1935.

VICTORIA.

COUNTRY ROADS BOARD.

TWENTY-FIRST ANNUAL REPORT

FOR YEAR ENDED 30TH JUNE, 1934.

PRESENTED TO BOTH HOUSES OF PARLIAMENT PURSUANT TO ACT No. 3662.

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COUNTRY ROADS BOARD.

TWENTY-FIRST ANNUAL REPORT.

Exhibition Building,
Carlton, N.3,
19th November, 1934.

The Honorable J. P. Jones, M.L.C.,
Minister for Public Works,
Melbourne, C.1.

SIR,

In compliance with the requirements of Section 96 of the Country Roads Act (No. 3662), the Board has the honour to submit to you for presentation to Parliament the Annual Report of its proceedings for the financial year ended 30th June, 1934.

FINANCE.

The amount derived from motor registration fees during the year was £1,199,674, representing an increase of £55,573 over the revenue from that source during the previous year. On account of unforeseen expenditure incurred in repairing damage to roads and bridges caused by floods, and to the prolonged period of dry weather during the months of April, May, and June, the total amount expended on maintenance was £870,013, compared with £823,391 for the year 1932–33, an increase of £46,622.

A total amount of £430,393 was received under the Federal-aid Roads Agreement. The policy of expending a large proportion of Federal-aid funds on works of a developmental character was continued and works to the value of £106,404 were put in hand during the year. £433,392 was expended to the 30th June, and £70,164 committed at that date was carried forward to the new financial year.

The expenditure out of loan funds amounted to £143,125, as compared with £115,767 during the previous year, leaving an amount of £285,881 available from the loan authorization passed by Parliament.

The provision of unemployment relief funds has again been of considerable value in speeding up the programme of works. An amount of £28,300 was allotted by the Employment Council and approved by the Government during the year. With the amount of £57,341 carried forward from the previous year's grants, supplemented by a contribution of £4,068 from the Country Roads Board Fund, a total expenditure of £80,585 was incurred.

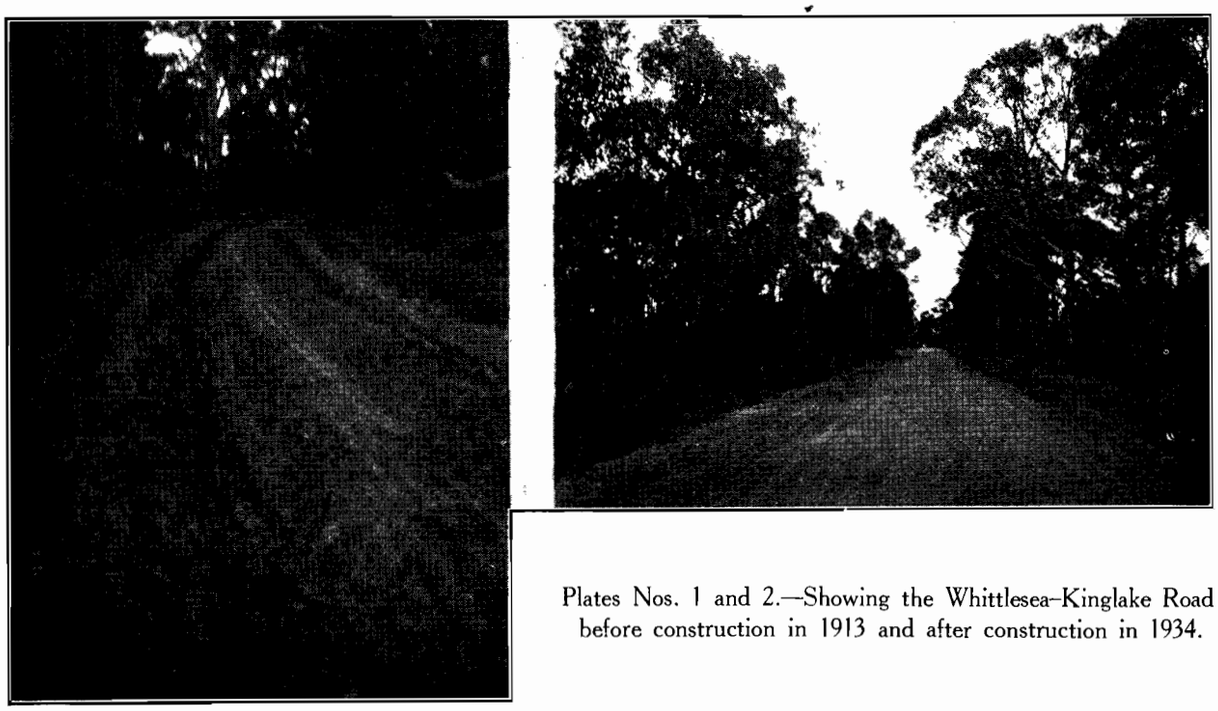
A RETROSPECT.

More than 21 years ago the Country Roads Board was appointed under Act of Parliament, having reached its majority in March last.

In submitting a brief outline of the work accomplished, there come to mind recollections of the time when roads were but little known in parts of the State where to-day the districts are traversed by a net-work of serviceable roads.

Prior to 1913, the country roads system of Victoria was generally in a backward state. This applied particularly to the hill country, where hard-surfaced roads were little known. What roads existed were small narrow tracks, consisting mainly of earth formations on excessively steep grades and bad alignment, and in many parts only primitive corduroy tracks served the pressing needs of the settlers. After rain these tracks were almost impossible to negotiate, whilst during the winter months many farmers were unable to transport their produce from their farms, excepting by sledge, and then only in limited quantities. In other parts of the State roads were built by the municipalities in sections as funds became available

from small Government grants and municipal revenue, and as the roads were in consequence in various stages of development they only partially met the requirements of slow-moving horse traffic. Bad grades, poor alignment, and narrow roads were the result. The advent of motor traffic and its subsequent extraordinary increase placed the responsibility of constructing and maintaining main roads beyond the resources of country municipalities with the result that these roads received scant attention and fell into a state of disrepair.



Plates Nos. 1 and 2.—Showing the Whittlesea–Kinglake Road before construction in 1913 and after construction in 1934.

In December, 1912, the Country Roads Act was passed with the object of bringing about an improvement in the condition of the principal highways of the State, and to ensure that such improvement should be maintained by the adoption of a system of continuous maintenance.

After conference with the various councils throughout the country districts of the State, and agreement as to which roads should be declared main roads, an initial plan of the road system was drawn up by the Board, but with the development of traffic it was necessary, from time to time, to amplify that plan. With the passing of subsequent legislation, referred to later, the plan has been extended until to-day many of the rural areas of the State are served by roads totalling approximately 13,000 miles.

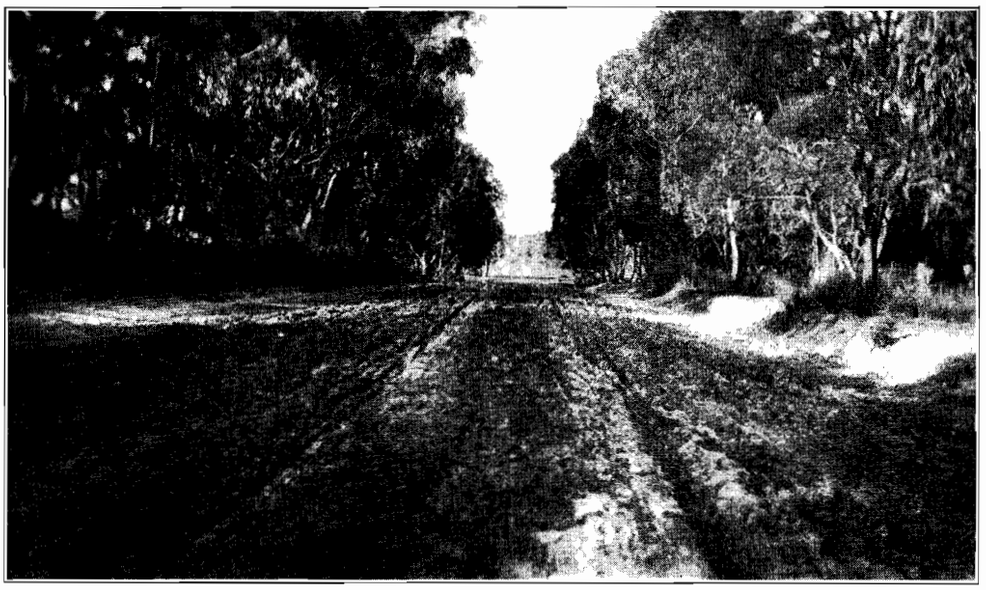
For the carrying out of permanent works the Government in the first instance borrowed a sum of £2,000,000 to be expended over a period of five years, at the rate of £400,000 per annum, one-half of which was required to be refunded by municipalities over a term of 31½ years at the rate of 6 per cent. per annum, representing 4½ per cent. interest and the balance sinking fund. By later legislation the amount of loan money to be expended was increased to £4,822,000.

Provision was made for the municipalities to repay half the cost of maintenance before the 1st July in the year following that in which the expenditure was incurred, but, in view of the fact that many municipalities were not in a financial position to repay half the cost of adequate maintenance, subsequent legislation provided that the municipal contribution should be one-third.

After investigation it was realized by the Board that the Country Roads Act was not broad enough in principle, in so far as the construction of roads was concerned, as many of the municipalities could not afford to continue expenditure on the basis of contributing half of the cost. Moreover, the problem of giving the farmer access to the railways and markets had become a vital one, and it was felt that a more elastic and liberal scheme of road construction was essential. The result was that the Developmental Roads Act was passed in 1918, which gave the Board power to declare any road a developmental road which, in the opinion of the Board, was of sufficient importance and would serve to develop any area of land by providing access to a railway station or to a main road leading to a railway station.

Provision was made under this Act for the borrowing of £500,000 for the making of permanent works, but, by subsequent legislation, this amount was increased to a total of £6,475,000. Towards this expenditure the councils of the shires in which the works are situated are liable to pay annually an amount equal to approximately 2 per cent. towards interest on the capital expenditure.

With a view to developing remote and mountainous areas, it was also provided that a sum averaging £150,000 per annum should be expended over a period of five years, commencing on the 1st July, 1925, for the construction of developmental roads, in which case payment of interest by Shire Councils did not apply.



Plates Nos. 3 and 4.—Showing section of the Mornington to Flinders Road in 1913, and the same Section as it is to-day.

Recognizing that the prime object of the Country Roads Act was the construction, re-construction, and maintenance of the principal traffic-bearing arteries of the State, the Board included in its initial programme of works the construction of sections of main roads between important towns to enable settlers to reach the railway and markets. Many Councils, however, were not prepared to incur expense on roads carrying traffic not of local origin, resulting in the neglect of roads of this type.

In view of the necessity of restoring and maintaining these roads, Parliament passed the Highways and Vehicles Act in 1924, giving the Board power to declare roads of this class State highways. Under this scheme municipalities were relieved of the payment of their proportion of maintenance, the whole of which has since been paid out of the Country Roads Board Fund, which, at the date of the passing of the Act, had increased sufficiently to enable the Board to take over the whole responsibility for maintenance. In addition to serving farm properties, these roads, which are generally of an interstate character, are the arteries of transportation and form the backbone of the State road system.

Plates Nos. 5 and 6.—Hume Highway near Longwood before and after construction.

The Federal-aid Roads Agreement, which forms an essential part of a continuous construction and maintenance policy, came into force as from 1st July, 1926. Provision was made for an amount of £20,000,000 to be set aside for road construction throughout the Commonwealth over a period of ten years, the allotment to each State being on the basis of area and population. Under this arrangement Victoria received £360,000 per annum, which was required to be supplemented by the State in the proportion of 15s. for every £1 provided by the Commonwealth.

In 1931 the Agreement was amended by providing for the proceeds of a customs duty of 2½d. per gallon on imported petrol and an excise duty of 1½d. per gallon on petrol refined in Australia to be distributed in the same proportions as set out in the original Agreement. The States were relieved of their obligation to contribute 15s. for every £1 contributed by the Commonwealth, provision was made for the money to be expended on any class of road works including maintenance, and the payments from the Commonwealth are to be continued to the 31st December, 1936, thereby extending the original Agreement by six months.

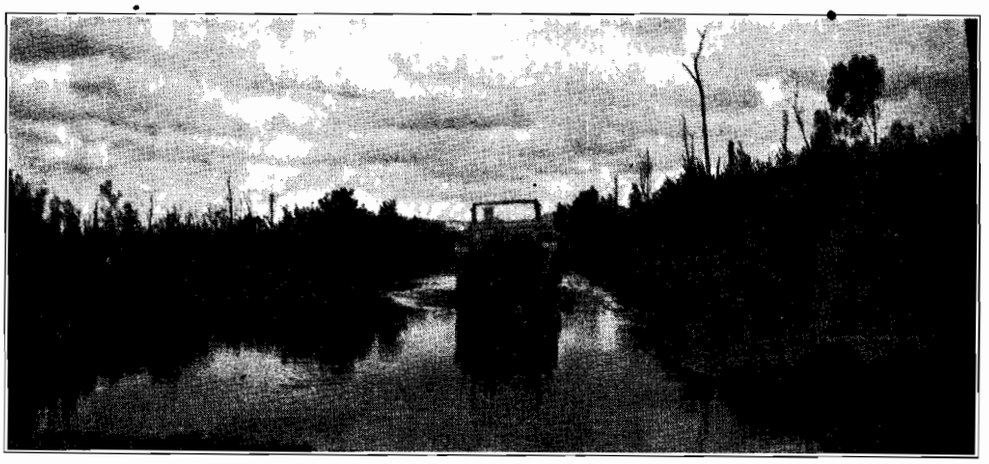
As a means of relieving the problem of unemployment, it has been recognized by successive governments that road construction work is an important factor. The needs of the roads on the one hand, and the necessity of work on the other, have induced the government to provide generous sums from time to time, and much valuable work has been accomplished in constructing roads in remote and inaccessible parts of the State where good agricultural land has been developed, production increased, and the difficulties of the settlers considerably relieved. In this way not only have settlers been assisted but municipal councils have derived additional revenue through increased development, whilst settlement and production have been placed on a better footing.

The principle of meeting interest and sinking fund payments on loans raised for road construction from the revenue collected from road users and from contributions of local authorities, without any charge on the consolidated revenue of the State, was established in 1929 in accordance with the Board's recommendation, and that principle has continued from year to year, so that the Government liability on this account is now made an annual charge on the Country Roads Board Fund.

As the repayments towards interest and sinking fund by the municipalities were subsequently found to be burdensome, legislation was enacted to provide for their being relieved in the financial year beginning on the 1st July, 1932, of a total amount of £25,000 in respect of permanent works on main roads, State highways, and developmental roads. The amount was paid out of the Country Roads Board Fund. Subject to the necessary funds being available this provision was subsequently extended to provide for relief up to an amount of £50,000 being granted during the year ended 30th June, 1934; £100,000 in respect of the year ending 30th June, 1935; and £150,000 in the case of the financial year ending 30th June, 1936, or any subsequent financial year.

The amount of this relief is required to be paid to the Treasurer of Victoria, out of the Country Roads Board Fund, so that the consolidated revenue will not be required to bear any part of the liability.

The planning of the road system as a whole was made on the basis of traffic requirements, and has been built up from year to year by the addition of roads coming under the classification of State highways, main roads, and developmental roads, until to-day the road system under the jurisdiction of the Board comprises 2,296 miles of State highways, 6,366 miles of main roads, and 3,597 miles of developmental roads. It is now generally recognized that without a central authority acting in close co-operation with the municipalities the road system of the State could not have reached the standard that exists to-day. The system was originally designed to connect with and supplement the system of surfaced roads that ultimately will give every farm direct access to through roads. With this object in view a definite sum has been allotted from year to year during the past nine years, and considerable progress has been made since the sum of £2,000 was provided in the annual estimates in 1925–26 for the construction of roads to assist settlers isolated from the main road system. In 1931 it was decided that, as the Federal-aid Roads Agreement had been made more elastic by permitting the grant to be expended on any class of road, an amount should be set aside each year from the grant for the construction of roads of this character, and to date a total amount of £66,922 has been expended.

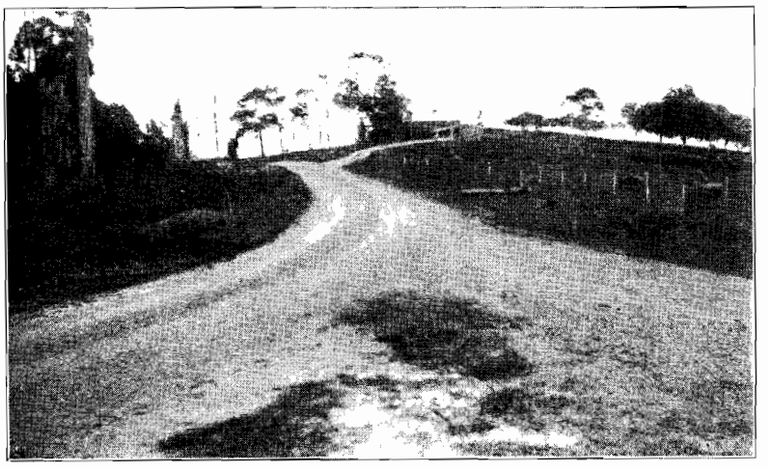


Plates Nos. 7 and 8.—Prince's Highway between Yarragon and Darnum before and after construction.

In addition, the sum of £4,338 was expended during the year ended 30th June, 1931, on roads to serve isolated farms from moneys provided from unemployment relief funds.

In the Board's First Annual Report for the year ended 30th June, 1914, the plight of the farmers of Gippsland on account of the absence of roads at that time was described, and illustrations of the roads existing in the hill country depicted the conditions under which the settlers were forced to live.

Since that time a system of main and developmental roads has been constructed, and the conditions have been entirely changed. The work done has not been concentrated upon any particular class of highway but has been distributed widely over the whole State. To-day a network of good roads traverses the area referred to, and much has been done to remove that isolation which formerly handicapped rural districts, but a great deal more is required so that those settlers living on the lateral roads will have ready access to the roads already constructed. In view of the pressing need of constructing lateral roads, which has also been emphasized in the Board's previous reports, marked progress has been made during the past few years, and this work is being extended as funds become available. Roads leading to the farms are however, still far behind the economic and social requirements.



Plates Nos. 9 and 10.—Showing section of Grand Ridge Road at Gunyah in 1913 and 1934.

In the Gippsland and Otway districts in particular a striking contrast is presented to the time when the hills were intersected with rough badly-graded tracks, overhung by huge trees and surrounded by dense forest, resulting in mud remaining on these tracks for the greater portion of the year.

The advent of trafficable roads has restored that confidence which was inbred in the early pioneers of these areas, and, in spite of low prices prevailing for farm produce, it can be asserted that a spirit of optimism and confidence is now manifest among the settlers.

To-day cream is collected by motor vehicles and carried over gravel and bituminous surfaced roads, the cost of cartage has been appreciably reduced and supplies are delivered to the factory with the utmost despatch and in better condition.

Plates Nos. 11 and 12.—Illustrating section of Beaconsfield–Emerald Road before and after construction.

With the extension of the road system, it has been observed in recent years that much abandoned country has again been occupied and put to profitable use, land settlement has been extended, and the settlers who were formerly isolated during the winter months are able to transport their produce at any time of the year. In addition, it has been made possible to provide improved mail facilities, more particularly in the outback areas of the State, which must result in considerable benefit to the settler and economy to the Commonwealth by reason of the cheaper cost of transport. In many of the districts in the outlying country the combined efforts of the people and their spirit of self-help have been the means of suitable recreation halls being erected, where they are able to develop the social side and thus enjoy some of the pleasures associated with city life.

With all the work that has been done on more than 12,000 miles of roads, and with full recognition of the general improvement in the condition of the highways throughout the rural areas of the State, there still remains a strong public demand for more and better roads, and this can be readily understood when it is realized that there are 99,810 miles of roads outside the metropolitan area for the care of which country municipalities, exclusive of provincial cities and towns, are responsible, and that only 21,724 miles, or 21·7 per cent., have metal or gravel surfaces, 25,239 miles are formed only, whilst 55,143 miles have been surveyed but not formed.

In the methods of construction considerable changes have taken place during the past 21 years. At the beginning of that period most of the pavements were constructed in water-bound macadam to a depth of 9 inches, at a cost approximating £2,000 per mile. In many districts the scarcity of road metal was a serious handicap to the Board and Shire Councils, necessitating the carriage of stone by rail and road for long distances, thereby adding considerably to the cost. The cost of maintenance of this type of road was also heavy owing to the disintegration of the metal during dry periods and the necessity for constant attention to prevent the appearance of pot holes, due to increased motor traffic.

Complete and rapid changes have since taken place in engineering practice, particularly during the last five years, and to-day the country roads are being lightly constructed with local material or fine crushed rock. The road of to-day represents quite different engineering objectives to that of even a few years ago. As traffic increases any sections showing the necessity for it are strengthened. In this way a serviceable road system capable of carrying reasonable loads has been provided at a considerable cost reduction per mile on the old methods, and while maintenance costs are not thereby increased, long lengths of road are kept in better order and vehicle operating costs are greatly reduced.

The development of various types of mechanical equipment for all classes of road construction has been a factor in lightening the costs by completing the work in a shorter time and in accomplishing more uniform work.

One of the most outstanding features in road construction during the past few years, as the result of research in the testing of soils and road-making materials, is the introduction of the lightly-constructed pavement. The work done has largely contributed to a substantial reduction in construction costs and has proved the suitability of materials in different localities for particular works. The development of stabilization of clay soils by the addition of varying percentages of sand as determined by laboratory tests has also been an important factor in the reduction in costs.

The development of this type of road within the past few years has resulted in the construction of roads which have demonstrated their ability to carry heavier traffic than was possible a few years ago. Two important factors have contributed to this result, namely, the transition which has taken place in tire equipment, in the almost universal substitution of the pneumatic tire for the solid rubber tire, and the organized system of maintenance generally adopted over the State highways and the greater part of the declared main roads.

Pavements constructed of local gravel or fine-crushed rock are costing £200 to £1,000 per mile, a considerable decrease in comparison with the cost of works of earlier periods.

The importance of highway transportation due to the rapid increase in the use of motor vehicles has made essential the development of the road system. From 1914 to 1934 the number of motor vehicles in the State increased from 13,191 to 188,256, whilst the motor registration fees increased from £26,011 to £1,199,674 over the same period. The utilization of these funds in the maintenance and improvement of the roads to meet the demands of traffic has entailed the establishment of an improvement plan over a period of years, and a great measure of progress has been achieved. That progress cannot be gauged in terms of mileage constructed or the money expended, but must be measured in relation to the general development of the State, its agricultural and pastoral progress, and social well-being of the community.

STATE HIGHWAYS.

The improvement of the State highways on a gradual and progressive plan was carried out in accordance with the Board's policy, resulting in a steady growth in the mileage. The whole of the expenditure was provided out of revenue.

The total mileage of State highways reconstructed during the last year was 598·67, of which 522·66 miles were dealt with by the Board and 76·01 by municipal councils.

Of the total mileage of highways maintained 1,726·70 miles were attended to directly by the Board and 571·73 by municipalities.

It may now be stated that highway construction has reached a point when one can travel the length and breadth of the State at any season of the year; in fact, inter-State highways as well as inter-city highways have now approached the stage when they can comfortably be traversed at any period.

In the construction of roads the cost depends largely on the class of pavement, and the selection of the type is the most important task confronting the Road Construction Authority. According to the prospective traffic needs, so the type of construction should vary; it is not economical to build wide, high-type roads for the sole purpose of enabling motor vehicle owners to travel in comfort and at high speeds when the volume of traffic does not justify such work. The economic justification and the cost must be considered in any scheme of highway development.

The work done on the State highways under the direct supervision of the Board has in general been the widening, strengthening, super-elevating curves and general improvement of the existing roadways. Not only is the Board keeping in view the maintenance of the highways at a high standard of efficiency under an organized system of patrol, but is constantly improving them in order to meet the requirements of modern traffic. The efficiency of the highways has been organized on the services they are designed to render.

The additional safety secured by super-elevating the curves is so great, and the effect in reducing the wear on the road around bends so pronounced, that the Board is extending this work as speedily as funds will permit.

During the past year the Board has continued with the development of satisfactory road surfaces at reasonable cost. Various types of construction are being closely observed and much information is being obtained as to the behaviour of the materials used and the suitability of the class of work for particular localities.

Roads of this character form the major part of the highway system, and improvements effected from time to time at relatively low cost render them trafficable throughout the year.

In accordance with the usual practice a road traffic census was taken on the State highways during the months of August and February. The records in the August return disclose that there is little change in the general character of the traffic excepting that the percentage of commercial vehicles was the highest yet recorded. The percentage of horse-drawn vehicles, which represents a very small amount of the total traffic on the highways, is still slowly decreasing; the percentage of solid-tired motor vehicles is also gradually diminishing, whilst the percentage of heavy motor trucks is small in comparison with the number of light trucks. As is general throughout the country, passenger vehicles predominate on all roads.

The February census shows that the number of motor vehicles using the highways was slightly in excess of the number previously recorded, but there was a slight increase in the percentage of motor vehicles fitted with solid rubber tires.

From the investigations made, essential facts are obtained concerning the density, type, load, and distribution of traffic, upon which an economic programme of improvements can be planned for future traffic.

Where roads constructed with crushed rock or gravel, which are subjected to frequent and concentrated traffic, show signs of rapid wear through the action of the wheels of vehicles, it is found that surfacing material is lost to a depth of from $\frac{1}{3}$ inch to 1 inch per annum. The replacement of this material may amount to a considerable sum annually; as much as £150 per mile. In such cases it is economical to treat the surface with bituminous materials at a cost of £400 per mile, and this practice has been followed by the Board. In this way many miles of State highways have been improved to a standard capable of carrying the traffic using them, and a considerable sum has been saved in their maintenance.

By continuing this method of improvement in stages to meet the growing demands of traffic, 136 miles of State highways were added to the mileage dealt with in previous years, at a cost of £54,116. Several miles which were built many years ago to a standard consistent with traffic requirements at that time, had to be re-conditioned to carry the increased volume of traffic now passing over them.

The work done comprised re-conditioning and improvement of existing surfaces, and the betterment of constructed sections. Resealing of 178 miles was carried out at a cost of £51,820, and the general maintenance by patrolmen of 2,234 miles involved an expenditure of £114,949. An expenditure of £13,683 was incurred from the Federal-aid roads grant in restoring the bridge over the Snowy River at Orbost, which was seriously damaged by floods, and in re-conditioning urgent sections of the highways.

By the method of stage construction and surfacing with bituminous materials the highways are being built up to a uniform condition, capable of carrying ordinary traffic, without the cost of maintenance becoming unduly high. The cost of an 18-ft. roadway of this type ranges from £800 to £1,500 per mile, according to the cost of the materials, transport, &c.

The total length of State highways restored by this method during last year was approximately 50 miles.

In previous reports the necessity for regular and systematic maintenance has been emphasized. So long as lightly constructed roads are attended to in this manner, the cost of maintenance has been found to be reasonable, and serviceable roads, which can economically carry up to 2,000 vehicles per day have been made available. The average cost of maintaining State highways during the past year was £77 per mile, which includes the cost of sealing and resealing.

The length of State highways declared under the provisions of the Country Roads Act was 2,296 miles at the 30th June, 1934, of which 2,135 miles are constructed and available for traffic throughout the year. The sections still requiring to be constructed or improved are situated chiefly on the newly-declared Murray Valley Highway, between Tintaldra and Towong, Yarrawonga and Nathalia, Piangil and Hattah, and between Mildura and the South Australian Border. These will be dealt with as soon as funds can be made available.

For the protection of lightly constructed sections of the Western Highway in the Shires of Stawell, Wimmera, and Dimboola, the Calder Highway between Wycheproof and Mildura, the Murray Valley Highway from the eastern boundary of the Yarrawonga Shire to the South Australian Border, and the Prince's Highway east, between Orbost and the New South Wales Border, the Board found it necessary to continue the prohibition of the use on these roads of motor vehicles exceeding, with the load, 6 tons in weight. On the Calder Highway, between Mittyack and Mildura, the Board was compelled to prohibit the use of trailers drawn by motor trucks owing to the damage caused by the wheels of the loaded vehicles breaking through the edges of the pavement during periods of dry weather, especially when braking the trucks.

The total amount expended on State highways, including the replacement of bridges, for the year was £419,875, of which £404,862 was provided from the Country Roads Board Fund for restoration works costing £289,913, and general maintenance, involving an expenditure of £114,949. £13,683 was provided from Federal-aid roads funds and £1,075 from unemployment relief funds, supplemented by £255 from the Country Roads Board Fund to cover cost of material.

The importance of the road extending along the Murray Valley from Corryong on the east to the South Australian Border on the west, which was declared a State highway in 1932, has been stressed in a previous report of the Board.

With the rapid development of the area served by this highway, which has taken place on both sides of the Murray River, a considerable amount of road work was carried out during the year, resulting in the construction of 53 miles of new work, and the improvement and restoration of 83 miles of the existing roadway.

On the eastern side of Echuca, as far as Corryong, covering a distance of 239 miles, it is now possible to traverse the highway in all seasons, and the same applies to the section from Echuca as far as Swan Hill, a distance of 94·35 miles.

With the improved road facilities, produce from the agricultural, pastoral, and dairying districts north and south of the river is now being transported over much longer distances to the railways and markets serving these areas.

Within the Shire of Towong general maintenance by patrolmen was carried out over a length of 78 miles. Between Walwa and Jingellic the existing gravelled road was reconditioned, and 1 mile of formation was completed from Burrowye to Thologolong, thence as far as Granya, 7 miles of construction, together with the erection of a 4-span steel-girder bridge, were practically completed.

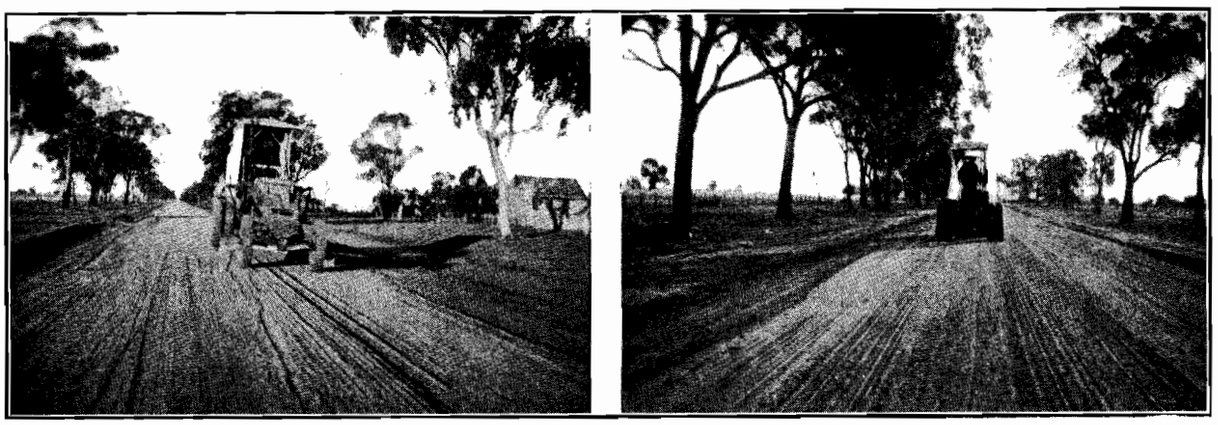
For the length of 21·3 miles in the Shire of Upper Murray general patrol work, surfacing with granitic sand and constant dragging were carried on, particular attention having been given to sections which are to be sprayed with bitumen during the coming summer.

Between Wyuna and Swan Hill the full length was improved to a standard capable of carrying the greatly increased traffic now using it. Near Wyuna advantage was taken of local deposits of sand to carry out sanding to a loose depth of 1 inch on the newly-constructed formations. Swamp cement was also used in the same locality, spread to a consolidated depth of 3 inches.

Owing to the light construction between Echuca and Kerang, and the absence of further supplies of road-making materials in the area, a commencement was made with sealing, resulting in 13·7 miles being completed during the year.

The steady programme of reconstruction and continuous maintenance by patrolmen resulted in improvement to the Murray Valley Highway (Section 2) from its junction with the Hume Highway at Barnawartha to Echuca, over a distance of 137·89 miles.

A feature of the existing road was its narrowness and the absence of shoulders in the Rutherglen and Yarrawonga Shires. This was rectified by the construction of shoulders for a distance of 18·47 miles. Between Strathmerton and Nathalia, which was practically impassable in winter, 17·66 miles were formed, together with 2·40 miles between Yarrawonga and Cobram. Sanding the new formations to make them passable during the winter months was then put in hand, resulting in 6 miles being completed by the end of the year.



Plates Nos. 13 and 14.—Showing Sand Mixing on the Murray Valley Highway, between Strathmerton and Nathalia.

The new formations were treated with 1 inch loose thickness of sand mixed with the subgrade with a power grader for a length of 6 miles and afterwards consolidated by traffic and continuous dragging, and this work is being continued. Open crossings were eliminated or replaced by culverts, thereby providing a good trafficable road.

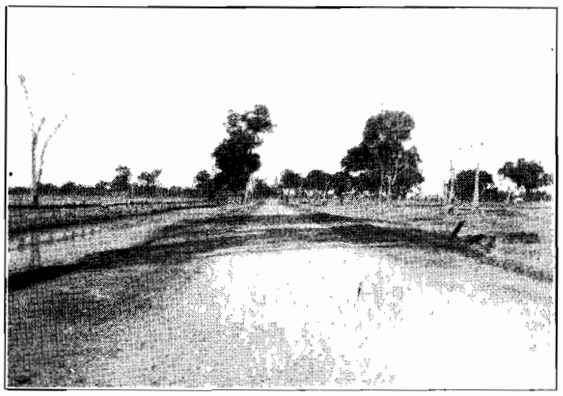


Plate No. 15.—Murray Valley Highway.—Showing shoulders placed on narrow road-way.

In the Swan Hill Shire, comprising a section of 72·33 miles, which is supervised by the Shire Engineer, an amount of £3,323 was expended in reconditioning, sealing, and resealing, whilst an expenditure of £3,353 was incurred in general maintenance.

Within the Shire of Mildura, covering a distance of 61·78 miles, £935 was expended in reconditioning, sealing, and resealing the existing roadway constructed in previous years prior to the road being declared a State highway. General maintenance was carried out over the whole length at a cost of £617.

The Calder Highway, from Melbourne to Castlemaine, was maintained throughout by permanent patrolmen. Between Keilor and Holden road-mix sealing was completed for a distance of 3·28 miles. By further reconditioning and the extension of sealing, a good bitumen surfaced road has now been provided from the eastern boundary of the Keilor Shire to a point beyond Wycheproof, a distance of 176·6 miles. Details of the work are shown in Appendix G.

On the same highway, between Castlemaine and Bendigo, further lengths of the old and rough water-bound macadam were resheeted with granitic sand, after the road had been re-aligned and re-graded, and the curves super-elevated. Near Ravenswood work of a similar nature was sealed with bitumen.

Between Bendigo and Sea Lake re-conditioning and sealing were extended, and the work done has provided an excellent bitumen surfaced road. Between Marong and Inglewood the road was re-sealed for a length of 16·93 miles.

In the Wycheproof Shire work was carried out north of Wycheproof under the supervision of the Shire Engineer.

The section of the Calder Highway, from Mittyack to Nowingi, which was lightly constructed during previous years, was maintained to a standard sufficient to carry 6-ton loads, the limit of weight imposed on all commercial vehicles using this section. In addition, many improvements were made to vertical and horizontal curves in order to make the road safer for the higher cruising speed of the modern motor vehicle.

For the average traffic using this highway a pavement of the type constructed is sufficient for 95 per cent. of the traffic, but where subjected to occasional heavy loads it would be necessary to substantially strengthen the pavement at a cost far in excess of the requirements of the bulk of the traffic. Any substantial increase in traffic which would justify the removal of the present restrictions imposed upon motor vehicles will be met by the Board raising the standard of the roadway to cope with the greater traffic demands.

The length from Sea Lake to the Murray Valley Highway west of Mildura was greatly improved by forming and grading the unformed sections and by lightly re-sheeting the worn out material.

The eastern section of the Prince's Highway has been systematically maintained from Oakleigh to the New South Wales border for a distance of 327 miles.

From Oakleigh to the Traralgon Shire boundary the highway was considerably improved by re-constructing worn out sections. Sealing and re-sealing were completed over a total length of 11·85 miles. Two bridges over the Morwell River were widened in the Shire of Morwell and a 7-span timber bridge over the Traralgon Creek, east of Traralgon, was erected in place of the old unsafe structure.

From the western boundary of the Traralgon Shire to the border, comprising a distance of 233 miles, a large number of improvements were effected. The most extensive work consisted of the re-sealing of a length of 11·38 miles between Rosedale and Nicholson, and the treatment with roadmix seal of 3·16 miles east of Stratford. 10·39 miles of gravel were also sealed from Narracan to Lakes Entrance, thus completing a continuous bituminous surfaced road for a distance of 199 miles.

West of Orbost a length of 3·2 miles of the Prince's Highway was re-sheeted and sealed with bitumen. Owing to a very severe flood in January last extensive damage was caused to the shoulders of the road after the priming coat had been applied. This coating, however, held the pavement under the action of the flood waters.

Gravelling for a distance of 1·2 miles was completed easterly from Orbost on the approaches and embankment of the new bridge over the Brodribb River.

A marked improvement to the highway was also effected from the western side of the Tonghi Creek by widening the existing formations, easing the curves and gravelling the surface, and similar work was completed from Maramingo Creek to the New South Wales border. A number of old worn-out culverts were replaced by new ones.

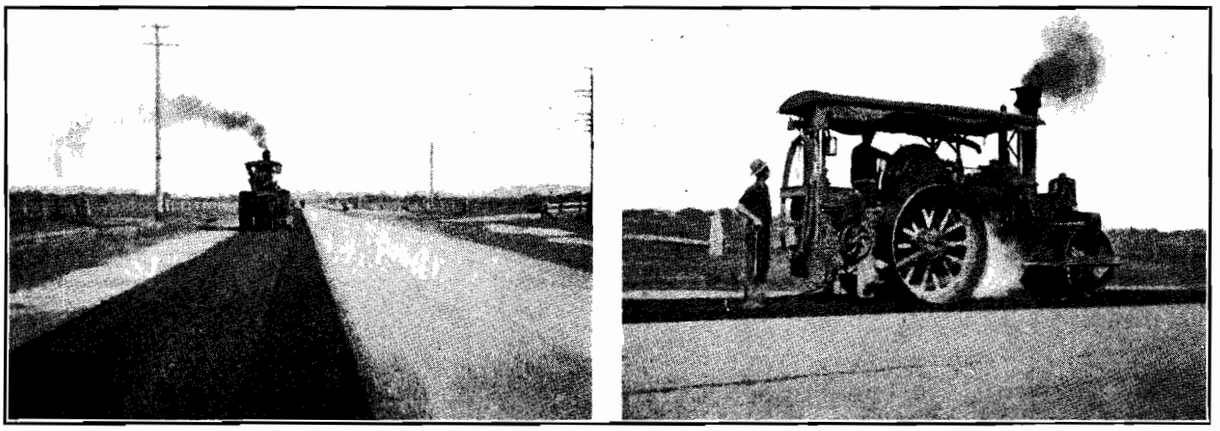
On the western section of the Prince's Highway extensive improvements were effected during the year. At its junction with the Point Cook Road the highway was re-aligned and the curves elevated. Near Armytage 3 miles were re-sheeted with fine crushed rock, and 5·75 miles of shouldering with crushed rock and scoria was completed between Warncoort and Pirron Yallock. Similar work was carried out for 15·54 miles between Allansford and Rosebrook. 30·4 miles were sealed and re-sealed over the whole of the western section of the highway.

Between Yambuk and the South Australian Border in the Warrnambool district, 5·9 miles of worn-out waterbound macadam were widened to 16 feet and re-surfaced with buckshot gravel. 10·9 miles previously treated in a similar manner were re-sealed with bitumen.

The Hume Highway which extends over a length of 189·83 miles from Melbourne to the New South Wales border, was continuously maintained by patrolmen working with horses and drays or with motor trucks.

A length of 1·8 miles was re-sheeted with fine crushed rock and a double coat sealing applied between Craigieburn and Donnybrook. A short section near the Craigieburn railway crossing was re-constructed with modified macadam.

In the area under the supervision of the Benalla District Engineer the most important works on the Hume Highway were widening and treatment with roadmix seal of the waterbound macadam between Baddaginnie and Benalla where a number of improvements were made.

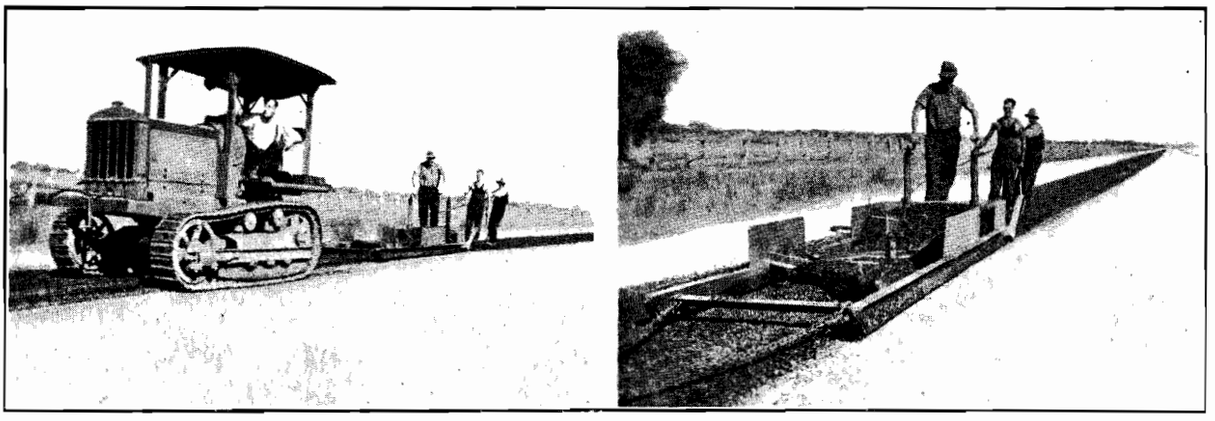


Plates Nos. 16 and 17.—Rolling mixed material on half of finished pavement on the Hume Highway at Bowser.

Two large concrete culverts were constructed between Winton and Glenrowan to replace old timber structures, and a narrow concrete bridge between Springhurst and Chiltern was widened. From Chiltern to the Murray the highway was maintained by patrolmen.

Plate No. 18.—Showing new culvert erected on the Hume Highway between Winton and Glenrowan.

Seven miles of an existing rough pavement were treated with a roadmix seal; a total length of 32 miles was re-sealed with bitumen and priming and sealing were completed on a length of 1·88 miles between Baddaginnie and Benalla, thus completing a bituminous pavement between Melbourne and the Murray River, for a distance of 189 miles.



Plates Nos. 19 and 20.—Showing roadmix seal using ordinary planer on the Hume Highway, between Bowser and Springhurst.

The total length of the Western Highway is 264·7 miles, the whole of which has been constructed and improved.

West of Deer Park, 1·5 miles were re-sheeted in fine crushed rock and a double coat seal applied. Re-sealing was completed west of Bungaree for a length of 2·7 miles, and a length of 55·2 was maintained.

The bitumen surface west of Ballarat was extended by an additional length of 13 miles, making a continuous bitumen surfaced highway, covering a distance of 186·6 miles from Melbourne to the Wimmera River, 4 miles beyond Dimboola, excepting for a length of 2 miles of rough metal adjoining the Horsham Borough on the west. Nearly half the remaining length of approximately 60 miles is surface sealed, including long sections through Nhill and Kaniva. Between Dimboola and Nhill 3½ miles of construction were completed.

Drainage throughout is being gradually improved. A new culvert at Dadswell's will minimize flooding, whilst new drains near Horsham and between Dimboola and Nhill have proved effective.

The road surface between Dimboola and Nhill was also improved by the use of limestone rubble, mixed with scrub gravel.

A considerable improvement was effected to the northern section of the Midland Highway, between Benalla and Shepparton, which must prove of inestimable benefit to farmers living along and in the vicinity of the highway.

By priming and sealing 22 miles and applying a roadmix seal on 4 miles of the existing sealed pavement this important cross-country highway is now in excellent order, and is being maintained in that condition by systematic patrol.

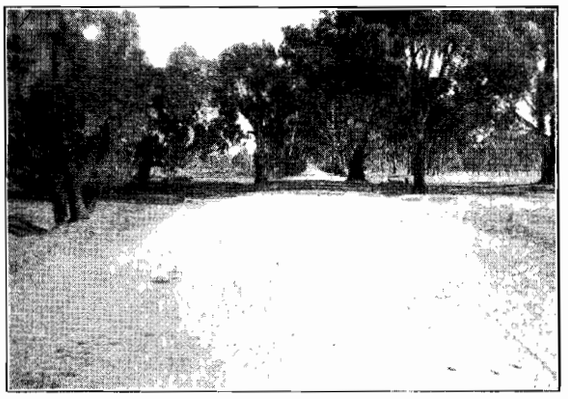


Plate No. 21.—Showing sealed pavement near Casey's Weir, Midland Highway.

On the eastern section of the highway between Benalla and Maindample turn-off, narrow formations were widened and re-sheeted with granitic sand, a number of objectionable open crossings were regraded and the highway maintained by patrolmen. A length of 3 miles commencing at the junction of the Hume Highway was primed and sealed.

Plate No. 22.—Widened section of Midland Highway, near Maindample Turnoff.

The western section of the Midland Highway, extending from Geelong to Ballarat, was considerably improved. As a result, a large volume of traffic from Ballarat and surrounding districts is now traversing this highway to Portarlington, Queenscliff and other seaside resorts on the Bellarine Peninsula, where the main roads radiating from Geelong have been placed in good condition.

Extension of the work of re-conditioning and sealing on the Northern Highway was completed during the year, and a bituminous surfaced road is now provided for the whole distance between Melbourne and Echuca, via Bendigo.

The Omeo Highway, extending easterly from Bairnsdale, northerly through Omeo and Mitta Mitta and on to the Murray Valley Highway, which it joins near Tallangatta, covering a total distance of 185.2 miles, was regularly maintained by top dressing with suitable gravel, dragging the surface and shoulders, and attending to drainage. A two-span timber bridge, with half-a-mile of approach formation, was constructed over the Little Scrubby Creek near Tallandoon school.

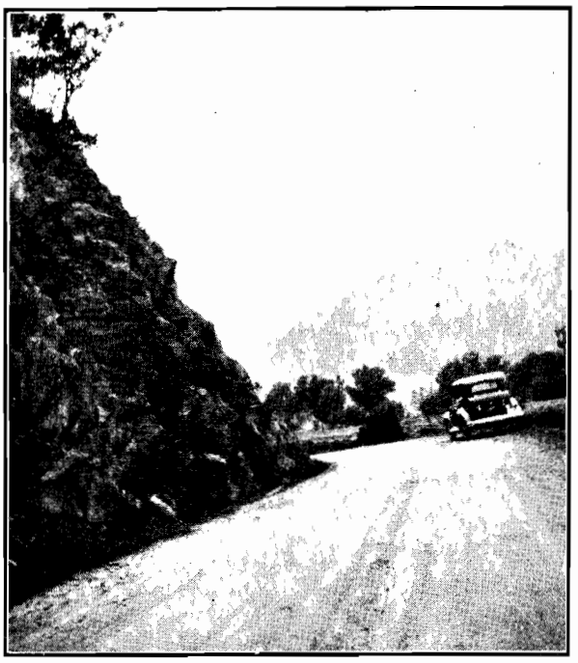


Plate No. 23.—Section of Omeo Highway in the Shire of Towong.

Owing to serious floods during the year on a section of the highway over the Tambo River flats, the township of Bruthen was completely isolated, even the railway station being cut off from road communication. With a view to avoiding such conditions in future, investigations are being made as to the possibilities of constructing a high level road.

The Bonang Highway, which extends for a distance of 72 miles from the northern boundary of the Orbost township to the New South Wales border, near the Delegate River, was continuously maintained by patrolmen throughout the year.

Improvements were effected between Little Bill mountain and the border by widening dangerous embankments, superelevating curves and gravelling for a total length of 10 miles.

For the accommodation of the maintenance patrolmen, three timber cottages were erected at Bonang. These are occupied by the workmen on payment of a rental sufficient to return interest on the cost and to cover depreciation.

The practice of accommodating the patrolmen in suitable houses in remote and outback areas of the State, which was established a few years ago at the Cann River and Genoa, on the Prince's Highway, has proved to be a sound policy, as greater efficiency is being obtained from contented workmen having comfortable houses under ideal country conditions.

MAIN ROADS.

During the past year 87.88 miles of new construction works were added to those completed in previous years. With the exception of .41 mile, which were constructed under the Board's direct supervision, the works were carried out by municipal councils. The total cost was £53,091 13s. 3d., provided out of loan funds, of which £26,546 was charged to the municipalities in accordance with the provisions of section 28 of the *Country Roads Act* 1928.

Fifty-two municipalities participated in this expenditure, and 76 new works were carried out, details of which are given in Appendix E.

In addition, £163,843 was expended from Federal-aid road funds and an expenditure of £16,955 was incurred out of funds provided by the Employment Council under Unemployment Relief Act No. 4097.

In comparison with the work completed during the previous year from loan funds 87.88 miles of permanent works were completed to the 30th June last, as against 70.6 miles during the previous financial year. Last year's expenditure from loan funds was £55,092 compared with £35,052 during 1932-33.

The balance of the loan authorization for the construction of country main roads declared under the provisions of the Country Roads Act as at the 30th June, 1934, was £74,704.

Contracts were entered into for forming, gravelling or metalling as permanent works 83.79 miles, compared with 67.74 miles during the previous year.

The maintenance of main roads was carried out by municipal councils with the exception of 446.16 miles of roads previously constructed or restored directly by the Board.

Provision was made for the maintenance of 6,366 miles of main roads from the Country Roads Board Fund, and assistance was also given to municipalities from the Federal grant for similar work where the rate revenue was insufficient to allow of adequate maintenance by the council. The amount made available from Federal funds last year for this purpose was £126,440.

The expenditure from the Country Roads Board Fund on maintenance for the twelve months under review amounted to £465,151, an increase of £58,030 on the previous year's expenditure.

The estimated amount required for the maintenance of main roads was £756,884 for the year. The sum of £632,660 was allotted by the Board and 73.5 per cent. of the allotment was expended.

The increase in the expenditure as compared with that of the previous year was largely due to repairing damage caused by floods in December and January last, and to dry weather conditions during the last quarter of the financial year.

In continuation of its policy of protecting, by cheap and scientific methods, roads that have been constructed from loan funds and other sources, the Board has given close attention to the maintenance of declared main roads. Whilst municipalities as a whole are now recognizing the necessity for regular and continuous maintenance, certain councils do not appear to appreciate the fact that unless this work is carried out systematically under a judicious programme, the cost of restoration will ultimately exceed the amount that should have been expended in maintenance.

In previous reports the Board has stressed the fact that it is an economic waste to spend large sums in construction and restoration if the maintenance of the road is subsequently neglected. The duty of maintaining main roads is imposed on municipalities under the provisions of the Country Roads Act, and unless this work is efficiently done by an organized system of patrol, heavier calls must of necessity be ultimately made on the funds of the municipality and the Board.

As an instance of neglected maintenance may be cited a road situated within a northern municipality upon which approximately £12,000 had been expended in construction, half the cost being paid by the council over a term of 31½ years in accordance with the provisions of the Country Roads Act. Although the Board had allotted to the council a total amount of £600 during the past five years—which was the amount estimated by the council as necessary for the maintenance of the road—£90 only was spent during that period, with the result that the asset created by the expenditure of loan money has deteriorated to such an extent that a substantial sum will now be required to restore it to reasonable condition.

In this case the reason given for the neglect was that the riding in which the road is situated is not in a position to finance its proportion of the cost of maintenance. On this ground other municipalities frequently curtail expenditure on maintenance, with the consequence that a section of road in a riding capable of financing its proportion of the expenditure is adequately maintained, but the section of the same road in the adjoining riding which happens to be in an unfinancial position, is neglected. Under these circumstances, economic and efficient maintenance cannot be undertaken and the Board can, therefore, only come to the conclusion that the present system of municipal finance which many municipalities apply to the various ridings needs radical alteration to avoid wasteful and needless expenditure.

In another case a shire council in the northern part of the State, whose main roads were rough and pot-holey on account of their being inefficiently maintained, as the result of a spasmodic method of maintenance, after conference with and on the advice of the Board's District Engineer, agreed to adopt an up-to-date working system of maintenance by patrolmen. Six months'

experience of the patrol system proved its value in securing smooth surfaces and maintaining the road to a high standard. The main roads are now an example of what can be accomplished by organized effort.

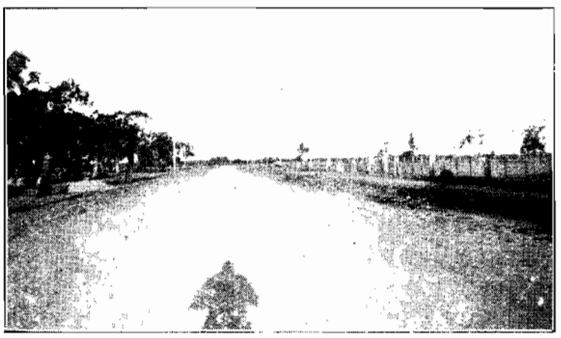


Plate No. 24.—Showing the well-maintained Numurkah–Nathalia Road in the Shire of Numurkah.

During the past year numerous requests were made to the Board by municipal councils for the declaration of additional roads as main roads in order to bring them under the provisions of the Country Roads Act, with a view to assisting the councils in their maintenance. As the funds at the disposal of the Board are at present only sufficient to allow of the maintenance and progressive restoration from year to year of the roads already declared, the Board was precluded from accepting any further responsibility for the upkeep and maintenance of any additional roads.

The problem of road finance is one that not only the Board but the municipalities must carefully consider before projects can be put in hand, and then the funds available must be used economically and provide for methods of construction that will increase the mileage and render satisfactory service to areas unserved with suitable roads.

While it is realized that a number of developmental roads leading to main roads and State highways, which have been constructed out of loan funds, carry, on their completion, a large volume of traffic not of local origin, and should, on that account, be classified as main roads as defined by the Country Roads Act, it will not be possible for the Board to extend further financial assistance to municipal councils until the Country Roads Board Fund substantially increases.

Section 28 of the Country Roads Act prescribes that the Board, with the approval of the Governor in Council, may in the case of any municipality reduce below one-third the amount of its contribution in respect of maintenance on any main road where it is proved to the satisfaction of the Board that the cost of maintenance is excessive, and that such cost is due to motor traffic not of local origin, or to timber traffic. In accordance with this provision the total reductions of municipal contributions for the year ended 30th June last was £38,134.

In addition to this concession, relief was granted under Act No. 4140, by which municipalities were relieved of their liabilities in respect of permanent works on main roads, State highways and developmental roads to a total amount of £50,000. With the assistance also given in the maintenance of main and developmental roads from funds provided under the Federal-aid roads agreement, many of the more necessitous councils have been substantially assisted by the easing of their financial burden.

A feature of the year's work was the progress made on a number of cross country roads, particularly in the north and north-western parts of the State. When completed, these roads will have the effect of relieving the traffic on certain of the main roads and State highways, in addition to forming valuable connexions between important towns.

In the district in charge of the Board's engineer at Beaufort, considerable advance was made in the construction and improvement of main roads.

On the road between Natimuk and St. Arnaud, extensive improvements were made in the Wimmera, Dunmunkle, Stawell and Kara Kara shires, a length of 8 miles only remaining to complete the road. As far as St. Arnaud this road has been lightly constructed throughout, while it is anticipated that with proper maintenance and gradual improvements from time to time it will be quite adequate for the traffic using it.

The east and west connexion between Rainbow and Birchip was nearing completion at the end of the year. The only section requiring attention is in the Birchip Shire approximately $10\frac{1}{2}$ miles in length.

Work on the Dimboola–Warracknabeal Road was advanced both in the Dimboola and Borung Shires, to the shire boundary of Wimmera. It is expected that the connecting link in the last-named shire will be completed during the present financial year.

With the extension of bitumen surfacing on the Ballarat–Hamilton Road considerable improvement was effected.

On the Ballarat–Maryborough Road marked progress was made in the Talbot and Ballarat Shires and the Borough of Clunes. During the present year it is anticipated that the road will be bitumen surfaced for a length of 3·2 miles.

The Grampians Road, from Stawell through Hall's Gap, was improved as far as the Borough Huts, and a contract is now in progress for the improvement of the rough metalled section approaching Hall's Gap. The approach to the Grampians from the Horsham side was also much improved.

A north and south connexion in the western portion of the State was made possible by the construction of the road from Horsham to Hamilton, and by the improvement of the road from Kaniva South through the Little Desert as far as Apsley and Edenhope. This will give greatly improved access to the railway between Goroke and Carpolac.

Owing to suitable gravel not being available, experiments commenced some years ago on the Ballarat–Creswick Road by mixing mine tailings with loam were continued as far as Creswick and on towards Castlemaine, resulting in a much improved road.

On the Loddon Valley Road, running from Bridgewater to Kerang, forming and surfacing between Serpentine and Kerang was extended. A good trafficable road is now provided, which, when sealed, will enable traffic to proceed via Durham Ox to Kerang at all periods of the year. This road, which forms a valuable connexion between the Calder Highway and the Murray Valley Highway, and serves large areas of valuable country, is fast becoming one of the most important traffic arteries in the northern part of the State. It is intended to still further improve the road by stages commensurate with the increase in the traffic.

On the Maryborough–Castlemaine Road reconditioning and sealing was completed during the year, resulting in a bitumen surfaced road being available from Melbourne to Maryborough via Castlemaine.

The surfacing of the road between Princetown and Peterborough was completed, the section of 7·6 miles between Princetown and Port Campbell being lightly surfaced with iron-stone crushed rock. From Port Campbell to Peterborough the formation was surfaced with buckshot gravel.

In the Shire of Dundas the Hamilton–Horsham Road was completed, thus making a surfaced road available from Horsham to Portland via Hamilton at all seasons of the year.

In the Otway District the Apollo Bay to Laver's Hill Road was surfaced with crushed rock for a length of 12 miles. An all-weather road is now provided between these two points.

The Apollo Bay–Wye River Road was also completed during the year by widening and surfacing with crushed rock.

In the Winchelsea Shire formation was completed on the Wymboliel Road over a distance of $2\frac{1}{2}$ miles from Benwerrin westerly towards Mount Cowley. On completion this road will give access to good land suitable for grazing and the production of root crops, which was abandoned some years ago on account of lack of road facilities.

In the Lillydale Shire the Mount Dandenong Road, which was too narrow for the traffic it is called upon to carry, was widened to 30 feet for a distance of $1\frac{1}{4}$ miles from Montrose to Kalorama, and surfaced with crushed rock. In view of the large amount of traffic traversing this road the Board is anxious to complete the widening for the whole length as soon as funds are available.

The Healesville–Alexandra Road in the Shire of Alexandra was improved by widening and re-aligning between Acheron and Alexandra. This work has eliminated dangerous curves and considerably improved the surface.

The Goulburn Valley Road which is an important link serving large agricultural and pastoral areas between Seymour and Shepparton was constructed for a length of 7 miles, and worn out parts were restored. A power grader was utilized in scarifying and shaping, prior to gravelling, and the road is now in excellent condition throughout. In accordance with the agreement reached with the councils concerned the Board has undertaken to continuously maintain the road and this is being done by patrolmen.

The bad section of the Yarrawonga–Wangaratta Road was formed, graded, and drained, resulting in an all-weather road linking the two towns.

The full length of 10·22 miles of the Rutherglen–Springhurst Road was reconstructed, gravelled, and sealed. This road forms part of an interstate road connecting with the bridge over the Murray River at Wahgunyah.

The first link in the new road to connect the important town of Yarrawonga with Benalla was commenced during the year and a length of approximately 4 miles was formed and gravelled between Yarrawonga and Tungamah. The route proposed to be followed will serve a considerable area of valuable country which in the past has been inadequately served with roads.

In the Eastern Gippsland District a large number of improvements were effected to main roads under the direct supervision of the Board.

The Cann Valley Road which extends from its junction with the Prince's Highway to the New South Wales Border was widened, visibility was improved by cutting back dangerous bends, curves were super-elevated and benched, and the section between Noorinbee and the Cann River was top-dressed. The road was maintained throughout its length of 29 miles.

Systematic maintenance was carried out on the Genoa–Gipsy Point Road and improvements were effected by widening the formation, and repairing timber culverts.

DEVELOPMENTAL ROADS.

With the advancement of work on the State highways and main roads which carry a large percentage of the total country traffic, there is a constant demand for more roads of a developmental character.

As the condition of most of the unmade local roads is strikingly contrasted with the improved main traffic arteries, farmers and settlers whose farms are situated away from the main system are continually pleading for the making of their local roads. Rural communities educated to the value of good roads now demand serviceable roads in their own districts.

The construction and systematic improvement of the local developmental roads cannot be done solely by the municipalities. The gradual improvement of these roads in stages by the present method is relieving the most pressing needs and giving relief to those areas where numbers of farmers are isolated during the winter months. Only by the economic use of available funds and the adoption of low cost methods of construction that will adequately serve the people until traffic develops, can it be hoped to increase the mileage and give satisfactory service.

With the funds available the Board is pushing forward the construction of lateral developmental roads extending to fertile areas and giving access to railways and markets at present beyond the reach of farming communities.

Although much has been done in constructing developmental roads to agricultural and dairying districts, much more remains to be done to relieve the pressing needs of the rural areas as yet unserved by roads. When it is realized that there are 75,000 pastoral and agricultural holdings in the State, a large proportion of which has no means of communication during the winter months, the urgency of continuing the construction of roads of this nature is manifest.

The extension and linking up of roads completed in previous years and the provision of additional roads in country unprovided with road access constituted the principal works put in hand during the year.

The amount spent out of loan funds, namely, £88,034, was supplemented by an expenditure of £95,124 from Federal-aid funds, £112,091 from State Unemployment Relief Funds, and £2,004 from the Country Roads Board Fund for the purchase of materials, making a total expenditure on the construction of developmental roads £297,253 for the year.

£11,280 was expended from Federal funds in maintaining developmental roads previously constructed from funds provided out of the grant.

Of the amount of £6,475,000 authorized by Parliament to be expended on the construction of developmental roads from loan funds, a balance of £111,177 was unexpended at the 30th June last. The whole of the amount of £750,000 authorized to be expended in undeveloped and mountainous areas of the State without any contribution by the shire councils, has now been expended.

On the declared developmental roads, the mileage of which was 3,597 at the 30th June, 1934, 165·93 miles constructed out of loan funds were added to the works completed or partially completed during the previous year, compared with 137·74 during the year ended 30th June, 1933. 129 miles were constructed under the supervision of municipal councils, and 36·93 under the Board's direct supervision.

