Mile 0.25	0.25	Reconstruction, widening, and gravelling	Aug., 1963	100
	1320	McKenzie, No. 94	Mile 1.05 to Mile 1.50	0.45	Reconstruction, widening, and gravelling	Aug., 1963	100
	1320	Green Bay, No. 80	Mile 0.00 to Mile 0.85	0.85	Road-mix paving	Aug., 1963	100
	1320	Smith Lake, No. 7	Mile 2.10 to Mile 2.80	0.70	Road-mix paving	Aug., 1963	100
	1320	Munroe Lake, No. 81	Mile 0.00 to Mile 0.45	0.45	Road-mix paving	Aug., 1963	100
	1320	Pine Crest Subdivision, No. 94-1-S	Mile 0.00 to Mile 0.25	0.25	Road-mix paving	Sept., 1963	100
	1320	McKenzie, No. 94	Mile 1.05 to Mile 1.50	0.45	Road-mix paving	Sept., 1963	100
	1320	Mission, No. 8	Mile 0.00 to Mile 1.00	1.00	Road-mix paving	Sept., 1963	100
	1320	Cranbrook Arterial, No. 354R	Mile 0.00 to Mile 0.77	0.77	Plant-mix paving	June, 1963	100
Delta	.....	Trans-Canada Highway (No. 1), No. 2R	At intersection with Nichol Road	0.22	Reconstruction, widening, and left turns	July, 1963	100
	.....	Trans-Canada Highway (No. 1), No. 2R	At intersection with Roebuck Road	0.25	Reconstruction, widening, and left turns	Oct., 1963	70
	.....	Ladner Trunk Road (No. 10), No. 351R	East of Great Northern Railway Crossing	0.29	Reconstruction and curve realignment	May, 1963	100
	.....	King George VI Highway (No. 99), No. 15R	At intersection with Kennedy Road	0.23	Reconstruction, widening, and left turn	Apr., 1963	100
	.....	Scott Road, No. 139R	At Snake Hill	0.09	Reconstruction and curve improvements	Nov., 1963	100
	.....	Deas Tunnel Throughway, No. 499	North of customs at International Border	0.29	Reconstruction, widening, and extra lane	July, 1963	100
			Great Northern Railway Crossing to International Border	7.31	Reconstruction, seeding, and landscaping	July, 1963	100
	.....	King George VI Highway (No. 99), No. 15R	Bear Creek Bridge	.....	Reconstruction and widening bridge	Dec., 1962	100
	.....	Scott Road, No. 139R	At Grace Road	.....	Reconstruction and placed twin culverts	Sept., 1963	100
	.....	Westminster Highway, No. 343R	West of New Westminster	6.45	Reconstruction and ditch improvement	Dec., 1963	100
	.....	No. 5 Road, No. 66R	South of Fraser River	2.54	Reconstruction and ditch improvement	Dec., 1963	100
Dewdney (East)	1301	Hartley	Stave Lake Road to Sylvester Road	1.00	Reconstruction	Apr., 1963	100
	1301	Stave Lake	Durieu Road to Hartley Road	1.50	Reconstruction	Apr., 1963	80

							Per Cent
Dewdney (West)	.....	Lougheed Highway, No. 21R	At intersection with Harris Road	0.18	Reconstruction, widening, and left-turn slots	Aug., 1963	100
	.....	Lougheed Highway, No. 22R	At intersection with Third Ave.	0.18	Reconstruction, widening, and left-turn slots	Sept., 1963	100
	.....	Lougheed Highway, No. 22R	At intersection with Powerline Road	0.19	Reconstruction, widening, realignment, and left-turn slots	Aug., 1963	100
	.....	Lougheed Highway, No. 22R	Telosky Hill east of Haney	0.45	Reconstruction, widening, and third lane	June, 1963	100
	.....	Barnet Highway, No. 200R	At junction with Ioco Road, No. 57R	0.23	Reconstruction, widening, and realigning for left turns	Jan., 1964	100
	.....	Barnet Highway, No. 200R	Albert St. to Douglas St.	0.11	Reconstruction, widening, curb and gutter	July, 1963	100
	.....	Bedwell Bay, No. 11-106	Sunnyside Road (No. 11-2) to B.C. Hydro and Power Authority Thermal Plant Road	1.14	Reconstruction and road-mix pavement	Aug., 1963	100
Esquimalt	1302	Admirals Road	Craigflower Road to Esquimalt municipal boundary	0.50	Reconstruction, widening, realignment, and grade revision	Apr., 1963	100
	1302	Renfrew Road	Shawnigan–Mill Bay Road to Decca Road	1.25	Reconstruction, widening, realignment, and grade revision	Nov., 1963	90
	1302	Shawnigan Lake Road at E. & N. Underpass	At E. & N. Underpass	0.50	Reconstruction, widening, realignment, and grade revision	Apr., 1962	100
Fernie	1321	Southern Trans-Provincial Highway, No. 3	Hosmer to Olson Crossing	3.70	Widening existing highway to 48-ft. standard	May, 1963	35
Fort George	1327	John Hart Highway, No. 2N	Mile 16.0 to Mile 28.0	12.00	Reconstruction, widening, and gravelling	May, 1963	100
	1327	Cariboo Highway, No. 2S	Mile 0.0 to Mile 1.0, Mile 6.0 to Mile 7.0, and Mile 8.0 to Mile 8.5	2.50	Reconstruction and gravelling	May, 1963	100
	1327	Northern Trans-Provincial, Prince George east, No. 16E	Mile 13.2 to Mile 17.0	3.80	Reconstruction, widening, and gravelling	July, 1963	100
			Mile 23.8 to Mile 26.0	2.20	Reconstruction, widening, and gravelling	July, 1963	50
	1327	Northern Trans-Provincial, McBride east, No. 16Y	Mile 0.0 to Mile 4.0	4.00	Reconstruction, widening, and gravelling	June, 1963	100
	1327	Buckhorn Road	Mile 3.0 to Mile 5.8	1.00	Reconstruction, widening, and gravelling	July, 1963	50
	1371	North approach to Fraser River Bridge, Prince George	.....	0.20	Construction	Oct., 1963	25
	1346	John Hart Highway, No. 2N	.....	.....	Eliminate Angusmac No. 1 Bridge, Quissy Bridge, and McCabe Bridge	Feb., 1964	100
Grand Forks-Greenwood	1322	Southern Trans-Provincial Highway, No. 3 (Grand Forks–Greenwood section)	Mile 13.78 to Mile 14.29	0.51	Reconstruction and road-mix paving	June, 1963	100
			Mile 14.88 to Mile 15.68	0.80	Reconstruction and road-mix paving	June, 1963	100
			Mile 16.60 to Mile 18.50	1.90	Reconstruction and road-mix paving	June, 1963	100
			Mile 18.50 to Mile 20.10	1.60	Reconstruction, realignment, and grade revision to 36-ft. standard complete with road-mix paving	Dec., 1962	100
			Mile 20.95 to Mile 22.68	1.73	Reconstruction, realignment, and grade revision to 36-ft. standard; clearing, grubbing, and fencing complete; grading in progress	Nov., 1963	20
	1322	Boundary Creek, No. 7	Mile 0.06 to Mile 0.97	0.91	Reconstruction, improved grade and alignment complete with road-mix paving	July, 1963	100

STATEMENT AS TO MAJOR HIGHWAY WORK COMPLETED OR IN PROGRESS—*Continued*

Electoral District	Project No.	Name of Road	Extent of Work (Location of Work or Initial and Terminal Points)	Mileage of Work	Description of Work (New Construction, Reconstruction, Widening, etc.)	Date Commenced	Work Completed at Mar. 31, 1964
							Per Cent
Grand Forks-Greenwood	1322	Grand Forks–Franklin, No. 30	Mile 6.80 to Mile 8.78	1.98	Reconstruction, minor widening, and road-mix paving	July, 1963	100
	1322	Kettle Valley south, No. 112	Mile 0.00 to Mile 0.36	0.36	Reconstruction and road-mix paving	Sept., 1963	100
	1322	Kettle River east, No. 42	Mile 0.00 to Mile 0.15	0.15	Reconstruction and road-mix paving	Sept., 1963	100
	1322	Grand Forks–Carson south, No. 27	Grand Forks area	4.04	Bituminous seal-coat	July, 1963	100
	1322	Valley roads south, No. 72	Grand Forks area	3.85	Reconstruction and penetration-seal paving	July, 1963	100
			Grand Forks area	3.56	Bituminous seal-coat	July, 1963	100
	1322	Valley roads east, No. 73	Grand Forks area	0.04	Reconstruction and penetration-seal paving	Aug., 1963	100
			Grand Forks area	2.51	Bituminous seal-coat	Aug., 1963	100
	1322	*Almond Gardens, No. 82*	*Grand Forks area*	*0.10*	*Reconstruction and penetration-seal paving*	*July, 1963*	*100*
			Grand Forks area	2.77	Bituminous seal-coat	July, 1963	100
	1322	Sutherland Creek, No. 70	Christina Lake area	0.04	Reconstruction and penetration-seal paving	Aug., 1963	100
	1322	Christina Lake east roads, No. 16	Christina Lake	0.04	Reconstruction and penetration-seal paving	Aug., 1963	100
			Christina Lake	2.50	Bituminous seal-coat	Aug., 1963	100
	1322	Christina Lake west subdivision road, No. 115	Christina Lake	1.13	Bituminous seal-coat	Aug., 1963	100
	1322	Midway Townsite, No. 96	Midway	0.28	Reconstruction and penetration-seal paving	Aug., 1963	100
			Midway	1.65	Bituminous seal-coat	Aug., 1963	100
	1322	Anaconda Townsite, No. 116	Anaconda	1.00	Reconstruction and penetration-seal paving	Aug., 1963	100
Kamloops	.....	North Thompson, No. 5N	Mile 83.40 to Mile 85.00	1.60	Reconstruction, realignment, and grade revision	.....	.....
	.....	North Thompson, No. 5N	Between Mile 160 and Mile 171	5.50	Widening and gravelling	.....	.....
	.....	Highland Valley, No. 173	Mile 0.00 to Mile 3.00	3.00	Reconstruction, realignment, and grade revision	.....	.....
	.....	Highland Valley, No. 173	Mile 0.00 to Mile 26.00	26.00	Levelling and base course	.....	.....
	.....	Deadman–Vidette, No. 150	Mile 7.00 to Mile 7.20	0.20	Widening	.....	.....
	.....	Criss Creek–Vidette, No. 144	Mile 16.50 to Mile 17.00	0.50	Widening	.....	.....
	.....	Tranquille, No. 244	Mile 0.00 to Mile 7.40	7.40	Widening	.....	.....
	.....	Tranquille–Criss Creek, No. 243	Mile 2.00 to Mile 7.00	5.00	Widening	.....	.....
	.....	Westsyde, No. 256	Mile 25.00 to Mile 31.00	6.00	Widening	.....	.....
	.....	Agate Bay, No. 101	Mile 6.50 to Mile 7.00 and Mile 14.00 to Mile 14.50	1.00	Widening	.....	.....
	.....	Barriere Main, No. 110	Mile 5.50 to Mile 8.50	3.00	Reconstruction	.....	.....
	.....	Barriere East, No. 109	Mile 1.50 to Mile 3.50	2.00	Reconstruction	.....	.....
	.....	Barriere Subdivision, No. 113	Mile 0.00 to Mile 0.60	0.60	Widening	.....	.....
	.....	Dixon Creek, No. 154	Mile 0.50 to Mile 2.50	2.00	Widening	.....	.....
	.....	Dunn Lake, No. 155	Mile 6.50 to Mile 10.50	4.00	Widening	.....	.....
	.....	Dunn Lake, No. 155	Mile 33.75 to Mile 36.00	2.25	Reconstruction and widening	.....	.....
	.....	Heffley–Louis Creek, No. 169	Mile 6.00 to Mile 10.00	4.00	Reconstruction	.....	.....

							Per Cent
	.....	Knouff Lake, No. 185	Mile 1.00 to Mile 4.00	3.00	Reconstruction	.....	.....
	.....	Auldgirth, No. 104	Mile 0.00 to Mile 0.75	0.75	Widening	.....	.....
	.....	Clearwater Valley, No. 139	Mile 7.00 to Mile 9.50	2.50	Widening	.....	.....
	.....	Lost Creek, No. 116	Mile 2.00 to Mile 2.25, Mile 4.00 to Mile 4.25, and Mile 6.00 to Mile 6.50	1.00	Widening	.....	.....
Kaslo-Slocan	1323	Slocan–Vernon, No. 6	Summit Lake section, Mile 57.90 to Mile 60.60	2.70	Reconstruction, widening, realignment, and road-mix paving 0.75 mile	May, 1963	75
			Monashee Summit section, Mile 128.60 to Mile 129.45, and Mile 130.85 to Mile 133.45	3.45	Reconstruction, widening, realignment, and road-mix paving	May, 1963	100
			Enterprise–Lookout section, Mile 30.35 to Mile 34.40	4.05	Rock-drilling	June, 1963	100
					Slashing	May, 1963	75
	1323	Balfour–Gerrard, No. 204	Coffee Bluffs to Mile Point, Mile 1.50 to Mile 1.90	0.40	Reconstruction, widening, realignment, and road-mix paving	June, 1963	100
			Ainsworth Townsite section, Mile 2.75 to Mile 3.25	0.50	Reconstruct and widen through town, construct cribbing, drill and blast rock	Dec., 1963	75
			Coffee Creek Bluffs, Mile 1.40 to Mile 1.50	0.10	Widening in rock	Dec., 1963	50
Lillooet (North)	1312	Lytton–Lillooet, No. 12	Mile 25.00 to Mile 28.50	3.80	Reconstruction and paving with bituminous road mix	Apr., 1962	100
Lillooet (South)	1303	Alice Lake Road	Squamish Valley Road to Alice Lake Park	1.60	Paving	July, 1963	100
	1282	Squamish–Pemberton Highway	Alice Lake to Cheakamus Canyon	10.20	New construction and gravelling	May, 1963	100
			Cheakamus Canyon section	1.00	New construction and gravelling	May, 1963	95
			Cheakamus Canyon to Vancouver West	15.60	New construction and gravelling	May, 1963	91
			Vancouver West to Pemberton	24.30	New construction and gravelling	May, 1963	30
Mackenzie	1304	Irvines Landing	Garden Bay Road to Irvines Landing	2.30	Reconstruction and widening	May, 1963	100
	1304	Gower Point	Mile 1.00 to Mile 2.00	1.00	Reconstruction and widening	Sept., 1963	100
	1304	Gillies Bay	Mile 1.50 to Mile 4.00	2.50	Reconstruction and widening	May, 1963	100
	1304	Lund Highway	Mile 8.20 to Mile 11.20	3.00	Reconstruction and widening	May, 1963	85
	1304	Chilcotin–Bella Coola Highway	Mile 2.30 to Mile 9.15 and Mile 10.00 to Mile 15.15	12.00	Reconstruction and widening	May, 1963	95
	1304	Francis Peninsula	Mile 1.70 to Mile 1.90	0.20	Reconstruction and widening	Feb., 1964	100
	1342	Powell River Arterial Highway, No. 245R	.....	(1)	Curb and gutter	Oct., 1963	100
Nanaimo-Islands	1305	Rock City	.....	0.10	Reconstruction—remove rock corner	Apr., 1963	100
	1305	Highland Boulevard	.....	0.25	Reconstruction and paving	Oct., 1963	100
	1305	Railway Ave.	.....	0.25	New construction—extension	May, 1963	100
	1305	Gallagher, Mayne Island	.....	1.50	Reconstruction	June, 1963	100
	1305	North End, Gabriola Island	.....	0.50	Reconstruction	July, 1963	100
	1305	Gowland Point, Pender Island	.....	1.00	Reconstruction	May, 1963	100
	1305	Isabella Point, Saltspring Island	.....	0.50	Reconstruction and paving	July, 1963	100

[1] 1,050 lineal feet.

STATEMENT AS TO MAJOR HIGHWAY WORK COMPLETED OR IN PROGRESS—*Continued*

Electoral District	Project No.	Name of Road	Extent of Work (Location of Work or Initial and Terminal Points)	Mileage of Work	Description of Work (New Construction, Reconstruction, Widening, etc.)	Date Commenced	Work Completed at Mar. 31, 1964
							Per Cent
Nanaimo-Islands	1305	Upper Ganges, Saltspring Island		1.25	Reconstruction and paving	June, 1963	100
	1305	Pine St., Harewood		0.25	Reconstruction and paving	May, 1963	100
	1305	Georgina Point, Mayne Island		0.25	Reconstruction and paving	June, 1963	100
	1305	Village Bay, Mayne Island		0.25	Reconstruction—widen at dock	July, 1963	100
	1305	Baker, Saltspring Island		1.00	Reconstruction, widening, and gravelling	Aug., 1963	100
	1305	Razor Point, Pender Island		0.50	Reconstruction, widening, and gravelling	Sept., 1963	100
	1305	Charlesworth, Saltspring Island		0.50	Reconstruction	June, 1963	100
	1305	Fourth St., Harewood		0.25	Reconstruction and paving	May, 1963	100
	1305	Porlier Pass, Galiano Island		0.50	Reconstruction, widening, and paving	July, 1963	100
	1305	Westwood		0.50	Reconstruction, widening, and paving	May, 1963	100
	1305	East Wellington		1.00	Reconstruction and road-mix paving	June, 1963	100
	1305	Lyall Harbour, Saturna Island		0.75	Reconstruction and road-mix paving	May, 1963	100
	1305	Burrill Drive, Galiano Island		0.25	Reconstruction and road-mix paving	May, 1963	100
	1305	Valley, Galiano Island		0.25	Reconstruction and road-mix paving	May, 1963	100
	1305	Bedwell Harbour, Pender Island		0.50	Reconstruction and road-mix paving	June, 1963	100
	1305	Wakesiah Ave., Harewood		1.00	Reconstruction and road-mix paving	July, 1963	100
	1305	Walker Hook, Saltspring Island		3.00	Reconstruction and double flush asphalt	May, 1963	100
	1305	Fernhill, Mayne Island		1.00	Reconstruction and road-mix paving	Aug., 1963	100
	1305	Thetis Island		0.50	Reconstruction and road-mix paving	Aug., 1963	100
Nelson-Creston	1362	Creston–Summit Creek	South from Salmo–Creston Road	2.25	Construction and reconstruction		70
	1324	Mallory	Mile 9.00 to Mile 2.00	2.00	Reconstruction and paving		100
	1324	Johnstone	Mile 1.00 to Mile 1.50	0.50	Gravelling		100
	1324	Aspen Mine	Mile 0.00 to Mile 0.75	0.75	Reconstruction		100
	1324	Southern Trans-Provincial Highway, No. 3A (Nelson–Castlegar)	Mile 10.00 to Mile 11.75	1.75	Construction		10
	1324	Southern Trans-Provincial Highway, No. 3 (Creston–Goatfell)	1.50 miles to 3.50 miles from district boundary	2.00	Construction		100
	1324	Nelson–Nelway, No. 6	Patching	0.35	Paving		100
	1324	Balfour Townsite	Streets	0.50	Reconstruction and paving		100
	1324	Creston–Porthill		6.00	Shouldering		100
	1324	Southern Trans-Provincial Highway, No. 3A (Nelson–Castlegar)		6.00	Shouldering		100
	1324	L.S.B. roads		3.00	Construction and gravelling		100
	1324	Corn Creek		0.25	Reconstruction and gravelling		100
	1324	Salmo–Trail			Deep ditching		
North Okanagan	1313	Vernon–Slocan, No. 6	Mile 24.50 to Mile 25.50	1.00	Reconstruction and rock work	Nov., 1963	50
			Mile 29.55 to Mile 31.35	1.80	Major improvements	June, 1963	100
			Mile 34.40 to Mile 42.05	7.65	Major improvements	May, 1963	100
			Mile 44.90 to Mile 45.00	0.10	Reconstruction and gravelling	Sept., 1963	100

							Per Cent
			Mile 51.55 to Mile 53.25	1.70	Reconstruction and gravelling	Oct., 1963	50
			Mile 58.95 to Mile 59.80	0.85	*Reconstruction, gravelling, and road-mix paving*	*Aug., 1963*	100
	.....	Commonage, No. 30	Mile 0.00 to Mile 2.05	2.05	Major improvements and gravelling	July, 1963	70
			Mile 2.05 to Mile 3.15	1.10	Reconstruction and gravelling	Apr., 1963	80
	1313	Dure Meadow, No. 33	Mile 0.00 to Mile 0.95	0.95	Major improvements, gravelling, and road-mix paving	Aug., 1963	100
	1313	Whitevale, No. 139	Mile 3.05 to Mile 3.35	0.30	Gravelling and road-mix paving	Aug., 1963	100
	.....	Pottery, No. 19	Mile 1.30 to Mile 1.90	0.60	Gravelling and road-mix paving	Aug., 1963	100
	.....	Coell-Jones, No. 29	Mile 0.90 to Mile 1.00	0.10	Major improvements and gravelling	Oct., 1963	100
	1313	Tronson, No. 131	Mile 2.70 to Mile 4.40	1.70	Major improvements and gravelling	June, 1963	80
	.....	Turner, No. 132	Mile 0.00 to Mile 0.70	0.70	Major improvements, gravelling, and road-mix paving	June, 1963	100
	1137	Silver Star, No. 66	Mile 2.20 to Mile 2.70	0.50	Major improvements, gravelling, and road-mix paving	Oct., 1963	100
			Mile 2.70 to Mile 3.40	0.70	Reconstruction and gravelling	Oct., 1963	100
	1313	15th St., No. 189	Mile 0.20 to Mile 0.45	0.25	New construction	Apr., 1963	10
	1313	Enderby–Mabel Lake, No. 74	Mile 5.50 to Mile 9.10	3.60	Gravelling and road-mix paving	July, 1963	100
	.....	Kamloops–Vernon Highway, No. 97	O'Keefe Railway Crossing	0.50	*Major improvements*	*June, 1963*	100
	1313	Enderby–Mabel Lake, No. 74	Mile 9.70 to Mile 21.10	1.00	Major improvements and rock work	Oct., 1963	100
North Peace River	1328	Fort Nelson area	Road to new hospital	0.10	New construction	Aug., 1963	100
			Access road to new school	0.10	New construction	Aug., 1963	100
			Service road fronting C.N.T.	0.10	New construction	Aug., 1963	100
			New Department garage	(2)	New construction	Aug., 1963	100
			Fort Nelson streets	0.50	Reconstruction and gravelling	Aug., 1963	100
	1328	Hudson Hope Road	Hudson Hope Road	25.00	General ditch maintenance and shoulder improvements	June, 1963	100
	1383	Hudson Hope Road	Hudson Hope to Alaska Highway	50.20	General gravelling in sections	Oct., 1963	100
	1438	Fish Creek Fill–Fort St. John By-pass	Centre Ave., Fort St. John to Road No. *101*	2.80	New construction and gravelling	Feb., 1963	100
	.....	Build and construct access road to Fort Nelson River Bridge for Department of Mines and Petroleum Resources	Fort Nelson River Bridge to Kotcho Lake road	2.50	Reconstruction, widening, realignment, grade revision, and gravelling	Aug., 1963	100
North Vancouver	1308	Dollarton Highway	Mile 2.86	.....	Install 60-in.-diameter culvert	June, 1963	100
Omineca (East)	1330	Vanderhoof–Stuart Lake Road	Mile 6.00 to Mile 8.50	2.50	Reconstruction, widening, grade revision, pit-run and crushed gravel	*June, 1963*	90
Omineca (West)	1331	Northern Trans-Provincial Highway, No. 16	Tintagel to Tibbett Creek	4.10	Placing crushed gravel	May, 1963	100
			Houston East	2.70	Placing crushed gravel	May, 1963	100
			Rose Lake to Perow	19.60	Widening shoulders and ditching	May, 1963	100
	1331	*Access roads*	Sundry roads	2.20	Construction and gravelling	July, 1963	100
	1331	Colleymount, No. 21	Lober Road, No. 104, to Trout Creek	8.20	Ditching, culvert installation, and gravelling	July, 1963	100

(2) 200 lineal feet.

