

Report of Provincial Department of Public Works

New System of District Engineers Working Out Efficiently —Only Needed Work Carried on and Then Only to Meet the Needs of Actual Settlers and Others.

The annual report of the Hon. J. H. King, Minister of Public Works for the Province of British Columbia, for the year ending March 31, 1919, is an interesting document of this the great spending department of the Government. Due to the creation of departmental engineers having charge of the various districts into which the Province is divided, this report covers the first year in which this system was in practice.

Mr. A. E. Foreman, Public Works engineer, in reporting to the Deputy Minister, Mr. J. E. Griffith, said in part as follows:

The efficient results being obtained from the new system continues to justify the employment of District Engineers in responsible charge of well-defined engineering districts. Through their good offices many contentious matters of long-standing dispute have been settled and other deferred questions finally disposed of. In this way the engineers have had more time in which to better their organization and to compile engineering data for purposes of comparison, as well as for future reference. Great benefit has resulted from the increased supervision rendered possible under the present administration; not only has better work been done more economically, but much useless and unnecessary work hitherto undertaken has been eliminated.

The cost of outside supervision for this year was 7.68 per cent, as compared with 7.1 per cent for the previous year. This is reasonable, considering the greatly increased number of inquiries from incoming settlers for new roads, the enhanced cost for transportation, and the higher wages and salaries which had to be paid. There should also be taken into account the much necessary and beneficial work undertaken in connection with office organization and record-keeping, for which no credit can be allowed in a mere proportioning of supervision charges, based upon the expenditures for actual work done on roads, bridges, etc. It is possible to unnecessarily increase the cost of work either through lack of supervision or owing to incompetent supervision, thus unnaturally reducing the percentage cost of supervision.

In my frequent tours of inspection throughout the Province I have personally examined many proposed new works, inspected works in course of progress, and investigated several problems involving difficulties and disputes. I have therefore every reason to speak most favorably of the present system of field administration. Results will speak for themselves as the organization is perfected and works carried out only as they are justified by circumstances and under some well-defined plan.

During this fiscal year, although there was a greatly increased number of communications from the public generally and innumerable technical reports from the District Engineers to deal with, the office-work, particularly of the engineering branch, was greatly improved. Numerous department forms for keeping cost records and other useful data and several standard specifications and plans were prepared, all with a view to standardizing the work of the department as far as practicable.

As in the few years previously, the work was confined chiefly to maintenance and improvement of existing roads and trails, new construction-work having been undertaken only where necessary to meet the urgent demands of settlers and others.

As will be particularly noted from the accompanying reports of the District Engineers, work was usually carried out on the principle of doing what would benefit the majority of settlers or the public generally. More work was undertaken this year in conjunction with municipalities on

recognized trunk roads, several miles of hard-surfacing having been satisfactorily completed. Most of the preparatory work in connection with such fairly permanent improvements was efficiently carried out by the various municipal day-labor gangs, the actual surfacing being done by contract. The bulk of the general road work was carried out by day-labor, although in many districts there was the usual scarcity of laborers. All the returned men that applied or could be found were employed, as many as 750 returned men having been at work at the same time throughout the Province.

As usual, this department carried out work on the mining roads and trails for the Department of Mines, approximately \$120,000 having been spent under our supervision. Considerable work was undertaken this year on surveying existing roads with a view to improvements of grades or alignment, as well as locating prospective roads. The engineering staff is endeavoring to confine, where possible, expenditures of any extent to sections of roads that are on good alignment or practical grades, any reconstruction work or new work being invariably carried out on some proper survey. In time such a policy should make for an efficient road system as well as ensure considerable saving.

Details of the mileage of roads and trails are given for each electoral district. It is hoped to further segregate the roads into the various classes of construction. Altogether there have been very marked improvements carried out on the roads generally, considering the comparatively small appropriations available and the increasing high cost of labor and materials.

As will be noted from the details of the contracts included in the annual statements of expenditure, much more work (chiefly on new structures) was undertaken this year by contract. Some reconstruction and all the maintenance work was carried out by day-labor. Considerable attention is now being given to the proper location of new bridges; many old bridges have also been rebuilt on improved sites—where practicable, one new bridge being put up to take the place of two old ones. In important structures Coast fir of the best quality is used, the material being subject to careful tests by competent Inspection Engineers. The erection of all bridges is under the general supervision of a highly competent Provincial Bridge Inspector, who also makes at least one inspection annually of all existing bridges, submitting reports and recommendations thereon. An endeavor is being made to replace bridges, where practicable, with large culverts and earth or rock fills, thereby tending to reduce the heavy annual maintenance charges.

Although the sum of \$488,500 was allocated for bridges generally, only \$432,334.22 was spent, the aim being to reduce the cost of maintenance consistent with the safety and convenience of vehicular traffic. Our financial requirements for bridges have been somewhat increased owing to the Provincial Government carrying out repairs on or renewing portions of several bridges on the North Arm of the Fraser River, originally constructed by the Government some years ago and later taken over by the interested municipalities.

In view of the proposed transfer of the Provincially owned wharves to the Federal Department, the expenditure on wharves was confined to absolutely necessary repair to safeguard the travelling public. The total expenditure on wharves this year was \$44,091.40, exclusive of \$2,859.30 spent on the construction of serviceable floats at Cow Bay, Prince Rupert.

In addition to the numerous improvements carried out at the existing ferries, new ferries were installed at the following points: Castlegar, on the Columbia River; Terrace and Usk, on the Skeena River; Hulatt and Braeside, on the Nechako River, and at McClure, on the North Thompson River. Most of these ferries were pontoons operated by current. The Government also subsidized the R.M.S. "B.