With funds provided under the Federal-aid roads agreement, 277·02 miles of construction works were added to the list of developmental roads partially or wholly completed prior to the 1st July, 1933

Unemployment relief schemes financed from funds provided under Unemployment Relief Act No. 4097, were responsible for an addition of 84·9 miles of surfaced roads, and 96·2 miles of grubbing and clearing.

A comparison of the total developmental road works carried out during the last financial year with those done during the year ended 30th June, 1933, indicates that in the latter period 314·24 miles of roads were constructed or partially constructed by the municipalities and the Board, whilst during the twelve months ended 30th June last 624·05 miles were constructed.

Of the developmental roads completed or partially constructed under the Board's direct supervision, the more important were situated in the Heytesbury Forest, in the shire of Heytesbury, where settlement which has taken place gives every promise of success.

In continuation of the works done in previous years in this area, 4·6 miles of road were completed, 8·3 miles formed and loamed, and 6·2 miles surfaced with buckshot gravel. The surfacing consisted of lightly gravelling sections which became impassable in the winter.

Since the land in the settlement was thrown open a few years ago, a total of 69·1 miles of roads have been cleared and formed to provide outlets for each block, and 6·2 miles have been lightly surfaced. In addition the Timboon–Curdievale Road has been formed and surfaced for its full length of 10·6 miles, 6·5 miles of the Ayersford Road, and 1·1 miles of the Eastern Creek Road have been surfaced. The completed works are being systematically maintained by patrolmen.

With the development of the rich flats along the Gellibrand River, a new road was constructed northerly along the river for a distance of 2 miles, and from Carlisle westerly towards Sandy Creek, on which a length of 2½ miles was cleared and formed. While developing the rich flats and serving the existing settlements along the Gellibrand River, a direct road will also be provided from Princetown to Colac, when completed.

With the extension of the surfacing on the Ferguson-Charleys Creek Road for a distance of 2 miles towards Gellibrand the road is now within 4½ miles of the Ferguson railway station.

In the western district the road from Portland to Nelson, via Winnap, was formed and metalled for a distance of 2·1 miles, thereby completing its construction between Winnap and the Glenelg River to the south of Drik Drik. 7·3 miles were grubbed and cleared between Drik Drik and the 9-mile gate, and 3·5 miles were cleared and formed between that point and Nelson.

Thirteen miles were cleared on the road from Portland to Nelson via Mount Richmond and Kentbruck, between the junction of the Grubbed Road and the Heath Road, and the 9-mile gate. On the Grubbed Road, 2·1 miles were formed and gravelled.

On the Tolmie–Whitfield Road in the shire of Oxley, 2·20 miles of gravelling of the new formation completed an all-weather road which serves a rich tableland. Many settlers who some years ago left this area on account of no road facilities have now returned to the district.

Plate No. 25.—Recently gravelled surface on Tolmie–Whitfield Road in the Shire of Oxley.

The Tolmie East Road, which was surfaced with gravel for a total length of 2·63 miles, will be of considerable benefit to the settlers who were previously isolated during the winter months.

An additional length of 4·89 miles of clearing, forming and grading was completed on the Rose River Road and two timber bridges were constructed. The road is now trafficable between Whitfield and Myrtleford, via Dandongadale. This road will be of great benefit to the settlers who in the past have been seriously handicapped by lack of adequate road communication.

The deviation of the existing road constructed near Cheshunt, eliminated a number of deep-water courses which were impassable in winter and completely cut off settlers from the rail-head at Whitfield.

To provide a reasonable outlet for settlers along the Buffalo River south of Dandongadale, a distance of 15 miles along the Abbeyards Road was cleared and reconditioned.

A number of developmental road works put in hand in previous years were completed by surfacing with gravel during the last financial year, thereby making them trafficable at all seasons. This work formed a very important part of the road system in the South Gippsland district, inasmuch as the roads served valuable dairying country, and are largely used by farmers in conveying their produce to the butter factories and the South Gippsland railway. Among these may be mentioned the Toora–Gunyah Road, the Dingo Creek Road, the Hazel Park Road, and the Binginwarri–Albert River Road.

In addition to these works, extensive formations and widening were carried out on the Christie's–Albert River Road, Madalya Road, Hedley Range Road, Middle Creek Road, Albert River Road, Devil's Pinch Road, the Livingston Road, and on a number of connecting roads.

The Allambee Estate Road in the Narracan Shire was completed by the spreading of crushed rock over the previously formed surface. This road now forms the main outlet for the settlers on the Estate and enables them to transport their cream to the butter factory.

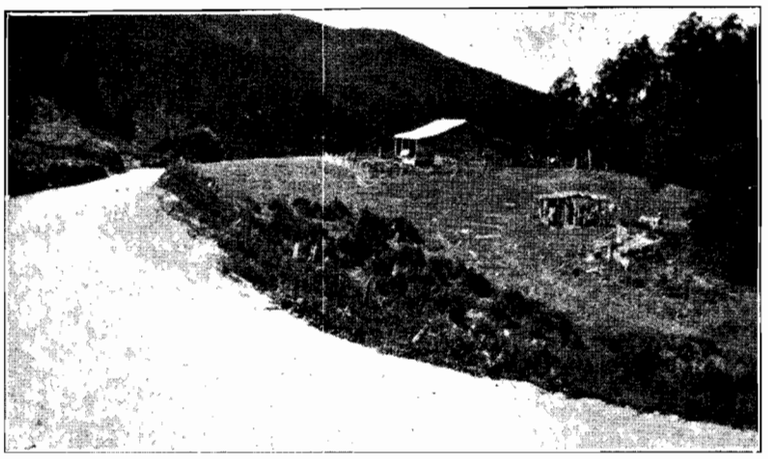


Plate No. 26.—Allambee Estate Road, section of completed road.

In the Eastern Gippsland district grubbing and clearing, light side-cutting and the construction of timber culverts was carried out on the Ambyne Settlement Road, thus completing the road from the crossing over the Deddick River to the top of the spur.

Grubbing and clearing, light side-cutting, and forming was completed on the Wallagaraugh Road, between its junction with the Prince's Highway and the Stoney Creek, a distance of 1·14 miles. One of the most difficult sections between the highway and the settlement has thus been dealt with.

In the Shire of Tambo, the Kalimna West Road was completed between the Nyerimilang turn-off and the Prince's Highway for a distance of 1·79 miles. With the finishing of this section the road system serving the Nungurner settlement has now been completed, thereby providing a good road for the use of the settlers. The work carried out comprises grubbing, clearing, forming and grading, together with regrading of the approaches to the bridge over the Meringa Creek and raising the structure to conform to the new road level.

In the same Shire, the road from Gelantipy to Wulgulmerang was advanced a further stage by completing the section between McDonnell's Lane and the Boundary Creek. With the construction of a number of bridges the road is now completed from McDonnell's Hill to the old mining track below Hume's; 2·68 miles of grubbing, clearing, forming, grading and draining were carried out during the year.

On the Errinundra Road, in the Shire of Orbost, clearing, forming, side-cutting, and the construction of timber bridges and culverts for a total length of 2·06 miles were carried out. When the necessary works are completed on this road a large tract of good land available for settlement will be opened up.

The completion of the Corinella Road, in the Shire of Bass, has supplied the residents of the district with an "all-year" road, the first surfaced road into the settlement. Constructed with gravel the road forms the only means of communication between the Main Coast Road and the settlement at Corinella.

It is interesting to recall that in 1826 one of the earliest settlements in Victoria under Captains Wetherall and Wright was established at Settlement Point, near Corinella. Here tents were pitched and temporary huts erected for the use of the soldiers and the settlers. Ground was cleared for a garden and guns mounted on the Point. On account of its being unsuitable for a penal settlement the place was shortly afterwards abandoned by order of the British Government.

The difficulties in transporting produce prior to the surfacing of the road may be gauged from the photograph shown in Plate No. 27, which depicts a number of fishermen conveying their fish in a wheelbarrow over the unmade road to the motor car which was unable to proceed further along the road.

Plates Nos. 27 and 28.—Corinella Road.—(A) Road before construction. (B) Completed road.

UNEMPLOYMENT RELIEF WORKS.

From the amount of £150,000 made available to the Board on the 1st July, 1932, from the National Recovery Loan to replace a similar sum transferred from the Country Roads Board Fund to consolidated revenue during the year ended 30th June, 1932, under Act No. 4038, the sum of £51,795 was expended during the year under review, leaving a balance of £1,414 to cover commitments entered into.

The work, which was wholly of a reproductive nature, was carried out on roads of a developmental character. The expenditure was distributed over 152 roads, and was generally under contract. Contracts to the number of twenty were entered into by Shire Councils to the total value of £4,363.

A total sum of £28,300 was allotted to the Board by the Employment Council during the year. With this grant, supplemented by a balance of £57,341 available from the previous year's grants, and £4,068 contributed from the Country Roads Board Fund to cover the cost of materials, &c., a total amount of £89,709 was available for expenditure. Of this, £80,585 was expended to the 30th June last, including £63,181 on day labour, and £17,404 on works carried out by contract.

Thirty-four municipalities participated in this expenditure, which was spread over 44 developmental roads and 10 main roads. Thirty-seven projects were carried out by day labour and seventeen by contract. The work done provided rationed employment for 2,759 men, apart altogether from the labour involved in producing the materials used.

Whilst the works accomplished provided the means of employment for a large number of men, representing a variety of occupations, the settler benefited by the provision of improved means of transport. In addition, work has been done which, under ordinary circumstances, would not have been entered upon for many years, either by the municipalities or the Board, resulting in much valuable country being opened up in remote and inaccessible parts of the State and relief being given at a time when the greatest need existed. From the programme of unemployment relief works tangible benefit must subsequently accrue, which will amply justify the expenditure. The work done in clearing, earthworks, widening in cuttings and on curves, which was well adapted to day labour conditions, was spread over a large area of the State and enabled miles of roads to be completed where they were required. As no substantial expenditure was incurred in the purchase of materials and the use of machinery, the maximum relief resulted from the carrying out of these works.

For every £1 expended from unemployment relief funds it is estimated that 80 per cent. was spent on direct labour, and from the standpoint of providing work, road-making must be recognized as an advantageous method by which money can be used.

Among the works carried out were the Kalimna West–Nyerimilang Road in the Shire of Tambo, the Rose River Road in the Shire of Oxley, the road between Gelantipy and Wulgulmerang in the Shire of Tambo, the Portland–Nelson Road (between Drik Drik and Nelson), in the Shire of Portland, the Tolmie East Road in the Shires of Oxley and Mansfield, the Errinundra Road in the Shire of Orbost, the Benalla–Yarrawonga Road within the Shire of Benalla, the Healesville–Alexandra Road in the Shire of Alexandra, and the Tolmie–Whitfield Road in the Shire of Oxley. Details of these works are described under the heading of "developmental roads" or "main roads."

Plate No. 29.—Section of the Rose River Road in the Shire of Oxley, constructed from Unemployment Relief Funds.

Other works continued from the previous year or put in hand during 1933-34 included the construction of the Deddick River Road in the Shire of Orbost, designed to serve the settlement at the Ambyne, as well as settlers along the Deddick River.

Along the Albert River in the Shire of South Gippsland valuable work was carried out in forming and widening the road. This will cater for a large number of farmers carrying on dairying pursuits in the district.

Plate No. 30.—Showing work completed on the Tolmie–Whitfield Road in the Shire of Oxley.

Extension of forming and widening on the Middle Creek Road in the Shire of Morwell provided a more serviceable means of communication for the settlers engaged in dairying in this valuable area.

The expenditure of the grant of £3,000 for forming and surfacing the road into the Kangaroo Lake district, near Kerang, provided a good road for use of settlers engaged in citrus growing.

The work on the Eildon Weir–Jamieson Road was extended by clearing and forming a further length of 1·6 miles.

The necessary fencing was erected on the Tuxion Road, situated in the Otway Shire, which was cleared and formed during the previous year. This road provides a much improved means of communication on a better grade, eliminating the old track, which was impossible to negotiate in wet weather on account of the excessively steep grades.

Plate No. 31.—Section of the Drik Drik–Nelson Road in the Shire of Portland, constructed from Unemployment Relief Funds.

FEDERAL AID ROADS.

The use of Federal-aid funds has been the major factor in the construction of roads throughout the State, and has been of material assistance to municipalities in the provision of roads of a developmental character. A large mileage of constructed roads has been made possible, and the Board's progressive construction policy has been carried on from year to year since the original Act was passed in 1926.

The sum of £430,393 was made available to the State under the Federal-aid roads Agreement during the year ended 30th June last. Supplemented by an amount of £3,223 carried forward from the previous year, these amounts were expended or committed at the 30th June last.

On account of the reduced amount available from loan funds for the construction of main and developmental roads, and the disinclination of many councils to incur loan expenditure owing to their subsequent inability to contribute, advantage was taken of funds from the Federal-aid roads grant for this work.

The total expenditure on the construction of roads of a developmental character was £115,169, inclusive of £20,045 spent on roads to isolated farms. £293,260 was expended on main roads construction, and £13,683 on the reconstruction of bridges, restoration works, and repairs necessitated by floods.

To assist municipal councils in maintaining main and developmental roads, an amount of £44,535 was allotted from Federal funds, of which £39,590 was expended during the year. Main roads accounted for an expenditure of £28,310, and developmental roads £11,280.

Practically in all cases the grants for roads to isolated farms were supplemented by grants from municipal councils or by the settlers themselves either contributing in cash to the cost of the work or by carrying out portion of it as their contribution. In this way work of much greater value than represented by the actual expenditure of funds was undertaken.

The number of projects put in hand was 343, of which 216 were on developmental roads, and 127 on main roads.

Agricultural and dairying districts of the State derived considerable benefit from the construction of roads of a developmental nature, resulting in great improvements being effected in the roads leading to the railways, butter factories, and markets. The length constructed on roads of this type was 277·02 miles.

The construction works on main roads consisted largely of constructing and restoring trunk roads carrying traffic from developmental and other roads to railways and market towns.

An expenditure of £4,924 was incurred in reconstruction of the Prince's Highway at Armytage, in the Winchelsea Shire, £280 in completing the bridge at Dartmoor, £3,330 in restoring the bridge over the Snowy River at Orbost—which was seriously damaged by floods, £901 in making good the damage caused to the Prince's Highway in Eastern Gippsland, and £4,248 in completing the resheeting of the Western Highway at Deer Park.

BRIDGES.

During the year 103 bridges and culverts were erected, 38 by Shire Councils and the remainder under the direct supervision of the Board, bringing the number of bridges constructed since the inception of the Board to 1,469.

The total length of bridges erected on State highways during the year was 1,264 feet.

Owing to the old bridge over the Ovens River at Wangaratta being in an advanced state of decay, it was found necessary to replace it by a new structure. A contract was let for the erection of a three-span deck type plate girder bridge, having concrete abutments and piers, with a timber deck. A roadway of 22 feet has been provided, with a footway of 6 feet on the upstream side. Provision has been made for the bridge to be widened to 36 feet when the amount of traffic justifies such widening.

Concurrently with the erection of the new bridge provision is being made for stock traffic by the erection of a separate bridge leading directly to the sale yards. The work on the bridges, which is still in progress, was let for an amount of £11,000 in four separate contracts.

Plate No. 32.—Wangaratta Bridge.—Illustrating progress of work at 30th June last.

It is interesting to note that in 1841 a flat-bottomed boat and rope were used for a few years to convey passengers across the river, and a punt was in use until 1856. In that year a timber arch structure was erected, consisting of 160 feet span, which was in use until 1886, when the bridge, which was recently demolished, was erected. Full details of the work being carried out on the new bridge are contained in the report of the Chief Engineer.

On the same highway the old timber bridge over the Sunday Creek at Broadford was restored by using second-hand wrought-iron plate girders, reconstructing a second abutment of reinforced concrete faced with masonry obtained from old houses in the vicinity, and utilizing the plate girders to form a single span with a timber deck. The cost of the work was £1,700.

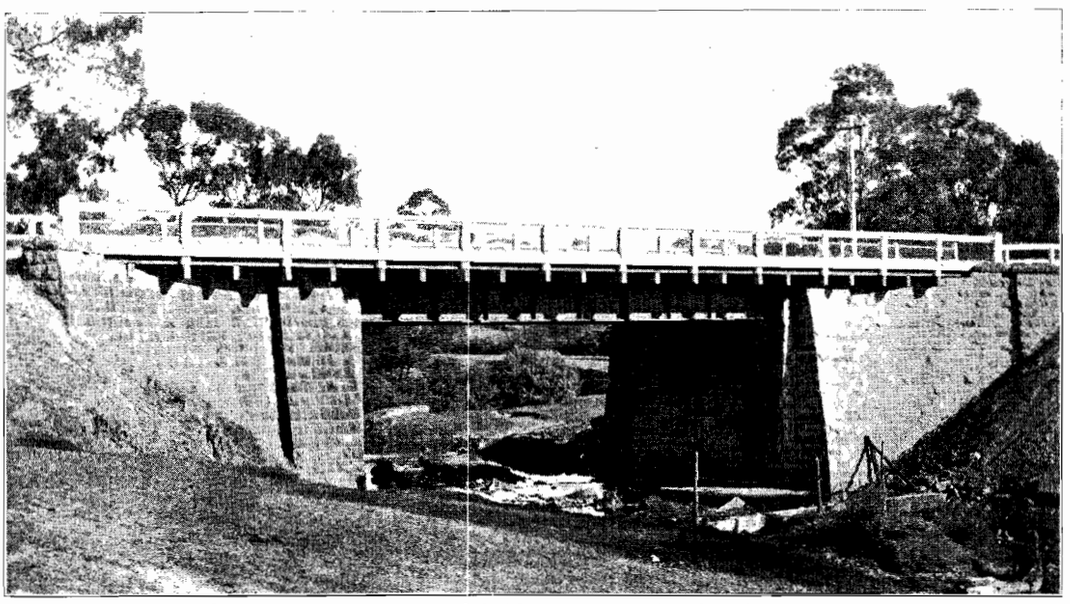


Plate No. 33.—Showing the restored bridge over the Sunday Creek at Broadford.

A new superstructure consisting of steel joists with a concrete deck was erected over Chinaman's Creek at Kilmore in place of a worn-out timber structure. Particulars of the work are given in the report of the Chief Engineer.

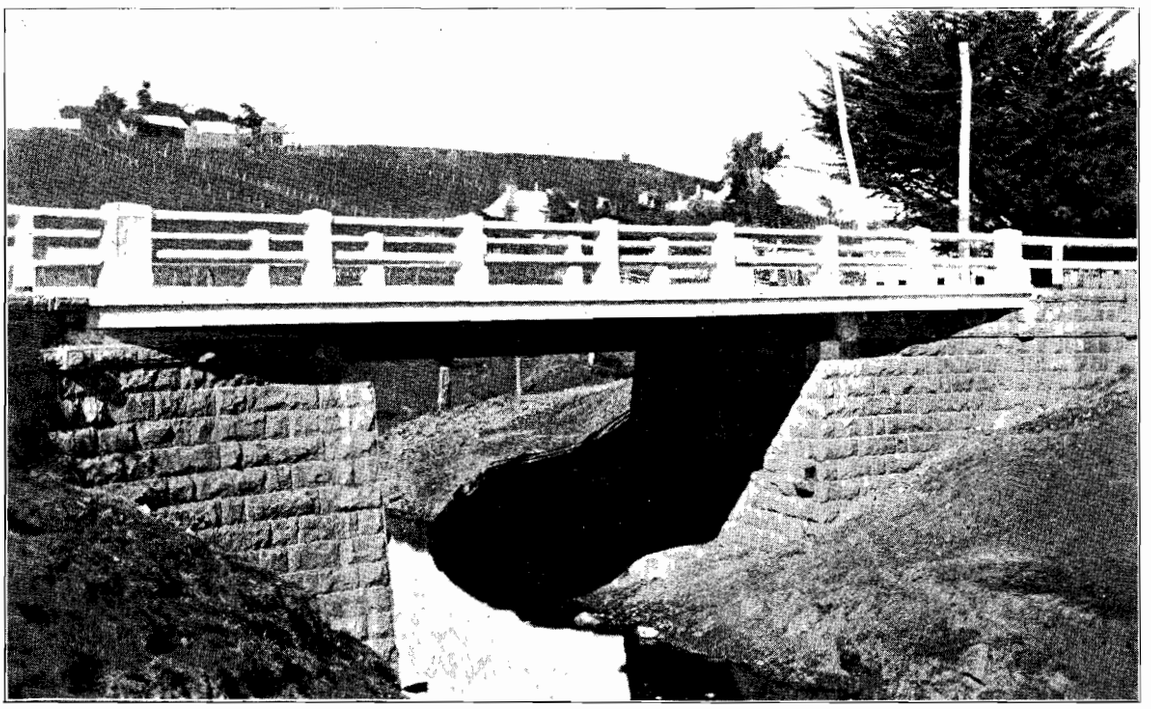


Plate No. 34.—Re-conditioned bridge over Chinaman's Creek at Kilmore.

At the eastern end of the main road in the Township of Colac, the old bridge over the Barongarook Creek, which was becoming unsafe, is being replaced by a new structure in concrete, 120 feet in length, having a width of 42 feet overall. The bridge consists of four spans of 30 feet. There is a roadway 30 feet wide and two footways of 6 feet each. The contract price for the work was £3,210.

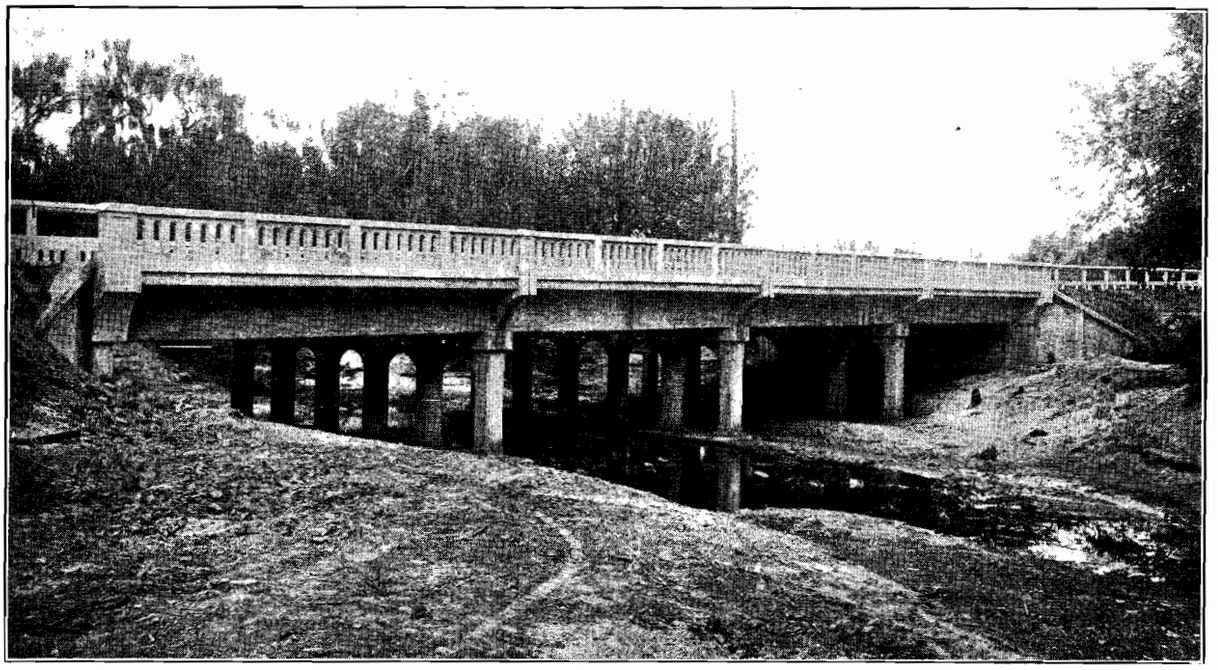


Plate No. 35.—Showing completed structure over Barongarook Creek at Colac.

On the Midland Highway, between Benalla and Shepparton, a single span bridge of rigid frame design was completed. A solid deck over a 20-ft. span was provided at a cost of £495.

On the Point Nepean Road, in the City of Mordialloc, it was necessary to widen the existing concrete bridge over the Mordialloc Creek, erected by the Board in 1918, owing to the development of traffic. The new structure gives a roadway of 40 feet with two footways of 6 feet each. A subway was also built to cater for pedestrians at periods of dense traffic.

The additional width of bridge and approaches, together with the subway, has so greatly improved traffic conditions that little delay is now caused.

As the result of record floods which occurred in January last, considerable damage was caused to roads and bridges in Eastern Gippsland, resulting in the destruction of McKillop's bridge at the junction of the Snowy and Deddick Rivers, the washing away of smaller structures over tributaries of the Deddick River, and the destruction of two spans of the bridge over the Snowy River at Orbost.

The Orbost bridge, which was built in timber by the Railway Construction Branch in 1922, has since been permanently repaired by strengthening the existing piers and erecting a welded steel truss span of 124 feet in length, in place of the two spans washed away.

Within a fortnight of the destruction of these spans, a temporary suspension bridge, as shown in Plate No. 36, was constructed over the gap, and traffic was able to make use of this, pending the erection of the new span.

Plate No. 36.—Showing temporary suspension bridge over the Snowy River at Orbost.

The temporary and permanent work was carried out under the direct supervision of the Board at a cost of £4,400.

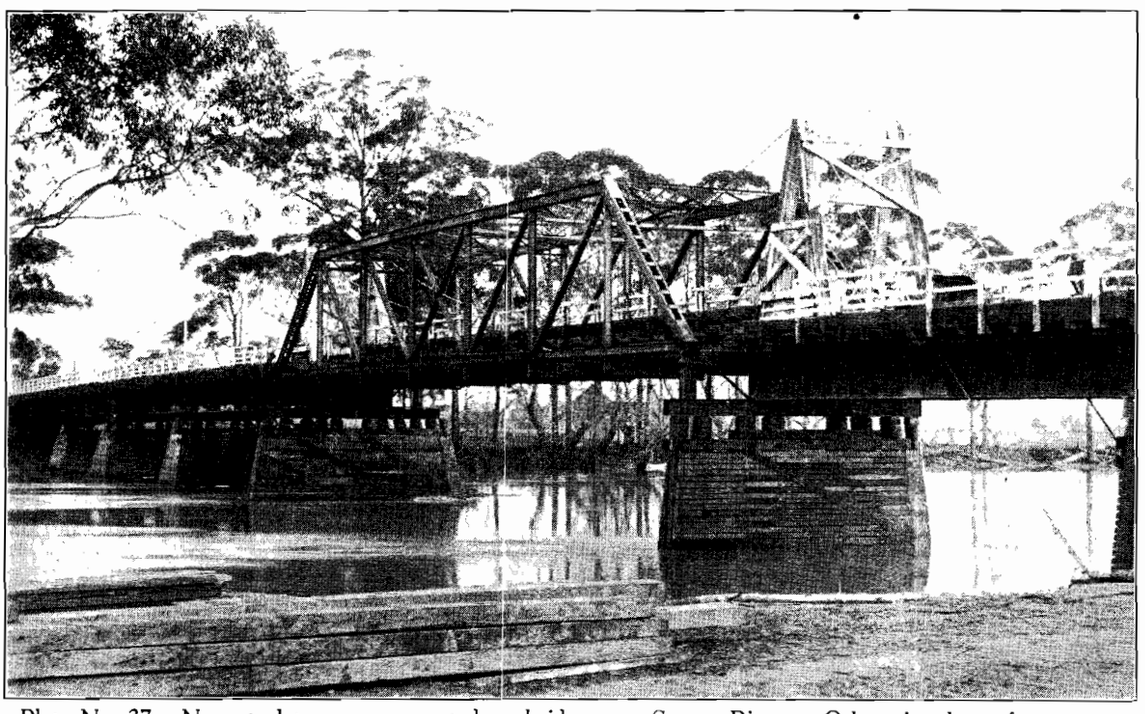


Plate No. 37.—New steel truss span erected on bridge over Snowy River at Orbost in place of two spans destroyed by floods.

At McKillop's bridge the volume of flood waters was twice as great as that in the largest flood recorded during the 43 years that observations have been made. The difficulty in estimating flood flows, which must be taken into consideration when designing bridges, may be gauged from the fact that the bridge was erected at a level of 10 feet higher than the previous highest recorded flood, and provision was made for a flood 50 per cent. greater than any formerly known.

Tenders have since been accepted for a new bridge and for raising it to a height of 11 feet above the 1934 flood on the existing piers.

The total length of bridges erected on main roads during the year was 1,107 feet, whilst the length of those completed on developmental roads was 351 feet.

ROADS TO ISOLATED FARMS.

Good roads, capable of being used at any time of the year, are vital to the man on the land, particularly at the present period of low prices and decreasing profit. Suitable means of transport for the farmer are necessary as a means of lowering his cartage costs, which must be paid for taking his produce out and bringing in his supplies.

Another important consideration is that greater loads can be hauled on surfaced roads over a shorter period of time at any season of the year. The farmer is thus enabled to plan ahead for his future farming operations, and he is in a position to remove his produce when market prices are high.

The provision of roads to the isolated farm is a problem which has engaged the active attention of the Board and the municipalities for the past few years. By the allocation of funds from time to time, and with the co-operation of municipalities and the assistance of settlers, the most pressing cases are being relieved and considerable headway is being made.

The practice of utilizing local materials in the construction of farmers' roads was followed during the past year. Crushed rock or suitable gravel was used in their construction, and local labour was employed in carrying out the work.

By requiring a contribution from the settlers benefiting from the new road—either in cash or labour—or by the use of their horses and drays, a considerable amount of work over and above what would have been done solely from the Board's grant was accomplished. The spirit of self-help evinced by the farmers in giving their assistance in this way contributed, in no small degree, to the construction of longer lengths of roads, and indicated their appreciation of the grants made by the Board. The co-operation and assistance of municipalities was also instrumental in increasing the number of roads constructed to the farmers' gates, or commencing the work with a view to its ultimate completion during the ensuing year.

A total sum of £23,727 was provided out of Federal-aid funds, of which £20,045 was expended to the 30th June last. 257 roads, serving 496 farms, were constructed or were in course of construction at that date.

The incessant demands made on the Board for the provision of more funds for the construction of roads of this type emphasizes the urgency and necessity of the work, which is being extended from time to time by the judicious expenditure of moneys as they become available.

DAMAGE BY FLOODS.

Owing to exceptional floods which occurred during November and December, 1933, and January, 1934, a considerable amount of damage was caused to roads and bridges in the northern, north-western, western, and eastern districts of the State.

In the northern and north-western districts floods were confined to :—

1. The Loddon River at Bridgewater and at Bullabul Creek.
2. The Avoca River and the Tyrell Creek, north and south of Charlton, and
3. Fifteen miles north to 15 miles south of Ouyen.

North of Charlton traffic was obstructed for approximately four days on the highway, but at Ouyen, where the total rainfall was 6·65 inches in eight days (of which 5·91 inches fell in three days), the drivers of vehicles along the Calder Highway, exercising ordinary precautions, were able to use the road.

On the Murray Valley Highway no serious damage resulted from the abnormal rainfall, and traffic was not greatly inconvenienced.

Plate No. 38.—Showing floods on the Murray Valley Highway east of Nine Mile Creek.

The St. Arnaud Road in the Shire of Charlton was extensively damaged, and repairs were immediately carried out by the Shire Engineer.

Plate No. 39.—Showing damage on the St. Arnaud Main Road in the Shire of Charlton.

Damage on the Castlemaine–Maryborough Road was repaired at a cost of £260, and £50 was expended in making good the damage on the Glengower–Joyce's Creek Road.

The total cost of repairing the damage on roads under the charge of the Bendigo District Engineer was approximately £1,786.

In the Beaufort district the total cost of repairs was £1,332, of which £338 was expended on the Ballarat–St. Arnaud Road, and £772 on roads and bridges in the Shire of Grenville.

In the Eastern Gippsland district the superstructure of the bridge recently erected by the Board at the junction of the Snowy and Deddick Rivers was completely destroyed by a record flood in January last, in spite of the fact that the new structure had been erected 10 feet higher than the previous record flood level.

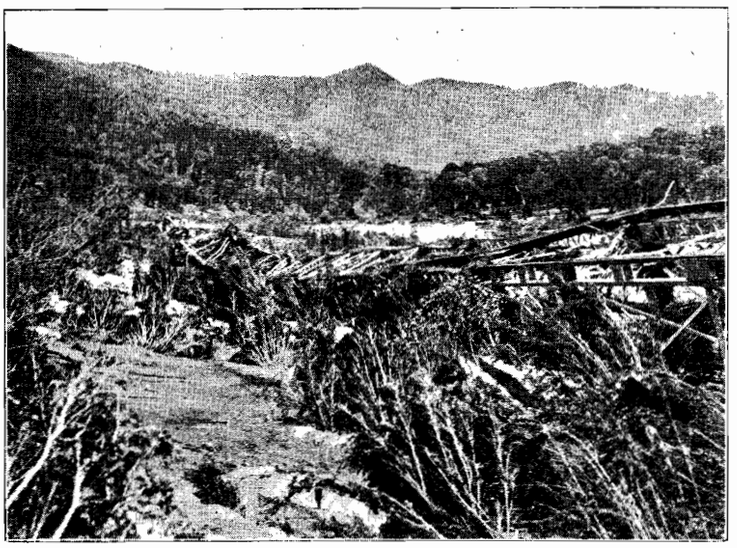


Plate No. 40.—Showing the effect of the flood and parts of the destroyed bridge at the junction of the Snowy and Deddick Rivers.

The Marlo Road in the Shire of Orbost was extensively damaged, necessitating repairs costing £670. Provision of a temporary suspension bridge over the Snowy River at Orbost, and the erection of fencing, &c., involved an expenditure of £2,749. The total cost of repairs in the East Gippsland area to the 30th June was £3,000.

Plate No. 41.—Showing damage by floods on the Marlo Road.

An outstanding feature of bitumen-surfaced roads, apart from the advantages already referred to in this and previous reports of the Board, is their ability to withstand the effects of heavy floods. The value of bitumen in this respect was evidenced during severe floods in January last in the Orbost and adjoining districts, where pavements treated with this material were little damaged, thus effecting considerable savings in the cost of restoration.

In the Otway district heavy repairs were necessitated on the Apollo Bay–Wye River Road, the Wymboliel Road and the Wye River to Jamieson Road, as well as on the section of the Ocean Road at Mount Defiance. The cost of restoration, namely, £16,295, was provided for from Federal-aid road funds.

The aggregate expenditure in restoring roads and bridges throughout the State due to floods during the year amounted to £23,667.

TREE PLANTING AND HIGHWAY IMPROVEMENTS.

In previous reports the Board has emphasized the desirability of improving the appearance of roadsides and beautifying the landscape by adopting a definite scheme of planting and continuing the work from year to year as funds become available.

The public interest that has been awakened during the past few years to the need of enhancing the natural beauty of the countryside through which the highways pass has encouraged many organizations to take an active part in the work of tree planting. No longer does the popular conception exist that roadside improvements consist only of constructing the road to modern traffic requirements; it is now recognized that the highways are largely used by motor traffic for recreation purposes.

Much useful work has been done, and by co-operation with Municipal Councils, local Progress Associations, members of the Nurserymen's and Seedsmen's Association, Tree Planters' Association, the Malvern Horticultural Society, and other bodies, considerable progress has been made.

By this means the Calder Memorial Avenue, which is the longest avenue in the State, has been planted. The avenue consists of 230 plantations, and each plantation contains 33 trees. The project, which was carried out under the expert supervision of Messrs H. Linaker, Superintendent of State Plantations, J. Railton, nurseryman, and D. Matthews, Curator of the Footscray City Council, was put in hand in 1928 to perpetuate the memory of the late Mr. William Calder, the first Chairman of the Board, and has now been completed over a length of 34 miles.

Seven thousand six hundred permanent trees were donated by a number of Municipal Councils, the Geelong Town Planning Association, and members of the Nurserymen and Seedsmen's Association, including Mr. James Railton, G. Rimington Pty. Ltd., Hodgins Nurseries Pty. Ltd., C. A. Nobelius and Sons Pty. Ltd., and Mr. Geo. Gilmour. The cost of planting was partly met from public subscriptions.

The practical help rendered by those interested in the scheme largely contributed in bringing it to a successful conclusion.

A number of Councils have also taken in hand the planting of the Prince's Highway between Springvale and Dandenong, and a commencement has been made on an approved plan with a view to continuing the work from time to time as funds permit.

The Cranbourne Shire Council has also put in hand the planting of the South Gippsland Highway, between Cranbourne and Dandenong. Gisborne Shire Council, in co-operation with the Tree Planters' Association and Mr. Jas. Railton, extended the scheme commenced a few years ago, and a commencement has been made with the planting of the Omeo Highway at Swift's Creek by the Omeo Shire Council.

The policy of utilizing the proceeds derived from the sale of dead timber on main roads and State highways in planting additional trees, and in replacing with suitable trees those which have been cut down on account of their interference with telephone and electric transmission lines, has been instrumental in adding to the attractiveness of the roadsides along main arteries of traffic, but with the small amount available the work can only assist local efforts to a limited extent.

Although the various organizations referred to have done much to improve the appearance of many of the highways, much remains to be done by regular and properly organized schemes of planting year by year. To this end the Board is strongly of opinion that it should be given power to set aside a small sum each year from its funds to supplement local effort in improving the appearance of the roads by the planting of suitable trees which will harmonize with the surrounding country, and at the same time retain the aesthetic features of the highway.

In the United States of America it is compulsory for State Highway Departments to include in their programme of construction on Federal-aid roads a definite number of projects which will provide for the appropriate landscaping of parkways and roadsides. No maximum limit has been set on the amount of Federal funds for roadside work, but the State Highway Departments are required to expend at least 0·5 per cent. of the sum allotted to the State as the minimum acceptable under any circumstances.

The main factor in road improvement is the preservation and development of the natural growth along the roads and the retention of all desirable features. The Board's strenuous opposition to any interference with native trees and its constant endeavour to protect and maintain them has resulted in the preservation of many attractive avenues as illustrated in Plate No. 42.

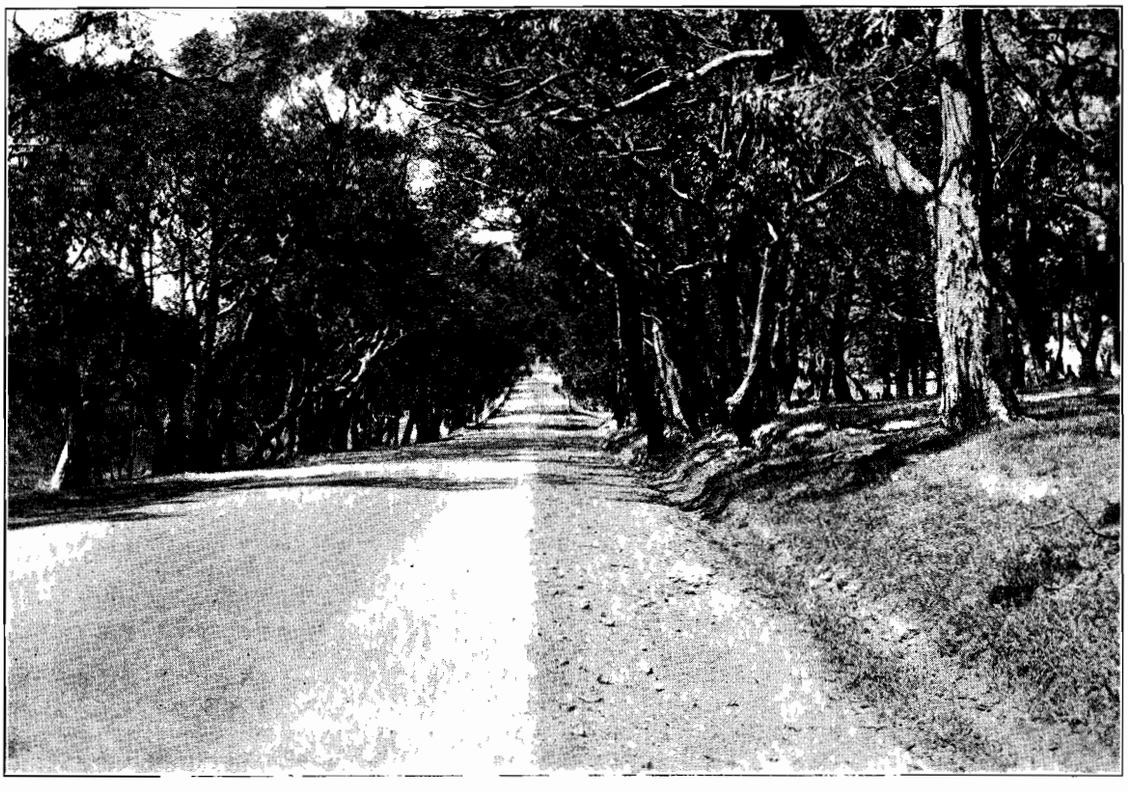


Plate No. 42.—Tree-lined section on the Hume Highway near Bylands.

The clearing of dead timber and useless scrub from the roadsides has also materially added to the appearance of the highways, as well as minimizing risks from fire dur ng the summer months. This work is being extended from time to time as opportunity offers.

Plate No. 43.—Showing avenue on the Hume Highway between Kilmore and Broadford.

The complete elimination of advertising signs and hoardings from the highways and in the vicinity of the highways beyond the populous areas has been an important factor in improving the appearance of the roadsides; danger to traffic has also been minimized by better visibility, the landscape is not now obscured, and the beauty of the surrounding country is no longer disfigured.

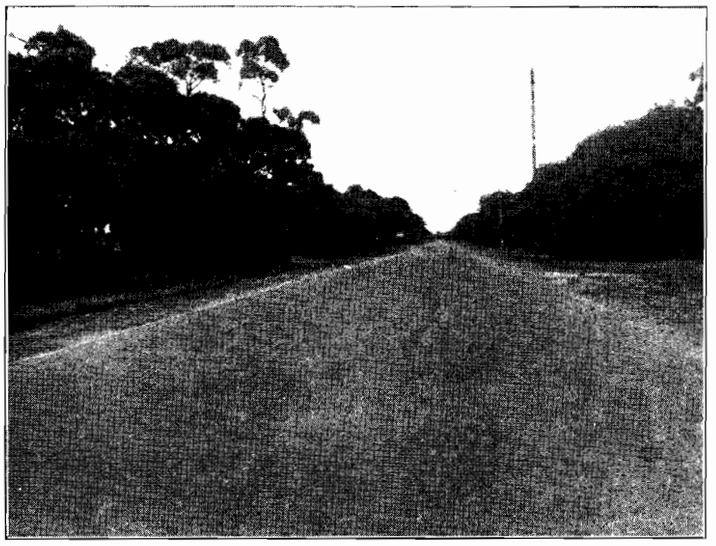


Plate No 44.—Showing natural growth along Point Nepean Road in the City of Mordialloc.

The Board is of opinion that legislation should be enacted with a view to the prohibition of advertisements of this character in the vicinity of declared main roads, where large hoardings of an objectionable nature not only mar the natural beauty of the country, but distract the attention of the drivers of motor vehicles when their attention should be concentrated on the road.

Illustrations showing the effect on the landscape on the main Healesville Road in the Lillydale Shire near Lilydale are given in Plates Nos. 45 and 46.

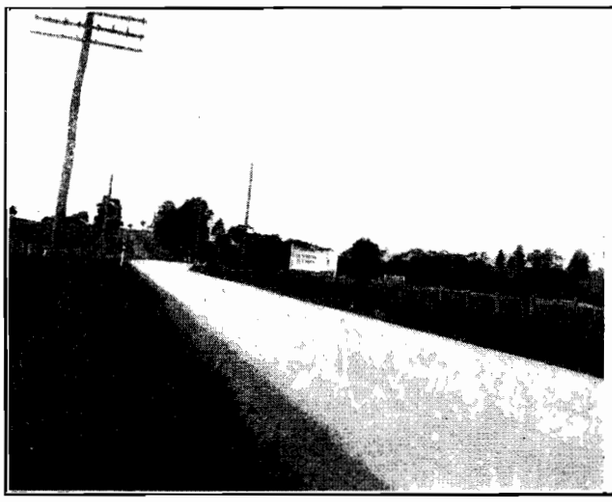


Plate No. 45.

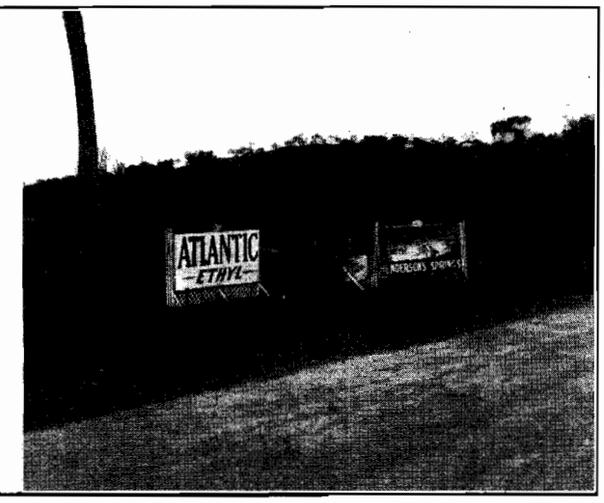


Plate No. 46.

EFFECT OF SPEED ON ROADS.

From time to time representations have been made to the Board by motor vehicle operators for increasing the speeds allowed under the provisions of the Motor Car Act, which have been fixed at the following limits :—

Pneumatic tired vehicles, carrying goods for hire, goods in course of trade, or constructed to carry goods of any kind—

1. If the weight of the motor car and its load exceeds 30 cwt., but does not exceed 3 tons .. .. 25 miles per hour.
2. If such weight exceeds 3 tons, but does not exceed 8 tons .. .. 20 ,, ,,
3. If such weight exceeds 8 tons .. .. .. 15 ,, ,,

Vehicles fitted with other than pneumatic tires—

1. If the weight of the vehicle and of the load does not exceed 3 tons .. .. 15 miles per hour.
2. If such weight exceeds 3 tons .. .. .. 12 ,, ,,

Before considering any proposals for increasing to any substantial extent the speed of motor vehicles in this State, the fact that the municipalities outside the metropolitan area, excepting provincial cities and towns, have under their control 99,810 miles of roads, of which over 80,000 miles are unsurfaced or lightly constructed for the use of local traffic, and maintained entirely from municipal funds, must be taken into consideration. Municipalities have, from time to time, drawn attention to the damage caused by excessive speed on roads under their control, while, on the other hand, operators of commercial vehicles have frequently complained that the speed limits hamper them in their activities. In view of this conflict of opinion it is desirable to examine the position in some detail, both in regard to the effect on the cost of road construction and maintenance, and also the safety of road users generally.

The effect of a motor vehicle on a road pavement can be divided, roughly, into the effect of tractive effort and that of the total weight of the vehicle. The tractive force tends to cause deformation of the road surface, together with wear, and, particularly on unsealed roads, loss of material. This tractive effort is dependent both on weight and size, and increases very rapidly as the speed increases, especially where the vehicles are large and heavy.

The effect of the weight of the vehicle is influenced considerably by the nature of the tire equipment. For instance, with solid tires at high speeds an impact of up to seven times the static wheel load has been found, that is to say, a wheel load of 2 tons may deliver a blow equal to a static load of 14 tons to the road pavement, thus causing severe stresses on the subgrade and necessitating a much thicker road.

Consideration must also be given to the effect on the stability of the general road surface. With pneumatic tires the impact effect is limited to a maximum of approximately two and a half times the static wheel load, being lower with lower pressures. In each case the impact increases with the speed, rising to a maximum depending on a number of factors.

From these considerations it will be seen that both the cost of construction and the cost of maintenance of a road pavement will be considerably increased where high speeds are allowed to heavy vehicles. Again, vehicles of the heavy commercial type are obviously more difficult to control than light passenger vehicles. Consequently at high speeds wider road surfaces of high grade alignment—both vertically and horizontally—are necessary for safety. Bearing in mind all these factors, it is considered that at the present stage of road development there is no necessity to limit the speeds of private passenger vehicles, but it is quite infeasible to provide safe roads of such a standard of construction as to withstand the stresses that would be brought to bear were heavy commercial and passenger vehicles allowed to operate at the maximum speed of which they are now capable.

This is one of the technical problems which the Board has continually under review, and some time ago Parliament, on the Board's recommendation, agreed to an increase in the speeds then allowable for commercial vehicles. More recently the Board has made a recommendation that conditions are such that a further increase in the speed allowable for commercial vehicles fitted with pneumatic tires might be made, and this recommendation is, it is understood, now under consideration by the Government.

GREAT OCEAN ROAD.

As far back as 1916 the construction of the Ocean Road was proposed as a suitable work on which returned soldiers might be employed, and with that object in view was included in a list of roads submitted to the State War Council for consideration.

Funds were not, however, made available by the Commonwealth Government for works of that description, and the project was held in abeyance until the late Hon. Howard Hitchcock, M.L.C., interested himself in the scheme, the outcome of which was the formation of the Great Ocean Road Trust in 1917.

With the launching of a public appeal for funds to carry out the work, sufficient money was subscribed to enable the work to be commenced, the first £1,000 having been contributed by Mr. Hitchcock.

With the approval of the Government, the Country Roads Board carried out the survey and the building of the road. Returned soldiers only were engaged on the work, of whom 3,000 were given employment over the period of construction.

Owing to the uncertainty of financial support from year to year only slow progress could be made with the work, but with continued efforts on the part of the Trust a 12-ft. roadway was gradually extended as far as Lorne, enabling traffic to reach that point during dry weather. By the establishment of a tollgate on the Trust's property between Airey's Inlet and Lorne revenue was collected by the Trust, and this was used in the maintenance of the road.

In the meantime work on the section of the road between Lorne and the Wye River had been put in hand, but as in the case of the Anglesea to Lorne section, work was intermittent, resulting in little headway being made for some time.

From the Wye River to Apollo Bay the road, which is of a developmental character, was declared a developmental road by the Board, serving as it does a considerable area of dairying country from which produce is transported to the Apollo Bay Butter Factory.

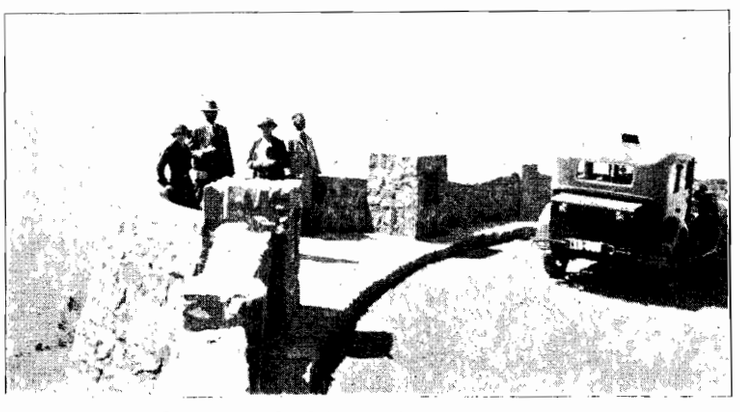


Plate No. 47.—Ocean Road—Memorial wall erected at Mount Defiance.

Increase of traffic has brought a corresponding increase in revenue enabling the Trust to meet its liability on account of loan expenditure and adequately maintain the road. During the past year 700 trees have been planted in suitable places with a view to the beautification of the road.

Marked progress has been made in the work of widening, surfacing, and fencing curves, resulting in an excellent road being now available to traffic throughout the year.

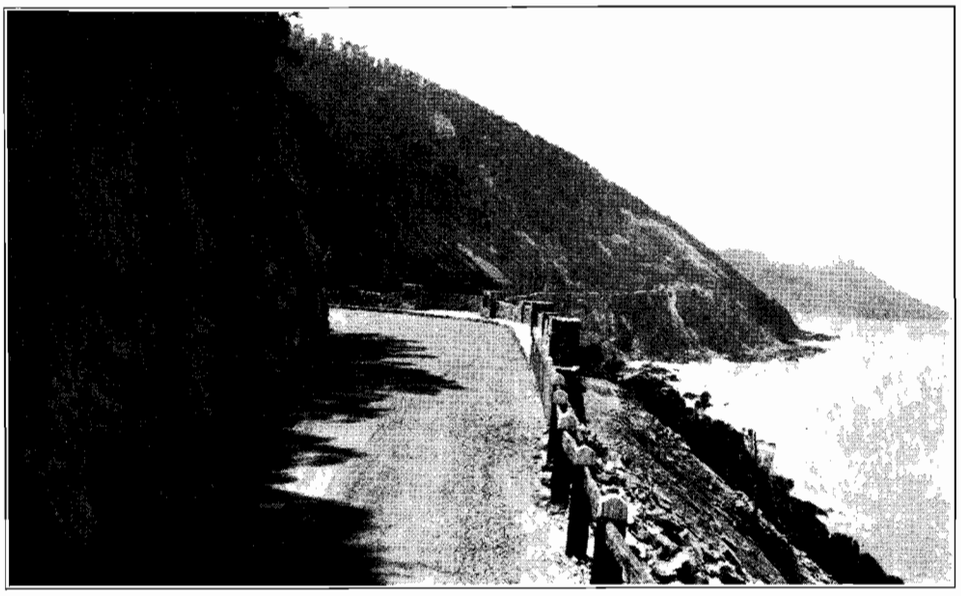


Plate No. 48.—Section of the Great Ocean Road at Mount Defiance.

The completion of the road affords an opportunity to tourists to view scenery which is unsurpassed in any part of the State. With the road winding around the hills giving glimpses of the ocean at various turns, over precipitous cliffs, past stretches of rock-bound coast, and through picturesque stretches of forest overlooking the ocean, it can be claimed that this scheme is well worthy of the efforts of those who took such an active part in bringing it to fruition.

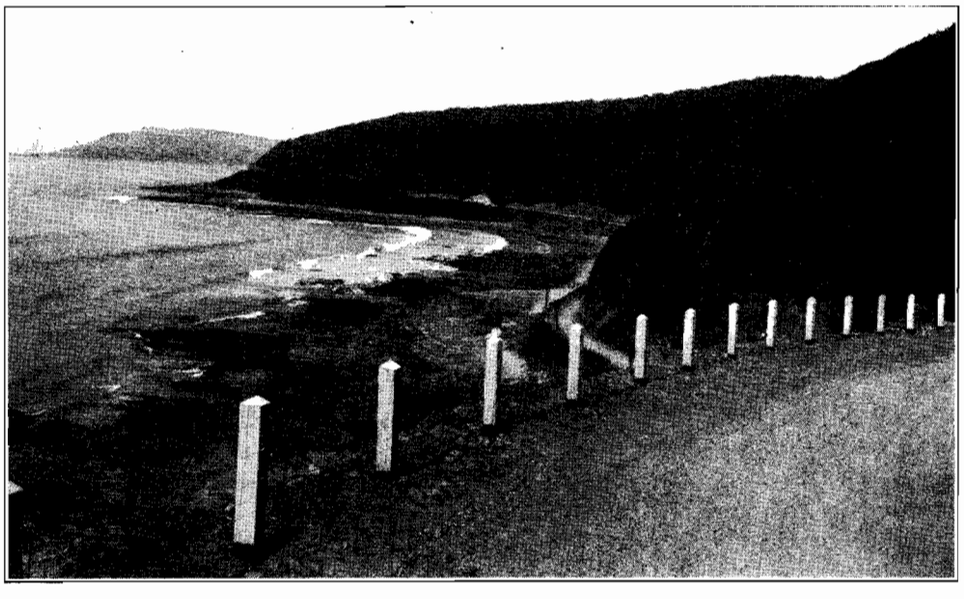


Plate No. 49.—Ocean Road approaching Big Hill Creek.

PLANT.

The problem of reducing road maintenance costs has been closely studied, and attention given to the detailed organization of maintenance works. It has been found that short lengths of roadway attended to by patrolmen using drags is not generally economical. The experimental use of power graders fitted with special maintaining types of blade equipment gives promise of producing much greater economical results, and this would apply even to the unsurfaced roads.

By the savings effected funds are available for other roads, and the displacement of the men formerly engaged in dragging operations will be offset by an additional number of men being employed on the work made available from the money saved.

The use of low-pressure tires fitted to the graders has proved their value under heavy conditions, and several older machines have now been equipped with this class of tire in place of the solid rubber tire. Under the heading of " Maintenance " in the appended report of the Chief Engineer, the advantages of this type of mechanical plant are set out.

Owing to a large part of the Board's spraying plant becoming obsolete, and some of the units requiring considerable overhaul, it was decided to replace the old 800-gallon steam sprayers with a more modern type of machine. By transferring four of the sprayers to V.8 Ford chasses and bringing them up to requirements, excellent results have been secured. In addition, five new sprayers to replace the 800-gallon units were constructed. On account of the satisfactory performances of this plant, it is proposed to invite tenders for the construction of four more units during the present financial year. The Chief Engineer's report fully describes the new plant now in operation.

CONFERENCE OF REPRESENTATIVES OF INTERSTATE ROAD AUTHORITIES.

At a conference of Commonwealth and State Ministers for Transport held in June, 1933, a resolution was passed that " it is desirable that there should be an annual conference of Railway Commissioners, and also an annual conference by the executives in control of road construction and maintenance, such conference to meet, if possible, at the same time and place.

In accordance with this resolution, a conference of representatives of interstate road authorities was held in Melbourne in February last, when matters of common interest to the States were discussed and a number of important resolutions were passed dealing with the technical, administrative, and financial aspects of the road problem. Representatives of all States attended with the exception of a representative from Western Australia, who was unable to be present.

Among the subjects dealt with were the question of co-ordination of research and the dissemination of information obtained from experimental and research work, the standardization of methods, the disposal or hire of plant, &c.

As the result of the exchange of views on various matters affecting the construction and maintenance of roads considerable benefits were derived, and greater advantages must accrue from future conferences by the continuance of that co-operation and interest already shown by each of the representatives attending the first conference.

THE SAFETY OF THE ROAD.

In the last annual report of the Board emphasis was laid on the necessity of eliminating all potential sources of danger on public roads, particularly on the State highways and main roads over which the greater proportion of country traffic passes.

In reviewing its operations for the year just concluded the Board has stressed the importance of the superelevation of curves, widening, strengthening and maintenance of shoulders, and the general improvement of the existing pavements to meet modern traffic requirements. Every effort is being made to eliminate, as far as possible, any possible danger to road traffic, with the result that to-day it can be claimed that the principal highways of the State are in a reasonably safe condition.

The menace, however, to drivers of motor cars using these highways by the grazing of unattended horses and cattle on the roads—and particularly on the State highways—still exists, the cattle being allowed to wander at will across the pavements. The Board, therefore, again urges the necessity for legislation being introduced to prohibit this practice which, with the increasing traffic, has been responsible for a number of accidents.

During the calendar year 1933, 89 accidents occurred through collisions with stock wandering on public roads, bringing the total number of accidents during the past three years up to 286, of which 43 were fatal.

In cases where the police have power to act action has been taken against offenders, but considerable difficulty arises where a shire council under its powers under the Local Government Act has registered the cattle entitling the owners to graze them on the roads. If power were given to the Board to deal with the State highways only, a great deal could be accomplished in coping with this nuisance and a serious public danger would be removed.

AMENDING LEGISLATION.

During last financial year the following Acts affecting the Country Roads Board were passed by Parliament :—

Financial Emergency (Continuation) Act 1933, No. 4109.

Section 16 of this Act, passed in July, 1933, provides that :—

1. Fees for licences to drive motor cars paid under the Motor Car Act in respect of the financial year commencing 1st July, 1933, are not to be paid into the Country Roads Board Fund.

   Similar provision under Act No. 4086 was made in respect of the financial year ended 30th June, 1934.

2. Annual payment of £50,000 be suspended from Consolidated Revenue into the Country Roads Board Fund, of which £10,000 under the original Act was to be used for the maintenance of main roads and State Highways, and £40,000 for distribution among certain municipalities towards the construction, renewal, maintenance, &c., of streets or roads.

Country Roads Board Fund Act 1933, No. 4140.

Provision is made under this Act for such municipalities as the Governor in Council, on the recommendation of the Country Roads Board determines, to be relieved in any financial year from the payment of so much of their liabilities in respect of permanent works on main roads, State highways, and developmental roads as the Board recommends, provided the amounts credited to the Country Roads Board Fund in any financial year exceeds the amount credited in the financial year ended the 30th June, 1932.

The total amount of such relief must not exceed the following sums :—

	£
1. For the year ended 30th June, 1934	50,000
2. For the year ended 30th June, 1935	100,000
3. For the year ending 30th June, 1936, or any subsequent financial year	150,000

It is also provided that the Board shall not make any recommendation in respect of any financial year until it has taken into consideration the amount which is considered necessary to provide adequately for the maintenance of State highways and main roads in the ensuing financial year.

Motor Car Act 1933, No. 4170.

Section 2 makes provision for exempting from payment of registration fees any motor car or trailer which is the property of the Metropolitan Fire Brigades Board or the Country Fire Brigades Board, or any body corporate or unincorporate approved by the Minister, which is mechanically equipped for and used exclusively for carrying out the purposes of the *Fire Brigades Act* 1928, or for combating outbreaks of fire.

The original Act made provision for payment of registration fees by the Metropolitan and Country Fire Brigades Boards of 5s. in respect of motor cycles, and from £1 1s. to £6 6s. in respect of motor cars.

Provision was also made under Section 4 of the above Act reducing fees to be paid on the registration or renewal of registration of motor cars fitted with pneumatic tires and owned by primary producers. In the case of pneumatic-tired vehicles having less than six wheels the fee was reduced from 4s. to 2s. 6d. per power weight unit, and a reduction from 3s. 6d. to 2s. per power weight unit was made in respect of a vehicle having six wheels or more fitted with pneumatic tires.

Country Roads (Borrowing) Act 1933, No. 4188.

With the object of assisting municipalities in the outer metropolitan area an amount of £100,000 was authorized to be borrowed for the purpose of constructing such roads as may be declared main roads under the provisions of the Country Roads Act.

After construction of these roads the municipalities concerned will be further assisted by a contribution from the Board of two-thirds of the cost of maintenance.

It is proposed that certain sections of roads between declared main country roads leading to the metropolitan area and tramway termini or connecting with through metropolitan roads should be declared main roads in accordance with the provisions of the Country Roads Act.

TRANSPORT REGULATION ACT 1933, No. 4198.

This Act passed by Parliament in December, 1933, and which came into force on the 1st January last provides (*inter alia*), that the licensing of country motor omnibuses be carried out by the Transport Regulation Board appointed under the Act. Part II. of the Motor Omnibus Act relating to country motor omnibuses and touring motor omnibuses was repealed as from the 31st December last, and the Country Roads Board's administration of that part of the Act ceased as from that date.

LICENSING OF COUNTRY MOTOR OMNIBUSES.

As the administration of the Country Motor Omnibus Act by the Country Roads Board ceased on the 31st December last, the report of its operations covers only the first six months of the last financial year.