STATEMENT AS TO MAJOR HIGHWAY WORK COMPLETED OR IN PROGRESS—*Continued*

Electoral District	Project No.	Name of Road	Extent of Work (Location of Work or Initial and Terminal Points)	Mileage of Work	Description of Work (New Construction, Reconstruction, Widening, etc.)	Date Commenced	Work Completed at Mar. 31, 1964
							Per Cent
Prince Rupert	1334	Masset Arterial	Delkatla Slough causeway	0.25	Reconstruction—new diversion	July, 1963	100
	1366	*Prince Rupert Arterial, No. 360R*	*Fairview ferry approach*	0.20	*Reconstruction*	June, 1963	100
Revelstoke	1315	Galena Pass, No. 810	Mile 0.00 to Mile 2.60	2.60	Reconstruction	May, 1962	95
	1315	Solsqua–Sicamous, No. 270	Mile 0.00 to Mile 2.60	2.60	Reconstruction	Aug., 1963	15
	1372	Trans-Canada Highway, intersection of Nos. 97A and 1	Mile 0.00 to Mile 0.47	0.47	Complete reconstruction and paving	Sept., 1963	95
	1315	*Stadniki, No. 133*	*Mile 0.00 to Mile 0.40*	0.40	*Reconstruction and gravelling*	July, 1963	100
	.....	Swanbeach, No. 155	Mile 0.00 to Mile 0.10	0.10	Reconstruction and gravelling	July, 1963	100
	.....	Swanshore, No. 154	Mile 0.00 to Mile 0.45	0.45	Reconstruction and gravelling	Aug., 1963	100
	.....	Swansea, No. 151	Mile 0.00 to Mile 0.40	0.40	Reconstruction and gravelling	Aug., 1963	100
	.....	Various side roads	Sicamous area	7.20	Gravelling, ditching, and paving	May, 1963	100
	1315	*Albert Canyon Fr. Road*	*Mile 0.00 to Mile 0.50*	0.50	*Clearing and grubbing*	June, 1963	60
	1315	Trans-Canada Highway, No. 1, and western access	Mile 0.00 to Mile 0.25	0.25	Right-turn lane—complete construction	July, 1963	100
	1315	Trans-Canada Highway, No. 1, at Summit Lake	Mile 7.70 to Mile 8.40	0.70	Road-mix paving	May, 1963	100
	.....	Revelstoke–Arrowhead, No. 5	*Mile 10.00 to Mile 27.00*	17.00	*Gravelling and ditching*	Apr., 1963	100
	.....	Big Bend Highway, No. 3	Mile 0.00 to Mile 90.00	15.00	Gravelling, spot patching, calcium chloride, widening, culverts, etc.	May, 1963	100
Rossland-Trail	.....	Southern Trans-Provincial Highway, No. 3	Montrose to East Fruitvale	2.90	Ditching and shoulder-widening	.....	.....
			Montrose to East Fruitvale	0.09	Reconstruction and plant-mix paving	.....	100
			Montrose to East Fruitvale	1.29	*Reconstruction and road-mix paving*	.....	100
			Tadanac to Genelle	1.00	Ditching and shoulder-widening	.....	100
	.....	Robson–Broadwater, No. 9	Deer Park to Renata	3.00	Gravelling	.....	100
			Castlegar ferry west	1.11	Reconstruction and road-mix paving	.....	100
			1.82 miles from Castlegar ferry	0.80	Reconstruction and road-mix paving	.....	100
	.....	Local roads, Blueberry	.....	0.70	*Reconstruction and road-mix paving*	.....	100
	.....	Local roads, Genelle	.....	0.60	Reconstruction and road-mix paving	.....	100
	.....	Local roads, Rivervale	.....	0.70	Reconstruction and road-mix paving	.....	100
	.....	Bailey St.	Trail Bridge approaches	0.03	Reconstruction and plant-mix paving	.....	100
	.....	Casino	4.5 miles from Trail	1.10	Reconstruction and road-mix paving	.....	100
			2.5 miles from Trail	2.00	*Seal-coat*	.....	100
	.....	Cutillo	Junction with Southern Trans-Provincial Highway	0.65	Reconstruction and road-mix paving	.....	100
	.....	Mill	Fruitvale to junction with Columbia Gardens Road	0.76	Reconstruction and road-mix paving	.....	100
	.....	Columbia Gardens	*Fruitvale*	0.15	*Reconstruction and road-mix paving*	.....	100
Saanich	1307	Lochside Drive	Sections 57 and 58, North Saanich	0.50	Reconstruction, widening, and paving	Apr., 1962	70

							Per Cent
	.....	Patricia Bay Highway	Wain Road to Ferry Terminal	0.85	Addition of third lane	May, 1962	100
	1307	West Saanich Road	Royal Oak to Keating Cross Road	6.50	Widening and gravelling prior to paving; paved by contract	Apr., 1962	100
Salmon Arm	1316	Sorrento–Eagle Bay, No. 67	Mile 4.00 to Mile 4.70	0.70	Reconstruction to 30-ft. subgrade, 4 in. of pit-run gravel applied	June, 1963	75
	1316	Shuswap–Chase Creek, No. 202	Mile 1.30 to Mile 2.30	1.00	Reconstruction to 30-ft. subgrade, 6 in. of pit-run gravel applied	June, 1963	100
	1316	Old Spallumcheen, No. 4	Mile 0.50 to Mile 1.30	0.80	Reconstruction to 18-ft. to 24-ft. subgrade, 6 in. of pit-run gravel applied and cul-de-sac constructed	June, 1963	100
	.....	Notch Hill, No. 410	Mile 0.00 to Mile 2.00	2.00	Reconstruction to 30-ft. subgrade, 4 in. of pit-run gravel applied	June, 1963	75
	1316	Holding, No. 451	Mile 0.00 to Mile 5.00	5.00	6 in. of 1¼-in. crushed gravel applied	June, 1963	100
	1316	Squilax–Anglemont, No. 446	Mile 19.50 to Mile 21.50	2.00	Reconstruction to 30 ft. subgrade	June, 1963	75
Similkameen	1317	Southern Trans-Provincial Highway, No. 3	Hope–Princeton section	8.30	Reconstruction and constructing third lanes	Apr., 1963	100
			Hope–Princeton section	10.00	Reconstruction and shoulder-widening	Apr., 1963	100
			Yellow Lake	0.30	Reconstruction	May, 1963	100
	1392	Apex, No. 14	Mile 2.40 to Mile 3.50	1.10	Reconstruction—new diversion	July, 1963	100
			Mile 0.00 to Mile 6.00	6.00	Reconstruction and widening	July, 1963	100
	1317	Cawston roads, No. 21		2.60	Reconstruction	June, 1963	100
	1317	Skaha Lake East, No. 31		0.40	Reconstruction and relocation in D.L. 461 (Sloan Curve)	Dec., 1963	100
	1346	Princeton–Summerland, No. 40		0.30	Reconstruction and relocation in D.L. 1193, bridge eliminated	Mar., 1963	70
	1317	Princeton–Summerland, No. 40	Mile 6.00 to Mile 10.00	4.00	Reconstruction, ditching, culverts, and gravelling	June, 1963	100
	1317	Kaleden roads, No. 53	Stock Road, Mile 0.00 to Mile 0.30	0.30	Reconstruction	Dec., 1963	100
	1317	Green Mountain, No. 78	Mile 4.00 to Mile 7.00	3.00	Reconstruction, widening, and gravelling	May, 1963	100
	1317	Southern Okanagan Lands Project, No. 94		2.60	Reconstruction, widening, and gravelling	May, 1963	100
	1317	South Similkameen, No. 95	Mile 1.80 to Mile 3.80	2.00	Reconstruction, widening, and grade revision	June, 1963	100
			Mile 1.60 to Mile 3.00	1.40	Reconstruction and gravelling	June, 1963	100
	1317	*Okanagan Highway*, No. 97	Mile 1.00 to Mile 15.00	14.00	Reconstruction and widening shoulders	May, 1963	100
	1317	White Lake, No. 104	Mile 3.00 to Mile 8.00	5.00	Reconstruction, widening, and gravelling	July, 1963	100
	1317	West Bench, Penticton, No. 117	Veteran Drive	0.40	Reconstruction	July, 1963	100
	1317	Naramata roads, No. 250	Gawne Road	0.50	Reconstruction	June, 1963	100
Skeena (East)	1332	Northern Trans-Provincial Highway, No. 16	Mud Creek to New Hazelton	7.10	New contruction—completion of pit-run gravelling	Apr., 1963	100
			Carnaby to Skeena Crossing	5.70	Base-strengthening and pulvimix	May, 1963	100
	1332	Kispiox	Mile 14.00 to Mile 17.00	3.00	Reconstruction and gravelling	July, 1963	100
	1332	Babine	Mile 20.00 to Mile 23.00	3.00	Reconstruction and gravelling, bridge elimination with culverts	Aug., 1963	100

STATEMENT AS TO MAJOR HIGHWAY WORK COMPLETED OR IN PROGRESS—*Continued*

Electoral District	Project No.	Name of Road	Extent of Work (Location of Work or Initial and Terminal Points)	Mileage of Work	Description of Work (New Construction, Reconstruction, Widening, etc.)	Date Commenced	Work Completed at Mar. 31, 1964
							Per Cent
Skeena (West)	1333	*Kitimat Indian Village*	*East side of Minette Bay*	2.50	*New construction*	Sept., 1963	20
South Okanagan	1314	Sexsmith, No. 43		1.90	Reconstruction and paving	May, 1963	100
	1314	Gibson, No. 60		1.40	Reconstruction and paving	Aug., 1963	100
	1314	Sarsons, No. 400		0.12	Reconstruction and paving	Aug., 1963	100
	1314	Hobson, No. 157		0.38	Reconstruction and paving	Aug., 1963	100
	1314	Fish Lake, No. 233		2.00	Reconstruction	Oct., 1963	100
	1314	Glenrosa, No. 207		1.60	Reconstruction	Oct., 1963	100
	1314	Hall, No. 112		0.80	Reconstruction	Oct., 1963	100
	1374	Joe Rich, No. 67		21.00	Reconstruction and paving 18 miles	July, 1963	100
	1388	McKinley, No. 20		0.75	New construction	Oct., 1963	100
South Peace River	1329	John Hart Highway, No. 97	Mile 138 to Mile 149.2	11.20	Reconstruction, clearing, ditching, installing culverts, and strengthening with gravel base course		100
			Mile 149.2 to Mile 158.4	9.20	Reconstruction, clearing, ditching, installing culverts, and strengthening with gravel base course		50
	1329	Alberta Boundary–Dawson Creek Highway, No. 2	South limits of Dawson Creek to Pouce Coupe	5.00	Reconstruction, widening, and strengthening with gravel base course prior to repaving		100
	1329	Briar Ridge, No. 4	From Road No. 210 for 1.5 miles south	1.50	Regravelling		100
	1329	Farm and Settlement, No. 204c	From Road No. 205 to Road No. 207 and from Road No. 211 to Road No. 213	2.00	Regrading, installing culverts, and gravelling		100
	1329	Farm and Settlement, No. 206	From Highway No. 2 for 0.5 mile west	0.50	Regrading and gravelling		100
	1329	Farm and Settlement, No. 206	From Road No. 213 to Road No. 217	2.00	Regrading, installing culverts, and gravelling		100
	.....	Farm and Settlement, No. 206A	From Road No. 227 to Road No. 231	2.00	Regrading and installing culverts		100
	1329	Farm and Settlement, No. 207	From Road No. 212 for 3 miles south	3.00	Regrading and gravelling		100
	1329	Farm and Settlement, No. 208	From Road No. 209 for 0.5 mile west	0.50	Gravelling		100
	1329	Farm and Settlement, No. 208	From Road No. 237 west to John Hart Highway	1.75	Regrading, installing culverts, and regravelling		100
	.....	Farm and Settlement, No. 209	From Road No. 17 for 1 mile south	1.00	Regrading and installing culverts		100

						Per Cent
1329	Farm and Settlement, No. 209	From Road No. 210 to Road No. 212	1.00	Regrading, installing culverts, and gravelling		100
1329	Farm and Settlement, No. 209	From Road No. 208 to Road No. 210	2.00	Gravelling		100
1329	Farm and Settlement, No. 211	Frim Highway No. 2 for 1 mile south	1.00	Regrading, installing culverts, and gravelling		100
1329	Farm and Settlement, No. 211	From Road No. 204c for 0.5 mile south	0.50	Regrading, installing culverts, and gravelling		100
1329	Farm and Settlement, No. 212	From Road No. 3 to Road No. 207	2.00	Regrading, installing culverts, and gravelling		100
.....	Farm and Settlement, No. 227	From Road No. 206 for 1 mile north	1.00	Regrading and installing culverts		100
.....	Farm and Settlement, No. 237	From Road No. 208 for 3 miles south	3.00	Regrading and installing culverts		100
1329	Pouce Coupe–Clayhurst, No. 3	From Rolla 4 miles south	4.00	Regravelling		100
1329	Pouce Coupe–Clayhurst, No. 3	From Doe River to Clayhurst ferry	11.00	Reconstruction, shaping, and regravelling		100
1329	Pouce Coupe–Clayhurst, No. 3	From Rolla 5 miles north	5.00	Reconstruction, shaping, and regravelling		100
1329	Landry, No. 5	From Road No. 3 to Alberta Boundary	8.20	Regravelling		100
1329	Farm and Settlement, No. 203	From Road No. 220 for 1 mile north	1.00	Regrading, installing culverts, and gravelling		100
1329	Farm and Settlement, No. 207	From Road No. 220 for 1 mile north	1.00	Regrading, installing culverts, and gravelling		100
1329	Farm and Settlement, No. 213	From Road No. 216 to Road No. 218	2.00	Gravelling		100
.....	Farm and Settlement, No. 219	From Road No. 224 for 1.5 miles south	1.50	Regrading and installing culverts		100
.....	Farm and Settlement, No. 220	From Road No. 203 to Road No. 207	2.00	Regrading and installing culverts		100
1329	Farm and Settlement, No. 210	From road No. 219 for 1 mile west	1.00	Regrading, installing culverts, and gravelling		100
.....	Farm and Settlement, No. 210	From Road No. 227 to Road No. 235	4.00	Regrading and installing culverts		100
.....	Farm and Settlement, No. 216	From Road No. 253 for 1 mile west	1.00	Regrading and installing culverts		100
.....	Farm and Settlement, No. 220	From Alaska Highway for 2 miles east and 1 mile west	3.00	Regrading and installing culverts		100
.....	Farm and Settlement, No. 225	From Road No. 218 to Road No. 220	2.00	Regrading and installing culverts		100
.....	Farm and Settlement, No. 235	From Road No. 210 south to John Hart Highway	1.25	Regrading and installing culverts		100
.....	Farm and Settlement, No. 237	From Alaska Highway for 2 miles south	2.00	Regrading and installing culverts		100
.....	Upper Cutbank, No. 13	From Block line for 2.5 miles sotuh	2.50	Regrading and installing culverts		100
1329	Farm and Settlement, No. 208A	From Road No. 271 west to John Hart Highway	4.00	Regrading, installing culverts, and gravelling		100

STATEMENT AS TO MAJOR HIGHWAY WORK COMPLETED OR IN PROGRESS—*Continued*

Electoral District	Project No.	Name of Road	Extent of Work (Location of Work or Initial and Terminal Points)	Mileage of Work	Description of Work (New Construction, Reconstruction, Widening, etc.)	Date Commenced	Work Completed at Mar. 31, 1964
							Per Cent
South Peace River	1329	Farm and Settlement, No. 208	From Road No. 269 to Road No. 271	1.00	Gravelling		100
	1329	Farm and Settlement, No. 212	From Road No. 9 for 1 mile east	1.00	Gravelling		100
	.....	Farm and Settlement, No. 251	From Road No. 206 for 3 miles south	3.00	Cleaning right-of-way and regrading		100
	1329	Farm and Settlement, No. 253	From John Hart Highway for 2 miles north	2.00	Gravelling		100
	.....	Farm and Settlement, No. 255	0.5 mile south of Road No. 208 for 0.5 mile south	0.50	Regrading and installing culverts		100
	.....	Farm and Settlement, No. 259	From John Hart Highway for 3 miles south	3.00	Regrading and installing culverts		100
	1329	Farm and Settlement, No. 269	From Road No. 208 north to John Hart Highway	2.00	Gravelling		100
	1329	Farm and Settlement, No. 271	From Road No. 208 north 1 mile	1.00	Gravelling		100
	1329	Jackfish Lake–Taylor Cut-off, No. 12	From Moberly Lake Road for 16 miles north-west	16.00	Regrading, installing culverts, and gravelling from Moberly Lake Road to Jackfish Lake		-----
Yale	1318	Merritt – Spences Bridge Highway, No. 8	Mile 4.05 to Mile 4.75	0.70	Reconstruction, improving alignment, widening by removing several rock corners, and road-mix paving	Aug., 1963	100
	.....	Silver Skagit, No. 150	Mile 2.50 to Mile 3.00, Mile 9.50 to Mile 11.25, and Mile 12.0 to Mile 12.50	2.75	Reconstruction, widening, and improving alignment	May, 1963	100
			Between Mile 2.50 and Mile 15.00	4.50	Gravelling	May, 1963	100
	1318	Coalmont streets, No. 16	Coalmont	0.75	New construction and gravelling streets	June, 1963	100
	.....	Matthew, No. 51	Mile 4.50 to Mile 5.50	1.00	Reconstruction, widening, and gravelling	June, 1963	100
	.....	Quilchena Creek, No. 69	Mile 1.50 to Mile 3.50	2.00	Reconstruction, widening, and gravelling	June, 1963	100
	.....	Merritt–Kamloops, No. 5	Between Mile 2.00 and Mile 26.00	7.00	Shouldering	Aug., 1963	100
	.....	Collettville streets, No. 19	Collettville	0.75	Road-mix paving	Sept., 1963	100
	.....	Collettville roads, No. 18	Collettville	1.00	Road-mix paving	Sept., 1963	100
	.....	North Bend streets, No. 142	North Bend	0.40	Road-mix paving	July, 1963	100
	.....	Silver Skagit, No. 150	Mile 0.70 to Mile 0.95	0.25	Road-mix paving	June, 1963	100
	1318	Silver Creek subdivision, No. 156	Silver Creek	0.25	Road-mix paving	Sept., 1963	100
	1318	Lytton south approach, No. 1A	Mile 0.00 to Mile 0.25	0.25	Recap	Sept., 1963	100
	1318	Merritt–Kamloops, No. 5	Mile 1.20 to Mile 2.70 and Mile 3.80 to Mile 4.40	2.10	Strengthening with 24-in. gravel lift and recap	Aug., 1963	100
	1318	Merritt–Spences Bridge	Mile 16.51 to Mile 17.01 and Mile 34.25 to Mile 34.45	0.70	Strengthening with 8-in. gravel lift and recap	Aug., 1963	100

SUMMARY BY ELECTORAL DISTRICTS OF CONTRACT PROJECTS COMPLETED OR IN PROGRESS

For details *see* Reports of Director of Construction, Senior Paving Engineer, Senior Bridge Engineer, and Superintendent of Ferries.

Electoral District	Project
Alberni	Paving:
	S-0163, Alberni–Tofino and Ucluelet–Tofino Highways.
Atlin (North)	Road:
	1214, Eddontenajon Lake–Burrage River, Stewart–Cassiar Highway.
Atlin (South)	Roads:
	1039, Bear Pass section, Stewart–Cassiar Highway.
	1138, Strohn Creek–Bell Irving River, Stewart–Cassiar Highway.
Burnaby	Roads:
	885, Vancouver–Fraser River, Contract 3, Trans-Canada Highway.
	885, Vancouver–Fraser River, Contract 4, Trans-Canada Highway.
	885, Vancouver–Fraser River, Contract 5, Trans-Canada Highway.
	1352, Contract 1, lighting of interchanges, Vancouver–Fraser River section, Trans-Canada Highway.
	1352, Contract 2, lighting of interchanges, Vancouver–Fraser River section, Trans-Canada Highway.
	Paving:
	S-8162, Vancouver–Fraser River, Sections 4 and 5, Trans-Canada Highway.
	S-8262, Vancouver–Fraser River, Sections 2 and 3, Trans-Canada Highway.
	S-0463, Hastings St. East, Holdom Ave. to Cliff Ave.
	Bridges:
	349, Boundary Road Overpass, Trans-Canada Highway.
	349, Clydesdale St. Underpass, Trans-Canada Highway.
	426, Deer Lake Underpass, Trans-Canada Highway.
	426, Sprott St. Underpass, Trans-Canada Highway.
	426, Willingdon Ave. Underpass, Trans-Canada Highway.
Cariboo (South)	Bridge:
	446, P.G.E. Overhead Crossing at 100 Mile House, Cariboo Highway.
Chilliwack	Roads:
	1036, Mount Lehman Road–Abbotsford, Trans-Canada Highway.
	1186, Abbotsford–Vedder Canal, Trans-Canada Highway.
	1340, lighting of interchanges, Springbrook–Mount Lehman and Abbotsford–Vedder Canal, Trans-Canada Highway.
	Paving:
	S-8462, Springbrook–Mount Lehman Road, Trans-Canada Highway.
	S-8562, Abbotsford–Vedder Canal, Trans-Canada Highway.
	Bridge:
	445, No. 3 Road Underpass, Trans-Canada Highway.
Columbia	Roads:
	1283, Windermere–Dutch Creek, Kootenay–Columbia Highway.
	1287, Canal Flats–Skookumchuck, Kootenay–Columbia Highway.
	1294, Yoho Bridge approaches, Trans-Canada Highway.
	1337, Dutch Creek–Canal Flats, Kootenay–Columbia Highway.
	1338, Sinclair Canyon–Radium–Lot 8208, Kootenay–Columbia Highway.
	Paving:
	S-4463, South Vermilion–Harrogate, Kootenay–Columbia Highway.
	Bridges:
	421, Yoho Bridge revisions, Trans-Canada Highway.
	458, Fairmont Bridge, Kootenay–Columbia Highway.
	459, Fairmont Overhead Crossing, Kootenay–Columbia Highway.
	476, Canal Flats Bridge, Kootenay–Columbia Highway.
Comox	Roads:
	1215, Menzies Bay–Roberts Lake, Island Highway.
	1216, Roberts Lake–Sayward, Island Highway.
	Bridges:
	411, Nimpkish River Bridge, Port McNeill–Beaver Cove Road.
	455, Big Tree Creek Bridge, Island Highway.
	Ferries:
	481, Comox–Westview Ferry.
	482, Little River ferry terminal, Comox–Westview Ferry Service.
Cowichan-Newcastle	Bridges:
	464, improvements to Cowichan River, Chemainus River, and Haslam Creek Bridges, Trans-Canada Highway.
	469, improvements to Koksilah, Holmes Creek, and Whitehouse Creek Bridges, Trans-Canada Highway.
Delta	Roads:
	1036, Mount Lehman Road–Springbrook Road, Trans-Canada Highway.
	1123, Halls Prairie Road–Springbrook Road, Trans-Canada Highway.
	1187, Port Mann–Halls Prairie Road, Trans-Canada Highway.
	1269, G.N.R. Overpass embankments, Deas Tunnel Throughway.
	1284, Bolivar Road–Whitehouse Corner, Arterial Highway No. 2R, Surrey Municipality.
	Paving:
	S-8263, Port Mann Bridge–Springbrook Road, Trans-Canada Highway.
	S-8462, Springbrook Road–Mount Lehman Road, Trans-Canada Highway.

SUMMARY BY ELECTORAL DISTRICTS OF CONTRACT PROJECTS COMPLETED OR IN PROGRESS—*Continued*

Electoral District	Project
Delta	Bridges:
	267, Port Mann Bridge, Trans-Canada Highway.
	395, G.N.R. Overpass, Deas Tunnel Throughway.
	405, Carvolth Road Underpass, Trans-Canada Highway.
	405, Glover Road Underpass, Trans-Canada Highway.
	405, Latimer Road Underpass, Trans-Canada Highway.
	405, Livingstone Road Underpass, Trans-Canada Highway.
	406, Clover Valley Road Underpass, Trans-Canada Highway.
	406, fly-over at Hjorth Road, Trans-Canada Highway.
	406, Johnston Road Underpass, Trans-Canada Highway.
	406, Pike Road Underpass, Trans-Canada Highway.
	412, King George VI Highway Underpass, Deas Tunnel Throughway.
	Ferry:
	420, New steel tug for Barnston Island ferry.
Dewdney (East)	Paving:
	S-8363, Hunter Creek–Hope sections, Trans-Canada Highway.
	Bridge:
	432, Hunter Creek Bridge, Trans-Canada Highway.
Dewdney (West)	Roads:
	885, Vancouver–Fraser River, Contract 2, Trans-Canada Highway.
	885, Vancouver–Fraser River, Contract 3, Trans-Canada Highway.
	1352, Contract 1, lighting of interchanges, Vancouver–Fraser River Section, Trans-Canada Highway.
	Paving:
	S-8262, Vancouver–Fraser River, Sections 2 and 3, Trans-Canada Highway.
	S-0363, Harris Road–Stave River sections, Lougheed Highway.
	Bridges:
	267, Port Mann Bridge, Trans-Canada Highway.
	347, King Edward Ave. Overpass, Trans-Canada Highway.
Esquimalt	Paving:
	S-0263, miscellaneous sections.
	Bridge:
	469, improvements to Goldstream and Wilkinson Bridges, Trans-Canada Highway.
Fernie	Roads:
	908, Crowsnest–Summit Lake, Southern Trans-Provincial Highway.
	1287, Canal Flats–Skookumchuck, Kootenay–Columbia Highway.
Fort George	Roads:
	779, Lamming Mills west extension, Northern Trans-Provincial Highway.
	1290, West Twin Creek–Crescent Spur, Northern Trans-Provincial Highway.
	1357, Lot 1944–Fraser River, Cariboo Highway.
	1382 Dome Creek–Crescent Spur, Northern Trans-Provincial Highway.
	1389, Prince George Pulp-mill Road.
	Paving:
	S-6263, Prince George By-pass and Salmon River Bridge to Summit Lake, John Hart Highway.
	S-6363, P.G.E. Railway Crossing to Silver Sands Creek, John Hart Highway.
	Bridge:
	212, Fraser River Bridge at Prince George, Cariboo Highway.
Grand Forks-Greenwood	Bridge:
	422, Greenwood Underpass, Southern Trans-Provincial Highway.
Kamloops	Roads:
	1279, Little Fort–Blackpool, North Thompson Highway.
	1361, Vavenby–McMurphy, North Thompson Highway.
	Paving:
	S-8563, Campbell Creek section, Trans-Canada Highway, and North Kamloops–Tranquille School section, Tranquille Highway.
	Bridge:
	453, Lemieux Creek Bridge, North Thompson Highway.
Kaslo-Slocan	Bridges:
	409, Cedar Creek Bridge, Balfour–Kaslo Highway.
	403, Lemon Creek Bridge, Vernon–Slocan Highway.
Lillooet (South)	Road:
	1282, gravel-crushing, Squamish–Alta Lake.
	Bridge:
	486 Mamquam Blind Channel Bridge.
Mackenzie	Paving:
	S-1163, gravel-crushing, Chilcotin Highway.
	Ferry:
	481, Comox–Westview Ferry.
Nanaimo-Islands	Road:
	1355, Long Harbour–Scott Road Junction, Saltspring Island.
	Ferries:
	448, steel auto ferry, Nanaimo–Gabriola Island Ferry Service.
	488, wingwall and dolphin remodifications, Nanaimo and Gabriola terminals.