The number of licences and permits issued during that period was as follow:—

		Fees Payable. £ s. d.
Stage Motor Omnibuses—		
Licences issued	22	14 5 2
Permits issued	10	5 0 0
Routes prescribed	4	—
Touring Motor Omnibuses—		
Licences issued	33	16 16 10
Light Motor Omnibuses—		
Licences issued	82	87 13 6
Driver's Licences issued	110	27 5 0

For various offences against the provisions of the Omnibus Acts and Regulations, proceedings were instituted in 76 cases, and fines and costs imposed amounted to £656.

OFFENCES UNDER ACTS AFFECTING THE BOARD.

For the protection of roads against excessive damage, power is conferred on the Board under the Motor Car Act to control the weight and speed of motor cars carrying goods for hire or in course of trade on State highways and main roads.

For offences against the Act on account of travelling at speeds in excess of the limits prescribed under the Act proceedings were instituted and fines imposed in 182 cases, fines and costs amounting to £1,072.

For carrying goods which, with the weight of the vehicle, were in excess of the limits of weight allowed by law, proceedings were taken in 70 cases and fines and costs imposed totalled £447.

A number of convictions was also recorded against drivers of motor vehicles for carrying loads in excess of the regulation width of 8 feet on their vehicles, eighteen persons being prosecuted for this offence and fines inflicted amounted to £60.

The total number of successful prosecutions launched against offenders for breaches of the Motor Car Act was 282 ; fines imposed amounted to £1,435, and costs £204.

On account of breaches of the Country Roads Act and the Local Government Act, twelve persons were fined a total amount of £11.

The total number of offences reported under all acts affecting the Board was 575 during the year, and fines and costs amounting to £2,336 were inflicted in 375 instances.

STATEMENT OF ACCOUNTS.

Statements of accounts for the year ended 30th June, 1934, of the Country Roads Board Fund and balance-sheets as at that date appear in Appendix A.

The statement of the Country Roads Board Fund shows that motor registration fees, which are the Board's principal source of revenue, amounted to £1,199,674, and fines under the Motor Car Act to £11,636, making a total gross revenue of £1,211,310.

The cost of collection, totalling £59,590, was made up as follows :—

Motor Registration Branch—		
Salaries and wages	£23,085	
Police Patrol—		
Wages	14,439	
Motor cycle expenses	2,950	
Allowances	2,240	
		£42,714
Postage, printing, and stationery		10,442
Number plates, &c.		3,370
Miscellaneous		3,064
		£59,590

The net revenue under the Motor Car Act was, therefore, £1,151,720.

The receipts from the licensing of country motor omnibuses for six months to the 31st December last, when Part 2 of the Act, relating to country motor omnibuses and touring motor omnibuses was repealed, was £151. The expenditure incurred in the administration of the Act for that period was £1,608, representing a deficiency of £1,458, which was charged to the Country Roads Board Fund.

Of the amount expended from loan funds, £55,092 was spent on declared main roads and £88,034 on developmental roads. In the case of main roads half the cost is required to be repaid by the municipalities, in accordance with the provisions of the Country Roads Act, at the rate of 6 per cent. per annum, representing 4½ per cent. interest and the balance sinking fund, whilst in respect of developmental roads an average rate of 2 per cent. on the capital cost is to be paid by the Councils on account of interest.

With this expenditure the total loan liability of the Board as at the 30th June last was £11,036,214. The whole of the interest and sinking fund payments on this expenditure are now made by the Board out of the Country Roads Board fund and by municipalities out of the municipal fund. The amount paid out of the Board's fund during the last financial year in respect of interest, sinking fund, and exchange was £311,000 on account of the State's proportion of expenditure and £202,843 represented payments by municipalities. The smaller payment by the municipalities is accounted for by reason of their having been relieved of payment of £50,000 in respect of interest and sinking fund during last year, in accordance with the provisions of Act No. 4140, a large proportion of the amount of relief having been applied towards the writing off of arrears in respect of the previous year.

Statement of expenditure on road construction, reconditioning and maintenance, including expenditure under special appropriations, is submitted hereunder in summarized form, from which it will be noted that the total expenditure for the year was £1,578,911.

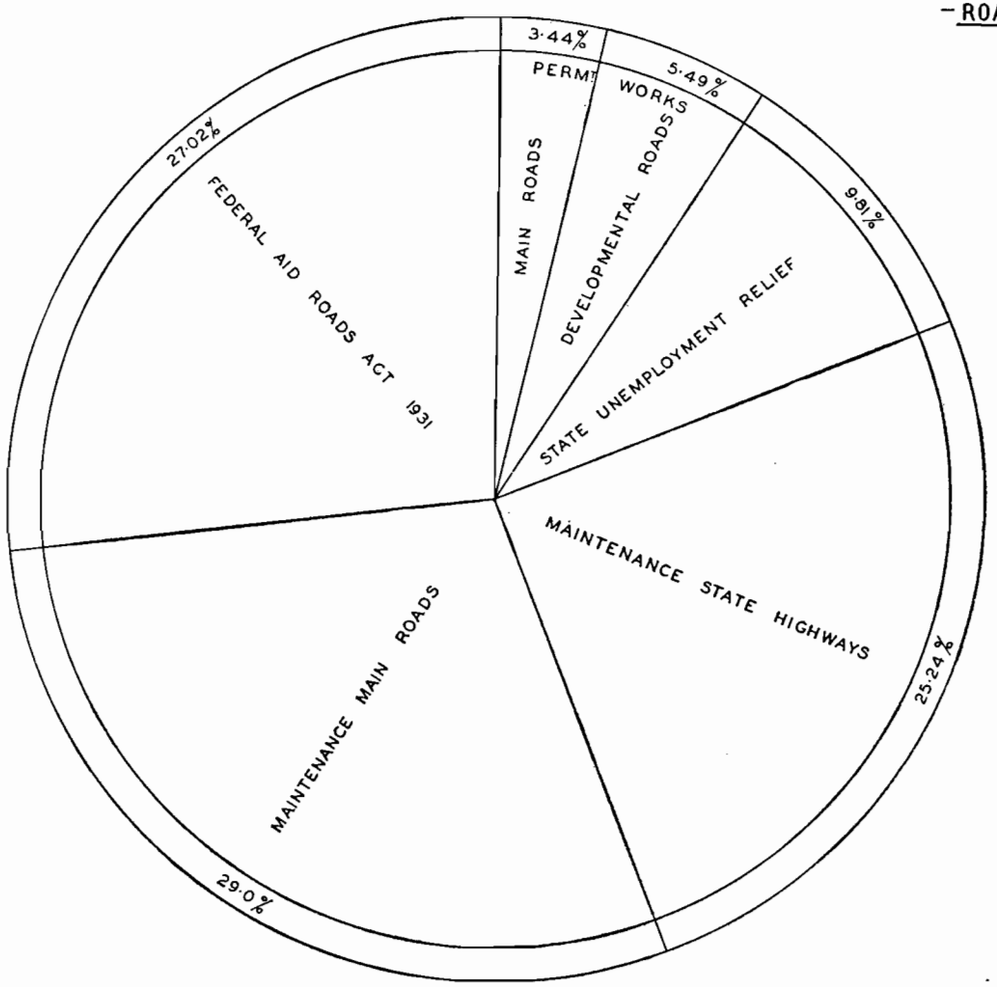
—		Under Direct Supervision of Board.	Under Supervision of Municipalities.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1. State Highways—				
Maintenance and reconditioning ..	..	372,129 15 11	46,415 4 3	418,545 0 2
2. Main Roads—				
Construction and restoration ..	218,934 11 0	..	..	..
Maintenance and reconditioning ..	594,089 12 4	179,250 11 3	633,773 12 1	813,024 3 4
3. Developmental Roads—				
Construction, &c.	194,916 7 7	..	..	..
Roads for Isolated Settlers ..	20,044 12 9	38,495 5 4	176,465 15 0	214,961 0 4
4. State Unemployment Relief—				
Main and developmental roads, &c.	132,380 6 5	70,784 9 5	61,595 17 0	132,380 6 5
		660,660 11 11	918,250 8 4	1,578,910 10 3

Towards the expenditure on the reconstruction of bridges, &c., on State highways and the construction, reconditioning and maintenance of main and developmental roads the Commonwealth Government contributed an amount of £433,391 15s. 10d. under the provisions of the *Federal Aid Roads Act* 1931.

The expenditure by the Board of funds from various sources is shown by percentages in the accompanying diagrams.

DIAGRAMS SHOWING COMPARATIVE SECTIONAL TOTAL EXPENDITURE

-ROAD WORKS-



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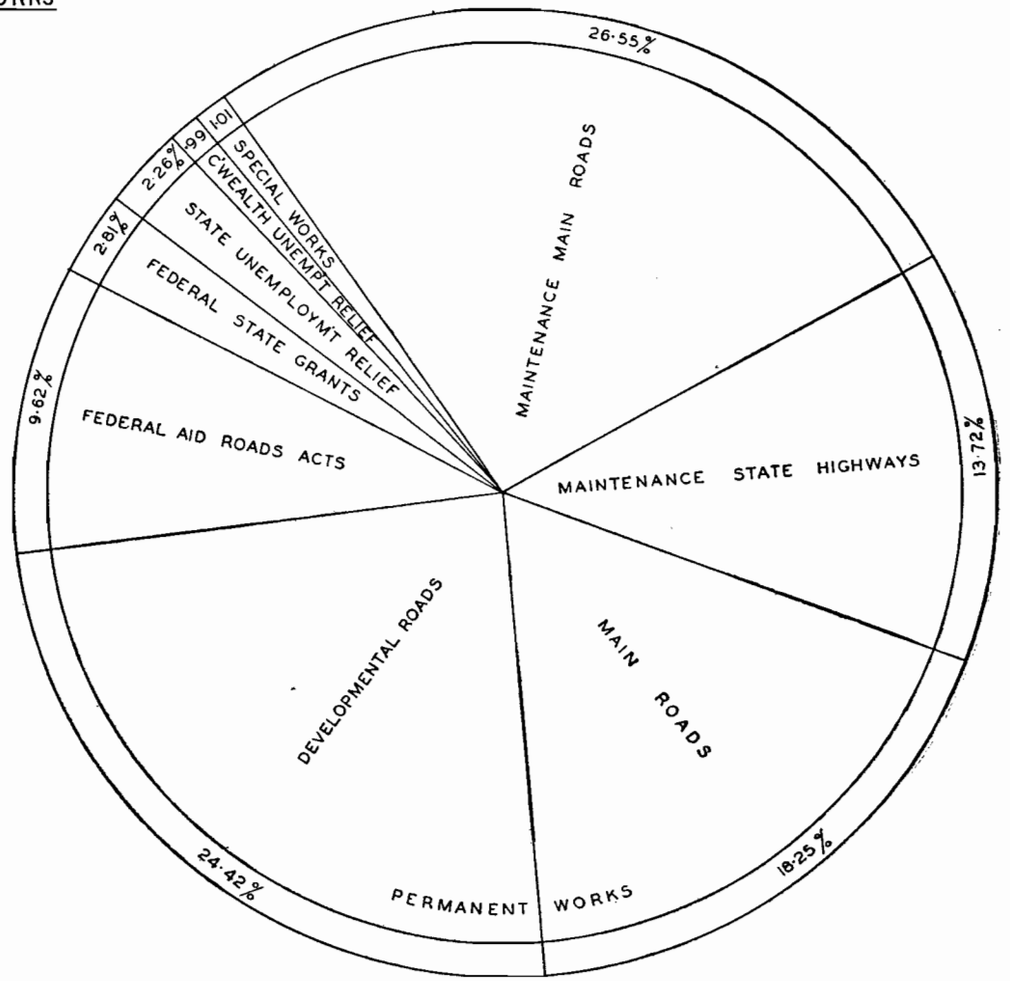
Percentages of
Expenditure for Financial Year 1933-34



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Percentages of
Total Expenditure since Inception of Board to 30·6·1934

Diagram No. 1 indicates the percentage of expenditure under the several headings for the year ended 30th June last, and Diagram No. 2 gives similar information for the period extending from the inception of the Board to the end of the last financial year.

APPORTIONMENT OF COSTS.

In accordance with the provisions of Section 28 of the *Country Roads Act* 1928, the cost of permanent works and maintenance was apportioned for the year ended 30th June, 1933. An amount of £17,523 5s. 7d. was charged to municipalities on account of permanent works and £107,572 15s. 2d. on maintenance.

Owing to the prevailing economic conditions, considerable difficulty has been experienced by Councils in collecting rates, resulting in a number of Councils still being in arrears with their contributions towards the cost of works carried out, the total arrears as at the 30th June last being £36,236 8s. 2d.

With the amounts paid by certain of the municipalities during the year supplemented by relief apportioned under Act No. 4140, the total arrears were, however, reduced by £2,832 10s. 2d. The Councils in respect of which amounts are still outstanding are the Shires of Beechworth, Birchip, Charlton, Eltham, Huntly, Lillydale, Otway, Shepparton, Swan Hill, Walpeup, and the Boroughs of Koroit and Wonthaggi.

MOTOR REGISTRATION.

During the year ended 30th June, 1934, 188,256 motor cars were registered, the following classes of vehicles being included in the total :—

Private cars		130,495
Commercial motor vehicles		30,849
Hire cars		1,876
Licences—Omnibus Act—		
Metropolitan	198	
Urban and country	590	
		788
Motor cycles		24,248
Total		188,256

Comparing the total registrations with those of the previous year an increase of 8,654 is shown, equivalent to 4·81 per cent., as against last year's increase of 6·34 per cent. for the previous year's registrations.

The number of motor cars increased by 5,886, commercial vehicles by 2,237, and motor cycles by 809, whilst motor omnibuses decreased by 59 and hire cars by 219.

The net revenue from motor registrations received during last year was £1,151,720 as compared with £1,085,865 for the previous year.

Under Act No. 4109 provision was made for an amount of £61,466 received for fees for licences to drive motor cars to be paid into consolidated revenue for the year ended 30th June, 1934. Prior to 1st July, 1932, the whole amount of these fees were paid into the Country Roads Board fund for the maintenance of roads.

APPENDICES.

Statements of amounts received and expended under the provisions of the Country Roads Act during last year, statement of apportionment of expenditure in connexion with the construction and maintenance of main roads for the year ended 30th June, 1933, statement of expenditure on construction and maintenance of main roads for the year ended 30th June, 1934, statement of expenditure in connexion with the construction of developmental roads for the same period, statement showing the mileage, locality, &c., of main roads constructed and maintained for the year ended 30th June last, statement showing the mileage, locality, &c., of developmental roads constructed, and statement of the mileage locality, &c., of highways reconstructed and maintained during last year, are shown in the appendices.

We have the honor to be, Sir,
Your obedient Servants,

W. T. B. McCORMACK, Chairman

F. W. FRICKE, Member.

W. L. DALE, Member.

R. JANSEN, Secretary.

CHIEF ENGINEER'S REPORT.

The Chairman,

Sir,—

I have the honour to submit herewith a discussion on technical details of interest in the work carried out by the Board during the year ended 30th June, 1934.

1. *Construction Methods.*—There has been no change in the general construction methods during the past year, but much wider extension of the use of loam as a surfacing medium, either used alone or with a very thin layer of gravel, has been adopted. Many loamy soils are capable of carrying traffic quite successfully, provided the small initial rutting, which serves to entrap moisture, is avoided. Even with pneumatic-tired vehicles, however, many of these loams show slight rutting under the passage of a moderately heavy vehicle, and water entrapped in this rut gradually causes softening of the pavement, and further vehicular traffic tends to cause severe rutting, and ultimately failure of the pavement, particularly if the layer is thin. To combat this a practice previously adopted was extended during the past year to a large mileage of Board's roads under Shire supervision in the Wimmera and other parts of the State where the loam is of only comparatively poor quality, and gravel is very expensive. This is to surface the natural clay formation with 3 inches to 4 inches consolidated loam, and then to place a layer of about 1 inch loose of gravel over the consolidated loam pavement. The extraordinary increase in load-carrying capacity given by the layer of gravel is apparently due, not to the distribution of load through the gravel, but to the prevention of rutting, and to the considerable waterproofing qualities of even a thin layer of gravel when tightly compacted by traffic bound methods. Plate No. 50 illustrates work of this type.

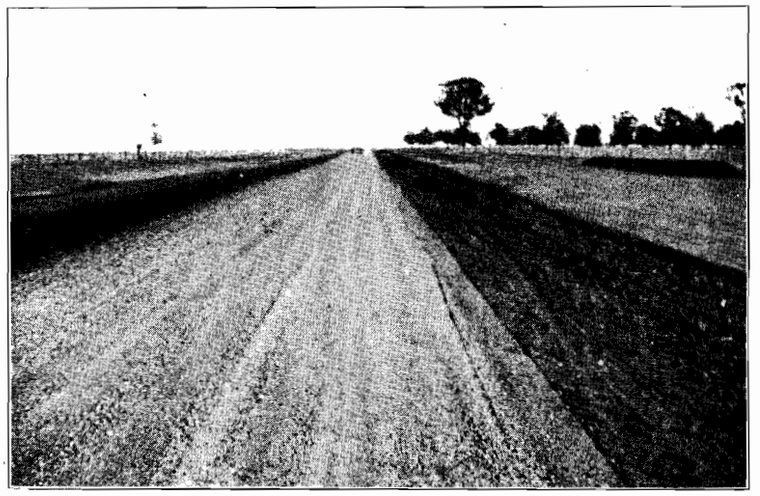

Plate No. 50.—Dunmunkle Shire, Marnoo-Rupanyup Road. Loam base with thin wearing course of crushed gravel.

One of the most ambitious programmes of construction attempted by the Board in recent years was the forming and surfacing in a short period of 86 miles of road between Echuca and Swan Hill, on the Murray Valley highway, and between Serpentine and Kerang, on the Loddon Valley road. The bulk of this work was carried out in the previous financial year (ended June, 1933), but the final test of the work and of the laboratory experiments connected therewith were only available during the past financial year, and the general methods adopted and results obtained are of such interest that it is considered worth while discussing them in some detail.

As is well known, formations in this country, particularly within a radius of, say, 40 miles of Kerang, were notorious in the winter, as even motor cars with chains had the greatest difficulty in negotiating unsurfaced formations in wet weather. Soil analysis, however (a typical set of results is given below in Table A), indicated that if the formations could be kept high, wide, and well drained (the area is subject to extensive flooding) and reasonably waterproof, they could be made to carry considerable traffic with only a thin pavement. Experience elsewhere had also indicated the very considerable waterproofing qualities of fine-grained pavements of gravel, "swamp cement," or fine-crushed rock, when consolidated by traffic and dragging. It was therefore decided, in order to reach Swan Hill with a surfaced road, to attempt to form and surface a very considerable length during the summer of 1932-33.

The difficulty that was anticipated at the outset was that of getting reasonable consolidation of these fairly high and wide formations before placing the pavement. This was done as far as possible by doing all the forming by scooping, and by rolling with multi-wheel or corrugated types of roller. Time did not permit of leaving formations open to traffic sufficiently long to obtain any real traffic consolidation of the surface, and surfacing with a 2¼-in. consolidated layer of fine-crushed rock (on the greater length) followed shortly after the formation had been brought to grade and consolidated by rolling. A complementary danger that was anticipated was the possibility of heavy unseasonable downpours of rain in the early autumn on the partly consolidated fine-crushed rock, which in its early stages would not be waterproof, and it was feared would let sufficient water through to the formation to cause the whole mass to become a porridge of stone, stone dust, and clay. Experiments were therefore carried out by spreading two short sections of fine-crushed rock and putting on water with a water cart at the rate of about 1 inch in ten minutes on one section, and on the other a light watering only. Both sections were then opened to traffic. The result was that the section heavily watered rutted under traffic, although not nearly as badly as had been anticipated. The section that was only lightly watered, however, showed no ill effects, and on the contrary consolidated rapidly. After some days the section having the light watering was then "swamped" with water, and traffic continuing to use it had no ill effect whatsoever. As the result of this

experiment it was decided to lightly water all crushed rock shortly after spreading, and this practice was carried through, the cost of watering being £13 8s. per mile.

TABLE A.—TEST VALUES FOR SOIL FROM KERANG.

Number.	6767.
Location	At 19,600 feet, i.e., 62 to 63 miles from Echuca
Coarse sand	3 per cent.
Fine sand	5 per cent.
Silt	19 per cent.
Clay	73 per cent.
Colloids less than ·001 mm. ..	40 per cent.
Liquid limit	67.7
Plastic limit	27.2
Plasticity index	40.5
Field moisture equivalent ..	42.0
Shrinkage limit	11.5
Lineal shrinkage	14.8
Flow index	11.7
Shrinkage ratio	2.03
Group	A7 (clay)

Considerable quantities of maintenance material were stacked along the road, as it was anticipated that certain sections would give trouble during the winter. However, no trouble whatsoever was experienced except on the short experimental section heavily watered before partial consolidation, and after a second winter the pavement is practically in perfect condition. During the summer of 1933-34 the section carrying the heaviest traffic, that immediately south of Kerang on the Murray Valley highway, and incidentally that having about the worst sub-grade, was surface sealed with a seal coat of .2 gallon per square yard of cold tar and .3 gallon per square yard of bitumen. This surface has given no trouble whatsoever during the past winter, and this and an adjacent unsurfaced section have been used for an interesting series of tests on the waterproofing value of the seal coat compared to that of the crushed rock alone. It was also desired to see whether there was any building up of moisture by condensation on the sub-grade under the sealed section. The results of a number of tests are given in the following table:—

TABLE B.—MOISTURE CONTENTS (PER CENT. OF DRY WEIGHT).

Chainage.	Position.	8th August, 1933, after Rain.	March, 1934, after Dry Spell.	17th August, 1934, after Light Rain.	17th September, 1934, after Dry Warm Weather.	30th October, 1934, after Continuous Wet Weather.
50,400, between 57 and 58 miles, sealed January, 1933	(*a*)	36	24.3	20.0	27.5	30.2
	(*b*)	31	27.7	30.6	28.1	30.0
	(*c*)	28	25.2	22.9	23.0	25.8
	(*d*)	25	23.3	23.0	23.0	22.9
19,600, between 62 and 63 miles, not sealed	(*a*)	42	10.6	24.2	23.2	25.2
	(*b*)	37	16.1	26.2	21.0	24.6
	(*c*)	32	20.4	20.6	19.3	20.7
	(*d*)	25	19.0	24.6	21.7	21.2

Position (*a*) Top 3 inches of shoulder 2 feet outside edge of pavement.
(*b*) 3 inches to 7 inches below surface of shoulder 2 feet outside edge of pavement.
(*c*) Top 4 inches of subgrade 1 foot inside edge of pavement.
(*d*) Top 4 inches of subgrade at centre line.

Moisture content of top 3 inches of shoulder when moderate wheel load just marked the surface at chainage 19,600 was 30.7 per cent.

Without discussing in detail this table, which is of considerable interest, it might be pointed out that the unsealed fine-crushed rock exhibited considerable waterproofing value, being practically equal to the waterproofing value of the sealed section. The moisture content near the edges of the pavement was at times slightly higher than that at the centre, as might be expected, but the maximum water content at any period never exceeded the water content at which an unsurfaced formation was just marked by a moderately heavy wheel load. Further, there is no suspicion of any building up of moisture content under the sealed pavement during wet weather.

From this experience and tests, therefore, one can deduce that in this area at least it is perfectly safe to adopt a pavement of this thickness on generally similar soils, and that sealing of the pavement will not cause a building up of moisture that might cause failure.

On the Loddon Valley road in this area experiments were also made with the use of exceptionally poor class limestone, surfaced with about 1 inch loose fine-crushed rock; with poor class "swamp cement" similarly surfaced; and with a normal type of sand clay using only about 1 inch loose of sand for mixing with the formation, plus about 1 inch loose spread as a mulch, and dragged and consolidated and partly worked in under traffic.

The results of all these types were completely satisfactory, but in all cases indicated the need for systematic maintenance on these types. It would appear from the results of observations over the past few years that the use of heavy pavements that was general some years ago, was due to the fact that a pavement was built on the assumption that it would get no maintenance (usually, unfortunately, a very correct assumption), and consequently very considerable thicknesses were used, and many suitable types of material rejected, because systematic maintenance was, to a great extent, unknown.

2. *Maintenance.*—The completion of the construction or reconstruction of long lengths of State highway and main roads has, paradoxically enough, increased the funds required for maintenance. It may be asked why, as these roads have been put in good order at a considerable total cost (a large mileage being involved) they should require an increase of maintenance funds over previous maintenance expenditure. The reason is that most of these roads received little or no maintenance before being taken over by the Board for construction or reconstruction, and a very large mileage indeed was either completely impassable during wet weather, or intolerably rough at all times. The effect of construction or reconstruction has been to make these lengths of road passable to traffic throughout the year, and to very considerably reduce the cost of vehicle operation thereon.

The necessity for making the amount required for maintenance the first charge on the funds must, therefore, considerably reduce the amount available for the very necessary extension of pavement construction or improvement. The word necessary is used advisedly, as there is no doubt that the cost of vehicle operation

over a very large mileage of our roads is as yet much higher that it should be, due to the poor condition of these roads. In this connexion, it is interesting to note the recent results of the observations of the operation of six vehicles of exactly the same make and type purchased by the Department of Main Roads, New South Wales, at the same time. After over four years' continuous work, total operation costs show that continuous operation over bad roads costs approximately 3d. per car mile more than on fair to good roads.

This is a narrow economic aspect, and neglects the question of comfort, convenience, and the saving of time, the latter, of course, having economic influence of its own. A careful analysis has therefore been made of the maintenance system in use throughout the State, and of the maintenance costs, which have been kept subdivided into their various components for the past few years.

This analysis has made clear two points in particular. The first is that initial design of the road has a considerable influence on the total maintenance costs, not, as might be expected, so much in regard to the pavement, but more as regards the formation and drainage. On sealed roads in particular, pavement maintenance costs are now generally very low, and periodical re-sealing would appear to be unnecessary more often than every seven to ten years. The cost of the maintenance of shoulders, drains, table drains, fences, &c., is quite large, however, on all types of roads, and it will undoubtedly be economical to incur greater expense in initial formation construction to make it possible to carry out a good deal of shoulder and drain maintenance by means of power graders or simple mechanical plant. At present, on many miles of our roads, tedious hand labour is required for the essential work of keeping table drains, ditches, culverts, &c., open throughout the year.

The second point that became obvious was that more use must be made of mechanical plant, and new types of mechanical plant must be developed if these maintenance costs are to be reduced to the figure to which it is considered they can and should be reduced. The use of one-man power graders, fitted with special equipment, such as the multi-blade maintainer shown in Plate No. 51 would seem to be a unit from which much can be expected, and experimental work carried out with some of this equipment during the past financial year offers a great promise, and further experimental work, together with the putting into routine duty certain machines of this type will follow this financial year.

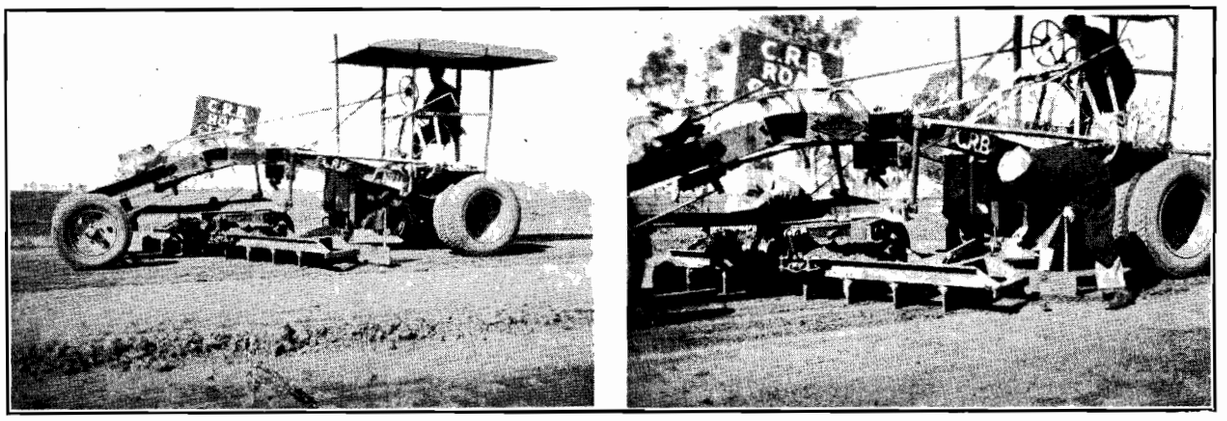

Plate 51.—Multi-blade Maintainer.

The use of farm implement tires working at a very low pressure of 10 to 15 lb. with power graders has enabled them to work under very severe conditions, and several older machines have been equipped with this type of tire in lieu of the old solid rubber tire during the last financial year (see Plate No. 52). It is understood that this is the first time that tires of this kind have been used on this equipment anywhere, and the results obtained to date are most promising.

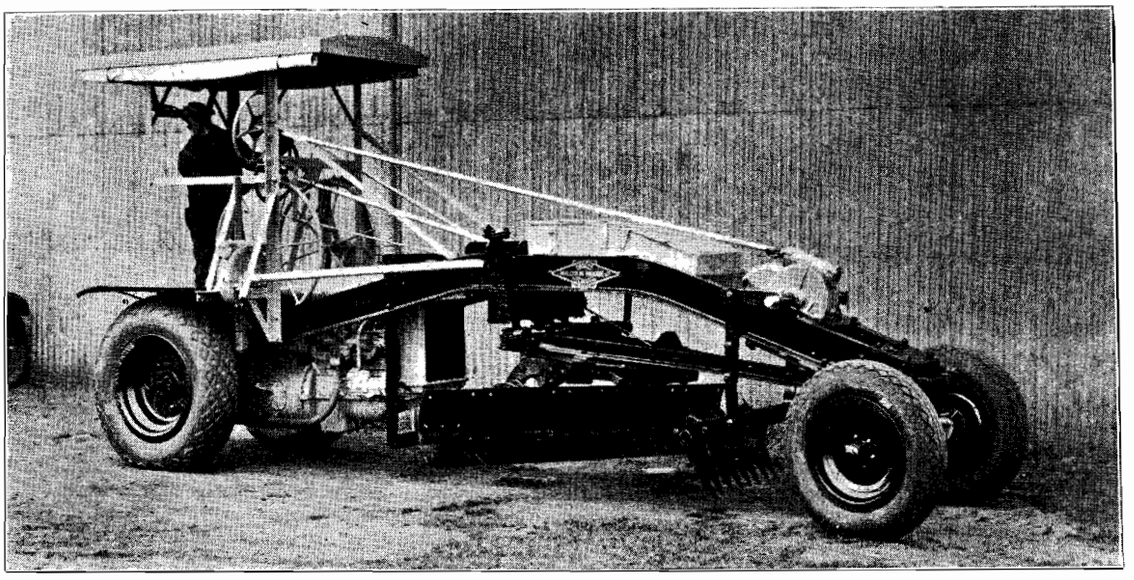

Plate 52.—Medium weight power grader fitted with farm tractor tyres at rear and bus balloon tyres at front.

3. *Pneumatic Tires.*—Reference has been made in previous reports to the considerable damage done by heavy steel-tired vehicles on lightly constructed roads. Were it possible to make sure that steel-tired vehicles would never be used for heavy haulage, it would be possible in many parts of the State to considerably reduce the cost of road construction and maintenance. It is interesting, therefore, to see that the extension of the use of pneumatic tires on horse-drawn vehicles is being accelerated even under present economic conditions. Instances have been reported where owners of vehicles in the north-west of the State have found that considerable economy has been obtained by fitting pneumatic tires to horse-drawn vehicles, so far mostly of a light type. In the city, it has been noticed that a number of lorries are being fitted with pneumatic tires for fairly heavy haulage, and one has observed very heavy loads being hauled on pneumatic-tired lorries by one or two horses, thus proving the contention of the early English experimenters with this type of equipment, that a very considerable saving in the number of horses required could be achieved by the use of pneumatic tires. From the point of view of the road authorities, it is hoped that this tendency will continue. The introduction of the low-pressure large pneumatic tire for tractor farming enables a tractor to be used for road hauling also, and with pneumatic-tired lorries for carrying the load, a unit has been obtained that apparently has made power farming overseas much more economical than in the past, where it was necessary to have one type of vehicle for carting produce to market, and another type for doing ploughing work on the farm. While it is not the province of the road authorities to state what is economical farm practice, it is hoped that use of heavy steel-tired wagons will be rapidly reduced in the near future.

4. *State Highways.*—Owing to the limited funds available for improvement works on State highways, a number of projects, which it was hoped would have been carried out during the year, had to be held over. Improvement work was largely limited to making passable sections of the newly-declared State highways which were previously impassable in wet weather.

On the Murray Valley highway between Albury and Echuca a large mileage of road, which consisted only of unformed earth track, was either completely or partly constructed during the year. The method of construction adopted on the bulk of this length was that of building a light sand-clay surface on the new formations. The method of construction was to put up the formation, and then grade off by a power grader about $\frac{3}{8}$ inch of the surface soil into a windrow on each side of the pavement, add 1 inch of sand in the form of a windrow adjacent to the earth windrows, and then mix by blading. In some cases after mixing, a further $\frac{1}{2}$ inch to 1 inch of sand was spread over the pavement, and in every case the pavement was maintained by grading, planing, or dragging under traffic. These light pavements proved perfectly satisfactory throughout the winter on the sections which were completed in time to carry traffic during the wet weather, and the total cost, varying with the price of material, was between £300 and £400 per mile. The riding qualities of these pavements when maintained by long wheel base power graders are unexcelled by practically any type of road known.

The curtailing of the programme of re-sheeting and sealing, particularly on the Prince's Highway between Lakes Entrance and Orbost, and on the same highway between Yambuk, Heywood, and Dartmoor, has necessitated the continuance of the expensive maintenance which is necessary to keep these roads in reasonable trafficable condition. When they can be re-conditioned, there will be a large annual saving in maintenance costs, which will much more than repay the expenditure, and there will also be considerable reduction in operating costs of motor vehicles. It is hoped, therefore, that it will be possible to put these works in hand at a reasonably early date.

Another type of improvement which has had to be held over is the improvement and super-elevation of curves on many sections of the older highways, built to a standard which is now obsolete. While the use of warning triangles, white lines, guard posts, &c., to some extent mitigates the danger of these sections, they will not be really suitable for modern high cruising speeds until reconstruction is possible.

SURFACE TREATMENT OF ROADS.

During the past financial year, two major decisions were made regarding surface sealing. First, it was decided to discontinue the use of any solid rubber-tired sprayers or steel-tired heaters with mobile plant. Much of the Board's old spraying plant was becoming obsolete in many respects, and some of the units required considerable overhaul. It was, therefore, an opportune time to replace the old 800-gallon steam sprayers with a more modern type of sprayer. Further, the five old Thornycroft chasses, which had been converted from metal-carrying tipping trucks to sprayers, and had given nine years' total service, were also in need of considerable amount of maintenance repairs to keep them in serviceable order. These chassis carried 400-gallon spraying units, four of which were in quite fair condition. It was, therefore, decided to transfer these four sprayers to V8 Ford chasses, at the same time bringing them up to date in several details. Five new sprayers to replace the 800-gallon units were also to be constructed. One was built during the financial year and tested, and as a result tenders have been called for construction this financial year of four more, based on this original experimental sprayer, which has given very satisfactory results in its limited service to date. Brief details of the spraying equipment are given below.

The second decision of consequence was that all resealing work was to be done by the light road mix drag seal method which has been described in previous reports. The reason for making this method general was firstly that the older type of seal did not improve the riding qualities of the road. In fact, there was a definite tendency to cause slight increase of roughness after each seal. Many of the roads constructed years ago, while very sound, are definitely in need of improvement, and the use of road mix seal will combine the necessary resealing work with an improvement in riding qualities.

Secondly, the ordinary type of seal tends, because of its high bitumen content, to become somewhat slippery in wet weather after two or three years under traffic. The road mix seal with a bitumen content of approximately $3\frac{1}{2}$ per cent., as against 6 per cent. by ordinary methods, is comparatively free from this trouble, which, with the considerable increase in touring speeds, is much more dangerous than previously. In fact, until recent years, this question was not a serious one in our climate, but cognizance must now be taken of the necessity for non-skid surfaces throughout the State.

A considerable amount of experimental work was done with road mix seals during the last financial year, and it was found possible to modify the proportions of materials and the method of construction, so that it is possible to carry out a road mix seal of $\frac{1}{2}$ inch loose thickness of aggregate for only about $\frac{1}{2}$d. per square yard more than the cost of the ordinary type. Some details of the simpler type of plant now used for this purpose are given later.

Experience during the year again emphasizes the need for carefully considering the type of primer to be used on poorly bonded gravels. As a result of the year's operations it was decided to make available three types of primer for the next season. In addition to

the light and medium grades of tar primer described in the last report, fuel oil and bitumen mixtures commonly used some years ago will again be used for special cases, such as for the sandy ironstone gravels of the Western District. If tar oil is available, it will be used to replace some fuel oil in these mixtures, using, say, a 100 bitumen, 40 fuel oil, 20 No. 2 tar oil combination.

SPRAYING PLANT.—(1) GENERAL.

(*a*) *Units in Operation.*—Owing to a considerable increase in the length of surface treatment on the programme for 1933-34, fifteen sprayers were put into the field, five each of the 800, 400, and 300 gallon types.

(*b*) Total length of surface treated by C.R.B. plant—

1929-30	.. ..	311 miles.
1930-31	.. ..	359 miles.
1931-32	.. ..	422 miles.
1932-33	.. ..	650 miles.
1933-34	.. ..	835 miles.

(*c*) *Plant Maintenance.*—No new plant was purchased or any major alterations carried out prior to commencing the 1933-34 spraying season, but all units were given the usual annual overhaul during the winter.

(2) SURFACE TREATMENT WORK CARRIED OUT.

The lengths and classes of surface treatment carried out by sprayers of each type are set out in Table C.

TABLE C.—ANALYSIS OF SURFACE TREATMENT, 1933-34.

Type of Sprayer.	Class of Work.			
	Single Sealing. Miles.	Double Coat. Miles.	Re-sealing. Miles.	Roadmix Sealing. Miles.
800 gallon (steam) ..	2.6	123.7	137.4	7.8
400 gallon (motor) ..	..	148.1	215.5	11.3
300 gallon	..	106.2	44	38.4
	2.6	378	396.9	57.5
Total length				835

(3) PLANT OPERATION.

The figures for efficiency of operation given in Tables D to G are based on the rated output of the units for five and a half days per week. These are—800-gallon units, 22 loads per week; 400-gallon units, 44 loads per week. Where these rated capacities were exceeded the percentage of time spraying was increased accordingly, and hence the total percentage time shown may exceed 100 per cent. by the percentage amount the rated output is exceeded. The efficiency is expressed in percentage of time away from storeyard (exclusive of time stored in the field) spent in various operations or in idleness due to delays.

(*a*) 800-gallon units.—The efficiency of operation of the 800-gallon units during the season is given in Table D, and the overall efficiency of all 800-gallon units in operation during the past five seasons in Table E.

TABLE D.—EFFICIENCIES OF 800-GALLON SPRAYERS, SEASON 1933-34.

Operation.	800 Gallon Sprayer No.—					Average.
	3.	4.	6.	7.	8.	
Spraying	47.2	38.7	42.8	47.0	30.2	42
Moving	32.8	32.5	22.3	32.0	37.3	31.5
Weather	9.3	12.0	14.9	9.3	12.5	11.2
Holidays	6.1	8.5	7.1	9.3	8.8	7.6
Mechanical delays ..	2.1	..	..	2.5	1.3	1.6
Avoidable delays ..	3.0	8.3	13.6	1.7	9.9	6.7
Total ..	100.5	100	100.7	100.8	100	100.6
Stored in field ..	..	7.2	..	..	1.4	0.3

The figures for 800-gallon sprayer No. 4 have not been included in the averages, as this unit was seriously damaged by fire early in the season, and being obsolete was withdrawn from service. This is the first occasion on which any serious loss has occurred with this class of plant operated by the Board. The unit was insured.

TABLE E.—EFFICIENCIES OF 800-GALLON SPRAYERS, FIVE SEASONS.

Operation.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Spraying ..	35.7	47.5	42.2	48.2	42
Moving ..	28	21	23	32.2	31.5
Weather ..	12.4	10.5	10.2	7.9	11.2
Holidays ..	6.9	8	9.5	6	7.6
Mechanical delays	3.5	4	2.6	2.4	1.6
Avoidable delays	13.5	9	11.1	3.2	6.7

(*b*) 400-gallon units.—The operating figures for each 400-gallon unit during season 1933-34 are given in Table F, and the average figures for all plants during the past three seasons in Table G.

TABLE F.—EFFICIENCIES OF 400-GALLON SPRAYERS, SEASON 1933-34.

Operation.	400 Gallon Sprayer No.—					Average.
	1.	2.	3.	4.	5.	
Spraying	34.2	55.6	58.7	64	48.6	53
Moving	25.6	29.1	23.7	20.3	19	22.8
Weather	16.5	8.7	8.5	12.3	21	13.2
Holidays	5.3	7.1	7.2	6.9	7.3	6.8
Mechanical delays ..	..	..	1.5	2	..	0.8
Avoidable delays ..	20.2	7.9	3.9	7.3	8.5	9
Total ..	101.8	108.4	103.5	113.2	104.4	105.6
Stored in the field ..	..	..	..	..	2.3	0.5

Of the 20.2 per cent. avoidable delays with 400-gallon sprayer No. 1, 19.2 per cent. were due to the road to be treated not being ready on the arrival of the plant. Of the average of 9 per cent. avoidable delays recorded, 7.3 per cent. were due to the same cause.

TABLE G.—EFFICIENCIES OF 400-GALLON SPRAYERS, THREE SEASONS.

Operation.	1929-30.	1930-31.	1931-32.	1932-33.	1933-34.
Spraying ..	*	*	43.2	51.6	53
Moving ..		*	22.4	22.9	22.8
Weather ..	*	*	11.5	7.2	13.2
Holidays ..	*	*	8	12.5	6.8
Mechanical delays	*	*	3.6	2.3	0.8
Avoidable delays	*	*	11.1	7.7	9

* Not available.

(4) MATERIALS.

(*a*) *Bituminous and Tarry Primers and Binders.*—The use of the bituminous and tarry primers and binders reported on in detail in the twentieth annual report was continued during the season 1933-34.

(*b*) *Aggregates.*—The use of two aggregates was mentioned in the last annual report. This was discontinued as it was not considered that the advantage gained was sufficient to outweigh the difficulty in obtaining material in the right proportions and the

practical undesirability of having different specifications for material required for normal sealing and road-mix sealing. The specification for the material used is given below—

Screenings or Crushed Gravel.—The material shall be crushed from clean, hard gravel or stone having a French co-efficient of wear of not less than 10, and shall comply with the following grading requirements when tested with laboratory screens:—

Size of Screen.	¾-inch Circular.	½-inch Circular.	¼-inch Circular.	No. 8 B.E.S.A. Sieve.	No. 18 B.E.S.A. Sieve.
Percentage passing screen (by weight)	100	50–90	20–65	0–15	0–3

Gravel, before crushing, shall be screened so that the whole of the material fed to the crusher is held on 1-in. circular openings, when tested with a laboratory screen.

The surfaces of the particles of crushed material shall be clean and free from dust.

Screened Gravel or Partly-Crushed and Screened Gravel.—The gravel shall be derived from quartz or other hard wearing stone, shall be free from vegetable matter and soil, and shall contain not more than 1 per cent. of clay and silt removable by elutriation. The surfaces of the stones shall be clean and free from dust. It shall be screened so that it will comply with the following grading requirements when tested with laboratory screens:—

Size of Screen.	¾-inch Circular.	½-inch Circular.	¼-inch Circular.	No. 8 B.E.S.A. Sieve.	No. 18 B.E.S.A. Sieve.
Percentage passing screen (by weight)	100	50–90	20–65	0–15	0–3

(5) Methods of Procedure.

In order to ensure uniformity in procedure with plant which is widely scattered and whose operations are supervised by a number of engineers, a book of instructions relating to surface treatment of roads was issued on 1st July, 1933, for the guidance or road-masters, overseers, sprayer-drivers, operators, heater-hands, time-keepers, and cost clerks. The subject-matter was divided into the following divisions:—

1. General instructions.
2. Characteristics of materials.
3. Preparations before the arrival of plant.
4. General procedures.
5. Plant and its operation.
6. Employee's responsibilities.

No marked changes were made in the methods of procedure, but considerable detail development took place this year in the method of applying a road-mix seal. The results of this have been covered by a new specification for road-mix seal work and included in the Book of Instructions, Surface Treatment of Roads, Alterations and Additions, 1st July, 1934.

(6) Developmental Work.

1. *Sprayers.*—Early in the year a critical survey was made of the Board's spraying plant, which consisted of the following units:—

(*a*) 6 steam wagons .. .. 800 gallons gross.
(*b*) 5 motor units .. .. 400 gallons gross.
(*c*) 5 units without any tractive power. 300 gallons gross.

The 800-gallon units were mounted on steam wagons of three makes carrying 680 cold gallons (at 60 deg. F.), but their field of operation was limited for the following reasons:—

(i) Slow speed when travelling.
(ii) Difficulty of operation in mountainous country.
(iii) Gross load—13 tons.
(iv) Tires—solid.
(v) Difficulty experienced with bad steaming water in the plain country.

The 400-gallon units were mounted on motor trucks of pre-war design carrying 350 gallons net at 60 deg. F., and were considered unsuitable for the following reasons:—

(i) Large mileage.
(ii) Obsolescence and high maintenance and operating costs.
(iii) Tires—solid.

The 300-gallon units were tanks having a net capacity of 250 gallons at 60 deg. F., mounted on chassis having large diameter wheels fitted with steel tires.

From operating experience it appeared that a sprayer should possess the following characteristics:—

(*a*) It should give uniform longitudinal and transverse distribution throughout the spraying of each load.
(*b*) It should provide economical and flexible transportation.

As the existing equipment did not appear to present a satisfactory solution of these two problems, the major requirements were investigated and appeared to be as under:—

Requirement (*a*) should be met under the following conditions:—

(i) Over any width from 6 feet to 18 feet.
(ii) With any rate of application between 0.1 and 0.5 gallon per square yard.
(iii) Up or down a grade of 1 in 15.

Requirement (*b*) should be met under the following conditions:—

(i) Heating all materials by the roadside.
(ii) A bulk-handling system.
(iii) A combined system.
(iv) Work in open and mountainous country.
(v) Towing another vehicle.
(vi) Running a season without loss of spraying efficiency.
(vii) Compliance with legal limits.

An experimental unit was then built to meet the foregoing requirements under the following conditions:—

(i) Annual mileage of 7,500.
(ii) An obsolescent age of seven years.
(iii) A percentage distribution of the unit's time estimated to be as follows:—

Time stored in depots			50%
Time in the field—			
Preparing and filling ..	7.5%		
Transporting	13.75%		
Spraying and cleaning ..	3.75%		
		25%	
Towing		12.5%	
All other (delays, &c.)		12.5%	
			50%
			100%

This sprayer was built to the following design specification, and is illustrated by Plates 53 and 54:—

1. *Capacity.*—400 gallons bitumen at 60 deg. F., with allowances for piping, expansion of load to 360 deg. F., and 50 gallons freeboard. Total capacity, 540 gallons.

2. *Truck.*—(*a*) The truck shall carry the tank, equipment, and load within the legal limits and on pneumatic tires.

(*b*) It shall operate smoothly with the tank—
(i) Empty on the level at 2 m.p.h.
(ii) Loaded up or down a grade of 1 in 15 at 15 m.p.h.

(*c*) The gross load on a tire shall not exceed 2,300 lb.

3. *Sub-chassis.*—This shall carry the tank and equipment independently of the truck chassis, and be capable of easy removal therefrom.

4. *Tank.*—The tank shall be capable of carrying the load, shall be of a shape to give good chassis loading, have a low centre of gravity, and shall be fitted with the following:—

Dome and manhole, filling hole, strainer, overflow pipe, wash plates, insulation, heat flues, smoke tubes, thermometer, hot box and smoke box, and in addition to be braced against load deflections and distortion due to braking and accelerating forces.

5. *Heating Equipment.*—The heating equipment shall be capable of raising the temperature of a full load at a rate of between 2½ and 3 deg. F. per minute without distorting the tank or coking the load, and shall be usable with 250 gallons only in the tank.

6. *Pumping Equipment.*—(*a*) Pumping engine.—A four-cylinder petrol engine of not less than 8 h.p. (R.A.C. rating) fitted with a spring and fly ball governor, radiator, friction clutch, and a gear box operating normally in top gear shall be used. The pumping engine, air compressor, and associated operating equipment shall be mounted on a separate chassis with a three-point suspension from the sub-chassis and mounted forward of the tank.

(*b*) Pump.—The pump shall be a rotating plunger pump fitted with lubricated, oversize bronze bearings of the gland type; to discharge 160 gallons per minute of bituminous or tarry material having a viscosity of 0.66 Stokes (9 deg. Engler) at 122 deg. F. against a pressure of 10 lb. per square inch in the manifold header.

7. *Control Valve.*—A single control valve shall be fitted capable of carrying the discharge from the pump and of being set in either the fill, circulate, spray, or drain position with one control, and so arranged that no back pressure can be built up, and that the fill position can be reached from the spray position without loss of time. The valve shall not leak with the material at 100 deg. F. nor bind at 400 deg. F.

8. *By-pass Valve.*—An independently operated by-pass valve shall be fitted capable of reducing the pump discharge to the manifold header to 60 gallons per minute while maintaining the pressure at 10 lb. per square inch without alteration to the pump speed.

9. *Pressure Column.*—An insulated pressure column shall be fitted with a vacuum-pressure gauge (30-in. vacuum, 30 lb. per square inch pressure) operated by air above the column of bituminous or tarry material.

10. *Manifolds.*—Removable tapered manifolds shall be provided for widths from 6 feet to 18 feet in steps of 4 inches without using more than six dummy jets in any one unit. Each manifold shall be capable of being fixed at the desired height square to the truck and parallel with a line through the road contact points on the rear tires. Manifolds shall be fitted with 4/32-in. slot jets at 4 inch c.c. giving overlapping fans.

11. *Piping, Joints, &c.*—All piping shall be as short as possible, self draining, and free from short bends. All fixed joints shall be flanged, bolted, or welded. All field joints shall be fitted with snap unions or other type of self-locking connexion.

12. *Controls.*—All controls shall be grouped above an operating platform on the driving side of the truck.

13. *Tachometer.*—An independent tachometer, with a distance recorder and 5 : 1 ratio speedometer mounted in the cab shall be provided.

14. *Detail Fittings.*—The following detail fittings shall be included:—Tank gauge, pump shaft speed indicator, tool box, vyce, mountings for manifolds, hoses, firebeaters and squeegee, rear platform, step and operating platform, signal bell, tail chain, engine operating instruments, guide rod, rear vision mirror, cleaning oil tank and operating system, handrails, manifold guards, fire extinguisher and auxiliary equipment in connexion with the oil burners.

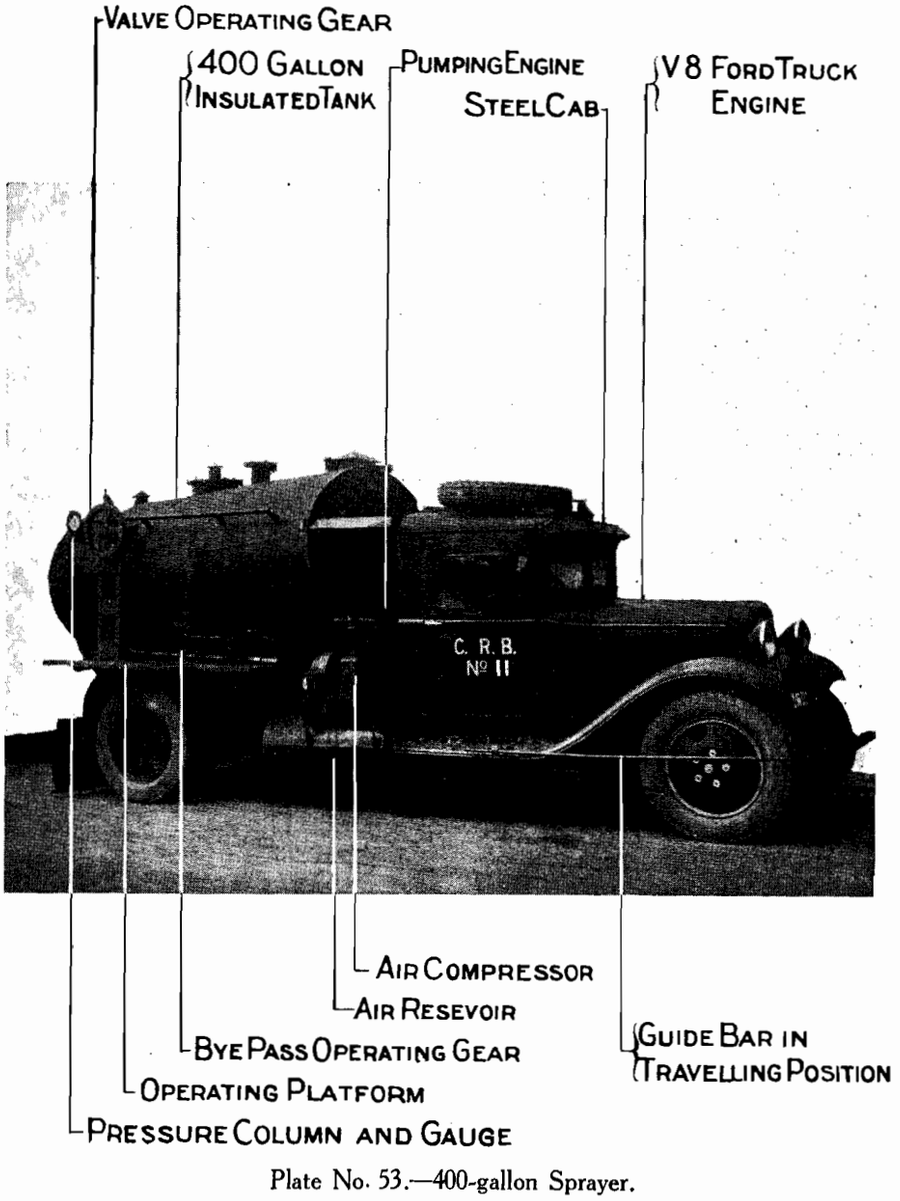

Plate No. 53.—400-gallon Sprayer.

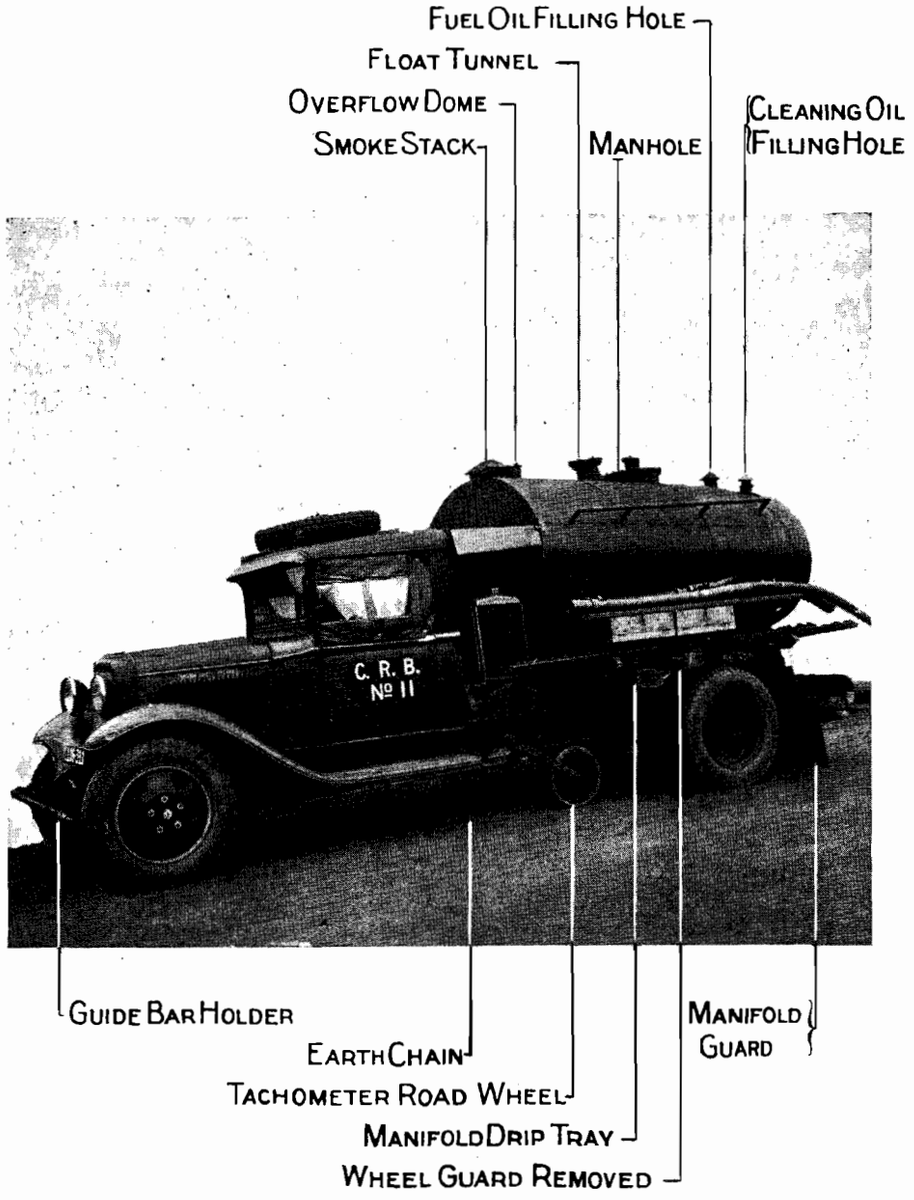

Plate No. 54.—400-gallon Sprayer.

2. *Heaters.*—The Board's heating equipment accompanying sprayers was as under:—

(*a*) 12 No. 800-gallon heaters with a capacity of 680 gallons cold (at 60 deg. F.).
They presented the following defects:—
(i) Steel tires.
(ii) Weight, 6½ tons empty.
(iii) Difficulty in handling and filling.
(iv) Fatigue leading to frequent failure.
(v) Danger from wood firing.

(*b*) 10 No. 400-gallon heaters with a capacity of 360 gallons cold (at 60 deg. F.). These are oil-fired units mounted on solid rubber tires, but give good service.

(*c*) 30 No. 300-gallon heaters with a capacity of 250 gallons at 60 deg. F., which have the following faults:—
(i) Steel tires.
(ii) Mechanical impossibility of towing long distances at a reasonable speed.
(iii) Wood firing.

A heater taking 400 gallons cold bitumen, with allowances for expansion, freeboard, &c., was constructed to the following design specification:—

1. Capacity.—400 gallons net at 60 deg. F.
2. Tires.—Pneumatic, and of same size as on the sprayer.
3. Turntable.—Full circle.
4. Brakes.—Automatic, operated from the draw-bar springs.
5. Insulation.—1½ Insulsel or Insulox bricks covered with ½-in. asbestos millboard.
6. Oil burning equipment—
High-pressure steam atomizing fuel oil burner, with a capacity of 4 gallons of oil per hour.

Under test, the experimental heater gave the following results:—

Load.—350 gallons of 80/100 penetration bitumen and 80 gallons of asphaltic oil.

Fuel.—3.75 gallons of fuel oil having a calorific value of 19,000 B.t.u. per lb. was burned per hour.

Temperature.—The load was raised from 70 deg. F. to 380 deg. F. in two hours; at this time the whole of the charge was liquid, and the temperature throughout the load did not differ by more than 3 deg. F. at any moment.

Efficiency.—
Flue gas C.O.2, 13.5 to 14.2 per cent.
Flue gas temperature, 615 deg. to 617 deg. F.
Flue gas losses, 18 to 18.5 per cent.
Radiation and conduction loss, 37 per cent.
Overall efficiency, 51.5 per cent.

This type of portable heater is illustrated in Plates Nos. 55 and 56.

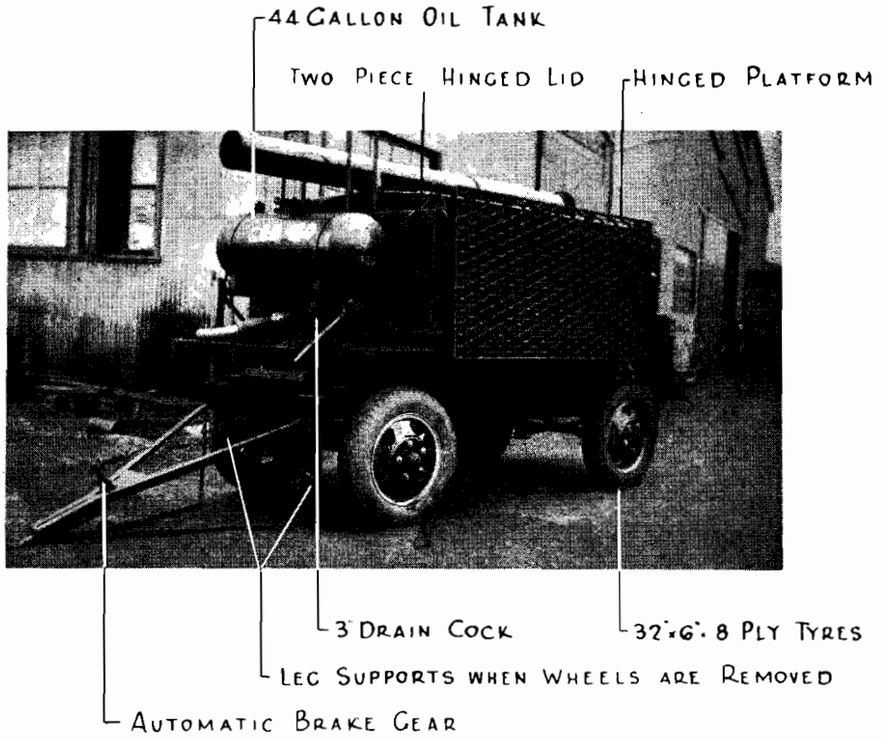

Plate No. 55.—400-gallon Oil Fired Heater.

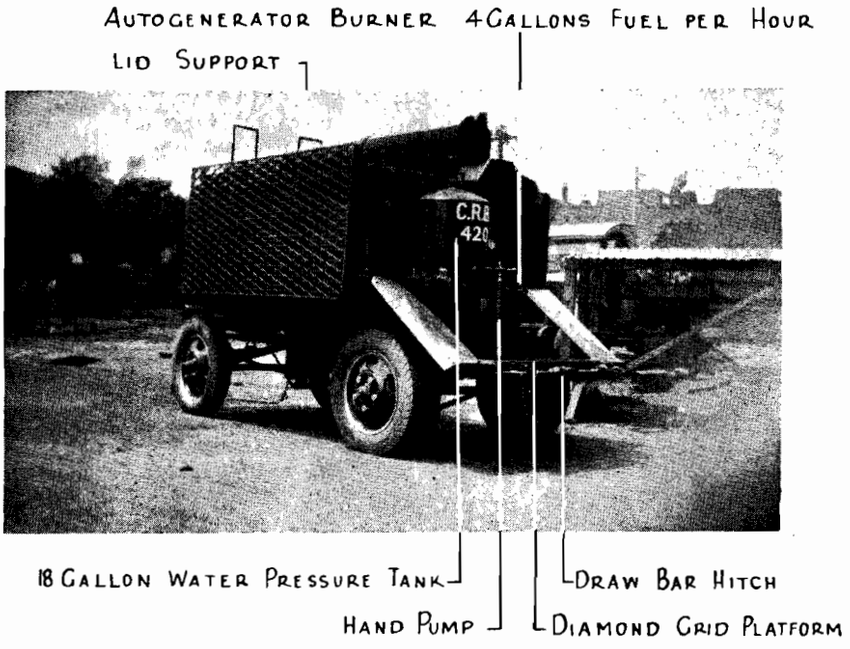

Plate No. 56.—400-gallon Oil Fired Heater.

3. *Mechanical Spreading of Aggregate.*—Hand-spreading of aggregate has long been expensive, and the cause of unnecessary roughness of surface treatments. Early in the year, several types of spreaders were investigated, and a rotating disc spreader purchased through the Department of Main Roads, New South Wales, and tested in the field.

An experimental unit was then constructed having two 15-in. x 5-in. solid rubber-tired road wheels mounted on a fixed axle driving a crown wheel and pinion (in a housing). The pinion shaft carries a flanged spreading disc on to which the aggregate is fed through an adjustable diamond-shaped hole in the body of the spreader. The aggregate is fed to the spreader through an adjustable door in the tail gate of an end tipping truck. The spreader is attached to the truck, which is then backed over the area to be covered with the aggregate.

The speed of the truck controls the width of application, and the size of the diamond the rate of application. An operator riding on the platform operates the feed door in the tail gate of the truck, and keeps the bowl of the spreader filled with aggregate. This type of spreader, which is illustrated in Plates Nos. 57 and 58, can serve at least five motor trucks delivering aggregate to the work.

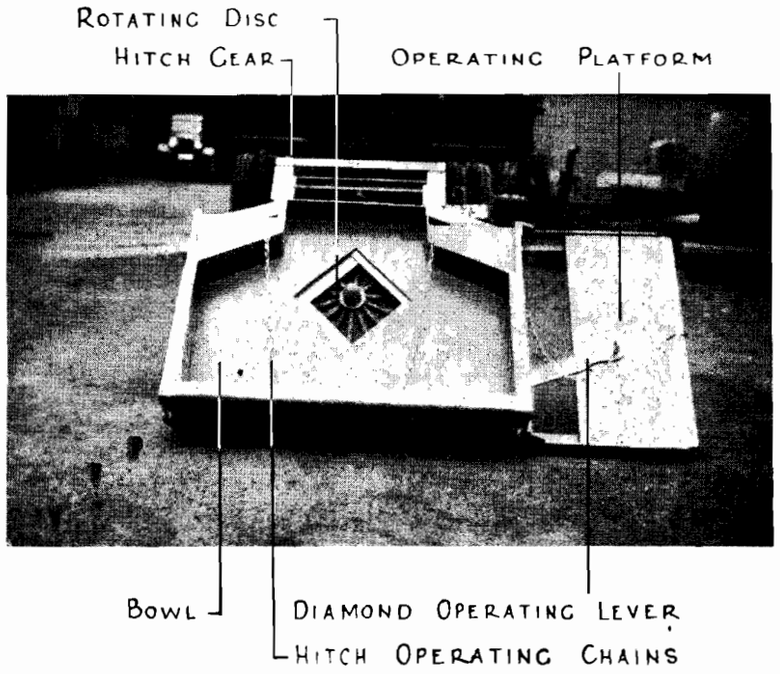

Plate No. 57.—Rotating disc spreader.

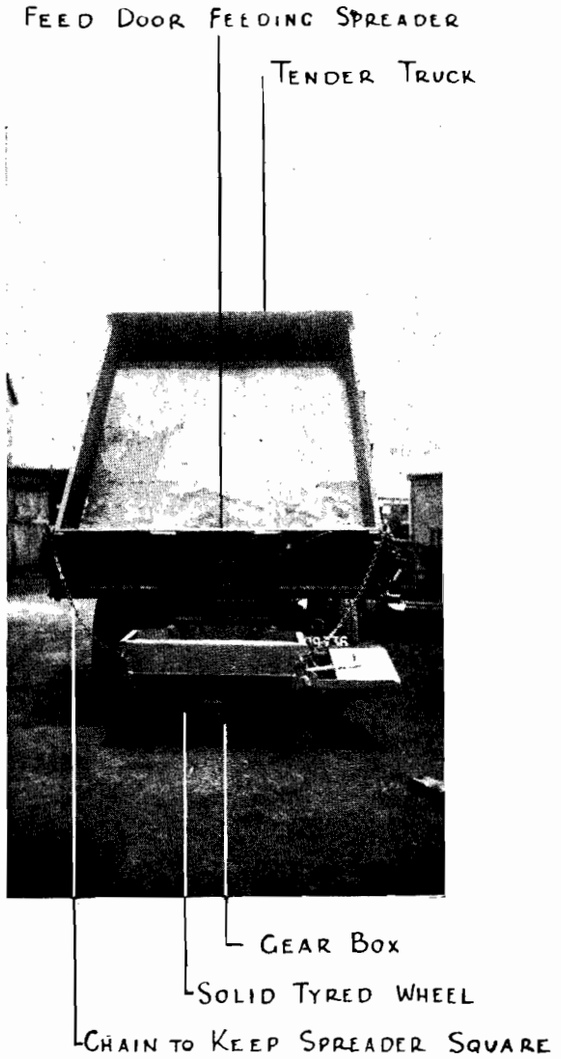

Plate No. 58.—Tender truck with rotating disc spreader attached.

4. *Tender Trucks Accompanying Sprayers.*—During the year, a design specification as follows was prepared covering the special features considered desirable for the body of a tender truck to accompany sprayers during their season, and for general maintenance purposes during the winter:—

1. The body shall be steel or steel-lined composite. The lining joints shall offer no obstruction to the sliding of the load or shovelling from the floor.

2. The angle of tip shall be not less than 45 deg.
3. The hinge point shall be at the end of the body.
4. A suitable gallows or mechanical tipping mechanism operated from a power take-off shall be fitted.
5. The body shall be 2½ cubic yards when loaded to water-level, and shall project beyond the sides of the cab. The ratio of length, width, and depth shall be approximately 8 : 5½ : 1.
6. The sides shall be capable of being dropped.
7. The end door shall project at least 4 inches above the sides; it shall be hinged at the top with a lever gate control bottom opening, shall be hinged at the bottom for dropping, and shall be removable.
8. In the end door, a lever-controlled gate of not less than 14 inches x 9 inches clear opening shall be provided. The operating lever shall be on the back of the end door, and shall be within the clearance lines of the body.
9. Stout chain hooks shall be provided at the top of the rear end posts.
10. Side hooks for tying down a load shall be provided.
11. The overall height of the body shall be as low as possible.
12. The truck chassis shall be fitted with a draw-bar hitch.
13. Provision shall be made for the fixing of a rotating disc spreader hitch, to the truck chassis.

A body of this type is illustrated in Plate No. 58.

5. *Road-mix Seal Machines.* — Figure 2 in the twentieth annual report shows the details of a machine for mixing and spreading aggregate and binder on road-mix seal work. Further development of this type of machine took place during the year in the direction of alterations to the distributing blades, the addition of more blades, and the fitting of springs to all the mixing blades.

This type of machine can spread up to 1 inch loose thickness, but it is costly to transport from job to job, and requires a 30-h.p. crawler tractor to draw it on the grades liable to be met with. As the possibility of adopting a road-mixing process in place of the existing method of re-sealing was under consideration, experiments were carried out having in view the possibility of using a standard 15-ft. planer fitted with attachments to carry out road-mix seal work where the depth in one application did not exceed ¾-inch loose thickness.

By this arrangement, it was hoped that transport and plant hire charges would be reduced, as many planers are available throughout the country for routine maintenance and other work, and a motor truck could provide all the tractive effort required. The attachments weigh 3½ cwt., and the planer 8½ cwt. A standard 15-ft. planer, and a set of attachments before and after assembly, is shown in Plates Nos. 59 and 60.

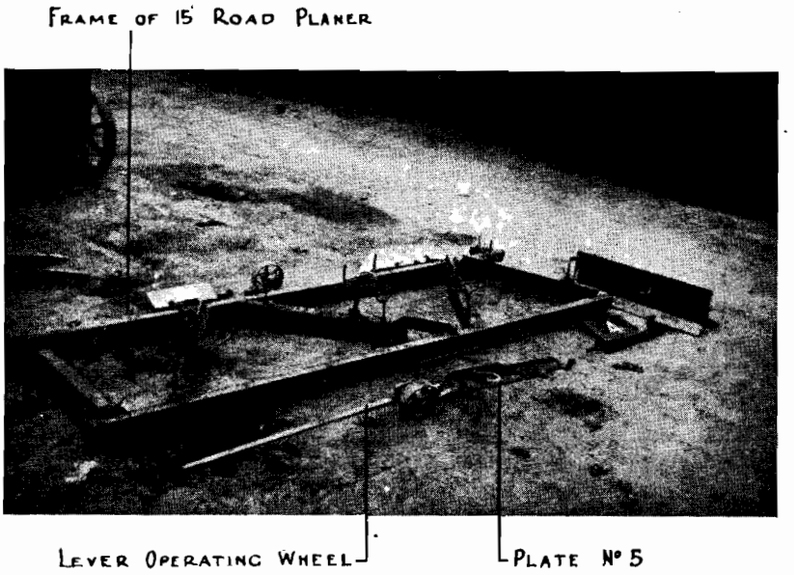

Plate No. 59.—Standard 15-ft. Planer and attachments.

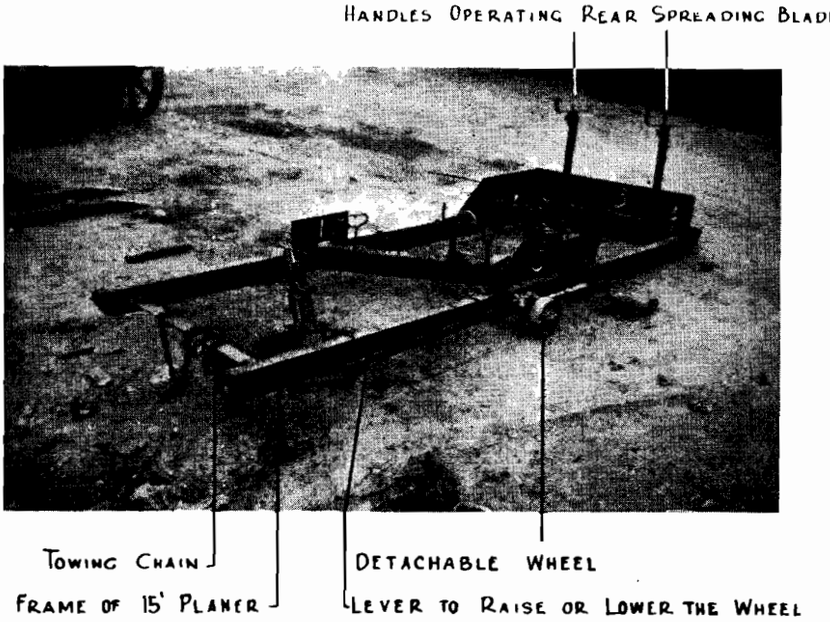

Plate No. 60.—Planer with attachments fitted.

6. *Tents for the Accommodation of Sprayer Crews.*—Four men and an overseer accompany each spraying outfit, and to date accommodation has been provided in standard 8-ft. x 10-ft. tents, for which timbers were carried owing to the cutting of timber on roads being prohibited. As the time occupied in setting up and taking down these tents was considerable, the weight of the timber to be carried of importance, and the depreciation of standard tents high, several experimental tents of the pyramid or umbrella type, with light flexible folding timbers attached, have been experimented with, the covering materials tried being Birkmyre's O.M. cloth, 10-oz. and 12-oz. Willesden cotton duck, and Japara cloth.

It has been decided to adopt a 10-ft. 6-in. x 10-ft. 6-in. Pyramid type of tent, covered with 12-oz. Willesden cotton duck, which weighs 75 lb. with carrying bag, cover, timbers, and fastenings. This will accommodate two men, and can be unpacked, erected, and pegged down by one man in five minutes.

7. *Broomware.*—An investigation was carried out during the year on the broomware being used by the Board for ordinary sweeping and special purposes. The use of bass for spreading bituminous emulsion and moving aggregate by roller brooms and broom drags was found to be unsatisfactory and uneconomical. For spreading bituminous emulsion and light grades of tar, grey Java fibre gave better work. For roller brooms and brooms for broom-drags, ⅛-inch x 24-gauge flat English broom wire did better work at a much lower cost per mile of work done.

LABORATORY.

Some details of new apparatus installed in the laboratory during the year are given below. Routine laboratory work continues to occupy an increasingly important part in the Board's operations, in considering designs as well as in testing of supplies.

During the year a research into the subject of gravel was commenced. This work has been in mind for some years, but staff had not previously been available, and as yet the work is only in its infancy. No *general* specification for gravel is, it is considered, of any practical use. Specifications might be drawn up to suit known deposits, but when one considers that the elutriable content of a satisfactory gravel might vary from 6 per cent. up to 45 per cent., it is seen that the common type of specification, specifying maximum size of stone and elutriable content, is practically worthless unless related to a known area. The work commenced has not yet reached the stage at which any very definite conclusions can be drawn, consequently detailed reference to it will not be made in this report. Briefly, the procedure is to carry out soil analysis of soil mortars of a large number of gravels of known behaviour in the field, to relate the soil constants, and eventually develop relations between the soil constants and other factors that will enable either a rational specification to be devised, or at least a method of identification of satisfactory gravels to be developed for field and office use.

The wider use of cutbacks both for maintenance and general surfacing operations developed in the field during the year, led to a considerable amount of laboratory work in testing the wide range of materials available, and developing the most economical mixtures. It is proposed to make up cutbacks in district depots during the coming financial year, and thus save a considerable amount of freight, and particularly give much more definite and direct control of supplies. Work carried out to date indicates that quite satisfactory and economical results can be achieved, but there is still a considerable amount of developmental work to be done in deciding on the exact economic limits of the material itself, and the exact types of fluxes that will be most economical.

As the Board uses large quantities of crude tars, tar oils, and asphaltic oils, all of which usually contain some quantity of water, routine tests of percentages of water in these materials form a considerable part of the routine laboratory work. It is very necessary to keep the water content down to the specified maximum in view of the danger of foaming in the field. During the financial year an electrically heated stove, capable of accommodating three sets of Deane and Stark apparatus, which has been standardized for this work, has been installed. Uniform heating made possible by this stove causes the water to distil over with a minimum of "bumping," and enables the apparatus to be left unattended after having been set up, thus considerably reducing the labour required. The Deane and Stark apparatus has been standardized by the A.S.T.M. and the Institute of Petroleum Technologists, and has been found very satisfactory. A photograph of a typical set up is shown in Plate No. 61. The No. 1 tube in this set up is of the larger size used for emulsions. The clear water can be seen at the bottom of each condensing tube, with the solvent showing darker above it.

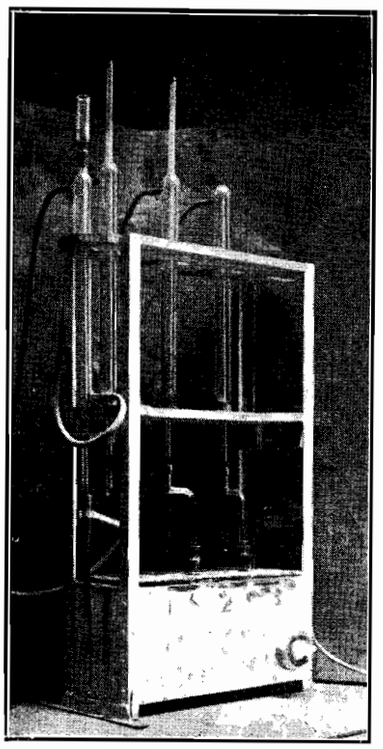

Plate No. 61.—Dean and Stark apparatus for determination of water content.

BRIDGES.

In January a very severe flood occurred, doing great damage to roads and bridges in the lower areas near Orbost and along the Deddick River. The new bridge (McKillop's) at the junction of the Snowy and Deddick Rivers was destroyed, two minor timber bridges over tributaries of the Deddick River between the Snowy River and Bonang were washed away, and two spans of the bridge over the Snowy at Orbost were removed.

The highest previous recorded flood was in 1893, and was regarded as being an extraordinary flood (approximately 200,000 cusecs). The bridge over the Snowy at the Deddick was, however, made 10 feet higher than this flood, and it appeared that as provision was made for a flood 50 per cent. greater than any previously known, the structure should be safe. However, the January, 1934, flood of approximately 400,000 cusecs was 14 feet above the 1893 flood, and rose nearly half way up the light steel trusses, filling them with flood debris and washing them off the piers and abutments

One pier in the centre of the river, to which the trusses were bolted, was pulled over as the trusses were washed off the other piers.

At Orbost, the bridge which was a joint rail and road bridge completed by the Railway Construction Branch in 1922, consisted of deck type plate girders on heavy timber piers, and was severely damaged. For many years prior to the construction of this bridge the river bed at Orbost had been silting up, and the bridge piers consisted of timber piles driven through deep deposits of sand to the underlying rock. Although the exact cause of the failure is not known, it would appear that owing to the formation of a new outlet to the sea at Marlo and to the flood velocity being much greater than usual, the old bed was almost swept clean of sand. The stability of one pier, which consisted of a series of piles driven to rock, was thus seriously impaired, so that when a large floating tree struck this pier it was pushed out sideways and the two spans of plate girders adjoining it fell, leaving a gap of 125 feet in the bridge.

A temporary suspension bridge (Plate No. 36, see p. 29) was constructed over the gap, and traffic was able to use this in a fortnight from the collapse of the previous structure. This is considered quite a creditable achievement. While the suspension span was being erected traffic was catered for with a temporary punt.

The fact that the volume of water at McKillop's bridge was about twice as great as the largest flood recorded in the 43 years for which observations are available indicates the difficulty that faces engineers in a comparatively recently settled country like Australia, in estimating flood flows and the meteorological and hydraulic constants which have to be taken into account in bridge design. While it is essential that all relevant information shall be collected and studied when floods like this occur, any tendency towards excessive conservatism in estimating waterways is to be deprecated. The cost of providing waterways such that all possible risk of failure is eliminated on all bridges under consideration would be absolutely uneconomical, particularly for minor structures. Even where a waterway proves to be inadequate, it is seldom that the very severe conditions met with in the Snowy River are encountered, and consequently loss or considerable damage to a structure is rare.

The maximum average rainfall for a given area is not calculable, and it is necessary to rely on past experience and records as a guide. Instances are known of 10 inches of rain falling in one day in parts of the Snowy River catchment, but these falls, of course, cover only a limited area. In designing the structures to replace those lost or damaged, all new meteorological data were examined and a discussion of the complex problem at the McKillop Bridge crossing has been contributed to the technical press by two of the Board's senior officers, and will be mentioned only briefly here.

It is very improbable that a flood greater than that of January, 1934, will come down (although this viewpoint was previously erroneously held with regard to the 1893 flood), but assuming that settlement in the area tends to increase the wire-netted areas, free from rabbits, so that grass and not bare earth is presented to the rain, it is improbable that the percentage of run-off will increase. The unknown factor, then, is the intensity of rain in future storms. The rain in January, 1934, was steady over the whole 4,000 square miles at the rate of 3 inches per day and 6 inches in two days. The bridge can be raised, making use of the existing piers, to a height of 11 feet above the 1934 flood, which height would be sufficient to take care of 9 inches of rain in two days over the catchment. From every aspect, this seems to be a reasonable compromise between undue caution and unnecessary risk.

Tenders have been accepted for restoring the bridge on this basis in financial year 1934-35.

At Orbost, permanent reconstruction of the damaged bridge has been carried out, being completed this financial year. Existing piers were strengthened, and a welded steel truss span 124 feet long was erected over the gap caused by the flood. Progress is shown in Plate No. 37 (p. 29).

Sunday Creek, Broadford.

The original bridge at this site was constructed 70 years ago. It consisted of a single-span bridge of handsome masonry abutments, but with the superstructure of timber. Within a few years of construction, flood waters breached the filling at the southern end and demolished the adjacent abutment. A timber bridge of greater length was then built on to the undamaged northern abutment. After 50 years the timber work had so deteriorated as to render reconstruction of the bridge an urgent matter. An offer of some secondhand wrought-iron plate girders at the very low price of 10s. per ton was availed of, and a second abutment of reinforced concrete faced with masonry to match the existing northern abutment was constructed, the plate girders being used to form a single span with a timber deck. One new welded steel plate girder was also required. Several old stone houses nearby, which had not been inhabited for many years, were available at low cost, and these provided the necessary stone in the new abutment. The completed structure is shown in Plate No. 33 (No. 27).

Wangaratta–Ovens River Bridge.

The old bridge at this town was the second structure at this place on the Sydney-road, as it was called in former days. It consisted of a series of 50-ft. spans, having strut and straining-piece construction. While this formerly popular method is very economical in carrying dead loads, large moments are introduced into the piers from moving loads. These produce a general tendency for the bridge to become loose at the joints, and apparently unsafe.

In 1920, the type of construction of the bridge was modified by the imposition of a continuous secondary timber truss system. Little further was done to the bridge except to put a few props under the ageing spans over the flats on the Wodonga side of the river. By 1933, however, the bridge had reached a very advanced stage of decay, and the factor of safety for any but light loads had become very low. The presence of heavy traffic and the absence of alternative routes therefore necessitated the construction of a new bridge.

Fortunately, the existing bridge had been built downstream from the original bridge, so that the way was open to improve the alignment without interfering with traffic during construction.

After consideration of some alternative types of construction, it was decided to construct a three-span deck type plate girder bridge having concrete abutments and piers, and a timber deck. The present width decided on was 22 feet for the roadway, with a footway 6 feet wide on the upstream side. (Provision is being made concurrently for the removal of stock traffic from the bridge by the construction of a separate stock bridge downstream.) In addition to this, piers have been made wide enough and strong enough to allow the bridge to be widened to 36 feet by re-spacing of the girders and the addition of a fourth line of girders.

The system so chosen has probably provided for the needs of traffic for the next generation, and is capable of considerable extension in future at the minimum of cost. It is estimated that the timber deck now being constructed, when adequately protected by a bituminous seal coat, should last until the question of further widening is raised.

Bores indicated that the gravel substratum found in previous bridges in this valley was present at this site. At Yellow Creek, 2 miles away, a 30-cwt. pile hammer was unable to drive the piles far into this gravel, so that a 3-ton hammer was specified for this bridge. It was found, however that the piles were not only driven into the gravel, but right through the layer 8 feet deep, without quite reaching the specified set. This necessitated using piles considerably longer, and since the contractor had all piles already cut (an unwise but nevertheless common practice) a pile splice was developed, using a 2-ft. length of steel pipe electrically welded by the Cutler-Marsden (bare wire) process. A 12-ft. length of pile was fitted to the small end of longer piles, as shown in Fig. 1.

The box type abutments, though somewhat unusual in detail, were very economical, and the pier details are standard practice. The apparently costly underwater construction was quite economical in actual practice, and the specification clause for this work was, as described hereunder, followed literally with complete success, in spite of the considerable depth of 6 feet of water.

The piers consisted of cellular reinforced concrete, supported on driven piles. The piles were cut off just above bed level, and the concrete base of the piers carried down through 6 feet of water to bed level. This work was done by using a light tongued-and-grooved pine cofferdam, which was completely assembled above water and lowered around the previously driven piles. A concrete seal 18 inches deep was placed around the pile tops, and the cofferdam de-watered. Very little trouble was experienced with the method, and the cost was very little more than that of ordinary formwork.

In the period covered by this report, the substructure was practically completed.

Barongarook Creek–Colac.

The site of this bridge is at the east end of the main street of Colac. The old bridge, which was of timber, was 24 feet wide, with two 6-ft. footways, and was 150 feet long, with redgum sawn stringers. Many local fungus infections in the stringers, and general debility elsewhere, made the old bridge unsafe for heavy loads. The short grade down to the bridge from the relatively high western side was sufficient to cause trouble, due to slipperiness, and the alignment was unnecessarily tortuous. In the days when all road transport was slow moving, the bridges in such circumstances were rarely placed on a grade, and there are many instances where the longitudinal section of roads has been spoilt by the breaking of a grade in order to keep bridge abutments on the same level. Subject to fundamental considerations, such as camber, span arrangement, drainage, &c., the bridge deck should be treated as part of the road, and structural modifications made to customary practices to enable this to be done. The new bridge is shown in Plate No. 35, and is upstream from the old bridge, thereby improving the alignment, and at the same time leaving most of the old bridge available for traffic during construction of the new.

The new structure is 120 feet long by 42 feet wide overall. It has four spans of 30 feet. The roadway is 30 feet wide, and there are two footways each 6 feet. The deck extends with uniform strength for the full width, so that should traffic ever increase, the roadway width may be increased to 36 feet by the removal of the kerb and gravel fill of one footway; and 42 feet would be available if both footways are removed. The structure is founded on timber piles driven 24 to 27 feet into the clay underlying the site. This is the first concrete bridge on which the Board has specified for all the work, the use of vibration on the forms so as to assist the placing of the concrete. The process was found to be highly satisfactory, and the results prove that for wall and T-beam construction, the concrete is so improved as to make vibration highly desirable, while even for easily placed concrete, such as horizontal slabs, a great improvement in the uniformity of the concrete results. These advantages are present without increase in the cost of placing concrete, and particularly in view of the strenuous and uninteresting nature of hand labour, the process is considered to be a definite milestone in the progress of reinforced concrete construction. So far, no attempt has been made to alter the mixture by the addition of further stone, and thereby reduce cost, because of lower cement content, but this step appears to be warranted in view of laboratory and practical experiments.

Chinaman's Creek–Kilmore.

Approximately 50 to 60 years ago, a single-span bridge of 27 feet span by 20 feet width, was built at this place. The abutments were of dressed bluestone, and the superstructure of timber, of strut and straining-piece construction. Age, fungus, white ants, and other agencies of decay, necessitated the renewal of the superstructure, but the substructure was in good order, as will be seen by referring to Plate No. 34 (page 28), which shows the new bridge.

The new superstructure consists of steel joists, with a concrete deck, embodying the idea recently developed by the Tasmanian Public Works Department, whereby a composite structure is effected by rods bonding the steel joists and the concrete. The concrete deck acts as the compression flange, while the lower flange of the joist is a normal tension flange, with the effective depth considerably increased. Subsequently, the structure was tested to ascertain the accuracy of the design assumptions, and they were found to be correct.

The low cost of standard products against special products in Australian conditions is exemplified from the fact that, in spite of a considerable saving in weight of steel because of the construction adopted, heavier standard joists without special bonding bars could have been used at the same cost. If, however, special circumstances prevent the use of concrete T-beam construction, the method appears to be economically applicable.

Mordialloc Bridge.

Mordialloc Creek crosses the Point Nepean-road immediately to the south of the junction with Beach-road. The reinforced concrete bridge, which was constructed by the Board in 1918, provided for a central roadway of 19 feet, and two footways of 5 feet. The traffic on this road is normally heavy, but when augmented by the holiday traffic, it reaches 3,000 vehicles per hour, so that it was often seriously delayed by the restricted width of the bridge and approaches. Further dislocation resulted from the necessity for foot traffic to cross the road, and from limited traffic from Beach-road proceeding south at periods when most traffic was going back to Melbourne.

The structure was widened to give a roadway of 40 feet, with two footways each 6 feet. To cater for pedestrians at periods of dense traffic, a subway was built under the bridge adjacent to the northern abutment.

For the original bridge, borings showed rock at a shallow depth, and on the basis of this, pier designs provided for open-dredged cylinders. Construction operations at the time, however, revealed that the rock was of no appreciable thickness, and subsequently concrete piles were driven inside the cylinders. For the widened bridge, reinforced concrete piles were used up to low-water level, where they were bonded into a cap and pier, similar to that on the existing half. Where breaking down was necessary, the concrete of the old bridge was found to be in first class order, and no trace of rusted reinforcement or of poor concrete was found. This was reassuring, since this bridge is right against

the sea. In some other reinforced concrete bridges of similar age, rust, porous concrete, and cracks have been observed. It would appear, therefore, that faulty concrete in them was probably due to careless placing of reinforcement, and to faulty workmanship due to lack of knowledge of the materials rather than to any inherent faults in the cement.

Wing Walls.

The high cost of concrete abutments and wing walls is one of the greatest factors affecting the total cost of a reinforced concrete bridge. For a simply supported T-beam span of 30 feet, the approximate quantities and costs of deck slab and beam stem per lineal foot 22 feet wide, are as follows:—

Concrete 1 cub. yard ..	£5	10	0
Reinforcement 1¼ cwt. ..	1	10	0
Total	£7	0	0

The cost of the superstructure of a timber bridge is approximately £5 per lineal foot. Provided that abutments can be constructed at reasonable cost, the economical comparison with timber should be in favour of the more extended use of concrete.

Attempts to reduce the cost of abutments and wing walls have been made with considerable measure of success by the New South Wales Department of Main Roads by getting away from the older forms of construction. Where pedestal abutments are possible, they should be generally used, but there are many instances where the stream conditions render the use of this type hazardous. The construction of single span rigid frame concrete bridges which permits the abutment to be designed as a vertical beam greatly reduces costs, but brings in the complication of requiring special treatment for the wings, which should generally not be monolithic with the abutment. The first rigid frame bridges constructed by the Board had abutments designed to take advantage of this construction, but the wings were separate cantilever retaining wall type. The disadvantages of these were the large quantities of materials required and their basic instability when subjected to practically unknown forces from earth filling and traffic. The tops of such wings come forward with respect to the abutment partly by the deformation of the concrete wall and partly by settlement of the toe.

The wing wall details shown in Fig. 3 have been used for several bridges with apparent success. The basis of design is to consider the vertical wall supported by the footing and by the coping (which then acts as a beam). The reaction at the lower end of the coping is taken by a counterfort and the reaction at the higher end by the kerb. The cost of such walls is approximately 20 per cent. less than for the vertical cantilever type.

Single Span, Rigid Frame Design.

American practice has made a feature of rigid frame designs, using flat slab construction for very large spans in place of beam and slab construction. During the year this method has had serious consideration, and a slab deck for a 20-ft. span has been constructed on the Benalla-Shepparton section of the Midland Highway, and for a 25-ft. span at Korong. Design details of a structure of this type are shown in Fig. 2.

For contract work, a certain amount of uncertainty exists whether the saving by reason of the simpler formwork of the slab deck, as compared with the more usual beam and slab construction, will offset the extra cost in steel and concrete. High strength field concrete can, however, be obtained with great consistency where technically trained supervisors are employed, and in this way and because of improvements in quality and use of materials, higher working stresses may now be used with confidence, resulting in decrease of dead loads. The field of use of the slab structure should thus be further extended in the near future.

Yours obediently,

L. F. LODER,

Chief Engineer.

APPENDIX A.

COUNTRY ROADS BOARD FUND.

Dr. RECEIPTS. *Cr.*

		£ s. d.	£ s. d.	£ s. d.
1933. July 1.	To Balance	.. ..	.. ..	8,774 1 11
1934. June 30.	,, Motor Car Act No. 3741—			
	Registration Fees	1,199,674 2 5		
	Fines	11,636 3 9		
		1,211,310 6 2		
	Less Refunds and Cost of Collection	59,590 9 5	1,151,719 16 9	
	,, Motor Omnibus Act, No. 3742—			
	Fees and Fines	.. ..	3,428 11 8	
	,, Country Roads Board Act, No. 3662—			
	Registration of Traction Engines	502 4 0		
	,, Fees and Fines	498 8 6		
		1,000 12 6		
	,, Acts Nos. 3662, 3741 and 3742—			
	Costs	276 8 6	1,277 1 0	
	,, Municipalities Repayments—			
	Permanent Works	93,807 16 10		
	Relief—Act No. 4140 ..	46,558 4 9		
		140,366 1 7		
	Maintenance	108,415 1 11	248,781 3 6	
	,, Hire of Plant	32,893 17 10		
	,, Stores and Materials ..	187,839 19 9		
	,, Sundries	45,536 1 11	266,269 19 6	
				1,671,476 12 5
	,, Act No. 4097—Relief of Unemployment ..	.. ..	..	76,516 19 10
				1,756,767 14 2

PAYMENTS.

		£ s. d.	£ s. d.	£ s. d.
1934. June 30.	By Maintenance—(Appendix)	.. ..	..	870,013 1 7
	,, Interest and Sinking Fund (Municipalities Repayments)	.. ..	..	117,002 16 4
	,, Recoup to Revenue Act, No. 3944—			
	Interest—Main Roads	112,233 2 7		
	Developmental Roads	149,904 0 8		
	,, Sinking Fund Contributions	23,843 10 9		
	Exchange	25,019 6 0		
			311,000 0 0	
	,, Relief to Municipalities Act, No. 4140	.. ..	..	50,000 0 0
	,, Stores and Materials	178,590 11 3		
	,, Motor Expenses	6,073 15 2		
	,, Plant Purchase and Repairs	32,402 19 1		
	,, Storeyard	15,006 10 9		
	,, Sundry Debtors	28,544 3 1		
	,, Suspense Account	620 17 5		
	,, Motor Omnibus Act (Administration)	1,608 7 2		
	,, Motor Car Acts	2,527 8 4		
	,, Act 3662 (width of tyres)	459 10 7		
	,, General Expenditure (Salaries, &c.)	60,674 8 6		
			326,508 11 4	
	,, Act No. 4097—Construction of Roads for Relief of Unemployment (Wages)	.. ..	..	76,516 19 10
	,, Materials, &c., provided from C.R.B. fund for works under Act No. 4097	.. ..	..	4,068 3 8
	Balance	.. ..	..	1,658 1 5
				1,756,767 14 2

RECONCILIATION STATEMENT.

	£ s. d.
Balance as per Treasury Books	1,166 1 7
Add Outstanding Transfers	627 8 2
	1,793 9 9
Deduct Accounts in Transit	135 8 4
Balance as per Country Roads Board Accounts	1,658 1 5

REVENUE ACCOUNT, 30TH JUNE, 1934.

Dr.

1934.		£	s.	d.	£	s.	d.	£	s.	d.
June 30.	To Maintenance Works—General ..	..		..	457,556	8	10			
	Wood's Point Road (1) ..	2,462	17	2						
	Wood's Point Road (2) ..	1,905	15	10						
	Mt. Buffalo Road	1,445	19	0						
	Walhalla Road	1,780	2	10						
	State Highways	404,861	17	11						
					412,456	12	9			
								870,013	1	7
	,, Contribution to Sinking Fund ..	..		..	29,250	14	1			
	,, Interest on Loans	..		..	87,752	2	3			
								117,002	16	4
	,, Recoup to Revenue Act No. 3944—									
	Interest—Main Roads ..	112,233	2	7						
	Developmental Roads	149,904	0	8						
					262,137	3	3			
	,, Sinking Fund Contributions ..	..		..	23,843	10	9			
	Exchange ..	..		..	25,019	6	0			
								311,000	0	0
	,, Relief to Municipalities, Act No. 4140 ..			..	..		..	50,000	0	0
	,, Audit Fee	..		..	399	7	3			
	,, Experimental Section ..	..		..	85	7	3			
	,, Fidelity Guarantee	..		..	208	7	0			
	,, Gravel Sites and Metal Investigation	..		..	1,162	6	0			
	,, Instruments	..		..	189	13	6			
	,, Motor Expenses	..		..	6,076	12	2			
	,, New Offices—Exhibition Building	..		..	389	19	10			
	,, New Storeyard	..		..	465	1	1			
	,, Storeyard	1,190	15	8						
	,, Reconstruction	576	13	0						
					1,767	8	8			
	,, Office Expenses	..		..	2,305	19	11			
	,, Office Furniture	..		..	1,480	13	6			
	,, Patrolmen's Cottages	..		..	1,808	14	5			
	,, Plans, Purchase	..		..	578	14	3			
	,, Plant, Purchase	..		..	15,787	10	8			
	,, Postages and Telegrams ..	..		..	1,395	3	7			
	,, Printing and Stationery ..	..		..	1,719	7	8			
	,, Salaries	..		..	40,324	18	6			
	,, Storage Sites	..		..	361	13	8			
	,, Telephones	..		..	938	10	11			
	,, Timber, &c., Revenue Account ..	..		..	1	10	0			
	,, Testing Materials	..		..	864	10	7			
	,, Travelling Expenses	..		..	1,635	18	10			
	,, Motor Omnibus Act—Administration	..		..	1,608	7	2			
	,, Motor Car Acts—No. 3741, Sec. 11–13; No. 3901, Sec. 24–26 ..	..		..	2,761	14	2			
	Carried forward	..		..	84,317	10	7	1,348,015	17	11

Cr.

1933.		£	s.	d.	£	s.	d.	£	s.	d.
July 1.	By Balance	..		..	..		..	282,210	18	9
1934.										
June 30.	,, Motor Car Act, No. 3741—									
	Registration Fees	1,199,674	2	5						
	Fines	11,636	3	9						
		1,211,310	6	2						
	Less Refunds and Cost of Collection	59,590	9	5						
					1,151,719	16	9			
	,, Motor Omnibus Act, No. 3742—									
	Fees and Fines	..		..	3,428	11	8			
	,, Country Roads Act, No. 3662—									
	Registration of Traction Engines ..	..			502	4	0			
	Fees and Fines	..		..	498	8	6			
	Costs (Acts 3662, 3741 and 3742) ..	..			276	8	6			
	Forfeited Deposits	..		..	351	11	4			
	Plans, Sale of	..		..	113	19	0			
	Plant Earnings	33,351	15	10						
	Deduct Working Costs ..	14,321	16	5						
					19,029	19	5			
	Rents	..		..	774	15	0			
	Royalty on Gravel and Metal ..	..		..	463	8	3			
	Sale of Old Roads	..		..	151	15	8			
	Materials—Sale of	..		..	3	0	0			
	Redgum Timber at Wodonga ..	..		..	8	4	0			
	Timber, &c., Revenue Account ..	..		..	26	9	9			
	,, Tree Planting	..		..	6	0	0			
	,, Maintenance Works—									
	Contributions payable by Municipalities ..				124,052	4	3			
	,, Permanent Works—									
	Contributions payable by Municipalities ..				140,218	4	2			
								1,441,625	0	3
	Carried forward							1,723,835	19	0

Dr.

REVENUE ACCOUNT, 30TH JUNE, 1934—*continued.*

Cr.

1934.		£ s. d.	£ s. d.
June 30.	Brought forward	£84,317 10 7	1,348,015 17 11
	To Act 3662—Width of Tyres, &c.	464 10 7	
	,, Investigation Surveys	62 3 11	
	,, Advertising, Government Printer	273 10 5	
	,, Direction Boards and Warning Signs	1,576 14 6	
	,, Incidentals	296 16 7	
			86,991 6 7
	,, Materials Provided for Unemployment Relief Works under Act 4097		4,068 3 8
	Balance		284,760 10 10
			1,723,835 19 0

	£ s. d.	£ s. d.
Brought forward		1,723,835 19 0
		1,723,835 19 0

BALANCE-SHEET AS AT 30TH JUNE, 1934.

LIABILITIES.	£ s. d.
Contractors' Deposits	8,166 16 10
Sundry Liabilities	18,343 0 6
Sinking Fund	441,026 17 3
Revenue Account	284,760 10 10
	752,297 5 5

ASSETS.	£ s. d.	£ s. d.
Country Roads Board Fund		1,658 1 5
Maintenance Expenditure—		
Contributions payable by Municipalities	124,052 4 3	
Contributions payable by Municipalities in Arrears	9,842 1 0	
		133,894 5 3
Permanent Works—		
Contributions payable by Municipalities	140,218 4 2	
Contributions payable by Municipalities in Arrears	7,123 13 7	
		147,341 17 9
Outstanding Accounts		6,836 5 10
Materials, Stock—		
Storeyard	10,198 5 4	
Branches	3,174 15 9	
		13,373 1 1
Investment Account for Redemption of Loans		441,026 17 3
Trust Account		8,166 16 10
		752,297 5 5

COUNTRY ROADS BOARD LOAN ACCOUNT, ACT No. 3662.

RECEIPTS.

		£	s.	d.
1933. July 1.	To Balance	505	8	9
1934. June 30.	To State Loans Repayment Fund	54,536	7	8
	Balance	49	16	10
		55,091	13	3

PAYMENTS.

		£	s.	d.
1934 June 30.	By Permanent Works (Appendix)	55,091	13	3
		55,091	13	3

RECONCILIATION.

	£	s.	d.
Accounts in Transit	72	7	9
Outstanding Credits	22	10	11
	49	16	10

BALANCE-SHEET AT 30TH JUNE, 1934.

LIABILITIES.

	£	s.	d.	£	s.	d.	£	s.	d.
Interest on Permanent Works							32,641	2	6
Loan Securities Issued	4,783,604	13	10						
Less Amount repaid	80,000	0	0						
				4,703,604	13	10			
Deduct Discount				69,608	18	5			
							4,633,995	15	5
State Loans Repayment Fund							86,464	3	7
Country Roads Board Loan Account							49	16	10
							4,753,150	18	4

ASSETS.

	£	s.	d.
Permanent Works	4,720,509	15	10
Interest Capitalized on Permanent Works Act No. 3662	32,641	2	6
	4,753,150	18	4

DEVELOPMENTAL ROADS LOAN ACCOUNT, ACT No. 3662.

RECEIPTS.

		£	s.	d.
1933. July 1.	To Balance	138	1	3
1934. June 30.	State Loans Repayment Fund	88,155	12	1
		88,293	13	4

PAYMENTS.

		£	s.	d.
1934. June 30.	By Expenditure (Appendix)	88,033	13	2
	Balance	260	0	2
		88,293	13	4

RECONCILIATION.

	£	s.	d.
Accounts in Transit	0	12	1
Outstanding Credits	260	12	3
	260	0	2

BALANCE-SHEET AT 30TH JUNE, 1934.

LIABILITIES.	£ s. d.	£ s. d.
Loan Securities Issued	6,246,559 4 11	
Deduct Discount	110,698 0 1	
		6,135,861 4 10
Treasury—Developmental Railways, Act No. 3662 (sec. 83/16)	11,061 5 11	
Consolidated Revenue Act, No. 3662 (sec. 84/17)	34,782 11 4	
		45,843 17 3
Interest, Act No. 3662 (sec. 86/1)	74,730 7 5	
Arrears of Interest, Act No. 3662 (sec. 86/1)	11,926 16 4	
Contributions Postponed	16,656 13 7	
		103,313 17 4
State Loans Repayment Fund		180,103 16 1
		6,465,122 15 6

ASSETS.	£ s. d.	£ s. d.
Permanent Works Expenditure		6,315,705 0 9
Contributions Payable by Municipalities, Act No. 3662 (sec. 83/16 and sec. 84/17)	38,500 0 0	
Contributions Payable by Municipalities in Arrears	7,343 17 3	
		45,843 17 3
Contributions Payable by Municipalities, Act No. 3662 (sec. 86/1)	91,387 1 0	
Contributions Payable by Municipalities in Arrears	11,926 16 4	
		103,313 17 4
Developmental Roads Loan Account		260 0 2
		6,465,122 15 6

DEVELOPMENTAL ROADS INTEREST, ACT No. 3662 (Sections 83/16, 84/17, AND 86/1).

1934.	RECEIPTS.	£ s. d.	£ s. d.
June 30.	To Interest Contributed by Municipalities—		
	Act No. 3662, sec. 83/16	9,178 1 8	
	sec. 84/17	28,687 13 4	
	sec. 86/1	71,168 3 8	
		109,033 18	
	Act No. 4140—Relief	3,441 15 3	
			112,475 13 11
			112,475 13 11

1934.	EXPENDITURE.	£ s. d.	£ s. d.
June 30.	By Payments to Treasury	112,475 13 11	
			112,475 13 11

AUDITOR-GENERAL'S CERTIFICATE.

The Accounts have been audited and compared with the books, with which they agree. Reconciliations have also been made with the books of the Treasury. I certify that the statements submitted are correct.

J. A. NORRIS,
Auditor-General,
1st November, 1934.

E. J. HICKS, Accountant,
31st October, 1934.

COUNTRY ROADS BOARD.

SUMMARY OF BOARD'S ASSETS AS AT 30TH JUNE, 1934.

	£ s. d.
Patrolmen's Cottages	13,572 0 0
Workshop Fittings, Tools, &c.	1,453 18 8
Motor Car Tools, &c.	178 1 3
Office Furniture and Fittings	5,587 10 6
Testing Laboratory Equipment	428 8 0
Furniture, &c., Motor Registration Branch	4,463 1 0
Works Film	100 0 0
Survey Instruments	459 3 0
Pistols	23 15 0
Motor Cars and Cycles (including Police Motor Cycles and Cars)	8,941 13 8
Motor Car Accessories	82 0 0
Loadometers	1,100 0 0
Board's Storeyards	4,520 0 0
	40,909 11 1
Working Plant	40,808 0 0
Total	81,717 11 1

APPENDIX B.

COUNTRY ROADS BOARD.

STATEMENT OF APPORTIONMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE OF MAIN ROADS FOR THE YEAR ENDED 30TH JUNE, 1933

Name of Municipality.	Permanent Works.		Maintenance.
	Principal.	Interest.	Amount.
	£ s. d.	£ s. d.	£ s. d.
Alberton Shire ..	371 4 11	1 16 10	1,810 13 6
Alexandra Shire ..	..	..	688 2 5
Arapiles Shire ..	141 8 9	3 5 10	358 15 7
Ararat Borough ..	..	..	18 9 2
Ararat Shire ..	..	..	2,959 4 2
Avoca Shire ..	..	..	183 12 6
Avon Shire ..	..	..	83 17 2
Bacchus Marsh Shire	..	..	1,307 4 2
Bairnsdale Shire ..	..	..	1,175 10 1
Ballan Shire ..	..	..	687 18 8
Ballarat Shire ..	..	..	561 2 9
Bannockburn Shire	..	..	771 18 4
Barrarbool Shire ..	..	..	909 7 9
Bass Shire ..	588 7 8	0 4 2	883 3 0
Beechworth Shire	..	..	245 2 4
Belfast Shire ..	..	..	122 14 7
Bellarine Shire ..	..	..	613 6 0
Benalla Shire ..	448 19 6	4 7 7	604 7 2
Berwick Shire ..	27 8 9	0 19 3	996 14 3
Bet Bet Shire ..	..	..	226 1 1
Birchip Shire ..	..	..	168 17 0
Blackburn and Mitcham Shire	..	..	419 5 9
Borung Shire ..	235 5 8	1 2 7	2,385 3 3
Braybrook Shire ..	..	..	953 16 7
Bright Shire ..	159 6 5	0 4 9	613 14 3
Broadford Shire ..	..	..	119 11 2
Broadmeadows Shire	..	..	133 18 7
Bulla Shire ..	..	..	197 9 4
Buln Buln Shire ..	15 0 9	0 1 10	1,102 9 2
Bungaree Shire ..	..	..	200 0 8
Buninyong Shire	..	..	209 0 1
Castlemaine Borough	..	..	90 13 9
Charlton Shire ..	614 3 2	10 1 10	335 1 5
Chelsea City ..	..	..	37 8 3
Chiltern Shire ..	..	..	261 13 5
Clunes Borough ..	..	..	32 5 1
Cohuna Shire ..	..	..	209 16 2
Colac Shire ..	..	..	2,943 14 8
Corio Shire ..	..	..	722 1 3
Cranbourne Shire	440 4 0	7 7 5	843 1 1
Creswick Borough	..	..	34 19 9
Creswick Shire ..	..	..	319 10 1
Dandenong Shire ..	359 1 9	6 6 7	190 8 0
Daylesford Borough	..	..	504 14 1
Deakin Shire ..	223 0 3	5 10 5	348 3 4
Dimboola Shire ..	264 15 10	4 3 4	1,204 2 2
Donald Shire ..	..	..	376 18 0
Doncaster and Templestowe Shire	..	..	864 13 7
Dundas Shire ..	521 14 0	6 15 3	3,248 5 8
Dunmunkle Shire	969 9 3	5 3 4	1,856 9 9
Eaglehawk Borough	..	..	63 6 11
East Loddon Shire	97 4 2	0 5 6	93 18 4
Echuca Borough	66 13 11	..	175 13 0
Eltham Shire ..	..	..	779 4 10
Euroa Shire ..	35 15 0	1 0 4	411 0 2
Ferntree Gully Shire	..	..	1,183 17 7
Flinders Shire ..	546 8 5	16 15 0	1,324 18 10
Footscray City ..	..	..	153 15 3
Frankston and Hastings Shire	..	..	1,758 8 10
Carried forward	6,125 12 2	75 11 10	42,078 13 9

Name of Municipality.	Permanent Works.		Maintenance.
	Principal.	Interest.	Amount.
	£ s. d.	£ s. d.	£ s. d.
Brought forward	6,125 12 2	75 11 10	42,078 13 9
Gisborne Shire ..	..	..	327 9 2
Glenelg Shire ..	265 5 10	6 10 6	1,395 15 4
Glenlyon Shire ..	..	..	960 15 5
Goulburn Shire ..	..	..	324 0 0
Grenville Shire ..	..	..	1,032 15 10
Hamilton Town ..	..	..	229 15 7
Hampden Shire ..	..	..	4,745 3 0
Healesville Shire ..	..	..	204 16 11
Heidelberg Shire ..	..	..	824 19 1
Heytesbury Shire	2 10 0*	0 1 8	1,318 14 3
Horsham Town ..	..	..	799 1 7
Huntly Shire ..	..	..	223 14 4
Inglewood Borough	..	..	77 9 4
Kara Kara Shire ..	1,146 15 7	13 6 10	1,384 1 7
Karkarooc Shire ..	269 1 8	0 14 11	1,198 7 3
Keilor Shire ..	..	..	150 6 8
Kerang Shire ..	..	..	111 3 11
Kilmore Shire ..	..	..	195 1 1
Koroit Borough ..	..	..	237 8 1
Korong Shire ..	..	..	138 7 4
Korumburra Shire	79 13 10	3 0 11	2,322 8 2
Kowree Shire ..	451 17 10	7 9 4	722 11 3
Kyneton Shire ..	..	..	354 16 4
Lawloit Shire ..	..	..	853 18 9
Leigh Shire ..	..	..	552 14 10
Lexton Shire ..	..	..	101 13 6
Lillydale Shire ..	..	..	416 16 4
Lowan Shire ..	290 15 0	5 1 1	856 10 4
Maffra Shire ..	..	..	2,284 7 7
Maldon Shire ..	..	..	171 2 6
Mansfield Shire ..	..	..	445 2 1
Marong Shire ..	..	..	494 8 1
Maryborough Borough	..	..	27 17 4
McIvor Shire ..	..	..	391 11 1
Melton Shire ..	..	..	56 14 4
Metcalfe Shire ..	..	..	24 14 5
Mildura Shire ..	1,127 13 0	14 19 3	660 11 8
Mildura Town ..	..	..	52 9 10
Minhamite Shire ..	..	..	420 16 10
Mirboo Shire ..	39 4 3	1 4 8	587 13 6
Moorabbin Shire ..	..	..	196 11 11
Mordialloc City ..	..	..	174 14 0
Mornington Shire	..	..	324 19 9
Mortlake Shire ..	..	..	1,579 4 10
Morwell Shire ..	..	..	815 9 9
Mount Rouse Shire	..	..	2,018 15 3
Mulgrave Shire ..	..	..	96 15 11
Narracan Shire ..	..	..	1,002 15 11
Newham and Woodend Shire	143 1 5	3 12 11	423 17 10
Newstead and Mt. Alexander Shire	..	..	173 5 2
Numurkah Shire	426 12 7	5 2 7	644 11 3
Oakleigh City ..	..	..	70 10 6
Omeo Shire ..	21 14 9	0 17 9	346 13 0
Orbost Shire ..	325 0 2	10 6 1	549 9 1
Otway Shire ..	..	..	287 9 5
Oxley Shire ..	67 9 2	0 17 11	773 4 5
Phillip Island Shire	..	..	333 3 6
Port Fairy Borough	..	..	78 12 11
Portland Shire ..	..	..	632 5 7
Carried forward	10,782 7 3	148 18 3	80,279 8 3

* Liability paid in full.

STATEMENT OF APPORTIONMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE OF MAIN ROADS, ETC.—*continued.*

Name of Municipality.	Permanent Works.			Maintenance.
	Principal.	Interest.		Amount.
	£ s. d.	£ s. d.		£ s. d.
Brought forward	10,782 7 3	148 18 3		80,279 8 3
Preston City ..	..	..		376 9 4
Pyalong Shire ..	..	..		128 12 10
Queenscliffe Borough	..	..		271 2 11
Ringwood Borough	..	..		290 7 4
Ripon Shire ..	..	..		879 3 8
Rochester Shire ..	1,180 8 3	23 6 1		1,076 17 9
Rodney Shire ..	727 2 10	3 19 1		1,795 15 8
Romsey Shire ..	..	..		323 3 1
Rosedale Shire ..	..	..		597 9 5
Rutherglen Shire	..	..		333 2 10
St. Arnaud Borough	..	..		204 17 0
Sale Town ..	243 1 2	0 9 1		146 16 7
Sebastopol Borough	..	..		225 17 8
Seymour Shire ..	..	..		481 17 0
Shepparton Borough	..	..		210 13 4
Shepparton Shire	7 0 0*	0 5 9		536 11 6
South Barwon Shire	..	..		1,128 9 5
South Gippsland Shire	..	..		915 17 1
Stawell Borough ..	..	..		113 0 10
Stawell Shire ..	..	..		791 0 7
Strathfieldsaye Shire	..	..		472 1 10
Swan Hill Shire ..	..	..		686 10 8
Talbot Shire ..	..	..		96 11 2
Tambo Shire ..	..	..		329 8 7
Towong Shire ..	..	..		209 16 11
Carried forward	12,939 19 6	176 18 3		92,901 3 3

Name of Municipality.	Permanent Works.		Maintenance.
	Principal.	Interest.	Amount.
	£ s. d.	£ s. d.	£ s. d.
Brought forward	12,939 19 6	176 18 3	92,901 3 3
Traralgon Shire ..	501 8 3	8 13 3	1,003 1 10
Tullaroop Shire ..	..	..	656 17 4
Tungamah Shire ..	913 14 4	6 1 6	547 6 3
Upper Murray Shire	434 4 1	11 2 0	229 8 5
Upper Yarra Shire	..	..	353 17 4
Violet Town Shire	353 17 6	3 18 7	65 11 5
Walpeup Shire ..	..	..	63 3 3
Wangaratta Borough	..	..	25 13 1
Wangaratta Shire	..	..	223 18 4
Wannon Shire ..	636 12 7	3 12 7	530 16 3
Waranga Shire ..	..	..	340 12 7
Warragul Shire ..	..	..	698 9 1
Warrnambool Shire	687 18 7	12 12 9	1,996 10 7
Werribee Shire ..	..	..	62 7 7
Whittlesea Shire ..	..	..	583 1 5
Wimmera Shire ..	..	..	1,219 17 4
Winchelsea Shire	..	..	841 9 6
Wodonga Shire ..	..	..	187 1 9
Wonthaggi Borough	..	..	438 12 7
Woorayl Shire ..	390 2 10	7 5 10	2,639 8 2
Wycheproof Shire	139 10 1	0 4 1	130 15 6
Yackandandah Shire	244 13 4	3 0 6	984 17 0
Yarrawonga Shire	281 4 6	5 0 10	176 7 0
Yea Shire ..	..	..	672 8 4
Total ..	17,523 5 7	238 10 2	107,572 15 2

* Liability paid in full.

APPENDIX C.

COUNTRY ROADS BOARD.

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE OF MAIN ROADS FOR THE YEAR ENDING 30th JUNE, 1934.

Municipality and Road.	Permanent Works.		Maintenance Works.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
ALBERTON SHIRE—				
Albert River–Welshpool Road	..		401 17 10	
Balook–Yarram Road	..		302 13 2	
Boolarra–Welshpool Road	..		Bd. 368 1 5	
Carrajung–Gormandale Road	56 6 9		2,203 9 8	
Foster–Yarram Road	..		820 8 1	
Sale–Yarram Road	..		27 11 7	
Yarram–Boolarra Road	..		1,370 12 6	
Yarram–Port Albert Road	..		1,712 9 11	
Yarram–Won Wron Road	..		750 14 0	
		56 6 9		7,957 18 2
ALEXANDRA SHIRE—				
Cathkin–Mansfield Road	..		590 6 1	
Healesville–Alexandra Road	..		2,212 19 5	
Terip Terip Road	..		271 0 0	
Upper Goulburn Road	..		860 18 6	
Yarck Road	..		136 6 0	
				4,071 10 0
ARAPILES SHIRE—				
Horsham–Hamilton Road	..		280 18 0	
Horsham–Natimuk–Edenhope Road	1,355 13 2		1,088 5 1	
		1,355 13 2		1,369 3 1
ARARAT SHIRE—				
Ararat–Elmhurst Road	..		409 1 10	
Ararat–Warrnambool Road	..		3,578 8 11	
Ballarat–Hamilton Road	..		3,308 14 11	
Maroona–Glenthompson Road	..		1,588 19 2	
				8,885 4 10
ARARAT TOWN—				
Ballarat–Stawell Road	..		441 14 6	
				441 14 6
AVOCA SHIRE—				
Ararat Road	..		163 8 10	
Ballarat–St. Arnaud Road	Bd. 322 7 1		917 2 7	
Bealiba Road	..		51 17 7	
Landsborough Road	..		18 13 5	
Maryborough Road	..		126 11 11	
		322 7 1		1,277 14 4
AVON SHIRE—				
Dargo Road	..		457 15 9	
Maffra–Sale Road	..		1,766 17 10	
Maffra–Stratford Road	..		945 7 4	
Prince's Highway	..		0 17 0	
				3,170 17 11
BACCHUS MARSH SHIRE—				
Ballarat Road	..		67 6 5	
Balliang Road	..		802 3 1	
Geelong–Bacchus Marsh Road	..		571 12 4	
Gisborne Road	..		759 11 7	
				2,200 13 5
BAIRNSDALE SHIRE—				
Bairnsdale—Lindenow Road	..		2,502 10 1	
Bairnsdale—Paynesville Road	..		1,888 11 0	
Bullumwaal–Tabberabbera Road	..		966 12 2	
Prince's Highway	..		325 19 9	
				5,683 13 0
BALLAN SHIRE—				
Ballarat Road	..		Bd. 8 13 3	
Daylesford Road	..		910 19 4	
Gordon–Meredith Road	..		64 0 7	
Mount Wallace Road	..		711 17 6	
				1,695 10 8
BALLAN AND BUNINYONG SHIRES (Joint Works)—				
Gordon–Meredith "A" Road	..		5 3 3	
				5 3 3
		1,734 7 0		36,759 3 2
Carried forward	..	..	..	..