SUMMARY BY ELECTORAL DISTRICTS OF CONTRACT PROJECTS COMPLETED OR IN PROGRESS—*Continued*

Electoral District	Project
Nelson-Creston	Roads:
	1095, Summit Lake to junction with Highway No. 6 (Section 2), Southern Trans-Provincial Highway.
	1100, Summit Lake–Blazed Creek, Southern Trans-Provincial Highway.
	Paving:
	S-4163, Summit Lake to Junction with Highway No. 6, Southern Trans-Provincial Highway.
	S-4263, Creston–Blazed Creek and Creston arterials, Southern Trans-Provincial Highway.
	S-4363, miscellaneous sections, Nelson.
	Bridges:
	255, C.P.R. Underpass at Creston, Southern Trans-Provincial Highway.
	418, Bayonne Creek Culvert, Southern Trans-Provincial Highway.
	419, Arrow Creek Bridge, Southern Trans-Provincial Highway.
	Ferries:
	449, dismantling and re-erection of Nicks Island ferry.
	451, tug for relief ferry service.
North Peace River	Road:
	1377, Hudson Hope–Chetwynd (Section 1), Hudson Hope–Chetwynd Highway.
	Paving:
	S-6763, Fort St. John arterials.
	S-6863, Hudson Hope–Gold Bar Road and B.C. Hydro camp.
	Bridge:
	463, Peace River Bridge.
North Vancouver	Paving:
	S-0563, West Vancouver–Horseshoe Bay, Marine Drive.
	Bridge:
	457, Pemberton Ave. Pedestrian Overpass, Trans-Canada Highway.
Omineca (East)	Bridge:
	315, Stuart River Bridge, Vanderhoof–Fort St. James Road.
Omineca (West)	Roads:
	1286, Tibbets Creek–Priestly Overhead, Northern Trans-Provincial Highway.
	1289, Perow–Lot 1167, Northern Trans-Provincial Highway.
	Paving:
	S-6563, Rose Lake–McEvoy Creek, Northern Trans-Provincial Highway.
	Bridge:
	454, Sheraton Overhead Crossing, Northern Trans-Provincial Highway.
Prince Rupert	Paving:
	S-6662, Prince Rupert–Port Edward, Northern Trans-Provincial Highway.
Revelstoke	Bridge:
	335, Lanark Avalanche Shed guide-walls, Trans-Canada Highway.
Rossland-Trail	Roads:
	1257, Rossland–Sheep Lake (Section 2A), clearing and grubbing, Rossland–Sheep Lake Highway.
	1285, Rossland–Sheep Lake (Section 2), Rossland–Sheep Lake Highway.
	1341, Rossland–Sheep Lake (Section 3), Rossland–Sheep Lake Highway.
	Bridges:
	433, C.P.R. Underpass at Kinnaird, Southern Trans-Provincial Highway.
	440, Columbia River Bridge at Kinnaird, Southern Trans-Provincial Highway.
Saanich	Paving:
	S-0263, miscellaneous sections.
Salmon Arm	Road:
	1356, Chase By-pass, Trans-Canada Highway.
	Paving:
	S-8563, Pritchard–Chase Creek Bridge, Trans-Canada Highway.
	Bridge:
	472, improvements to Salmon River Bridge, Trans-Canada Highway.
Similkameen	Road:
	1292, Osoyoos Junction west, Richter Pass.
	Paving:
	S-2163, Skaist Creek–Cambie Creek, Southern Trans-Provincial Highway.
	S-2263, Kaleden–Summerland Hill, Okanagan Highway.
	Bridge:
	439 Tulameen River Bridge, Princeton–Merritt Highway.
Skeena (East)	Road:
	1379, Mudflat Creek Overhead–Seaton, Northern Trans-Provincial Highway.
	Paving:
	S-6663, New Hazelton–Mudflat Creek, Northern Trans-Provincial Highway.
	Bridges:
	381, Hazelton Overhead Crossing, Northern Trans-Provincial Highway.
	424, Haguelgate Bridge redecking, Hazelton High Level Road.
	452, Mudflat Creek Overhead Crossing, Northern Trans-Provincial Highway.
	456, Boulder Creek Bridge No.9, Northern Trans-Provincial Highway.

SUMMARY BY ELECTORAL DISTRICTS OF CONTRACT PROJECTS COMPLETED OR IN PROGRESS—*Continued*

Electoral District	Project
Skeena (West)	Roads:
	1197, Terrace–Lakelse, Kitimat Highway.
	1288, Lot 5181–Usk, Northern Trans-Provincial Highway.
	1291, Copper River Bridge approaches. Northern Trans-Provincial Highway.
	1363, clearing deleterious material from Lakelse Lake.
	Bridges:
	423, Copper River Bridge, Northern Trans-Provincial Highway.
	460, Williams Creek and Hatchery Creek Bridges, Kitimat Highway.
	479, Furlong Creek Culvert, Kitimat Highway.
South Okanagan	Paving:
	S-2263, Kaleden–Summerland Hill, Okanagan Highway.
	S-2362, Kelowna–Peachland sections, Okanagan Highway.
South Peace River	Roads:
	1358, Mile 183.0 to Mile 163.7, John Hart Highway.
	1377, Hudson Hope–Chetwynd (Section 1), Hudson Hope–Chetwynd Highway.
	Paving:
	S-6363, P.G.E. Railway Crossing–Silver Sands Creek, John Hart Highway.
	S-6463, N.A.R. Crossing to south boundary of Dawson Creek, Dawson Creek–Alberta Boundary Highway.
	Bridge:
	463, Peace River Bridge.
Vancouver East	Roads:
	885, Vancouver–Fraser River, Contract 5, Trans-Canada Highway.
	1352, Contract 2, lighting of interchanges, Vancouver–Fraser River section, Trans-Canada Highway.
	Paving:
	S-8162, Vancouver–Fraser River, Sections 4 and 5, Trans-Canada Highway.
	Bridges:
	349, First Ave. Overpass, Trans-Canada Highway.
	349, G.N.R. Overpass No. 2, Trans-Canada Highway.
Yale	Roads:
	1131, Yale–Bell Crosing, Trans-Canada Highway.
	1210, Hedstrom Hill–Hope, Trans-Canada Highway.
	1258, Alexandra north, Trans-Canada Highway.
	1260, China Bar–Hells Gate, Trans-Canada Highway.
	1354, highway lighting at junctions of Highways Nos. 1 and 3, Hope.
	Paving:
	S-8762, Fraser Canyon sections, Trans-Canada Highway.
	S-8363, Hunter Creek–Hope sections, Trans-Canada Highway.
	Bridges:
	329, Hope Overhead Crossing, Trans-Canada Highway.
	391, Hells Gate structure, Trans-Canada Highway.
	429, improvements to nine bridges, Southern Trans-Provincial Highway.
	447, Silver Creek Bridge improvements.
	471, improvements to American Creek Bridge, Trans-Canada Highway.

SUMMARY BY ELECTORAL DISTRICTS OF PULVIMIX (BASE PROCESS) PROJECTS COMPLETED BY DAY LABOUR BY PAVING ENGINEER.

For details *see* Report of Paving Engineer.

Electoral District	Road
Cariboo (North)	Former Cariboo Highway (Quesnel to Strathnaver), 1.00 mile; Barkerville Road, 4.65 miles.
Fort George	Northern Trans-Provincial Highway, 6.10 miles.
Kamloops	North Thompson Highway, 11.84 miles; frontage roads, 0.62 mile; Clearwater Crossing Road, 0.50 mile.
Kaslo-Slocan	Vernon–Slocan Highway, 10.99 miles.
Nelson-Creston	Southern Trans-Provincial Highway, 6.40 miles; Creston–Porthill Road, 0.20 mile; Mallory Road, 2.00 miles.
North Okanagan	Vernon–Slocan Highway, 9.95 miles.
Omineca (East)	Vanderhoof–Stuart Lake Road, 2.00 miles.
Omineca (West)	Northern Trans-Provincial Highway, 7.86 miles.
Salmon Arm	Sorrento–Eagle Bay Road, 4.00 miles; Holding Road, 5.00 miles; Anglemont Road, 0.40 mile; Salmon River Road, 2.60 miles.
Skeena (East)	Northern Trans-Provincial Highway, 8.39 miles.
South Okanagan	Joe Rich Road, 4.15 miles.

MILEAGE AND TYPE OF SURFACE OF HIGHWAYS

STATEMENT AS AT MARCH 31, 1964, SHOWING MILEAGE OF PROVINCIAL HIGHWAYS AND MILEAGE OF HIGHWAYS CLASSIFIED UNDER PART III OF THE HIGHWAY ACT.

(Figures for classified highways shown in bold type.)

Electoral District	Provincial or Classified	Surface Type							Total (Miles)
		A Portland Cement Concrete	A Bituminous Plant Mix	B Bituminous Road Mix and Soil Cement	C Gravelled	D Not Gravelled	E Right-of-way Cleared	F Right-of-way Established Only	
Alberni	Provincial	.....	61.85	18.68	118.99	3.13	0.80	.....	203.45
	Classified	.....	**6.65**	**2.73**	**1.00**	.....	.....	.....	**10.38**
Atlin (North)	Provincial	.....	.....	.....	272.30	183.90	.....	.....	456.20
	Classified	.....	.....	.....	.....	.....	.....	.....	.....
Atlin (South)	Provincial	.....	.....	.....	66.44	14.50	2.10	.....	83.04
	Classified	.....	.....	.....	**1.78**	.....	.....	.....	**1.78**
Burnaby	Provincial	.....	.....	.....	.....	.....	.....	.....	.....
	Classified	**4.20**	**23.93**	.....	.....	.....	.....	.....	**28.13**
Cariboo (North)	Provincial	.....	101.14	25.43	533.84	356.95	22.74	0.30	1,040.40
	Classified	.....	**5.03**	.....	.....	.....	.....	.....	**5.03**
Cariboo (South)	Provincial	.....	92.15	5.60	957.75	872.58	121.21	5.19	2,054.48
	Classified	.....	**2.32**	**0.60**	.....	.....	.....	.....	**2.92**
Chilliwack	Provincial	0.40	42.49	0.65	43.32	5.96	7.02	0.69	100.53
	Classified	**5.43**	**71.55**	.....	.....	.....	.....	.....	**76.98**
Columbia	Provincial	.....	141.60	56.30	277.86	80.80	49.19	.....	605.75
	Classified	.....	**2.80**	**1.75**	.....	.....	.....	.....	**4.55**
Comox	Provincial	.....	123.92	119.48	480.30	17.63	9.42	116.41	867.16
	Classified	.....	**16.59**	**0.63**	.....	.....	.....	.....	**17.22**
Comox (South)	Provincial	.....	10.34	27.56	24.17	3.33	1.02	11.83	78.25
	Classified	.....	.....	.....	.....	.....	.....	.....	.....
Cowichan-Newcastle	Provincial	.....	57.02	143.93	99.20	6.68	4.30	23.37	334.50
	Classified	.....	.....	**40.44**	.....	.....	.....	.....	**40.44**
Cranbrook	Provincial	.....	114.29	16.85	147.04	139.16	132.42	.....	549.76
	Classified	.....	**5.02**	**0.98**	.....	.....	.....	.....	**6.00**
Delta	Provincial	.....	11.86	.....	7.28	.....	1.20	.....	20.34
	Classified	**4.00**	**120.87**	**19.27**	.....	.....	.....	.....	**144.14**
Dewdney (East)	Provincial	.....	33.01	12.70	67.52	24.48	8.09	2.75	148.55
	Classified	**0.76**	**30.40**	**19.97**	**9.62**	.....	**3.08**	.....	**63.83**
Dewdney (West)	Provincial	.....	0.45	3.32	18.01	1.45	.....	.....	23.23
	Classified	.....	**47.85**	**12.80**	.....	.....	.....	**3.70**	**64.35**
Esquimalt	Provincial	.....	54.36	120.55	267.25	21.11	9.41	41.97	514.65
	Classified	.....	**1.54**	.....	.....	.....	.....	.....	**1.54**
Fernie	Provincial	.....	65.30	77.80	156.70	100.20	.....	.....	400.00
	Classified	.....	.....	**0.60**	.....	.....	.....	.....	**0.60**
Fort George	Provincial	.....	177.99	43.21	452.82	261.96	130.00	161.89	1,227.87
	Classified	.....	**8.77**	**0.56**	**1.36**	.....	.....	.....	**10.69**
Grand Forks-Greenwood	Provincial	.....	94.86	74.30	306.98	163.74	18.90	1.49	660.27
	Classified	.....	**2.20**	**1.95**	.....	.....	.....	.....	**4.15**
Kamloops	Provincial	.....	128.81	146.69	815.44	210.08	70.40	6.73	1,378.15
	Classified	.....	**4.12**	**3.32**	**0.17**	.....	.....	.....	**7.61**
Kaslo-Slocan	Provincial	.....	16.62	74.03	295.59	141.05	.....	.....	527.29
	Classified	.....	**2.96**	**1.14**	**0.20**	.....	.....	.....	**4.30**
Lillooet (North)	Provincial	.....	86.94	33.41	504.85	313.12	91.72	.....	1,030.04
	Classified	.....	.....	**1.29**	.....	.....	.....	.....	**1.29**
Lillooet (South)	Provincial	.....	17.15	6.02	38.81	6.18	.....	0.60	68.76
	Classified	.....	**2.27**	**1.50**	.....	.....	.....	.....	**3.77**
Mackenzie	Provincial	.....	83.55	23.54	223.97	137.94	5.89	33.96	508.85
	Classified	.....	**10.09**	**4.31**	**0.16**	**0.27**	.....	.....	**14.83**
Nanaimo-Islands	Provincial	.....	14.86	84.09	223.36	14.94	3.99	29.06	370.30
	Classified	.....	.....	**6.10**	.....	.....	.....	.....	**6.10**
Nelson-Creston	Provincial	0.30	212.83	51.07	219.87	46.90	.....	.....	530.97
	Classified	**0.20**	**6.00**	.....	.....	.....	.....	.....	**6.20**
New Westminster	Provincial	.....	1.32	4.81	0.70	.....	.....	.....	6.83
	Classified	.....	.....	.....	.....	.....	.....	.....	.....
North Okanagan	Provincial	.....	97.03	83.57	317.98	138.24	2.25	29.02	668.09
	Classified	.....	**33.65**	**8.62**	.....	.....	.....	.....	**42.27**
North Peace River	Provincial	.....	51.90	.....	418.15	754.70	12.60	937.40	2,174.75
	Classified	.....	**5.40**	.....	**1.85**	.....	.....	.....	**7.25**
North Vancouver	Provincial	.....	14.90	.....	0.12	.....	.....	.....	15.02
	Classified	.....	**26.56**	.....	.....	.....	.....	.....	**26.56**
Oak Bay	Provincial	.....	.....	.....	.....	.....	.....	.....	.....
	Classified	.....	**1.10**	**1.00**	.....	.....	.....	.....	**2.10**
Omineca (East)	Provincial	.....	35.68	68.53	455.30	117.40	33.30	68.60	778.81
	Classified	.....	**2.18**	**0.90**	**0.80**	.....	.....	.....	**3.88**
Omineca (West)	Provincial	.....	54.10	29.30	395.20	125.50	56.00	.....	660.10
	Classified	.....	**3.01**	.....	**1.33**	.....	.....	.....	**4.34**

STATEMENT AS AT MARCH 31, 1964, SHOWING MILEAGE OF HIGHWAYS—*Continued*

Electoral District	Provincial or Classified	Surface Type							Total (Miles)
		A Portland Cement Concrete	A Bituminous Plant Mix	B Bituminous Road Mix and Soil Cement	C Gravelled	D Not Gravelled	E Right-of-way Cleared	F Right-of-way Established Only	
Prince Rupert	Provincial	.....	29.43	0.21	118.42	2.65	8.66	28.47	187.84
	Classified	.....	**4.73**	.....	**3.50**	.....	.....	.....	**8.23**
Revelstoke	Provincial	.....	87.93	23.96	242.69	36.82	32.40	5.25	429.05
	Classified	.....	**0.52**	**0.25**	**0.58**	.....	.....	.....	**1.35**
Rossland-Trail	Provincial	.....	69.55	24.28	117.22	31.73	.....	.....	242.78
	Classified	**0.83**	**14.46**	**1.27**	.....	.....	.....	.....	**16.56**
Saanich	Provincial	1.95	13.70	37.79	17.73	0.99	0.46	24.92	97.54
	Classified	**1.00**	**22.51**	**13.63**	.....	.....	.....	.....	**37.14**
Salmon Arm	Provincial	.....	118.17	30.20	278.40	185.00	28.30	6.30	646.37
	Classified	.....	**13.51**	**6.20**	**4.63**	.....	.....	.....	**24.34**
Similkameen	Provincial	.....	203.36	140.99	427.64	77.62	.....	44.10	893.71
	Classified	.....	**16.28**	**1.00**	.....	.....	.....	.....	**17.28**
Skeena (East)	Provincial	.....	31.24	37.80	370.80	33.05	1.00	96.43	570.32
	Classified	.....	**1.95**	.....	**0.85**	.....	.....	.....	**2.80**
Skeena (West)	Provincial	.....	86.70	12.80	105.90	7.27	5.46	22.37	240.50
	Classified	.....	**8.45**	.....	**2.25**	.....	.....	.....	**10.70**
South Okanagan	Provincial	.....	80.24	118.64	175.11	180.69	.....	157.99	712.67
	Classified	.....	**21.55**	.....	.....	.....	.....	.....	**21.55**
South Peace River	Provincial	.....	131.32	5.20	369.47	409.60	164.60	978.12	2,058.31
	Classified	.....	**6.05**	**1.14**	.....	.....	.....	.....	**7.19**
Vancouver-Point Grey	Provincial	.....	9.73	2.93	.....	.....	.....	.....	12.66
	Classified	.....	.....	.....	.....	.....	.....	.....	.....
Yale	Provincial	.....	168.72	94.42	213.42	368.98	.....	.....	845.54
	Classified	.....	**6.60**	**1.95**	.....	.....	.....	.....	**8.55**
Totals (miles)	Provincial	2.65	3,028.41	1,880.64	10,643.91	5,598.01	1,034.85	2,835.21	25,023.68
	Classified	**16.42**	**559.47**	**155.90**	**30.08**	**0.27**	**3.08**	**3.70**	**768.92**
Grand totals (miles), Provincial and Classified		19.07	3,587.88	2,036.54	10,673.99	5,598.28	1,037.93	2,838.91	25,792.60

NOTE.—Any increase in mileage from that shown in the previous year is due either to new construction or to revisions of the road registers.

CLASSIFICATION OF HIGHWAYS

Under Part III of the Highway Act

STATEMENT SHOWING HIGHWAYS CLASSIFIED AS AT MARCH 31, 1964

Name of Municipality	Ref. No.	Name of Highway	How Classified	Approximate Mileage	
				Arterial	Secondary
City Municipalities					
Alberni	33R	Canadian Highway	Arterial	1.80	.....
	152R	River Road	Arterial	1.60	.....
	316R	Gertrude St.	Arterial	0.30	.....
	39B	Beaver Creek Road	Secondary	.....	0.43
Armstrong	270R	Okanagan Highway	Arterial	0.52	.....
	33B	Armstrong–Salmon Arm	Secondary	.....	0.90
	152B	Pleasant Valley Road	Secondary	.....	1.50
Chilliwack	175B	Yale Road	Secondary	.....	1.65
Courtenay	32R	Island Highway	Arterial	1.35	.....
	153R	Comox Road	Arterial	1.06	.....
	3B	Cumberland Road, England Ave., and Fifth St.	Secondary	.....	1.10

STATEMENT SHOWING HIGHWAYS CLASSIFIED AS AT MARCH 31, 1964—*Continued*

Name of Municipality	Ref. No.	Name of Highway	How Classified	Approximate Mileage	
				Arterial	Secondary
City Municipalities—Continued					
Cranbrook	354R	Southern Trans-Provincial Highway	Arterial	1.76	
Dawson Creek	257R	John Hart Highway	Arterial	0.38	
	363R	Alaska Highway, Alaska Ave., and Manse Road	Arterial	3.22	
	364R	Eighth St.	Arterial	1.43	
	145B	108th Ave., 17th St., 102nd Ave., and 12th St.	Secondary		1.73
Duncan	281R	Trans-Canada Highway	Arterial	0.75	
	282R	Trunk Road and Government St.	Arterial	1.25	
	119B	Tzouhalem Road	Secondary		0.68
Enderby	36R	Vernon–Salmon Arm	Arterial	1.11	
	125B	Cliff St.	Secondary		0.16
Fernie	221R	Southern Trans-Provincial Highway	Arterial	0.60	
Grand Forks	341R	Southern Trans-Provincial Highway	Arterial	2.40	
Greenwood	43R	Southern Trans-Provincial Highway	Arterial	1.75	
Kamloops	216R	Victoria St.	Arterial	0.70	
	239R	Eighth Ave., Lorne St., and Bridge St.	Arterial	0.75	
	299R	Trans-Canada Highway	Arterial	2.25	
	122B	Third Ave. and Victoria St.	Secondary		0.80
	141B	Part First Ave. and part Lorne St.	Secondary		0.68
	165B	Grandview Terrace	Secondary		0.17
Kelowna	317R	Abbott St., Bernard Ave., and Glenmore Drive	Arterial	3.21	
	318R	Okanagan Highway (Harvey Ave. and Pridham Cut-off)	Arterial	1.51	
	319R	Vernon Road	Arterial	0.18	
Kimberley	126R	Warren Ave., Wallinger Ave., Ross St., and Banff–Windermere Highway	Arterial	1.90	
Langley	263R	Trans-Canada Highway	Arterial	3.00	
	264R	Glover Road	Arterial	1.00	
	265R	New McLellan Road	Arterial	1.10	
Nanaimo	224R	Island Highway	Arterial	2.00	
	242R	Nicol St., Terminal Ave., and Fraser St.	Arterial	2.00	
	340R	Stewart Ave. and Brechin Road	Arterial	1.45	
	355R	Brechin Road	Arterial	0.65	
North Vancouver	333R	Trans-Canada Highway	Arterial	2.47	
Nelson	275R	Nelson Bridge approach, Nelson Ave., Anderson St., Front St., Ward St., Silica St., Stanley St., and Hall Mines Road	Arterial	2.67	
	186R	Government Road, Railway St., and Vernon St.	Arterial	0.70	
Penticton	135B	Penticton–Naramata Road	Secondary		5.50
	167B	Okanagan Highway	Secondary		3.98
Port Alberni	240R	Redford St. and Port Alberni Highway	Arterial	1.25	
	315R	Alberni Arterial Highway	Arterial	1.70	
Port Coquitlam	75R	Central Arterial	Arterial	3.70	
	165R	Lougheed Highway	Arterial	3.80	
Port Moody	57R	Ioco–Port Moody	Arterial	2.59	
	200R	Barnet Highway	Arterial	3.93	
	116B	Clarke Road	Secondary		0.80
Prince George	276R	Northern Trans-Provincial Highway, 20th Ave., Victoria St., First Ave., and Cameron St.	Arterial	5.45	
	365R	15th Ave. and Patricia Ave	Arterial	1.13	
	133B	Patricia Ave. and Queen St.	Secondary		1.20
	157B	Fifth Ave. and Carney St.	Secondary		0.91
Prince Rupert	122R	Shawatlans Road, Fredericks St., 11th Ave., Prince Rupert Boulevard, and McBride St.	Arterial	2.61	
	360R	Second Ave., Park Ave., part of Cemetery Road and Co-op Road	Arterial	2.12	
Revelstoke	163B	Victoria Road, McArthur Ave., First St., Railway Ave., and Fourth St.	Secondary		1.35
Rossland	144R	Rossland–Paterson Highway, Columbia Ave., St. Paul St., Le Roi Ave., and Schofield Highway	Arterial	2.65	

STATEMENT SHOWING HIGHWAYS CLASSIFIED AS AT MARCH 31, 1964—*Continued*

Name of Municipality	Ref. No.	Name of Highway	How Classified	Approximate Mileage	
				Arterial	Secondary
City Municipalities— Continued					
Trail	267R	Trail–Salmo–Nelson Highway	Arterial	3.61	.....
	360R	Victoria St., Bailey St., Second Ave., and McBeth St.	Arterial	0.53	.....
Vernon	127R	32nd St., 43rd Ave., and 27th St.	Arterial	2.30	.....
	114B	30th Ave., 30th St., and Coldstream Road	Secondary	.....	0.78
White Rock	149B	Marine Drive, Washington Ave., and Campbell River Road	Secondary	.....	3.12
				86.19	27.44
District Municipalities					
Burnaby	1R	Trans-Canada Highway (Kingsway)	Arterial	4.22	.....
	17R	Central Arterial (Lougheed Highway)	Arterial	6.15	.....
	135R	Grandview–Douglas Highway	Arterial	5.43	.....
	272R	10th Avenue	Arterial	1.25	.....
	293R	Barnet Highway	Arterial	6.38	.....
	14B	North Road (west half)	Secondary	.....	1.40
	22B	Riverway (Marine Drive)	Secondary	.....	3.30
Central Saanich	170R	West Saanich Road	Arterial	4.55	.....
	171R	Scott Road and portion of Mount Newton Cross Road	Arterial	1.60	.....
	172R	Verdier Ave.	Arterial	0.77	.....
	213R	Patricia Bay Highway	Arterial	4.30	.....
	121B	Keating Cross Road	Secondary	.....	2.00
Chilliwhack	8R	Trans-Canada Highway (Yale Road)	Arterial	13.84	.....
	260R	Mount Baker Trail	Arterial	1.00	.....
	344R	Trans-Canada Highway	Arterial	15.32	.....
	345R	Sardis Road and Yale Road	Arterial	1.82	.....
	62B	Sardis Road	Secondary	.....	3.26
	106B	Cultus Lake Road	Secondary	.....	0.88
Coldstream	103R	Monashee Road (White Valley)	Arterial	9.00	.....
Coquitlam	167R	Brunette St.	Arterial	0.40	.....
	201R	Barnet Highway	Arterial	1.55	.....
	280R	Lougheed Highway	Arterial	6.06	.....
	14B	North Road (east half)	Secondary	.....	1.40
	115B	Clarke Road	Secondary	.....	1.05
Delta	133R	Road to ferry	Arterial	1.00	.....
	349R	Tsawwassen Highway	Arterial	6.43	.....
	350R	Point Roberts Highway	Arterial	2.84	.....
	351R	Ladner Trunk Road	Arterial	9.30	.....
	352R	Scott Road	Arterial	4.92	.....
	353R	Deas Tunnel Throughway	Arterial	9.09	.....
Esquimalt	204R	Craigflower Road	Arterial	1.00	.....
	126B	Tillicum Road	Secondary	.....	0.54
Fraser Mills	76R	Central Arterial (Lougheed Highway)	Arterial	0.78	.....
Kent	160R	Harrison Hot Springs Road	Arterial	2.37	.....
	290R	Rockwell Drive	Arterial	4.00	.....
	330R	Lougheed Highway	Arterial	20.61	.....
	331R	Agassiz–Rosedale Highway	Arterial	2.85	.....
	158B	Morrow Road	Secondary	.....	1.60
Kitimat	277R	Terrace–Kitimat Highway	Arterial	4.25	.....
Langley	77R	Aldergrove–Bellingham	Arterial	4.04	.....
	259R	Glover Road	Arterial	6.00	.....
	262R	Trans-Canada Highway	Arterial	11.00	.....
Maple Ridge	22R	Lougheed Highway	Arterial	12.46	.....
	73B	River Road and Dewdney Trunk Road	Secondary	.....	10.80
	164B	Fern Crescent Road	Secondary	.....	1.80
Matsqui	4R	Trans-Canada Highway (Yale Road)	Arterial	7.88	.....
	12R	Abbotsford–Mission	Arterial	5.27	.....
	337R	McCallum Road	Arterial	1.19	.....
	356R	Trans-Canada Highway	Arterial	8.59	.....
Mission	23R	Lougheed Highway	Arterial	9.10	.....
	77B	Dewdney Trunk Road	Secondary	.....	15.50
	96B	Cedar Valley Road	Secondary	.....	2.00