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road	Permanent Works. Amount.	Permanent Works. Total.	Maintenance Works. Amount.	Maintenance Works. Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	1,734 7 0	..	36,759 3 2
BALLARAT SHIRE—				
Ballarat–Lexton Road	..		997 9 9	
Maryborough–Ballarat Road	..		998 6 1	
				1,995 15 10
BALLARAT AND BUNGAREE SHIRES (Joint Works)—				
Ballarat–Creswick Road	Bd. 311 12 8	311 12 8	Bd. 341 16 7	
				341 16 7
BANNOCKBURN SHIRE—				
Gordon–Meredith Road	..		49 10 5	
Inverleigh Road	..		3,690 15 7	
Shelford–Bannockburn Road	..		419 12 4	
				4,159 18 4
BARRABOOL SHIRE—				
Airey's Inlet Road	..		Bd. 149 8 8	
Aircy's Inlet Road	..		88 16 6	
Anglesea Road	..		3,817 7 10	
Hendy Main Road	..		498 0 2	
				4,553 13 2
BASS SHIRE—				
Almurta Road	..		175 1 1	
Almurta–Grantville Road	..		96 9 0	
Anderson–Dalyston Road	..		354 16 1	
Dalyston–Glen Forbes	..		739 1 11	
Dalyston–Wonthaggi Road	..		278 1 8	
Inverloch–Wonthaggi Road	..		188 2 6	
Korumburra–Wonthaggi Road	..		301 3 2	
Main Coast Road	679 15 2		542 15 6	
Wonthaggi–Loch Road	..		1,131 18 11	
		679 15 2		3,807 9 10
BASS SHIRE AND WONTHAGGI BOROUGH (Joint Works)—				
Loch–Wonthaggi Road	..		37 2 10	37 2 10
BEECHWORTH SHIRE—				
Beechworth Road	..		914 6 1	
Bright Road	..		126 8 0	
Everton–Myrtleford Road	..		136 7 3	
Myrtleford–Yackandandah	..		6 18 9	
Stanley Road	..		504 1 3	
				1,688 1 4
BELFAST SHIRE—				
Hamilton Road	..		232 15 0	
Penshurst Road..	..		398 4 0	
				630 19 0
BELLARINE SHIRE—				
Geelong–Portarlington Road	..		Bd. 3,493 2 4	
Geelong–Queenscliff Road	..		Bd. 1,142 13 6	
Barwon Heads–Ocean Grove Road	..		Bd. 449 12 0	
Portarlington–St. Leonards Road	..		Bd. 1,232 15 8	
				6,318 3 6
BENALLA SHIRE—				
Benalla–Mansfield Road	179 8 0		11 7 9	
Benalla–Shepparton Road	..		1,463 16 4	
Gooroombat Road	..		301 11 9	
Gooroombat–Thoona Road	1,901 17 2		448 0 9	
Greta Road	..		208 14 4	
Kilfeera Road	783 9 1		739 5 11	
Lima Road	..		195 13 10	
Sydney Road	..		333 17 3	
Tatong–Tolmie Road	..		417 12 5	
		2,864 14 3		4,120 0 4
BERWICK SHIRE—				
Beaconsfield–Emerald Road	..		839 2 9	
Cockatoo–Gembrook Road	..		193 10 0	
Emerald–Cockatoo Road	..		16 6 4	
Gembrook Road	..		483 7 11	
Gembrook–Beenak Road	..		43 9 6	
Hallam–Emerald Road	43 19 1		253 4 1	
Hallam–Emerald Road	..		Bd. 53 5 6	
Koo-wee-rup–Longwarry Road	..		173 16 9	
Nar-nar-goon–Longwarry Road	..		666 5 9	
Prince's Highway	..		194 2 2	
Prince's Highway	..		Bd. 26 0 0	
Woori Yallock–Pakenham–Koo-wee-rup Road ..	..		1,078 5 9	
Worri Yallock–Pakenham–Koo-wee-rup Road ..	..		Bd. 235 11 11	
		43 19 1		4,256 8 5
BET BET SHIRE—				
Avoca–Bealiba Road	..		600 6 10	
Betley Road	..		81 16 4	
Dunolly Road	..		154 15 11	
Dunolly–Eddington Road..	..		155 12 5	
Maryborough–Dunolly Road	..		232 16 2	
				1,225 7 8
BET BET AND TULLAROOP SHIRES (Joint Works)—				
Dunolly–Eddington	..		0 18 4	
Maryborough–Dunolly Road	..		1 3 11	
				2 2 3
Carried forward	..	5,634 8 2	..	69,896 2 3

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance Works.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	5,634 3 2	..	69,896 2 3
BIRCHIP SHIRE—				
Beulah–Birchip–Wycheproof Road	..		367 13 9	
Donald–Birchip–Sea Lake Road	..		202 16 6	
				570 10 3
BLACKBURN AND MITCHAM SHIRE—				
Burwood Road	..		518 0 3	
Main Healesville Road	..		3,103 5 0	
				3,621 5 3
BORUNG SHIRE—				
Birchip Road	1,220 3 1		317 5 8	
Dimboola Road	..		870 5 4	
Hopetoun Road	1,313 18 2		2,088 13 7	
Minyip Road	468 12 6		2,190 0 7	
Rainbow Road	722 18 10		917 19 6	
		3,725 12 7		6,384 4 8
BRAYBROOK SHIRE—				
Ballarat Road	..		173 8 8	
Ballarat Road	..		Bd. 8 14 8	
Prince's Highway	..		Bd. 274 10 2	
				456 13 6
BRIGHT SHIRE—				
Bright Road	..		540 3 10	
Harrietville Road	..		390 2 7	
Kiewa Valley Road	152 6 4		90 11 0	
Mount Buffalo Road	..		Bd. 1,445 19 0	
Myrtleford–Yackandandah Road	..		197 4 6	
		152 6 4		2,664 0 11
BROADFORD SHIRE—				
Sydney Road	..		Bd. 12 9 8	
				12 9 8
BROADMEADOWS SHIRE—				
Sydney Road	..		178 3 6	
Sydney Road	..		Bd. 311 17 10	
				490 1 4
BROADMEADOWS AND KEILOR SHIRES (Joint Works)—				
Lancefield Road	..		852 14 1	
				852 14 1
BULLA SHIRE—				
Melbourne–Lancefield Road	..		1,649 8 8	
Sunbury Road	..		383 3 10	
The Gap Road	..		82 4 6	
				2,114 17 0
BULLA AND KEILOR SHIRES (Joint Works)—				
Melbourne–Lancefield	..		67 4 6	
				67 4 6
BULN BULN SHIRE—				
Bloomfield Road	..		23 17 5	
Fumina Road	..		38 6 6	
Koo-wee-rup–Longwarry Road	..		229 19 6	
Loch Valley Road	..		26 19 7	
Longwarry–Drouin Road	..		899 1 10	
Main Neerim Road	..		2,197 11 11	
Main South Road	..		696 8 1	
Neerim East Road	..		71 17 0	
Neerim North–Noojee	..		60 5 10	
Prince's Highway	..		482 17 0	
Westernport Road	..		116 15 8	
				4,844 0 4
BUNGAREE SHIRE—				
Daylesford–Ballarat Road	..		1,635 8 10	
				1,635 8 10
BUNINYONG SHIRE—				
Ballarat–Rokewood Road	..		667 19 3	
Elaine–Mount Mercer Road	..		173 6 1	
Geelong–Ballarat Road	..		24 17 5	
				866 2 9
CASTLEMAINE BOROUGH—				
Melbourne–Bendigo Road	..		344 17 9	
				344 17 9
CHARLTON SHIRE—				
Bendigo Road	..		224 17 6	
Donald Road	325 16 1		1,278 19 10	
St. Arnaud Road	..		1,023 16 7	
		325 16 1		2,527 13 11
CHELSEA CITY—				
Point Nepean Road	..		235 1 3	
				235 1 3
CHILTERN SHIRE—				
Barnawartha–Howlong Road	..		93 4 5	
Chiltern–Howlong Road	223 6 9		160 11 0	
Sydney Road	..		289 12 2	
		223 6 9		543 7 7
Carried forward	..	10,061 9 11	..	98,126 15 10

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance Works.	
	Amount.	Total.	Amount	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	10,061 9 11	..	98,126 15 10
CLUNES BOROUGH—				
Maryborough–Ballarat Road	..		297 17 9	
				297 17 9
COLAC SHIRE—				
Colac–Ballarat Road	..		9,550 10 10	
Colac–Beech Forest Road	..		526 3 8	
Colac–Forrest Road	..		1,049 17 7	
Cororooke Road	..		1,378 3 10	
Cressy–Inverleigh Road	..		383 7 7	
Prince's Highway	Bd.2,255 19 3		773 17 6	
Swan Marsh Road	..		1,484 4 9	
		2,255 19 3		15,146 5 9
CORIO SHIRE—				
Fyansford	..		Bd. 347 19 6	
Geelong Bacchus Marsh Road	..		Bd. 276 6 1	
Geelong–Bacchus Marsh Road	..		402 15 10	
Prince's Highway	..		Bd. 47 3 0	
				1,074 4 5
CORIO AND BACCHUS MARSH SHIRES (Joint Works)—				
Geelong Bacchus Marsh Road	..		0 15 6	
				0 15 6
COHUNA SHIRE—				
Cohuna–Leitchville Road	..		1,058 17 6	
Murray River Valley Road	..		Bd. 749 11 11	
				1,808 9 5
CRANBOURNE SHIRE—				
Cranbourne–Frankston Road	..		895 0 5	
Koo-wee-rup–Longwarry Road	..		205 5 6	
Koo-wee-rup–Pakenham Road	..		1,521 6 8	
Main Coast Road	..		139 12 2	
Westernport Road	..		232 13 4	
				2,993 18 1
CRESWICK SHIRE—				
Castlemaine–Ballarat Road	..		1,580 4 10	
Daylesford–Ballarat Road	..		796 3 4	
				2,376 8 2
DANDENONG SHIRE—				
Prince's Highway	..		73 11 11	
Cheltenham Road	..		110 3 7	
				183 15 6
DANDENONG AND CRANBOURNE SHIRES (Joint Works)—				
Dandenong–Frankston Road	..		173 7 0	
				173 7 0
DAYLESFORD BOROUGH—				
Ballan Road	..		304 6 7	
Ballarat Road	..		313 16 11	
Castlemaine Road	..		132 12 0	
Daylesford–Trentham Road	..		99 15 9	
Hepburn–Daylesford Road	..		76 12 5	
Malmsbury–Daylesford Road	..		337 3 1	
				1,264 6 9
DEAKIN SHIRE—				
Echuca–Cornella Road	..		43 4 2	
Echuca–Picola Road	..		22 10 3	
Kyabram–Nathalia Road	..		12 8 3	
Kyabram–Tongala Road	..		48 9 10	
Rochester–Kyabram Road	..		55 18 0	
				182 10 6
DEAKIN AND NUMURKAH SHIRES (Joint Works)—				
Echuca–Picola Road	..		47 10 2	
Kyabram–Nathalia Road	..		3 5 0	
				50 15 2
DEAKIN AND RODNEY SHIRES (Joint Works)—				
Kyabram–Tongala Road	..		2 0 2	
Rochester–Kyabram Road	..		29 8 0	
				31 8 2
DIMBOOLA SHIRE—				
Horsham Road	..		97 5 9	
Hopetoun-Rainbow Road	..		88 14 4	
Rainbow Road	479 10 2		1,973 19 7	
Rainbow-Beulah-Birchip Road	..		12 18 11	
Warracknabeal Road	498 5 1		1,088 10 10	
		977 15 3		3,261 9 5
DIMBOOLA AND KARKAROOC SHIRES (Joint Works)—				
Hopetoun–Rainbow Road	..		402 9 8	
				402 9 8
DONALD SHIRE—				
Donald–Charlton Road	..		488 11 6	
Donald–Minyip Road	..		4 18 11	
Marnoo–Donald Road	..		675 8 7	
St. Arnaud–Birchip Road	..		400 15 3	
				1,569 14 3
Carried forward	..	13,295 4 5	..	128,944 11 4

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance Works.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	13,295 4 5	..	128,944 11 4
DONCASTER AND TEMPLESTOWE SHIRE—				
Doncaster Road	..		677 4 8	
Heidelberg–Warrandyte Road	..		3,250 1 8	
Warrandyte–Ringwood Road	..		1,333 16 7	
				5,261 2 11
DUNDAS SHIRE—				
Hamilton–Dunkeld Road	..		2,262 1 2	
Hamilton–Horsham Road	43 9 11		2,869 2 4	
Hamilton–Mount Gambier Road	..		1,594 2 5	
Hamilton–Port Fairy Road	..		2,862 9 8	
Hamilton–Portland Road	..		1,502 13 7	
Hamilton–Warrnambool Road	..		1,125 7 6	
		43 9 11		12,215 16 8
DUNMUNKLE SHIRE—				
Horsham–Murtoa Road	750 4 2		76 3 6	
Marnoo–Donald Road	..		10 4 10	
Marnoo–Rupanyup Road	3,641 13 0		369 0 10	
Minyip–Donald Road	..		691 17 5	
Rupanyup–Murtoa Road	..		2,152 4 3	
Stawell–Warracknabeal Road	..		4,327 14 2	
		4,391 17 2		7,627 5 0
EAGLEHAWK BOROUGH—	..			
Mount Korong Road	..		750 13 1	
				750 13 1
EAST LODDON SHIRE—				
Dingee Road	177 16 0		..	
Mitiamo Road	..		39 19 3	
Prairie Road	..		47 13 6	
		177 16 0		87 12 9
ECHUCA BOROUGH—				
Echuca–Cohuna Road	..		Bd. 32 17 6	
Echuca West Road	..		223 6 3	
Echuca–Wyuna Road	34 4 0		236 11 7	
		34 4 0		492 15 4
ELTHAM SHIRE—				
Eltham–Yarra Glen Road	..		1,742 6 7	
Hurstbridge–Kinglake Road	325 14 5		2,271 19 8	
Yarra Glen–Glenburn Road	..		168 13 7	
		325 14 5		4,182 19 10
EUROA SHIRE—				
Arcadia Road	..		11 13 9	
Avenel–Longwood Road	..		6 4 10	
Euroa–Arcadia Road	..		331 17 11	
Euroa–Mansfield Road	..		121 17 4	
Euroa–Strathbogie Road	..		562 1 11	
Murchison–Violet Town Road	..		356 2 0	
Murchison–Shepparton Road	..		Bd. 152 10 6	
Murchison–Shepparton Road	..		0 15 0	
Sydney Road	..		Bd. 25 7 4	
				1,568 10 7
FERN TREE GULLY SHIRE—				
Belgrave–Emerald Road	..		1,097 15 5	
Burwood Road	..		1,287 14 8	
Emerald Road	..		418 0 2	
Main Fern Tree Gully Road	..		1,660 11 5	
Monbulk Road	..		526 18 4	
Olinda Road	..		1,680 2 9	
				6,671 2 9
FLINDERS SHIRE—				
Hastings–Flinders Road			1,968 5 2	
Mornington–Dromana	..		505 18 10	
Mornington–Flinders Road	..		426 1 4	
Point Nepean Road	..		1,974 0 0	
Red Hill Road	..		605 17 6	
Rosebud–Flinders Road	..		1,000 12 3	
Stony Point Road	..		31 2 8	
				6,511 17 9
FOOTSCRAY CITY—				
Prince's Highway	..		Bd. 205 17 5	
				205 17 5
FRANKSTON AND HASTINGS SHIRE—				
Cranbourne–Frankston Road	..		1,625 6 0	
Frankston–Dandenong Road	..		1,057 14 2	
Frankston–Flinders Road	..		1,551 7 1	
Mooroodue Road	..		1,466 8 8	
Point Nepean Road	..		1,136 12 5	
				6,837 8 4
GISBORNE SHIRE—				
Bacchus Marsh Road	..		182 8 2	
Gisborne Station	..		7 14 0	
Melbourne–Bendigo Road	..		Bd. 73 16 4	
Mount Macedon Road	..		477 4 2	
				741 2 8
Carried forward	..	18,268 5 11	..	182,098 16 5

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works. Amount.	Permanent Works. Total.	Maintenance Works. Amount.	Maintenance Works. Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	18,268 5 11	..	182,098 16 5
GLENELG SHIRE—				
Coleraine–Casterton Road	..		1,681 18 7	
Dergholm Road	..		1,552 8 11	
Mount Gambier Road	..		1,759 19 8	
Portland–Casterton Road	..		2,643 0 0	
Wando Vale Road	..		392 17 10	
				8,030 5 0
GLENLYON SHIRE—				
Ballan Road	..		371 14 0	
Ballarat Road	..		105 19 7	
Castlemaine–Daylesford Road	..		479 9 2	
Castlemaine–Daylesford Road	..		Bd. 9 11 2	
Daylesford–Hepburn Road	..		17 15 3	
Daylesford–Trentham Road	810 11 9		531 0 4	
Malmsbury–Daylesford Road	.	810 11 9	341 13 4	
				1,857 2 10
GOULBURN SHIRE—				
Avenel–Longwood Road	..		159 18 9	
Goulburn Valley Road	..		332 15 6	
Goulburn Valley Road	..		Bd. 997 16 6	
Murchison–Shepparton Road	..		123 14 9	
Murchison–Shepparton Road	..		Bd. 15 17 10	
				1,630 3 4
GOULBURN AND WARANGA SHIRES (Joint Works)—				
Goulburn Valley Road	..		Bd. 49 8 10	
				49 8 10
GRENVILLE SHIRE—				
Ballarat–Hamilton Road	..		2,492 9 1	
Cressy Road	..		134 2 10	
Lismore Road	..		254 9 2	
Pitfield Road	..		289 5 2	
				3,170 6 3
HAMILTON TOWN—				
Ararat Road	..		158 12 0	
Coleraine Road	..		138 13 11	
Port Fairy Road	..		43 4 9	
Portland Road	..		18 12 3	
				359 2 11
HAMILTON TOWN AND DUNDAS SHIRE (Joint Works)—				
Hamilton–Warrnambool Road	..		57 15 9	
				57 15 9
HAMPDEN SHIRE—				
Camperdown–Ballarat Road	..		8,628 12 5	
Caramut–Lismore Road	..		1,664 15 0	
Cobden–Terang Road	..		193 8 11	
Lismore–Cressy Road	..		4,248 12 4	
McKinnon's Bridge–Noorat Road	..		3,133 12 9	
Prince's Highway	..		535 8 4	
Terang–Framlingham Road	..		442 13 11	
Terang–Mortlake Road	..		94 17 5	
				18,942 4 1
HAMPDEN AND HEYTESBURY SHIRES (Joint Works)—				
Terang–Cobden Road	..		217 18 5	
				217 18 5
HEALESVILLE SHIRE—				
Healesville–Alexandra Road	..		399 15 5	
Healesville–Alexandra Road	..		Bd. 539 18 7	
Healesville–Kinglake Road			161 19 5	
Healesville–Woori Yallock Road	..		Bd. 386 14 11	
Marysville Road	..		Bd. 170 18 3	
				1,659 6 7
HEIDELBERG CITY—				
Greensborough–Hurstbridge Road	..		2,521 15 9	
Heidelberg–Warrandyte Road	..		14 13 0	
Main Heidelberg–Eltham Road	..		4,890 10 0	
Main Whittlesea Road	..		96 0 1	
				7,522 18 10
HEIDELBERG CITY AND ELTHAM SHIRES (Joint Works)—				
Heidelberg–Eltham Road	..		23 9 0	
				23 9 0
HEYTESBURY SHIRE—				
Camperdown–Cobden Road	..		1,218 1 2	
Cobden–Pt. Campbell–Princetown Road	26 4 0		1,211 2 7	
Cobden–Pt. Campbell–Princetown Road	..		Bd. 60 3 3	
Cobden–Terang Road	1,382 1 1		3,011 16 8	
Timboon–Nirranda Road	..		52 13 2	
Timboon–Port Campbell Road	..		102 0 4	
		1,408 5 1		5,655 17 2
HORSHAM TOWN—				
Dimboola–Horsham Road	..		656 4 7	
Dooen Road	..		645 12 11	
Hamilton Road	..		522 12 3	
Natimuk Road	..		360 4 10	
Western Highway	..		237 15 2	
				2,422 9 9
Carried forward		20,487 2 9	..	233,697 2 2

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance Works.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	20,487 2 9	..	233,697 2 2
HUNTLY SHIRE—				
Bendigo–Echuca Road	..		Bd. 647 8 10	
				647 8 10
INGLEWOOD BOROUGH—				
Bendigo–Charlton Road	..		214 16 4	
				214 16 4
KARA KARA SHIRE—				
Avoca–St. Arnaud Road	..		267 11 3	
Charlton Road	..		177 19 0	
Marnoo Road	750 0 0		10 0	
Navarre Road	..		444 4 5	
St. Arnaud–Donald Road	434 16 9		1,545 15 7	
		1,184 16 9		2,436 0 3
KARA KARA AND AVOCA SHIRES (Joint Works)—				
Navarre	..		18 16 5	
				18 16 5
KARKAROOC SHIRE—				
Hopetoun–Rainbow Road	12 0 0		178 2 7	
Hopetoun–Warracknabeal Road	..		727 6 4	
Hopetoun–Woomelang–Sea Lake Road	390 17 7		864 5 4	
Rainbow–Beulah–Birchip Road	..		1,084 18 8	
		402 17 7		2,854 12 11
KARKAROOC AND BIRCHIP SHIRES (Joint Works)—				
Rainbow–Beulah–Birchip Road	..		585 13 0	
				585 13 0
KEILOR SHIRE—				
Melbourne–Bendigo Road	..		Bd. 482 5 11	
				482 5 11
KERANG SHIRE—				
Koondrook Road	..		541 18 4	
				541 18 4
KILMORE SHIRE—				
Heathcote Road	..		154 9 4	
Kilmore–Kilmore East Road	..		128 6 7	
Lancefield–Kilmore Road	..		20 5 4	
Sydney Road	..		Bd. 130 7 0	
				433 8 3
KILMORE AND PYALONG SHIRES (Joint Works)—				
Heathcote Road	..		142 11 1	
				142 11 1
KILMORE AND ROMSEY SHIRES (Joint Works)—				
Lancefield–Kilmore Road	..		26 19 0	
				26 19 0
KOROIT BOROUGH—				
Koroit–Warrnambool Road	..		136 8 3	
				136 8 3
KORONG SHIRE—				
Borung–Hurstwood Road	..		312 3 11	
Charlton–Bendigo Road	..		211 14 8	
Serpentine Road	..		305 10 2	
				829 8 9
KORUMBURRA SHIRE—				
Bena–Kongwak Road	..		1,741 7 8	
Bena–Korumburra Road	..		542 19 8	
Bena–Poowong Road	..		1,172 9 1	
Fairbank Road	..		187 4 11	
Kongwak–Inverloch Road	..		2,525 9 2	
Korumburra–Drouin Road	..		1,110 2 5	
Korumburra–Leongatha Road	..		367 19 6	
Korumburra–Warragul Road	..		1,548 9 1	
Korumburra–Wonthaggi Road	..		1,241 11 10	
Lang Lang–Nyora Road	..		37 17 8	
Loch–Nyora Road	..		848 13 1	
Loch–Wonthaggi Road	..		420 16 2	
Nyora–Poowong Road	..		776 10 3	
Poowong–Ranceby Road	..		1,021 10 1	
				13,543 0 7
KOWREE SHIRE—				
Booroopki Road	..		346 9 7	
Booroopki–Frances Road	572 11 8		351 14 2	
Edenhope–Goroke Road	315 2 1		522 16 6	
Hamilton–Edenhope–Apsley Road	..		1,095 12 1	
Little Desert Road	..		128 6 4	
Wombelano Road	..		830 1 5	
		887 13 9		3,275 0 1
KYNETON SHIRE—				
Daylesford Road	..		7 1 8	
Daylesford–Trentham Road	..		159 16 0	
Melbourne–Bendigo Road	..		43 0 1	
Redesdale Road	..		421 7 7	
Trentham Road	..		1,406 0 10	
Tylden–Woodend Road	..		185 6 8	
				2,222 12 10
Carried forward	.	22,962 10 10	..	262,088 3

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance Works.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	22,962 10 10	..	262,088 3 0
KYNETON AND GLENLYON SHIRES (Joint Works)—				
Daylesford-Trentham Road	..		153 6 1	
				153 6 1
LAWLOIT SHIRE—				
Broughton Road	657 3 3		634 5 2	
Little Desert Road	..		526 19 5	
Nhill-Kaniva-Border Road	..		24 14 5	
South Lillimur Road	..		549 10 5	
Yearinga Road	..		458 2 9	
		657 3 3		2,193 12 2
LEIGH SHIRE—				
Ballarat-Rokewood Road	..		220 9 10	
Cressy-Inverleigh Road	143 9 7		749 13 2	
Cressy-Rokewood Road	..		131 3 11	
Inverleigh-Shelford Road	..		50 14 9	
Rokewood-Shelford Road	..		344 0 5	
Shelford-Bannockburn Road	..		911 18 8	
Shelford-Bannockburn Road	..		Bd. 346 9 2	
		143 9 7		2,754 9 11
LEIGH AND COLAC SHIRES (Joint Works)—				
Cressy-Inverleigh Road	..		24 16 8	
				24 16 8
LEXTON SHIRE—				
Avoca-Ararat Road	..		86 10 7	
Avoca-Ballarat Road	..		786 0 7	
				872 11 2
LILLYDALE SHIRE—				
Evelyn-Lilydale Road	..		19 0 3	
Main Healesville Road	..		635 15 10	
Main Healesville Road	..		Bd. 970 18 11	
Main Warburton Road	..		Bd. 312 19 8	
Monbulk Road	..		918 16 10	
Mount Dandenong Road	..		364 12 0	
Yarra Glen Road	..		317 5 0	
				3,539 8 6
LOWAN SHIRE—				
Dimboola-Kaniva Road	..		454 5 0	
Goroke Road	..		504 11 11	
Lorquon West Road	1,502 14 9		1,012 1 1	
Yanac Road	2,325 3 5		1,434 11 5	
		3,827 18 2		3,405 9 5
MAFFRA SHIRE—				
Boisdale-Briagolong Road	..		698 3 4	
Briagolong-Dargo Road	..		935 2 10	
Bushy Park-Valencia Creek Road	..		846 18 1	
Licola Road	25 0 0		615 1 9	
Maffra-Newry Road	..		837 7 0	
Maffra-Sale Road	..		1,302 4 2	
Maffra-Stratford Road	..		339 9 3	
Tinamba-Boisdale Road	..		968 19 2	
Tinamba-Newry Road	..		178 19 6	
Traralgon-Maffra Road	..		963 4 5	
		25 0 0		7,685 9 6
MAFFRA AND AVON SHIRES (Joint Works)—				
Maffra-Stratford Road	..		143 1 8	
				143 1 8
MALDON SHIRE—				
Baringhup Road	..		247 0 8	
Castlemaine-Maldon Road	..		312 1 6	
Castlemaine-Maryborough Road	..		Bd. 27 0 0	
Maldon-Eddington Road	..		191 12 3	
Newstead Road	..		120 9 3	
				898 3 8
MANSFIELD SHIRE—				
Benalla-Mansfield Road	..		173 11 4	
Euroa-Merton Road	..		90 9 11	
Maindample-Benalla Road	..		33 13 5	
Mansfield Road	..		1,816 19 6	
Mansfield-Tolmie Road	..		14 10 6	
Mansfield-Woodspoint Road	..		714 14 11	
Mansfield-Woodspoint Road	..		Bd. 2,462 17 2	
Merton-Strathbogie Road	..		98 12 9	
				5,405 9 6
MARONG SHIRE—				
Bendigo-Bridgewater Road	..		81 12 11	
Bendigo-Eddington Road	..		750 13 6	
Bendigo-Serpentine Road	..		87 14 2	
				920 0 7
MARYBOROUGH BOROUGH—				
Avoca Road	..		159 7 5	
Ballarat Road	..		332 12 2	
Castlemaine Road	..		4 1 6	
Eddington Road	..		240 8 7	
				736 9 8
Carried forward	..	27,616 1 10	..	290,820 11 6

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance Works.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	27,616 1 10	..	290,820 11 6
MELTON SHIRE—				
The Gap Road	..		1 15 0	
Toolern Road	..		327 14 6	
				329 9 6
METCALFE SHIRE—				
Kyneton–Redesdale Road	..		650 6 0	
				650 6 0
MORDIALLOC CITY—				
Point Nepean Road	..		1,196 1 4	
Point Nepean Road	..		Bd. 161 3 1	
				1,357 4 5
MILDURA CITY—				
Deakin Avenue	..		212 10 6	
Langtree Avenue	..		76 16 3	
Punt Road	..		59 0 4	
				348 7 1
MILDURA SHIRE—				
Deakin Avenue	..		47 0 0	
Irymple Road	27 17 3		842 6 11	
Melbourne Road	..		268 5 9	
Murray Valley Road	3,157 19 8		36 19 11	
Wentworth Road	3,193 10 3		1,927 18 1	
		6,379 7 2		3,122 10 8
MINHAMITE SHIRE—				
Hamilton–Macarthur–Port Fairy Road	..		1,779 18 4	
Warrnambool–Hawkesdale–Penshurst Road	..		1,607 9 7	
Woolsthorpe–Bessiebelle Road	..		442 10 5	
				3,829 18 4
MIRBOO SHIRE—				
Grand Ridge Road	..		167 12 2	
Mardan Road	..		238 5 6	
Mirboo–Leongatha Road	..		194 14 3	
Mirboo South Road	..		738 10 8	
Mirboo–Yarragon Road	..		177 19 3	
Morwell–Mirboo Road	..		95 6 8	
				1,612 8 6
MOORABBIN CITY—				
Centre Dandenong Road	..		76 4 0	
Point Nepean Road	..		686 18 8	
				763 2 8
MORNINGTON SHIRE—				
Mornington–Dromana Road	..		34 16 6	
Point Nepean Road	..		237 16 10	
Point Nepean Road	..		Bd. 1,278 0 2	
				1,550 13 6
MORTLAKE SHIRE—				
Caramut–Lismore Road	..		1,390 9 5	
Mortlake–Ararat Road	..		1,673 15 0	
Mortlake–Warrnambool Road	..		870 11 3	
Terang–Framlingham Road	..		1,945 16 3	
Terang–Mortlake Road	..		1,351 12 5	
				7,232 4 4
MORWELL SHIRE—				
Boolarra–Foster Road	..		Bd. 297 19 6	
Boolarra–Welshpool Road	..		Bd. 286 0 7	
Jeeralang West Road	..		632 1 2	
Jumbuk Road	..		342 1 3	
Morwell–Mirboo Road	..		6-2 19 2	
Morwell–Mirboo Road	..		Bd. 911 8 5	
Prince's Highway	..		328 0 0	
				3,480 10 1
MOUNT ROUSE SHIRE—				
Ballarat–Hamilton Road	..		2,377 7 6	
Hamilton–Dunkeld Road	..		546 1 11	
Hamilton–Penshurst Road	..		2,754 19 10	
Maroona–Glenthompson Road	..		39 7 1	
Penshurst–Caramut Road	..		2,575 1 3	
				8,292 17 7
MULGRAVE SHIRE—				
Ferntree Gully Road	..		608 1 5	
				608 1 5
McIVOR SHIRE—				
Heathcote–Elmore Road	..		84 8 3	
Heathcote–Redesdale Road	..		448 0 7	
Kilmore–Heathcote–Bendigo Road	..		919 9 7	
Lancefield–Tooborac Road	..		87 4 7	
Mount Camel Estate	..		108 0 0	
				1,647 3 0
Carried forward	..	33,995 9 0	..	325,645 8 7

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance Works.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	33,995 9 0	..	325,645 8 7
NARRACAN SHIRE—				
Allambee–Childers Road	..		178 10 6	
Childers–Thorpdale Road	..		256 12 2	
Mirboo–Yarragon Road	..		216 7 5	
Moe–Yallourn Road	..		1,015 5 6	
Prince's Highway	..		157 18 8	
Trafalgar–Thorpdale Road	..		397 6 10	
Trafalgar–Willowgrove Road	..		620 5 11	
Walhalla Road	..		574 12 9	
Walhalla Road	..		Bd. 1,780 2 10	
Willowgrove Road	..		240 8 9	
Yarragon–Leongatha Road	..		257 9 7	
Yarragon–Shady Creek Road	..		304 16 5	
				5,999 17 4
NEWHAM AND WOODEND SHIRE—				
Lancefield Road	..		338 12 8	
Melbourne–Bendigo Road	..		Bd. 394 4 6	
Mount Macedon Road	..		418 18 1	
Tylden Road	20 2 0		59 1 5	
		20 2 0		1,210 16 8
NEWHAM AND WOODEND AND KYNETON SHIRES (Joint Works)—				
Tylden Road	..		184 11 3	
				184 11 3
NEWSTEAD AND MT. ALEXANDER SHIRE—				
Castlemaine–Daylesford Road	..		341 0 7	
Castlemaine–Maryborough Road	..		Bd. 257 19 3	
Creswick Road	..		245 3 1	
Maldon Road	..		56 0 4	
				900 3 3
NUMURKAH SHIRE—				
Echuca–Picola Road	..		21 3 7	
Nathalia–Kyabram	..		36 0 0	
Nathalia–Picola Road	220 11 9		88 7 5	
Numurkah–Nathalia Road	..		890 13 7	
Numurkah–Tungamah Road	..		35 19 8	
Shepparton–Numurkah–Cobram Road	360 10 2		1,013 1 9	
		581 1 11		2,085 6 0
NUMURKAH AND DEAKIN SHIRES (Joint Works)—				
Echuca–Picola Road	..		82 1 0	
				82 1 0
OAKLEIGH CITY—				
Ferntree Gully Road	..		171 19 7	
Prince's Highway	..		238 5 9	
				410 5 4
OMEO SHIRE—				
Benambra Road	..		507 0 9	
Day Avenue	..		368 14 9	
Swift's Creek–Omeo Road	..		334 8 4	
				1,210 3 10
OMEO AND BRIGHT SHIRES (Joint Works)—				
Bright–Omeo Road	..		1,373 9 4	
Bright–Omeo Road	..		Bd. 487 2 6	
				1,860 11 10
ORBOST SHIRE—				
Cann Valley Road	..		Bd. 903 7 6	
Combienbar Road	..		89 10 3	
Genoa–Gipsy Point Road	..		Bd. 400 11 3	
Marlo Road	29 11 6		291 8 7	
Prince's Highway	..		325 15 11	
		29 11 6		2,010 13 6
OTWAY SHIRE—				
Beech Forest–Apollo Bay Road	..		292 13 11	
Carlisle–Gellibrand Road	..		594 0 3	
Colac–Beech Forest Road	..		183 18 11	
Lavers Hill–Glenaire Road	..		80 18 4	
				1,151 11 5
OXLEY SHIRE—				
Bright Road	922 8 8		1,278 9 0	
Greta–Glenrowan Road	..		375 1 5	
Wangaratta–Whitfield Road	..		1,657 5 4	
		922 8 8		3,310 15 9
PHILLIP ISLAND SHIRE—				
Newhaven Road	..		188 6 0	
Phillip Island Road	..		462 7 9	
Ventnor Road	..		525 1 3	
				1,175 15 0
PORT FAIRY BOROUGH—				
Hamilton Road	..		13 10 8	
Prince's Highway (Portland)	..		9 1 8	
Prince's Highway (Warrnambool)	..		72 9 4	
				95 1 8
Carried forward	..	35,548 13 1	..	347,333 2 5

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance Works.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	35,548 13 1	..	347,333 2 5
PORTLAND SHIRE—				
Bridgewater Road	..		1700 0 0	
Heath Road	..		60 4 3	
Portland–Casterton Road	..		782 14 0	
Portland–Hamilton Road	..		1,175 14 3	
				3,718 12 6
PRESTON CITY—				
Epping Road	..		10 11 7	
Whittlesea Road	..		150 16 6	
				161 8 1
PYALONG SHIRE—				
Kilmore–Heathcote–Bendigo Road	..		261 17 3	
Lancefield–Tooborac Road	..		215 19 1	
				477 16 4
PYALONG AND McIVOR SHIRES (Joint Works)—				
Lancefield–Tooborac Road	..		29 2 4	
				29 2 4
QUEENSCLIFFE BOROUGH—				
Geelong Road	..		173 6 0	
Geelong Road	..		Bd. 418 16 2	
Point Lonsdale Road	..		25 18 6	
Point Lonsdale Road	..		Bd. 475 17 2	
				1,093 17 10
RINGWOOD BOROUGH—				
Main Healesville Road	..		1,783 14 8	
Mount Dandenong Road	..		372 6 1	
Ringwood–Warrandyte Road	..		86 6 1	
				2,242 6 10
RINGWOOD BOROUGH AND DONCASTER AND TEMPLESTOWE SHIRE (Joint Works)—				
Ringwood–Warrandyte Road	..		66 1 11	
				66 1 11
RIPON SHIRE—				
Ballarat–Ararat Road	..		50 9 6	
Ballarat–Hamilton Road	..		1,405 10 10	
Skipton Road	..		1,194 7 0	
				2,650 7 4
RIPON AND HAMPDEN SHIRES (Joint Works)—				
Ballarat–Hamilton (Skipton Bridge)	..		20 7 10	
				20 7 10
ROCHESTER SHIRE—				
Bendigo-Echuca Road	..		173 13 3	
Corop Road	340 9 7		122 18 1	
Rochester–Bamawm Prairie Road	1,345 4 0		1,172 1 7	
Timmering Road	..		695 5 1	
		1,685 13 7		2,163 18 3
RODNEY SHIRE—				
Kyabram–Nathalia Road	..		15 17 11	
Kyabram–Tongala Road	..		3 5 0	
Mooroopna–Undera Road	..		122 5 8	
Shepparton–Tatura Road	..		1,310 17 6	
Tatura–Byrneside–Kyabram Road	..		1,313 2 6	
Tatura–Murchison Road	794 9 8		1,163 16 3	
		794 9 8		3,929 4 10
RODNEY SHIRE AND SHEPPARTON BOROUGH (Joint Works)—				
Shepparton–Tatura Road	..		151 11 6	
				151 11 6
ROMSEY SHIRE—				
Lancefield–Kilmore Road	..		370 1 7	
Lancefield–Tooborac Road	..		162 10 9	
Melbourne–Lancefield Road	..		1,313 12 8	
Woodend–Lancefield Road	..		182 10 2	
				2,028 15 2
ROSEDALE SHIRE—				
Prince's Highway	..		13 6 5	
Seaspray Road	..		263 2 0	
Traralgon–Gormandale Road	..		162 2 11	
Traralgon–Maffra Road	..		1,656 8 8	
Willung Road	..		110 3 11	
				2,205 3 11
RUTHERGLEN SHIRE—				
Barnawartha–Howlong Road	..		63 9 9	
Chiltern–Howlong Road	605 2 9		65 9 4	
Murray Valley Road	..		70 14 2	
Rutherglen–Wahgunyah Road	..		93 19 10	
Springhurst–Rutherglen Road	..		251 3 9	
		605 2 9		544 16 10
SALE TOWN—				
Prince's Highway	Bd. 554 18 1		1 3 0	
Sale–Longford Road	..		648 1 7	
		554 18 1		649 4 7
SEBASTOPOL BOROUGH—				
Ballarat–Hamilton Road	..		43 7 4	
Ballarat–Rokewood Road	..		131 17 11	
				175 5 3
Carried forward	..	39,188 17 2	..	369,641 3 9

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued*

Municipality and Road.	Permanent Works.		Maintenance Works.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	39,188 17 2	..	369,641 3 9
SEYMOUR SHIRE—				
Avenel–Longwood Road	..		43 15 4	
Goulburn Valley Road	883 7 8		39 6 6	
Goulburn Valley Road	..		Bd. 308 14 10	
Highlands Road	..		354 12 8	
Seymour–Yea Road	..		246 7 10	
Sydney Road	..		Bd. 63 8 0	
Upper Goulburn Road	..		435 17 2	
		883 7 8		1,492 2 4
SHEPPARTON BOROUGH—				
Shepparton–Nagambie Road	..		202 5 9	
Shepparton–Nalinga Road	..		196 8 8	
Shepparton–Numurkah Road	..		330 3 11	
				728 18 4
SHEPPARTON BOROUGH AND RODNEY SHIRE (Joint Works)—				
Shepparton–Mooroopna Road	..		7 12 8	
Shepparton–Tatura Road	..		39 1 6	
				46 14 2
SHEPPARTON SHIRE—				
Dookie–Nalinga Road	..		29 10 7	
Katandra Road	..		46 1 5	
Pine Lodge Road	..		497 14 6	
Shepparton–Nagambie Road	..		624 19 11	
Shepparton–Numurkah Road	..		2,307 12 4	
				3,505 18 9
SHEPPARTON SHIRE AND SHEPPARTON BOROUGH (Joint Works)—				
Shepparton–Nalinga Road	..		1 18 5	
				1 18 5
SOUTH BARWON SHIRE—				
Barwon Heads Road	..		2,075 3 11	
Prince's Highway	..		481 8 3	
Torquay Road	..		674 8 4	
				3,231 0 6
SOUTH BARWON SHIRE AND GEELONG CITY (Joint Works)—				
Prince's Highway–Barwon River Bridge	..		85 3 5	
				85 3 5
SOUTH BARWON AND BARRABOOL SHIRES (Joint Works)—				
Torquay Road	..		1,338 6 5	
				1,338 6 5
SOUTH GIPPSLAND SHIRE—				
Albert River–Welshpool Road	..		42 0 0	
Boolarra–Foster Road	..		670 2 7	
Boolarra–Welshpool Road	..		257 18 11	
Falls Road	..		198 9 11	
Foster–Yarram Road	..		1,110 11 9	
Hazel Park Road	..		60 0 2	
Main South Gippsland Road	..		1,283 5 4	
Stony Creek–Dollar Road	..		59 10 8	
Toora–Gunyah Road	..		133 3 9	
Toora–Wonyip Road	..		225 3 0	
Turton's Creek Road	..		124 9 4	
				4,164 15 5
SOUTH GIPPSLAND AND WOORAYL SHIRES (Joint Works)—				
Boolarra–Foster Road	..		Bd. 156 9 2	
Dollar–Stony Creek Road	..		150 0 0	
Main South Gippsland Road	..		264 5 0	
				570 14 2
ST. ARNAUD BOROUGH—				
Avoca–St. Arnaud Road	..		7 9 0	
Charlton Road	..		9 18 0	
Navarre Road	..		20 2 6	
St. Arnaud–Donald Road	..		1 3 11	
				38 13 5
STAWELL BOROUGH—				
Ararat–Stawell Road	..		29 18 3	
Ararat–Stawell Road	..		Bd. 98 6 7	
Glenorchy Road	..		55 4 4	
Glenorchy Road..			Bd. 341 4 11	
Stawell–Grampians Road	256 5 7		20 7 4	
		256 5 7		545 1 5
STAWELL SHIRE—				
Landsborough Road	..		48 9 5	
Marnoo Road	..		307 9 8	
Marnoo–Rupanyup Road	..		3 4 3	
Navarre Road	..		173 2 7	
Stawell–Grampians Road	..		1,291 19 7	
Stawell–Glenorchy–Horsham Road	910 8 2		568 5 9	
Stawell–Warracknabeal Road	..		1,650 11 11	
		910 8 2		4,043 3 2
STAWELL AND KARA KARA SHIRES (Joint Works)—				
Navarre Road	1,041 2 8		..	
		1,041 2 8		..
Carried forward	..	42,280 1 3	..	389,433 13 8

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued*.

Municipality and Road.	Permanent Works.		Maintenance Works.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	42,280 1 3	..	389,433 13 8
STRATHFIELDSAYE SHIRE—				
Heathcote–Bendigo Road	..		975 8 7	
Mandurang Road	..		577 12 6	
Strathfieldsaye Road	..		732 18 2	
				2,285 19 3
SWAN HILL SHIRE—				
Annuello–Wemen Road	..		85 9 8	
Euston Road	..		315 15 5	
Nyah–Ouyen Road	..		414 7 11	
Piangil Station Road..	..		128 3 9	
Swan Hill Road	..		1,146 19 0	
Tooleybuc Road	..		28 17 5	
Ultima Road	..		376 8 10	
Ultima–Sea Lake Road	..		503 19 8	
				3,000 1 8
TALBOT SHIRE—				
Maryborough–Avoca Road	..		25 18 6	
Maryborough–Ballarat Road	22 15 5		313 9 2	
		22 15 5		339 7 8
TAMBO SHIRE—				
Bairnsdale–Bruthen Road	..		47 2 3	
Basin Road	..		61 18 1	
Bruthen–Omeo Road	..		11 11 2	
Mossiface Road	..		11 19 11	
Nowa Nowa–Buchan–Gelantipy Road	..		645 18 1	
Prince's Highway	..		Bd. 683 6 7	
				1,461 16 1
TOWONG SHIRE—				
Murray Valley Road	..		874 4 0	
Omeo Road	..		390 4 5	
				1,264 8 5
TRARALGON SHIRE—				
Prince's Highway	..		72 3 0	
Traralgon–Balook Road	..		179 8 6	
Traralgon Creek Road	..		230 8 10	
Traralgon–Gormandale Road	..		261 3 1	
Traralgon–Maffra Road	1,860 7 1		70 2 8	
Tyers Road	..		483 3 3	
		1,860 7 1		1,296 9 4
TULLAROOP SHIRE—				
Avoca Road	..		677 0 10	
Ballarat Road	..		714 11 0	
Castlemaine–Maryborough Road	..		Bd. 545 13 7	
Dunolly Road	..		57 17 3	
Eddington Road	..		223 16 2	
Maryborough–Dunolly Road	..		558 13 4	
Natte Yallock Road	..		45 3 5	
				2,822 15 7
TUNGAMAH SHIRE—				
Cobram–Katamatite Road	..		32 8 5	
Cobram South Road	1,122 2 10		37 8 5	
Katandra Road	1,845 10 5		..	
Katandra Estate Road	..		84 17 11	
Murray Valley Highway	424 10 8		..	
Numurkah–Tungamah–Wilby Road	1,032 4 7		575 2 6	
St. James Road	55 0 0		33 17 6	
Yarrawonga–Cobram Road	89 0 0		125 6 10	
		4,568 8 6		889 1 7
UPPER MURRAY SHIRE—				
Corryong Road	441 6 10		962 3 1	
Tintaldra Road	15 7 8		1,116 1 10	
		456 14 6		2,078 4 11
UPPER YARRA SHIRE—				
Don Road	..		62 6 8	
Little Yarra Road	..		853 2 2	
Warburton Road..	..		391 5 5	
Woods Point Road	..		Bd. 1,905 15 10	
				3,212 10 1
UPPER YARRA AND HEALESVILLE SHIRES (Joint Works)—				
Healesville–Woori Yallock Road	..		Bd. 3 15 9	
				3 15 9
VIOLET TOWN SHIRE—				
Murchison–Violet Town	550 15 0		276 8 3	
Sydney Road	..		Bd. 16 8 1	
Violet Town–Dookie Road	215 8 9		169 11 4	
		766 3 9		462 7 8
VIOLET TOWN AND EUROA SHIRES (Joint Works)—				
Violet Town–Murchison Road	..		93 0 0	
				93 0 0
WALPEUP SHIRE—				
Mildura Road	..		60 1 5	
Ouyen–Pinnaroo Road	..		149 13 10	
				209 15 3
Carried forward	..	49,954 10 6	..	408,853 6 11

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance Works.	
	Amount.	Total.	Amount.	Total.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward		49,954 10 6		408,853 6 11
WANGARATTA BOROUGH—				
Beechworth Road	..		199 17 10	
Sydney Road	..		756 2 2	
Sydney Road	..		Bd. 43 15 10	
				999 15 10
WANGARATTA SHIRE—				
Beechworth Road	..		155 7 1	
Beechworth Road	..		Bd. 0 14 1	
Peechelba Road	..		4 1 6	
Rutherglen Road	..		0 5 0	
Wangaratta–Myrtleford Road	..		40 14 1	
Yarrawonga Road	..		115 2 4	
				316 4 1
WANGARATTA AND BEECHWORTH SHIRES (Joint Works)—				
Beechworth Road	..		2 7 10	
				2 7 10
WANNON SHIRE—				
Coleraine–Harrow–Apsley Road	..		1,405 4 10	
Hamilton–Coleraine–Casterton Road	947 8 10		2,736 6 0	
Wannon Bridge Road	..		1,040 19 6	
		947 8 10		5,182 10 4
WANNON AND GLENELG SHIRES (Joint Works)—				
Hamilton–Coleraine–Casterton Road	..		44 4 8	
				44 4 8
WANNON AND KOWREE SHIRES (Joint Works)—				
Coleraine–Harrow–Apsley Road	..		243 7 0	
				243 7 0
WARANGA SHIRE—				
Colbinabbin–Moora Road	..		477 19 3	
Elmore–Colbinabbin Road	..		142 14 4	
Heathcote–Elmore Road	..		371 18 8	
Murchison–Rushworth Road	..		774 3 5	
Rushworth–Stanhope	..		210 7 9	
Tatura Road	..		36 8 10	
				2,013 12 3
WARANGA AND GOULBURN SHIRES (Joint Works)—				
Murchison–Rushworth Road	..		16 0 1	
				16 0 1
WARANGA AND HUNTLY SHIRES (Joint Works)—				
Heathcote–Elmore Road	..		47 13 0	
				47 13 0
WARRAGUL SHIRE—				
Bloomfield Road	..		222 3 10	
Brandy Creek Road	..		1,105 5 10	
Darnum–Allambee Road	..		480 0 2	
Prince's Highway	..		313 12 2	
Warragul–Korumburra Road	..		676 0 8	
Warragul–Leongatha Road	..		63 6 0	
				2,860 8 8
WARRNAMBOOL SHIRE—				
Allansford–Nirranda Road	..		1,140 6 1	
Caramut–Lismore Road	..		1,342 16 5	
Framlingham Road	..		1,371 10 7	
Garvoc–Laang Road	..		1,365 6 6	
Mortlake Road	..		2,221 8 7	
Peterborough Road	..		727 2 0	
Timboon–Nirranda Road	..		1,300 14 4	
				9,469 4 6
WERRIBEE SHIRE—	..			
Geelong–Bacchus Marsh Road	..		27 12 6	
Prince's Highway	..		Bd. 252 2 6	
				279 15 0
WHITTLESEA SHIRE—				
Epping Road	..		862 15 6	
Main Whittlesea Road	..		Bd. 775 10 6	
Wallan Road	..		263 18 4	
Whittlesea–Kinglake Road	..		1,884 15 8	
				3,787 0 0
WIMMERA SHIRE—				
Dooen Road	..		1,248 17 6	
Horsham–Murtoa Road	..		4,229 5 9	
Horsham–Wal Wal Road	..		318 13 5	
Natimuk Road	..		594 19 0	
				6,391 15 8
WIMMERA AND ARAPILES SHIRES (Joint Works)—				
Horsham–Hamilton Road	..		705 7 4	
				705 7 4
WIMMERA AND ARAPILES SHIRES AND HORSHAM TOWN (Joint Works)—				
Horsham–Hamilton Road	..		3 18 1	
				3 18 1
WINCHELSEA SHIRE—				
Birregurra Road	..		725 9 11	
Birregurra–Dean's Marsh Road	..		709 5 4	
Birregurra–Forrest Road	976 6 8		637 6 9	
Lorne Road	..		Bd. 288 12 1	
Prince's Highway	..		Bd. 88 4 3	
		976 6 8		2,448 18 4
Carried forward	..	51,878 6 0	..	443,665 9 7

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION AND MAINTENANCE, ETC.—*continued.*

Municipality and Road.	Permanent Works.		Maintenance Works	
	Amount.	Total.	Amount.	Total
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Brought forward	..	51,878 6 0	..	443,665 9 7
WINCHELSEA AND COLAC SHIRES (Joint Works—				
Birregurra Road	..		3 0 0	
				3 0 0
WODONGA SHIRE—				
Kiewa–Wodonga Road	..		3 19 6	
Sydney Road	..		326 9 0	
Tallangatta Road	..		141 0 7	
Wodonga–Yackandandah Road	..		293 5 4	
				764 14 5
WONTHAGGI BOROUGH—	..			
Loch–Wonthaggi Road	..		98 13 8	
Wonthaggi–Inverloch Road	..		128 18 10	
Wonthaggi–Korumburra Road	..		954 1 3	
				1,181 13 9
WOORAYL SHIRE—				
Fairbank Road	..		363 17 2	
Farmers Road	725 1 0		1,277 6 0	
Inverloch–Leongatha Road	..		992 2 8	
Inverloch–Wonthaggi Road	..		861 11 10	
Kongwak–Inverloch Road	..		48 13 5	
Leongatha–Mirboo Road	..		1,129 15 9	
Leongatha–Yarragon Road	..		1,078 2 10	
Lower Tarwin Road	..		542 1 6	
Main South Gippsland Road	..		2,384 6 3	
Mardan Road	..		765 0 9	
Turton's Creek Road	..		93 13 8	
Wild Dog Valley Road	..		1,299 7 0	
		725 1 0		10,835 18 10
WOORAYL AND MIRBOO SHIRES (Joint Works) –				
Turton's Creek Road	..		17 17 11	
				17 17 11
WYCHEPROOF SHIRE—				
Birchip–Sea Lake Road	299 18 2		442 6 4	
Birchip–Wycheproof Road	693 9 1		322 9 4	
Sea Lake–Ultima Road	412 9 4		462 10 0	
Woomelang–Sea Lake Road	725 10 6		423 1 9	
Wycheproof–Sea Lake Road	..		61 1 0	
		2,131 7 1		1,711 8 5
YACKANDANDAH SHIRE—	..			
Dederang Road	..		664 19 4	
Gundowring Road	356 19 2		436 13 0	
Kergunyah South Road	..		118 16 3	
Kiewa East Road	..		60 15 2	
Kiewa–Wodonga Road	..		345 15 1	
Myrtleford–Yackandandah Road	..		218 7 9	
Yackandandah–Wodonga Road	..		607 12 11	
		356 19 2		2,452 19 6
YARRAWONGA SHIRE—				
Peechelba Road	..		302 4 7	
Tungamah–Wilby Road	..		60 15 3	
Wangaratta–Yarrawonga Road	..		1,034 8 2	
Yarrawonga–Cobram Road	..		153 18 2	
				1,551 6 2
YARRAWONGA AND WANGARATTA SHIRES (Joint Works)—				
Peechelba, No 4 Bridge	..		206 9 4	
				206 9 4
YEA SHIRE—				
Highlands Road	..		32 2 10	
Molesworth–Dropmore Road	..		77 16 5	
Upper Goulburn Road	..		1,361 15 1	
Whittlesea–Yea Road	..		421 17 10	
Yarra Glen–Glenburn Road	..		145 7 4	
Yea–Glenburn Road	..		650 8 3	
				2,689 7 9
YEA AND BROADFORD SHIRES (Joint Works)—				
Upper Goulburn Road	..		70 18 0	
				70 18 0
Total	..	55,091 13 3	..	465,151 3 8
STATE HIGHWAYS.				
Prince's Highway West	..		43,765 19 8	
Prince's Highway East	..		64,709 15 8	
Western Highway	..		37,497 1 4	
Calder Highway	..		54,990 1 10	
Northern Highway	..		8,950 12 4	
Hume Highway	..		34,693 11 9	
Omeo Highway	..		20,431 18 9	
Murray Valley Highway	..		66,734 2 1	
South Gippsland Highway	..		15,192 11 8	
Midland Highway	..		52,022 6 5	
Bonang Highway	..		5,873 16 5	
				404,861 17 11
Total	..	55,091 13 3		870,013 1 7

APPENDIX D.

COUNTRY ROADS BOARD.

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION OF DEVELOPMENTAL ROADS FOR YEAR ENDED 30TH JUNE, 1934.

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
ALBERTON SHIRE—		
Albert River Road	2,802 10 2	
Blackwarri–Yarram Road ..	997 1 8	
Carrajung Lower Road ..	1,425 0 0	
Christies–Albert River Road	456 5 3	
Devil's Pinch Road ..	1,589 12 3	
Gelliondale Road	50 5 0	
Lay's Road	388 2 11	
Madalya Road	144 5 1	
Tarra Valley	1,077 0 1	
Whitelaw's Track ..	719 18 0	
		9,650 0 5
ARAPILES SHIRE—		
Miga Lake–Gymbowen Road	206 0 0	
		206 0 0
BAIRNSDALE SHIRE—		
Bairnsdale–Bengworden Road	1 3 0	
Fernbank–Stockdale Road ..	38 0 0	
Glenaladale–Lindenow Road	196 9 4	
Lindenow–Meerlieu Road ..	308 15 11	
		544 8 3
BALLAN SHIRE—		
Moorabool West Road ..	133 10 10	
		133 10 10
BENALLA SHIRE—		
Molyullah–Tatong Road ..	856 0 2	
		856 0 2
BERWICK SHIRE—		
Garfield–Catani Road ..	5 19 8	
		5 19 8
BIRCHIP SHIRE—		
Curyo West Road	140 0 0	
Kinnabulla West Road ..	74 0 0	
Watchupga Road	141 13 0	
		355 13 0
BORUNG SHIRE—		
Brim West Road	12 18 11	
		12 18 11
BRIGHT SHIRE—		
Buffalo River Road ..	308 2 10	
Happy Valley Road ..	470 16 1	
Myrtleford –Yackandandah Road	429 19 8	
		1,208 18 7
BULLA SHIRE—		
Konagaderra Road.. ..	983 3 7	
Riddell Road	350 10 2	
		1,333 13 9
BULN BULN SHIRE—		
Nayook Road	367 15 10	
Poowong Road	986 4 4	
Turner's Road	1,818 18 9	
		3,172 18 11
CHARLTON SHIRE—		
Glenloth Road	10 0 0	
Teddywaddy Road ..	28 3 9	
		38 3 9
COHUNA SHIRE—		
Cohuna–Mead Road ..	74 11 9	
Gannawarra Road	33 9 7	
		108 1 4
CRANBOURNE SHIRE—		
Manks Road	1,319 18 4	
Pearcedale Road	7 5 0	
		1,327 3 4
DEAKIN SHIRE—		
Echuca East Road	46 4 9	
Girgarre North Road ..	262 3 5	
Strathallan East Road ..	412 3 0	
Taripta Road	468 12 9	
		1,189 3 11
Carried forward ..		20,142 14 10

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
Brought forward ..		20,142 14 10
DIMBOOLA SHIRE—		
Glenlee–Jeparit Road ..	23 16 9	
		23 16 9
DUNDAS SHIRE—		
Melville Forest Road ..	114 3 9	
		114 3 9
EAST LODDON SHIRE—		
Tandarra Road	77 10 8	
		77 10 8
FERN TREE GULLY SHIRE—		
Emerald–Monbulk Road ..	483 6 1	
		483 6 1
FLINDERS SHIRE—		
Bittern–Dromana Road ..	425 9 0	
Brown's Road	610 7 4	
Main Creek Road	373 6 11	
		1,409 3 3
GLENELG SHIRE—		
Merino–Struan–Tahara Road	557 17 9	
Dunrobin–Wando Road ..	46 7 9	
		604 5 6
GLENLYON SHIRE—		
Porcupine Ridge Road ..	1,295 17 2	
		1,295 17 2
GOULBURN SHIRE—		
Longwood–Ruffy Road ..	5 15 0	
		5 15 0
HAMPDEN SHIRE—		
Cundare–Duverney Road ..	474 11 9	
Foxhow Road	489 5 2	
		963 16 11
HEYTESBURY SHIRE—		
Devil's Gully Road.. ..	522 15 2	
Eastern Creek Road ..	177 3 4	
Glenfyne West Road ..	625 3 8	
Kennedy's Creek Road ..	908 1 11	
South Ecklin Road ..	1,221 9 0	
Timboon–Cowley's Creek Road	74 6 8	
Timboon–Curdie's Siding Road	199 18 1	
Timboon–Digney's Bridge Road	432 6 0	
Timboon–Scott's Creek Road	100 0 0	
		4,261 3 10
KARA KARA SHIRE—		
Coonooer Road	121 17 0	
Marnoo–St. Arnaud Road ..	50 0 0	
Sandy Creek Road	61 17 6	
Swan Water Road	119 10 5	
		353 4 11
KARKAROOC SHIRE—		
Hopetoun–Yaapeet Road ..	85 2 0	
		85 2 0
KORONG SHIRE—		
Emu–Logan Road	214 10 10	
Inglewood North Road ..	25 0 0	
Kinypanial Road	41 9 6	
Kurting–Rheola Road ..	219 8 7	
Mysia West Road	381 5 2	
Wedderburn–Springhill Road	13 8 9	
Wychitella North Road ..	128 19 6	
		1,024 2 4
KORUMBURRA SHIRE—		
Henry's Road	199 19 10	
Korumburra South Road ..	10 0 0	
Poowong–Olsen Road ..	4 19 0	
		214 18 10
KOWREE SHIRE—		
Edenhope–Natimuk Road ..	575 2 8	
Elderslie–Narracoorte Road ..	3 7 7	
Elderslie Road	2 13 3	
		581 3 6
Carried forward ..		31,640 5 4

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION OF DEVELOPMENTAL ROADS, ETC.—*continued.*

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
Brought forward ..	..	31,640 5 4
LAWLOIT SHIRE—		
Cove Estate Settlement Road	592 5 7	
Serviceton North Road ..	974 12 8	
Serviceton South	180 2 9	
		1,747 1 0
LILLYDALE SHIRE—		
Wandin Creek Road ..	370 17 10	
		370 17 10
LOWAN SHIRE—		
Diapur–Yanac Road ..	188 15 0	
Netherby Road	626 0	
Winiam Road	352 16 0	
		1,167 19 0
MAFFRA SHIRE—		
Bundalaguah Road ..	150 0 0	
		150 0 0
MARONG SHIRE—		
Bendigo–Serpentine Road ..	149 15 10	
Newbridge–Shelbourne Road	3 19 7	
		153 15 5
MILDURA SHIRE—		
Benetook Avenue	518 8 4	
Brownport Road	4 4 0	
Colignan Road	578 5 0	
Karween North	350 2 4	
Redcliffs West Road ..	1,212 6 10	
Werrimull North Road ..	149 13 0	
		2,812 19 6
MINHAMITE SHIRE—		
Condah–Macarthur Road ..	57 6 7	
		57 6 7
MORWELL SHIRE—		
Thorpdale East Road ..	13 18 1	
		13 18 1
McIVOR SHIRE—		
Lancefield–Tooborac Road ..	19 6 0	
		19 6 0
NARRACAN SHIRE—		
Allambee Estate Road ..	2,519 9 5	
Allambee-Thorpdale Road ..	493 4 3	
McDonald's Track	495 3 11	
Shady Creek Road	481 3 4	
		3,989 0 11
NEWHAM AND WOODEND SHIRE—		
Campaspe Road	136 10 2	
		136 10 2
OMEO SHIRE—		
Beloka Road	823 18 5	
Benambra–Corryong Road ..	331 18 11	
		1,155 17 4
ORBOST SHIRE—		
Bete Bolong–Waygara Road	20 2 0	
Jarrahmond Road	155 4 2	
Lower Bemm Road ..	604 0 9	
West Cann Road	299 5 3	
		1,078 12 2
OTWAY SHIRE—		
Denhert's Road	157 10 7	
Dinmont–Beech Forest Road	1,582 17 0	
Ferguson–Charley's Creek Road	3,318 7 8	
Lardner's Track	339 19 9	
Skene's Creek Road ..	1,589 9 6	
Wait-a-while Track.. ..	735 4 10	
		7,723 9 4
OXLEY SHIRE—		
Abbeyard Road	457 10 3	
Boggy Creek Road	308 16 11	
Buffalo River Road ..	221 4 5	
Fifteen-Mile Creek Road ..	330 1 10	
Rose River Road	3,020 9 9	
Tolmie–Whitfield Road ..	110 9 9	
		4,448 12 11
PORTLAND SHIRE—		
Bare Hills Road	1,096 15 5	
Drik Drik–Winnap Road ..	539 10 10	
Grubbed Road	8 0 6	
		1,644 6 9
RODNEY SHIRE—		
Mooroopna–Undera Road ..	16 9 6	
Tatura–Toolamba Road ..	1,089 8 0	
		1,105 17 6
Carried forward ..	..	59,415 15 10

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
Brought forward ..	..	59,415 15 10
ROMSEY SHIRE—		
Baynton Road	121 3 11	
		121 3 11
SOUTH GIPPSLAND SHIRE—		
Franklin River Road ..	223 16 6	
Harding–Lawson Road ..	347 3 0	
O'Gradys Ridge Road ..	803 2 9	
Waratah Road	696 12 1	
Whitelaw's Track	231 9 0	
		2,302 3 4
STAWELL SHIRE— ..		
Marnoo–St. Arnaud Road ..	516 6 5	
		516 6 5
TOWONG SHIRE—		
George's Creek Road ..	50 0 0	
Murray Valley Road ..	47 18 0	
Shelley–Jinjellic Road ..	1,753 0 1	
Tallangatta Creek Road ..	188 0 3	
Yabba Road	502 18 3	
		2,541 16 7
TUNGAMAH SHIRE—		
Katandra Estate Road ..	123 2 3	
Wunghnu–Youanmite ..	303 4 10	
Yabba North Road ..	904 17 2	
Yabba South Road ..	499 6 2	
		1,830 10 5
UPPER MURRAY SHIRE—		
Benambra–Corryong Road ..	39 13 11	
Thowgla Road	1,283 11 5	
		1,323 5 4
VIOLET TOWN SHIRE—		
Fern Hills Road	54 7 11	
Harry's Creek Road ..	12 7 6	
		66 15 5
WANGARATTA SHIRE—		
Boorhaman–Springhurst Road	180 1 0	
		180 1 0
WANNON SHIRE—		
Melville Forest Road ..	125 3 5	
		125 3 5
WARRAGUL SHIRE—		
Bona Vista–Nilma Road ..	228 2 5	
Lardner's Track	1 9 9	
		229 12 2
WARRNAMBOOL SHIRE—		
Childer's Cove Road ..	694 15 9	
Naringle Road	672 16 7	
Panmure Road	96 4 8	
		1,463 17 0
WERRIBEE SHIRE—		
Bulban Road	588 13 7	
		588 13 7
WHITTLESEA SHIRE—		
Eden Park Road	3 15 0	
		3 15 0
WINCHELSEA SHIRE—		
Inverleigh–Winchelsea Road	1,040 17 3	
Pennyroyal Road	507 2 8	
		1,547 19 11
WODONGA SHIRE—		
Beechworth–Wodonga Road	49 0 6	
		49 0 6
WOORAYL SHIRE—		
Dumbalk Road	35 3 0	
Mardan–Dumbalk Road ..	13 3 0	
Meeniyan–Nerrena Road ..	13 8 2	
Nerrena Road	179 18 4	
		241 12 6
WYCHEPROOF SHIRE—		
Berriwillock–Woomelang Road	487 4 2	
Culgoa–Lalbert Road ..	464 6 8	
Meridian Road	366 4 6	
Nullawil–Winston Road ..	477 4 3	
Sea Lake–Tyrrell Downs Road	20 0 0	
		1,814 19 7
YACKANDANDAH SHIRE—		
Kergunyah Road	204 1 0	
Dederang Road	2 2 0	
		206 3 0
YEA SHIRE—		
Flowerdale Road	61 13 7	
		61 13 7
Sub-Total	..	74,630 8 6

STATEMENT OF EXPENDITURE IN CONNEXION WITH CONSTRUCTION OF DEVELOPMENTAL ROADS, ETC.—*continued.*

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
Brought forward ..	..	74,630 8 6
SPECIAL PROVISION.		
ALBERTON SHIRE—		
Albert River Road	29 7 10	
Binginwarri South Road ..	7 16 0	
Jenkin's Road	181 7 0	
Tarra Valley Road	433 3 0	
		651 13 10
BASS SHIRE—		
Almurta–Glen Forbes Road ..	567 3 11	
Corinella Road	373 1 5	
		940 5 4
BERWICK SHIRE—		
Tynong–Tonimbuk Road ..	140 6 11	
		140 6 11
BULN BULN SHIRE—		
Duggan North Road ..	425 0 0	
Mountain View–McDonald's Track	423 3 11	
Neerim South–Neerim East Road	323 17 8	
Rokeby North–Jindivick ..	241 16 0	
		1,413 17 7
KORUMBURRA SHIRE—		
Ferrier's Road	503 14 5	
Territory Road	786 12 2	
Timms Road	272 14 11	
Trida–Strezlecki Road ..	3 7 0	
Witherden's Road	169 13 1	
		1,736 1 7
MORWELL SHIRE—		
Walker's Road	173 0 0	
		173 0 0
NARRACAN SHIRE—		
Erica Road	104 11 2	
Willowgrove Road	13 14 6	
		118 5 8
Carried forward ..	..	79,803 19 5

Municipality and Road.	Act No. 3662 (3255). Amount.	Total.
	£ s. d.	£ s. d.
Brought forward ..	..	79,803 19 5
OMEO SHIRE—		
Little River Road	150 0 4	
		150 0 4
OTWAY SHIRE—		
Colac–Forrest Road ..	118 2 3	
Gellibrand East Road ..	11 13 0	
		129 15 3
SOUTH GIPPSLAND SHIRE—		
Amey's Track	1,242 13 10	
Foster–Mt. Best Road ..	86 4 8	
Toora–Wonyip Road ..	30 2 3	
Waratah Road	17 3 0	
Whitelaw's Track	783 1 10	
		2,159 5 7
WARRAGUL SHIRE—		
Darnum–Allambee Road ..	3 16 6	
Mountain View Road ..	448 1 10	
Mountain View–McDonald's Track	215 19 10	
Nilma–Shady Creek Road ..	2 14 1	
		670 12 3
WARRAGUL AND NARRACAN SHIRES—(Joint Works)—		
McDonald's Track	1,375 7 0	
Nilma–Shady Creek Road ..	331 17 6	
		1,707 4 6
WOORAYL SHIRE—		
Buffalo–Waratah Road ..	296 15 8	
Dollar–Dumbalk Road ..	1,054 12 11	
Dumbalk Road	1,422 15 3	
Meeniyan–Nerrena Road ..	638 12 0	
		3,412 15 10
Total		88,033 13 2

APPENDIX E.