STATEMENT SHOWING HIGHWAYS CLASSIFIED AS AT MARCH 31, 1964—*Continued*

Name of Municipality	Ref. No.	Name of Highway	How Classified	Approximate Mileage	
				Arterial	Secondary
District Municipalities—Continued					
North Cowichan	168R	Trans-Canada Highway	Arterial	12.10	
	247R	Somenos Road and Herd Road	Arterial	2.50	
	248R	Mount Sicker Road, Chemainus Road, Crofton Road, and Chaplin Road	Arterial	4.20	
	249R	Cowichan Lake Road	Arterial	3.30	
	36B	Quamichan Lake Road	Secondary		4.25
	169B	*Chemainus Road*	*Secondary*		*4.90*
North Vancouver	157R	Main St., Dollarton Highway, and Deep Cove Road	Arterial	5.71	
	328R	Trans-Canada Highway	Arterial	2.92	
Oak Bay	162B	Cadboro Bay Road	Secondary		2.10
Peachland	367R	Okanagan Highway	Arterial	7.00	
Pitt Meadows	21R	Lougheed Highway (Dewdney Trunk Road)	Arterial	3.23	
	74B	Harris Road	Secondary		1.70
	75B	Hammond Road	Secondary		0.90
	78B	Harris Road	Secondary		1.90
	79B	McNeil Road	Secondary		2.00
	92B	Old Dewdney Trunk Road	Secondary		3.50
Powell River	245R	Marine Ave., Ocean View Ave., Second St., Poplar Ave., First St., and Lund Highway	Arterial	9.50	
	143B	Fourth St.	Secondary		1.70
Richmond	66R	No. 5 Road	Arterial	2.54	
	295R	Sea Island Highway	Arterial	1.20	
	301R	Deas Tunnel Throughway	Arterial	6.23	
	343R	Westminster Highway	Arterial	6.45	
Saanich	174R	West Saanich Road	Arterial	5.60	
	212R	Patricial Bay Highway	Arterial	7.20	
	228R	Trans-Canada Highway	Arterial	2.40	
	154B	Gorge Road	Secondary		1.70
	148B	Tillicum Road	Secondary		0.09
	156B	Quadra St.	Secondary		3.20
Salmon Arm	304R	Salmon Arm–Grand Prairie Road	Arterial	6.20	
	325R	Trans-Canada Highway	Arterial	8.75	
	326R	Okanagan Highway (97B)	Arterial	3.42	
	24B	Salmon Arm–Enderby	Secondary		4.20
Spallumcheen	271R	Okanagan Highway	Arterial	13.50	
	153B	Pleasant Valley Highway	Secondary		2.25
	171B	Armstrong–Salmon River Highway	Secondary		7.35
Sumas	6R	Trans-Canada Highway	Arterial	11.68	
	111R	" C " St., Abbotsford–Huntingdon Road	Arterial	2.05	
	150R	Abbotsford By-pass	Arterial	0.50	
	342R	McCallum Road	Arterial	0.99	
Summerland	238R	Okanagan Highway	Arterial	7.00	
	142B	Peach Orchard Road	Secondary		2.65
Surrey	2R	Trans-Canada Highway (Yale Road)	Arterial	12.91	
	13R	Pacific Highway	Arterial	9.55	
	15R	King George VI Highway	Arterial	14.11	
	114R	Campbell River Road	Arterial	1.00	
	125R	New McLellan Road	Arterial	6.75	
	139R	Scott Road	Arterial	7.04	
	269R	Beaubien Road	Arterial	2.77	
	300R	Port Mann Highway	Arterial	2.75	
	314R	Old Yale Road and Bridge Road	Arterial	0.75	
	150B	Campbell River Road	Secondary		1.50
	151B	Marine Drive, Stevenson Road, and Crescent Road	Secondary		5.75
Terrace	362R	Northern Trans-Provincial Highway	Arterial	4.20	
	155B	Kalum Lake Road	Secondary		2.25
West Vancouver	89R	Marine Drive addition	Arterial	0.10	
	132R	Marine Drive	Arterial	1.90	
	250R	Taylor Way	Arterial	0.70	
	289R	Horseshoe Bay–Squamish Highway	Arterial	3.30	
	329R	Trans-Canada Highway	Arterial	9.46	
				432.07	99.42

STATEMENT SHOWING HIGHWAYS CLASSIFIED AS AT MARCH 31, 1964—*Continued*

Name of Municipality	Ref. No.	Name of Highway	How Classified	Approximate Mileage	
				Arterial	Secondary
Town Municipalities					
Fort St. John	142R	Centre Ave.	Arterial	1.00	.....
	279R	MacKenzie St.	Arterial	2.13	.....
	361R	Alaska Highway	Arterial	1.02	.....
Mission City	24R	Abbotsford–Mission Road (Horne Ave. and Harbour St.)	Arterial	0.56	.....
	25R	Lougheed Highway (Dewdney Trunk Road)	Arterial	1.40	.....
	93B	Seventh St. and Grant Ave.	Secondary	.....	0.70
	97B	Cedar Valley Road (east half)	Secondary	.....	0.50
North Kamloops	283R	Tranquille Highway	Arterial	0.47	.....
	284R	Eighth St.	Arterial	0.79	.....
Quesnel	278R	Johnston St.	Arterial	0.66	.....
	286R	Fraser West Road	Arterial	0.94	.....
	287R	Blackwater Road	Arterial	0.98	.....
	361R	Cariboo Highway	Arterial	2.45	.....
				12.40	1.20
Village Municipalities					
Aennofield	346R	Alaska Highway	Arterial	0.56	.....
Abbotsford	5R	Trans-Provincial Highway (Yale Road) (via Essendene Ave. and West Railway St.)	Arterial	0.50	.....
	11R	Abbotsford–Mission	Arterial	0.33	.....
	336R	McCallum Road	Arterial	0.23	.....
Ashcroft	198R	Brink St., Fourth St., and Railway Ave.	Arterial	1.00	.....
Burns Lake	296R	Northern Trans-Provincial Highway	Arterial	0.90	.....
	297R	Burns Lake–Francois Lake Road	Arterial	0.31	.....
	298R	Burns Lake–Babine Road	Arterial	0.53	.....
Campbell River	327R	Island Highway, Discovery Crescent, and Brewster Lake Road	Arterial	2.83	.....
Castlegar	112R	Southern Trans-Provincial Highway	Arterial	1.45	.....
Chapman Camp	105B	Fifth Ave., Third Ave., and portion of Main Road	Secondary	.....	0.42
	107B	Mill Road	Secondary	.....	0.47
Comox	234R	Comox Ave. and Anderton Road	Arterial	1.14	.....
	166B	Comox Ave., Stewart St., Balmoral Ave., and Port Augusta St.	Secondary	.....	1.40
Creston	324R	Canyon St. and Southern Trans-Provincial Highway	Arterial	1.40	.....
Cumberland	34B	Dunsmuir Ave.	Secondary	.....	0.36
	35B	Courtenay–Cumberland Road (Fourth St.)	Secondary	.....	0.21
Fort St. James	254R	Vanderhoof–Stuart Lake Road and Fort St. James Road	Arterial	1.70	.....
Fruitvale	202R	Trail–Salmo–Nelson Highway	Arterial	1.85	.....
	129B	Columbia Gardens Road	Secondary	.....	0.80
Gibsons Landing	164R	Gibsons Landing–Pender Harbour Highway	Arterial	1.12	.....
	120B	Gower Point Road	Secondary	.....	0.88
Golden	322R	Trans-Canada Highway	Arterial	1.28	.....
	323R	Kootenay–Columbia Highway	Arterial	1.52	.....
Harrison Hot Springs	161R	Harrison Hot Springs Road and Lillooet Ave.	Arterial	2.64	.....
Hope	179R	Hope–Princeton Highway	Arterial	1.65	.....
	180R	Trans-Canada Highway	Arterial	1.05	.....
	159B	Kawkawa Lake Road	Secondary	.....	0.32
	160B	Sixth Ave.	Secondary	.....	0.13
Houston	266R	Northern Trans-Provincial Highway	Arterial	0.80	.....
Invermere	189R	Waterway Drive, Third St., and Bruce Ave.	Arterial	1.75	.....
Kaslo	78R	Nelson–Kaslo	Arterial	0.73	.....
	113R	"A" Ave., Eighth Ave., and "C" Ave.	Arterial	0.85	.....
Keremeos	366R	Southern Trans-Provincial Highway	Arterial	1.43	.....
	177B	Keremeos–Cawston Highway	Secondary	.....	0.18
Kinnaird	181R	Southern Trans-Provincial Highway	Arterial	2.86	.....
Ladysmith	335R	Trans-Canada Highway	Arterial	3.05	.....
	176B	Chemainus Road	Secondary	.....	0.90
Lake Cowichan	98R	Cowichan Lake Road and North Shore Road	Arterial	1.44	.....
	99R	South Shore Road	Arterial	1.12	.....
Lumby	261R	Vernon St. (Slocan Highway)	Arterial	1.65	.....
	147B	Shuswap Ave.	Secondary	.....	1.25

STATEMENT SHOWING HIGHWAYS CLASSIFIED AS AT MARCH 31, 1964—*Continued*

Name of Municipality	Ref. No.	Name of Highway	How Classified	Approximate Mileage	
				Arterial	Secondary
Village Municipalities—Continued					
Lytton	106R	Trans-Canada Highway	Arterial	0.30	.....
	107R	Main St.	Arterial	0.60	.....
	108R	Sixth and Fraser Sts.	Arterial	0.28	.....
Lillooet	116R	Main St. and Main St. South	Arterial	1.29	.....
Marysville	236R	Kootenay–Columbia Highway	Arterial	1.45	.....
Masset	338R	Harrison Ave., Collison Ave., and Queen Charlotte City–Masset Road	Arterial	2.50	.....
	339R	Wilson St., Burgess Ave., and road to Tow Hill	Arterial	1.00	.....
Merritt	73R	Merritt–Spences Bridge	Arterial	1.00	.....
	101R	Merritt–Kamloops	Arterial	1.51	.....
	102R	Merritt–Princeton	Arterial	1.21	.....
	130B	Voght St.	Secondary	.....	0.50
McBride	220R	First Ave. and Main St.	Arterial	0.64	.....
Montrose	264R	Trail–Salmo–Nelson Highway	Arterial	1.00	.....
New Denver	88R	Slocan Valley–Nakusp Highway	Arterial	0.91	.....
	291R	Sixth Ave. and Victoria St.	Arterial	0.44	.....
Oliver	115R	Okanagan St.	Arterial	0.84	.....
	118B	Fairview Road	Secondary	.....	0.66
Osoyoos	145R	Main St., First Ave., and Lakeshore Drive	Arterial	1.22	.....
	137B	Fourth Ave.	Secondary	.....	0.75
Parksville	176R	Island Highway	Arterial	2.15	.....
	177R	Canadian Highway	Arterial	0.76	.....
Pouce Coupe	83R	Arterial Highway, Pouce Coupe	Arterial	0.43	.....
Princeton	194R	Bridge St. and Merritt (One Mile–Princeton) Road	Arterial	0.64	.....
	199R	Southern Trans-Provincial (Hope-Princeton) Highway	Arterial	1.30	.....
	127B	Vermilion Ave.	Secondary	.....	0.28
	128B	Tulameen Road	Secondary	.....	0.50
Qualicum Beach	94R	Island Highway	Arterial	3.26	.....
	154R	Jones St., Second Ave., Main St., and Station Road	Arterial	1.60	.....
Salmo	230R	Salmo–Fruitvale Road	Arterial	0.78	.....
	231R	Nelson–Nelway Road	Arterial	0.65	.....
Salmon Arm	197R	Trans-Canada Highway	Arterial	0.87	.....
	23B	Salmon Arm–Enderby	Secondary	.....	0.69
	80B	Salmon Arm–Enderby	Secondary	.....	0.21
Sechelt	244R	Porpoise Bay Road	Arterial	0.65	.....
	320R	Sunshine Coast Highway	Arterial	0.98	.....
Sidney	268R	Fifth St., Queens Ave., and Resthaven Drive	Arterial	1.33	.....
	292R	Ocean Ave.	Arterial	0.18	.....
	347R	Patricia Bay Highway	Arterial	0.97	.....
	348R	Lochside Drive	Arterial	0.25	.....
	146B	Beacon Ave.	Secondary	.....	1.00
Silverton	90R	Slocan Valley–Nakusp Highway	Arterial	0.45	.....
Slocan	87R	Slocan Valley–Nakusp Highway	Arterial	0.92	.....
Smithers	50R	Prince Rupert Highway	Arterial	1.45	.....
	58B	Hudson Bay Mountain Road	Secondary	.....	1.35
Squamish	222R	Galbraith Ave., Vancouver St., and Cleveland Ave.	Arterial	2.27	.....
	313R	Squamish Highway	Arterial	1.50	.....
Stewart	72R	Stewart–Bear River Highway	Arterial	1.78	.....
Taylor	334R	Alaska Highway	Arterial	1.59	.....
	161B	Taylor–Peaceview Road	Secondary	.....	0.95
Telkwa	215R	Northern Trans-Provincial Highway	Arterial	0.80	.....
	136B	Telkwa Coal Road	Secondary	.....	1.00
Tofino	86R	Tofino–Ucluelet Road	Arterial	1.17	.....
Ucluelet	192R	Tofino–Ucluelet Road	Arterial	1.13	.....
Valemount	332R	North Thompson Highway	Arterial	1.36	.....
Vanderhoof	232R	Northern Trans-Provincial Highway	Arterial	1.23	.....
	233R	Fort St. James Highway	Arterial	0.95	.....
Warfield	205R	Southern Trans-Provincial Highway	Arterial	0.68	.....
	206R	Trail–Salmo–Nelson Highway	Arterial	1.13	.....
Williams Lake	306R	Mackenzie Ave. North	Arterial	1.00	.....
	307R	Mackenzie Ave. South	Arterial	0.80	.....
	308R	Oliver St.	Arterial	1.12	.....
Zeballos	196R	Zeballos Road	Arterial	1.00	.....
				94.99	15.21

STATEMENT SHOWING HIGHWAYS CLASSIFIED AS AT MARCH 31, 1964—*Continued*

Summary

	Approximate Mileage	
	Arterial	Secondary
City municipalities	86.19	27.44
District municipalities	432.07	99.42
Town municipalities	12.40	1.20
Village municipalities	94.99	15.21
Total classified highways	625.65	143.27
Deduct for duplicate mileage—		
Scott Road in Delta and Surrey District Municipalities	4.92	.....
Lougheed Highway in City of Port Coquitlam and Coquitlam District Municipality	0.60	.....
North Road in Burnaby and Coquitlam District Municipalities	1.40	.....
Cedar Valley Road in Mission District Municipality and Mission City Town Municipality	0.50	.....
McCallum Road in Matsqui and Sumas District Municipalities and Village of Abbotsford	1.19	.....
Totals	617.04	143.27

SNOW REMOVAL, FISCAL YEAR 1963/64

STATEMENT OF MILES KEPT OPEN AND TOTAL COSTS

Electoral District	Miles Kept Open by Plough (or Attempted)	Total Cost
Alberni	213.83	$19,654.21
Atlin (North)	322.00	52,557.59
Atlin (South)	48.18	13,414.47
Burnaby	23.43	4,874.73
Cariboo (North)	960.95	77,978.39
Cariboo (South)	1,443.00	92,607.34
Chilliwack	148.03	19,181.28
Columbia	518.57	79,143.16
Comox	867.16	33,244.20
Comox (South)	20.00	2,974.85
Cowichan-Newcastle	242.00	13,466.47
Cranbrook	415.96	64,746.29
Delta	132.31	12,255.39
Dewdney (East)	151.03	8,190.48
Dewdney (West)	44.66	5,725.30
Esquimalt	464.27	16,782.81
Fernie	381.90	40,380.78
Fort George	903.95	136,265.42
Grand Forks-Greenwood	516.47	84,387.72
Kamloops	1,197.48	144,834.56
Kaslo-Slocan	522.94	108,404.15
Lillooet (North)	937.06	87,727.45
Lillooet (South)	39.91	14,617.65
Mackenzie	279.56	24,486.88
Nanaimo-Islands	329.00	11,134.35
Nelson-Creston	537.17	239,258.11
New Westminster	5.57	561.97
North Okanagan	667.06	78,679.51
North Peace River	1,096.00	93,439.01
North Vancouver	41.58	11,874.20
Omineca (East)	715.25	44,230.97
Omineca (West)	547.00	54,802.09
Prince Rupert	148.21	13,573.02
Revelstoke	298.85	145,135.27
Rossland-Trail	259.34	92,839.52
Saanich	104.87	4,347.72
Salmon Arm	655.61	68,510.06
Similkameen	837.74	101,770.06
Skeena (East)	421.85	49,612.04
Skeena (West)	216.40	49,300.00
South Okanagan	473.18	54,900.59
South Peace River	866.85	117,750.94
Vancouver-Point Grey	11.48	960.01
Yale	854.09	130,828.44
Totals	19,881.75	$2,521,409.45

REPORT OF THE COMPTROLLER OF EXPENDITURE

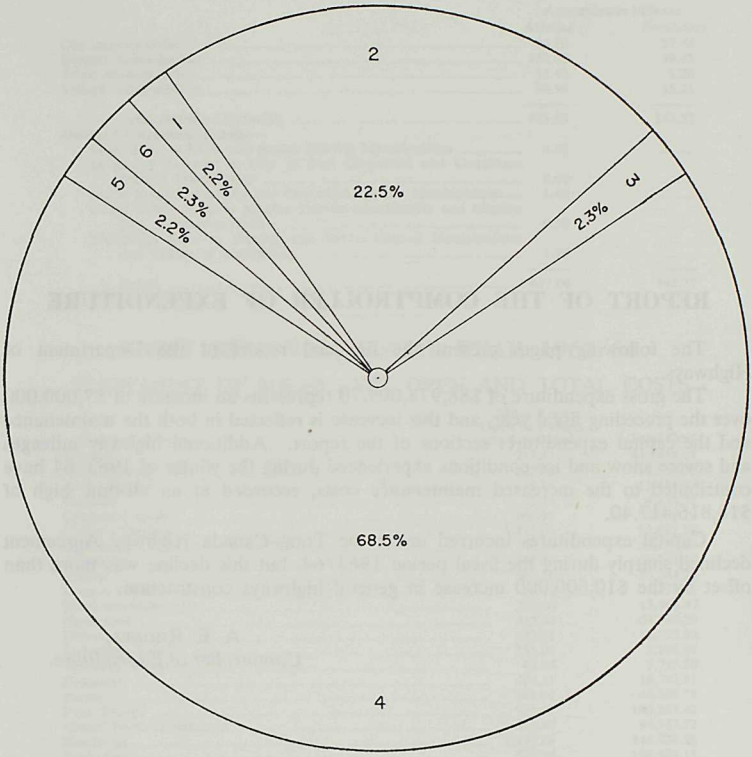
The following pages present the financial report of the Department of Highways.

The gross expenditure of $88,978,009.70 represents an increase of $7,000,000 over the preceding fiscal year, and this increase is reflected in both the maintenance and the capital expenditures sections of the report. Additional highway mileages and severe snow and ice conditions experienced during the winter of 1963/64 have contributed to the increased maintenance costs, recorded at an all-time high of $18,816,417.40.

Capital expenditures incurred under the Trans-Canada Highway Agreement declined sharply during the fiscal period 1963/64, but this decline was more than offset by the $10,600,000 increase in general highways construction.

A. E. RHODES,
Comptroller of Expenditure.

HOW THE HIGHWAY DOLLAR IS SPENT



1. Administration and engineering.
2. Maintenance and operation.
3. Purchase of new equipment.
4. Capital construction—general and Trans-Canada Highway.
5. Mining-roads.
6. Capital miscellaneous (surveys, materials testing, etc.).

STATEMENT OF EXPENDITURES, FISCAL YEAR 1963/64

SUMMARY

MAINTENANCE			
Vote 169—			
Roads	$8,235,822.91		
Bridges	1,442,281.54		
Ferries	1,590,404.75		
Snow removal	2,521,409.45		
Machinery Account (repairs, fuel, etc.)	4,651,870.42		
		$18,441,789.07	
Vote 172—Maintenance of Toll Facilities		374,628.33	
Vote 173—Highways within Municipal Limits		626,749.45	
CAPITAL			
Vote 170—Trans-Canada Highway—			
Roads	$10,419,020.24		
Bridges	8,064,779.29		
Surveys	99,292.30		
Rights-of-way	151,927.44		
Paving	2,439,625.38		
		21,174,644.65	
Vote 171 (*a*)—General Highways—			
Roads	$22,215,583.40		
Surveys	977,049.03		
Legal Surveys	174,770.45		
Rights-of-way	784,643.64		
Bridge elimination	49,821.87		
Radio-telephone installation	167,681.57		
Machinery rental and fuel (day-labour projects)	1,275,000.00		
Crushed gravel (day-labour projects)	326,041.40		
Materials testing	667,491.40		
		26,638,082.76	
Vote 171 (*b*)—			
Bridges	$7,855,300.62		
Ferries	228,164.77		
Ferry-landings	254,510.87		
		8,337,976.26	
Vote 171 (*c*)—Hard surfacing		6,870,034.24	
Vote 244—Construction of Mining-roads—			
Roads	$1,961,010.78		
Surveys	3,446.75		
Bridges	25,563.76		
		*1,990,021.29	
Gross total, maintenance and capital			$84,453,926.05
MISCELLANEOUS VOTES			
Vote 167—Minister's Office (*see* Public Accounts for details)		$32,424.44	
Vote 168—General Administration (*see* Public Accounts for details)		1,925,142.79	
Vote 169—*See under* Maintenance, above.			
Votes 170 and 171—*See under* Capital, above.			
Votes 172 and 173—*See under* Maintenance, above.			
Vote 174—Vehicle Damage Claims		41,955.70	
Vote 175—Highway Signs, Signals, Traffic Control, etc.		485,651.20	
Vote 176—Grants and Subsidies		12,785.53	
Vote 177—Purchase of New Equipment		2,026,123.99	
Total, miscellaneous votes			4,524,083.65
Gross Expenditure, Department of Highways			$88,978,009.70
Less—			
Ferry revenue			485,712.56
Miscellaneous revenue items (Votes 168, 169, 170, 171 (*a*), 171 (*c*), 172, 244)			93,256.28
Government of Canada—			
Trans-Canada Highway			8,475,034.77
Mining-road (Cassiar–Stewart)			1,024,508.65
Board of Transport Commissioners			1,159,260.72
Net expenditure, Department of Highways			$77,740,236.72

* This Vote 244, *Construction of Mining-roads*, is included under Department of Mines and Petroleum Resources in Public Accounts.

SUMMARY—*Continued*

SUMMARY OF MAINTENANCE AND CAPITAL EXPENDITURES FOR ROADS, BRIDGES, FERRIES, SURVEYS, RIGHTS-OF-WAY, SURFACING, ETC.