COUNTRY ROADS BOARD.

MAIN ROADS.

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, RECONSTRUCTED, AND MAINTAINED UNDER THE PROVISIONS OF THE COUNTRY ROADS ACT 1928 DURING THE YEAR ENDED 30TH JUNE, 1934

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles	Miles.
UNDER MUNICIPALITIES.			
ALBERTON SHIRE—			
Albert River–Welshpool Road	Reconstruction of superstructure of timber bridge near Ross's		
" " " "	Patrol maintenance throughout		8
Balook–Yarram Road	" " " "		9
Carrajung–Gormandale Road	Reconstruction, widening and double coat sealing on Church Road		·85
" " "	Reconditioning from Reville's Hill to Tarra River bridge, and double coat sealing		2
" "	Patrol maintenance throughout		30
Foster–Yarram Road	Reconditioning and double coat sealing from Gelliondale to Gellion's Gate		1·85
" "	Patrol maintenance throughout		8
Sale–Yarram Road	" " "		·45
Yarram–Boolarra Road	Resealing from Mason's Corner to Tooloonook		3·22
" "	Patrol maintenance throughout		15
Yarram–Port Albert Road	Resealing from Yarram Mechanics Institute to railway crossing near Le Grand's		2·74
" " "	Reconditioning and double coat sealing near Alberton Cemetery		·57
" " "	Reconditioning and double coat sealing in Port Albert Township		·57
" " "	Patrol maintenance throughout		9
Yarram–Wonwron Road	Reconditioning and double coat sealing from Reed's Hill to May's		1·52
" "	Patrol maintenance throughout		5
ALEXANDRA SHIRE—			
Cathkin–Mansfield Road	20-ft. span timber bridge and approaches at Kanumbra, 9·15 miles from Cathkin		·02
Healesville–Alexandra Road	Forming and gravelling, together with 25-ft. span timber culvert 9·9 miles from Alexandra		·12
Upper Goulburn Road	Beaching, grading and gravelling and bitumen sealing flood crossing 10 miles from Alexandra, at Cathkin		·77
ARAPILES SHIRE—			
Horsham–Hamilton Road	General maintenance throughout		25
Horsham – Natimuk – Edenhope Road	General maintenance throughout		23·5
" "	Gravelling in Parish of Kalingur		·64
ARARAT SHIRE—			
Ararat–Elmhurst Road	Patrol maintenance		21
Ararat–Warrnambool Road	Reconstruction of roadway at 25 miles		1·8
" " "	Sealing at 26 miles		1
" " "	Resealing 0 to 3 miles, 9 to 10 miles, and 21 to 22 miles		5
" " "	Patrol maintenance		33
Ballarat–Hamilton Road	Reconstruction of roadway from Westmere to Lake Bolac		2
" " "	Reconstruction of roadway at Chenauer's Swamp		·3
" " "	Sealing from 17 to 19·5 miles		2·5
" " "	Resealing from 15 to 17·1 miles		2·1
" " "	Patrol maintenance		22
Maroona–Glen Thompson Road	Reconstruction of roadway at 20-mile post		·7
" " "	Resealing from 7·5 to 9 miles		1·5
" "	Patrol maintenance		22·5
ARARAT TOWN—			
Ballarat–Stawell Road	Surface sealing with bitumen, and general maintenance		3·25
AVOCA SHIRE—			
Ararat Road	Patrol maintenance throughout		7·2
Ballarat–St. Arnaud Road	Replacement of two open crossings with pipes at 2¼ and 4½ miles south of Avoca		—
" " "	Reconditioning quartz section by shouldering, loaming and grading back loose material on sides between 6 and 7 miles north of Avoca		1
" " "	Resealing section in Avoca		·54
" " "	Patrol maintenance throughout		23·25
Bealiba Road	Patrol maintenance throughout		9
Landsborough Road	Patrol maintenance throughout		1·8
Maryborough Road	Patrol maintenance throughout		5
AVON SHIRE—			
Dargo Road	General maintenance		45
Maffra–Sale Road	Resealing with bitumen		·76
" " "	Priming and sealing with bitumen over re-conditioned gravel surface		2·2
Prince's Highway	General maintenance of bitumen surface in Stratford township		·75
Stratford–Maffra Road	Priming and sealing with bitumen over re-conditioned gravel surface		2
BACCHUS MARSH SHIRE—			
Ballarat Road	Patrol maintenance throughout		1·21
Bacchus Marsh–Balliang Road	Shouldering and gravel resheeting from 2·3 to 4·3 miles		2
" " " "	Shouldering and gravel resheeting from 6·6 to 7·6 miles		1
" " " "	Patrol maintenance throughout		15·4
Geelong–Bacchus Marsh Road	Patrol maintenance throughout		7·8
Gisborne Road	Shouldering and gravel resheeting from 6 to 7 miles		1
" "	Sealing from 2·7 to 4·4 miles		1·7
" "	Patrol maintenance throughout		9·9
BAIRNSDALE SHIRE—			
Bairnsdale–Lindenow Road	General maintenance throughout		9
" " "	Reconstruction, bitumen sealing and timber bridge		1·56
Bairnsdale–Paynesville Road	General maintenance throughout		11
" " "	Reconstruction and bitumen sealing		1·76
Bulumwaal–Tabberabbera Road	General maintenance throughout		16
Prince's Highway	General maintenance throughout		3·4
	Carried forward		447·7

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward		447·7
BALLAN SHIRE—			
Ballarat Road	General maintenance throughout	..	1
Daylesford Road	Double coat bituminous sealing, four sections between Western Highway and Bunding School	..	·68
,, ,,	Bitumen resealing, four sections between Western Highway and Bunding School	..	·73
,, ,,	Reconditioning with gravel surfacing, four sections between Western Highway and Bunding School	..	·68
,, ,,	Reconditioning with fine crushed rock surfacing, northerly from 5-mile peg	..	·55
,, ,,	Patrol maintenance throughout	..	12·7
Gordon–Meredith Road	Reconstruction between Gordon railway station and Mt. Egerton, four sections in fine crushed rock	..	·59
,, ,, ,,	General maintenance throughout	..	5·5
Mount Wallace Road	Reconstruction in gravel surfacing section near Western Highway including new reinforced concrete box culvert	..	·43
,, ,,	Double coat bituminous sealing section near Western Highway	..	·43
,, ,,	Reconstruction in gravel surfacing section near Bungeeltap turn-off	..	·12
,, ,,	General maintenance throughout	..	10·7
BALLARAT SHIRE—			
Ballarat–Lexton Road	Reconditioning, scarifying, reforming, gravelling, priming and sealing waterbound macadam road from 0 to ·4 mile	..	·4
,, ,,	General maintenance from 0 to 18·2 miles	..	18·2
Maryborough–Ballarat Road	Reconditioning, scarifying, reforming, gravelling, priming and sealing waterbound macadam road from 7·65 to 8·65 miles	..	1
,, ,, ,,	General maintenance from 0 to 13 miles	..	13
BANNOCKBURN SHIRE—			
Gordons–Meredith Road	Gravel sheeting near Lowne's	..	·61
,, ,,	Patrol maintenance throughout	..	3
Inverleigh Road	Double coat sealing on gravel at Stonehaven and Murgheboluc and Inverleigh	..	4·01
,, ,,	Resealing at Stonehaven and Murgheboluc	..	1·63
,, ,,	Reshaping and gravel sheeting at Murgheboluc	..	2·49
,, ,,	Patrol maintenance throughout	..	23·5
Shelford–Bannockburn Road	Resealing at Bannockburn	..	1·81
,, ,, ,,	Gravel sheeting west of Bannockburn	..	1·9
,, ,, ,,	Patrol maintenance throughout	..	6·5
BARRABOOL SHIRE—			
Airey's Inlet Road	General maintenance throughout	..	7
Anglesea Road	General maintenance throughout	..	17
Hendy Main Road	General maintenance throughout	..	14
BASS SHIRE—			
Almurta Road	Patrol maintenance and improving curves	..	5·75
Almurta–Grantville Road	Patrol maintenance	..	3·9
,, ,,	Trimming flanks and improving visibility on to Bass River bridge	..	2
Anderson–Dalyston Road	Double coat bitumen surfacing from Dalyston to road leading to Dalyston railway station	..	·26
,, ,, ,,	Surfacing with crushed rock and double coat bitumen surfacing from Kilcunda Mine to railway	..	·3
,, ,,	Patrol maintenance	..	6·25
Dalyston–Wonthaggi Road	Double coat bitumen surfacing	..	·7
,, ,,	Patrol maintenance	..	2
Glen Forbes Road	Double coat bitumen surfacing from Dalyston to Archie's Creek turn-off	..	1·05
,, ,,	Patrol maintenance	..	10·75
Inverloch–Wonthaggi Road	Resealing bitumen surface starting ·7 mile east of Borough of Wonthaggi boundary	..	1·25
,, ,, ,,	Shouldering with crushed rock starting 1½ mile east of Borough boundary	..	1
,, ,,	Patrol maintenance	..	3·5
Korumburra–Wonthaggi Road	Resheeting with crushed rock, flanking and double coat bitumen surfacing from Borough boundary	..	·55
,, ,, ,,	Two concrete culverts of three 4 ft. x 4 ft. cells and approaches at 1·18 mile and at 2·54 miles from Borough boundary	..	·07
,, ,,	Patrol maintenance	..	8
Main Coast Road	Resheeting and draining between allotments 5 and 12, Parish of Woolamai	..	·09
,, ,,	Raising ends of bridge over Flat Bottom Creek	..	—
,, ,,	Resheeting and shouldering north of Bass township	..	2
,, ,,	Superelevating curve at south-east corner of Allotment 6, Parish of Woolamai	..	·09
,, ,,	Reconstruction of red brick culvert between Allotments 200 and 31, Parish of Corinella	..	—
,, ,,	Reforming and gravelling at San Remo	·84	..
,, ,,	Reforming and gravelling Hoddinott's Hill	·92	..
,, ,,	Reforming and gravelling Gurdie's Section	·77	..
,, ,,	Patrol maintenance	..	18·75
Wonthaggi–Loch Road	Sheeting rough redstone road with crushed rock, flanking and double coat bitumen surfacing from 500 feet north of the south-east corner of Allotment 24B, Parish of Wonthaggi	..	·75
,, ,, ,,	Resealing bitumen westerly from Borough boundary	..	·41
,, ,, ,,	Block in scour at Daly's near Powlett River	..	—
,, ,, ,,	Reshaping and sheeting old macadam between 10 and 15·8 miles with granitic sand	..	4·77
,, ,, ,,	Patrol maintenance	..	15·8
BASS SHIRE AND WONTHAGGI BOROUGH (Joint Works)—			
Wonthaggi–Loch Road	Patrol maintenance	..	·7
BEECHWORTH SHIRE—			
Beechworth Road	Sealing in Beechworth	..	1
,, ,,	Patrol maintenance throughout from Wangaratta Shire boundary to the Yackandandah Shire boundary	..	23
Bright Road	Sealing	..	·75
,, ,,	Patrol maintenance from Rocky Point Bridge to Barwidgee Creek Bridge, near Myrtleford	..	5
Everton–Myrtleford Road	Patrol maintenance Everton to Gapsted, reshaping and widening sections	..	13
Myrtleford–Yackandandah Road	Patrol maintenance, Barwidgee Creek bridge, Mudgegonga, to Yackandandah Shire boundary	..	2
Stanley Road	Sealing	..	1·25
,, ,,	Scarifying and reshaping	..	2
,, ,,	Patrol maintenance Beechworth to Barwidgee Gap	..	9
BELFAST SHIRE—			
Hamilton Road	General maintenance	..	13·5
Penshurst Road	General maintenance	..	9·5
BENALLA ROAD—			
Benalla–Shepparton Road	Sealing deviation ·52 to ·9 mile	..	·38
,, ,,	Patrol maintenance	..	·52
Goorambat Road	Patrol maintenance	..	5·6
Goorambat–Thoona Road	Construction of a two-cell reinforced concrete culvert and approaches	·02	..
,, ,,	Provision of additional culverts and patrol maintenance	..	11·8
Greta Road	Patrol maintenance	..	·8
Kelfeera Road	Forming and gravelling	·83	..
,, ,,	Provision of additional culverts and patrol maintenance	..	8·5
Lima Road	Sealing flood crossings and general maintenance	..	2·9
Sydney Road	General maintenance throughout	..	2
Tatong–Tolmie Road	Provision of additional pipe culverts and patrol maintenance	..	10
	Carried forward	3·38	811·09

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	3·38	811·09
BERWICK SHIRE—			
Beaconsfield–Emerald Road ..	General maintenance	..	6·7
Cockatoo–Gembrook Road ..	General maintenance	..	4·3
Emerald Road	General maintenance	..	·2
Gembrook Road	General maintenance	..	5·5
Gembrook–Beenak Road ..	General maintenance	..	2
Hallam–Emerald Road ..	General maintenance	..	4·5
Koo-wee-rup–Longwarry Road	General maintenance	..	1·6
Nar-nar-goon–Longwarry Road	General maintenance	..	11·6
Woori-Yallock–Pakenham–Koo-wee-rup Road	General maintenance	..	17·75
BET BET SHIRE—			
Avoca–Bealiba Road ..	Mixed-in-place surfacing and sealing in Bealiba Township	..	·18
,, ,, ,, ..	General maintenance throughout	..	13·7
Betley Road	General maintenance throughout	..	4·5
Dunolly Road	General maintenance throughout	..	12
Dunolly–Eddington Road ..	General maintenance throughout	..	5
Maryborough–Dunolly Road ..	General maintenance throughout	..	4·5
,, ,, ,, ..	Gravelling southerly from north boundary of township of Bet Bet	..	·48
BLACKBURN AND MITCHAM SHIRE—			
Burwood Road	Reforming of shoulders and table drains	..	1
,, ,, ...	Replacement of old guard fencing with guide posts on embankments, &c. ..	..	3·8
,, ,, ..	Patrol maintenance throughout	..	3·8
Main Healesville Road ..	Widening of existing metal in modified macadam to 20 feet	..	·4
,, ,, ,, ..	Heightening of shoulders and widening of formation	..	1·2
,, ,, ,, ..	Provision of 12-in. diameter reinforced concrete culverts over side drains and guide posts at 500-ft. intervals over reconstructed sections of road	..	4·2
,, ,, ,, ..	Patrol maintenance throughout	..	4·2
BIRCHIP SHIRE—			
Beulah – Birchip – Wycheproof Road	Forming, boxing, limestoning and gravelling	..	·5
,, ,, ,,	Forming, boxing and limestoning	..	·27
,, ,, ,,	Patrol maintenance throughout	..	22
Donald–Birchip–Sea Lake Road	Forming, boxing and limestoning	..	·23
,, ,, ,,	Patrol maintenance throughout	..	26·75
BORUNG SHIRE—			
Birchip Road	Metalling 6 miles north-east from Warracknabeal	1·8	..
,, ,, ...	General maintenance	..	14
Dimboola Road	General maintenance	..	7·5
Hopetoun Road	Limestone metalling 1 mile north of Brim	1·61	..
,, ,, ...	Metalling 2 miles south of Brim	·58	..
,, ,, ...	Metalling between Lah and Brim	..	·47
,, ,, ...	General maintenance	..	18
Minyip Road	Metalling 5 miles south from Warracknabeal	·5	..
,, ,, ...	General maintenance	..	13
Rainbow Road	Limestone metalling 12 miles north-west from Warracknabeal	1·96	..
,, ,, ...	Limestone and ironstone metalling 6 miles north-west from Warracknabeal ..	..	1·05
,, ,, ...	Resheeting 3 miles north-west from Warracknabeal	..	1·29
,, ,, ...	Limestone metalling 8 miles north-west from Warracknabeal	·95	..
,, ,, ...	General maintenance	..	18
BRAYBROOK SHIRE—			
Ballarat Road	Patrol maintenance throughout between the Footscray tram terminus and Albion railway gates	..	3·33
BRIGHT SHIRE—			
Bright Road	Patrol maintenance, construction twin cell 5 ft. x 4 ft. box culvert near Allotment 6, Section F, Parish of Porepunkah	..	20
Harrietville Road	Patrol maintenance, placing pipe culverts	..	16
Kiewa Valley Road	Forming and gravelling near Allotments 9B and 9C, Parish of Mullindolingong ..	·64	..
,, ,, ...	Patrol maintenance, sealing flood crossings	..	7·8
Myrtleford–Yackandandah Road	Patrol maintenance, placing pipe culverts	..	10·46
BROADMEADOWS SHIRE—			
Lancefield Road	Bitumen sealing east from Shire of Bulla boundary	..	1·25
,, Sydney Road ,, ...	Patrol maintenance Essendon City boundary to Bulla Shire boundary	..	4·5
,, ,, ...	Road-mix sealing north of Coburg City boundary, Fawkner	..	·42
	Patrol maintenance Fawkner to Campbellfield	..	2
BULLA SHIRE—			
Melbourne–Lancefield Road ..	Single coat sealing throughout	..	14·25
Sunbury Road	Single coat sealing throughout	..	2
The Gap Road	Crushed rock surfacing	..	·25
BULLA AND KEILOR SHIRES (Joint Works)—			
Melbourne–Lancefield Road ..	Single coat sealing throughout	..	·75
BULN BULN SHIRE—			
Bloomfield Road	Patrol maintenance throughout	..	·9
Fumina Road	Patrol maintenance throughout	..	9·7
Koo-wee-rup–Longwarry Road ..	Patrol maintenance throughout	..	6·5
Loch Valley Road	Patrol maintenance throughout	..	6·4
Longwarry–Drouin Road ..	Resealing bitumen surface	..	4·82
,, ,, ,, ..	Sand sheeting and sealing with bitumen	..	·32
,, ,, ,, ..	Patrol maintenance throughout	..	5·7
Main Neerim Road	Bitumen sealing	..	2·86
,, ,, ,, ...	Sealing and reshaping	..	·19
,, ,, ,, ...	Resealing	..	3·19
,, ,, ,, ...	Patrol maintenance throughout	..	17
Main South Road	Resealing with bitumen	..	8·63
,, ,, ,, ...	Sand sheeting to 5-in. consolidated and 15 ft. wide	..	·75
,, ,, ,, ...	Patrol maintenance throughout	..	14·75
Neerim East Road	Patrol maintenance throughout	..	4
Neerim North–Noojee Road ..	Patrol maintenance throughout	..	3·5
Prince's Highway	Bitumen sealing 20 feet wide	..	1
,, ,, ...	Patrol maintenance throughout and sand surfacing shoulders	..	1·06
Western Port Road	Patrol maintenance throughout	..	8·25
BUNGAREE SHIRE—			
Daylesford–Ballarat Road ..	Resealing sections of road	..	2·43
,, ,, ,, ..	Resheeting with crushed rock	..	1·98
BUNINYONG SHIRE—			
Ballarat–Rokewood Road ..	Construction of reinforced concrete superstructure on Leviathan Bridge over Ross Creek at 3¼ miles	..	—
,, ,, ,, ..	Patrol maintenance throughout		14
Elaine–Mt. Mercer Road ..	General maintenance throughout	..	5
CASTLEMAINE BOROUGH—			
Melbourne–Bendigo Road ..	Resealing	..	1·76
,, ,, ..	General maintenance	..	3·9
CHARLTON SHIRE—			
Donald Road	General maintenance throughout	..	12·75
St. Arnaud Road	General maintenance	..	15·36
	Carried forward	11·42	1286·97

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	11·42	1286·97
CHARLTON AND DONALD SHIRES (Joint Works)—			
Donald Road	Gravelling near Jeffcott Hall	·61	..
CHELSEA CITY—			
Point Nepean Road	Widening to 30 feet and reshaping with crushed rock	..	·14
,, ,, ,, ...	Patrol maintenance	..	5·61
CHILTERN SHIRE—			
Barnawartha–Howlong Road ..	Patrol maintenance, widening, shouldering	..	5·9
Chiltern–Howlong Road ..	Patrol maintenance, rescaling in Chiltern town	..	7·1
Sydney Road	Patrol maintenance, scaling	..	1·15
CLUNES BOROUGH—			
Maryborough–Ballarat Road ..	Gravelling	·68	..
,, ,, ,, ..	Gravelling	·45	..
,, ,, ,, ..	Sealing gravel with bitumen	·36	..
,, ,, ,, ..	Rescaling	..	·19
,, ,, ,, ..	Rescaling	..	·2
,, ,, ,, ..	General maintenance throughout	..	3·2
COHUNA SHIRE—			
Leitchville Road	General maintenance from Cohuna railway station to Murray Valley Highway at Leitchville	..	10·69
COLAC SHIRE—			
Colac–Ballarat Road	Double coat sealing on fine-crushed rock road between chainages 57,000 and 85,300 feet	..	5·35
,, ,, ,, ...	Widening, resheeting and double coat sealing between chainages 85,300 and 113,010 feet	..	5·25
,, ,, ,, ...	Resealing with fluxed bitumen between chainages 26,670 and 36,170 feet ..	..	1·8
,, ,, ,, ...	General maintenance	..	21·15
Colac–Beech Forest Road ..	Double coat sealing on fine crushed rock road, southerly from Colac town boundary	..	·38
,, ,, ,, ..	Resheeting with fine crushed rock at Elliminyt township	..	·38
,, ,, ,, ..	Reconstruction and gravelling between Tulloh and Short's road	..	·55
,, ,, ,, ..	General maintenance	..	11·25
Colac–Forrest Road	Double coat sealing on fine crushed rock road between chainages 4,560 and 10,560 feet	..	1·14
,, ,, ,, ...	Widening and resheeting with fine crushed rock between chainages 10,560 and 15,360 and between 16,960 and 18,160 feet	..	1·14
,, ,, ,, ...	General maintenance	..	16·9
Cororooke Road	General maintenance	..	7·25
Cressy–Inverleigh Road ..	General maintenance	..	8·7
Prince's Highway	Gravelling shoulders of bitumen pavement at Colac	..	1·96
,, ,, ...	Resealing with fluxed bitumen from Hesse-street westerly to Colac town boundary	..	1·13
,, ,, ...	General maintenance	..	2·44
Swan Marsh Road	Widening and resheeting with fine crushed rock south westerly from Princes Highway	..	·71
,, ,, ,, ...	Widening and resheeting with fine crushed rock at Swan Marsh township ..	..	·38
,, ,, ,, ...	Gravelling with fine crushed rock south-westerly from north corner of Pirron Vallock racecourse	..	·87
,, ,, ,, ...	General maintenance	..	5·65
CORIO SHIRE—			
Geelong–Bacchus Marsh Road ..	Patrol maintenance throughout, repairing flood damages Ripley Bridge approaches	..	20·2
CORIO AND BACCHUS MARSH SHIRES (Joint Works)—			
Geelong–Bacchus Marsh Road ..	Patrol maintenance	..	1
CRANBOURNE SHIRE—			
Cranbourne–Frankston Road ..	Surfacing with gravel Cranbourne Post Office to Evans Road	..	1·64
,, ,, ,, ..	General maintenance throughout	..	7·5
Koo-wee-rup–Longwarry Road ..	General maintenance throughout	..	6
Koo-wee-rup–Pakenham Road	Modified macadam surfacing canal bridges to Manks Road	..	·98
,, ,, ,,	General maintenance throughout	..	5·5
Main Coast Road	General maintenance throughout	..	8
Western Port Road	General maintenance throughout	..	9
CRESWICK SHIRE—			
Castlemaine–Ballarat Road ..	Reconstruction of metal road 2·4 miles north of Smeaton by sheeting with quartz gravel and loam mixed in place	..	2·4
,, ,, ,, ..	Reconstruction of metal road by crushed rock resheeting between Smeaton and Campbelltown	..	·5
,, ,, ,, ..	Reconstruction of metal road southerly from Creswick Borough boundary by resheeting with quartz gravel and clayey gravel mixed in place	..	2
Daylesford–Ballarat Road ..	Reconstruction of metal road by sheeting with crushed rock two sections between Dean and Newlyn	..	1·5
DANDENONG SHIRE—			
Cheltenham Road	Rescaling near Dandenong	..	·75
,, ,, ...	Patrol maintenance, Prince's Highway to Shire boundary	..	5·5
Dandenong–Frankston Road ..	Sealing approaches to new bridges, Emmemmering Creek and Rodd's Drain ..	..	·2
,, ,, ,, ..	Rescaling	..	3
,, ,, ,, ..	Patrol maintenance, Prince's Highway to Shire boundary	..	6·2
Prince's Highway	Rescaling in township of Dandenong	..	·4
,, ,, ...	Patrol maintenance in township of Dandenong	..	1·9
DAYLESFORD BOROUGH—			
Ballan Road	Sheeting Sartori's Hill with fine crushed rock	..	·28
,, ,, ...	Patrol maintenance throughout	..	1·6
Ballarat Road	Sheeting Armstrong's Hill and approaches to Leggat's Bridge with fine crushed rock	..	·31
,, ,, ...	Patrol maintenance throughout	..	1·05
Castlemaine Road	Patrol maintenance throughout	..	·65
Daylesford–Hepburn Road ..	Patrol maintenance throughout	..	1·14
Daylesford–Trentham Road ..	Patrol maintenance throughout	..	·9
Malmsbury–Daylesford Road ..	Sheeting from Castlemaine Road to Borough boundary with fine crushed rock ..	..	·61
,, ,, ,, ..	Patrol maintenance throughout	..	1·42
DEAKIN SHIRE—			
Echuca–Cornella Road ..	General maintenance of gravel and reforming between Echuca Borough boundary and Allotment 28, Parish of Echuca South	..	7·5
Echuca–Picola Road	General maintenance of gravel surface and reforming east of Echuca Borough boundary	..	5
Kyabram–Nathalia Road ..	Scarifying, reshaping and dragging between Rodney Shire boundary and Murray Valley Highway	..	5
Kyabram–Tongala Road ..	General maintenance of bitumen surface south of Tongala and scarifying and reshaping west of Kyabram	..	8
Rochester–Kyabram Road ..	Scarifying, reshaping and resheeting near Allotment 93, Parish of Timmering ..	..	1
,, ,, ,, ..	General maintenance throughout	..	13
DEAKIN AND RODNEY SHIRES (Joint Works)—			
Rochester–Kyabram Road ..	Scarifying, reshaping and maintenance of gravel section between Allotments 112 and 115, Parish of Kyabram	..	1·5
DEAKIN AND NUMURKAH SHIRES (Joint Works)—			
Echuca–Picola Road	General maintenance of Stewart's Bridge over Goulburn River	..	—
	Carried forward	13·52	1548·97

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	13·52	1548·97
DIMBOOLA SHIRE—			
Hopetoun–Rainbow Road ..	Resheeting with limestone metal ½ mile and 3 miles north of Rainbow	..	·15
,, ,, ,, ..	Constructing loam formations between Allotments 11A and 12A, Parish of Albacutya	..	·65
Horsham Road	Rescaling with bitumen section in Dimboola Township	..	·57
Rainbow Road	Forming, rubbling and gravelling north and south of Jeparit Township	·76	..
,, ,, ...	Forming and rubbling about 7 miles south from Rainbow	·29	..
,, ,, ...	Forming and sheeting with limestone rubble north and south of Antwerp township	..	1·3
,, ,, ...	Forming and sheeting with limestone rubble west of Allotment 56, Parish of Tarranyurk	..	·4
,, ,, ...	Sheeting existing loam formations with limestone rubble between Tarranyurk and Jeparit	..	1·55
,, ,, ...	Surfacing with tar and bitumen sections north and south of Jeparit Township ..	..	·38
,, ,, ...	Forming and sheeting with limestone rubble deviations between Allotments 41, 42 and 46, Parish of Hindmarsh	..	·76
Warracknabeal Road ..	Forming, rubbling and gravelling about 7 miles north-east of Dimboola	·34	..
,, ,, ..	Reshaping metal, sheeting with gravel and surfacing with tar and bitumen, between railway at Dimboola and Clement's Hill	..	·63
,, ,, ..	Reshaping metal, sheeting with gravel and surfacing with tar and bitumen about 3 miles north-east of Dimboola	..	·61
,, ,, ..	Surfacing gravel surface with tar and bitumen about 6 miles north-east of Dimboola	..	·38
DONALD SHIRE—			
Donald–Charlton Road ..	Granitic sand surfacing	..	1·4
,, ,, ,, ..	General maintenance throughout	..	13
Donald–Minyip Road	General maintenance throughout	..	2·5
Marnoo–Donald Road ..	Forming and loaming at Laen	..	·6
,, ,, ,, ..	Forming and loaming at Banyeua	..	·8
,, ,, ,, ..	Fine crushed rock surfacing at Rich Avon East	..	1·1
,, ,, ,, ..	General maintenance throughout	..	10·2
St. Arnaud–Birchip Road ..	Fine crushed rock surfacing between Buloke and Litchfield	..	1
,, ,, ,, ..	Fine crushed rock surfacing west of Massey	..	·5
,, ,, ,, ..	Scarifying old macadam and surfacing with fine crushed rock, south of Donald ..	..	3·9
,, ,, ,, ..	General maintenance throughout	..	28·7
DONCASTER AND TEMPLESTOWE SHIRE—			
Doncaster Road	Single coat sealing ·7 to 2·7 miles	..	2
,, ...	General maintenance	..	6
Heidelberg–Warrandyte Road	Single coat sealing various sections	..	1·1
,, ,, ,, ..	Resurfacing with crushed rock between 1 and 6 miles	..	3·57
,, ,, ,, ..	Double coat sealing between 4 and 6 miles	..	1
,, ,, ,, ..	General maintenance	..	9·5
Warrandyte–Ringwood Road ..	Rescaling 3 to 4·2 miles	..	1·2
,, ,, ,, ..	Widening and re-aligning 0 to 2 miles	..	2
,, ,, ,, ..	Gravelling between 0 and 2 miles	..	1
,, ,, ,, ..	General maintenance	..	4·2
DUNDAS S.R.—			
Hamilton–Dunkeld Road ..	Modified macadam surfacing opposite Allotment 7, Section 4, Allotments 7 and 6, Section 5, and Allotment 9, Section 9, Parish of South Hamilton, Allotments 6, 7 and 8, Section 2, Parish of Warrayure, and Allotment 127, Parish of Moutajup	..	2·53
,, ,, ,, ..	Rescaling previously scaled macadam opposite Allotments 8 and 9, Section 4, Parish of South Hamilton, Allotment 5, Section 2, and Sections 21, 22 and 23, Parish of Warrayure, and Allotments 127, 126, 117, 116, 115, 110 and 111, Parish of Moutajup	..	7·25
Hamilton–Horsham Road ..	Modified macadam surfacing opposite Allotments 3 and 6, Section 24, Parish of North Hamilton, and Allotments 1A, 1B and 2, Section 10, Parish of Jerrywarook	..	1·14
,, ,, ,, ..	Rescaling previously sealed macadam and previously sealed gravel construction opposite Hamilton Racecourse, Allotments 11, 10, 9, 8 and 7, Section 25, and Allotment 6, Section 24, Parish of North Hamilton, Allotments 3B, 3A, and 2, Section 10, Allotments 3B, 3A, 2B1 and 2A, Section 2, Allotment 3, Section 1, Kenilworth South P.R., and Allotment B, Parish of Jerrywarook, and from the west boundary of the township of Cavendish to the Wannon River, Parish of Cavendish	..	3·97
Hamilton–Mount Gambier Road	Rescaling previously sealed macadam opposite Allotments 3 and 4, Section 18, Allotments 1, 3B, 4 and 5, Section 5, Allotments 6 and 7, Section 12, and from the east boundary of the township of Redruth to the Wannon River, Parish of Bochara	..	3·36
Hamilton–Port Fairy Road ..	Modified macadam surfacing opposite Allotments 3A and 3B, Section 18, Parish of Byaduk, Allotments 1A and 4, Section 11, and Allotment 1, Section 12, Parish of Warrabkook	..	1·49
,, ,, ,, ..	Rescaling previously scaled macadam opposite Allotment 1, Section 23, Parish of South Hamilton, Monivae P.R., Section 2, Allotments 2, 3A, 4A and 5A, Section 9, Allotments 1A, 2A and 4A, Section 11A, and Allotments 6A, 6B, 7A and 7B, Section 14, Parish of Monivae, Allotments 2A, 5A and 5B, Section 3, Brisbane Hill P.R., Section 9A, Allotment 4A, Section 16 and Allotment 1A, Section 19, Parish of Byaduk	..	5·39
Hamilton–Portland Road ..	Modified macadam surfacing opposite Allotments 1, 2 and 3, Section 23, Parish of South Hamilton and reserve, Parish of Yulecart	.	·87
,, ,, ,, ..	Rescaling previously scaled macadam opposite Allotments 14, 7 and 8, Section 23, Parish of South Hamilton, Allotment 10, Section 2, Allotment 7, Section 3, Allotments 7 and 8, Section 29, and Allotment 5, Section 30, Parish of Yulecart	..	1·73
Hamilton–Warrnambool Road	Modified macadam surfacing opposite Allotments 3 and 4, Section 3, and Allotments 1 and 2, Section 13, Parish of South Hamilton	..	·73
,, ,, ,,	Rescaling previously sealed macadam opposite Allotments 4 and 5, Section 3, Allotments 6 and 7, Section 10, Allotments 1 and 2, Section 16, and Allotment 1, Section 13, Parish of South Hamilton, Allotments 1 and J, Section 1, Allotments 1 and 5, Section 8, Croxton P.R., Parish of Croxton West	..	4·47
DUNMUNKLE SHIRE—			
Horsham–Murtoa Road ..	Forming and gravelling at western boundary of Shire	..	·13
Marnoo–Rupanyup Road ..	Forming, loaming and gravelling, commencing 2 miles east of Rupanyup ..	7·03	..
Minyip–Donald Road ..	Rescaling bitumen surface east of Minyip	..	1·41
Rupanyup–Murtoa Road ..	Rescaling bitumen surface west of Rupanyup	..	6·35
Stawell–Warracknabeal Road ..	Rescaling bitumen surface at southern boundary of Shire	..	1
,, ,, ,, ..	Rescaling bitumen surface south and north of Rupanyup	..	3·93
,, ,, ,, ..	Rescaling bitumen surface south of Minyip	..	3·23
EAST LODDON SHIRE—			
Borung–Prairie Road ..	General maintenance	..	1·5
Dingee Road	General maintenance	..	7
Mitiamo Road	General maintenance	..	5·5
Prairie Road	General maintenance	..	8
ECHUCA BOROUGH—			
Echuca–Cohuna Road ..	Forming with White Hills gravel from Campaspe River bridge to Murray Valley Highway	1·12	..
	Carried forward	23·06	1722·6

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	23·06	1722·6
ELTHAM SHIRE—			
Eltham-Yarra Glen Road ..	Reforming, gravelling, rescaling with bitumen, concrete pipe culverts and patrol maintenance between Lower Plenty and Yarra Glen	..	21
Hurst Bridge-Kinglake Road ..	Reforming, widening, gravelling, crushed rock, rescaling with bitumen, concrete pipe culverts and patrol maintenance between Wattle Glen and Kinglake	..	16
Yarra Glen-Glenburn Road ..	Resheeting with gravel, and patrol maintenance between Yarra Glen and Shire boundary, Mt. Slide	..	8
EUROA SHIRE—			
Arcadia Road	Patrol maintenance	..	5·7
Avenel-Longwood Road ..	Patrol maintenance	..	2·1
Euroa-Arcadia Road ..	Rescaling Anderson-street	..	·4
,, ,, ,,	Surfacing with hill gravel	..	1·12
,, ,, ,, ..	Patrol maintenance	..	17
Euroa-Mansfield Road ..	Surfacing with hill gravel from township boundary	..	·75
,, ,, ,, ..	Patrol maintenance	..	16·1
Euroa-Strathbogie Road ..	Reconstruction of timber bridge over Shean's Creek	..	—
,, ,, ,,	Surfacing with gravel between township and Shean's Creek	..	2·5
,, ,, ,, ..	Patrol maintenance	..	19·2
Murchison-Violet Town Road ..	Forming, gravelling, &c., westerly from Murchison-Shepparton Road	1·09	..
,, ,, ,, ..	Grubbing, clearing, forming, pipe culverts, &c., at Moglonemby	..	1·5
FERNTREE GULLY SHIRE—			
Belgrave-Emerald Road ..	Widening pavement between Selby and Aura	..	1
,, ,, ,, ..	Patrol maintenance	..	6·73
Burwood Road	Patrol maintenance	..	4·55
Emerald Road	Widening formation	..	1·51
,, ,, ...	Patrol maintenance	..	3·25
Main Ferntree Gully Road ..	Widening pavement	..	1·11
,, ,, ,, ,, ..	Patrol maintenance	..	10·8
Monbulk Road	Widening pavement	..	·57
,, ,, ...	Patrol maintenance	..	5
Olinda Road	Widening pavement	..	1·46
,, ,, ...	Patrol maintenance	..	6·25
FLINDERS SHIRE—			
Hastings-Flinders Road ..	Construction and double coat sealing at Flinders	..	·68
,, ,, ...	Patrol maintenance throughout	..	17
Mornington-Dromana Road ..	Patrol maintenance throughout	..	2·75
Mornington-Flinders Road ..	Widening and sheeting with granitic sand and double coat sealing at Jarman's ..	..	·62
,, ,, ,, ..	Patrol maintenance throughout	..	12
Point Nepean Road	Widening and sheeting with granitic sand and double coat sealing at Rosebud ..	..	·15
,, ,, ,, ...	Widening and sheeting with granitic sand and double coat sealing at Rye ..	..	·66
,, ,, ,, ...	Forming and gravelling and double coat sealing between Sorrento and Portsea ..	..	·53
,, ,, ,, ...	Patrol maintenance throughout	..	21·5
Red Hill Road	Patrol maintenance throughout	..	3·75
Rosebud-Flinders Road ..	Patrol maintenance throughout	..	13·5
Stony Point Road	Patrol maintenance throughout	..	4
FRANKSTON AND HASTINGS SHIRE			
Cranbourne-Frankston Road ..	General maintenance throughout	..	2·8
,, ,, ,, ..	Crushed rock sheeting	..	·49
Dandenong-Frankston Road ..	General maintenance throughout	..	5·5
Frankston-Flinders Road ..	General maintenance throughout	..	14
Mooroodue Road	General maintenance throughout	..	3
Point Nepean Road	General maintenance throughout	..	7·5
GLENLYON SHIRE—			
Ballan Road	General maintenance	..	
Ballarat Road	General maintenance	..	4·45
Castlemaine-Daylesford Road ..	Reconstruction and gravelling	..	3·5
,, ,, ,, ..	General maintenance	..	·75
Daylesford-Hepburn Road ..	General maintenance	..	12·25
Daylesford-Trentham Road ..	Grading, forming, and gravelling	·92	1
,, ,, ,, ..	General maintenance	..	..
Malmsbury-Daylesford Road ..	General maintenance	..	9·08
GISBORNE SHIRE—			15
Bacchus Marsh Road ..	General maintenance	..	
Gisborne Station Road ..	General maintenance	..	9·7
Mount Macedon Road ..	Sealing	..	1·2
,, ,, ,, ..	General maintenance	..	1·2
GLENELG SHIRE—			6·75
Coleraine-Casterton Road ..	Modified macadam surfacing near Casterton	..	
,, ,, ,, ..	Rescaling modified macadam through Casterton	..	·67
,, ,, ,, ..	Patrol maintenance throughout	..	1·14
Dergholm Road	Modified macadam surfacing near Casterton	..	7
,, ,, ...	Metal sheeting between 1st and 2nd mile posts	..	·66
,, ,, ...	Metal sheeting at Redcap	..	·65
,, ,, ...	Patrol maintenance throughout	..	·6
Mount Gambier Road ..	Modified macadam surfacing between 2nd and 3rd mile posts	..	22
,, ,, ,, ..	Sheeting with crushed rock in sections between 3rd and 15th mile posts ..	..	·9
,, ,, ,, ..	Rescaling modified macadam between Strathdownie and Ardno	..	2·79
,, ,, ,, ..	Rescaling modified macadam near Casterton	..	4·7
,, ,, ,, ..	Patrol maintenance throughout	..	·79
Portland Casterton Road ..	Modified macadam surfacing at Sandford and Merino	..	30
,, ,, ...	Rescaling modified macadam between Casterton and Sandford	..	1·92
,, ,, ,, ..	Patrol maintenance throughout	..	·72
Wando Vale Road	Rescaling modified macadam near Wando Bridge	..	20
,, ,, ,, ...	Patrol maintenance throughout	..	·66
GOULBURN SHIRE			6·5
Avenel-Longwood Road ..	Construction of bridge and approaches at O'Day Creek, Lockley	.	—
GRENVILLE SHIRE—			
Ballarat-Hamilton Road ..	Modified macadam surfacing northwards from Smythesdale	..	1·18
,, ,, ...	Modified macadam on Flagstaff Hill between Linton and Pitfong	..	1·31
,, ,, ...	Patrol maintenance throughout	..	24
Cressy Road	Patrol maintenance throughout	..	9·8
Lismore Road	Patrol maintenance throughout	..	10
Pitfield Road	Patrol maintenance throughout	..	7·4
HAMILTON TOWN—			
Ararat Road	Rescaling bitumen surface, in sections	..	·44
,, ,, ...	Patrol maintenance	..	·89
Coleraine Road	Rescaling bitumen surface in sections	..	·44
,, ,, ...	Patrol maintenance	..	1·32
Port Fairy Road	Rescaling bitumen surface in sections	..	·18
,, ,, ,, ...	Patrol maintenance	..	·3
Portland Road	Side tracks throughout	..	·5
,, ,, ...	Patrol maintenance throughout	..	·5
DUNDAS AND HAMILTON SHIRES (Joint Works)—			
Hamilton-Warrnambool Road ..	Rescaling bitumen surface in sections	..	·32
,, ,, ,, ..	Patrol maintenance	..	·5
	Carried forward	25·07	2212·29

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	25·07	2212·29
HAMPDEN SHIRE—			
Camperdown—Ballarat Road ..	Resealing existing bitumen surface 14 feet wide, south of Camperdown	..	2
,, ,, ,, ..	Widening from 10 feet to 16 feet and surfacing with 3-in. modified macadam south of Camperdown	..	1·34
,, ,, ,, ..	Widening from 12 feet to 16 feet and surfacing with 3-in. modified macadam between Camperdown and Lismore	..	·5
,, ,, ,, ..	Resealing existing bitumen surface 10 feet wide between Camperdown and Lismore	..	8·2
,, ,, ,, ..	Construction of reinforced concrete culvert 32 feet long, two cells each 6 feet x 5 feet, between Camperdown and Lismore	..	—
,, ,, ,, ..	Resealing existing bitumen surface 10 feet wide between Lismore and Skipton ..	..	4
,, ,, ,, ..	Surfacing with 3-in. modified macadam 10 feet wide between Lismore and Skipton	..	3·5
,, ,, ,, ..	Patrol maintenance throughout	..	51·7
Caramut–Lismore Road ..	Resealing existing bitumen surface 10 feet wide between Lismore and Derrinallum ..	..	3
,, ,, ,, ..	Redecking existing bridge, 16 feet span, masonry abutments, between Lismore and Derrinallum	..	—
,, ,, ,, ..	Widening from 10 feet to 16 feet, regrading and sheeting with basaltic gravel 6 inches deep, between Derrinallum and Darlington	..	3·23
,, ,, ,, ..	Resealing existing bitumen surface 10 feet wide between Derrinallum and Darlington	..	2·1
,, ,, ,, ..	Patrol maintenance throughout	..	·16
,, ,, ,, ..	Resealing existing bitumen surface 10 feet wide	..	·5
Cobden–Terang Road ..	Construction of 48-in. diameter reinforced concrete pipe culvert and end walls, 40 feet long	..	—
,, ,, ,, ..	Repairs to six-span timber bridge over Mt. Emu Creek, including four new stringers, 55 lineal feet new decking, and running strips for whole length of bridge	..	—
,, ,, ,, ..	Patrol maintenance throughout	..	2·95
Lismore–Cressy Road ..	Widening from 12 feet to 16 feet and surfacing with 3-in. modified macadam between Lismore and Berrybank	..	·45
,, ,, ,, ..	Resealing existing bitumen surface 10 feet wide between Lismore and Berrybank..	..	6·5
,, ,, ,, ..	Surfacing with modified macadam 10 feet wide, 3 inches deep, between Berrybank and Duverney	..	4·1
,, ,, ,, ..	Construction of reinforced concrete culvert 50 feet long, two cells each 10 feet x 5 feet, between Berrybank and Duverney	..	—
,, ,, ,, ..	Patrol maintenance throughout	..	18·7
McKinnon's Bridge–Noorat Road	Completion of widening from 10 feet to 16 feet and surfacing with 3-in. modified macadam	..	2·85
,, ,, ,,	Widening from 10 feet to 16 feet, regrading, and sheeting with 7-in. basaltic gravel	..	1
,, ,, ,,	Patrol maintenance throughout	..	3·85
Prince's Highway	Widening from 14 feet to 20 feet and surfacing with 3-in. modified macadam, Camperdown section	..	·17
,, ,, ...	Application of seal coat on surface mixed macadam, Camperdown section ..	..	·22
,, ,, ...	Patrol maintenance throughout	..	2·63
Terang–Framlingham Road ..	Completion of widening from 10 feet to 14 feet and surfacing with 3-in. modified macadam	..	·8
,, ,, ,, ..	Patrol maintenance throughout	..	1·6
Terang–Mortlake Road ,, ..	Removal and re-erection of stone wall on new line of deviation at Baker's Corner between Noorat and shire boundary	..	—
,, ,, ,, ..	Patrol maintenance throughout	..	7
HEALESVILLE SHIRE—			
Healesville–Alexandra Road ..	Reconstruction in modified macadam 20 feet wide from Graceburn Bridge to Don Road	..	·19
,, ,, ,, ..	Penetration macadam two side strips each 4 feet wide from 3,150 feet west of Shire Hall uphill towards Lilydale	..	·21
Healesville–Kinglake Road ..	Modified macadam surfacing 20 feet wide from junction of Healesville–Alexandra Road westwards to railway station entrance road	..	·1
HEIDELBERG CITY—			
Greensborough – Hurst Bridge Road	Surfacing with pre-mixed bituminous screenings 1 inch deep 20 feet wide ..	..	2
,, ,,	Installing new pipe culvert and widening embankment at Diamond Creek ..	..	—
,, ,,	General maintenance throughout	..	9·15
Main Heidelberg–Eltham Road	Penetration macadam surfacing by penolithic method 25 feet wide	..	·2
,, ,, ,, ,,	Surfacing with pre-mixed bituminous screenings 1 inch deep, 25 feet wide ..	..	2·1
,, ,, ,, ,,	Surfacing with pre-mixed bituminous screenings 1 inch deep, 20 feet wide ..	..	1·28
,, ,, ,, ,,	Widening metal bed to 20 feet and penetrating half width of road with bitumen ..	..	·18
,, ,, ,, ,,	General maintenance throughout	..	7·63
Main Whittlesea Road ..	General maintenance throughout	..	1·19
HEYTESBURY SHIRE—			
Camperdown–Cobden Road ..	Resealing and general maintenance throughout	..	5
Cobden–Port Campbell–Princetown Road	Resealing and general maintenance throughout	..	18·2
Cobden–Terang Road ..	Crushed rock surfacing	2	—
,, ,, ,, ..	Modified macadam surfacing	..	1
,, ,, ,, ..	General maintenance throughout	..	12
Timboon–Nirranda Road ..	Patrol maintenance	..	8
Timboon–Port Campbell Road	Patrol maintenance	..	5
HORSHAM TOWN—			
Dimboola–Horsham Road ..	Sealing with bitumen and oil from intersection of Dooen Road to town boundary	..	2·5
Dooen Road	Sealing with bitumen and oil from intersection of Dimboola Road to town boundary	..	2
Hamilton Road	Sealing with bitumen and oil from intersection of Dooen Road to town boundary	..	2
Natimuk Road	Sealing with bitumen and oil from Wilson Street to end of existing bitumen ..	..	·75
,, ,, ...	Modified macadam surfacing south-westerly from end of existing bitumen road ..	..	·15
Western Highway	Sealing with bitumen and oil from intersection of Hamilton Road to town boundary	..	·75
INGLEWOOD BOROUGH—			
Bendigo–Charlton Road ..	Double coat sealing from Korong Vale railway intersection to north borough boundary	..	·47
,, ,, ,, ..	Single coat resealing south from Korong Vale railway intersection	..	·23
,, ,, ,, ..	General maintenance throughout	..	1·55
SHIRE OF KARA KARA—			
Avoca–St. Arnaud Road ..	Patrol maintenance throughout	..	23
,, ,, ,, ..	Clearing waterway of creek near Allotment 3, Section 2, Parish of Moolerr ..	..	—
Charlton Road	Patrol maintenance throughout	..	10
Marnoo Road	Boxing and gravelling throughout	2·1	..
,, ,, ...	Patrol maintenance throughout	..	2·1
Navarre Road	Patrol maintenance throughout	..	22
St. Arnaud–Donald Road ..	Resealing and sealing	..	2·42
,, ,, ,, ..	Patrol maintenance throughout	..	17
KARKAROOC SHIRE—			
Hopetoun–Rainbow Road ..	General maintenance, scarifying and reshaping, &c., throughout	..	24
Hopetoun–Woomelang–Sea Lake Road	Forming and metalling between Allotments 13 and 38, Parish of Minapre ..	.57	..
,, ,, ,,	General maintenance throughout	..	24
Hopetoun–Warracknabeal Road	General maintenance, including reshaping and resheeting, &c., throughout ..	..	20
Rainbow–Beulah–Birchip Road	Forming and metalling between Allotments 32 and 33, Parish of Kallery, and Allotment 36, Parish of Beulah, and between Allotment 35, Parish of Kallery, and Allotment 35, Parish of Beulah	..	·66
,, ,, ,, ,,	General maintenance throughout	..	24·5
KARKAROOC AND BIRCHIP SHIRES (Joint Works)—			
Rainbow–Beulah–Birchip Road	Forming and metalling between Allotments 30 and 31, Parish of Kurdgweechee and Allotments 6 and 29, Parish of Ballapur	..	1·62
	Carried forward	29·74	2616·31

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	29·74	2616·31
KERANG SHIRE—			
Koondrook Road	General maintenance	..	1
KILMORE SHIRE—			
Heathcote Road	Pipe culverts to replace timber culverts at Allan's and old school	..	—
,, ...	Resheeting with gravel in sections between Burke's Bridge and Bowers.	..	·62
,, ,, ...	Forming near T. Boran's	..	·37
,, ,, ...	Patrol maintenance	..	3·56
Kilmore–Kilmore East Road ..	Installing culverts at George Street and Albert Street	..	—
,, ,, ,, ..	General maintenance	..	2·26
Lancefield–Kilmore Road ..	Pipe culvert at Church Street	..	—
,, ,, ,, ..	Patrol maintenance	..	1·29
KILMORE AND PYALONG SHIRES (Joint Works)—			
Heathcote Road	Resheeting with gravel in sections between Boundary Flat and Boran's ..	..	·67
,, ,, ...	Patrol maintenance	..	2·99
KILMORE AND ROMSEY SHIRES (Joint Works)—			
Lancefield–Kilmore Road ..	Patrol maintenance	..	2·28
KOROIT BOROUGH—			
Koroit–Warrnambool Road ..	General maintenance	..	6·2
KORONG SHIRE—			
Borung–Hurstwood Road ..	General maintenance throughout	..	7
Charlton–Bendigo Road ..	Single coat rescaling from Korong Creek	..	·38
,, ,, ,, ..	General maintenance throughout	..	1·25
Serpentine Road	General maintenance throughout	..	10·5
KORUMBURRA SHIRE—			
Bena–Kongwak Road ..	Gravel surfacing macadam section	..	10·75
,, ,, ,, ..	Reconstruction in crushed rock (three sections)	..	·83
,, ,, ,, ..	General maintenance throughout	..	11·5
Bena–Korumburra Road ..	Gravel sheeting macadam section throughout	..	3·2
,, ,, ,, ..	General maintenance throughout	..	3·2
Bena Poowong Road ..	Reconstruction crushed rock and bitumen surfacing two sections	..	1·3
,, ,, ,, ..	Gravel surfacing macadam section	..	2·58
,, ,, ,, ..	General maintenance throughout	..	6·01
Fairbank Road	General maintenance throughout	..	5·4
Kongwak–Inverloch Road ..	Gravelling earth section	..	1
,, ,, ...	Gravel surfacing macadam and gravel sections	..	3·8
,, ,, ,, ..	Reconstruction in gravel and crushed rock and bitumen surfacing	..	1·5
,, ,, ...	General maintenance throughout	..	6·3
Korumburra–Drouin Road ..	Reconstruction with crushed rock and bitumen surfacing between existing bitumen surfaced sections	..	1·62
,, ,, ,, ..	General maintenance throughout	..	4·7
Korumburra–Leongatha Road ..	General maintenance	..	4·84
Korumburra–Warragul Road ..	Gravel surfacing Ranceby to Strezleckie	..	6·52
,, ,, ,, ..	Rescaling Adkins' corner to Ranceby	..	3
,, ,, ,, ..	General maintenance throughout	..	13
Korumburra–Wonthaggi Road	Rescaling two sections—on Kongwak Hill and near Kongwak	..	1·42
,, ...	Reconstruction with crushed rock and bitumen surfacing near Kongwak ..	..	1·25
,, ,, ..	General maintenance throughout	..	12·5
Lang Lang–Nyora Road ..	General maintenance throughout	..	1·91
Loch–Wonthaggi Road ..	Gravel surfacing macadam section	..	3·64
,, ,, ,, ..	General maintenance throughout	..	4·64
Loch–Nyora Road	Reconstruction in crushed rock and bitumen surfacing near Loch	..	1
,, ,, ,, ..	General maintenance throughout	..	5
Nyora–Poowong Road ..	Reconstruction in crushed rock and bitumen surfacing Hartnell's towards Nyora	..	1
,, ,, ,, ..	Gravel surfacing macadam section	..	2·53
,, ,, ,, ..	General maintenance throughout	..	6
Poowong–Ranceby Road ..	Reconstruction in crushed rock bitumen surfaced section to Drouin Road ..	..	2·35
,, ,, ,, ..	General maintenance throughout	..	4·15
KOWREE SHIRE—			
Booroopki Road	Forming and gravelling	..	·24
,, ,, ...	Patrol maintenance throughout	..	13
Booroopki–Frances Road ..	Forming and gravelling	·78	·21
,, ,, ,, ..	Forming and grading	·1	..
,, ,, ,, ..	Patrol maintenance throughout	..	18
Edenhope–Goroke Road ..	Forming and gravelling	·9	..
,, ,, ,, ..	Forming and grading	..	·19
,, ,, ,, ..	Scarifying and reshaping gravel road	..	8
,, ,, ,, ..	Patrol maintenance throughout	..	28
Hamilton – Edenhope – Apsley Road	Culverts and gravelling approaches	..	·04
,, ,, ,,	Forming and grading	..	1·4
,, ,, ,,	Scarifying and reshaping gravel road	..	31
,, ,, ,,	Patrol maintenance throughout	..	41
Little Desert Road	Patrol maintenance throughout	..	14
Wombelano Road	Forming and gravelling	..	·35
,, ,, ...	Forming, reforming, grading, &c.	..	5·86
,, ,, ...	Patrol maintenance throughout	..	21
KYNETON SHIRE—			
Redesdale Road	Reforming and gravelling in Parish of Langley	..	1·25
Trentham Road	Reforming and surfacing with crushed rock in parishes of Lauriston, Tylden, and Trentham	..	1·2
Tylden–Woodend Road ..	Reforming and gravelling and crushed rock surfacing at Tylden	..	·35
LAWLOIT SHIRE—			
Broughton Road	Forming and gravelling between 4·86 and 6·39 miles	1·53	..
,, ,, ...	Gravelling between 4·6 and 4·86 miles	..	·26
,, ,, ...	Bitumen rescaling between 0 and ·21 mile	..	·21
,, ,, ...	Patrol maintenance throughout	..	9·9
Little Desert Road	Gravelling between 7·6 and 7·7, 8·4 and 8·5, 10·5 and 10·6, and 10·9 and 11·1 miles	..	·5
,, ,, ,, ...	Patrol maintenance throughout	..	12·1
Nhill–Kaniva–Border Road ..	Patrol maintenance throughout	..	·7
South Lillimur Road	Forming and gravelling between 5·12 and 5·49 miles	..	·37
,, ,, ,, ...	Double coat sealing with bitumen between ·6 and ·7 miles	..	·1
,, ,, ,, ...	Patrol maintenance throughout	..	6·5
Yearinga Road	Metalling with limestone between 9·51 and 9·7 miles	..	·19
,, ,, ...	Resheeting with limestone between 1·5 and 1·72 miles	..	·22
,, ,, ...	Patrol maintenance throughout	..	9·7
LEIGH SHIRE—			
Ballarat–Rokewood Road ..	Patrol maintenance	..	8
Cressy–Inverleigh Road ..	Rescaling 3 miles west from shire boundary	..	3
,, ,, ,, ..	Patrol maintenance	..	11·25
Cressy–Rokewood Road ..	Patrol maintenance	..	11
Inverleigh–Shelford Road ..	Patrol maintenance	.	6
Rokewood–Shelford Road ..	Patrol maintenance	..	17
Shelford–Bannockburn Road ..	Patrol maintenance	..	6·75
Werneth Road	Patrol maintenance	..	3
	Carried forward	33·05	3086·96