Electoral District	Total
Alberni	$980,460.52
Atlin (North)	2,194,078.77
Atlin (South)	47,239.81
Burnaby	3,644,492.81
Cariboo (North)	569,728.34
Cariboo (South)	1,360,838.02
Chilliwack	1,430,493.75
Columbia	4,378,066.45
Comox	3,219,114.29
Cowichan-Newcastle	395,056.31
Cranbrook	357,641.93
Delta	10,676,349.55
Dewdney	1,892,187.47
Esquimalt	547,519.46
Fernie	1,200,235.86
Fort George	4,404,678.93
Grand Forks-Greenwood	861,520.36
Kamloops	3,420,436.79
Kaslo-Slocan	640,938.89
Lillooet (North)	440,610.43
Lillooet (South)	1,855,946.02
Mackenzie	594,665.48
Nanaimo-Islands	881,603.15
Nelson-Creston	3,905,053.42
New Westminster	7,590.73
North Okanagan	473,600.81
North Peace River	1,997,923.43
North Vancouver	1,019,450.38
Oak Bay	50,000.00
Omineca (East)	413,077.03
Omineca (West)	2,032,540.64
Prince Rupert	569,486.95
Revelstoke	639,703.06
Rossland-Trail	3,334,722.75
Saanich	315,089.18
Salmon Arm	932,489.18
Similkameen	1,641,024.82
Skeena (East)	841,710.41
Skeena (West)	2,355,951.50
South Okanagan	678,577.17
South Peace River	1,970,730.62
Vancouver-Point Grey	257,771.65
Yale	6,443,769.10
Headquarters	8,579,759.83
Gross expenditure	$84,453,926.05

HEADQUARTERS

Roads generally (includes items for centre-line marking, mixing plants, leases, and other miscellaneous expenditures)	$502,021.02
Ferries generally (miscellaneous expenditures)	16,178.18
Machinery Account (repairs and fuel costs, etc.)	4,651,870.42
Arterial highways	471,203.56
Maintenance of toll facilities (miscellaneous) (Credit)	*1,260.00*
Surveys (general surveys and supplies)	212,469.03
Rights-of-way—	
Revenue from sale of buildings on Trans-Canada rights-of-way (Credit)	*2,555.00*
Revenue from sale of buildings on general rights-of-way (Credit)	*4,817.94*
Bridges—	
Bridge design, consulting engineers' fees, etc., Project No. 283, Trans-Canada Highway	134,911.71
Bridge design, consulting engineers' fees, etc., Project No. 281, General Bridges	73,791.06
Steel and precast concrete stringer units, test piles, etc., Project No. 22 (Credit)	*33,025.24*

HEADQUARTERS—*Continued*

Roads (general capital items)—		
Materials testing		$667,491.40
Crushed gravel for day-labour projects		300,000.00
Radio-telephone installations		167,681.57
Machinery rental and fuel (day-labour projects)		1,275,000.00
Surfacing—		
Paving generally (wages, general expenses, supplies, etc.)		76,434.01
Laboratory supplies, miscellaneous expenses		26,696.73
Pulvimixing generally		14,378.91
Safety Committee investigations and survey investigations		28,241.64
Slurry seal (experiment)—Metchosin Road from Sooke Road to Lagoon Road and Trans-Canada Highway maintenance off Douglas Street, Victoria		3,048.77
Total, Headquarters		$8,579,759.83

ALBERNI DISTRICT

Day labour—roads (Project No. 1295)—		
Bamfield, construct 4 miles	$96,000.00	
Alberni–Kennedy Lake, widen 2 miles	46,975.60	
Stirling Arm, widen and ditch 1 mile	4,025.12	
Central Lake, widen and ditch 0.5 mile	2,683.66	
Ucluelet–Tofino, gravel and ditch 20 miles	7,077.68	
Pierce, Chapman, and Fayette, reconstruct 1 mile	7,223.90	
Alberni–Tofino, gravel 15 miles	15,795.22	
		$179,781.18
Maintenance of roads		124,619.73
Maintenance of bridges		13,994.58
Maintenance and operation of ferries		21,700.00
Snow removal		19,654.21
Local highways within municipal limits—Village of Tofino		5,000.00
Surveys (general)—		
Alberni–Cumberland (*see also* Comox) (Project No. 1347)	$29,691.86	
River Road, Alberni, from Kitsuksis Creek to Somass River (Project No. 1347)	9,810.02	
		39,501.88
Surfacing (general)—		
North-westward to Radar Station Road No. 3 (Project No. S-0163)	$265,601.31	
Southward to Ucluelet Village (Project No. S-0163)	86,853.27	
Eastward to Thunder Bridge (Project No. S-0163)	58,577.10	
Radar Station No. 3 to Tofino (Project No. S-0163)	165,177.26	
		576,208.94
Total, Alberni District		$980,460.52

ATLIN (NORTH) DISTRICT

Day labour—		
Roads (Project No. 1335)—Improve Dease Lake Road	$10,000.00	
Bridges (Project No. 427)—Tahltan and Tuya Bridges	23,000.00	
		$33,000.00
Maintenance of roads		88,699.89
Maintenance of bridges		3,400.00
Maintenance and operation of ferries		26,400.00
Snow removal		52,557.59
Surveys (mining-roads)—Cassiar–Stewart Road (Project No. 775)		3,446.75
Construction—		
Bridges—Bridge design, Stewart–Cassiar Bridge (Project No. 461)		25,563.76
Mining-roads—		
Stikine River–Eddontenajon Lake section, Cassiar–Stewart Road (Project No. 1037)	$10,614.66	
Bear Pass section, Cassiar–Stewart Road (Project No. 1039)	112,851.37	
Strohn Creek–Bell Irving section, Cassiar–Stewart Road (Project No. 1138)	1,040,802.59	
Eddontenajon Lake–Burrage River section, Cassiar–Stewart Road (Project No. 1214)	796,742.16	
		1,961,010.78
Total, Atlin (North) District		$2,194,078.77

ATLIN (SOUTH) DISTRICT

Day labour—roads (Project No. 1336)—Widen rock cuts between Mile 2 and Mile 10 (0.5 mile) on Kitsault River Road, No. 23	$5,000.00
Maintenance of roads	24,288.31
Maintenance of bridges	4,537.03
Snow removal	13,414.47
Total, Atlin (South) District	$47,239.81

BURNABY DISTRICT

Day labour—roads (Project No. 1296)—		
Lougheed Highway (17R), purchase curbing	$3,917.76	
Grandview-Douglas (135R), shouldering 1.5 miles	13,582.24	
		$17,500.00
Maintenance of roads		105,121.41
Snow removal		4,874.73
Surveys (general)—		
Simon Fraser University access roads (Project No. 1347)	$19,802.03	
North Road (four lanes), Lougheed Highway to Clark Road (Project No. 1347)	150.00	
Simon Fraser University building area (Project No. 1347)	5,711.36	
		25,663.39
Legal surveys—Boundary Avenue to Summer Avenue (Project No. 1348)		1,598.19
Rights-of-way (Trans-Canada Highway) — Vancouver–Fraser River section, Sections 3, 4, and 5 (Project No. 1345)		30,398.49
Construction—		
Bridges (Trans-Canada Highway)—		
Vancouver–Fraser River section, supply of beams for 11 structures (Project No. 341)	$6,787.89	
Vancouver–Fraser River section, supply of beams for seven structures (Project No. 346)	1,042.91	
Vancouver–Fraser River section structures, western sector (50 per cent of this expenditure incurred in Vancouver East) (Project No. 349)	408,911.59	
Vancouver–Fraser River section, supply of beams for nine structures (Project No. 350)	13,078.91	
Vancouver–Fraser River section, Willingdon Avenue, Sprott Street, and Deer Lake Interchange Underpasses (Project No. 426)	759,165.34	
Vancouver–Fraser River section, middle sector, bridges (Burnaby Freeway) (Project No. 348)	54,675.84	
		1,243,662.48
Roads (Trans-Canada Highway)—		
Vancouver–Fraser River section, design fees (Project No. 885)	$88,037.20	
Vancouver–Fraser River section, Contract No. 3 (*see also* Dewdney) (Project No. 885)	158,646.16	
Vancouver–Fraser River section, Contract No. 4 (Project No. 885)	848,909.17	
Vancouver–Fraser River section, Contract No. 5 (*see also* Vancouver-Point Grey) (Project No. 885)	157,277.22	
Vancouver–Fraser River section, lighting of interchanges (*see also* Dewdney) (approximately 11 per cent of this expenditure is in Vancouver East area) (Project No. 1352)	134,367.94	
		1,387,237.69
Surfacing—		
Trans-Canada Highway—		
Vancouver–Fraser River section (Project No. S-8162)	$345,593.00	
Vancouver–Fraser River section (*see also* Dewdney) (Project No. S-8262)	225,590.87	
		571,183.87
General—East Hastings Street, Burnaby, and Holdum Avenue to Cliff Avenue section (Project No. S-0463)		257,252.56
Total, Burnaby District		$3,644,492.81

CARIBOO (NORTH) DISTRICT

Day labour—roads (Project No. 1326)—		
Barkerville, pulvimix, 2 miles	$14,000.00	
Barkerville, improvement, 4.7 miles	40,000.00	
Quesnel–Hydraulic, improvements, 0.7 mile	4,302.43	
Fraser, improvements, 0.2 mile	2,000.00	
Join Rawlings Road and Blackwater, 3.4 miles	29,615.06	
Sundry roads, gravelling	9,082.51	
		$99,000.00
Maintenance of roads		238,123.95
Maintenance of bridges		31,115.18
Maintenance and operation of ferries		31,939.86
Snow removal		77,978.39
Surveys (general)—		
Macalister–Dog Prairie (Project No. 1347)	$25,367.57	
Fraser River Bridge at Quesnel (Project No. 1347)	2,377.10	
		27,744.67
Legal surveys—		
Soda Creek Ferry Approach Road (Project No. 1348)	$385.00	
Quesnel Access Road (Project No. 1348)	65.00	
Blackwater Road, north boundary of Lot 4500 to east boundary of Lot 357 (Project No. 1348)	5,178.40	
		5,628.40
Rights-of-way (general)—Purchase of Hansard Pit, south of Quesnel (Project No. 1349)		1,450.00
Surfacing (general)—		
Barkerville Road, base processing	$32,679.68	
Quesnel–Hixon, base processing	24,068.21	
		56,747.89
Total, Cariboo (North) District		$569,728.34

CARIBOO (SOUTH) DISTRICT

Day labour—roads (Project No. 1310)—		
Canim Lake, reconstruction, Mile 5.5 to Mile 9.9 (4.4 miles)	$60,675.22	
Chilcotin, clearing and grubbing Sword Creek Hill (4.87 miles)	75,000.00	
Exeter Station, road mix, Mile 0.0 to Mile 2.1 (2.1 miles)	6,385.22	
Horsefly, gravel miscellaneous sections	8,975.81	
Lake, reconstruction, Mile 0.0 to Mile 2.5 (2.5 miles)	15,321.26	
Likely, reconstruction, Mile 52.0 to Mile 52.3 (0.3 mile) and miscellaneous sections	4,775.92	
100 Mile to Roe Lake, reconstruction, Mile 2.5 to Mile 3.0 and Mile 8.55 to Mile 9.35 (1.3 miles)	1,229.35	
Williams Lake to 57 Mile, widening and gravel, miscellaneous sections (6.5 miles)	6,637.22	
		$179,000.00
Maintenance of roads		302,775.47
Maintenance of bridges		28,650.00
Snow removal		92,607.34
Local highways within municipal limits—Village of Williams Lake and sundry roads		6,000.00
Surveys (general)—Chilcotin Bridge to Meldrum Creek Road (Project No. 1347)		16.80
Rights-of-way (general)—		
Chilcotin–Sword Creek Road (Project No. 1349)	$3,827.00	
100 Mile Overhead (Project No. 1349)	50.00	
		3,877.00
Construction—bridges (general)—		
P.G.E. Overhead Crossing at 100 Mile House (Project No. 446)	$401,400.62	
Chilcotin Bridge (Project No. 313) (Credit)	*336.89*	
		401,063.73
Surfacing (general)—Cariboo Highway, Mile 74.5 to Mile 97.0 (day-labour work) (Project No. S-2363)		346,847.68
Total, Cariboo (South) District		$1,360,838.02

CHILLIWACK DISTRICT

Day labour—roads (Project No. 1297)—		
No. 4, Chilliwack Lake Road, hot-mix laid (1.76 miles) and new construction (1.74 miles)	$25,265.02	
No. 4, Chilliwack Lake Road, erosion control	9,100.00	
No. 48, Frost Road, minor improvements	833.06	
Popkum area roads, hot-mix laid (0.75 mile)	572.19	
No. 6, Columbia Valley Road, widening and gravelling	1,003.86	
No. 31, Sumas Mountain Road, hot-mix laid (0.25 mile)	625.87	
		$37,400.00
Day labour—roads (Project No. 1372)—Weigh-scale site to Hunter Creek (Trans-Canada Highway)		29,000.00
Maintenance of roads		130,872.16
Maintenance of bridges		6,400.00
Snow removal		19,181.28
Local highways within municipal limits—		
Corporation of the District of Matsqui, Ross and Downes Roads	$8,000.00	
Corporation of the Township of Chilliwhack, Ryder Lake area	1,000.00	
Corporation of the District of Sumas	8,000.00	
		17,000.00
Surveys (general)—McCallum Road, from McCallum Road Interchange to Old Trans-Canada Highway (Project No. 1347)		4,912.47
Legal surveys—		
66-foot frontage road within District Lot 278, Group 2, between Arnold and Henderson Roads (Project No. 1348)	$150.00	
Hunter Creek Bridge approaches (Project No. 1348)	218.66	
Abbotsford–Mission Highway, widening in Lot A, Plan 8921, District Lot 118, Group 2 (Project No. 1348)	102.60	
		471.26
Rights-of-way (Trans-Canada Highway)—		
Vedder to Abbotsford, Vedder River section (Project No. 1345)	$87,994.26	
Mount Lehman to Springbrook (Project No. 1345)	81.63	
Twin Bridges to Lorenzetti Creek (Project No. 1345)	86.55	
Weigh-scale to Hunter Creek (Project No. 1345)	4,085.00	
Chilliwack to Vedder (Project No. 1345)	253.50	
		92,500.94
Rights-of-way (general)—McCallum Road widening (Project No. 1349)		25,646.01
Construction—		
Bridges (Trans-Canada Highway)—No. 3 Road Underpass (Project No. 445)		159,242.80
Roads (Trans-Canada Highway)—		
Springbrook to Mount Lehman Road (*see also* Delta) (Project No. 1036)	$91,733.04	
Abbotsford to Vedder Crossing (Project No. 1186)	233,600.43	
Springbrook–Mount Lehman and Abbotsford–Vedder Crossing sections, lighting of interchanges (*see also* Delta) (Project No. 1340)	31,985.70	
		357,319.17
Surfacing (Trans-Canada Highway)—		
Springbrook to Mount Lehman Road (*see also* Delta) (Project No. S-8462)	$41,704.31	
Station 0+00 to Station 562+00 (Project No. S-8562)	207,954.76	
End of four-lane section at Abbotsford eastward to Sumas Lake Canal Bridge (Project No. S-8562)	144,075.88	
Miscellaneous frontage roads (Project No. S-8562)	136,798.15	
Widening loops and connectors of Abbotsford By-pass interchanges (Project No. S-8562)	5,189.40	
Laidlaw weigh-scales (Project No. S-8363)	14,825.16	
		550,547.66
Total, Chilliwack District		$1,430,493.75

COLUMBIA DISTRICT

Day labour—roads (Project No. 1319)—		
Trans-Canada Highway, Kicking Horse Canyon, general improvements, 9 miles	$4,915.89	
Kootenay – Columbia Highway, Radium – Golden section, base strengthening and ditching, 26 miles	33,097.47	
Canal Flats streets, gravelling and paving	2,058.90	
Edgewater Streets, gravelling and paving	3,321.93	
Golden Cemetery Road, widening and gravelling	2,127.46	
Invermere Arterial, recapping pavement	2,987.30	
Invermere Cemetery Road, gravelling and paving	1,468.06	
Toby Road, general improvements	3,909.50	
Westside Road to Athalmer, general improvements and gravelling	11,613.29	
		$65,499.80
Local highways within municipal limits—Village of Invermere, overpass		9,765.89
Maintenance of roads		168,726.39
Maintenance of bridges		27,825.00
Snow removal		79,143.16
Surveys (Trans-Canada Highway)—Golden to Yoho Park Boundary (Project No. 1344)		65,072.67
Surveys (general)—Golden to McMurdo (Project No. 1347)		34,524.02
Legal surveys—		
Blaeberry to Donald (Project No. 1348)	$4,029.28	
Trans-Canada Highway, Yoho Park Bridge to 2 miles west of Yoho Park boundary (Project No. 1348)	3,357.75	
Highway No. 95, from Radium Junction north (Project No. 1348)	6,764.04	
		14,151.07
Rights-of-way (general)—		
Kootenay–Columbia Highway (Brisco section), Golden to Radium (Project No. 1349)	$668.00	
Kootenay–Columbia Highway, Canal Flats–Skookumchuk section (Project No. 1349)	104.99	
Kootenay–Columbia Highway, Dutch Creek–Canal Flats section (Project No. 1349)	2,718.13	
Kootenay–Columbia Highway, Sinclair Canyon–Radium Junction section (Project No. 1349)	23,710.00	
Kootenay–Columbia Highway, Windermere Creek–Dutch Creek section (Project No. 1349)	100.00	
Kootenay–Columbia Highway, Canal Flats south section (Project No. 1349)	274.30	
		27,575.42
Construction—		
Bridges (Trans-Canada Highway)—		
Columbia River Bridge at Donald (Project No. 295)	$5,572.11	
Yoho Bridge revision (Project No. 421)	54,199.47	
Quartz Creek Bridge (Project No. 339)	2,519.78	
		62,291.36
Bridges (general)—		
Fairmont Bridge (Project No. 458)	$84,046.17	
Fairmont Overhead Crossing (Project No. 459)	70,177.83	
Canal Flats Bridge, Kootenay–Columbia Highway (Project No. 476)	85,802.42	
		240,026.42
Roads (Trans-Canada Highway)—		
Glacier Park to Donald, Section 2, Rogers to Quartz Creek (Project No. 958)	$13,924.97	
Glacier Park to Donald, Section 1 (Project No. 961)	80,484.58	
Yoho Park Boundary to Park Bridge (Project No. 1104)	2,452.90	
Yoho Bridge approaches (Project No. 1294)	468,805.34	
		565,667.79

COLUMBIA DISTRICT—*Continued*

Construction—*Continued*		
Roads (general)—		
Windermere to Dutch Creek (Project No. 1283)	$626,980.55	
Canal Flats to Skookumchuck (*see also* Fernie) (Project No. 1287)	663,402.42	
Dutch Creek to Canal Flats (Project No. 1337)	763,645.79	
Radium Junction to Kootenay Park Gate (Sinclair Canyon) (Project No. 1338)	705,026.63	
		$2,759,055.39
Surfacing (general)—Kootenay–Columbia Highway, South Vermilion–Harrogate section (Project No. S-4463)		258,742.07
Total, Columbia District		$4,378,066.45

COMOX DISTRICT

Day labour—roads (Project No. 1298)—		
Alberni Highway, asphalt curb, random lengths	$4,091.54	
Anderton Road, reconstruct and pave, 1.63 miles	13,425.22	
Bold Point Road, new construction, 1.00 mile	8,243.33	
Byng Road, reconstruct and pave, 3.36 miles	16,089.46	
Claudet Road and Marina Way, pave, 1.51 miles	6,508.56	
East Road, reconstruct, 1.50 miles	9,596.47	
Dove Creek Road, reconstruct and pave, 1.44 miles	12,412.47	
Gainsberg Road, reconstruct and pave, 1.22 miles	4,570.86	
Gartley Road, reconstruct and pave, 0.16 mile	2,239.09	
Grafton Avenue, reconstruct, 1.44 miles	8,165.52	
Hilliers Road, reconstruct, 1.77 miles	2,870.85	
Island Highway, flood control, random lengths	817.75	
Marsden Road, reconstruct, 1.43 miles	351.21	
Martindale Road, pave 0.43 mile	964.86	
Minto Road, reconstruct 1.31 miles	525.33	
Royston roads, reconstruct and pave, 0.54 mile	9,679.06	
Shelly Road, pave, 0.25 mile	1,306.05	
Spit Road, reconstruct and pave, 1.08 miles	12,228.20	
Swayne Road, reconstruct, 1.72 miles	1,921.99	
Towler Road, pave, 0.16 mile	732.92	
West Road, reconstruct and pave, 2.43 miles	14,396.74	
Willow Point roads, reconstruct and pave, 1.08 miles	13,512.29	
Winchester Road, reconstruct and pave, 1.05 miles	7,144.13	
Heriot Bay and West Roads, flush-coat, 0.34 mile	206.10	
	$152,000.00	
Nimpkish River to Beaver Cove (Project No. 1364)	305,000.00	
Port Alice to Rumble Beach (Project No. 1381)	100,000.00	
		$557,000.00
Day labour—bridge elimination—Simms Creek Bridge (Project No. 1346)		6,000.00
Day labour—bridges—		
White River Bridge (Project No. 430)	$18,000.00	
Byng Bridge No. 2 (Project No. 467)	53,000.00	
		71,000.00
Day labour—ferry-landings—Hornby Island Ferry breakwater and landing at Denman Island (Project No. 465)		55,023.50
Maintenance of roads		298,933.35
Maintenance of bridges		20,000.00
Maintenance and operation of ferries		156,593.20
Snow removal		33,244.20
Local highways within municipal limits—		
Village of Alert Bay	$5,000.00	
Village of Comox	6,000.00	
		11,000.00

COMOX DISTRICT—*Continued*

Surveys (general)—		
Port McNeill–Beaver Cove (Project No. 1347)	$12.00	
Alberni–Cumberland (*see also* Alberni) (Project No. 1347)	14,845.92	
Island Highway, Nanoose Overhead north (Project No. 1347)	22,565.99	
Sayward–Brasseau Bay (Project No. 1347)	36,434.69	
Little River Ferry Access Road, Anderton Road to Little River ferry-site (Project No. 1347)	5,792.50	
Island Highway, Mud Bay to Black Creek (Project No. 1347)	17,047.41	
Port Alice–Rumble Beach (Project No. 1347)	13,760.17	
		$110,458.68
Legal surveys—		
Little River ferry-landing (Project No. 1348)	$375.00	
Little River Road within District Lots 217 and 114 (Project No. 1348)	284.60	
Survey of West Road, Quadra Island, through Lots 180, 205, 206, and 207, Sayward District (Project No. 1348)	450.00	
St. Johns Point Road and Ostby Road, Hornby Island (Project No. 1348)	1,229.00	
		2,338.60
Rights-of-way (general)—		
Revision to Little River Road near R.C.A.F. Station (Project No. 1349)	$1.00	
Road to Little River ferry terminal (Project No. 1349)	19,007.10	
		19,008.10
Construction—		
Bridges (general)—		
Nimpkish River Bridge (Project No. 411)	$300,637.95	
Big Tree Creek Bridge (Project No. 455)	99,151.34	
		399,789.29
Ferry-landings—		
Steel pontoons, Quathiaski Cove ferry-landing (Project No. 487)	$29,518.70	
Little River ferry terminal, causeway and breakwater (Project No. 482)	87,922.01	
		117,440.71
Ferries—Comox–Westview Ferry (Project No. 481)		5,642.33
Roads (general)—		
Menzies Bay to Roberts Lake (Project No. 1215)	$553,135.86	
Roberts Lake to Sayward (Project No. 1216)	740,471.86	
		1,293,607.72

COMOX (SOUTH)

Day labour—roads (Project No. 1305)—		
Sebastion, widen, 0.3 mile	$1,000.00	
Fielding, extension, 0.3 mile	5,000.00	
Uplands Drive, reconstruct and pave, 1.0 mile	5,000.00	
Bay Street, widen north end, 0.25 mile	5,800.00	
Jingle Pot Overhead, construct overpass	10,500.00	
Lantzville area, gravel, 1.0 mile	2,000.00	
Wellington area, gravel, 0.25 mile	1,000.00	
Tunnah, reconstruct and pave, 0.25 mile	3,800.81	
		34,100.81
Maintenance of roads		25,381.19
Snow removal		2,552.61
Total, Comox District		$3,219,114.29

COWICHAN-NEWCASTLE DISTRICT

Day labour—roads (Project No. 1299)—		
Hill, reconstruct and pave, 0.5 mile	$5,000.00	
Akenhead, widen, 0.5 mile	2,000.00	
Wilson, gravel, 0.5 mile	2,000.00	
Tzouhalem, reconstruct and pave, 1.0 mile	5,564.27	
Koksilah, reconstruct and pave, 0.75 mile	6,140.73	
DeCourcy, reconstruct and pave, 1.0 mile	7,946.68	
Crofton, widen, 1.0 mile	7,920.69	
Cameron, reconstruct and pave, 1.0 mile	2,959.39	
Miller, reconstruct and pave, 0.5 mile	4,468.24	
		$44,000.00

COWICHAN-NEWCASTLE DISTRICT—*Continued*

Maintenance of roads		$149,140.46
Maintenance of bridges		38,000.00
Snow removal		13,466.47
Surveys (Trans-Canada Highway)—Revision at Koksilah Bridge (Project No. 1344)		2,872.41
Surveys (general)—Nanaimo River Bridge approaches at Cedar (Project No. 1347)		3,556.34
Construction—Bridges (Trans-Canada Highway)—		
Improvements to Cowichan River, Chemainus River, and Haslam Creek Bridges (Project No. 464)	$96,080.24	
Improvements to Goldstream, Wilkinson, Koksilah, Holmes Creek, and Whitehouse Creek Bridges (part in Esquimalt) (Project No. 469)	47,940.39	
		144,020.63
Total, Cowichan-Newcastle District		$395,056.31

CRANBROOK DISTRICT

Day labour—roads (Project No. 1320)—		
Southern Trans-Provincial Highway, No. 354R, Cranbrook arterial, hot-mix paving	$5,000.00	
Eager Hill to Fort Steele, construction, Mile 0 to Mile 3	55,068.39	
Kootenay–Columbia Highway, Wycliffe Bridge approaches, reconstruction, 1.3 miles	15,000.00	
Green Bay Road, road-mix paving, 0.85 mile	3,000.00	
Jim Smith Lake Road, road-mix paving, 0.7 mile	3,000.00	
Black Bear Road, reconstruction and road-mix paving, 0.3 mile	1,500.00	
Monroe Lake Road, road-mix paving, 0.45 mile	4,801.29	
Cranbrook area streets, reconstruction and road-mix paving, 1.2 miles	12,000.00	
Mission Road, reconstruction and road-mix paving, 1.0 mile	5,000.00	
Kimberley area subdivision roads, reconstruction, 3.0 miles	5,500.00	
		$109,869.68
Maintenance of roads		149,177.24
Maintenance of bridges		15,525.66
Snow removal		64,746.29
Local highways within municipal limits—City of Cranbrook, storm drains		1,800.00
Surveys (general)—Cranbrook curb and gutter, Van Horne Street (Project No. 1347)		4,496.45
Legal surveys—Southern Trans-Provincial Highway, Goatfell to Curzon Junction (Project No. 1348)		1,453.02
Rights-of-way (general)—		
Southern Trans-Provincial Highway, Canyon Junction (Project No. 1349)	$251.17	
Southern Trans-Provincial Highway, Curzon Junction (Project No. 1349)	287.38	
		538.55
Surfacing (general)—		
Southern Trans-Provincial Highway, from 1.2 miles east of Fort Steele Junction easterly for 6.4 miles (Project No. S-4262)	$621.89	
Wasa to Fort Steele, base processing	9,413.15	
		10,035.04
Total, Cranbrook District		$357,641.93

DELTA DISTRICT

Day labour—roads (Project No. 1300)—		
Ladner Trunk Road (351R), reconstruction, curve realignment, 0.29 mile	$22,503.06	
Scott Road (139R), culverts, reconstruction, curve improvements	10,496.94	
		$33,000.00
Day labour—secondary—Corporation of the City of White Rock, No. 149B, Marine Drive, secondary highway		75,693.82

DELTA DISTRICT—*Continued*

Day labour—bridges (Project No. 462)—		
No. 8, Fraser Street Bridge, purchase materials for redecking	$43,864.07	
No. 22, Serpentine Bridge (Trans-Canada Highway), widen	11,135.93	
		$55,000.00
Day labour—ferry-landings (Project No. 450)—Barnston Island ferry-landing		30,000.00
Maintenance of roads		263,140.34
Maintenance of bridges		*78,350.00
Maintenance and operation of ferries		35,300.00
Snow removal		12,255.39
Local highways within municipal limits—		
Corporation of Delta, curb and gutter, Elliott Street, Ladner	$10,000.00	
Corporation of the Township of Langley, sundry roads	8,000.00	
Corporation of the City of Langley	6,000.00	
Corporation of the Township of Richmond, Woodward and Steveston Highways	10,000.00	
Corporation of the District of Surrey	8,000.00	
		42,000.00
Maintenance of toll facilities—		
Tsawwassen Ferry Highway (administered by New Westminster office)	$7,000.00	
Deas Throughway (administered by New Westminster office)	5,000.00	
Deas Tunnel (administered by North Vancouver office)	83,400.00	
Deas Throughway (administered by North Vancouver office)	18,400.00	
Oak Street Bridge (administered by North Vancouver office)	141,694.11	
		255,494.11
Surveys (general)—		
Pattullo Bridge to Whitehouse Corner (Project No. 1347)	$929.55	
Glover Road, Topham Road to Mavis Street (Project No. 1347)	38.00	
Interchange, Ladner and Tsawwassen Junction (Project No. 1347)	2,614.11	
Langley By-pass (Project No. 1347)	18,071.97	
		21,653.63
Legal surveys—		
Ladner Trunk Road through the North-east Quarter and North-west Quarter of Section 1, Township 4, New Westminster District (Project No. 1348)	$300.50	
Trans-Canada Highway right-of-way at Serpentine and Coast Meridian Roads (Plan 10004) (Project No. 1348)	250.00	
		550.50
Rights-of-way (Trans-Canada Highway)—		
Port Mann–Halls Prairie section, Ferguson–Johnston Road division (Project No. 1345)	$9,359.31	
Springbrook–Halls Prairie section (Project No. 1345)	5,404.17	
		14,763.48
Rights-of-way (general)—		
Deas Tunnel Throughway (Project No. 1349)	$11,861.20	
Beaubien Road (Project No. 1349)	128.65	
Nicomekl to U.S. Border (Project No. 1349)	20.22	
Deas Tunnel Throughway, Nicomekl Interchange (Project No. 1349)	4,301.20	
Ladner Diamond (Project No. 1349)	2,550.00	
Roebuck Interchange (Project No. 1349)	3,980.00	
Whalley, curb and gutter (Project No. 1349)	78,578.60	
Ladner to Tsawwassen Highway (Project No. 1349)	12.80	
		101,432.67
Construction—		
Bridges (Trans-Canada Highway)—		
†Port Mann Bridge (Fraser River crossing) (Project No. 267)	$4,966,846.40	
Latimer, Carvolth, Glover, and Livingstone Road Underpasses (Project No. 405)	169,245.31	
Johnson, Pike, and Clover Valley Road Underpasses and fly-over at Hjorth Road (Project No. 406)	151,914.86	
B.C. Electric Underpass, north of Langley (Project No. 353)	82,944.58	
		5,370,951.15

* Includes $30,404.28 for Pattullo Bridge, the north end of which is in the City of New Westminster.
† For report purposes all Port Mann Bridge is shown under Delta, but actually 50 per cent is in Dewdney District.

DELTA DISTRICT—*Continued*

Construction—*Continued*		
Bridges (general)—		
G.N.R. Underpass (Deas Throughway), Vancouver–Blaine Highway (Project No. 395)	$279,006.65	
King George VI Highway Underpass, Deas Tunnel Throughway (Project No. 412)	64,086.97	
Serpentine River Bridge, Deas Tunnel Throughway (Project No. 394) (Credit)	*352.12*	
Carvolth Road Bridge (parts of cost incurred by City of Langley in rebuilding this bridge) (Project No. 474)	10,000.00	
		$352,741.50
Ferries—New steel tug for Barnston Island ferry (Project No. 420)		33,098.00
Roads (Trans-Canada Highway)—		
Springbrook to Mount Lehman Road (*see also* Chilliwack) (Project No. 1036)	$137,599.57	
Halls Prairie to Springbrook (Project No. 1123)	995,118.83	
Port Mann Bridge to Halls Prairie (Project No. 1187)	1,248,250.82	
Springbrook–Mount Lehman and Abbotsford–Vedder Crossing sections, lighting of interchanges (*see also* Chilliwack) (Project No. 1340)	33,291.23	
		2,414,260.45
Roads (general)—		
Ladner Trunk to Oliver Road (Project No. 1031)	$3,141.28	
Nicomekl River to Oliver Road, landscaping (Project No. 1201)	14,039.09	
Oliver Road to U.S. Border, landscaping (Project No. 1202)	57,366.70	
Mud Bay to G.N. Railway (Project No. 1203)	241.64	
G.N. Railway to Nicomekl River, landscaping (Project No. 1204)	106,425.15	
G.N. Railway Overpass, embankments (Project No. 1269) (Credit)	*6,885.02*	
Bolivar Road–Whitehouse Corner section, Whalley (Project No. 1284)	965,035.56	
		1,139,364.40
Surfacing (Trans-Canada Highway)—		
Springbrook Road to Mount Lehman Road (*see also* Chilliwack) (Project No. S-8462)	$62,556.47	
Port Mann to Halls Prairie Road (Project No. S-8263)	159,850.30	
Springbrook Road to Halls Prairie Road (Project No. S-8263)	124,893.34	
		347,300.11
Total, Delta District		$10,676,349.55

DEWDNEY DISTRICT

Day labour—roads (Project No. 1301)—	
Barnet Highway (200R), Ioco Intersection, reconstruction, widening, realigning for left turns, 0.23 mile	$7,926.35
Coquitlam River, erosion control	38.90
Lougheed Highway (22R), widen to three lanes on Telosky Hill, 0.45 mile	11,442.26
Lougheed Highway (22R), shoulder-widening and general improvements preparatory to paving from Stave River and Harris Road	14,237.07
Lougheed Highway (280R), minor improvements	38.25
No. 106, Bedwell Bay Road, minor improvements	1,771.66
Ioco area roads, widening, gravelling, and road-mix laid, 1.14 miles	8,638.74
Ioco to Port Moody (57R), minor improvements	406.77
Westwood Pedestrian Overpass	1,700.00
No. 109, Burns Road, minor improvements	515.59
Deroche area roads, minor improvements	244.78
Dewdney area roads, minor improvements	242.17

DEWDNEY DISTRICT—*Continued*

Day labour—roads (Project No. 1301)—Continued		
No. 11, farms road, minor improvements	$74.71	
Harrison Lake area roads, minor improvements	430.18	
No. 16, Hartley Road, reconstruction, 1.0 mile	1,434.00	
Harrison Hot Springs Road (161R), hot-mix laid, 0.44 mile	295.00	
Harrison Mills Road, minor improvements	580.67	
Hatzic area roads, minor improvements	762.04	
Lougheed Highway (23R), minor improvements	576.57	
No. 30, Nicomen Island Trunk Road, cold-mix laid, 0.78 mile	716.80	
Nicomen Island area roads, minor improvements	1,141.69	
No. 36, River Road south, cold-mix laid, 0.74 mile	797.55	
Rockwell Drive (290R), hot-mix laid, 0.86 mile	4,989.00	
No. 98, Spratt Road, widening and minor improvements	1,350.03	
No. 41, Stave Lake Road, reconstruction, 1.50 miles	10,392.04	
No. 38, Sylvester Road, cold-mix laid, 0.73 mile	4,102.62	
No. 70, Waring Road, cold-mix laid, 0.20 mile	154.56	
		$75,000.00
Day labour—roads (Project No. 1343)—Barnet Highway (200R), reconstruction, widening, curb and gutter, 0.11 mile		9,000.00
Day labour—bridge elimination (Project No. 1346)—No. 126, Peterson Bridge, replace by culvert and fill		5,000.00
Maintenance of roads		292,718.74
Maintenance of bridges		74,000.00
Maintenance and operation of ferries		107,386.89
Snow removal		13,915.78
Surveys (general)—		
Lougheed Highway, North Road to Mission (four lanes) (Project No. 1347)	$8,593.38	
North Road, Brunette Creek to Lougheed Highway (Project No. 1347)	1,255.35	
		9,848.73
Legal surveys—		
Albion Ferry Approach Road (Project No. 1348)	$245.60	
Belcarra Park Road (Project No. 1348)	1,003.04	
Lougheed Highway, Harrison River Bridge to Pumphouse Bridge (Project No. 1348)	1,227.50	
Ioco Road right-of-way, C.P.R. Crossing to west boundary of District Lot 350, Group 1, New Westminster District (Project No. 1348)	50.00	
Lougheed Highway, widening in District Lot 403, near Haney (Project No. 1348)	400.00	
Lougheed Highway, widening at Stave River (Project No. 1348)	126.05	
Pumphouse Bridge–Agassiz section (Project No. 1348) (Credit)	2.55	
Rennie Road right-of-way, McNeil Road to Pitt Lake (Project No. 1348)	1,056.58	
Lougheed Highway (Lots 105 to 107), Sumas Indian Reserve No. 8 to Harrison Indian Reserve No. 3 (Project No. 1348)	1,281.56	
		5,387.78
Rights-of-way (Trans-Canada Highway)—		
Silver Creek Bridge Approach Road (Project No. 1345)	$120.00	
Approach to Hunter Creek Bridge (Project No. 1345)	5,000.00	
Vancouver–Fraser River section, Section 2 (Project No. 1345)	186.00	
		5,306.00
Rights-of-way (general)—		
Ioco Road (Project No. 1349)	$1,369.00	
Lougheed Highway (Project No. 1349)	17.40	
Lougheed and Brunette (Project No. 1349)	186.47	
Lougheed Highway, widening from North Road to Builby Street (Project No. 1349)	10,170.00	
		11,742.87
Construction—		
Bridges (Trans-Canada Highway)—		
Hunter Creek Bridge (Project No. 432)	$160,992.57	
Vancouver–Fraser River section, eastern structures (Project No. 347)	127,832.68	
		288,825.25

DEWDNEY DISTRICT—*Continued*

Construction—*Continued*		
Roads (Trans-Canada Highway)—		
Vancouver–Fraser River section, Contract No. 2 (Project No. 885)	$258,627.94	
Vancouver–Fraser River section, Contract No. 3 (*see also* Burnaby) (Project No. 885)	52,882.05	
Vancouver–Fraser River section, lighting of interchanges (*see also* Burnaby) (Project No. 1352)	49,697.74	
		$361,207.73
Surfacing—		
Trans-Canada Highway—		
Vancouver–Fraser River section (*see also* Burnaby) (Project No S-8262)	$254,389.70	
Hunter Creek Bridge Approaches section (*see also* Yale) (Project No. S-8363)	8,123.37	
Hunter Creek–Silver Creek section (*see also* Yale) (Project No. S-8363)	37,115.37	
Silver Creek–Hedstrom Hill section (*see also* Yale) (Project No. S-8363)	3,363.78	
		302,992.22
General—		
Lougheed Highway, Harris Road to east boundary of the Municipality of Pitt Meadows (Project No. S-0363)	$47,412.04	
Lougheed Highway, Pitt Meadows to Sixth Avenue (Project No. S-0363)	78,475.62	
9½ Avenue to Stave River (Project No. S-0363)	203,967.82	
		329,855.48
Total, Dewdney District		$1,892,187.47

ESQUIMALT DISTRICT

Day labour—roads (Project No. 1302)—		
Admirals Road, reconstruct, 0.8 mile	$30,000.00	
Renfrew Road, reconstruct, 1.25 miles	25,000.00	
William Head Road, reconstruct, 0.5 mile	10,000.00	
West Coast Road, crushed gravel, 16 miles	17,700.00	
Sundry roads	9,000.00	
		$91,700.00
Day labour—bridge elimination (Project No. 1346)—Circo Bridge, No. 112		3,000.00
Maintenance of roads		185,688.93
Maintenance of bridges		60,000.00
Snow removal		16,782.81
Surveys (Trans-Canada Highway)—Highway revision, Mill Bay section at Wilkinson Bridge (Project No. 1344)		3,053.93
Surveys (general)—Sooke River Bridge (Project No. 1347)		7,991.79
Legal surveys—		
Heatherbell Road right-of-way (Project No. 1348)	$550.07	
Sooke Highway, C.N.R. Crossing to Metchosin Road (Project No. 1348)	720.61	
Cowichan Bay Road, Trans-Canada Highway to north boundary of Shawnigan District (Project No. 1348)	982.40	
Rights-of-way, parts of Jordan River Road through Sections 55 and 87, Renfrew District (Project No. 1348)	399.00	
Rights-of-way through Lots 1, 5, and 6, Block 60, Shawnigan (Project No. 1348)	78.00	
Telegraph Road, Hatch Point Road to south boundary of Cowichan District (Project No. 1348)	5,228.58	
West Coast Road, Otter Point Road to Grant Road (Project No. 1348)	3,246.04	
West Coast Road, east boundary of Section 10 to west boundary of Section 7, Otter District (Project No. 1348)	3,789.64	
		14,994.34
Rights-of-way (Trans-Canada Highway)—Widening of Trans-Canada Highway near Mill Bay (Project No. 1345)		1,122.50

ESQUIMALT DISTRICT—*Continued*

Rights-of-way (general)—		
Widening section of Admirals Road (Project No. 1349)	$500.00	
Widening of section of Old Island Highway near Helmcken Road (Project No. 1349)	530.00	
		$1,030.00
Surfacing (general)—		
Craigflower Road, Lampson Street to Tillicum Road (Project No. S-0263)	$1,358.40	
Craigflower Road, Tillicum Road to Esquimalt west boundary (Project No. S-0263)	10,724.94	
Craigflower Road, Esquimalt west boundary to Admirals Road (Project No. S-0263)	15,601.85	
Island Highway, Admirals Road to Colwood Junction (Project No. S-0263)	74,347.58	
Admirals Road, Craigflower Road to Esquimalt boundary (Project No. S-0263)	15,733.65	
F.O.B. Plant, Burnside (Project No. S-0263)	908.86	
Goldstream Avenue, Colwood Junction to Millstream (Project No. S-0263)	31,841.75	
Goldstream Avenue, Millstream Avenue to Peatt Road (Project No. S-0263)	11,638.13	
		162,155.16
Total, Esquimalt District		$547,519.46

FERNIE DISTRICT

Day labour—roads (Project No. 1321)—Southern Trans-Provincial Highway, Hosmer to Olsen, reconstruction, 3.7 miles		$26,245.76
Maintenance of roads		109,673.86
Maintenance of bridges		7,980.00
Snow removal		40,380.78
Surveys (general)—		
Bummers Flat to Wasa (Project No. 1347)	$793.93	
Southern Trans-Provincial Highway, Fernie to Alberta Border (Project No. 1347)	59,459.19	
		60,253.12
Legal surveys—Highway No. 95, Fort Steele to Wasa (Project No. 1348)		4,359.09
Rights-of-way (general)—		
Kootenay–Columbia Highway, Fort Steele Townsite section (Project No. 1349)	$4,274.98	
Southern Trans-Provincial Highway, Fernie to Hosmer (Project No. 1349)	4,921.05	
		9,196.03
Construction—roads (general)—		
Southern Trans-Provincial Highway, Crowsnest section (Project No. 908)	$657,831.89	
Canal Flats to Skookumchuck (*see also* Columbia) (Project No. 1287)	284,315.33	
		942,147.22
Total, Fernie District		$1,200,235.86

FORT GEORGE DISTRICT

Day labour—roads (Project No. 1327)—		
Cariboo Highway, improve for pulvimixing	$12,090.96	
John Hart Highway, gravel reinforcing for pavement	186,529.95	
Northern Trans-Provincial Highway, Prince George east, improve and gravel	49,538.76	
Northern Trans-Provincial Highway, McBride East, improve and gravel	15,724.17	
Buckhorn Road, improve and gravel	11,116.16	
North approach to Fraser River Bridge, Prince George (Project No. 1371)	10,500.00	
		$285,500.00
Day labour—bridge elimination (Project No. 1346)—Eliminate Angusmac No. 1 (No. 9), Quissy (No. 15), and McCabe (No. 16)		15,000.00
Maintenance of roads		361,321.47
Gravel crushing		90,386.96

FORT GEORGE DISTRICT—*Continued*

Maintenance of bridges		$39,747.09
Maintenance and operation of ferries		15,929.26
Snow removal		136,265.42
Surveys (general)—		
Albreda to Alberta Boundary (Project No. 1347)	$9,145.70	
Prince George to McBride (Project No. 1347)	15,292.97	
Prince George to Tabor Lake (Project No. 1347)	22,813.15	
McBride to Tête Jaune (Project No. 1347)	22,640.40	
Fraser River Interchange to Prince George (Project No. 1347)	5,993.57	
Pulp-mill Access Road from John Hart Highway at west boundary to P.G.E. (Project No. 1347)	9,485.02	
		85,370.81
Legal surveys—		
Deletion of Lot 586, Block 11, Plan 721, District Lot 1426, from Cariboo Highway right-of-way (Project No. 1348)	$147.00	
Right-of-way through District Lot 1967, Cariboo District (Project No. 1348)	349.58	
Northern Trans-Provincial Highway, District Lot 9764 to District Lot 6781, Cariboo District (Project No. 1348)	7,949.95	
		8,446.53
Rights-of-way (general)—		
Cariboo Highway, Fraser River to Lot 1944 (Project No. 1349)	$7,479.24	
Purchase of gravel pit, 36.94 acres (part of Lot 785, Cariboo District) (Project No. 1349)	1,500.00	
Prince George Pulp-mill Access Road (Project No. 1349)	17,161.98	
Cariboo Highway, Prince George By-pass (Project No. 1349)	175.00	
		26,316.22
Construction—		
Bridges (general)—		
Fraser River Bridge at Prince George (Project No. 212)	$1,077,965.98	
Rolston, Hungry Moose, Link, Trappers, Caswell, and Honeymoon Bridges (Project No. 480)	67,451.17	
		1,145,417.15
Roads (general)—		
Northern Trans-Provincial Highway, Lamming Mills west (Project No. 779)	$15,866.90	
West Twin Creek, clearing and grubbing (Project No. 1198)	8,900.93	
Northern Trans-Provincial Highway, Crescent Spur to West Twin Creek (Project No. 1290)	327,822.60	
Giscombe to Upper Fraser, gravel and gravel-crushing (Project No. 1306)	26,041.40	
Bowron River easterly, clearing (Project No. 1339)	6,959.94	
Cariboo Highway, Lot 1944–Fraser River section, construction (Project No. 1357)	802,585.03	
Northern Trans-Provincial Highway, Crescent Spur–Dome Creek section (Project No. 1382)	244,567.86	
Prince George Pulp-mill Road, construction (Project No. 1389)	99,629.03	
		1,532,373.69
Surfacing (general)—		
John Hart Highway, Parsnip River Bridge to P.G.E. Railway Crossing (Project No. S-6362)	(Credit) *$290.94*	
John Hart Highway, Prince George By-pass (Project No. S-6263)	72,471.24	
John Hart Highway, Salmon River Bridge to Summit Lake (Project No. S-6263)	248,678.50	
John Hart Highway, P.G.E. Railway Crossing to Fort George-South Peace River boundary (*see also* South Peace River) (Project No. S-6363)	256,164.13	
Northern Trans-Provincial Highway, Prince George westerly to Sob Lake Road, seal-coat (*see also* Omineca (East)) (Project No. S-7163)	60,116.14	
Giscombe to Poynters Corner to Willow River, base processing	25,465.26	
		662,604.33
Total, Fort George District		$4,404,678.93

GRAND FORKS-GREENWOOD DISTRICT

Day labour—roads (Project No. 1322)—		
Southern Trans-Provincial Highway, Grand Forks–Greenwood section, reconstruction and road-mix paving, 6.54 miles	$70,000.00	
Grand Forks–Franklin, No. 30, reconstruction and road-mix paving, 1.98 miles	8,000.00	
Grand Forks south, nos. 72, 27, 73, and 82, penetration paving and seal-coat, 16.87 miles	6,000.00	
Christina Lake roads, Nos. 16, 17, and 49, penetration and seal-coat, 3.71 miles	8,000.00	
Midway, Anaconda, and Rock Creek Townsites, road-mix and penetration-seal paving, 3.44 miles	7,000.00	
Boundary Creek, No. 7, road mix, 0.91 mile	3,000.00	
		$102,000.00
Maintenance of roads		174,314.47
Maintenance of bridges		28,200.00
Snow removal		84,387.72
Surveys (general)—Boundary Falls to Spencer Hill (Project No. 1347)		169.75
Legal surveys—Rock Creek–Westbridge Road right-of-way through District Lots 820 and 705, Similkameen Division of Yale District (Project No. 1348)		2,486.21
Rights-of-way (general)—Greenwood Underpass (Project No. 1349)		1,200.00
Construction—bridges (general)—		
Paulson Bridge (Project No. 377)	$13,060.26	
Christina Creek Bridge (Project No. 404)	3,703.50	
Greenwood Underpass, Southern Trans-Provincial Highway (Project No. 422)	451,998.45	
		468,762.21
Total, Grand Forks-Greenwood District		$861,520.36

KAMLOOPS DISTRICT

Day-labour—roads—		
No. 173, Highland Valley, paving and gravelling, Mile 0.3 to Mile 0.26 (Project No. 1375)	$283,317.75	
Project No. 1311—		
Clearwater Subdivision streets, paving (Project No. 1311), North Thompson Highway (No. 5N) (Yellowhead Route)	14,560.40	
Gravelling and clearing, North Thompson Highway (No. 5N) (Yellowhead Route), Mile 85 to Mile 93	72,400.60	
Birch Island to Vavenby, Mile 91 to Mile 95	24,338.22	
No. 173, Highland Valley, Mile 0.3 to Mile 0.26	90,000.00	
No. 155, Dunn Lake, Mile 34 to Mile 37	29,661.78	
No. 224, Tranquille, widening	21,541.88	
No. 167, Lac le Jeune, Mile 3 to Mile 5	7,266.00	
No. 169, Heffley Creek, Mile 7 to Mile 12	20,989.16	
Valleyview Subdivision, paving	9,115.56	
Brocklehurst Subdivision, paving	20,057.60	
Sundry roads	84,982.94	
Blue River streets	9,057.96	
Extension to Project No. 1279, Mile 68.41 to Mile 73.91, North Thompson Highway (No. 5N) (Yellowhead Route)	50,000.00	
		$737,289.85
Maintenance of roads		349,796.55
Gravel-crushing		35,285.81
Maintenance of bridges		68,793.74
Maintenance and operation of ferries		17,620.00
Snow removal		144,834.56
Surveys (Trans-Canada Highway)—Kamloops By-Pass (Project No. 1344)		5,893.34
Surveys (general)—		
Little Fort to Albreda (Project No. 1347)	$59,503.32	
North Thompson Highway, Heffley Creek (Project No. 1347)	18,956.96	
		78,460.28

KAMLOOPS DISTRICT—*Continued*

Legal surveys—		
North Thompson Highway, south boundary of Lot 4038 to north boundary of Lot 1713, Birch Island (Project No. 1348)	$1,380.58	
North Thompson Highway, vicinity of Darfield, south boundary of District Lot 810 to south boundary of District Lot 1818 (Project No. 1348)	10,303.43	
Kamloops–Merritt Highway, Knutsford to Trans-Canada Highway (Project No. 1348)	3,421.90	
		$15,105.91
Rights-of-way (Trans-Canada Highway)—Kamloops By-pass (Project No. 1345)		2,775.00
Rights-of-way (general)—		
North Thompson Highway, Black Pool extension (Project No. 1349)	$2,250.00	
North Thompson Highway, Birch Island (Project No. 1349)	137.60	
North Thompson Highway, Little Fort to Black Pool (Project No. 1349)	2,511.91	
North Thompson Highway, Barriere River crossing (Project No. 1349)	305.75	
North Thompson Highway, Vavenby to McMurphy, various sections (Project No. 1349)	9,287.10	
North Kamloops By-pass (Project No. 1349)	9.54	
		14,501.90
Construction—		
Bridges (Trans-Canada Highway)—Campbell Creek Underpass (Project No. 328)	(Credit)	*19,322.86*
Bridges (general)—		
Kamloops Bridge, Tranquille Highway (Overlanders), C.P.R. at Mile 0.91, Thompson Subdivision (Project No. 262)	$8,111.28	
Lemieux Creek Bridge, North Thompson Highway (Project No. 453)	33,621.63	
		41,732.91
Roads (general)—		
Little Fort to Black Pool (Project No. 1279)	$892,582.52	
Yellowhead Highway, Vavenby–McMurphy section (Project No. 1361)	762,957.22	
Curb and gutter, Victoria Street West, City of Kamloops (Project No. 1365)	16,957.66	
		1,672,497.40
Surfacing—		
Trans-Canada Highway—		
Trans-Canada Highway, Campbell Creek section (Project No. S-8563)	$12,127.76	
Tranquille Highway commencing at North Kamloops City boundary westerly to Tranquille School (Project No. S-8563)	142,931.71	
Trans-Canada Highway, Kamloops west, truck lanes only (Project No. S-8563)	68,958.62	
		224,018.09
General—		
North Thompson Highway, Birch Island–Vavenby section, base processing	$19,167.38	
Little Fort to Black Pool, base processing	11,986.93	
		31,154.31
Total, Kamloops District		$3,420,436.79

KASLO-SLOCAN DISTRICT

Day labour—roads (Project No. 1323)—		
Kaslo–Balfour Highway, reconstruction and paving Coffee Creek area, 2 miles	$30,000.00	
Kaslo–Balfour Highway, Ainsworth Townsite, reconstruction, 4 miles	22,500.00	
Vernon–Slocan Highway, reconstruction, Enterprise to Silverton, 3 miles	18,500.00	
Vernon–Slocan Highway, New Denver to Nakusp, paving, 0.50 mile	7,500.00	
Vernon–Slocan Highway, Monashee, construction and paving, 2.55 miles	30,000.00	
		$108,500.00