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC. *continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	33·05	3086·96
LEIGH AND COLAC SHIRES (Joint Works)—			
Cressy–Inverleigh Road ..	Patrol maintenance	..	2·25
LEXTON SHIRE—			
Avoca–Ararat Road	General maintenance	..	9·7
Avoca–Ballarat Road ..	Scarifying, reshaping, and rolling near Wambra	..	2·1
,, ,, ,, ..	General maintenance	..	14·9
LILLYDALE SHIRE—			
Evelyn–Lilydale Road ..	General maintenance	..	3
Main Healesville Road ..	Reconstruction and sealing at Lilydale	..	·12
Monbulk Road	Widening 12-ft. road to 16 feet, Mt. Evelyn to Silvan	..	2·75
,, ,, ...	Reforming and gravelling Silvan towards Monbulk	..	·79
,, ,, ...	Sealing crushed rock road	..	1·77
Mount Dandenong Road ..	Patrol maintenance	..	11·8
Yarra Glen Road	Sealing crushed rock road	..	1
,, ,, ...	Improving curve, reforming, and gravelling	..	·66
LOWAN SHIRE—			
Dimboola-Kaniva Road ..	Patrol maintenance throughout	..	2·2
Goroke Road	Patrol maintenance throughout	..	6·7
Lorquon West Road	Forming and metalling between Allotments 117 and 148, and Allotment 143A, Parish of Woorak	·45	..
,, ,, ,, ...	Forming and metalling between Allotments 57 and 58, Parish of Balrootan ..	·34	..
,, ,, ,, ...	Forming and metalling between Allotments 7 and 8, Parish of Lorquon	·26	..
,, ,, ,, ...	Patrol maintenance throughout	..	19
Yanac Road	Forming and gravelling between Allotments 21 and 20A, and Allotments 51 and 26, Parish of Yanac	·76	..
,, ,, ...	Forming and gravelling between Allotments 59A and 56, and Allotment 59, Parish of Yanac	·33	..
,, ,, ...	Forming and gravelling between Allotments 25A and 49, Parish of Yanac ..	·47	..
,, ,, ...	Forming and gravelling between Allotments 135 and 137, Parish of Tarranginnie ..	·19	..
,, ,, ...	Patrol maintenance throughout	..	18
MAFFRA SHIRE—			
Boisdale–Briagolong Road ..	Reforming, gravelling, bitumen work, and general maintenance	..	6
Briagolong–Dargo Road ..	Reforming, gravelling, bitumen work, and general maintenance	..	5
Bushy Park–Valencia Creek Road	Reforming, gravelling, and general maintenance	..	5
Licola Road	General maintenance	..	40
Maffra–Newry Road	Reforming, gravelling, bitumen work, and general maintenance	..	7
Maffra–Sale Road	Resealing, road mix seal, and general maintenance	..	7
Stratford–Maffra Road ..	General maintenance	..	3
Tinamba–Boisdale Road ..	Reforming, gravelling, bitumen work, and general maintenance	..	14
Tinamba–Newry Road ..	General maintenance	..	3
Traralgon–Maffra Road ..	Resealing and general maintenance	..	7
MALDON SHIRE—			
Baringhup Road	Patrol maintenance, removal of stone pitching at Baringhup bridge, and forming and gravelling	..	8
Castlemaine–Maldon Road ..	Patrol maintenance	..	10
Maldon–Eddington Road ..	Patrol maintenance	..	16
Newstead Road	Patrol maintenance and construction of crossing and retaining walls at P. Nevill's ..	..	5
MANSFIELD SHIRE			
Benalla–Mansfield Shire ..	General maintenance	..	9·5
Euroa–Merton Road	General maintenance	..	4·4
Maindample–Benalla Road ..	General maintenance	..	5·5
Mansfield Road	Forming, culverts, and gravelling at 10½ miles west of Mansfield	·36	..
,, ,, ...	Forming, culverts, and gravelling at 9 miles west of Mansfield	·38	..
,, ,, ...	New bridge at 3·8 miles west of Mansfield	·07	..
,, ,, ...	General maintenance from Shire boundary at 25 miles west of Mansfield to 17·7 miles east of Mansfield, end of Declared Road	..	42·7
Mansfield–Wood's Point Road ..	General maintenance	..	18·5
Mansfield–Tolmie Road ..	General maintenance	..	5·7
Merton–Strathbogie Road ..	General maintenance	..	6·06
MARONG SHIRE—			
Bendigo–Bridgewater Road ..	Patrol maintenance throughout	..	1·24
Bendigo–Eddington Road ..	Double coat sealing between Kangaroo Flat and Lockwood, section resheeted previous year	..	2·31
,, ,, ,, ..	Patrol maintenance throughout	..	25
Bendigo–Serpentine Road ..	Resheeting with gravel and construction of flood crossing at Woodvale	..	·15
,, ,, ,, ..	Patrol maintenance throughout	..	8·5
MARYBOROUGH BOROUGH—			
Avoca Road	Resealing bitumen surface	..	1·2
Ballarat Road	Resealing bitumen surface	..	1·25
Castlemaine Road	Patrol maintenance	..	1·6
Eddington Road	Resealing bitumen surface	..	1·2
MELTON SHIRE—			
The Gap Road	Patrol maintenance between the Shire of Bulla boundary and the Calder Highway ..	..	·75
Toolern Road	Patrol maintenance between Melton and Toolern	..	6
METCALFE SHIRE—			
Kyneton–Redesdale Road ..	Rebinding existing metalled roadway with gravel at Langley, Barfold, and Redesdale	..	5·75
,, ,, ,, ..	Reconstructing existing metalled roadway with gravel between Langley and Barfold, and at Redesdale	3·25	..
,, ,, ,, ..	Constructing two pipe culverts at Barfold and one at Redesdale	..	..
,, ,, ,, ..	General maintenance between Langley and Redesdale	..	10
MILDURA CITY—			
Deakin Avenue	General maintenance	..	1
Langtree Avenue	General maintenance	..	·42
Punt Road	General maintenance	..	·48
Tenth Street	General maintenance	..	·08
MILDURA SHIRE—			
Deakin Avenue Road ..	Bituminous sealing, &c., from 14th to 15th streets	..	·81
Irymple Road	Bituminous seal coat and repair from Deakin Avenue to Ginquam Avenue ..	..	4·87
Melbourne Road	Bituminous sealing on section of road from Main channel south of Red Cliffs to north railway crossing	..	1
Murray River Valley Road ..	Bitumen penetration coat on limestone metal between Main Avenue, Merbein and Passchendale Avenue, 7·97 to 11 miles	3·03	..
Wentworth Road	Continuation of metalling between the Abbotsford Bridge over the River Murray and Merbein	1·98	..
,, ,, ...	Bitumen repair and resealing between 15th Street and intersection of Cowanna Avenue North with Forest Reserve	..	13·5
MINHAMITE SHIRE—			
Hamilton–Macarthur–Port Fairy Road	Re-alignment and widening embankment on curve at Deep Creek	..	·1
,, ,, ,,	Bitumen resealing on modified macadam section	..	5·3
,, ,, ,,	Patrol maintenance	..	17
Warrnambool–Hawkesdale–Penshurst Road	Resealing with bitumen on modified macadam section	..	5·5
,, ,, ,,	Patrol maintenance	..	22
Woolsthorpe–Bessiebelle Road ..	Construction of nine concrete pipe culverts with necessary formations	..	·2
,, ,, ,, ..	Patrol maintenance	..	29
	Carried forward	44·92	3578·27

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	44·92	3578·27
MIRBOO SHIRE—			
Leongatha–Mirboo Road ..	Patrol maintenance throughout	..	4
Mardan Road	Double coat sealing from Allotment 43, Parish of Mardan	..	1
" " ..	Patrol maintenance throughout	..	5
Mirboo South Road	Resealing from Township to Nichol's Road Junction	..	1
" " "	Double coat sealing sections from Cain's Hill to boundary	..	1·5
" " "	Improvement to curves from Cain's Hill to boundary	..	4
" " "	Reshaping, widening and super-elevating curves and roadways from Cain's Hill to boundary	..	2·5
" " "	Patrol maintenance throughout	..	9·5
Mirboo–Yarragon Road ..	Patrol maintenance throughout	..	6
Morwell–Mirboo Road ..	Double coat sealing from township to Allotment 33A, Parish of Mirboo	..	2
" " "	Patrol maintenance throughout	..	6
MOORABBIN SHIRE—			
Centre Dandenong Road ..	General maintenance throughout	..	2·9
Point Nepean Road	Resealing between Wickham Road and Chesterville Road	..	1·4
" " "	General maintenance throughout	..	3·13
MORDIALLOC CITY—			
Point Nepean Road	Widening from 18 feet to 20 feet in modified macadam with improved transverse grade	..	·25
" " "	Widening from 20 feet to 30 feet with road mix seal coat 30 feet wide ..	..	·35
" " "	Patrol maintenance	..	3
MORNINGTON SHIRE—			
Mornington–Dromana Road ..	Widening metal to 20 feet from Fisherman's Creek to Mount Martha	..	3.25
Point Nepean Road	Widening to 33 feet width of metal; kerb and channelling, Tanti Hill	..	·19
" " "	Improving alignment at corners at end of Main-street, Tyabb Road and Point Nepean Road	..	
MORTLAKE SHIRE—			
Caramut–Lismore Road ..	Resealing 12 feet wide from 5 miles 72 chains to 9 miles 24 chains from Mortlake towards Darlington	..	3·4
" " " ..	Resealing 12 feet wide from 5 miles 50 chains to 6 miles 38 chains from Mortlake towards Hexham	..	·85
" " " ..	Resealing 12 feet wide from 3 miles 65 chains to 5 miles 11 chains from Hexham towards Caramut	..	1·32
" " " ..	Resealing widened portions, two strips 2 feet 6 inches wide from Mortlake to 2 miles 31 chains towards Darlington, and from 0 miles 50 chains to 5 miles 50 chains from Mortlake towards Hexham	..	7·49
Mortlake–Ararat Road ..	Double coat bitumen surfacing from 3 miles 25 chains to 6 miles 25 chains from Woorndoo towards Bolac	..	3
" " " ..	Resealing 12 feet wide, and double coat surfacing on widened portion 4 feet wide in Woorndoo Town	..	·29
" " " ..	Resealing of widened portions, two strips, 2 ft. 6 in. wide between 0 miles 16 chains and 1 mile 35 chains	..	1·11
Mortlake Warrnambool Road ..	Resealing 12 feet wide from 3 miles 10 chains to 7 miles 25 chains, and from 11 miles 5 chains to 12 miles 75 chains	..	6·06
" " " ..	Resealing of widened portions, two strips 2 ft. 6 in. wide from 0 miles 75 chains to 2 miles 18 chains	..	1·29
Terang–Framlingham Road ..	Double coat bitumen surfacing from 9 miles 62 chains to 11 miles 21 chains from Terang	..	1·49
Terang Mortlake Road ..	Resealing average width of 11 feet, and double coat surfacing on widened portions, two strips 2 ft. 6 in. wide from 1 mile 55 chains to boundary at 7 miles 7 chains	..	5·4
" " " ..	Resealing of widened portions, two strips 2 ft. 6 in. wide from 0 miles 17 chains to 1 mile 55 chains	..	1·47
MORWELL SHIRE—			
Jeeralang West Road ..	General maintenance	..	23·5
Jumbuk Road	General maintenance	..	12·5
Morwell–Mirboo Road ..	General maintenance	..	16
Prince's Highway	General maintenance	..	1·5
MOUNT ROUSE SHIRE—			
Ballarat–Hamilton Road ..	Modified macadam surfacing between Dunkeld and Glenthompson	..	1·16
" " " ..	Patrol maintenance throughout	..	21
Hamilton–Dunkeld Road ..	Double coat bitumen surfacing, on scarified and reformed macadam, 1½ mile from Dunkeld	..	·29
" " " ..	Patrol maintenance throughout	..	4
Hamilton–Penshurst Road ..	Modified macadam surfacing between Penshurst and 9 miles	..	·87
" " " ..	Modified macadam surfacing between Penshurst and 4 miles to Port Fairy ..	..	1·14
" " " ..	Resealing with bitumen between Penshurst and 9 miles	..	2·25
" " " ..	Patrol maintenance throughout	..	14
Maroona–Glenthompson Road ..	Patrol maintenance throughout	..	1
Penshurst–Caramut Road ..	Resealing with bitumen, between Penshurst and 7 miles	..	2·17
" " " ..	Double coat bitumen surfacing on waterbound coarse scoria at 7½ miles ..	..	·54
" " " ..	Double coat bitumen surfacing on scarified and reformed macadam, between 11 and 14½ miles	..	2·04
" " " ..	Patrol maintenance throughout	..	15
MULGRAVE SHIRE—			
Ferntree Gully Road	Patrol maintenance and erection of guard fencing between Box Hill Road and the Dandenong Creek	..	5·75
McIVOR SHIRE—			
Heathcote–Elmore Road ..	Scarifying, sheeting, trimming and rolling	..	1·89
" " " ..	General maintenance throughout	..	12
Heathcote–Redesdale Road ..	Scarifying, resheeting, trimming and rolling	..	1·89
" " " ..	Repairing and painting timber bridge over Wild Duck Creek	..	
" " " ..	General maintenance throughout	..	11
Kilmore – Heathcote – Bendigo Road	Scarifying, resheeting, rolling and trimming	..	3·79
" " "	Sealing	..	·66
" " "	General maintenance throughout	..	25
Lancefield–Tooborac Road ..	Scarifying, resheeting, trimming and rolling	..	·66
" " " ..	General maintenance throughout	..	2
Mount Camel Estate Road ..	Resealing	..	·38
" " " " ..	General maintenance throughout	..	3
NARRACAN SHIRE—			
Allambee–Childers Road ..	Patrol maintenance throughout, including benching, widening, and super-elevating three curves	..	8·5
Childers–Thorpdale Road ..	Patrol maintenance throughout	..	1·5
Mirboo–Yarragon Road ..	Patrol maintenance throughout, including benching, widening, and super-elevating eight curves	..	6·5
Moe–Yallourn Road	Sand sheeting and sealing with bitumen	..	2
" " "	Patrol maintenance throughout	..	2
Prince's Highway	Patrol maintenance throughout	..	1·5
Trafalgar–Thorpdale Road ..	Resealing waterbound macadam 12 feet wide	..	1·37
" " " ..	Patrol maintenance throughout	..	9
Walhalla Road "	Patrol maintenance throughout, sand and loam sheeting where necessary ..	..	32
Willowgrove Road	Resealing sealed sand road	..	2
" "	Patrol maintenance throughout, sand and loam sheeting where necessary ..	..	22
Yarragon–Leongatha Road ..	Resealing waterbound macadam road and sand road	..	2
" " " ..	Patrol maintenance throughout	..	9
Yarragon–Shady Creek Road ..	Patrol maintenance throughout, including bridge redecking and sand sheeting where necessary	..	6
	Carried forward	44·92	3958·76

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	44·92	3958·76
NEWHAM AND WOODEND SHIRE—			
Lancefield Road	Reconditioning with gravel and crushed rock	..	·55
,, ,, ...	Patrol maintenance throughout	..	9·25
Mount Macedon Road ..	Reconditioning with crushed rock near Woodend	..	·41
,, ,, ,, ..	Patrol maintenance	..	4·75
Tylden Road	Patrol maintenance throughout	..	3·2
NEWHAM AND WOODEND AND KYNETON SHIRES (Joint Works)—			
Tylden Road	Renewing timber superstructure to Harper's Bridge	..	—
,, ,, ...	Patrol maintenance throughout	..	1·2
NEWSTEAD AND MT. ALEXANDER SHIRE—			
Castlemaine–Daylesford Road ..	Patrol maintenance	..	7
Creswick Road	Patrol maintenance	..	10
Maldon Road	Patrol maintenance	..	4
NUMURKAH SHIRE—			
Echuca–Picola Road	Patrol maintenance	..	6
Nathalia–Picola Road ..	Forming and gravelling westerly from Kinsey's corner	·91	..
,, ,, ,, ..	Patrol maintenance throughout	..	7·8
Numurkah–Nathalia Road ..	Forming and gravelling between Carland and Doherty	..	·95
,, ,, ,, ..	Forming and gravelling	..	·94
,, ,, ,, ..	Forming and gravelling	..	1·31
,, ,, ,, ..	Patrol maintenance throughout	..	15·9
Numurkah–Tungamah Road ..	Patrol maintenance throughout	..	5
Shepparton – Numurkah – Cobram Road	Flanking and resheeting northerly from Wunghnu	..	·85
,, ,, ,,	Forming and gravelling in four sections southerly from Strathmerton	..	1·43
,, ,, ,,	Forming and gravelling in two sections northerly from Allotment 25, Section C, Parish of Strathmerton	1·76	..
,, ,, ,,	Patrol maintenance throughout	..	20·6
OAKLEIGH CITY—			
Ferntree Gully Road	General maintenance throughout, from Prince's Highway to Box Hill Road ..	..	·48
Prince's Highway	General maintenance throughout, from Warrigal Road to Box Hill Road ..	..	1·12
OMEO SHIRE—			
Benambra Road	Construction of bridge over Reedy Creek at Hinnomunjie	..	—
,, ...	General maintenance throughout, Omeo Highway to Benambra	..	13·2
Bright–Omeo Road	Forming	2	..
,, ,, ,, ...	General maintenance from Swift's Creek–Omeo Road junction at Omeo to Mt. Hotham	..	31
Day Avenue	General maintenance and resealing in Omeo Township	..	1·75
Swift's Creek–Omeo Road ..	General maintenance throughout	..	20
ORBOST SHIRE—			
Combienbar Road	General maintenance	..	8·5
Marlo Road	General maintenance	..	10·2
Prince's Highway	General maintenance	..	1·32
OTWAY SHIRE—			
Beech Forest–Apollo Bay Road	Surfacing with shale, 7 miles from Apollo Bay	..	·8
,, ,, ,, ,, ,,	Patrol maintenance at Apollo Bay end	..	7
,, ,, ,, ,, ,,	Patrol maintenance at Beech Forest end	..	7
Colac–Beech Forest Road ..	Sealing at Gellibrand	..	·34
,, ,, ,, ,, ..	Patrol maintenance throughout	..	4
Gellibrand–Carlisle Road ..	Scarifying, reshaping, and sealing at Gellibrand	..	·91
,, ,, ,, ..	Patrol maintenance throughout	..	11
OXLEY SHIRE—			
Bright Road	Forming, gravelling, &c., Whorouly East, at Roche's	·45	..
,, ,, ...	Forming, gravelling, &c., Whorouly South, at Pyke's	·5	..
,, ,, ...	General maintenance, scarifying with power grader, gravelling, &c.	..	25
Greta–Glenrowan Road ..	Forming, gravelling, &c., near Greta West State school	·5	..
,, ,, ,, ..	General maintenance, re-aligning, widening, regrading, and gravelling	..	6·5
Kelfeera Road	General maintenance, pipe culverts, gravelling, &c.	..	2
Wangaratta–Whitfield Road ..	Sealing near Wangaratta Borough boundary	..	1
,, ,, ,, ..	General maintenance, improvements at Moyhu, Docker, and Edi, reshaping, widening, &c.	..	28·5
PHILLIP ISLAND SHIRE—			
Newhaven Road	General maintenance	..	7·75
Phillip Island Road	General maintenance	..	2·5
Ventnor Road	General maintenance	..	4·5
PORT FAIRY BOROUGH—			
Hamilton Road	General maintenance	..	1·4
Prince's Highway—Portland ..	General maintenance	..	1·56
Prince's Highway—Warrnambool	General maintenance	..	2·6
PORTLAND SHIRE—			
Portland–Casterton Road ..	Gravel sheeting south of Digby	..	2
Portland–Hamilton Road ..	Patrol maintenance, Heywood to Branxholme	..	25
PRESTON CITY—			
Whittlesea Road	Widening of roadway from 18 feet to 22 feet on east side, between Tyler Street and the Darebin Creek	..	·75
PYALONG SHIRE—			
Kilmore – Heathcote – Bendigo Road	Patrol maintenance	..	11·34
Lancefield–Tooborac Road ..	Pipe culvert and embankment, creamery corner Emu Flat	..	·07
,, ,, ..	Patrol maintenance	..	10·8
PYALONG AND MCIVOR SHIRES (Joint Works)—			
Lancefield–Tooborac Road ..	Patrol maintenance	..	2·04
QUEENSCLIFFE BOROUGH—			
Geelong Road	General maintenance throughout	..	3·5
Point Lonsdale Road ..	General maintenance throughout	..	1·2
RINGWOOD BOROUGH—			
Main Healesville Road ..	Resurfacing with crushed rock and widening to 21 feet	..	1
,, ,, ,, ..	General maintenance	..	3·24
Mount Dandenong Road ..	Resealing	..	1
,, ,, ,, ..	Straightening and widening	..	·12
,, ,, ,, ..	General maintenance and shouldering	..	1·75
Ringwood–Warrandyte Road ..	Shouldering	..	·44
,, ,, ,, ..	General maintenance	..	1
	Carried forward	51·04	4399·08

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works. Constructed.	Reconstruction and Maintenance Works. Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	51·04	4399·08
RIPON SHIRE—			
Ballarat–Ararat Road ..	General maintenance	..	1·4
Ballarat–Hamilton Road ..	Bitumen resealing 0 to ·79, 10·28 to 11·41, and approximately 9·35 to 9·42 miles	..	1·99
,, ,, ,, ..	Roadmix resealing 3·16 to 4·32 miles	..	1·16
,, ,, ,, ..	Double coat sealing ·79 to 1·77 miles	..	·98
,, ,, ,, ..	Reconstruction and binding with scoria 5·24 to 7·24 miles	..	2
,, ,, ,, ..	Binding with scoria 1·77 to 3·16 miles	..	1·39
,, ,, ,, ..	Patrol maintenance throughout	..	16·26
Skipton Road	Bitumen resealing 1·02 to 2·74, 6·66 to 6·91, 7·32 to 8·04, and 17·51 to 18·68 miles	..	3·86
,, ,, ...	Reconstruction and binding with scoria 12·53 to 14·07, 14·45 to 15·87, and 17·18 to 17·51 miles	..	3·29
,, ,, ...	Binding with scoria 5·36 to 6·15 miles	..	·79
,, ,, ...	Patrol maintenance throughout	..	18·68
ROCHESTER SHIRE—			
Corop Road	Gravelling west of Allotment 107, Parish of Nanneella	·54	..
,, ,, ...	General maintenance	..	4·5
Rochester – Bamawm – Prairie Road	Gravelling from Allotment 18 to Allotment 1, Parish of Milloo	3·87	..
,, ,, ,,	General maintenance	..	17·5
RODNEY SHIRE—			
Kyabram–Tongala Road ..	Patrol maintenance throughout	..	1
Kyabram–Nathalia Road ..	Patrol maintenance throughout	..	1
Mooroopna–Undera Road ..	Bitumen resealing in Mooroopna	..	·37
,, ,, ,, ..	Patrol maintenance throughout	..	8
Shepparton–Tatura Road ..	Bitumen resealing through Langdon's Swamp	..	·95
,, ,, ,, ..	Modified macadam reconstruction west of Langdon's Swamp	..	·45
,, ,, ,, ..	Modified macadam reconstruction north of Tatura	..	·68
,, ,, ,, ..	Patrol maintenance throughout	..	10
Tatura – Byrneside – Kyabram Road	Scarifying and spraying from Lilford's to Lancaster	..	1·68
,, ,, ,,	Bitumen resealing Pitt's to Lilford's	..	1·32
,, ,, ,,	Erecting guard posts near Shire Dam at Byrneside	..	·37
,, ,, ,,	Patrol maintenance throughout	..	16·5
Tatura–Murchison Road ..	Modified macadam reconstruction south of Tatura	..	·71
,, ,, ,, ..	Scarifying and spraying north of Murchison	..	1·89
,, ,, ,, ..	Patrol maintenance throughout	..	13
RODNEY SHIRE AND SHEPPARTON BOROUGH (Joint Works)—			
Shepparton–Tatura Road ..	Bitumen resealing three timber bridges	..	·18
,, ,, ,, ..	Patrol maintenance throughout	..	1·8
ROMSEY SHIRE—			
Lancefield–Kilmore Road ..	Construction of ten culverts and reconditioning with gravel at Springfield ..	..	·53
,, ,, ,, ..	Patrol maintenance	..	9·71
Lancefield–Tooborac Road ..	Patrol maintenance	..	4·31
Melbourne–Lancefield Road ..	Reconditioning with gravel at Lancefield and Bolinda	..	2·64
,, ,, ,, ..	Scaling at Clarkefield	..	3·45
,, ,, ,, ..	Patrol maintenance	..	15·85
Woodend–Lancefield Road ..	Patrol maintenance	..	5·62
ROSEDALE SHIRE—			
Carrajung Gormandale Road ..	Patrol maintenance throughout	..	·75
Seaspray Road	Patrol maintenance throughout, and pipe culverts	..	15·75
Traralgon–Gormandale Road ..	Patrol maintenance throughout	..	4·53
Prince's Highway	General maintenance of bitumen surface through Rosedale Township	..	·91
Traralgon–Maffra Road ..	Double coat bitumen sealing between Heyfield and Cowwarr and through Cowwarr Township	..	1·87
,, ,, ,, ..	Sheeting with gravel near Latrobe River east side of Scarne P.R., Parish of Toongabbie South	..	1·33
,, ,, ,, ..	Patrol maintenance throughout	..	21
Willung Road	Patrol maintenance throughout	..	8
RUTHERGLEN SHIRE—			
Barnawartha–Howlong Road ..	General maintenance throughout	..	1·59
Chiltern–Howlong Road ..	Forming and gravelling between Chiltern Shire boundary and Howlong Flats embankment	2·79	..
,, ,, ,, ..	General maintenance from junction of Barnawartha–Howlong Road to the Murray River	..	2·15
Murray Valley Road	Resheeting with gravel, western end of road	..	·34
,, ,, ,, ...	Bitumen resealing, Main-street, Rutherglen	..	·21
,, ,, ,, ...	General maintenance throughout	..	·79
Rutherglen–Wahgunyah Road	General maintenance throughout	..	5·9
SALE TOWN—			
Prince's Highway	General maintenance of bitumen surfaced road from Wurreek Bridge to Sale Post Office	..	1
Sale–Longford Road	General maintenance of bitumen surfaced road from Sale Post Office to Swing Bridge	..	3
SEBASTOPOL BOROUGH—			
Ballarat–Hamilton Road ..	Patrol maintenance throughout	..	·84
Ballarat–Rokewood Road ..	Resealing southern portion of road 1·85 to 2·35 miles	..	·5
,, ,, ,, ..	Patrol maintenance throughout	..	2·35
SEYMOUR SHIRE—			
Avenel–Longwood Road ..	General maintenance throughout	..	5·5
Goulburn Valley Road ..	Forming, grading, gravelling and concrete culvert near McNally's	·66	..
Highlands Road	Patrol maintenance	..	16
Seymour–Yea Road	General maintenance, widening sections	..	7
Upper Goulburn Road ..	Patrol maintenance	..	11·4
SHEPPARTON BOROUGH—			
Shepparton–Nagambie Road ..	Resealing north of railway line	..	·25
,, ,, ,, ..	Resealing north of High-street to Stewart-street	..	·06
,, ,, ,, ..	Patrol maintenance	..	1·35
Shepparton–Nalinga Road ..	Resealing from Wyndham-street to railway line	..	·44
,, ,, ,, ..	Patrol maintenance	..	·5
Shepparton–Mooroopna Road ..	Patrol maintenance	..	·08
Shepparton–Numurkah Road ..	Resealing from Stewart Street to 15 chains north of Nixon Street	..	·31
Shepparton–Tatura Road ..	Patrol maintenance	..	·11
SHEPPARTON SHIRE—			
Dookie–Nalinga Road ..	General maintenance	..	8
Katandra Road	General maintenance	..	9
Pine Lodge Road	Resealing bitumen easterly from Borough boundary	..	·89
,, ,, ,, ...	Scarifying, reshaping and surfacing with bitumen near High School Farm ..	..	·93
,, ,, ,, ...	General maintenance	..	4
Shepparton–Nagambie Road ..	Surfacing over deck of Seven Creeks bridge	..	·06
,, ,, ,, ..	General maintenance	..	8
Shepparton–Nalinga Road ..	General maintenance	..	·25
Shepparton–Numurkah Road ..	Resealing bitumen north from Borough boundary	..	2·15
,, ,, ,, ..	Scarifying, reshaping and surfacing with bitumen North Shepparton to Congupna	..	2·77
,, ,, ,, ..	General maintenance	..	12
	Carried forward	58·9	4738·75

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	58·9	4738·75
SOUTH BARWON SHIRE—			
Barwon Heads Road	Widening existing bitumen road from 12 feet to 16 feet in modified macadam, and super-elevating three curves, from the 6-mile post to the 10-mile post	..	4·12
,, ,, ,, ...	Reconstruction from Charlemont Corner in modified macadam between 4 and 5 mile posts	..	·25
,, ,, ,, ...	Resealing from Boundary Road towards Charlemont Corner	..	·25
,, ,, ,, ...	General maintenance from Belmont to Barwon Heads	..	12
Prince's Highway	General maintenance from Barwon Bridge to Settlement Road	..	1·25
Torquay Road	Reconstruction with scoria base course and crushed rock top course from Grovedale railway gates to Boundary Road	..	·5
,, ,, ...	General maintenance	..	3
SOUTH BARWON AND BARRABOOL SHIRES (Joint Works)—			
Torquay Road	Resealing from Anderson Street end of road towards Geelong	..	1
,, ,, ...	Resealing from Boundary Road, 4-mile post, towards Torquay	..	1·25
,, ,, ...	Reconstruction in scoria, priming and sealing, from 7 to 8 mile posts	..	1
,, ,, ...	General maintenance	..	8·5
SOUTH GIPPSLAND SHIRE—			
Albert River–Welshpool Road ..	Patrol maintenance throughout	..	1·7
Boolarra–Foster Road ..	Bitumen sealing 2 to 3·81 miles	..	1·81
,, ,, ,, ..	Resealing 0 to ·93 miles	..	·93
,, ,, ,, ..	Patrol maintenance throughout	..	16
Boolarra–Welshpool Road ..	Patrol maintenance throughout	..	11·8
Falls Road	Patrol maintenance throughout	..	5
Foster–Yarram Road ..	Bitumen sealing between Agnes and Welshpool	..	3·17
,, ,, Road	Patrol maintenance throughout	..	18
Hazel Park Road	Patrol maintenance throughout	..	4·89
Main South Gippsland Road ..	Bitumen sealing 1·84 to 3·97 miles and 12·09 to 13·5 miles	..	3·54
,, ,, ,, ,, ..	Resealing 13·5 to 14 miles	..	·5
,, ,, ,, ,, ..	Patrol maintenance throughout	..	13·27
Stony Creek–Dollar Road ..	Patrol maintenance throughout	..	9·1
Toora–Gunyah Road ..	Patrol maintenance throughout	..	15·9
Toora–Wonyip Road	Patrol maintenance throughout	..	5
Turton's Creek Road	Patrol maintenance throughout	..	5
SOUTH GIPPSLAND AND WOORAYL SHIRES (Joint Works)—			
Main South Gippsland Road ..	Bitumen sealing 0 to ·73 mile	..	·73
,, ,, ,, ,, ..	Patrol maintenance throughout	..	·73
ST. ARNAUD BOROUGH—			
Avoca–St. Arnaud Road ..	Patrol maintenance throughout	..	1·6
Charlton Road	Patrol maintenance throughout	..	1·5
Navarre Road	Patrol maintenance throughout	..	1
St. Arnaud–Donald Road ..	Patrol maintenance throughout	..	2·5
STAWELL BOROUGH—			
Ararat–Stawell Road	General maintenance	..	1
Glenorchy Road	General maintenance	..	1
Stawell–Grampians Road ..	General maintenance	..	·5
STAWELL SHIRE—			
Landsborough Road	General maintenance	..	5·5
Marnoo Road	Construction in gravel at Richardson River	·23	..
,, ,, ...	Resheeting near Marnoo	..	·45
,, ,, ...	Gravelling north of Marnoo near Shire boundary	1·02	..
,, ,, ...	General maintenance	..	30
Marnoo–Rupanyup Road ..	General maintenance	..	3·5
Navarre Road	Forming and gravelling near Navarre	·12	..
,, ,, ...	General maintenance	..	20
Stawell – Glenorchy – Horsham Road	Construction of bridge and gravelling at Brim Creek	·06	..
,, ,, ,,	Forming and gravelling north-west of Glenorchy	..	2·14
,, ,, ,,	Forming and gravelling at Wimmera River at Glenorchy	·08	..
,, ,, ,,	General maintenance	..	25
Stawell–Grampians Road ..	Forming and gravelling near Illawarra Watercourse	·12	..
,, ,, ,, ..	Sealing near Hall's Gap	..	·6
,, ,, ,, ..	General maintenance	..	20
Stawell–Warracknabeal Road ..	Priming and sealing with bitumen	..	4·1
,, ,, ,, ..	General maintenance	..	7
STRATHFIELDSAYE SHIRE—			
Heathcote–Bendigo Road ..	Reshaping and sheeting with gravel	..	2·93
,, ,, ,, ..	Patrol maintenance throughout	..	13
,, ,, ,, ..	Priming and sealing gravel road with cold tar and bitumen	..	·38
Mandurang Road	Reshaping and sheeting with gravel	..	5·95
,, ,, ...	Patrol maintenance	..	8
Strathfieldsaye Road	Priming and sealing gravel road with cold tar and bitumen	..	·38
,, ,, ...	Reshaping and sheeting with gravel	..	2·25
,, ,, ...	Patrol maintenance throughout	..	9
SWAN HILL SHIRE—			
Annuello–Wemen Road ..	Forming and metalling	..	·79
,, ,, ,, ..	Patrol maintenance between Annuello and Mosquito tank only	..	7
Euston Road	Resealing throughout	..	1·08
,, ,, ...	Patrol maintenance throughout	..	1·08
Nyah–Ouyen Road	Patrol maintenance between Nyah West and Chinkapook only	..	24
Piangil Station Road ..	Patrol maintenance throughout	..	1·5
Swan Hill Road	Road mix seal throughout	..	1·27
,, ,, ,, ...	Widening pavement	..	·59
,, ,, ,, ...	Patrol maintenance throughout	..	1·27
Ultima Road	Grubbing	..	8
,, ,, ...	Reshaping limestone	..	·52
,, ,, ...	Forming and limestone metalling	..	·43
,, ,, ...	Resealing	..	·56
,, ,, ...	Patrol maintenance throughout	..	20
Ultima–Sea Lake Road ..	Grubbing	..	18
,, ,, ,, ..	Forming and metalling at Lalbert Creek	..	·94
,, ,, ,, ..	Patrol maintenance throughout	..	19
TALBOT SHIRE—			
Maryborough–Avoca Road ..	General maintenance throughout	..	·8
Maryborough–Ballarat Road ..	Scarifying and reshaping near Daisy Hill	..	2·2
,, ,, ,, ..	Scarifying and reshaping south from Talbot Township	..	1·25
,, ,, ,, ..	Scarifying and reshaping north from Clunes Borough	..	1·42
,, ,, ,, ..	General maintenance over balance of road	..	12·03
TAMBO SHIRE—			
Bairnsdale–Bruthen Road ..	General maintenance throughout	..	·6
Basin Road	General maintenance throughout	..	10·2
Bruthen–Omeo Road ..	General maintenance throughout	..	·8
Mossiface Road	General maintenance throughout	..	2
Nowa Nowa–Buchan–Gelantipy Road	General maintenance throughout	..	33
	Carried forward	60·56	5228·55

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works. Constructed.	Reconstruction and Maintenance Works. Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	60·56	5228·55
TOWONG SHIRE—			
Murray Valley Road	Reforming, gravelling and culverts, north of Allotments 8 and 28, Section D, Parish of Talgarno	..	·81
,, ,, ,, ...	Patrol maintenance	..	20·3
Omeo Road	Resealing floodway and Main Street, Tallangatta	..	·63
,, ,, ...	Patrol maintenance	..	1·36
TRARALGON SHIRE—			
Prince's Highway	Patrol maintenance throughout	..	1·1
Traralgon-Balook Road ..	Patrol maintenance throughout	..	12·25
Traralgon Creek Road ..	Widening pavement from 12 to 16 feet	..	2
,, ,, ,, ..	Patrol maintenance throughout	..	16
Traralgon-Gormandale Road ..	Patrol maintenance throughout	..	6·9
Traralgon Maffra Road ..	Two timber bridges, each 129 feet over all	·05	..
,, ,, ,, ..	Forming and gravelling	·29	..
,, ,, ,, ..	Patrol maintenance throughout	..	3
Tyers Road	Forming and gravelling, and patrol maintenance throughout	..	7·75
TULLAROOP SHIRE—			
Avoca Road	Double coat sealing	..	1·75
,, ,, ...	Patrol maintenance	..	7·45
Ballarat Road	Double coat sealing	..	3·1
Castlemaine–Maryborough Road	Patrol maintenance	..	14
Dunolly Road	Reconditioning	..	1
Dunolly–Eddington Road ..	Patrol maintenance	..	12·3
Maryborough–Dunolly Road ..	Reconditioning	..	3·25
Nattie Yallock Road	Patrol maintenance	..	7·25
TUNGAMAH SHIRE—			
Cobram–Katamatite Road ..	Patrol maintenance, Parish of Katamatite	..	1·02
Cobram South Road	Reforming and gravelling	3	..
,, ,, ,, ...	Patrol maintenance between Parishes of Cobram and Yarroweyah	..	4·36
Katandra Road	Forming and gravelling, Parishes of Yabba and Katandra	3·3	..
,, ,, ...	Patrol maintenance	..	9·47
Nunurkah Tungamah - Wilby Road	Reforming and gravelling between Parishes of Dunbulbalane and Naringaningalook, two sections, ·9 and ·7 miles respectively	1·6	..
,, ,, ,,	Forming, reforming and gravelling in the Parishes of Youanmite and Katamatite ..	3·1	..
,, ,, ,,	Patrol maintenance throughout	..	30·7
St. James Road	Patrol maintenance, Parishes of Waggarandall, St. James and Karrabumet ..	..	8·98
Yarrawonga-Cobram Road ..	Forming and gravelling	·2	..
,, ,, ,, ..	Patrol maintenance, township of Cobram	..	1·68
UPPER MURRAY SHIRE—			
Corryong Road	Forming, grading, gravelling and pipe culvert through Allotment A, Section 7, Parish of Towong	·09	..
,, ,, ...	Forming, grading and pipe culverts north-west of Allotment 2, Section Z, and west of Allotment 2, Section Y, Parish of Colac Colac	·41	..
,, ,, ...	Bitumen resealing Town of Corryong	..	·23
,, ,, ...	Bitumen resealing near Colac Colac	..	·32
,, ,, ...	Patrol maintenance throughout	..	13
Tintaldra Road	Reforming and surfacing through township of Cudgewa	..	·63
,, ,, ...	Reinforced concrete pipe culvert south-east of Allotment 2B, Section IX., Parish of Cudgewa	..	..
,, ,, ...	Duplication of reinforced concrete pipe culvert, Township of Tintaldra	..	..
,, ,, ...	Patrol maintenance throughout	..	14·25
UPPER YARRA SHIRE—			
Don Road	General maintenance throughout	..	1·15
Little Yarra Road	Resealing at Black Sands	..	·7
,, ,, ,, ...	Sealing between Black Sands and Three Bridges	..	1·17
,, ,, ,, ...	General maintenance throughout	..	10·2
Warburton Road	General maintenance throughout	..	16
VIOLET TOWN SHIRE—			
Murchison-Violet Town Road ..	Forming and gravelling from Allotment 11B, Parish of Mogionemby, to Mullen's Creek	2	..
,, ,, ,, ..	Patrol maintenance	..	6·6
Violet Town-Dookie Road ..	Grubbing, clearing, forming, &c., near Allotment 1C, Parish of Gowangardie ..	·5	..
,, ,, ,, ..	Patrol maintenance	..	16·35
WANGARATTA SHIRE—			
Beechworth Road	Patrol maintenance throughout	..	11
Peechelba Road	Patrol maintenance throughout	..	1·5
Wangaratta–Myrtleford Road ..	Patrol maintenance throughout	..	6·5
Yarrawonga Road	Patrol maintenance from Borough of Wangaratta Boundary towards Yarrawonga	..	6·75
WANGARATTA AND BEECHWORTH SHIRES (Joint Works)—			
Beechworth Road	Patrol maintenance throughout	..	1
WALPEUP SHIRE—			
Mildura Road	Scarifying, reshaping and resheeting section through Ouyen Township	..	·1
Ouyen-Pinnaroo Road ..	Reforming and sheeting limestone 2 miles east of Underbool	..	·2
,, ,, ,, ..	Reforming and sheeting limestone west of Cowangie	..	·9
,, ,, ,, ..	Reforming and sheeting limestone east side of Galah Township	..	·11
,, ,, ,, ..	Reforming and sheeting limestone west side of Galah Township	..	·12
,, ,, ,, ..	Reforming and sheeting 1·2 miles west of Galah	..	·2
,, ,, ,, ..	Scarifying, reshaping and sheeting limestone from Mildura Road to 4 miles west, in sections	..	2·5
,, ,, ,, ..	Reforming and sheeting section 30 chains east of Linga Township	..	·11
,, ,, ,, ..	Reforming and sheeting section from west end of Tutye Township	..	·12
,, ,, ,, ..	Reforming and sheeting section 1 mile west of Cowangie, thence westerly ..	..	·06
,, ,, ,, ..	Reforming and sheeting section at Panitya Reserve	..	·1
,, ,, ,, ..	Reforming section at Panitya Reserve	..	·04
,, ,, ,, ..	Reforming and sheeting section at Danyo Reserve	..	·26
,, ,, ,, ..	Reforming and sheeting section east of Murrayville	..	·38
,, ,, ,, ..	Reforming and sheeting section west of Murrayville	..	·41
,, ,, ,, ..	Reforming and sheeting section east of Murrayville	..	·18
,, ,, ,, ..	General maintenance throughout	..	81·57
WANGARATTA BOROUGH—			
Beechworth Road	Patrol maintenance throughout	..	1
Sydney Road	Patrol maintenance throughout	..	5·5
WANNON SHIRE—			
Coleraine–Harrow–Apsley Road	Gravel sheeting 12 feet wide	..	3·63
,, ,, ,,	Double coat bitumen surfacing W. Barnes's to 3-mile peg	..	1·57
,, ,, ,,	General maintenance throughout	..	35
Hamilton – Coleraine – Casterton Road	Bitumen resealing 2 to 4 miles	..	1·16
,, ,, ,,	Double coat bitumen surfacing 4 to 6 miles and railway crossing to boundary ..	..	8·2
,, ,, ,,	Painting timber bridge over Koroit Creek, Coleraine	..	—
,, ,, ,,	Timber bridge 210 feet long by 23 feet wide over Koroit Creek, Coleraine Township	·04	..
,, ,, ,,	Resheeting with gravel 12 feet wide	..	5·27
,, ,, ,,	General maintenance throughout	..	16
Wannon Bridge Road ..	Gravel sheeting 12 feet wide	..	1·05
,, ,, ,, ..	Double coat bitumen surfacing	..	1·42
,, ,, ,, ..	General maintenance throughout	..	6
	Carried forward	75·14	5687·53

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	75·14	5687·53
WANNON AND GLENELG SHIRES (Joint Works)—			
Hamilton – Coleraine – Casterton Road	General maintenance	..	3
WANNON AND KOWREE SHIRES (Joint Works)—			
Coleraine–Harrow–Apsley Road	Repairs to Glenelg River Bridge	..	—
WARANGA SHIRE—			
Colbinabbin–Moora Road ..	General maintenance between Colbinabbin East and Moora	..	7·75
Elmore–Colbinabbin Road ..	Gravelling 3 miles west of Colbinabbin East, at timber reserve	..	·85
,, ,, ,, ..	General maintenance between Colbinabbin East and "Six Roads" Corner ..	..	11
Heathcote–Elmore Road ..	Gravelling at Runnymede	..	·52
,, ,, ,, ..	General maintenance between Elmore and Shire boundary, 3 miles south of Toolleen	..	19
Murchison–Rushworth Road ..	General maintenance from Murchison to Moora	..	16·5
Rushworth–Stanhope Road ..	General maintenance from Rushworth to Shire boundary, 1½ mile north of Stanhope	..	11·5
Tatura Road	General maintenance from Murchison to Shire boundary, 1½ mile north of Township	..	1·25
WARRAGUL SHIRE—			
Bloomfield Road	Regrading and sheeting with crushed rock 5-in. depth and sealing with bitumen ..	..	·2
,, ,, ...	Rescaling with bitumen	..	1
,, ,, ...	Patrol maintenance throughout	..	8
Brandy Creek Road	Regrading and sheeting with crushed rock 5 inches depth and sealing with bitumen	..	1
,, ,, ,, ..	Patrol maintenance throughout	..	8·2
Darnum–Allambee Road ..	Reshaping and sealing with bitumen	..	1
,, ,, ,, ..	Rescaling with bitumen	..	3
,, ,, ,, ..	Patrol maintenance throughout	..	8
Prince's Highway	Rescaling	..	1
,, ,, ...	Patrol maintenance	..	1·05
Warragul–Korumburra Road ..	Rescaling, super-elevating and widening curves to improve alignment	..	4
,, ,, ,, ..	Patrol maintenance throughout	..	15·5
Warragul–Leongatha Road ..	Patrol maintenance throughout, super-elevating and widening curves to improve alignment	..	5
WARRNAMBOOL SHIRE—			
Allansford–Nirranda Road ..	Rescaling and blinding from Junction Hotel corner to Mepunga East depot ..	..	3
Caramut–Lismore Road ..	Rescaling and blinding throughout	..	5·75
Framlingham Road	Resheeting with metal commencing just south of Craggie Burn and continuing northward to Shire boundary	..	1·54
,, ,, ...	Double coat bitumen spraying, commencing 5½ chains north of north-eastern corner of Allotment 60B2, Parish of Garvoc, and continuing northward to the Craggie Burn	..	1·02
Garvoc–Laang Road	Surfacing with metal and screenings and priming and sealing with bitumen from north-eastern corner of Allotment 27A, to south-east corner of Allotment 34, Parish of Laang	..	·88
Mortlake Road	Widening metalled portion to 18 feet from Spring Flat Junction to Sawpit Gully ..	..	·62
,, ,, ...	Rescaling with bitumen from Russell's Creek to Spring Flat Junction	..	3·25
Peterborough Road	Gravelling 13 feet wide, 6 inches deep, near Peterborough township and through Allotments 72 and 71, Parish of Narrawaturk	1·47	..
,, ,, ...	Double coat bitumen spraying southerly from Retallick's Corner	..	3·25
Timboon–Nirranda Road ..	Priming and sealing from Duck's Corner to Shire boundary	..	3·25
WERRIBEE SHIRE—			
Geelong–Bacchus Marsh Road ..	General maintenance throughout	..	2·85
WHITTLESEA SHIRE—			
Epping Road	General maintenance, top dressing with bitumen	..	10
Main Whittlesea Road ..	General maintenance, road mix sealing, top-dressing with bitumen	..	14·5
Wallan Road	General maintenance, including gravelling	..	6
Whittlesea–Kinglake Road ..	Patrol maintenance, top-dressing with bitumen	..	4·5
WIMMERA SHIRE—			
Dooen Road	Modified macadam surfacing at Allotment 60, Parish of Dooen, 2·31 to 3·1 miles	..	·79
,, ,, ...	Rescaling east of Allotments 9, 23, 24, 20 and 21, Parish of Dooen, ·86 to 2·31 miles	..	1·45
,, ,, ...	General maintenance throughout	..	3·1
Horsham–Murtoa Road ..	Loaming and gravelling from Dooen School to Yarriambiack Creek	..	6·72
,, ,, ,, ..	Patrol maintenance throughout	..	8·4
Horsham–Wal Wal Road ..	Loaming south of Allotments 44A and 45A, Parish of Golton, 3·65 to 4·28 miles ..	..	·63
,, ,, ,, ..	Sheeting with gravel, 2 inches, south of Allotments 30, 31, 34 and 35, Parish of Drung, 2·13 to 3·65 miles	..	1·53
,, ,, ,, ..	Patrol maintenance throughout	..	8
,, ,, ,, ..	Part redecking Mt. William Creek bridge	..	—
Natimuk Road	Resheeting south of Allotments 18 and 18A, Parish of Quantong, 8·65 to 9·4 miles	..	·75
,, ,, ...	Resheeting south of Allotments 227, 228, 229, 232 and 233, Parish of Vectis East, 4·5 to 7·5 miles	..	3
,, ,, ...	Patrol maintenance throughout	..	9·4
WIMMERA AND ARAPILES SHIRES (Joint Works)—			
Horsham–Hamilton Road ..	Filling, scarifying, reshaping, rolling and blinding between Horsham Town and McKenzie Creek	..	3·1
,, ,, ,, ..	General maintenance throughout	..	3·1
WINCHELSEA SHIRE—			
Birregurra Road	Sheeting with fine crushed rock from Hallett's Corner to Darcy's Corner ..	..	1·12
,, ,, ...	General maintenance throughout balance of road	..	2·72
Birregurra–Dean Marsh Road ..	Gravelling on top of Brien's Hill, Allotment 60A, Parish of Whoorel	..	·15
,, ,, ,, ..	Gravelling south of Allotments 66B and 64B, Parish of Whoorel	..	·39
,, ,, ,, ..	Sheeting and surfacing with gravel near Pennyroyal Creek, including new curve ..	..	·62
,, ,, ,, ..	General maintenance throughout balance of road	..	6·34
Birregurra–Forrest Road ..	Surfacing with bitumen near Barwon Downs	..	·47
,, ,, ,, ..	General maintenance throughout balance of road	..	9·53
,, ,, ,, ..	Gravelling bad sections between "Wine Shop" corner and railway crossing, Parish of Murroon	·27	..
,, ,, ,, ..	Regrading and gravelling at Section Hill, Parish of Murroon	·42	..
,, ,, ,, ..	Regrading and gravelling near Fairholm School, Parishes of Whoorel and Murroon	·5	..
WINCHELSEA AND COLAC SHIRES (Joint Works)—			
Birregurra Road	Sheeting with gravel from Birregurra railway station to Hallett's Corner ..	..	·75
,, ,, ...	Deviation through Hallett's Corner	..	·16
WODONGA SHIRE—			
Sydney Road	Sealing chainage 0 to 1·2 mile	..	1·2
Tallangatta Road	Sealing chainage 0 to 0·9 mile	..	·9
Wodonga–Yackandandah Road	Forming of floodway, gravelling and culverts at chainage ·91 mile over Middle Creek	·11	..
,, ,, ,,	Tar priming and bitumen sealing over gravelled floodway over Middle Creek ..	..	·11
WONTHAGGI BOROUGH—			
Korumburra–Wonthaggi Road	Resurfacing in burnt stone modified macadam from Loch Road junction to Borough boundary	..	·76
Loch–Wonthaggi Road ..	Patrol maintenance throughout	..	·84
Wonthaggi–Inverloch Road ..	Patrol maintenance throughout	..	2·3
	Carried forward	77·91	5954·09

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	77·91	5954·09
WOORAYL SHIRE—			
Fairbank Road	General maintenance throughout	..	2·08
Farmer's Road	Grubbing, clearing, forming, grading and sanding through Goldsmith's	·56	..
,, ,, ...	General maintenance throughout	..	13·5
Inverloch–Leongatha Road ..	General maintenance throughout	..	16
Inverloch–Wonthaggi Road ..	General maintenance throughout	..	2·5
Kongwak–Inverloch Road ..	General maintenance throughout	..	2·16
Leongatha–Mirboo Road ..	General maintenance throughout	..	6·8
Leongatha–Yarragon Road ..	General maintenance throughout	..	13
Lower Tarwin Road	General maintenance throughout	..	11·75
Main South Gippsland Road ..	General maintenance throughout	..	17
Mardan Road	General maintenance throughout	..	10
Turton's Creek Road	General maintenance throughout	..	6·75
Wild Dog Valley Road ..	General maintenance throughout	..	9
WYCHEPROOF SHIRE—			
Birchip–Sea Lake Road ..	Forming, boxing and limestoning in sections southwards from Sea Lake ..	1·18	·74
,, ,, ,, ..	Patrol maintenance throughout	..	17
Birchip–Wycheproof Road ..	Forming, boxing, limestoning and gravelling 10 miles west of Wycheproof ..	3·25	..
,, ,, ,, ..	Forming and grading	..	1·69
,, ,, ,, ..	Patrol maintenance throughout	..	17
Corack Road	Patrol maintenance throughout	..	2
Sea Lake–Ultima Road ..	Forming, boxing and limestoning in sections throughout	1·05	1·1
,, ,, ,, ..	Patrol maintenance throughout	..	6
Woomelang–Sea Lake Road ..	Forming, boxing and limestoning in sections	2·37	·57
,, ,, ,, ..	Patrol maintenance throughout	..	10
Wycheproof–Sea Lake Road ..	Patrol maintenance throughout	..	1
YACKANDANDAH SHIRE			
Dederang Road	Patrol maintenance, placing pipe culverts	..	28
Gundowring Road	Construction 10-ft. x 10-ft. reinforced concrete box culvert and approaches near Allotment 8, Section M, Parish of Gundowring	·02	..
,, ,, ...	Patrol maintenance, placing pipe culverts	..	20·08
Kergunyah South Road ..	Construction near Allotment 5, Section 1 and Allotment 3, Section J, Parish of Kergunyah	·35	..
,, ,, ,, ..	Patrol maintenance, placing pipe culverts	..	10·85
Kiewa East Road	Patrol maintenance, placing pipe culverts	..	3·2
Kiewa–Wodonga Road ..	Patrol maintenance, placing pipe culverts, scaling	..	6·5
Myrtleford–Yackandandah Road	Construction near Allotments 7 and 9, Section 111, Parish of Bruarong	·78	..
,, ,, ,,	Patrol maintenance, placing pipe culverts	..	4·62
Yackandandah–Wodonga Road	Patrol maintenance, placing pipe culverts, scaling	..	15·75
YARRAWONGA SHIRE—			
Peechelba Road	Patrol maintenance, laying running deck on bridges 4 and 5 over Ovens River ..	..	1·25
Tungamah–Wilby Road ..	Patrol maintenance	..	1·25
Wangaratta–Yarrawonga Road	Reconditioning and rescaling in township of Yarrawonga, and reconditioning and general maintenance between Murray Valley Highway and Shire boundary, 22 miles from Yarrawonga	..	10·5
Yarrawonga–Cobram Road ..	Reconditioning and scaling in towuship of Yarrawonga	..	·19
,, ,, ,, ..	General maintenance balance of road	..	·56
YEA SHIRE—			
Highlands Road	Patrol maintenance	..	2·5
Molesworth–Dropmore Road ..	Patrol maintenance	..	10
Upper Goulburn Road ..	Reforming and sheeting with crushed rock near Boundary Creek	..	·32
,, ,, ,, ..	Reforming and sheeting with crushed rock near concrete bridges east of town ..	..	·36
,, ,, ,, ..	Reforming and sheeting with crushed rock near W. Brown's	..	·19
,, ,, ,, ..	Reforming and sheeting with crushed rock near Pulford's	..	·16
,, ,, ,, ..	Bitumen surfacing Goulburn River Bridge at Molesworth	..	·14
,, ,, ,, ..	Bitumen surfacing High Street, Yea, to railway line	..	·38
,, ,, ,, ..	Patrol maintenance	..	23
Whittlesea–Yea Road ..	Timber bridge at Pheasant Creek	..	—
,, ,, ,, ..	Patrol maintenance	..	31
Yarra Glen–Glenburn Road ..	Patrol maintenance	..	10
Yea–Glenburn Road	Reforming and sheeting with crushed rock, Yea to Quinlan's	..	·51
,, ,, ,, ...	Regrading and widening Clark's Hill	..	·11
,, ,, ,, ...	Patrol maintenance	..	18
	Total	87·47	6321·15
	UNDER DIRECT SUPERVISION OF BOARD.		
ALBERTON SHIRE—			
Boolarra–Welshpool Road ..	General maintenance from Ryton to Wonyip	..	8
AVOCA SHIRE—			
Ballarat–St. Arnaud Road ..	Construction of a reinforced concrete culvert and approaches approximately 1 mile north of Lamplough Post Office	·01	..
BALLARAT AND BUNGAREE SHIRES—			
Ballarat–Creswick Road ..	Construction of a single cell reinforced concrete box culvert at Burrumbeet Creek about 2 miles north of Ballarat	·01	..
,, ,, ,, ..	Reconstruction near Mt. Rowan Post Office. Day labour	..	·5
,, ,, ,, ..	Resealing near Mt. Rowan Post Office. Day labour	..	1
,, ,, ,, ..	General maintenance	..	5·7
BELLARINE SHIRE—			
Barwon Heads–Ocean Grove Road	Rescaling throughout. Day labour	..	1·3
,, ,, ,,	General maintenance	..	1·3
Geelong–Queenscliffe Road ..	Double coat sealing at Leopold Hill. Day labour	..	1·02
,, ,, ,, ..	Road mix sealing from Wallington Hotel towards Grubb Road	..	2·5
,, ,, ,, ..	General maintenance	..	14·5
Geelong–Portarlington Road ..	Construction of a single cell reinforced concrete box culvert in town of Drysdale ..	..	·01
,, ,, ,, ..	Resheeting with fine crushed rock and double coat sealing from Leopold to Curlewis. Day labour	..	3·4
,, ,, ,, ..	Resealing from Curlewis to Drysdale and in Portarlington township. Day labour	..	2·8
,, ,, ,, ..	Re-sheeting in modified macadam over new culvert at Drysdale. Day labour. ..	..	·1
,, ,, ,, ..	General maintenance	..	17·5
Portarlington–St. Leonard's Road	Widening, regulating, and sheeting with salamander between Portarlington and St. Leonard's. Day labour	..	3·8
,, ,, ,,	General maintenance	..	6·8
BERWICK SHIRE—			
Woori Yallock–Pakenham–Koowee-rup Road	Construction of concrete end walls for two culverts between Cockatoo and Hultgren's Bridge, and immediately north of Hultgren's Bridge	..	·03
,, ,, ,,	General maintenance between Cockatoo and Shepherd's Creek	..	6
BRAYBROOK SHIRE—			
Prince's Highway	General maintenance throughout	..	1·33
BRIGHT SHIRE—			
Bright–Omeo Road	General maintenance—Harrietville to Mt. Hotham	..	19·5
BROADFORD SHIRE—			
Sydney Road	General maintenance	..	1·45
	Carried forward	,02	98·54

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF THE BOARD—*continued.*		
	Brought forward	·02	98·54
CLUNES BOROUGH—			
Maryborough–Ballarat Road ..	Reshaping and resealing from southern boundary of borough at ·8 miles to 1·24 miles. Day labour	..	·44
" " " ..	Sealing from 1·24 to 1·6 miles. Day labour	..	·36
" " " ..	Reshaping, resheeting, priming and sealing from 1·6-mile peg to 1·97 mile peg. Day labour	..	·37
" " " ..	Reshaping and resheeting from 2·45-mile peg to 3·1-mile peg at the eastern boundary of the borough. Day labour	..	·65
COLAC SHIRE—			
Prince's Highway	Construction of a concrete bridge 120 feet long and 42 feet wide, together with approaches, in township of Colac	·02	..
COHUNA SHIRE—			
Murray Valley Road	Resealing at Cohuna. Day labour	..	1·3
" " ..	General maintenance at Cohuna	..	1·3
CORIO SHIRE—			
Fyansford Road	Resheeting in fine crushed rock and double coat sealing from Fyansford Bridge. Day labour	..	·2
Geelong–Bacchus Marsh Road ..	Repairs to abutment of bridge over Little River at Ripley. Day labour ..	..	·02
Prince's Highway	General maintenance	..	2
CRESWICK BOROUGH—			
Castlemaine–Ballarat Road ..	Underpinning Bowen's Bridge. Day labour	..	·02
DIMBOOLA SHIRE—			
Horsham Road	Resealing in Dimboola township. Day labour	..	·57
Rainbow Road	Double coat sealing at Jeparit. Day labour	..	·39
Warracknabeal Road ..	Double coat sealing about 7 miles from Dimboola. Day labour	..	·63
" " ..	Double coat sealing north-east of Dimboola. Day labour	..	·99
ECHUCA BOROUGH—			
Echuca–Cohuna Road ..	General maintenance at Echuca	..	1·18
EUROA SHIRE—			
Murchison–Shepparton Road ..	General maintenance from Goulburn Shire boundary to Shepparton Shire boundary	..	7·3
Sydney Road	General maintenance—Euroa township	..	1·82
FOOTSCRAY CITY—			
Prince's Highway	General maintenance	..	1·58
GOULBURN SHIRE—			
Goulburn Valley Road ..	General maintenance—Seymour Shire boundary to Murchison	..	21
Murchison–Shepparton Road ..	General maintenance—Murchison to Euroa Shire boundary	..	3·5
GISBORNE SHIRE—			
Melbourne–Bendigo Road ..	General maintenance in Gisborne township	..	1·33
HEALESVILLE SHIRE—			
Healesville–Alexandra Road ..	General maintenance from River Yarra to Shire boundary at Buxton	..	28
Healesville–Woori Yallock Road	Double coat sealing from Main Road to Albert Road. Day labour	..	·47
" " "	Construction of new superstructure at Badger Creek. Day labour	..	·02
" " "	General maintenance—Main Road to River Yarra	..	7
Marysville Road	General maintenance—St. Fillans to Marysville	..	6·5
HUNTLY SHIRE—			
Bendigo–Echuca Road ..	Widening reinforced concrete bridge over Racecourse Creek about 5 miles north of Bendigo	..	·02
" " " ..	Roadmix sealing at Epsom. Day labour	..	·24
" " " ..	Reshaping, widening, and gravelling south of Epsom. Day labour	..	·84
" " " ..	General maintenance at Epsom	..	2·16
KEILOR SHIRE—			
Melbourne–Bendigo Road ..	Relocation and widening in crushed rock between North Essendon and Keilor. Day labour	..	·8
" " " ..	General maintenance—North Essendon to Keilor	..	1·08
KILMORE SHIRE—			
Sydney Road	Resealing at Kilmore. Day labour	..	·38
" "	General maintenance	..	1·58
LILYDALE SHIRE—			
Main Healesville Road ..	Resealing from Ringwood Borough boundary to Lilydale. Day labour	..	5·99
" " " ..	Resealing from Hyne's Tile Works to "Coombe Cottage." Day labour ..	..	1·7
" " " ..	Double coat sealing near Coombe Farm. Day labour	..	1·9
" " " ..	General maintenance—Ringwood Borough boundary to River Yarra	..	16·5
" " " ..	General maintenance—Healesville Road junction to Woori Yallock Creek ..	..	9
MANSFIELD SHIRE—			
Mansfield–Tolmie Road ..	General maintenance—Broken River bridge to Oxley Shire boundary	..	12
Mansfield–Wood's Point Road ..	Repairing and maintaining bridges between Jamieson and Wood's Point. Day labour	..	·25
" " " " ..	General maintenance—Jamieson to Wood's Point	..	38
MORNINGTON SHIRE—			
Point Nepean Road	Reconstruction in fine crushed rock, priming and sealing between Tower Road and Grice's Road, Mt. Eliza. Day labour	..	·53
" " "	Repairs to surface and sealing from top of Mt. Martha southwards. Day labour ..	..	·5
" " "	Extensive repairs in preparation for road mix seal from near Balcombe's Creek to Mornington–Flinders Shire boundary. Day labour	..	2
MORWELL SHIRE—			
Boolarra–Foster Road ..	General maintenance—Boolarra to Boolarra South	..	6
Boolarra–Welshpool Road ..	General maintenance—Boolarra to Budgeree	..	4·5
" " ..	General maintenance from Elliott's to Grand Ridge Road at English's corner ..	..	10
Morwell–Mirboo Road ..	Road mix sealing at Yinnar township. Day labour	..	3·4
" " " ..	General maintenance—Morwell Shire boundary to Yinnar	..	7
NEWHAM AND WOODEND SHIRE—			
Melbourne–Bendigo Road ..	Resealing with bitumen in Woodend township. Day labour	..	1·12
" " " ..	General maintenance—Woodend township	..	1·12
ORBOST SHIRE—			
Cann Valley Road	General maintenance—Cann River to New South Wales border	..	29
Genoa–Gipsy Point Road ..	General maintenance throughout	..	7
QUEENSCLIFF BOROUGH—			
Point Lonsdale Road	Resealing throughout. Day labour	..	1·5
Geelong Road	Road mix sealing from Borough boundary towards Queenscliff. Day labour ..	..	1
SEBASTOPOL BOROUGH—			
Ballarat–Rokewood Road ..	Resealing from 1·85-mile peg to 2·35-mile peg. Day labour	..	·5
SEYMOUR SHIRE—			
Goulburn Valley Road ..	General maintenance between Hume Highway and Goulburn Shire boundary. Day labour	..	8·6
Sydney Road	General maintenance	..	1·38
	Carried forward	·04	365·07

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC. *continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Permanent Works Constructed.	Reconstruction and Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF THE BOARD—*continued.*		
	Brought forward	·04	365·07
SOUTH GIPPSLAND SHIRE—			
Boolarra–Foster Road ..	General maintenance– Gunyah Junction to Mt. Squaretop. Day labour ..	..	8·5
STAWELL AND KARA KARA SHIRES (Joint Works)–			
Navarre Road	Construction of a single cell reinforced concrete culvert about 1½ mile west of Navarre	·01	..
„ „	Forming, grading and gravelling of road approach to culvert about 1½ mile west of Navarre	·35	..
STAWELL BOROUGH—			
Ararat–Stawell Road	Resealing at southern boundary of Borough. Day labour	..	·6
Glenorchy Road	Reshaping, priming and sealing near old Stawell Hospital. Day labour ..	..	·57
Stawell–Grampians Road ..	Construction of a 2-cell skew reinforced concrete culvert over channel in the Borough of Stawell	·01	..
TAMBO SHIRE–			
Prince's Highway	Resealing with bitumen in Lakes Entrance township between Club Hotel and end of Esplanade. Day labour	..	1·09
„ „	General maintenance Lakes Entrance township section	..	2·37
TULLAROOP SHIRE—			
Castlemaine–Maryborough Road	Resealing near Moolort. Day labour	..	·75
„ „ „	Draining and repairing shoulders between Joyce's Creek and Carisbrook. Day labour	..	3
„ „ „	Repairs to Deep Creek Bridge at Carisbrook. Day labour	..	·02
„ „ „	General maintenance– Castlemaine to Maryborough. Day labour	..	25·6
UPPER YARRA SHIRE—			
Wood's Point Road	General maintenance Walsh's Creek to Matlock	..	34
VIOLET TOWN SHIRE—			
Sydney Road	General maintenance in Violet Town township	..	·79
WERRIBEE SHIRE—			
Prince's Highway	Resealing throughout. Day labour	..	·8
„ „	Patrol maintenance throughout	..	·8
WHITTLESEA SHIRE—			
Main Whittlesea Road ..	Road mix sealing and draining near Janefield. Day labour	..	1·2
WINCHELSEA SHIRE—			
Prince's Highway	General maintenance throughout	..	1
	Total	·41	446·16

APPENDIX F.