KASLO-SLOCAN DISTRICT—*Continued*

Day labour—bridge elimination (Project No. 1346)—No. 212, Perry's Bridge, elimination of part of bridge approach		$3,821.87
Maintenance of roads		245,661.55
Maintenance of bridges		30,725.00
Maintenance and operation of ferries		60,167.11
Snow removal		108,404.15
Surveys (general)—Duncan Lake Dam-site Access Road (Project No. 1347)		679.00
Construction—		
Bridges (general)—		
Cedar Creek Bridge, Nelson–Kaslo Highway (Project No. 409)	$24,877.51	
Lemon Creek Bridge, Slocan Highway (Project No. 403)	31,381.91	
		56,259.42
Ferries—Relief ferry tug, Arrow Lakes and Kootenay Lake service (Project No. 451)		12,333.47
Surfacing (general)—		
Vernon–Slocan (remix), base processing	$14,603.10	
Kaslo–Balfour section, base processing (Credit)	*215.78*	
		14,387.32
Total, Kaslo-Slocan District		$640,938.89

LILLOOET (NORTH) DISTRICT

Day labour—roads (Project No. 1312)—		
Cariboo, No. 97, reconstruction, 1 mile	$23,142.21	
Green Lake, No. 89, reconstruction, 5 miles	1,178.77	
Lytton–Lillooet, No. 12A, reconstruction (paving), 3.8 miles	22,058.19	
Lillooet–Pioneer, No. 40, reconstruction, 2 miles	639.38	
Pemberton Meadows, No. 171, reconstruction, 1.5 miles	931.04	
Pemberton Portage, No. 172, reconstruction, 2 miles	13,048.26	
Trans-Canada, No. 1, reconstruction, 0.5 mile (curbing and paving)	8,002.15	
		$69,000.00
Maintenance of roads		240,826.17
Maintenance of bridges		23,800.00
Maintenance and operation of ferries		6,440.00
Snow removal		87,727.45
Surveys (general)—		
Clinton, curb and gutter (Project No. 1347)	$1,993.50	
Clinton Underpass approaches, revision (Project No. 1347)	484.55	
		2,478.05
Legal surveys—Lytton–Lillooet Highway, west boundary of Inkluckcheen Indian Reserve to Lytton Indian Reserve No. 3A (Project No. 1348)		10,268.36
Rights-of-way (Trans-Canada Highway)—Spences Bridge to Martel (Project No. 1345)		70.40
Total, Lillooet (North) District		$440,610.43

LILLOOET (SOUTH) DISTRICT

Day labour—roads—		
Alice Lake Road, paving, 1.60 miles (Project No. 1303)	$11,000.00	
Diamond Head Road (Mamquam) (Project No. 1303)	4,129.17	
Porteau Slide (Project No. 1303)	10,870.83	
Access road to Alta Lake–Squamish–Pemberton, construction, 51.10 miles (Project No. 1282)	1,700,000.00	
		$1,726,000.00
Maintenance of roads		58,806.86
Maintenance of bridges		2,250.00
Snow removal		14,617.65
Local highways within municipal limits—Village of Squamish		6,000.00
Surveys (general)—		
Cheekeye–Pemberton (Project No. 1347)	$5,072.14	
Squamish–Cheekeye (Project No. 1347)	5.60	
Britannia–Squamish (Project No. 1347)	10,137.82	
		15,215.56

LILLOOET (SOUTH) DISTRICT—*Continued*

Legal surveys—Paradise Valley Road, No. 169, within Cheakamus Indian Reserve No. 11 and Squamish Valley Road (No. 196) within Kowtain Indian Reserve No. 17 (Project No. 1348)		$824.00
Rights-of-way (general)—		
Approach, Darrell Bay ferry-landing (Project No. 1349)	$203.00	
Squamish–Pemberton Highway, Fitzsimmons Creek–Wedge Creek section (Project No. 1349)	1,295.25	
Squamish–Brackendale (Project No. 1349)	65.00	
Squamish Valley Road (Project No. 1349)	1,978.00	
Woodfibre ferry-landing, Darrell Bay (Project No. 1349)	1,000.00	
		4,541.25
Construction—bridges (general)—Mamquam Blind Channel Bridge (Project No. 486)		27,690.70
Total, Lillooet (South) District		$1,855,946.02

MACKENZIE DISTRICT

Day labour—roads—		
Chilcotin–Bella Coola Highway, reconstruction, gravelling, 12 miles (Project No. 1304)	$41,733.24	
Blubber Bay Road, reconstruction, widening, and gravelling, 0.80 mile (Project No. 1304)	4,731.97	
Bowen Island, reconstruction rock work, 0.17 mile (Project No. 1304)	8,430.52	
Francis Peninsula Road, reconstruction, widening, and gravelling, 3.30 miles (Project No. 1304)	3,898.33	
Gillies Bay, reconstruction, widening, and rock work, 2.50 miles (Project No. 1304)	13,879.38	
Gower Point Road, reconstruction, realignment, and widening, 1.00 miles (Project No. 1304)	4,306.39	
Irvings Landing Road, reconstruction, realignment, and widening, 2.30 miles (Project No. 1304)	11,353.76	
Lund Highway, reconstruction, widening, 3 miles (Project No. 1304)	14,481.04	
Sinclair Bay Road, reconstruction (Project No. 1304)	2,285.37	
Install curb and gutter, Powell River (Project No. 1342)	7,500.00	
		$112,600.00
Day labour—bridge elimination—Woods Bridge, culvert and fill (Project No. 1356)		5,500.00
Day labour—bridges—Sliammon Bridge (Project No. 373)		2,000.00
Maintenance of roads		199,496.00
Maintenance of bridges		28,000.00
Maintenance and operation of ferries		104,192.71
Snow removal		24,486.88
Local highways within municipal limits—Corporation of the District of Powell River		6,000.00
Surveys (general)—		
Powell River Bridge site and approaches (Project No. 1347)	$129.50	
Langdale–Gibsons Landing (Project No. 1347)	4,386.50	
		4,516.00
Legal surveys—		
Francis Peninsula Road through District Lot 1390 (Project No. 1348)	$1,330.33	
Hagensborg to south boundary of Section 3, Township 2, Range 3, Coast District (Project No. 1348)	4,418.77	
Lund Road through Sliammon Indian Reserve No. 1, Powell River (Project No. 1348)	606.65	
Paq Lake to north boundary of Lot 997, Group 1 (Project No. 1348)	4,493.87	
Sunshine Coast Highway, District Lot 4758 to District Lot 2739 (Project No. 1348)	3,552.17	
		14,401.79
Construction—ferry-landings—Woodfibre ferry-landing (Project No. 356)		11,813.60

MACKENZIE DISTRICT—*Continued*

Surfacing (general)—		
Chilcotin–Bella Coola Highway, Department of Highways pit (known as Thorston Pit) (Project No. S-1163)	$49,811.70	
Chilcotin–Bella Coola Highway, Department of Highways pit (known as Gibbs Pit) (Project No. S-1163)	31,846.80	
		$81,658.50
Total, Mackenzie District		$594,665.48

NANAIMO-ISLANDS DISTRICT

Day labour—roads (Project No. 1305)—		
East Wellington, widen and road-mix pave, 1 mile	$5,000.00	
Wakesiah Avenue, road-mix pave, 1 mile	9,706.83	
Walkers Hook, double flush asphalt, 3 miles	13,500.00	
Taylor Bay, rock cut, widen and pave, 0.25 mile	5,000.00	
Bedwell Harbour, road-mix pave, 0.5 mile	9,000.00	
Lyall Harbour, road-mix pave, 0.75 mile	6,292.01	
Burrell, road-mix pave, 0.25 mile	6,900.35	
Fernhill, road-mix pave, 1 mile	6,000.00	
Thetis Island, road-mix pave, 0.5 mile	3,000.00	
Jingle Pot, improve junction with Wakesiah Avenue	4,000.00	
		$68,399.19
Maintenance of roads		156,115.97
Maintenance of bridges		6,000.00
Maintenance and operation of ferries		85,593.77
Maintenance of toll facilities—Departure Bay terminal		500.00
Snow removal		11,556.59
Surveys (general)—		
Saltspring Island, from Long Harbour to Vesuvius Road Junction (Project No. 1347)	$975.09	
Duncan, curb and gutter (Project No. 1347)	13,843.96	
		14,819.05
Legal surveys—		
Deleting portion of lot, Plan 746R, from Trans-Canada Highway rights-of-way (Project No. 1348)	$109.25	
Rights-of-way through Saturna Island Indian Reserve No. 7 (Project No. 1348)	795.75	
		905.00
Rights-of-way (Trans-Canada Highway)—Nanaimo to Departure Bay (Project No. 1345)		69.20
Rights-of-way (general)—		
Lighthouse Trail within Saturna Island Indian Reserve No. 7 (Project No. 1349)	$2,161.25	
Long Harbour to Scott Road Junction, Saltspring Island (Project No. 1349)	17,250.00	
Relocation of Fernhill Road, Mayne Island (Project No. 1349)	162.50	
Relocation of Gallagher Bay Road, Mayne Island (Project No. 1349)	56.90	
		19,630.65
Construction—		
Ferry-landings—Nanaimo and Gabriola Island ferry slips (Project No. 488)		40,233.06
Ferries—Construction of steel auto ferry, Nanaimo-Gabriola Island service (Project No. 448)		167,052.82
Roads (Trans-Canada Highway)—George S. Pearson Bridge–Departure Bay section (Project No. 1206)		15,973.95
Roads (general)—Long Harbour–Vesuvius Road, construction, Long Harbour–Scott Road Junction section, Saltspring Island (Project No. 1355)		294,753.90
Total, Nanaimo-Islands District		$881,603.15

NELSON-CRESTON DISTRICT

Day labour—roads—		
Project No. 1324—		
Southern Trans-Provincial Highway, No. 3A, Beasley–Bonnington section, continuation of construction and gravelling on new location, 2 miles	$53,071.59	
Southern Trans-Provincial Highway, Creston–Goatfell section, reconstruction and gravelling, 1.5 miles	112,560.94	
Southern Trans-Provincial Highway, Salmo–Rossland–Trail boundary, sloping, ditching, and shouldering, 6 miles	8,999.85	
Mallory Road, No. 208, reconstruction and road mix, 2 miles	6,888.07	
Creston–Porthill Road, No. 71, replace Rykerts Bridge with culvert and fill	18,188.80	
Creston–Porthill Road, No. 72, shouldering, 6 miles	4,060.34	
Nelway–Vernon Highway, No. 6, Nelson–Nelway section, shouldering, 5 miles	1,000.00	
Sheep Creek, No. 306, reconstruction, 2 miles	2,900.00	
Pass Creek Road, No. 259, gravelling and minor improvements, 6.5 miles	1,777.00	
Bealby Point Road, No. 24, clearing right-of-way, 1 mile	3,839.47	
Johnson Road, gravelling, 0.5 mile	2,297.12	
Balfour Townsite roads, reconstruction and road mix, 1.5 miles	4,400.00	
Southern Trans-Provincial Highway, No. 3A, Six Mile Creek, minor improvements	1,000.00	
Southern Trans-Provincial Highway, No. 3A, Castlegar–Nelson section, shouldering, 6 miles	5,014.75	
Corn Creek Road, No. 62, reconstruction and gravelling, 0.25 mile	2,000.00	
Columbia River Road, No. 59, reconstruction and gravelling, 3 miles	1,002.07	
Project No. 1362—Creston–Summit Creek Road, No. 72, reconstruction and gravelling, 2.25 miles	61,000.00	
		$290,000.00
Day labour—bridge elimination (Project No. 1346)—Elimination of Nelson–Balfour Bridge, No. 103		3,500.00
Maintenance of roads		316,102.55
Gravel-crushing		74,866.37
Maintenance of bridges		68,589.60
Maintenance and operation of ferries		340,477.07
Snow removal		239,258.11
Surveys (general)—		
Salmo to Salmo–Creston Junction (Project No. 1347)	$3,539.05	
Taghum to Nelson (Project No. 1347)	528.00	
Brilliant Bluffs to Thrums Flat (Project No. 1347)	5,038.32	
Salmo to Euphrates (Project No. 1347)	418.34	
		9,523.71
Rights-of-way (general)—		
Southern Trans-Provincial Highway, No. 3, South Slocan section, Nelson–Castlegar Highway (Project No. 1349)	$390.50	
Nelson Arterial Highway (Project No. 1349)	12,327.08	
Arrow Creek Bridge approaches (Project No. 1349)	184.50	
Creston Underpass approaches (Project No. 1349)	300.00	
		13,202.08
Construction—		
Bridges (general)—		
Shoreacres Bridge over Slocan River (Project No. 384)	$2,832.45	
Bayonne Creek Culvert, Southern Trans-Provincial Highway (Project No. 418)	103,599.41	
Kootenay River Bridge (Project No. 253)	13,278.43	
C.P.R. Underpass at Creston, Southern Trans-Provincial Highway (Project No. 255)	138,524.64	
Arrow Creek Bridge (Project No. 419)	137,433.96	
Kootenay Old Channel and Summit Creek Bridge (Project No. 477)	55,250.98	
		450,919.87
Ferries—Nicks Island Ferry (Project No. 449)		10,038.15

NELSON-CRESTON DISTRICT—*Continued*

Construction—*Continued*		
Roads (general)—		
Southern Trans-Provincial Highway, Creston–Summit Lake section, Blazed Creek to Summit Creek (Project No. 1023)	$2,602.77	
Summit Lake to junction with Highway No. 6 (Project No. 1095)	126,896.96	
Southern Trans-Provincial Highway, Summit Lake–Blazed Creek section (Project No. 1100)	894,504.41	
		$1,024,004.14
Surfacing (general)—		
Southern Trans-Provincial Highway, Gray Creek–Boswell section (Project No. S-4162)	*$377.24* (Credit)	
Southern Trans-Provincial Highway, Salmo–Creston Highway, junction with Highway No. 6 to Summit Lake (Project No. S-4163)	332,047.13	
Southern Trans-Provincial Highway, Creston–Blazed Creek section, between Construction Stations Project No. 1023 to Project No. 756 (Project No. S-4263)	283,555.31	
Creston Access (Project No. S-4263)	8,727.68	
Creston North (Project No. S-4263)	8,720.05	
Creston Arterial No. 45R (Project No. 4263)	24,509.06	
Nelson-Creston District (Project No. S-4263)	3,162.30	
Nelson Arterial–Nelson Avenue, Anderson Street, Front Street, Vernon Avenue, and Silica Street (Project No. S-4363)	59,971.88	
Nelson boundary south to Apex (Project No. S-4363)	189,004.44	
Highway No. 3 at Beaslye, starting 1.3 miles west of Taghum Bridge and continuing for 2.1 miles (Project No. S-4363)	48,060.35	
Highway No. 3 at South Slocan, starting 6 miles west of Taghum Bridge and continuing for 2.1 miles (Project No. S-4363)	36,299.27	
Highway No. 3 at Slocan River crossing, starting 10 miles west of Taghum Bridge and continuing for 0.9 mile (Project No. S-4363)	15,160.09	
Nelway Road, base processing	20,227.43	
Goatfell, base processing	15,986.79	
Salmo–Creston Cut-off, base processing	13,664.06	
Goatfell Project, base processing	5,853.17	
		1,064,571.77
Total, Nelson-Creston District		$3,905,053.42

NEW WESTMINSTER DISTRICT

Maintenance of roads	$7,000.00
Snow removal	561.97
Maintenance of toll facilities—Holding Account	28.76
Total, New Westminster District	$7,590.73

NORTH OKANAGAN DISTRICT

Day labour—roads—		
Silver Star Park, reconstruction and gravelling, 0.7 mile; gravelling and road mix, 0.5 mile (Project No. 1137)	$16,000.00	
Commonage, minor improvements and gravelling, 3.15 miles (Project No. 1313)	3,106.27	
Enderby–Mabel Lake, gravelling and road mix, 3.6 miles; rock work, 1 mile (Project No. 1313)	16,820.01	
Fifteenth Street extension, construction, 0.25 mile (Project No. 1313)	1,104.83	
Mara–Grindrod, preliminary survey (Project No. 1313)	401.00	
Tronson, minor improvements and gravelling, 1.7 miles (Project No. 1313)	8,447.68	

NORTH OKANAGAN DISTRICT—*Continued*

Day labour—roads—*Continued*		
Vernon–Slocan Highway, rock work, 0.1 mile; reconstruction and gravelling, 11.25 miles; gravelling and road mix, 0.85 mile (Project No. 1313)	$34,393.20	
Whitevale, gravelling and road mix, 0.3 mile (Project No. 1313)	4,727.01	
		$85,000.00
Maintenance of roads		174,585.81
Maintenance of bridges		23,150.00
Maintenance and operation of ferries		500.00
Snow removal		78,679.51
Local highways within municipal limits—		
District of Coldstream	$6,000.00	
Township of Spallumcheen	5,000.00	
City of Vernon	6,000.00	
		17,000.00
Surveys (general)—		
Vernon By-pass (Project No. 1347)	$42.84	
Vernon South (Project No. 1347)	15,866.70	
Armstrong–Sicamous (Project No. 1347)	22,183.84	
		38,093.38
Legal surveys—		
Okanagan Highway, Grindrod–Sicamous section, 4.2 miles, from south boundary of Section 15, Township 20, to north boundary of Section 34, Township 20, Range 8 (Project No. 1348)	$6,419.70	
Oyama to north boundary of Section 31, Township 10 (Project No. 1348)	8,184.46	
		14,604.16
Surfacing (general)—Vernon–Slocan Highway (Monashee), base processing		41,987.95
Total, North Okanagan District		$473,600.81

NORTH PEACE RIVER DISTRICT

Day labour—roads—		
Improve Fort Nelson streets (Project No. 1328)	$10,000.00	
Gravel school-bus routes (Project No. 1328)	40,000.00	
Hudson Hope Road, general improvements (Project No. 1328)	40,000.00	
Hudson Hope Road, gravelling (Project No. 1383)	40,000.00	
Fish Creek Fill, Fort St. John By-pass (Project No. 1438)	35,000.00	
		$165,000.00
Day labour—bridges—Fort Nelson River Bridge, install ice-breakers (Project No. 376)		30,084.02
Maintenance of roads		282,335.23
Maintenance of bridges		61,500.00
Maintenance and operation of ferries		26,300.00
Snow removal		93,439.01
Surveys (general)—Fort St. John storm sewer from 96th Avenue to Alaska Highway (Project No. 1347)		41.95
Rights-of-way (general)—Hudson Hope–Peace River Crossing Road (Project No. 1349)		24,587.58
Construction—		
Bridges (general)—		
Peace River Bridge, removal of debris of old bridge piers (Project No. 401) (100 per cent recoverable from Federal Government) (Credit)	*$3,240.58*	
Hudson Hope Bridge (Project No. 463)	711,796.46	
Beatton River Bridge (Project No. 466)	60,000.00	
		768,555.88
Roads (general)—Hudson Hope–Chetwynd Highway, construction, Hudson Hope to Chetwynd, Section 1 (*see also* South Peace River) (Project No. 1377)		40,086.60

NORTH PEACE RIVER DISTRICT—*Continued*

Surfacing (general)—		
Fort St. John Arterial Highway, Mile 46½ to Alaska Highway (Project No. S-6763)	$260,978.08	
Forestry Depot in Hudson Hope westward to Gold Bar Road (Project No. S-6863)	147,021.91	
Gold Bar Road to Hydro Camp-site (Project No. S-6863)	18,888.50	
Airstrip at Hudson Hope (Project No. S-6863)	79,104.67	
		$505,993.16
Total, North Peace River District		$1,997,923.43

NORTH VANCOUVER DISTRICT

Day labour—roads—Dollarton Highway, No. 157R, replacing culverts (Project No. 1308)		$8,000.00
Day labour—bridges—Bridge "L," Squamish Highway, construction (Project No. 434)		20,000.00
Maintenance of roads		141,509.34
Gravel-crushing		39,942.60
Maintenance of bridges		314,400.00
Snow removal		11,874.20
Local highways within municipal limits—Corporation of the City of North Vancouver		15,000.00
Maintenance of toll facilities—		
Horseshoe Bay terminal	$500.00	
Patrol	117,500.00	
Holding Account	1,365.46	
		119,365.46
Surveys (Trans-Canada Highway)—Horseshoe Bay to Taylor Way (four lanes) (Project No. 1344)		5,256.84
Legal surveys—		
Squamish Highway from south boundary of District Lot 3086 to north boundary of District Lot 4073 (Project No. 1348)	$6,293.45	
Horseshoe Bay–Squamish Highway through District Lots 2935 and 3041 (Project No. 1348)	697.36	
		6,990.81
Rights-of-way (Trans-Canada Highway)—		
Taylor Way–Horseshoe Bay section (Project No. 1345)	$748.80	
Taylor Way–Second Narrows Bridge (Project No. 1345)	31.80	
		780.60
Rights-of-way (general)—Road allowance west of Williams Avenue (Project No. 1349)		1,000.00
Construction—		
Bridges (Trans-Canada Highway)—Pemberton Avenue Pedestrian Overpass (Project No. 457)		27,448.28
Bridges (general)—Lions Gate Bridge, resurfacing (50 per cent in Vancouver Centre) (Project No. 468)		240,353.03
Surfacing (general)—Marine Drive, No. 132R, West Vancouver–Horseshoe Bay section, 13th Street to Horseshoe Bay Overpass (Project No. S-0563)		67,529.22
Total, North Vancouver District		$1,019,450.38

OAK BAY DISTRICT

Day labour—roads (classified highways)—Cadboro Bay Road No. 162B	$50,000.00

OMINECA (EAST) DISTRICT

Day labour—roads—		
Vanderhoof–Stuart Lake Road, widening and applying gravel, 2.5 miles (Project No. 1330)	$55,070.34	
Northern Trans-Provincial Highway, stockpiling gravel (Project No. 1330)	7,529.66	
		$62,600.00
Day labour—bridges—Narcosli Bridge (Project No. 431)		12,000.00
Maintenance of roads		146,127.77
Maintenance of bridges		22,310.51
Snow removal		44,230.97

OMINECA (EAST) DISTRICT—*Continued*

Surveys (general)—		
Northern Trans-Provincial Highway, Endako Underpass and Endako River Crossing (Project No. 1347)	$5,356.07	
Vanderhoof, curb and gutter (Project No. 1347)	2,801.08	
		$8,157.15
Rights-of-way (general)—		
Northern Trans-Provincial Highway, Endako West section (Project No. 1349)	$565.93	
Northern Trans-Provincial Highway, Fraser Lake section (Project No. 1349)	179.52	
Northern Trans-Provincial Highway, Endako East section (Project No. 1349)	389.02	
		1,134.47
Construction—bridges (general)—Stuart River Bridge, Vanderhoof–Stuart Lake Road (Project No. 315)		59,417.28
Surfacing (general)—		
Vanderhoof–Stuart Lake Road, base processing	$5,888.66	
Northern Trans-Provincial Highway, Prince George westerly to Sob Lake Road, seal-coat (*see also* Fort George)	51,210.22	
		57,098.88
Total, Omineca (East) District		$413,077.03

OMINECA (WEST) DISTRICT

Day labour—roads (Project No. 1331)—		
Northern Trans-Provincial Highway, Tintagel – Tibbetts Creek section, place crush	$30,000.00	
Northern Trans-Provincial Highway, Houston east, place crush	15,000.00	
Northern Trans-Provincial Highway, Rose Lake–Topley section, improve	30,000.00	
New access roads, construction	10,000.00	
Colleymount Road, culverts, ditch and gravel, 10 miles	15,000.00	
		$100,000.00
Maintenance of roads		162,803.79
Maintenance of bridges		20,412.25
Maintenance and operation of ferries		64,757.51
Snow removal		54,802.09
Surveys (general)—Topley–Houston (includes Houston bridge-sites) (Project No. 1347)		2,808.50
Legal surveys—		
Northern Trans-Provincial Highway, Houston–Telkwa section (Project No. 1348)	$9,288.14	
Northern Trans-Provincial Highway, Burns Lake to north boundary of District Lot 4169 (Project No. 1348)	5,539.53	
		14,827.67
Rights-of-way (general)—		
Northern Trans-Provincial Highway, Perow to Lot 1167 (Houston) (Project No. 1349)	$4,598.63	
Northern Trans-Provincial Highway, Burns Lake–Tintagel section (Project No. 1349)	15.00	
		4,613.63
Construction—		
Bridges (general)—Sheraton Overhead (Project No. 454)		131,730.85
Roads (general)—		
Northern Trans-Provincial Highway, Tibbetts Creek to Priestly Overhead (Project No. 1286)	$328,014.50	
Northern Trans-Provincial Highway, Perow to Lot 1167 (Project No. 1289)	672,472.65	
		1,000,487.15
Surfacing (general)—		
Northern Trans-Provincial Highway, Rose Lake–MacEvoy Creek section (Project No. S-6563)	$429,888.91	
Northern Trans-Provincial Highway, Houston eastward, base processing	17,093.97	

OMINECA (WEST) DISTRICT—*Continued*

Surfacing (general)—*Continued*		
Northern Trans-Provincial Highway, Tintagel to Tibbetts Creek, base processing	$23,825.12	
Remix on Burns Lake–Tintagel, base processing	4,489.20	
		$475,297.20
Total, Omineca (West) District		$2,032,540.64