COUNTRY ROADS BOARD.

DEVELOPMENTAL ROADS.

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED UNDER THE PROVISIONS OF THE COUNTRY ROADS ACT 1928, DURING THE YEAR ENDED 30TH JUNE, 1934.

Name of Municipality and Road.	Nature and Locality of Works.	Works Constructed.
		Miles.
	UNDER MUNICIPALITIES.	
ALBERTON SHIRE—		
Blackwarri–Yarram Road ..	Grubbing, clearing, and forming in the Parish of Bulga	·9
,, ,, ,, ..	Reforming and gravelling in the Parish of Bulga	1·8
Carrajung Lower Road ..	Reforming and gravelling between the Parishes of Boodyarn and Carrajung	4·3
Tarra Valley Road	Reforming and gravelling between Alford's and Young's	1·4
BAIRNSDALE SHIRE—		
Fernbank–Stockdale Road ..	Forming and gravelling	1·3
Lindenow–Meerlieu Road ..	Forming and gravelling	1·45
BALLAN SHIRE—		
Moorarbool West Road ..	Construction of 3-cell reinforced concrete culvert to replace pitched ford over Eastern Moorarbool River	—
BENALLA SHIRE—		
Mollyullah–Tatong Road ..	Reforming and gravelling near Tatong	·95
,, ,, ,, ..	Forming and gravelling near Mollyullah	·24
BIRCHIP SHIRE—		
Curyo West Road	Forming and grading west of Curyo	·89
Kinnabulla–West Road ..	Forming and grading west of Kinnabulla	·25
Watchupga Road	Forming and grading east and west of Watchupga	2·2
BRIGHT SHIRE—		
Buffalo River Road	Construction, sauding and draining near Allotments 1A and 4A, Section 8, Parish of Eurandelong	·59
Happy Valley Road	Construction, gravelling, draining, &c., near allotments 6C and 6B, Section XX., and Allotments 1 and 1C, Section XXI, Parish of Barwidgee	1·08
Myrtleford–Yackandandah Road	Construction of reinforced concrete box culvert near Allotment 1, Section VII., Parish of Myrtleford	·06
BULLA SHIRE—		
Konagaderra Road	Boxing and crushed rock surfacing westerly from end of old metal section about 3½ miles from Clarkefield	·96
BULN BULN SHIRE—		
Nayook Road	Reforming and construction in fine crushed rock in Parish of Nayook	1·5
Poowong Road	Reforming and gravelling in Parish of Longwarry	2·9
BUNINYONG AND BANNOCKBURN SHIRES (Joint Works)—		
Elaine–Mount Mercer Road ..	Construction at top of Leigh Grand Junction East Hill	·15
CRANBOURNE SHIRE—		
Mank's Road	Forming, grading and gravelling between South Gippsland Highway and Muddy Gates ..	1·42
DEAKIN SHIRE—		
Girgarre North Road	Forming, grading and surfacing with Mt. Scobie crushed rock portions of roadway between Allotment 28, Parish of Kyabram and the Rochester–Kyabram Main Road	·66
Strathallan East Road ..	Forming, grading and gravelling west from existing gravel to south-east corner of Allotment 19, Parish of Echuca South	·42
DUNDAS SHIRE—		
Melville–Forest Road ..	Forming and gravelling opposite Allotment 3B, Section 3, Allotments 4, 2 and 3B, Section 4, and Allotment 1A, Section 14, Parish of Urangara	1·22
FERNTREE GULLY SHIRE—		
Emerald–Monbulk Road ..	Forming and gravelling between Fairy Dell and the Menzies' Creek	·96
FLINDERS SHIRE—		
Brown's Road	Reforming and gravelling	·54
GLENELG SHIRE—		
Dunrobin–Wando Road ..	Forming and gravelling at junction with Dergholm Road	·09
Merino–Struan–Tahara Road ..	Forming and gravelling between Blocks 2 and 6, Struan Estate Subdivision	·96
GLENLYON SHIRE—		
Porcupine Ridge Road ..	Construction, Scott's Lane and deviation, and timber bridge	1·09
GOULBURN SHIRE—		
Longwood–Ruffy Road ..	Gravelling	·25
HAMPDEN SHIRE—		
Cundare–Duverney Road ..	Forming, grading, boxing and surfacing with crushed rock 12 feet wide by 6 inches deep along the southern and western boundaries of Allotment 42A and western boundaries of Allotments 41A and 39A, Parish of Wilgul South	·85
Vite Vite Road	Reforming, grading, boxing and surfacing with crushed rock 12 feet wide by 6 inches deep along the southern boundary of Allotment 30, Terrinallum North Estate, Parish of Caramballuc South	·63
HEYTESBURY SHIRE—		
Devil's Gully Road	Reconstruction in gravel in Parish of Elingamite	1·1
Glenfyne West Road	Reconstruction in fine crushed rock easterly from State School	·9
Kennedy's Creek Road ..	Reforming and gravelling in Parish of Jancourt	4·6
HUNTLY SHIRE—		
Elmore–Raywood Road ..	Construction in Parishes of Elmore and Minto	·5
KARA KARA SHIRE—		
Marnoo–St. Arnaud Road ..	Metalling flood section south of intersection with Avon River	·19
Sandy Creek Road	Forming and gravelling south of Allotment 1A, Parish of Carapooee West	·27
KARKAROOC SHIRE—		
Hopetoun–Yaapeet Road ..	Forming and metalling between Allotment 18, Parish of Cambacanya and Allotment 38, Parish of Goyura	·21
KORONG SHIRE—		
Emu–Logan Road	Gravelling adjoining Allotment 22, Parish of Kooroc	·37
Inglewood North Road ..	Gravelling, &c., adjoining Allotments 37 and 37A, and Timber Reserve, Parish of Salisbury West	·54
Kurting–Rheola Road ..	Gravelling adjoining Allotment C19, Section A, Parish of Glenalbyn	·2
Mysia East Road	Forming, &c., near Allotments 160 and 165, Parish of Mysia	1
Mysia West Road	Gravelling adjoining Allotment 148, Parish of Mysia	·23
,, ,, ,, ...	Forming adjoining Allotments 149 and 150, Parish of Mysia	·4
Nine Mile Road	Forming, &c., adjoining Allotment 105D, Parish of Barrakee	·62
Wedderburn–Spring Hill Road	Gravelling adjoining Spring Hill P.R., Parish of Berrimal	·31
KORUMBURRA SHIRE—		
G. Henry's Road	Reforming, boxing and gravelling approximately 3 miles from Nyora, off the Loch-Nyora Road	·51
KOWREE SHIRE—		
Edenhope–Natimuk Road ..	Forming and gravelling, &c.	1·36
Elderslie–Narracoorte Road ..	Forming and gravelling, &c.	·42
LAWLOIT SHIRE—		
Cove Estate Settlement Road ..	Forming and gravelling near Allotments 21 and 22, Parish of Dinyarrak	1·16
Serviceton North Road ..	Forming and gravelling near Allotments 40A, 59C and 59D, Parish of Dinyarrak	1·89
Serviceton South Road ..	Forming and gravelling near Allotments 10A and 11, Section 3, Parish of Leeor	·36
LOWAN SHIRE—		
Diapur–Yanac Road	Forming and gravelling between Allotments 117 and 118 and Allotments 138 and 1A, Parish of Tarrangiunie	·28
Netherby Road	Forming and metalling between Allotment 23 and Allotments 16 and 17, Parish of Lorquon	·38
Winiam Road	Forming and gravelling between Allotments 70 and 3 and Allotments 50 and 54, Parish of Winiam	·74
	Carried forward	**50·55**

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Works Constructed.
		Miles.
	UNDER MUNICIPALITIES—*continued.*	
	Brought forward	50·55
MAFFRA SHIRE—		
Bundalaguah Road	Forming and gravelling	·33
MARONG SHIRE—		
Bendigo–Serpentine Road ..	Constructing three flood crossings at Yarraberb, 200 feet, 200 feet, and 100 feet ..	·09
Newbridge–Shelbourne Road ..	Forming and gravelling east of Eastville School	·36
,, ,, ,, ..	Forming and gravelling west of Eastville School	·89
MILDURA SHIRE—		
Colignan Road	Forming, grading, rubbling between the Melbourne–Mildura railway and the River Murray	1·54
Karween North Road ..	Forming, grading and rubbling, &c., between Karween and the Murray Valley Highway..	·39
Red Cliffs West Road ..	Limestone rubbling foundation course between Red Cliffs and Block 601	2·46
McIVOR SHIRE—		
Baynton Road	Forming, grading, boxing, trimming and gravelling	·54
NEWHAM AND WOODEND SHIRE—		
Campaspe Road	Surfacing with crushed rock through Allotment 108C and to the north and west of Allotment 8A, Section D, Parish of Woodend	·33
OMEO SHIRE—		
Beloka Road	Forming, flood crossing and two bridges on Cameron's Lane Section	·51
,, ,, ...	Grubbing, clearing, forming from Mount Leinster Gap to Heeny's Lane	4·3
Reedy Creek Road	Forming and gravelling, Omeo Highway to Ensay	·89
ORBOST SHIRE—		
Jarralmond Road	Gravelling in three sections	·58
Lower Bemm Road	Reforming and gravelling between Bemm River Bridge and Bemm Township ..	·8
,, ,, ,, ...	Grubbing, clearing, forming, and grading between Bemm River Bridge and Bemm Township	2·2
West Cann Road	Gravelling, &c., worst sections of road	—
OTWAY SHIRE—		
Dinmont–Beech Forest Road ..	Grubbing, clearing, forming, grading, trimming, and draining between Beech Forest and Dinmont	2·1
,, ,, ,, ..	Reforming and surfacing with fine crushed rock near Dinmont Railway Station ..	2·1
Dehnert's Road	Reforming and surfacing with fine crushed rock in Parish of Weeahproinah	·5
Wait-a-While Track	Reforming and surfacing with crushed rock south of Wyelangta	·89
OXLEY SHIRE—		
Boggy Creek Road	Regrading, gravelling, &c., near Fairthorne's	·6
,, ,, ...	Regrading, gravelling, &c., near Morgan's	·5
Buffalo River Road	Regrading, gravelling, &c., near Fletcher's	·25
,, ,, ,, ...	Reforming and gravelling near Cropper's Creek Bridge	·72
Carboor–Meadow Creek Road ..	Regrading and construction pipe culverts near McCallum's	·6
PORTLAND SHIRE—		
Drik Drik–Winnap Road ..	Reforming and metalling at Jones's Hill	·54
RODNEY SHIRE—		
Tatura–Toolamba Road ..	Gravelling between Allotments 37 and 21, and Allotments 120B and 65, Parish of Toolamba	·55
ROMSEY SHIRE—		
Baynton Road	Forming and gravelling adjoining Allotments 66 and 67, Parish of Lancefield	·2
SOUTH GIPPSLAND SHIRE—		
Amey's Track Road	Clearing, forming, gravelling, &c., Boolarra–Foster Road to Urquhart's	1·68
,, ,, ,, ...	Clearing, forming, gravelling, &c., Dollar–Foster Road to Arnup's	·51
,, ,, ,, ...	Clearing, forming and grading Urquhart's to Condor's	1·03
,, ,, ,, ...	Reforming and gravelling Hilet's to School Hill	1·34
Franklin River Road ..	Grubbing, clearing, forming, and grading in Parish of Toora	·1
Harding–Lawson Road ..	Reforming and surfacing with fine crushed rock in Parish of Doomburrim	·5
O'Grady's Ridge Road ..	Grubbing, clearing, forming, and grading in Parishes of Doomburrim and Wonga Wonga South	·7
,, ,, ,, ..	Reforming and gravelling in Parishes of Doomburrim and Wonga Wonga South ..	·72
Waratah Road	Reforming and gravelling in Parishes of Doomburrim and Waratah North	2·0
Whitelaw's Track	Reforming and gravelling in Parishes of Dumbalk and Doomburrim	1·5
,, ,, ...	Reforming and gravelling Falls Road to McGrath's	1·93
STAWELL SHIRE—		
Marnoo–St. Arnaud Road ..	Resheeting gravel near Shire boundary	·5
Pomonal Road	Reconstruction in gravel, flood-crossing, &c., near Mokepilly Creek at McLeod's	·9
TOWONG SHIRE—		
George's Creek Road	Forming, gravelling and culverts along the south-west boundary of Allotment 1, Section V., Parish of Tatonga	·7
,, ,, ...	Forming and gravelling in the Parish of Tatonga	·7
Shelley–Jingellic Road ..	Grubbing, clearing, forming, and grading at Guy's Forest	·42
,, ,, ,, ..	Forming, gravelling and culverts from south-east corner of Allotment 3, Section X., to south-west corner of Allotment 14, Section IX., Parish of Walwa	2·75
Tallangatta Creek Road ..	Forming, gravelling and culverts along the north-west boundary of Allotment 17, Section A, Parish of Keelangie	1·31
TUNGAMAH SHIRE—		
Wunghnu–Youanmite Road ..	Forming, reforming and gravelling, Parish of Youanmite	1·1
Yabba North Road	Forming, reforming and gravelling Parish of Waggarandall	2·3
Yabba South Road	Forming and gravelling, Parish of Yabba	·8
UPPER MURRAY SHIRE—		
Thowgla Road	Forming and grading east of Allotments 26A, 26B and 27A, Parish of Thowgla	·72
,, ,, ...	Forming, grading and gravelling east of Allotment 22, Parish of Thowgla	·11
,, ,, ...	Reforming and gravelling west of Allotments 18A, 19A, 23 and 28, Parish of Thowgla ..	1·27
,, ,, ...	Reforming and gravelling east of Allotments 26A, 26B, and 27A, Parish of Thowgla ..	·72
WANGARATTA SHIRE—		
Boorhaman–Springhurst Road ..	Reforming, boxing and gravelling between Allotments 37 and 73, Parish of Bontherambo	·23
WANNON SHIRE—		
Melville Forest Road ..	Crushed rock surfacing from township towards 3 mile peg	2·31
,, ,, ,, ..	Construction of a reinforced concrete culvert, 36 feet x 18 feet, at township end	—
,, ,, ,, ..	Clearing, forming and gravelling 12 feet wide	1·05
WARRAGUL SHIRE—		
Bona Vista–Nilma Road ..	Reforming and sanding	·6
Mountain View Road ..	Reforming and sanding	·89
Mountain View-McDonald's Track	Reforming and sanding	·36
WARRNAMBOOL SHIRE—		
Childer's Cove Road	Forming and gravelling near Allotments 1E, 2E, 3E and 4E, Parish of Mepunga, and near Allotment 24, Parish of Nirranda	2·08
Naringle Road	Forming and gravelling through Allotments 69B, 69D, 66C, 66, 65A and 65, Parish of Laang	1·9
Panmure Road	Forming and gravelling through Allotments 46 and 39A, Parish of Laang	1·57
WERRIBEE SHIRE		
Bulban Road	Construction in crushed rock, near Mair railway station	·79
,, ,, ...	Construction in crushed rock, easterly from Edgar's Road, Little River	·86
WINCHELSEA SHIRE—		
Inverleigh–Winchelsea Road ..	Surfacing with fine crushed rock from Murfitt's corner to Dougall's corner, Sections I. and X., Parish of Carrung-e-Murnong	2
WOORAYL SHIRE—		
Buffalo–Waratah Road ..	Grubbing, clearing, forming, grading and trimming through Hoblings', Francis's and Aikman's	3·11
,, ,, ,, ..	Grubbing, clearing, forming, grading and trimming through Aikman's	1·15
Dollar–Dumbalk Road ..	Metalling with crushed rock near Hamilton's and Harris's	1·11
Dumbalk Road	Reforming and gravelling through Muldowney's	1·6
Nerrena Road	Grubbing, clearing, forming, grading and gravelling near Slater's	·29
WYCHEPROOF SHIRE—		
Berriwillock–Woomelang Road..	Forming, boxing and limestoning in sections west of Berriwillock	·84
Culgoa–Lalbert Road ..	Forming, boxing and limestoning, 5 miles east of Culgoa	1·32
Meridian Road	Forming, boxing and limestoning, 5 miles south of Berriwillock	·91
Nullawil–Winston Road ..	Forming, boxing and limestoning, 4 miles west of Nullawil	·8
Sea Lake–Tyrrell Downs Road ..	Forming, boxing and limestoning, 3 miles north of Sea Lake	·31
	Total	**129·00**

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF ROADS CONSTRUCTED, ETC.—*continued.*

Name of Municipality and Road.	Nature and Locality of Works.	Works Constructed.
		Miles.
	UNDER DIRECT SUPERVISION OF BOARD.	
ALBERTON SHIRE—		
Albert River Road	Reforming and surfacing with fine crushed rock in Parishes of Wonyip and Binginwarri ..	2·2
,, ,, ,, ...	Grubbing, clearing, forming, and grading in Parish of Binginwarri	·7
Christie's–Albert River Road ..	Grubbing, clearing, forming, grading in the Parish of Binginwarri	3·5
Devil's Pinch Road	Reforming and gravelling between Toora–Wonyip Road and Cope's Outlet	2·8
Madalya Road	Reforming and construction in fine crushed rock in Parish of Binginwarri	·3
Whitelaw's Track	Reforming and gravelling from Lower Whitelaw to Alford's	2·6
BULN BULN SHIRE—		
Turner's Road	Reforming and surfacing with fine crushed rock from Pennyweight Creek to Turner's ..	1·3
HEYTESBURY SHIRE—		
Eastern Creek Settlement Road	Reforming and loaming, Parishes of Waarre and Paaratte	1·3
NARRACAN SHIRE—		
Allambee Estate Road ..	Reforming and surfacing with fine crushed rock near Moonlight Creek	4·8
Allambee–Thorpdale Road ..	Reforming and gravelling from Thorpdale to Thorpdale South	1·2
McDonald's Track	Reforming and surfacing with fine crushed rock between Darnum–Allambee and Yarragon–Leongatha Roads	1·39
NARRACAN AND WARRAGUL SHIRES—		
McDonald's Track	Reforming and surfacing with fine crushed rock from Darnum–Allambee Road to Yarragon–Leongatha Road	1·8
KORUMBURRA SHIRE—		
Ferrier's Road	Grubbing, clearing, forming, and grading in Parish of Jeetho West	1·1
OTWAY SHIRE—		
Ferguson–Charley's Creek Road	Reforming, boxing, trimming, and gravelling north of Ferguson Railway Station ..	1·59
,, ,, ,, ,,	Reforming and surfacing with fine crushed rock in the Parishes of Wecaproinah and Moorbanool	1·73
Skene's Creek Road	Clearing, forming, and surfacing with fine crushed rock north from Skene's Creek Bridge	2·1
OXLEY SHIRE—		
Abbeyard Road	Clearing and forming in sections in Parish of Matong North	1·4
Rose River Road	Grubbing, clearing, forming, and grading north-easterly from Schlue's Bridge	3·7
Tolmie–Whitfield Road ..	Grubbing, clearing, and forming in Parish of Whitfield South	1·1
TOWONG SHIRE—		
Benambra–Corryong Road ..	Reforming and gravelling from Sassafras Gap to Dart River turnoff	·32
	Total	36·93

APPENDIX G.

COUNTRY ROADS BOARD.

STATE HIGHWAYS.

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF HIGHWAYS RECONSTRUCTED AND MAINTAINED UNDER THE PROVISIONS OF THE COUNTRY ROADS ACT 1928 DURING THE YEAR ENDED 30TH JUNE, 1934.

Name of Highway and Section.	Nature and Locality of Work.	Works Reconstructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF THE BOARD.		
PRINCE'S HIGHWAY (WEST)—			
Section 1	Re-alignment and elevation of curves at Point Cook Road junction, Shire of Werribee. Day labour	·3	
,,	Resealing between 24 and 26 mile posts, Shire of Werribee. Day labour	1·9	
,,	Re-alignment of curve and sealing at Horell's Creek, Shire of Corio. Day labour	·15	
,,	Resheeting and general repairs between Waurn Ponds and Moriac, Shire of Barrabool. Day labour	5	
,,	General maintenance		52
Section 2	Resheeting in fine crushed rock and double coat sealing near Armytage, Shire of Winchelsea. Day labour	3	
,,	Repairing with crushed rock defective areas in pavement between Colac and Larpent, Shire of Colac. Day labour	4·63	
,,	Resealing between Colac and Larpent, Shire of Colac. Day labour	3·14	
,,	Shouldering in crushed rock and scoria between Warncoort and Pirron Yallock, Shire of Colac. Day labour	5·75	
,,	Renewing superstructure of 2-span stone and timber bridge, 42 feet long, over Pirron Yallock Creek at Pirron Yallock, Shire of Colac. Day labour	·02	
,,	General maintenance		48·81
Section 3	Construction of new superstructure on existing piers of Yallock Creek bridge, Shire of Warrnambool	·02	
,,	Resealing between Garvoc and Panmure, Shire of Warrnambool. Day labour	·9	
,,	Road mix sealing between Garvoc and Panmure, Shire of Warrnambool. Day labour	1·17	
,,	Resealing between Warrnambool and Dennington, Shire of Warrnambool. Day labour	2·3	
,,	Resealing between Killarney and Rosebrook, Shire of Belfast. Day labour	3·86	
,,	Shouldering with scoria between Allansford and Dennington, Shire of Warrnambool. Day labour	8·63	
,,	Shouldering with scoria between Dennington and Rosebrook, Shires of Warrnambool and Belfast. Day labour	6·91	
,,	Construction of new concrete substructure to existing timber bridge over Hopkins River at Allansford, Shire of Warrnambool. Day labour	·02	
,,	General maintenance		52·38
Section 4	Reforming, boxing and surfacing with fine crushed rock, together with fencing, between Port Fairy and Portland, Shire of Belfast	·04	
,,	Forming, reforming, boxing and gravelling between Tyrendarra and Livingston's Hill, Shire of Portland	1·27	
,,	Sealing the crushed rock surface at 183 mile post between Port Fairy and Yambuk, Shire of Belfast. Day labour	·22	
,,	Sealing the buckshot gravel from Yambuk to the Eumeralla River, Shire of Belfast. Day labour	7·97	
,,	Sealing buckshot gravel between Narrawong and Allestree, Shire of Portland. Day labour	2·25	
,,	Widening and resheeting with buckshot gravel between Surrey River at Heathmere and Heywood, Shire of Portland. Day labour	4·56	
,,	General maintenance		49·8
Section 5	Construction of guard fencing, sealing deck and creosoting timber bridge over Glenelg River at Dartmoor, Shire of Portland. Day labour	·02	
,,	Resealing between Dartmoor and Mumbannar, Shire of Portland. Day labour	2·81	
,,	Sealing limestone and crushed rock between Dartmoor and the South Australian border, Shire of Portland. Day labour	·71	
,,	Construction of a reinforced concrete culvert over Hunter's Creek, together with approaches, Shire of Portland	·01	
,,	General maintenance		44·62
PRINCE'S HIGHWAY (EAST)—			
Section 1	Repairs to bridge over Eumemmering Creek near Dandenong, Shire of Berwick	·02	
,,	Resealing at Bunyip, Shire of Berwick. Day labour	·3	
,,	Road mix sealing at Narrewarren, Shire of Berwick. Day labour	·95	
,,	Resheeting with sand and sealing at Longwarry, Shire of Buln Buln. Day labour	1·25	
,,	Improving curve at Highway Garage, Pakenham, Shire of Berwick. Day labour	·1	
,,	Double coat sealing west of Dandenong, Shire of Dandenong. Day labour	·3	
,,	Double coat sealing west of Berwick, Shire of Dandenong. Day labour	·8	
,,	Double coat sealing near Toomuc Creek, Shire of Dandenong. Day labour	·6	
,,	Sanding and double coat sealing deviation at Longwarry, Shire of Buln Buln. Day labour	·25	
,,	Resealing at Beaconsfield, Shire of Berwick. Day labour	·19	
,,	General maintenance		49·93
Section 2	Construction of a 2-span timber bridge over Little Moe River, Shire of Warragul	·02	
,,	Widening in reinforced concrete two bridges over Morwell River, Shire of Morwell	·04	
,,	Construction of a 7-span timber bridge over Traralgon Creek ½ mile east of Traralgon, Shire of Traralgon	·02	
,,	Resealing from Moe River to Traralgon, Shire of Narracan. Day labour	6·02	
,,	Widening and resheeting with fine crushed rock from Killarney Road to Little Moe River, Shire of Warragul. Day labour	2·29	
	Double coat sealing Killarney Road to Nilma, Shire of Warragul. Day labour	·89	
	Double coat sealing fine crushed rock east of Warragul, Shire of Warragul. Day labour	·3	
,,	Forming and sanding approaches to Little Moe River bridge, Shire of Warragul. Day labour	·02	
,,	Forming and sanding for widening approach to Morwell River bridge, Shire of Morwell. Day labour	·02	
,,	Reshaping with gravel and sealing from Flynn railway station to bridge over Flynn's Creek, Shire of Traralgon. Day labour	·76	
,,	Resealing with bitumen, Rosedale to Kilmany, Shire of Rosedale. Day labour	8·82	
,,	Resealing with bitumen from Wurruk Hotel to Pearson's bridge, Shire of Rosedale. Day labour	·38	
	Widening timber bridge at 75-mile post, Shire of Narracan. Day labour	·02	
	General maintenance		66·76
	Carried forward	91·92	364·3

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF HIGHWAYS RECONSTRUCTED, ETC.—*continued.*

Name of Highway and Section.	Nature and Locality of Works.	Works Reconstructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF THE BOARD—*continued.*		
PRINCE'S HIGHWAY (EAST)—*continued.*	Brought forward	91·92	364·3
Section 3	Road mix sealing from eastern boundary of township of Stratford to 147-mile post, Shire of Avon. Day labour	3·17	..
,, ...	Double coat sealing approaches to Nuntin Creek bridge, Shire of Avon. Day labour	·16	..
,, ...	Repairing, widening and redecking Providence Ponds bridge, including demolition of two end spans and construction of new abutments, Shire of Avon. Day labour	·03	..
,, ...	General maintenance	..	38·1
Section 4	Reshaping, widening and resheeting with gravel, including re-alignment from Nicholson to Swan Reach and from Fitzclarence's deviation to Jemmy's Point, Shire of Bairnsdale and Tambo. Day labour	10·51	..
,, ...	Double coat sealing with cold tar and bitumen from Nicholson to Swan Reach and Fitzclarence's deviation to Jemmy's Point, Shires of Bairnsdale and Tambo. Day labour	10·51	..
,, ...	Widening, reshaping and resheeting with gravel from Snowy River bridge at Orbost towards Wombat Creek, Shire of Orbost. Day labour	3·2	..
,, ...	Double coat sealing with fluxed bitural and bitumen from rail crossing at Newmerella to Snowy River bridge, Shire of Orbost. Day labour	3·05	..
,, ...	General maintenance	..	58·83
Section 5	Surfacing with gravel, approaches to Brodribb River bridge, Shire of Orbost. Day labour	1·2	..
,, ...	Widening, reshaping and cutting away corners westerly from Tonghi Creek bridge, Shire of Orbost. Day labour	·91	..
,, ...	Construction of temporary suspension span over the break in the Snowy River bridge, Shire of Orbost. Day labour	·02	..
,, ...	Construction of a 30-ft. timber bridge over Storey's Creek, Shire of Orbost. Day labour	·02	..
,, ...	General maintenance	..	56
Section 6	Completion of re-alignment at Wingan River, Shire of Orbost. Day labour ..	·34	..
,, ...	General maintenance	..	42·8
WESTERN HIGHWAY—			
Section 1	Widening two reinforced concrete bridges over Pyrite Creek and Lerderderg River, Shire of Bacchus Marsh	·04	..
,, ...	Resheeting in fine crushed rock and double coat sealing west of Deer Park, Shire of Braybrook. Day labour	1·5	..
,, ...	Regrading over two culverts between Wallace and Bungaree, Shires of Bungaree and Buninyong. Day labour	·1	..
,, ...	Regrading railway crossing at Wallace, Shires of Bungaree and Buninyong. Day labour	·1	..
,, ...	Improvement of junction of Highway with Daylesford Road, Shire of Ballan. Day labour	·1	..
,, ...	Resealing west of Bungaree, Shires of Bungaree and Buninyong. Day labour ..	2·7	..
,, ...	Heavy patching between Bacchus Marsh and Myrniong, Shire of Bacchus Marsh. Day labour	3	..
,, ...	Repairing timber culvert at 62-mile post, Shires of Bungaree and Buninyong. Day labour	·01	..
,, ...	Replacing timber culvert at 67-mile post, Shires of Bungaree and Buninyong. Day labour	·01	..
,, ...	Repairing beaching at Pyke's Creek, Shire of Ballan. Day labour	·02	..
,, ...	General maintenance	..	55·2
Section 2	Construction of a two-cell reinforced concrete culvert over Charleycombe Creek near Buangor, Shire of Ararat	·01	..
,, ...	Construction of a two-span timber bridge together with approaches, channel and stone paving at Green Hills Creek, Shire of Ararat	·02	..
,, ...	Road mix sealing in sections between Langi Kal Kal and Trawalla, Shires of Ripon and Lexton. Day labour	1·83	..
,, ...	Road mix sealing in sections between Beaufort and Middle Creek, Shire of Ripon. Day labour	3·72	..
,, ...	Widening bridges at approximately 108 and 109 mile posts, Shires of Ripon and Ararat. Day labour	·04	..
,, ...	Extension and repairs to three culverts between Beaufort and Great Western. Day labour	·03	..
,, ...	General maintenance	..	50·32
Section 3	Widening timber bridge over Concongella Creek and construction of approaches, Shire of Stawell	·02	..
,, ...	Construction of a two-cell reinforced concrete culvert between Armstrong and Great Western, Shire of Stawell	·01	..
,, ...	Priming and sealing between Wal Wal and Burnt Creek, Shire of Wimmera. Day labour	7·43	..
,, ...	Road mix sealing from Ararat to Stawell Shire boundary, Shire of Ararat. Day labour	1·86	..
,, ...	Resealing between Great Western and Stawell, Shire of Stawell. Day labour	3·1	..
,, ...	Resealing between 183·83-mile peg and 185·28-mile peg, Shire of Wimmera. Day labour	1·45	..
,, ...	Reshaping, regrading, priming and sealing at Stawell tramline crossing, Shire of Stawell. Day labour	·1	..
,, ...	Forming, gravelling and construction of a pipe culvert at Overhead bridge, Armstrong, Shire of Stawell. Day labour	·35	..
,, ...	Widening bridge at 136-mile post, Shire of Stawell. Day labour	·02	..
,, ...	General maintenance	..	50·36
Section 4	Resealing at 192-mile post, Shire of Wimmera. Day labour	·28	..
,, ...	Resealing between 208 and 209 mile posts, Shire of Dimboola. Day labour ..	1·17	..
,, ...	Resealing west of Dimboola, Shire of Dimboola. Day labour	·8	..
,, ...	Double coat sealing in three sections between Dimboola and Lochiel, Gerang and Kiata and through Kiata, Shire of Dimboola. Day labour	6·28	..
,, ...	Limestoning and blinding with screened gravel between Kiata and Lowan Shire boundary, Shire of Dimboola. Day labour	·43	..
,, ...	Reshaping crossing, metalling sections in bluestone and improving curves from Gerang through Kiata to Lowan Shire boundary, Shire of Dimboola. Day labour	3·16	..
,, ...	Scarifying and reshaping existing metal, priming and sealing from Horsham Town boundary to Dimboola, Shires of Wimmera and Dimboola. Day labour	1·02	..
,, ...	Construction of side tracks between Dimboola and Nhill, Shires of Dimboola and Lowan. Day labour	23	..
,, ...	General maintenance	..	38·7
CALDER HIGHWAY—			
Section 1	Road mix sealing between Keilor and Holden, Experimental Section, Shire of Keilor. Day labour	3·28	..
,, ...	Resheeting with crushed rock and sealing south of Gisborne, Shire of Gisborne. Day labour	1·5	..
,, ...	Resealing north of Kyneton, Shire of Kyneton. Day labour	·5	..
,, ...	General maintenance	..	58
	Carried forward	194·03	812·61

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF HIGHWAYS RECONSTRUCTED, ETC.—*continued.*

Name of Highway and Section.	Nature and Locality of Works.	Works Re-Constructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF THE BOARD—*continued.*		
	Brought forward	194·03	812·61
CALDER HIGHWAY—*continued.*			
Section 2	Widening and resheeting with granitic sand between Harcourt and Ravenswood, Shires of Maldon and Marong. Day labour	2·07	..
,, ...	Widening and resheeting with granitic sand between Castlemaine and Harcourt, Shires of Maldon and Metcalfe. Day labour	1·74	..
,, ...	Resealing north of Harcourt, Shire of Maldon. Day labour	·5	..
,, ...	Reconditioning and double coat sealing between Harcourt and Ravenswood, Shires of Maldon and Marong. Day labour	2·07	..
,, ...	Resealing between Marong and Inglewood, Shires of Marong and Korong. Day labour	16·93	..
,, ...	Beaching scears between Bendigo and Marong, Shire of Marong. Day labour ..	5	..
,, ...	Widening three bridges between Bendigo and Derby, Shire of Marong. Day labour	·06	..
,, ...	General maintenance	..	43·07
Section 3	Construction of timber bridge over Hope Creek near Kurting railway station, together with approaches and cutting of a new channel, Shire of Korong	·02	..
,, ...	Construction of a six-cell reinforced concrete culvert, together with approaches at Yeungroon Creek 1¼ mile south-east of Charlton, Shire of Charlton	·01	..
,, ...	Regrading of flood-crossing, reconditioning and double coat sealing between Inglewood and Wedderburn and at Nardoo Creek, Shire of Korong. Day labour	9·79	..
,, ...	Resealing between Inglewood and Woosang, Shire of Korong. Day labour ..	11·1	..
,, ...	Widening two railway crossings at Wedderburn and Teddywaddy, Shires of Korong and Charlton. Day labour	·02	..
,, ...	Construction of flood crossing, reconditioning and double coat sealing between Barrakee Hill and Charlton, Shire of Charlton. Day labour	2·81	..
,, ...	Resealing at South Woosang, Barrakee Hill and South Charlton, Shire of Charlton. Day labour	1·09	..
,, ...	Resealing between Charlton and Wycheproof, Shire of Charlton. Day labour ..	12·16	..
,, ...	General maintenance	..	52·23
Section 5	Forming, grading, trimming, draining and limestone metalling south of Mittyack, Shire of Swan Hill	4·56	..
,, ...	Regrading of three sandhills north of Nandaly, Shire of Swan Hill. Day labour	·3	..
,, ...	Clearing, forming and light limestoning between Mittyack and Nunga, Shires of Swan Hill and Walpeup. Day labour	·6	..
,, ...	General maintenance	..	44·81
Section 6	Reshaping and light limestoning at Trinita, Shire of Walpeup. Day labour ..	4	..
,, ...	Forming and limestoning deviation at Hattah, Shire of Mildura. Day labour ..	·5	..
,, ...	Forming and limestoning at Hattah Patrol Hut, Shire of Mildura. Day labour ..	1·35	..
,, ...	Forming and limestoning at Nowingi, Shire of Mildara. Day labour	·75	..
,, ...	General maintenance	..	62·63
NORTHERN HIGHWAY—			
Section 1	Construction of a cell type reinforced concrete bridge together with new channel south of Huntly, Shire of Huntly	·02	..
,, ...	Widening bridge over Waranga Channel, Shire of Huntly. Day labour ..	·05	..
,, ...	Reconditioning and double coat sealing between Epsom and Huntly, Shire of Huntly. Day labour	1·45	..
,, ...	Reconditioning and double coat sealing between Huntly and Bagshot, Shire of Huntly. Day labour	2·69	..
,, ...	Scarifying, reshaping, resheeting and double coat sealing between Epsom and Huntly, Shire of Huntly. Day labour	·76	..
,, ...	Road mix sealing and resealing between Elmore and Rochester, Shires of Huntly and Rochester. Day labour	8·23	..
,, ...	Resealing south of Echuca, Shire of Rochester. Day labour	2·73	
,, ...	Widening and resheeting with White Hills gravel south of Echuca, Shire of Rochester. Day labour	·14	..
,, ...	General maintenance	..	48·38
HUME HIGHWAY			
Section 1	Construction of a single-span steel and concrete bridge over Chinamen's Creek, Shire of Kilmore	·02	..
,, ...	Resealing with emulsion at Bylands, Shire of Kilmore. Day labour	·5	..
,, ...	Resheeting with fine crushed rock and double coat sealing between Craigieburn and Donnybrook, Shire of Broadmeadows. Day labour	1·8	..
,, ...	Reconstruction with modified macadam at Craigieburn railway crossing, Shire of Broadmeadows. Day labour	·1	..
,, ...	Maintenance work on Goulburn River bridge at Seymour, Shire of Seymour. Day labour	·02	..
,, ...	General maintenance	..	48·32
Section 2	Construction of a reinforced culvert about 3 miles south of Benalla, Shire of Benalla	·01	..
,, ...	Priming and sealing widened portion between Baddaginnie and Benalla, Shire of Benalla. Day labour	2	..
,, ...	Reconstruction between Balmattum and Violet Town, Shires of Euroa and Violet Town. Day labour	·1	..
,, ...	Reconstruction at Avenel, Shire of Seymour. Day labour	·34	..
,, ...	Resealing between Euroa and Violet Town, Shires of Euroa and Violet Town. Day labour	8·46	..
,, ...	Road mix sealing between Baddaginnie and Benalla, Shire of Benalla. Day labour	2	..
,, ...	Priming and sealing between Baddaginnie and Benalla, Shire of Benalla. Day labour	1·88	..
,, ...	General maintenance	..	55·66
Section 3	Construction of piers, abutments and timber deck over Ovens River bridge, Wangaratta, together with 100-ft. span timber approach bridge and 162-ft. span timber stock bridge, Borough of Wangaratta	·06	..
,, ...	Construction of a two-cell reinforced concrete culvert at Pritchard's drain, Shire of Benalla	·01	..
,, ...	Resealing between Glenrowan and South Wangaratta, Shires of Benalla and Wangaratta. Day labour	5·93	..
,, ...	Resealing between Bowser and Springhurst, Shire of Wangaratta. Day labour ..	6·2	..
,, ...	Resealing between Springhurst and Chiltern railway crossing, Shires of Chiltern and Wangaratta. Day labour	5·25	..
,, ...	Resealing between Chiltern railway crossing and Barnawartha, Shire of Chiltern. Day labour	6·38	..
,, ...	Construction of a reinforced concrete culvert at Winton, Shire of Benalla. Day labour	·01	..
,, ...	Construction of Beechworth road turn-off at Wangaratta, Borough of Wangaratta. Day labour	·12	..
,, ...	Widening one reinforced concrete culvert and one reinforced concrete bridge between Springhurst and Chiltern, Shires of Wangaratta and Chiltern. Day labour ..	·03	..
,, ...	Road mix sealing at Bowser, Shire of Wangaratta. Day labour	5·09	..
,, ...	General maintenance	..	60·18
OMEO HIGHWAY—			
Section 1	Construction of a two-cell reinforced concrete culvert at Cherry Tree Creek in the township of Sarsfield, Shire of Bairnsdale	·01	..
,, ...	Widening, shouldering, resheeting and draining including realignment from Lucknow towards Sarsfield, Shire of Bairnsdale. Day labour	1·56	..
,, ...	General maintenance	..	16·53
	Carried forward	335·41	1244·42

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF HIGHWAYS RECONSTRUCTED, ETC.—*continued.*

Name of Highway and Section.	Nature and Locality of Works.	Works Reconstructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF THE BOARD—*continued.*		
	Brought forward	335·41	1244·42
MURRAY VALLEY HIGHWAY—			
Section 2	Forming, grading, trimming and draining west of Strathmerton, Shire of Numurkah	3·8	..
,, ...	Forming, grading, trimming, draining and consolidating west of Wyuna, Shire of Deakin	3·8	..
,, ...	Forming, grading, trimming, draining and sealing west of Tongala turn-off, Shire of Deakin	3·8	..
,, ...	Forming, grading, trimming and draining approximately 2 miles west of Strathmerton, Shire of Numurkah	1·72	..
,, ...	Clearing, grubbing, forming, grading, trimming, consolidating and construction of culverts between McCoy's bridge and Wyuna, Shire of Deakin	3·16	..
,, ...	Shouldering east of Yarrawonga, Shire of Yarrawonga. Day labour	1	..
,, ...	Shouldering west of Yarrawonga, Shire of Yarrawonga. Day labour	1	..
,, ...	Sanding between Strathmerton and Nathalia turn-off, Shire of Numurkah. Day labour	3·79	..
,, ...	Forming between Strathmerton and Nathalia turn-off, Shire of Numurkah. Day labour	5·4	..
,, ...	Shouldering and reconditioning between Hume Highway and Parolo's bridge, Shires of Chiltern, Rutherglen and Yarrawonga. Day labour	15·85	..
,, ...	Construction of culverts and open crossings between Hume Highway and Parolo's bridge, Shires of Chiltern, Rutherglen and Yarrawonga. Day labour	·53	..
,, ...	Shouldering at Bathumi Settlement, Shire of Yarrawonga. Day labour ..	·62	..
,, ...	Reforming between Yarrawonga and Cobram and at Strathmerton, Shires of Numurkah, Tungamah and Yarrawonga. Day labour	2·4	..
,, ...	Reforming north of Nathalia, Shire of Numurkah. Day labour	5	..
,, ...	Resealing east of Echuca, Shire of Deakin. Day labour	·63	..
,, ...	Construction of a culvert south of McCoy's bridge, Shire of Deakin. Day labour ..	·01	..
,, ...	Widening and resheeting with White Hills gravel between Northern Highway and Echuca. Day labour	1·07	..
,, ...	Sanding and sheeting with swamp cement westerly from McCoy's bridge, Shire of Deakin. Day labour	13·7	..
,, ...	General maintenance	..	140·5
Section 3	Forming, grading, trimming, consolidating and draining west of Echuca, Shire of Rochester	·09	..
,, ...	Resheeting with White Hills gravel north-west from Echuca, Shire of Rochester ..	1·72	..
,, ...	Forming, reforming and surfacing with swamp cement between Turramberry and Gunbower, Shire of Rochester	·79	..
,, ...	Repairs to old bridges between Echuca and Lake Boga, Shires of Rochester, Cohuna, Kerang, and Swan Hill. Day labour	·1	..
,, ...	Reconditioning and double coat sealing between Echuca and Wharparilla, Shire of Rochester. Day labour	3·52	..
,, ...	Reconditioning and double coat sealing between Wharparilla and Patho, Shire of Rochester. Day labour	5·6	..
,, ...	Reconditioning and double coat sealing between Pyramid Creek and Kerang, Shire of Kerang. Day labour	3·61	..
,, ...	Scarifying and resheeting with limestone south of Lake Boga, Shire of Swan Hill. Day labour	1·75	..
,, ...	Road mix sealing west of Cohuna, Shire of Cohuna. Day labour	1·09	..
,, ...	Forming and gravelling with White Hills gravel between Leitchville and Cohuna, Shire of Cohuna. Day labour	5·26	..
,, ...	Scarifying, widening and resheeting with White Hills gravel west of Echuca, Shire of Rochester. Day labour	1·04	..
,, ...	Construction in crushed rock between Pyramid Creek and Tresco, Shire of Kerang. Day labour	19·29	..
,, ...	General maintenance	..	89·15
Section 4	Forming and limestoning near Bannerton, Shire of Swan Hill. Day labour ..	·5	..
,, ...	General maintenance	..	36·51
SOUTH GIPPSLAND HIGHWAY—			
Section 1	Surfacing with gravel and crushed rock and construction of a timber bridge over Little Tooradin Creek, Shire of Cranbourne	·22	..
,, ...	Double coat sealing near Tooradin Inlet, Shire of Cranbourne. Day labour ..	1·86	..
,, ...	Forming and sanding from Tooradin to Koo-wee-rup Canal, Shire of Cranbourne. Day labour	4·4	..
,, ...	Forming deviation at Lang Lang, Shire of Cranbourne. Day labour	1·12	..
,, ...	Double coat sealing east of Main Coast Road turn-off, Shire of Cranbourne. Day labour	·4	..
,, ...	Repairs to Tooradin Bridge at 38-mile post, Shire of Cranbourne. Day labour ..	·01	..
,, ...	General maintenance	..	37·5
MIDLAND HIGHWAY—			
Section 1	Resealing from Meredith to Williamson's Creek, Shires of Bannockburn and Buninyong. Day labour	12·2	..
,, ...	Resheeting in fine crushed rock from Clarendon to Scotsburn, Shire of Buninyong. Day labour	2·7	..
,, ...	Double coat sealing from Williamson's Creek to Scotsburn, Shire of Buninyong. Day labour	4·5	..
,, ...	Double coat sealing Bannockburn to Meredith, Shire of Bannockburn. Day labour	11·3	..
,, ...	Replacing decks on 21 culverts between Geelong and Ballarat, Shires of Corio, Bannockburn and Buninyong. Day labour	·2	..
,, ...	General maintenance	..	48·6
Section 4	Forming, reforming, and gravelling westerly from Goorambat Junction, Shire of Benalla	·25	..
,, ...	Construction of a reinforced concrete bridge at Nalinga Township, Shire of Shepparton	·02	..
,, ...	Construction of a 3-span steel and timber bridge near Goorambat turn-off, approximately 6½ miles from Benalla, Shire of Benalla	·02	..
,, ...	Construction of two reinforced concrete culverts and gravelling near Goorambat turn-off, Shire of Benalla	·03	..
,, ...	Priming and sealing between Pine Lodge and Nalinga, Shire of Shepparton. Day labour	6·24	..
,, ...	Priming and sealing at Emu Plains, Shire of Benalla. Day labour	·32	..
,, ...	Widening pavement and priming and sealing between Casey's Weir and Benalla, Shire of Benalla. Day labour	2·07	..
,, ...	Resheeting and construction of bridge approaches at Nalinga, Shire of Shepparton. Day labour	·65	..
,, ...	Priming and sealing between Nalinga and Benalla, Shires of Shepparton and Benalla. Day labour	15·5	..
,, ...	Widening in modified macadam between Shepparton East and Pine Lodge, Shire of Shepparton. Day labour	2	..
,, ...	Road mix sealing between Casey's Weir and Benalla, Shire of Benalla. Day labour	2·07	..
,, ...	Road mix sealing between Shepparton East and Pine Lodge, Shire of Shepparton. Day labour	2	..
,, ...	Repairs to bridge at Stockyard Creek. Day labour	·02	..
,, ...	General maintenance	..	36·32
	Carried forward	517·15	1627

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF HIGHWAYS RECONSTRUCTED, ETC.—*continued.*

Name of Highway and Section.	Name and Locality of Works.	Works Reconstructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER DIRECT SUPERVISION OF BOARD—*continued.*		
	Brought forward	517·15	1627
MIDLAND HIGHWAY—*continued.*			
Section 5	Priming and sealing south of Benalla, Shire of Benalla. Day labour	3·08	..
,, ...	Widening and resheeting between Swanpool and Benalla, Shire of Benalla. Day labour	2	..
,, ...	Widening box cutting between Lima South and Maindample turn-off, Shires of Benalla and Mansfield. Day labour	·2	..
,, ...	Regrading approach to bridge at south boundary of Benalla Shire, Shire of Benalla. Day labour	·09	..
,, ...	Construction of culverts and open crossings between Swanpool and Maindample turn-off, Shires of Benalla and Mansfield. Day labour	·3	..
,, ...	General maintenance	..	27·5
BONANG HIGHWAY—			
Section 1	General maintenance	..	72·04
	Total	522·82	1726·54
	UNDER MUNICIPALITIES.		
ALBERTON SHIRE—			
South Gippsland Highway—			
Section 3	Construction of bridge and approaches at Four Mile Creek, between 25 and 26 miles	·38	..
,, ...	Resealing black road between Buckley's corner and Wonwron Road, 41 to 43 miles	2	..
,, ...	Gravel sheeting between Hubert's corner and Buckley's corner, 37 to 41 miles ..	4	..
,, ...	Patrol maintenance throughout, 17 to 44 miles	..	27
LAWLOIT SHIRE—			
Western Highway—			
Section 5	Reshaping blue metal section and sheeting with gravel between 262·39 and 262·66 miles	·27	..
,, ...	Reshaping limestone between 258·69 and 259·76 miles	1·07	..
,, ...	Raising shoulders where narrow and steep between 255 and 255·57 miles ..	·57	..
,, ...	Preparation of side tracks throughout	29·2	..
,, ...	Reshaping blue metal section and sealing under modified macadam between 251·57 and 252·31 miles	·74	..
,, ...	Double coat bitumen surfacing of gravel between 252·31 and 255 miles	2·68	..
,, ...	Patrol maintenance throughout	..	29·2
LOWAN SHIRE—			
Western Highway—			
Section 4	Resealing with bitumen between Allotments 47, 47A and 22, Parish of Balrootan, from chainage 1,222,000 to 1,225,000	·57	..
,, ...	Reconstruction of section between Allotments 18 and 47, and Allotment 22, Parish of Balrootan, from chainage 1,225,000 to 1,226,107	·21	..
,, ...	Patrol maintenance throughout	..	3·4
Section 5	Resealing with bitumen between Allotment 2 and racecourse, Parish of Balrootan, from chainage 1,238,758 to 1,241,758	·57	..
,, ...	Resheeting with gravel between Allotment 81 and Allotments 75 and 78A, Parish of Tarranginnie, from chainage 1,246,000 to 1,248,000	·38	..
,, ...	Resheeting with gravel between Allotments 58 and 57 and Allotments 56, and 61, &c., Parish of Tarranginnie, from chainage 1,256,640 to 1,268,000	1·77	..
,, ...	Patrol maintenance throughout	..	9·8
MILDURA SHIRE—			
Murray Valley Highway—			
Section 5	Forming, grading and rubbling between Merbein and Lake Cullulleraine 20·16 to to 37·6 miles	1·79	..
,, ...	Forming, grading and rubbling between Merbein and Lake Cullulleraine 25·85 to 26·11 miles	·26	..
,, ...	Regrading and reforming and general maintenance between Merbein Irrigation Settlement and the South Australian border, 11·08 to 72·99 miles	..	59·86
Calder Highway—			
Section 6	Forming, grading and rubbling between Nowingi and Carwarp, 330·55 to 333·35 miles	1·78	..
,, ...	Forming, grading and rubbling between Boonoonar and Carwarp, 333·35 to 334·25 miles	·92	..
,, ...	Regrading, reforming and general maintenance, 326·95 to 350·78 miles ..	..	21·13
OMEO SHIRE—			
Omeo Highway—			
Section 1	Widening and reforming at 46 miles and 48 miles	·25	..
,, ...	New bridge at 49 miles	—	..
,, ...	General maintenance, 46 to 62 miles (Shire boundary)	..	16
Section 2	New bridge at 44 miles (Wattle circle)	—	..
,, ...	New concrete culvert at 28 miles	—	..
,, ...	Regrading O'Brien's Hill at 30 miles	·45	..
,, ...	Cutting back and widening at Warford's corner, 31 miles	·2	..
,, ...	General maintenance 0 to 46 miles	..	46
Section 3	Replacing decayed wooden culverts with concrete pipes between 6 miles and 28 miles	—	..
,, ...	General maintenance 0 to 52 miles	..	52
ROSEDALE SHIRE—			
South Gippsland Highway—			
Section 3	General maintenance of gravelled surface, culverts and bridges	..	14·75
,, ...	General maintenance of bituminous surface at Longford	..	·75
SWAN HILL SHIRE—			
Murray Valley Highway—			
Section 3	Patrol maintenance from 85·76 to 94·35 miles	..	8·59
,, ...	Reshaping limestone from 89·11 to 92·31 miles	3·2	..
Section 4	Widening pavement by 4 feet from 2·99 to 4·3 miles	1·31	..
,, ...	Reshaping limestone from 9·3 to 11·15 miles	1·36	..
,, ...	Reconstructing sandstone from 11·15 to 12·53 miles	1·38	..
,, ...	Reconstructing sandstone from 18·45 to 19·33 miles	·88	..
,, ...	Forming and limestone metalling from 22 to 22·96 miles	·96	..
,, ...	Grubbing timbered road between 39·35 and 57·05 miles	7·8	..
,, ...	Patrol maintenance from 0 to 74·95 miles, Swan Hill to Lake Powell	..	74·95
	Carried forward	66·95	363·43

STATEMENT SHOWING MILEAGE, LOCALITY, ETC., OF HIGHWAYS RECONSTRUCTED, ETC.—*continued.*

Name of Highway and Section.	Nature and Locality of Works.	Works Reconstructed.	Maintenance Works Carried Out.
		Miles.	Miles.
	UNDER MUNICIPALITIES—*continued.*		
	Brought forward	66·95	363·43
TOWONG SHIRE—			
Omeo Highway—			
Section 3	Patrol maintenance, Lightning Creek to Eskdale	..	26·3
Section 4	Patrol maintenance, Tallangatta to Eskdale	..	23·3
Murray Valley Highway—			
Section 1	Reconditioning gravelled road, Jingellic Bridge to Walwa township	3	..
„	Patrol maintenance, Huon to Tintaldra	..	78
UPPER MURRAY SHIRE—			
Murray Valley Highway—			
Section 1	Replacing timber culvert with twin 48-in. diameter reinforced concrete pipe culvert and embankment at Flagstone Creek, 66·35 miles	·03	..
„	Forming and grading from Horse Creek, 71·3 miles, towards Corryong	·54	..
„	Reforming and gravelling from 77·32 miles between Towong and Corryong	·67	..
„	Reforming and gravelling from 78·62 to Brigenbrong turn, 79·5 miles	·88	..
„	Patrol maintenance 61·3 to 83 miles	..	21·7
WODONGA SHIRE—			
Murray Valley Highway—			
Section 1	Sealing from ·98 to 2·3 miles	1·32	..
„	Reforming, gravelling, culverts, &c., from 6·4 to 7·7 miles	1·3	..
WYCHEPROOF SHIRE—			
Calder Highway—			
Section 4	Patrol maintenance	..	47
Section 5	Forming, boxing and limestoning unconstructed sections immediately north, adjacent, and south of Bolgbeat railway station	1·32	..
„	Patrol maintenance	..	12
	Total	76·01	571·73

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FIG. 1. STEEL SPLICE FOR TIMBER PILE

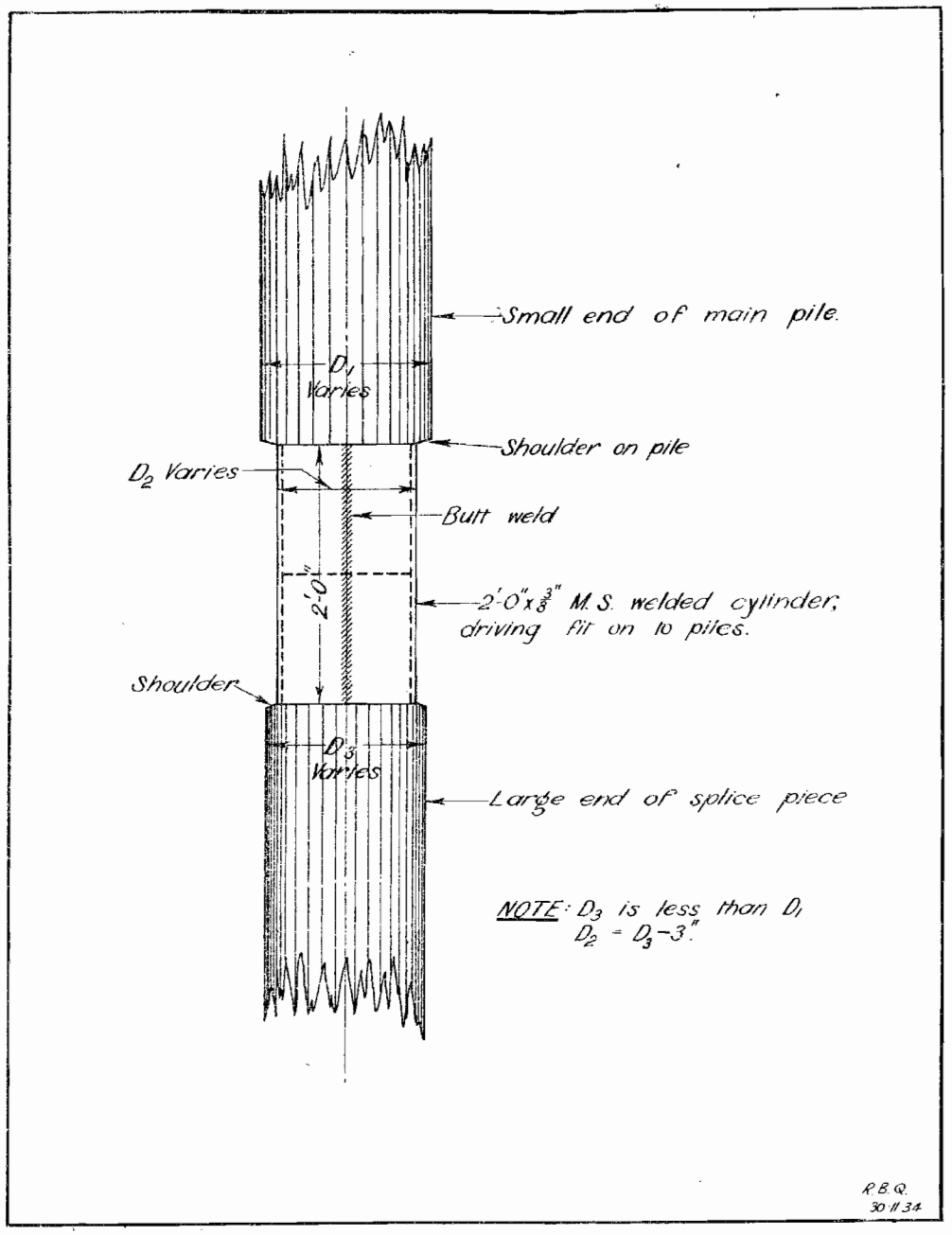

FIG. 2. FLAT SLAB RIGID FRAME DETAILS

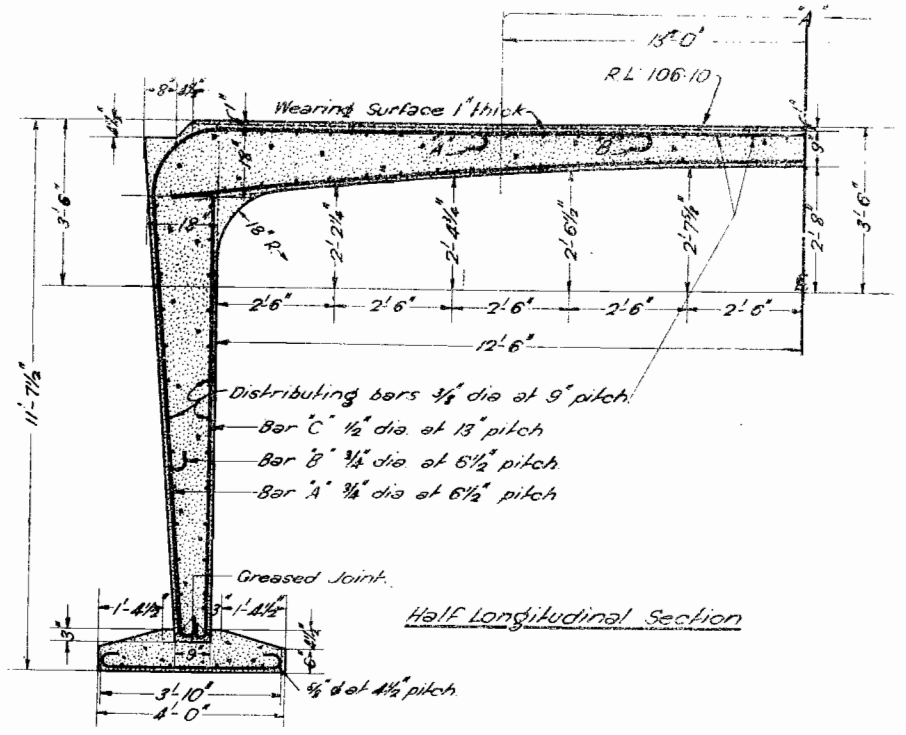

FIG. 3. WING WALL DETAIL