PRINCE RUPERT DISTRICT

Day labour—roads—		
Construction of Delkatla Slough Causeway, elimination of Delkatla Bridge, with diversion of 0.25 mile of Masset Arterial Highway, No. 338R (Project No. 1334)	$15,000.00	
Prince Rupert Arterial Highway, No. 360R, reconstruction of approach to Fairview Ferry-landing, 0.20 mile (Project No. 1366)	40,000.00	
		$55,000.00
Maintenance of roads		106,722.68
Maintenance of bridges		20,016.49
Maintenance and operation of ferries		672.00
Snow removal		13,573.02
Surveys (general)—Prince Rupert to Fairview Ferry Terminal (Project No. 1347)		45,306.73
Surfacing (general)—		
Prince Rupert City Limits to Galloway Rapids (part of Highway No. 16) (Project No. S-6662)	$109,578.42	
Galloway Rapids to Port Edward (Project No. S-6662)	71,512.08	
Arterial Highway No. 122R, Second Avenue at McBride to City Limits (Prince Rupert Arterial) (Project No. S-6662)	112,465.13	
District of Prince Rupert (Project No. S-6662)	5,136.29	
Second Avenue, Prince Rupert (Project No. S-6662)	9,157.33	
Fairview Bay Ferry Approach (Project No. S-6662)	12,583.63	
Cassiar Road (Project No. S-6662)	6,801.56	
Oliver Lake, Department of Recreation and Conservation (Project No. S-6662)	961.59	
		328,196.03
Total, Prince Rupert District		$569,486.95

REVELSTOKE DISTRICT

Day labour—roads—		
Project No. 1315—		
Galena Pass No. 810, complete reconstruction, Mile 11 to Mile 6	$53,913.89	
Subdivisions and side roads, Sicamous, Solsqua, and Mara Lake area, gravelling, ditching, and paving	24,379.14	
Trans-Canada Highway, Albert Canyon section, construction of frontage road	5,462.61	
Trans-Canada Highway, Summit Lake section, road-mix paving	3,244.36	
Project No. 1373—Sicamous Junction (Highway No. 1 and Highway No. 97A), reconstruction of Sicamous By-pass	50,000.00	
		$137,000.00
Maintenance of roads		135,243.20
Maintenance of bridges		37,999.02
Maintenance and operation of ferries		136,703.57
Snow removal		145,135.27
Surveys (Trans-Canada Highway)—Three Valley Lake Slide (Project No. 1344)		1,575.00
Legal surveys—Okanagan Highway, rights-of-way, Sicamous Junction (0.47 mile) (Project No. 1348)		607.53
Rights-of-way (Trans-Canada Highway)—Clanwilliam to Three Mile Crossing (Project No. 1345)		*(Credit) 92.80*
Rights-of-way (general)—Sicamous Junction (Project No. 1349)		16,354.00

REVELSTOKE DISTRICT—*Continued*

Construction—		
Bridges (Trans-Canada Highway)—Avalanche guide-walls, Lanark Shed (Project No. 335)		$108,455.80
Roads (Trans-Canada Highway)—Three Mile Crossing–Revelstoke section (Project No. 960)	(Credit)	*82,228.76*
Surfacing (Trans-Canada Highway) — Sicamous interchanges (Project No. S-8563)		2,951.23
Total, Revelstoke District		$639,703.06

ROSSLAND-TRAIL DISTRICT

Day labour—roads (Project No. 1325)—		
Southern Trans-Provincial Highway, No. 3A, East Fruitvale to Rossland-Nelson boundary, ditching and shoulder-widening, 2 miles	$10,000.00	
Southern Trans-Provincial Highway, No. 3A, Fruitvale to Montrose, ditching and shoulder-widening, 2 miles	19,233.34	
Southern Trans-Provincial Highway, No. 3A, Tadanac to Genelle, ditching and shoulder-widening, 7 miles	9,407.10	
Deer Park–Renata, gravelling, 3 miles	6,000.00	
Sundry roads, road-mix paving, 8.25 miles	41,359.56	
Trail Bridge approaches (Project No. 1376)	23,678.66	
		$109,678.66
Maintenance of roads		161,699.72
Maintenance of bridges		17,201.09
Maintenance and operation of ferries		146,446.44
Snow removal		92,839.52
Surveys (general)—		
Kinnaird–Trail (Project No. 1347)	$1,806.16	
Kinnaird–Park Siding (Project No. 1347)	8,344.87	
Highway revision at High Arrow Dam-site (Project No. 1347) (Credit)	*4,294.74*	
Annable (West Trail), from Lower Annable Underpass to Bay Avenue (Trail) (Project No. 1347)	239.91	
		6,096.20
Legal surveys—		
Annable (West Trail) (Project No. 1348)	$378.97	
Southern Trans-Provincial Highway, north boundary of Lot 11912 to Plan R 236, V.C.L. (Project No. 1348)	1,570.00	
		1,948.97
Rights-of-way (general)—		
Annable (West Trail) (Project No. 1349)	$406,118.81	
Columbia River Bridge approaches, Kinnaird (Project No. 1349)	100.00	
Kinnaird Underpass (Project No. 1349)	50.00	
Rossland–Sheep Lake Highway, Section 1 (Project No. 1349)	98.50	
East Trail–Merry's Flats (Credit)	*21,981.88*	
		384,385.43
Construction—		
Bridges (general)—		
Kinnaird Bridge (Project No. 440)	$1,408,575.78	
Kinnaird Underpass (Project No. 433)	91,464.53	
		1,500,040.31
Roads (general)—		
Rossland–Sheep Lake, Section 1 (Project No. 1099)	$500.00	
Rossland–Sheep Lake, Section 2A (Project No. 1257)	42,887.30	
Rossland–Sheep Lake, Section 2 (Project No. 1285)	401,696.29	
Rossland–Sheep Lake, Section 3 (Project No. 1341)	469,302.82	
		914,386.41
Total, Rossland-Trail District		$3,334,722.75

SAANICH DISTRICT

Day labour—roads (Project No. 1307—		
Lochside Drive, reconstruction, 0.5 mile	$20,000.00	
Sundry trunk highways, rights-of-way clean-up	5,000.00	
Sundry roads, rights-of-way clean-up	1,000.00	
West Saanich Road, reconstruction, 6.5 miles	62,000.00	
		$88,000.00
Maintenance of roads		87,982.36
Classified highways—		
Beacon Avenue (146B)	$200.00	
Gorge Road (154B)	368.43	
Keatings Cross road (121B)	1,807.28	
Quadra Street (156B)	400.00	
		2,775.71
Maintenance and operation of ferries		30,500.00
Snow removal		4,347.72
Maintenance of toll facilities—Swartz Bay terminal (administered by North Vancouver office)		500.00
Local highways within municipal limits—Village of Sidney, Tulista Park		1,480.00
Legal surveys—Widening of West Saanich Road through part of Section 72 and part of Section 73, Lake District (Project No. 1348)		76.10
Rights-of-way (Trans-Canada Highway)—Junction of Trans-Canada Highway and Victoria–Swartz Bay Highway (Project No. 1345)		329.00
Rights-of-way (general)—		
Victoria–Swartz Bay Highway, Ardwell Road–Bazan Bay section (Project No. 1349) (Credit)	*$524.69*	
Swartz Bay ferry terminal (Project No. 1349) (Credit)	*6,050.00*	
Patricia Bay Highway, Royal Oak Junction (Project No. 1349)	1,700.00	
	(Credit)	*4,874.69*
Construction—roads (general)—Ardwell Road to Bazan Bay (Project No. 1207)		1,436.06
Surfacing (general)—		
West Saanich Road, Royal Oak Avenue to Keating Cross-road (*see also* Esquimalt) (Project No. S-0263)	$69,810.59	
Trans-Canada Highway, Cloverdale Avenue to junction of Highway No. 17 (*see also* Esquimalt) (Project No. S-0263)	16,392.39	
Passing lane, Swartz Bay to Wains Road, miscellaneous paving	16,333.94	
		102,536.92
Total, Saanich District		$315,089.18

SALMON ARM DISTRICT

Day labour—roads (Project No. 1316)—		
Old Spallumcheen (No. 4)	$7,319.17	
Sorrento–Eagle Bay (No. 67)	11,221.69	
Shuswap–Chase Creek (No. 202)	2,725.47	
Notch Hill (No. 410)	15,598.02	
Squilax–Anglemont (No. 446)	12,078.40	
Holding Road (No. 451)	9,057.25	
		$58,000.00
Maintenance of roads		165,923.44
Maintenance of bridges		32,246.10
Maintenance and operation of ferries		14,000.00
Snow removal		68,510.06
Surveys (Trans-Canada Highway)—		
Salmon Arm By-pass (Project No. 1344)	$5,636.21	
Chase By-pass (Project No. 1344)	1,169.77	
		6,805.98
Rights-of-way (Trans-Canada Highway)—Chase By-pass (Project No. 1345)		200.00

SALMON ARM DISTRICT—*Continued*

Construction—		
Bridges (Trans-Canada Highway)—		
Sicamous Narrows Bridge (Project No. 338)	$40,521.44	
Improvements to Salmon River Bridge (Project No. 472)	3,992.13	
		$44,513.57
Roads (Trans-Canada Highway)—Chase By-pass section (Project No. 1356)		214,961.65
Surfacing—		
Trans-Canada Highway, from Chase Bridge westerly toward Pritchard (Project No. S-8563)		286,119.31
General—		
Sorrento–Eagle Bay, base processing	$17,734.43	
Holding Road, base processing	17,151.11	
Thompson Hill on Squilax–Anglemont near Saratoga Lodge, base processing	1,236.41	
Remix on Salmon River Road, base processing	5,087.12	
		41,209.07
Total, Salmon Arm District		$932,489.18

SIMILKAMEEN DISTRICT

Day labour—roads—		
Southern Trans-Provincial Highway, widen for third lane, 8.3 miles (Project No. 1317)	$28,832.69	
Orchard roads, general improvements, 14 miles, and road-mix pavement, 5.9 miles (Project No. 1317)	51,167.31	
Southern Trans-Provincial Highway, Village of Osoyoos, lighting, curb and gutter, 0.5 mile (Project No. 1343)	28,499.96	
Apex Park Road, widening, general improvements, and gravelling, 6 miles (Project No. 1392)	16,000.00	
		$124,499.96
Day labour—bridge elimination (Project No. 1346)—Five Mile Bridge No. 1 (No. 59)		8,000.00
Maintenance of roads		217,249.56
Maintenance of bridges		17,211.33
Snow removal		101,770.06
Local highways within municipal limits—Village of Princeton		6,000.00
Surveys (general)—		
Penticton By-pass (Project No. 1347)	$10.20	
Vaseux Lake–Osoyoos (Project No. 1347)	20,805.78	
		20,815.98
Legal surveys—Southern Trans-Provincial Highway, Waterman Hill section (Project No. 1348)		1,050.44
Rights-of-way (general)—		
Osoyoos–Richter Pass connection (Project No. 1349)	$12,600.00	
Princeton By-pass (Project No. 1349)	35,504.60	
		48,104.60
Construction—		
Bridges (general)—Tulameen River Bridge and approaches (Project No. 439)		273,627.71
Roads (general)—		
City of Penticton, curb and gutter (Project No. 1270)	$70,000.00	
Osoyoos Junction west (Richter Pass) section (Project No. 1292)	323,933.18	
		393,933.18
Surfacing (general)—		
Southern Trans-Provincial Highway, Skaist Creek–Cambie Creek section (Project No. S-2163)	$280,831.75	
Okanagan Highway, Kaleden–Skaha section (Project No. S-2263)	63,333.54	
Okanagan Highway, Penticton northerly to Trout Creek (Project No. S-2263)	84,596.71	
		428,762.00
Total, Similkameen District		$1,641,024.82

SKEENA (EAST) DISTRICT

Day labour—roads (Project No. 1332)—		
Northern Trans-Provincial Highway, Hazelton east 7 miles (Mudflat Creek section), completed gravelling	$32,977.78	
Northern Trans-Provincial Highway, Carnaby–Skeena Crossing section, base strengthening and pulvimix	37,442.45	
Kispiox Road, general improvements over 3 miles	39,479.77	
Babine Lake Road, general improvements over 3 miles	18,500.00	
		$128,400.00
Day labour—bridges (Project No. 381)—Hazelton Overhead Crossing, construction of approaches		9,171.25
Maintenance of roads		135,352.20
Maintenance of bridges		25,750.00
Maintenance of ferries		16,520.00
Snow removal		49,612.04
Surveys (general)—		
Woodcock–Pacific (Project No. 1347)	$7,210.93	
Telkwa–Seaton (Project No. 1347)	22.29	
Northern Trans-Provincial Highway, Seaton–Perphyry Creek section (Project No. 1347)	874.98	
Carnaby Crossing–Skeena Crossing (Project No. 1347)	2,009.70	
		10,117.90
Rights-of-way (general)—		
Northern Trans-Provincial Highway, Mudflat Creek Overhead–Seaton section (Project No. 1349)	$852.10	
Northern Trans-Provincial Highway within Kitwanga Indian Reserves Nos. 1 and 2 (Project No. 1349)	6,538.00	
		7,390.10
Construction—		
Bridges (general)—		
Hazelton Overhead Crossing, Northern Trans-Provincial Highway (Project No. 381)	$28,203.52	
Haguelgate Bridge redecking, Hazelton High Level Road (Project No. 424)	72,398.32	
Mudflat Creek Overhead Crossing (Project No. 452)	71,908.02	
Boulder Creek Bridge (No. 9) (Project No. 456)	98,082.36	
		270,592.22
Roads (general)—Northern Trans-Provincial Highway, Mudflat Creek Overhead–Seaton section (Project No. 1379)		116,588.54
Surfacing (general)—		
Northern Trans-Provincial Highway, New Hazelton–Mudflat Creek section (Project No. S-6663)	$33,376.65	
Northern Trans-Provincial Highway, South Hazelton Overhead approaches, base processing	2,682.05	
Northern Trans-Provincial Highway, Carnaby–Skeena Crossing section, base processing	28,805.37	
Smithers eastward, base processing	7,352.09	
		72,216.16
Total, Skeena (East) District		$841,710.41

SKEENA (WEST) DISTRICT

Day labour—roads (Project No. 1333)—Kitimat Indian Village Road, new construction, 2.5 miles, east side of Minette Bay		$50,539.11
Day labour—bridges (Project No. 473)—Northern Trans-Provincial Highway, redecking of Terrace Bridge (No. 135)		29,104.57
Maintenance of roads		134,808.71
Maintenance of bridges		26,700.00
Maintenance and operation of ferries		13,820.00
Snow removal		49,300.00
Surveys (general)—		
Prince Rupert–Terrace bridge-sites (Project No. 1347)	$46,597.97	
Northern Trans-Provincial Highway, Terrace to Usk (Project No. 1347)	663.38	
		47,261.35
Rights-of-way (general)—		
Northern Trans-Provincial Highway, Copper River section (Project No. 1349)	$763.84	
Junction of Highways Nos. 16 and 25 (Project No. 1349)	11,500.00	
		12,263.84

Construction—		
Bridges (general)—		
Copper River Bridge, Northern Trans-Provincial Highway (Project No. 423)	$273,799.02	
Williams Creek and Hatchery Creek Bridges, Terrace–Kitimat Highway (Project No. 460)	132,362.12	
Furlong Creek Culvert, Terrace – Kitimat Highway (Project No. 479)	94,295.74	
		$500,456.88
Roads (general)—		
Terrace – Kitimat Highway, Terrace – Lakelse section (Project No. 1197)	$138,655.45	
Northern Trans-Provincial Highway, Lot 5181 – Usk section (Project No. 1288)	1,020,122.59	
Northern Trans-Provincial Highway, Copper River Bridge approaches (Project No. 1291)	312,070.37	
Clearing and burning deleterious material from Lakelse Lake (Project No. 1363)	20,848.63	
		1,491,697.04
Total, Skeena (West) District		$2,355,951.50

SOUTH OKANAGAN DISTRICT

Day labour—roads—		
Sundry roads, road-mix pavement (Project No. 1314)—		
Gibson	$3,953.71	
Sarsons	1,521.78	
Hobson	2,035.49	
Fish Lake	1,666.90	
Glenrosa	7,344.40	
Hall	7,013.35	
Sexsmith	17,199.56	
Lakeshore, widening and gravelling (Project No. 1314)	1,687.04	
V.L.A. roads, shouldering and right-of-way improvement (Project No. 1314)	1,977.77	
Okanagan Highway (No. 367R), Summerland, shouldering (Project No. 1314)	1,600.00	
Joe Rich, road-mix pavement (Project No. 1374)	135,000.00	
McKinley, reconstruction (Project No. 1388)	16,000.00	
		$197,000.00
Maintenance of roads		146,711.27
Maintenance of bridges		66,607.15
Snow removal		54,900.59
Local highways within municipal limits—Princeton Avenue, Peachland		3,500.00
Surveys (general)—Highway No. 97, Rutland Junction to Reeds Corner (Project No. 1347)		50.40
Legal surveys—		
Okanagan Highway through Sections 34 and 35, Township 26, Osoyoos (Project No. 1348)	$945.50	
Okanagan Highway, Peachland to north boundary of District Lots 449 and 2690 (Project No. 1348)	12,090.72	
		13,036.22
Surfacing (general)—		
Okanagan Highway, west junction of Kelowna Bridge approaches south to Westbank (Project No. S-2362)	$18,139.54	
Okanagan Highway, Powers Creek–Peachland section (Project No. 1129) (Project No. S-2362)	87,637.65	
Arterial highway, Trepanier to South Peachland Junction, including view point at Peachland South Junction, access and frontage roads (Project No. S-2362)	30,785.94	
Okanagan Highway, Trout Creek–Summerland Hill section (Project No. S-2263)	60,208.41	
		196,771.54
Total, South Okanagan District		$678,577.17

SOUTH PEACE RIVER DISTRICT

Day labour—roads (Project No. 1329)—		
Sundry — 11.5 miles of farm and settlement roads and school-bus routes regravelled, additional 38.5 miles gravelled	$47,698.93	
Dawson Creek–Alberta Boundary (No. 2), 5 miles widened and strengthened with gravel base course in preparation for paving, revision on curves north of Pouce Coupe	71,007.19	
Pouce Coupe–Clayhurst, 16 miles reshaped and regravelled, additional 4 miles regravelled	38,395.90	
John Hart Highway, Mile 138 to Mile 149, reconstructed, widened, drainage improvements, and base gravel in preparation for paving; Mile 149 to Mile 158, clearing, widening, and drainage improvements	336,737.49	
		$493,839.51
Day labour—bridges (Project No. 428)—Pine River Bridge, construct Bailey bridge at Twidwell Bend, south of Chetwynd		9,000.00
Maintenance of roads		237,452.50
Maintenance of bridges		22,394.72
Maintenance and operation of ferries		38,185.68
Snow removal		117,750.94
Local highways within municipal limits—City of Dawson Creek, Grandview area		8,000.00
Surveys (general)—		
John Hart Highway, Mile 163.4 to Mile 183.4 (Project No. 1347)	$981.42	
Chetwynd–Hudson Hope Road (Project No. 1347)	4,772.73	
John Hart Highway, Mile 153 to Mile 163 (Project No. 1347)	691.80	
		6,445.95
Legal surveys—		
Rolla southerly to Road No. 3 (Project No. 1348)	$2,262.02	
Pouce Coupe Access Road (south) (Project No. 1348)	389.32	
Manse Road, Pacific Refinery to Road No. 3 (Project No. 1348)	3,490.47	
Chetwynd–Hudson Hope Road through North-east Quarter of Section 13, Township 81, Range 16, west of the 6th meridian (Project No. 1348)	1,559.38	
John Hart Highway, widening, Lots 1451 to 1471 (Project No. 1348)	737.63	
Pingel Creek Road, Alaska Highway to Pine River (Project No. 1348)	1,625.00	
		10,063.82
Rights-of-way (general)—		
Extension of Road No. 11 (Project No. 1349)	$554.00	
John Hart Highway, Mile 163 to Mile 183, Plan 2 (Project No. 1349)	12,942.37	
John Hart Highway and Road No. 237, widening (Project No. 1349)	117.50	
		13,613.87
Construction—roads (general)—		
John Hart Highway, reconstruction (Project No. 1358)	$398,122.10	
Hudson Hope–Chetwynd Highway, construction, Hudson Hope to Chetwynd, Section 1 (Project No. 1377) (*see also* North Peace River)	74,446.53	
		472,568.63
Surfacing (general)—		
Dawson Creek – Alberta Boundary section (Project No. S-6461)	$12,039.81	
John Hart Highway, Fort George-South Peace River boundary to Silver Sands Creek (*see also* Fort George) (Project No. S-6363)	189,646.46	
Northern Alberta Railway Crossing, 1.2 miles south-east of Pouce Coupe, southern limits of village (Project No. S-6463)	20,470.84	
Arterial Highway No. 83R through Village of Pouce Coupe (Project No. S-6463)	90,715.99	
Northern limits of Village of Pouce Coupe to southern limits of City of Dawson Creek (Project No. S-6463)	226,468.42	
District–F.O.B. asphalt (Project No. S-6463)	2,073.48	
		541,415.00
Total, South Peace River District		$1,970,730.62

VANCOUVER-POINT GREY DISTRICT

Maintenance of roads		$12,500.00
Snow removal		960.01
Surveys (general)—		
University of British Columbia, curb and gutter (Project No. 1347)	$2,133.04	
South-west Marine Drive from Camousun Street to Chancellor Boulevard (Project No. 1347)	6,262.76	
		8,395.80
Construction—roads (Trans-Canada Highway)—Vancouver–Fraser River section (Vancouver East), Contract No. 5 (*see also* Burnaby) (Project No. 885)		235,915.84
Total, Vancouver-Point Grey District		$257,771.65

YALE DISTRICT

Day labour—roads (Project No. 1318)—		
Merritt–Kamloops Highway, strengthen with 24-inch gravel lift and recap, 2.10 miles	$32,977.26	
Spences Bridge Road, strengthen with 8-inch gravel lift and recap, 0.7 mile	4,818.33	
Spences Bridge Road, improving rock corners, widening, road mixing, Mile 4.05 to Mile 4.75	8,521.89	
Hope–Princeton Highway, gravel	1,098.47	
Coalmont streets, construct and gravel streets, 0.75 mile	2,891.97	
Silver Creek Subdivision streets, paving, 0.25 mile	2,163.76	
Lytton approaches, recap, 0.25 mile	4,800.00	
Trans-Canada Highway, storm-damage repairs	5,728.32	
		$63,000.00
Maintenance of roads		275,013.85
Maintenance of bridges		28,500.00
Maintenance and operation of ferries		76,081.50
Snow removal		130,828.44
Surveys (Trans-Canada Highway)—		
Hells Gate to China Bar (Project No. 1344)	$737.00	
Tank Hill washouts (Project No. 1344)	8,025.13	
		8,762.13
Surveys (general)—Lytton approaches (Project No. 1347)		9,134.53
Legal surveys—		
Gravel pit in Sections 12 and 13, Township 4, Range 25, redefining boundaries (Project No. 1348)	$244.91	
Right-of-way through District Lot 2808, Highway No. 5 (Project No. 1348)	938.28	
Trans-Canada Highway, American Creek–Emory Creek section (Project No. 1348)	5,132.60	
North boundary of Klickkumcheen Indian Reserve No. 18 to south boundary of Lytton Indian Reserve No. 16A (Project No. 1348)	1,878.89	
		8,194.68
Rights-of-way (Trans-Canada Highway)—		
Hope Overhead Crossing (Project No. 1345)	$4,751.00	
Boston Bar–China Bar section (Project No. 1345)	1,038.03	
Sailor Bar Slide (Project No. 1345)	10.00	
Silver Creek Bridge approach (Project No. 1345)	230.00	
Alexandra Tunnel section (Project No. 1345)	180.60	
Siska–Kanaka Bar section (Project No. 1345)	50.00	
		6,259.63
Construction—		
Bridges (Trans-Canada Highway)—		
Alexandra Bridge (Project No. 183)	$14,997.15	
Thompson River Crossing at Spences Bridge (Project No. 325)	9,086.45	
Hope Overhead (Project No. 329)	112,884.79	
Hells Gate structure (Project No. 391)	155,158.78	
Silver Creek Bridge improvements (Project No. 447)	138,623.17	
Improvements to American Creek Bridge (Project No. 471)	69,028.78	
		499,779.12

YALE DISTRICT—*Continued*

Construction—*Continued*		
Bridges (general)—Hope–Princeton Highway bridges (nine bridges, western sector) (Project No. 429)		$224,997.60
Roads (Trans-Canada Highway)—		
Tank Hill–Spences Bridge section (Project No. 760)	$15,040.86	
Bell Crossing–Saddle Rock section (Project No. 792)	9,058.53	
Saddle Rock–C.P.R. Overhead section (Project No. 892)	19,971.12	
China Bar Bluffs section (Project No. 1049)	539.70	
Yale–Bell Crossing, Section 1 (Project No. 1131)	1,133,668.19	
Sailor Bar Slide (Project No. 1199)	22.96	
Hedstrom Hill–Hope section (Project No. 1210)	112,589.91	
Alexandra north (Project No. 1258)	1,545,924.35	
China Bar–Hells Gate section (Project No. 1260)	1,992,132.74	
Highway lighting at junction of Highways Nos. 1 and 3 at Hope, Trans-Canada Highway (Project No. 1354)	9,275.86	
Cisco passing lane, Fraser Canyon (Project No. 1435)	110,480.51	
		4,948,704.73
Surfacing—		
Trans-Canada Highway—		
Hells Gate Tunnel (Project No. S-8762)	$1,305.48	
China Bar (Project No. S-8762)	4,467.79	
Anderson River Bridge approaches (Project No. S-8762)	1,015.59	
Spences Bridge By-pass (Project No. S-8862)	798.61	
Hunter Creek Bridge approaches (*see also* Dewdney) (Project No. S-8363)	9,928.57	
Hunter Creek–Silver Creek section (*see also* Dewdney) (Project No. S-8363)	45,363.23	
Silver Creek–Hedstrom Hill section (*see also* Dewdney) (Project No. S-8363)	4,111.28	
Hedstrom Hill–Hope section (Project No. S-8363)	54,658.30	
Silver Skagit Creek Road (Project No. S-8363)	1,738.73	
Haig Overhead (Project No. S-8363)	2,480.12	
Hope–Princeton Highway, bridges (Project No. S-8363)	6,704.60	
Trans-Canada Highway extension, Yale (Project No. S-8363)	16,369.84	
Local district, Hope (Project No. S-8363)	11.16	
Water Street, Job F to Fraser River Bridge (Project No. S-8363)	5,559.59	
		154,512.89
General—Merritt to Nicola, miscellaneous paving		10,000.00
Total, Yale District		$6,443,769.10

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